What are the benefits of audited disclosures to equity market participants?

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December 19, 2013

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We appreciate helpful comments and suggestions from Daniel Beneish, Scott Bronson, Michael Ettredge, Chris Hogan, Felix Meschke, Brian Miller, Susan Scholz, and Scott Whisenant, as well as workshop participants at the University of Kansas.

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Abstract

By exploiting a unique setting that allows a comparison of earnings announcements for a single company based on whether or not the audit was completed at the earnings announcement date, we document capital market benefits to audited versus unaudited information in the earnings announcement. We utilize the Public Company Accounting Oversight Board's issuance of Auditing Standard No. 2 and Auditing Standard No. 3 (AS2/3) as an exogenous shock to the timing of audit completion in relation to the earnings announcement. We examine a sample of treatment companies whose audits were completed at the annual earnings announcement date from 2001 to 2003 and whose audits were incomplete at the annual earnings announcement date from 2004 to 2006. Using each company as its own control, we test for changes in the market reaction to the earnings announcements in the pre- and post-AS2/3 periods. To control for potential changes in company characteristics over time, we also compare these changes to the changes for the same company's second quarter earnings announcements over the same period, which by regulation are unaudited in both time periods. We find that earnings announcements with a completed audit provide a greater reduction in information asymmetry, as captured by bid-ask spreads, relative to earnings announcements with an incomplete audit. We also find that the market perceives earnings announcements with a completed audit to be more value relevant as measured by the earnings response coefficient than earnings announcements with an incomplete audit. The results demonstrate the benefits of audited versus unaudited financial statements to equity investors. They also have implications for regulators as they demonstrate detrimental, and perhaps unintended, consequences that recent regulations requiring stricter auditing standards have had on equity market participants.

Keywords: audit completeness; earnings announcement; PCAOB Standards; information asymmetry; value relevance.

Data Availability: Data are publicly available from sources identified in the text.

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1. Introduction

The audit of financial statements for publicly traded companies is an important aspect of the financial reporting regulatory environment. Despite the importance and cost of the audit requirement, academic research provides little insight into the value of audited versus unaudited disclosures to equity investors. Prior auditing research has focused primarily on the effect of audit quality (as proxied by audit firm size and specialization) on financial reporting quality and market valuation (Francis, 2004; Francis, 2011; DeFond and Zhang, 2013). Prior research has been unable, however, to isolate the value of the audit from the value of specific auditor characteristics or to capture the incremental value of issuing audited versus unaudited disclosures.[1] The scope of this research has been limited by the inability to identify a setting that provides an "unaudited" counterfactual against which to compare audited disclosures.

In this study, we exploit an exogenous shock to the timing of audit completion in relation to the annual earnings announcement to examine the market consequences of audited versus unaudited disclosures.[2] The exogenous shock to audit completion at earnings announcement dates results from the issuance of Auditing Standards Nos. 2 and 3 (AS2/3) by the Public Company Accounting Oversight Board (PCAOB), effective for years ending on or after November 15, 2004. These standards specify the requirements for the Sarbanes-Oxley Act

[1] An exception is Bronson et al. (2011) who examine whether earnings announcement revisions (i.e., when net income differs from that reported in the earnings announcement) are more likely to occur when the earnings announcement is issued prior to the audit report date.

[2] In this study, audited disclosures refer to those that occur on or after the audit report date (i.e., the audit is complete at the disclosure date) while unaudited disclosures refer to those that occur at least ten days prior to the audit report date (i.e., the audit is incomplete at the disclosure date). We acknowledge that these earnings are not "unaudited" but rather the audit is incomplete at the earnings announcement date. However, we note that companies that release earnings announcements with incomplete audits often identify the financial statements as "unaudited" in the disclosures. We use the terms "audited" and "completed" and "unaudited" and "incomplete" interchangeably. Our definition of audit completion (i.e. on or after the date of the audit report date) is consistent with prior literature (e.g. Bronson et al., 2011).

(SOX) Section 404(b) internal control audits for accelerated filers and work paper documentation requirements related to all public company audits (PCAOB, 2004a; PCAOB, 2004b). These regulations resulted in an increase in audit testing and documentation and a substantial delay in the completion of year-end audits.[3] Because earnings announcement dates remained relatively constant around the issuance of AS2/3, the audit delay led to a substantial decrease in the number of companies that issued earnings announcements after audit completion (Krishnan and Yang 2009; Bronson et al., 2011; Schroeder, 2013). This setting results in a unique sample of companies that released their earnings announcements after (before) audit completion during the pre (post)-AS2/3 period, allowing us to assess the market consequences of audited versus unaudited financial information being released to the market.[4]

We hypothesize that earnings announcements with a completed audit are perceived to be more credible by investors than earnings announcements with an incomplete audit. This increased credibility leads to greater reliance on the earnings information at the earnings announcement date and to a greater reduction in private information acquisition after the earnings announcement (Kim and Verrecchia, 1994; McNichols and Trueman, 1994; Demski and Feltham, 1994). Based on this notion, we predict that earnings announcements with a completed audit are associated with a greater increase in information asymmetry at the announcement date and with a greater decrease in information asymmetry from before to after the announcement date than earnings announcements with an incomplete audit. In addition, prior research suggests that the market's response to earnings announcements is lower when the

[3] Survey responses from corporate insiders indicate that SOX Section 404 compliance had a negative impact on the timeliness of the corporate audits consistent with AS2/3 prolonging the year-end audit process (Alexander et al., 2013).

[4] We also note that companies started labeling annual financial statements released in earnings announcements prior to audit completion as "unaudited" after 2004, suggesting that investors would be aware that the audit is incomplete at the earnings announcement date.

market perceives the information to be of lower quality (Easton and Zmijewki, 1989; Teoh and Wong, 1993). We therefore predict that earnings announcements with a completed audit are associated with a higher market response to the announcement than earnings announcements with an incomplete audit.

Alternatively, there are reasons to expect that audit completion at the earnings announcement date might not have an effect on the market reaction to the earnings information. Investors may perceive that the ongoing audit process, as well as mechanisms such as internal control procedures and governance structures, is sufficient to ensure credible disclosure even in the absence of a completed audit. Despite this credible null, we hypothesize that the market reaction to earnings announcements differs depending on whether or not the audit is complete at the earnings announcement date.

We use a difference-in-difference design to test our hypotheses. Specifically, we examine treatment companies whose annual earnings announcements were released after the completion of the audit (i.e. audit report date) from 2001 to 2003 and whose annual earnings announcements were released prior to the completion of the audit from 2004 to 2006. We use each company as its own control and test for a difference in bid-ask spreads and earnings response coefficients around earnings announcements with a completed audit (in the pre-AS2/3 period) relative to earnings announcements with an incomplete audit (in the post-AS2/3 period). By using each company as its own control, we are able to control for company characteristics that may influence audit completeness and the market's reaction to the earnings announcements (e.g., business complexity and firm size). In addition, in order to control for time trends, we compare the changes in bid-ask spreads and earnings response coefficients in the pre- and post-AS2/3 periods for the annual earnings announcements against the changes for the second quarter (Q2)

unaudited earnings announcements across the two periods for the same companies. Using the companies' Q2 earnings announcements as a benchmark allows us to control for changes in market and firm characteristics (e.g., institutional ownership or analyst coverage) over time. The difference-in-difference design provides a powerful test as it controls for company characteristics and changes in the company characteristics over time, allowing us to isolate the effect of complete versus incomplete audits on the market reaction to earnings announcements.

Consistent with our expectations, we find that earnings announcements with a completed audit provide a greater reduction in bid-ask spreads from before to after the earnings announcement, relative to earnings announcements with an incomplete audit. We also find that the market perceives earnings announcements with a completed audit to be relatively more value relevant as measured by the earnings response coefficient. We find no differences in the increase in bid-ask spreads at the time of the announcement between earnings announcements with a completed and an incomplete audit. Our results suggest that audited disclosures provide value to the capital markets by reducing bid-ask spreads (by approximately 14 percent) and by increasing the value relevance of the earnings information relative to unaudited disclosures.

Our results demonstrate the benefits of audited versus unaudited financial statements to equity investors, and demonstrate the importance of auditing with respect to earnings announcements. Prior research generally focuses on the effect of audit characteristics on 10-K filings despite research suggesting that earnings announcements are relatively more value relevant (Li and Ramesh, 2009; Beyer et al., 2010). Our results also suggest that investors perceive the benefit of the audit not only in terms of improvements in the underlying accounting system, but also in terms of the credibility of the specific disclosures at the completion of the audit. This insight is important in understanding the various aspects of the audit that are

perceived to be beneficial by equity investors. Our findings therefore extend our understanding of the demand for external audits and build upon recent evidence in Ball et al. (2012) that shows a positive association between audit fees and management forecast quality.

Our results have implications for regulators and managers. The Securities and Exchange Act of 1934 explicitly states that the primary mission of the U.S. Securities and Exchange Commission (SEC) is to protect investors and maintain the integrity of securities markets, and that reducing information asymmetries is an important means to reach that goal. Our results suggest that releasing earnings announcements prior to audit completion leads to greater information asymmetries, which is inconsistent with the SEC's mission.[5]

Our results also have implications for the PCAOB as they demonstrate that the implementation of AS2/3, which prolonged the completion of year-end audit fieldwork and resulted in earnings announcements prior to audit completion, has led to negative market consequences. While the PCAOB's goal is to improve the quality of audits of financial statements included in the 10-K filing, these stricter standards resulted in a majority of earnings announcements being released before audit completion. Given prior research that demonstrates that earnings announcements are more value relevant than SEC periodic filings (e.g., Beyer et al., 2010), our results suggest that the PCAOB should perhaps consider the timeliness of audits with respect to earnings announcements when assessing both current and future auditing standards.

[5] We note that a presumption made by the SEC in Proposed Rule 33-8089 and Final Rule 33-8128, which reduced the periodic filing deadlines for accelerated filers, is that the audit is essentially complete at the earnings announcement date. Specifically stated in the final rule, "We understand as a general matter that the audit work is essentially completed and other steps have been taken to ensure the accuracy of the earnings announcement (SEC, 2002; SEC, 2003)." The trend of incomplete audits at the earnings announcement date is inconsistent with this assumption.

Finally, the results demonstrate that issuing earnings announcements before audit completion leads to economic costs to companies in the form of higher bid-ask spreads and, therefore, higher transaction costs faced by investors (Bhattacharya et al., 2013). Our results, therefore, provide insights for managers into the potential costs of issuing earnings announcements prior to audit completion.

The remainder of the paper proceeds as follows. In Section 2, we review the literature and develop our hypotheses. In Section 3, we describe our research design and sample selection. In Section 4, we provide the results of our empirical tests. Section 5 concludes the paper with a summary of our results and a discussion of their implications.

2. Background and hypotheses development

2.1. Background

In the U.S., publicly traded companies are required to have their annual financial statements audited, and companies pay large fees for this independent verification. Understanding the benefits of having audited financial statements is important given the cost of the regulation. However, it is difficult to assess the benefits to having audited versus unaudited financial statements given the auditing requirements in the U.S.

While one could examine the consequences of audited financial statements around the Securities and Exchange Act of 1934 (Barton and Waymire, 2004), the business and financial regulatory environment changed dramatically around the time period, making the effect of audited financial statements difficult to isolate. Prior research has examined the consequences of audited versus unaudited financial statements in private companies (Allee and Yohn, 2009; Minnis, 2011); however, these companies do not face the disciplining mechanisms inherent in

public ownership. In addition, these studies focus on the effect of audits on creditors and are unable to assess the benefits of auditing for equity stakeholders.

There is also a long established literature that has examined whether audit quality as captured by auditor characteristics (e.g., auditor size and specialization) is associated with financial reporting quality (Reynolds and Francis, 2000; Reichelt and Wang, 2010; Francis, 2011; DeFond and Zhang, 2013), the market's perception of quality (Teoh and Wong, 1993), and market valuations (Beatty, 1989; Hogan, 1997; Willenborg, 1999; Weber and Willenborg, 2003). While these studies provide insight into how audit quality affects equity market perceptions and valuations, they are unable to provide insights into the more fundamental issue of how audited versus unaudited disclosures affect the equity market. Therefore, while there are significant costs associated with the requirement for public companies to have their annual financial statements audited, it has been difficult to provide insight into the benefits of audited disclosures to equity investors. This is primarily due to the inability to find a setting that provides an "unaudited counterfactual" against which to compare.

We exploit the exogenous shock to audit completion timing from the PCAOB's issuance of Auditing Standard No. 2 which required additional internal control testing for accelerated filers[6] and Auditing Standard No. 3 which required additional working paper documentation for all public companies (PCAOB 2004a; PCAOB 2004b) effective for years ending on or after November 15, 2004.[7]

[6] As documented in Table 3, the vast majority of the companies in our sample are accelerated or large accelerated filers. We find results similar to those reported in the tables when we eliminate non-accelerated filers from the analyses.

[7] The sample period used in this study is 2001 to 2006 resulting in a balanced panel of three years before and after AS2/3. In response to concerns over the cost and efficiency of internal control audits under AS2, the PCAOB issued Auditing Standard No. 5 (AS5) effective for years ending on or after November 15, 2007 (PCAOB, 2007). AS5 resulted in increased efficiencies as evidenced by audit fee reductions, perhaps suggesting timelier audit completion post-AS5. However, Figure 1 indicates that the trend of earnings announcements released prior to audit completion persists after 2007, suggesting that our results for the post AS2/3 period are likely to hold in the post-AS5 period.

Prior research (Krishnan and Yang, 2009; Bronson et al., 2011; Schroeder, 2013; Alexander et al., 2013) notes that these regulations resulted in a substantial delay in the timing of year-end audit completion. Because earnings announcement dates remained constant around the issuance of AS2/3, the audit delay led to a substantial decrease in the number of companies that issued earnings announcements after audit completion. Specifically, Schroeder (2013) documents that 60 to 72 percent of earnings announcements were issued after audit completion during years 2001 to 2003 (in the pre-AS2/3 period) while only 15 to 32 percent of the announcements were issued after audit completion during years 2004 to 2006 (in the post-AS2/3 period). We exploit this exogenous shock to the timing of earnings announcements relative to audit completion to provide insight into the market consequences of the release of audited versus unaudited financial information.

2.2. Hypotheses development

Theoretical research suggests that earnings announcements affect information asymmetry in the market for the company's stock because they provide information that is otherwise held by only a subset of investors (Diamond and Verrecchia, 1991). McNichols and Trueman (1994) and Demski and Feltham (1994) show that if traders have short investment horizons, they will intensify their private information search at earnings announcement dates in order to profit from the earnings release. Kim and Verrecchia (1994) show that if investors differ in their ability to process earnings information, the release of earnings announcements will temporarily increase information asymmetry at the announcement date. In addition, research suggests that that credibility and/or precision of the information can affect information asymmetry at the earnings announcement. McNichols and Trueman (1994) demonstrate that more precise public

information can increase the incentives for investors to gather private information at the earnings announcement date, thereby increasing the information asymmetry at the announcement date.

Prior analytical research suggests that independent audits reduce adverse selection and moral hazard issues between managers and investors (Jensen and Meckling, 1976; Watts and Zimmerman, 1983). This suggests that audited disclosures are likely to lead investors to have fewer concerns about moral hazard and adverse selection issues. This, in turn, is likely to lead equity investors to perceive that the information in the disclosure is more credible and/or precise.

Because earnings announcements with a completed audit are likely to be perceived by investors as more credible and/or precise, investors will have greater incentives to gather private information and to spend more effort processing the information when the audit is complete. Therefore, earnings announcements with a complete audit should lead to greater increases in information asymmetry at the release date relative to earnings announcements with an incomplete audit. This leads to our first hypothesis:

> H1: Earnings announcements with a completed audit are associated with a significantly greater increase in information asymmetry at the announcement date than earnings announcements with an incomplete audit.

After the release of the announcement, information asymmetry decreases from before to after the earnings announcement as the announcement levels the playing field in terms of the information available to investors (Lev, 1989). Therefore, financial statement information helps to reduce the information asymmetry between the company and the market (Verrecchia, 1982; Diamond, 1985; Bushman, 1991). It has been suggested that not only the release but also the quality of the financial information affects information asymmetry in the stock market. Lev (1988) suggests that fuller disclosures decrease inequities among investors by allowing equal

access to information, and Diamond and Verrecchia (1991) suggest that improved disclosures reduce information asymmetry and increase liquidity and firm value.

Empirical evidence is consistent with this notion. Greenstein and Sami (1994) examine bid-ask spreads of companies that report segment disclosures and show empirically that more precise disclosures lead to lower information asymmetry in the stock market. Bhattacharya et al. (2013) show that earnings quality is associated with the information asymmetry related to a company's stock. If earnings announcements with a completed audit are considered more credible and/or precise, then they should lead to a greater decrease in information asymmetry from before to after the earnings announcement than earnings announcements with an incomplete audit. This leads to our second hypothesis:

H2: Earnings announcements with a completed audit are associated with a significantly greater decrease in information asymmetry from before to after the announcement date than earnings announcements with an incomplete audit.

Holthausen and Verrecchia (1988) suggest that investors' reactions to earnings announcements are associated with the precision, or credibility, of the earnings information. Consistent with this theory, prior research has shown that the market's response to earnings announcements is lower when the market perceives the information to be of lower quality (Easton and Zmijewki, 1989). In the auditing context, Teoh and Wong (1993) document that earnings response coefficients are positively associated with the perceived quality of the auditor as captured by audit firm size. While this research examines whether earnings response coefficients are associated with the type of auditor, it does not address whether the reaction to earnings is associated with the completion or non-completion of the audit, given a particular auditor. We expect that, holding the auditor constant, investors rely more on earnings announcements with a completed audit than on earnings announcements with an incomplete

audit because of the greater perceived credibility and precision of the audited information. Therefore, we hypothesize that the market response to earnings is relatively higher for earnings announcements with a completed audit than for earnings announcements that are made prior to audit completion. This leads to our third hypothesis:

H3: Earnings announcements with a completed audit are associated with a significantly greater earnings response coefficient than earnings announcements with an incomplete audit.

While theory and prior research supports our hypotheses, we note that there are credible reasons to expect that audit completion at the earnings announcement date might not have market consequences. For example, it could be that the audit process itself leads investors to perceive that the information is credible and of high quality; therefore, the completion of the audit is of little to no concern to equity market participants. In addition, investors might assume that companies have other mechanisms in place besides the audit, such as internal control procedures and governance structures, to ensure credible disclosure even in the absence of a completed audit. Therefore, while we hypothesize that the market reaction to an earnings announcement differs depending on whether or not the audit is complete at the earnings announcement date, we recognize that there is a credible null hypothesis.

3. Sample selection and research design

3.1. Sample discussion

Prior research has documented that starting in 2004, there was a considerable delay in the timing of year-end audit completion (approximately 17 days on average) as a result of the additional internal control testing requirements related to AS2 and the additional working paper documentation requirements mandated by AS3. This shock resulted in the majority of

companies issuing earnings announcements before the completion of year-end audit fieldwork during the post-AS2/3 period (Krishnan and Yang, 2009; Bronson et al., 2011; Schroeder, 2013). Figure 1 documents the percentage of companies in each year from 2001 through 2011 that released the annual earnings announcement after the completion of the audit. We note that in 2001, over 70 percent of the companies issued the annual earnings announcement after audit completion. We also note that this percentage declined dramatically in 2004, the effective date of AS2/3, when just over 30 percent of the companies issued the earnings announcement after the completion of the audit. This trend has continued to decline over time with less than 10 percent of companies in 2011waiting to announce earnings until after audit completion.

[please place Figure 1 here]

Using this setting, we are able to identify a total of 331 companies (1,794 company-years) that consistently released the earnings announcement after the audit report date (i.e. "Audited") during years 2001 to 2003 and consistently released the earnings announcement at least 10 business days before the audit report date (i.e. "Unaudited") during 2004 to 2006.[8] Of these companies, we eliminate 33 companies (270 company-years) that do not have at least 10 trades per day in the 22 days surrounding the earnings announcement (days -12 through +10 where day 0 is the earnings announcement date) to avoid drawing inferences from relatively illiquid companies. This results in a sample of 298 companies (1,524 company-years) for the information asymmetry analysis. We also eliminate 13 companies (78 company-years) that are not followed by analysts and, therefore, for which unexpected earnings forecasts could not be

[8] We use a 10 business day cut-off for the 2004 to 2006 years to ensure that the 10-K filing date is not included in our information asymmetry analysis window following the earnings announcement release date. Starting in 2004, there are fewer days between the audit report date and the 10-K filing date; thus, we deem the 10 day cut-off as an appropriate threshold.

calculated. This results in 285 company (1,446 company-year) observations for the earnings response coefficient analysis. The sample selection summary is reported in Table 1.

[Please place Table 1 here]

We perform a difference-in-difference design comparing the annual earnings announcements for a company prior to the exogenous shock (pre-AS2/3) to the earnings announcements for the same company after the shock (post-AS2/3). We use the effective date for AS2 and AS3 of November 15, 2004 as our inflection point. Specifically, we examine treatment companies whose earnings announcements were consistently released after the completion of the audit from 2001 to 2003 and whose earnings announcements were consistently released prior to the completion of the audit from 2004 to 2006. We test for a change in information asymmetries and earnings response coefficients around the earnings announcement in the completed audit period (*Q4-PRE (AUDITED)*) relative to the incomplete audit period (*Q4-POST (UNAUDITED)*). By using the same company across the two periods, we control for company characteristics that may affect the market reaction to earnings news.

To control for time trends (e.g., changes in a company's information environment over time), we compare these changes against the Q2 earnings announcement for the same company whose earnings announcements were based on unaudited financial statements in both the pre-AS2/3 period (*Q2-PRE (UNAUDITED)*) and the post- AS2/3 period (*Q2-POST (UNAUDITED)*).[9] We perform a difference-in-difference test to examine whether the market's response to earnings announcements is associated with the completion of the audit.

We note that investors are likely to be aware of the audit being incomplete at the earnings announcement date. Consistent with the post-AS2/3 trend of a majority of companies issuing

[9] We chose to compare the annual earnings announcements with the Q2 announcements as opposed to Q1 or Q3 earnings announcements; our reasoning is that Q1 (Q3) earnings are more likely to be affected by yearend audit (interim audit testing) procedures.

annual earnings announcements before audit completion, the companies with an incomplete audit at the earnings announcement date began disclosing in the annual earnings announcement that the GAAP summary financial statements were "unaudited".[10] During the pre-AS2/3 period, no such disclosure was included. Appendix A provides an example of annual and Q2 earnings announcement disclosures for 2003 and 2004, the year before and the year after the exogenous shock we examine. In the 2003 annual earnings announcement, Deluxe Corp did not include an "unaudited" tagline with the annual financial statements. However, in 2004 when Deluxe released the annual earnings announcement before audit completion, the firm marked the annual financial statements as "unaudited". It is important to note that the Q2 earnings announcements for 2003 and 2004 contained the "unaudited" tagline consistent with those financial statements only being subject to basic review procedures by the external auditor. This example is consistent with the majority of companies, such that starting around 2004 (the time of the exogenous shock), companies made it transparent to investors that the annual financial statements were "unaudited" if the audit was incomplete at the earnings announcement date.

3.2. Test of information asymmetry

We use the daily average bid-ask spread (*SPREAD*) as the proxy for information asymmetry.[11] Copeland and Galai (1983) show that the market maker attempts to set the bid-ask spread to trade off expected losses to informed traders with expected gains from uninformed, or liquidity-motivated, traders. The authors show that the bid-ask spread is positively associated

[10] While companies with complete audits did not designate their financial statements as "audited", the "unaudited" designation does suggest that investors would have knowledge of incomplete audits as of the earnings announcement date.

[11] We calculate *SPREAD* as the average effective bid-ask-spread during the day, scaled by trade price. See Table 4 for further details on the *SPREAD* calculation. We examine *SPREAD*, instead of alternative proxies for information asymmetry, because it captures a transaction cost of trading in the company's stock.

with the level of information asymmetry perceived by the market maker in the firm's stock. The use of bid-ask spreads to capture information asymmetries around earnings announcements is consistent with prior research (Lee, Mucklow and Ready, 1993; Yohn, 1998).

Prior research suggests that bid-ask spreads are a function of not only the market maker's asymmetric information costs but also the order costs and inventory carrying costs associated with supplying liquidity to the market. Demsetz (1968), Tinic (1972), and Stoll (1978) find a significant negative relation between trading activity and bid-ask spreads. We, therefore, control for daily share turnover in the bid-ask spread analysis. Stoll (1978) finds a significant positive relation between the variability of stock returns and bid-ask spreads. Based on this prior research, we also control for the company's daily idiosyncratic return volatility in the analysis.[12]

To test our hypotheses H1 and H2, we examine daily bid-ask spread observations in the 23 days surrounding the earnings announcement. Specifically, we include observations for days -12 through +10 where day 0 is the earnings announcement date. We use days -12 through -2 as the control window in all analyses to capture the benchmark level of bid-ask spreads. We use these days just prior to the earnings announcement as the benchmark period in order to minimize the likelihood that other disclosures impact the benchmark spreads. We include an indicator variable, *WINDOW*, to capture days included in specific windows around or after the earnings announcement. We examine three separate windows around or after the earnings announcement date: the two days around the earnings announcement (day 0 and +1), the nine day period immediately after the earnings announcement (days +2 through +10), and the five day delayed

[12] Idiosyncratic return volatility also provides a control for the extent of the market reaction to earnings news. We also note that unexpected earnings do not differ significantly in the pre- and the post-AS2/3 periods (see Table 3), suggesting that further controls for unexpected earnings are not necessary.

period after the earnings announcement (days +6 through +10).[13] To test H1 and H2, we estimate the following regression:

$$\begin{aligned} SPREAD_t = \; & \beta_1 \, Q4\text{-}PRE\ (AUDITED) + \beta_2 \, Q4\text{-}POST\ (UNAUDITED) + \\ & \beta_3 \, Q2\text{-}PRE\ (UNAUDITED) + \beta_4 \, Q2\text{-}POST\ (UNAUDITED) + \\ & \beta_5 \, Q4\text{-}PRE\ (AUDITED)*WINDOW + \\ & \beta_6 \, Q4\text{-}POST\ (UNAUDITED)*WINDOW + \\ & \beta_7 Q2\text{-}PRE\ (UNAUDITED)*WINDOW + \\ & \beta_8 \, Q2\text{-}POST\ (UNAUDITED)*WINDOW + \\ & \beta_9 \, TURNOVER_t + \beta_{10} IDRET\_VOL_t + \varepsilon_t \end{aligned} \quad (1)$$

The coefficients β_1 through β_4 capture the baseline bid-ask spread over days -12 through -2 prior to the earnings announcement for each group of earnings announcements. To test H1, *WINDOW* is set to unity for day 0 and +1. To test H2, *WINDOW* is first set to unity for days +2 through +10 to capture the overall effect and *WINDOW* is then set to unity for days +6 through +10 to capture the delayed effect. Therefore, coefficients β_5 through β_8 capture the increase (change) in spreads during (from before to after) the earnings announcement in the test of H1 (H2).

To test for a differential increase (change) in spreads at (from before to after) the earnings announcement date for earnings announcements with a completed versus an incomplete audit in the pre and post-AS2/3 periods, we compare β_5 to β_6. To test for a differential increase (change) in spreads at (from before to after) the earnings announcement date for the Q2 unaudited earnings in the pre- and post-AS2/3 periods, we compare β_7 to β_8. To exploit the difference-in-difference design, we test whether the difference between β_5 and β_6 is significantly different from the difference between β_7 and β_8. A significant difference between the two sets of earnings announcements would suggest that information asymmetry increases (changes) differentially at

[13] The three analyses are run separately, each including only the control window and the window of interest. For example, to test the nine-day period immediately after the earnings announcement, our analysis includes the control window (-12 to -2) and the window of interest (+2 to +10); days -1, 0 and +1 are excluded. The sample used in the days +2 to +10 analysis reported in Table 4 is 60,960 observations. This is derived by taking 1,524 sample firms multiplied by two quarters (i.e. Q2 and Q4) and finally multiplied by 20 days for the control (11 days) and treatment (9 days) windows.

(from before to after) the earnings announcements with a completed audit versus earnings announcements with an incomplete audit.

3.3. Test of earnings response coefficient

To test for differences in earnings response coefficients based on whether or not the earnings announcement is associated with a completed or an incomplete audit, we calculate the coefficient on unexpected earnings in a regression of unexpected returns on unexpected earnings for each group of earnings announcements (i.e., *Q4-PRE (AUDITED)*, *Q4-POST (UNAUDITED)*, *Q2-PRE (UNAUDITED)*, and *Q2-POST (UNAUDITED)*). Unexpected returns are calculated as the three-day size-adjusted returns, centered on the earnings announcement date. Unexpected earnings are calculated as the difference between IBES actual earnings per share and the median analyst forecast of earnings per share from the IBES calculation date immediately preceding the earnings announcement. We also include an indicator variable for loss company-year observations given prior research suggesting that losses are associated with significantly smaller earnings response coefficients (Hayn, 1995). Earnings response coefficients are a function of cost of capital, which is inherently unobservable. Therefore, to control for company-specific cost of capital and time variances in the cost of capital, we also include year and firm fixed effects.

To test H3, we estimate the following regression:

$$\begin{aligned} UNRETURN_t = {} & \beta_0 + \beta_1\, Q4\text{-}PRE\ (AUDITED)*UE + \beta_2\, Q4\text{-}POST\ (UNAUDITED)*UE + \\ & \beta_3\, Q2\text{-}PRE\ (UNAUDITED)*UE + \beta_4\, Q2\text{-}POST\ (UNAUDITED)*UE + \\ & \beta_5\, LOSS*UE + Firm\ fixed\ effects + Year\ fixed\ effects + \varepsilon_t \end{aligned} \quad (2)$$

The coefficients β_1 through β_4 capture the earnings response coefficient for each set of earnings announcements. To test for lower earnings response coefficients for earnings announcements

with a completed audit in the pre-AS2/3 periods versus an incomplete audit in the post-AS2/3 period, we compare β_1 to β_2. To test for a difference in earnings response coefficients for the Q2 unaudited earnings announcements in the pre- and post-AS2/3 periods, we compare β_3 to β_4. To exploit the difference-in-difference design, we test whether the difference between β_1 and β_2 is significantly different from the difference between β_3 and β_4. A significant difference between the two sets of earnings announcements would suggest that earnings response coefficients are significantly larger for earnings announcements with a completed audit than for earnings announcements with an incomplete audit.

4. Empirical Results

4.1. Descriptive statistics on company characteristics

We use a difference-in-difference design in order to control for company characteristics and for changes in company characteristics over time. We think that this research design is important given that the sample of companies that issued earnings announcements after the completion of the audit during the pre-AS2/3 period (2001 through 2003) and that issued earnings announcements prior to the completion of the audit during the post-AS2/3 period (2004 through 2006) is likely to differ from the population of firms. In table 2, Panel A presents descriptive statistics for our sample of companies, relative to a population of U.S. companies (excluding financial companies) that release earnings announcements prior to the 10-K filing and have available data in Compustat, CRSP, and Audit Analytics. We provide the mean and median for each of these characteristics as well as a t-test and chi-square test on the difference between the two groups. Panel B reports the number of companies based on the 1-digit SIC code for the sample and population of companies.

Consistent with our expectation and with the benefit of using each company as its own control, Panel A demonstrates that the sample companies that changed from completed to incomplete audits at the earnings announcement across the two time periods are significantly larger, have significantly greater analyst following and institutional ownership, and are significantly more profitable than the population of companies. They are also significantly more complex and more likely to be designated as large accelerated filers by the SEC. The evidence in Panel B suggests that the companies that changed from issuing earnings announcements with completed audits to incomplete audits across the two periods are clustered in SIC codes 2 and 3, which is in line with the population percentages.

[please place Table 2 here]

Table 3 reports descriptive statistics for the pre-AS2/3 and the post-AS2/3 periods for the sample of companies that issued earnings announcements after audit completion in the pre-AS2/3 period and before audit completion in the post-AS2/3 period. Consistent with AS2/3 being associated with an increase in the occurrence of earnings being announced prior to audit completion (Bronson et al. 2011; Schroeder, 2013), we find little difference in the earnings announcement reporting lag relative to year-end across the two periods but a significantly longer lag between year-end and the auditor report date in the post-AS2/3 period relative to the pre-AS2/3 period. Also consistent with SOX Section 404(b) internal control audit requirements, audit fees are significantly higher in the post-AS2/3 period relative to the pre-AS2/3 period (Ettredge et al. 2007).

Our research design includes the Q2 earnings announcements for the same companies over the same periods as a control because we expect the companies to change across the two periods. Consistent with this, the evidence in Table 3 suggests that the sample companies

experienced a significant increase in market value of equity, analyst following, and institutional ownership across the two periods. The companies also became significantly more profitable in the post-AS2/3 period relative to the pre-AS2/3 period. The evidence also suggests that companies' information environments are richer in the post-AS2/3 period compared to the pre-AS/2 period. It is important to note that the improvement in the information environment over time biases against finding results that are consistent with our predictions.

Again, we note that the significant differences in companies that released earnings announcements with a completed audit in the pre-AS2/3 period and with an incomplete audit in the post-AS2/3 period and other companies documented in Table 2, and the significant differences in the sample companies over the two periods documented in Table 3, highlight the importance of our difference-in-difference research design. This design allows each company to act as its own control and, therefore, controls for company characteristics. In addition, the inclusion of the Q2 earnings announcement for the same company and time periods as a benchmark controls for changes in the company and market characteristics across the two periods. This provides a strong test of our hypotheses.

[please place Table 3 here]

4.2. Univariate results - bid-ask spreads around earnings announcements

Figure 2 provides a graphical depiction of the two-day average bid-ask spreads around earnings announcements for each group of earnings announcements: (1) *Q4-PRE (AUDITED),* (2) *Q4-POST (UNAUDITED),* (3) *Q2-PRE (UNAUDITED),* and (4) *Q2-POST (UNAUDITED)*). The figure highlights that spreads decreased from the pre-AS2/3 period to the post-AS2/3 period.

The figure also highlights that bid-ask spreads are higher around the Q2 earnings announcement than around the annual earnings announcement.

[please place Figure 2 here]

To provide greater insight into the relative spreads around the earnings announcements, we plot normalized two-day average bid-asks spreads for the annual earnings announcements (panel A) and the Q2 earnings announcements (panel B) in Figure 3. The normalized spreads subtract the mean spread during the control window (days -12 through -2) from each two-day average. The normalized spreads, therefore, provide more insight into how bid-ask spreads change at and after the earnings announcement relative to the pre-announcement period.

The graph in Panel A suggests that the increase in bid-ask spreads in the two days around the earnings announcement is more pronounced for earnings announcements with a completed audit than for earnings announcements with an incomplete audit. This provides univariate support for H1. In addition, the graph also documents lower bid-ask spreads in the period after the earnings announcement for earnings announcements with a completed audit relative to those with an incomplete audit. Specifically, the graphs shows that bid-ask spreads for the earnings announcements with a complete audit are lower at day +2 and become increasingly lower as time passes while bid-ask spreads for earnings announcements with an incomplete audit do not decrease as time passes in the post-announcement period. The graph, therefore, provides univariate support for H2.

Panel B presents the graph of the bid-ask spreads for the Q2 announcements. We note that there is a greater increase in bid-asks spreads in days 0 and +1 for the pre-AS2/3 earnings announcements than for the post-AS2/3 announcements. The more pronounced increase in bid-ask spreads at the earnings announcement date for both the annual and the Q2 announcements in

the pre-AS2/3 period relative to the post-AS2/3 period highlights the benefits of a difference-in-difference design. The graph also shows no pronounced change in bid-ask spreads from before to after the earnings announcement in either the pre-AS2/3 or the post AS2/3 periods for the Q2 earnings announcements. This suggests that the Q2 announcements do not generally reduce information asymmetry from before to after the announcement, possibly because they are unaudited disclosures. The evidence of a more pronounced decrease in bid-ask spreads from before to after the release for audited annual earnings announcements relative to unaudited annual earnings announcements combined with the lack of evidence of a decrease in bid-ask spreads from before to after Q2 earnings announcements provides support for H2. In the next section, we use regression analyses and a difference-in-difference design to test our hypotheses.

[please place Figure 3 here]

4.3. Regression results- information asymmetry

Table 4 presents the results of our tests of the effect of audit completion on the information asymmetry around earnings announcements. We first test H1 by examining the bid-ask spreads in the two days around the earnings announcement [0, +1]. The results are reported in column (1) of the table. We note that the regression has an adjusted R-square of 47.2 percent and that, consistent with prior research, the coefficient on *TURNOVER* is negative and significant and the coefficient on *IDRET_VOL* is positive and significant. We also find significant positive coefficients on the four indicators *Q4-PRE (AUDITED)*, *Q4-POST (UNAUDITED)*, *Q2-PRE (UNAUDITED)*, and *Q2-POST (UNAUDITED)*, suggesting significantly positive bid-ask spreads in the days prior to the earnings announcement.

The coefficient on *Q4-PRE (AUDITED)*WINDOW* of 0.0015 and the coefficient on *Q4-POST (UNAUDITED)*WINDOW* of 0.0020 are positive and significant, suggesting that the bid-ask spreads on the earnings announcement date significantly increase for both earnings announcements with a completed audit and earnings announcements with an incomplete audit. Importantly, the test for a difference between the earnings announcements with a completed audit and those with an incomplete audit is not significant at conventional levels. This suggests that having a completed versus an incomplete audit does not affect the increase in information asymmetry at the earnings announcement date. This does not support H1.

We next test H2 by examining the bid-ask spreads in the days following the earnings announcement. The results for days +2 through +10 are reported in column (2) of the table. The regression has an adjusted R-square of 47.5 percent and, consistent with prior research, the coefficient on *TURNOVER* is negative and significant and the coefficient on *IDRET_VOL* is positive and significant. We also find significant positive coefficients on the four indicators *Q4-PRE (AUDITED)*, *Q4-POST (UNAUDITED)*, *Q2-PRE (UNAUDITED)*, and *Q2-POST (UNAUDITED)*, suggesting significantly positive bid-ask spreads in the days prior to the earnings announcement.

The coefficient on *Q4-PRE (AUDITED)*WINDOW* of -0.0008 is negative and significant while the coefficient on *Q4-POST (UNAUDITED)*WINDOW* of 0.0003 is positive and significant. Furthermore, the difference in coefficients of -0.0012 is significant. These results suggest that bid-ask spreads after the earnings announcement are significantly lower for earnings announcements with a completed audit and significantly higher for earnings announcements with an incomplete audit. This is consistent with H2 that earnings announcements with a completed

audit are associated with a greater reduction in information asymmetry and bid-ask spreads than earnings announcements with an incomplete audit.

Turning to the difference-in-difference analysis, we note that the coefficients on *Q2-PRE (UNAUDITED)*WINDOW* and *Q2-POST (UNAUDITED)*WINDOW* are insignificant, suggesting that bid-ask spreads do not change from before to after the Q2 unaudited earnings announcements in the pre-AS2/3 or the post-AS2/3 periods. The test for a difference-in-difference test statistic of -0.0017 is significant, suggesting that earnings announcements with a completed audit reduce information asymmetry and bid-ask spreads to a greater extent than earnings announcements with an incomplete audit. This provides additional support for H2.

To assess whether this is a temporary or more permanent decrease in bid-ask spreads around earnings announcements, we report the results for days +6 through +10 in column (3) of the table. The regression has an adjusted R-square of 47.3 percent and, as before, the coefficient on *TURNOVER* is negative and significant and the coefficient on *IDRET_VOL* is positive and significant. We also find significant positive coefficients on the four indicators *Q4-PRE (AUDITED), Q4-POST (UNAUDITED), Q2-PRE (UNAUDITED),* and *Q2-POST (UNAUDITED),* suggesting significantly positive bid-ask spreads in the days prior to the earnings announcement.

The coefficient on *Q4-PRE (AUDITED)*WINDOW* of -0.0013 is negative and significant while the coefficient on *Q4-POST (UNAUDITED)*WINDOW* of 0.0002 is positive and significant. Furthermore, the difference in coefficients of -0.0015 is significant. This suggests that bid-ask spreads in the six to ten days after the earnings announcement are significantly lower for earnings announcements with a completed audit and significantly higher for earnings announcements with an incomplete audit. Again, this is consistent with H2 that earnings

announcements with a completed audit are associated with a greater reduction in information asymmetry and bid-ask spreads than earnings announcements with an incomplete audit.

Turning again to the difference-in-difference tests, consistent with the day +2 through +10 results, we find that the coefficients on *Q2-PRE (UNAUDITED)* and *Q2-POST (UNAUDITED)* are insignificant. These results suggest that bid-ask spreads do not change from before to the six to 10 days after the Q2 unaudited earnings announcements in the pre-AS2/3 or the post-AS2/3 periods. The test for a difference-in-difference test statistic of -0.0021 is significant, suggesting that earnings announcements with a completed audit reduce information asymmetry and bid-ask spreads in the six to 10 days after the earnings announcement to a greater extent than earnings announcements with an incomplete audit. This provides additional support for H2 and suggests that the relatively lower spreads after earnings announcements with a completed versus those with an incomplete audit is not likely to be a temporary phenomenon.

We further restrict the sample to only those companies (278 vs. 139 companies in the main analysis) that are in the sample for every year from 2001 to 2006 (i.e. balanced panel) and re-estimate the model for days +6 to +10. The results are reported in column (4) of the table. We continue to find results consistent with those for the main sample, with a difference-in-difference statistic that is -0.0018 and significant.

[please place Table 4 here]

Overall, the results suggest that there is no difference in the bid-ask spreads on the earnings announcement date for earnings announcements with a completed audit and earnings announcements with an incomplete audit. However, earnings announcements with a completed audit are associated with a significantly larger decrease in bid-ask spreads from before to after

the earnings announcement (14 percent on average)[14] than earnings announcements with an incomplete audit. This suggests that a benefit of releasing earnings announcements with a completed audit is a greater reduction in information asymmetry around the announcement. Audits, therefore, benefit investors by reducing information asymmetries and bid-ask spreads after the announcement and, therefore, potentially, lowering the transactions costs.

4.4. Regression results – earnings response coefficient

Table 5 presents the results of our tests of the effect of audits on earnings response coefficients. We test H3 by examining the relation between unexpected returns and unexpected earnings, or the earnings response coefficient, for annual earnings announcements with a completed audit in the pre-AS2/3 period, annual earnings announcements with an incomplete audit in the post-AS2/3 period, and Q2 earnings announcements in the pre- and the post-AS2/3 periods. The column (1) of the table presents the regression results with firm fixed effects included in the model while column (2) presents the results with firm and year fixed effects included. We note that the regression has an adjusted R-square of 7.0 percent and that, consistent with prior research, the coefficient on *LOSS*UE* is negative and significant, suggesting that losses are associated with a lower earnings response coefficient.

We find significant positive earnings response coefficients for each set of earnings announcements, *Q4-PRE (AUDITED)*UE*, *Q4-POST (UNAUDITED)*UE*, *Q2-PRE (UNAUDITED)*UE*, and *Q2-POST (UNAUDITED)*UE*. The coefficient on *Q4-PRE (AUDITED)*UE* of 0.3459 (0.3453) is significantly larger than the coefficient on Q4-POST (*UNAUDITED)*UE* of 0.2429 (0.2424) in the first (second) regression model. This difference is

[14] The 14 percent is calculated as the -.0015 difference in coefficients on *Q4-PRE (AUDITED)*WINDOW* and *Q4-POST (UNAUDITED)*WINDOW* divided by the 0,0109 coefficient on *Q4-PRE (AUDITED)*WINDOW* in column 2 of Table 4.

statistically significant in both regression models, suggesting that earnings announcements with a completed audit are associated with a significantly higher market response per dollar of unexpected earnings than earnings announcements with an incomplete audit. The coefficient on *Q2-PRE (UNAUDITED)*UE* of 0.3112 (0.3099) is not significantly different from the coefficient on *Q2-POST (UNAUDITED)*UE* of 0.3218 (0.3266) in the first (second) regression model, suggesting that the market response to Q2 earnings does not differ in the pre- and post-AS2/3 periods. The difference-in-difference tests suggest that the difference in earnings response coefficients for earnings announcements with a completed versus an incomplete audit is significantly different from the difference in earnings response coefficients for the Q2 earnings announcements in the pre- and post-AS2/3 periods at the 13 percent (11 percent) significance level. This result provides marginal support for H3.

We further restrict the sample to only those companies that appear in all years from 2001 to 2006 (124 vs. 285 companies in the main analysis) and re-estimate the earnings response coefficient model. The results are reported in column (3). We continue to find consistent results with the prediction of H3. Specifically, we find a difference in the earnings response coefficient between the audited and unaudited groups of 0.1178, which is significant with a p-value of 0.05. The difference in earnings response coefficients for the Q2 control group is not statistically different. We further find the difference-in-difference earnings response coefficient to be 0.1585, which is marginally significant at the 11 percent level.

[Please place Table 5 here]

The results suggest that earnings announcements with a completed audit are associated with a significantly larger earnings response coefficient than earnings announcements with an

incomplete audit. This suggests that a benefit of releasing earnings announcements with a completed audit is greater value relevance of the information included in the announcement.

4.5. Additional analyses

Although we feel that our difference-in-difference design provides a reliable examination of our hypotheses, we run additional specifications to alleviate concerns that our results may be driven by other company characteristics or design choices. First, prior research has documented that the Big 4 firms rebalanced their client portfolio in response to the additional work required by SOX resulting in a number of companies shifting down to the Tier 2/3 audit market during the AS2/3 inflection point (Landsman et al., 2009; Hogan and Martin, 2009; Schroeder and Hogan, 2013). To address this concern, we re-estimate our analyses excluding those companies that switched from a Big 4 to a non-Big 4 audit firm during the sample period. We continue to find results (untabulated) consistent with the findings reported in Tables 4 and 5.

Second, during the post-AS2/3 period companies were required to provide disclosures about the quality of their internal controls over the financial reporting process, while there was no such requirement in the pre-AS2/3 period. Table 3 indicates that 12.5 percent of the observations in the post-AS2/3 period had a material weakness disclosure while there was no such disclosure in the pre-AS2/3 period. Consequently, it is possible that the findings we document are due to material weakness disclosures that would likely only be present during the *Q4-POST (UNAUDITED)* cell of our difference-in-difference design. To address this concern we re-estimate all models excluding those companies that disclose a material weakness at some point during the sample period. We continue to find results (untabulated) consistent with the findings reported in Tables 4 and 5. In fact, for the earnings response coefficient analysis we find

that the difference-in-difference is more pronounced; such that the test statistic is significant at the six percent level compared to the 11 percent level reported in Table 5.

Finally, prior studies suggest that price is positively related to unscaled spreads (e.g. Demsetz 1968; Yohn, 1998). As the spread measure is calculated as the effective bid-ask-spread scaled by trade price, we do not include price as a control variable in the model. As an alternative specification, we re-estimate model (1) by including the natural log of the closing price for the trading day. We find results (untabulated) consistent with those reported in Table 4.

5. Conclusion

It has been difficult for academic research to assess the benefits to having audited versus unaudited financial statements given the requirement that all public companies in the U.S. have their annual financial statements audited. While research has examined financial reporting before the Securities and Exchange Act of 1934 (Barton and Waymire, 2004), the consequences of audited versus unaudited financial statements in private companies (Allee and Yohn, 2009; Minnis, 2011), and the relation between audit quality and financial reporting quality and market valuations (Beatty, 1989; Willenborg, 1999; Weber and Willenborg, 2003), these studies have been unable to address the fundamental question of how audited versus unaudited disclosures affect equity investors in the current regulatory environment.

Using the unique setting of the shock from the implementation of AS2/3, we are able to document the market consequences of earnings announcements with a completed and an incomplete audit. We find a significantly lower reduction in information asymmetry after earnings announcements and significantly lower earnings response coefficients for earnings announcements with an incomplete audit compared to earnings announcements with a completed

audit. Evidence from Ball et al. (2012) suggests that audits provide value by improving management forecast quality. Our study suggests that issuing earnings announcements after the completion of the audit also provides value in terms of reducing information asymmetries and increasing investors' perception of the information content of earnings. Our results also suggest that investors perceive the benefit of the audit in terms of a specific disclosure rather than only in terms of the improvements in the underlying accounting system related to the overall audit process. This insight is important in understanding the various aspects of the audit that are perceived to be beneficial by equity investors.

These findings also have important regulatory consequences. First, the SEC has a maintained goal to ensure an even playing field for all investors. Prior research documents that the implementation of AS2 and AS3 by the PCAOB has resulted in more earnings announcements being issued with an incomplete audit (Bronson et al., 2011; Schroeder, 2013). The results of our study suggest that earnings announcements with a completed audit lead to a significant decrease in information asymmetry from before to after the announcement while earnings announcements with an incomplete audit lead to a significant increase in information asymmetry. Our findings, therefore, suggest that the effect of AS2/3 on audit timing in relation to the earnings announcement release date may be inconsistent with the SEC's stated goal of reducing information asymmetries faced by investors.

Second, the focus of the PCAOB is to improve the quality of audits and to ensure higher quality financial reporting for vested stakeholders. Our results suggest that the PCAOB standards and inspection process may have led to unintended negative consequences for investors by focusing auditors' attention on ensuring compliance with PCAOB regulations related to the 10-K filing at the expense of providing credibility related to other more timely financial statement

disclosures (i.e. the earnings announcement). Essentially, these regulations may have overlooked the importance of the external auditor with respect to more timely disclosures.

We find negative market consequences in the form of a smaller reduction in bid-ask spreads from before to after the earnings announcement and a lower earnings response coefficient associated with issuing the earnings announcement before audit completion. Despite this, we note that companies continue to issue annual earnings announcements before the audit is complete. Prior research suggests that delaying the earnings announcement is perceived by the market to be a negative signal which results in a stock price decline (e.g., Bagnoli et al., 2002). Our findings suggest that management must trade off the negative stock market reaction related to delaying the earnings announcement until after audit completion with the costs documented here of releasing earnings before audit completion. Future research could perhaps explore these trade-offs regarding meeting market demands for timely information and the costs associated with issuing information with a lower perceived credibility.

Appendix

Deluxe Corporation 2003 Annual Earnings Announcement

DELUXE CORPORATION
STATEMENTS OF INCOME
(DOLLARS IN MILLIONS, EXCEPT PER SHARE AMOUNTS)

	Total Year 2003		Total Year 2002	
Revenue	$1,242.1		$1,284.0	
Cost of goods sold	425.9	34.3%	435.8	33.9
Gross Profit	816.2	65.7%	848.2	66.1
Selling, general and administrative expense	492.5	39.6%	503.0	39.2
Asset impairment and net disposition losses	4.8	0.4%	0.3	—
Operating Income	318.9	25.7%	344.9	26.9
Other (expense) income	(0.6)	(0.1%)	0.2	—
Earnings Before Interest and Taxes	318.3	25.6%	345.1	26.9
Interest expense	(19.2)	(1.5%)	(5.1)	(0.4
Interest income	0.3	—	0.7	—
Income Before Income Taxes	299.4	24.1%	340.7	26.5
Provision for income taxes	106.9	8.6%	126.4	9.8
Net Income	$192.5	15.5%	$214.3	16.7
Weighted Average Diluted Shares Outstanding	55,227,612		63,747,258	
Net Income per Share:				
Basic	$3.53		$3.41	
Diluted	$3.49		$3.36	
Capital Expenditures	$22.0		$40.7	
Depreciation and Amortization Expense	$60.1		$58.2	
EBITDA*	$378.4		$403.3	
Number of Employees	5,805		6,195	

Deluxe Corporation 2004 annual earnings announcement

DELUXE CORPORATION
STATEMENTS OF INCOME
(DOLLARS IN MILLIONS, EXCEPT PER SHARE AMOUNTS)
(Unaudited)

	Total Year 2004		Total Year 2003	
Revenue	$ 1,567.0		$ 1,242.1	
Cost of goods sold	535.9	34.2%	425.9	34.3%
Gross Profit	1,031.1	65.8%	816.2	65.7%
Selling, general and administrative expense	683.2	43.6%	492.5	39.6%
Asset impairment and net disposition losses	—	—	4.8	0.4%
Operating Income	347.9	22.2%	318.9	25.7%
Other income (expense)	0.5	—	(0.6)	(0.1%)
Earnings Before Interest and Taxes	348.4	22.2%	318.3	25.6%
Interest expense	(32.9)	(2.1%)	(19.2)	(1.5%)
Interest income	1.4	0.1%	0.3	—
Income Before Income Taxes	316.9	20.2%	299.4	24.1%
Provision for income taxes	118.3	7.5%	106.9	8.6%
Income From Continuing Operations	198.6	12.7%	192.5	15.5%
Discontinued operations	(0.6)	(0.1%)	—	—
Net Income	$ 198.0	12.6%	$ 192.5	15.5%
Weighted Average Diluted Shares Outstanding	50,549,001		55,227,612	
Basic Earnings per Share:				
Continuing operations	$3.96		$3.53	
Net income	$3.95		$3.53	
Diluted Earnings per Share:				
Continuing operations	$3.93		$3.49	
Net income	$3.92		$3.49	
Capital Expenditures	$43.8		$22.0	
Depreciation and Amortization Expense	$93.9		$60.1	
EBITDA*	$442.3		$378.4	
Number of Employees	8,955		5,805	

Deluxe Corporation 2003 Q2 earnings announcement

Financial Highlights

DELUXE CORPORATION
STATEMENTS OF INCOME
(DOLLARS IN MILLIONS, EXCEPT PER SHARE AMOUNTS)
(Unaudited)

	Second Quarter 2003		Second Quarter 2002	
Revenue	**$309.6**		**$328.5**	
Cost of goods sold	**106.8**	34.5%	**110.6**	33.7%
Gross Profit	**202.8**	65.5%	**217.9**	66.3%
Selling, general and administrative expense	**125.1**	40.4%	**129.6**	39.4%
Asset impairment and net disposition gains	**(0.1)**	—	—	—
Operating Income	**77.8**	25.1%	**88.3**	26.9%
Other income (expense)	**(0.6)**	(0.2%)	**1.0**	0.3%
Earnings Before Interest and Taxes	**77.2**	24.9%	**89.3**	27.2%
Interest expense	**(4.9)**	(1.5%)	**(1.2)**	(0.4%)
Interest income	**0.1**	—	**0.1**	—
Income Before Income Taxes	**72.4**	23.4%	**88.2**	26.8%
Provision for income taxes	**27.5**	8.9%	**33.5**	10.1%
Net Income	**$44.9**	14.5%	**$54.7**	16.7%
Average Diluted Shares Outstanding	**55,914,758**		**64,108,801**	
Net Income per Share: Basic	**$0.81**		**$0.87**	
Diluted	**$0.80**		**$0.85**	
Capital Expenditures	**$4.8**		**$8.1**	
Depreciation and Amortization Expense	**$14.8**		**$14.6**	
EBITDA*	**$92.0**		**$103.9**	
Number of Employees	**5,870**		**6,380**	

Deluxe Corporation 2004 Q2 earnings announcement

Financial Highlights

DELUXE CORPORATION
STATEMENTS OF INCOME
(DOLLARS IN MILLIONS, EXCEPT PER SHARE AMOUNTS)
(Unaudited)

	Second Quarter 2004		Second Quarter 2003	
Revenue	$ 309.4		$ 309.6	
Cost of goods sold	102.9	33.3%	106.8	34.5%
Gross Profit	206.5	66.7%	202.8	65.5%
Selling, general and administrative expense	126.6	40.9%	125.1	40.4%
Asset impairment and net disposition losses (gains)	0.1	—	(0.1)	—
Operating Income	79.8	25.8%	77.8	25.1%
Other income (expense)	0.3	0.1%	(0.6)	(0.2%)
Earnings Before Interest and Taxes	80.1	25.9%	77.2	24.9%
Interest expense	(5.2)	(1.7%)	(4.9)	(1.5%)
Interest income	0.1	—	0.1	—
Income Before Income Taxes	75.0	24.2%	72.4	23.4%
Provision for income taxes	29.0	9.3%	27.5	8.9%
Net Income	$ 46.0	14.9%	$ 44.9	14.5%
Weighted Average Diluted Shares Outstanding	50,393,348		55,914,758	
Net Income per Share: Basic	$0.92		$0.81	
Diluted	$0.91		$0.80	
Capital Expenditures	$9.7		$4.8	
Depreciation and Amortization Expense	$16.3		$14.8	
EBITDA*	$96.4		$92.0	
Number of Employees	9,370		5,870	

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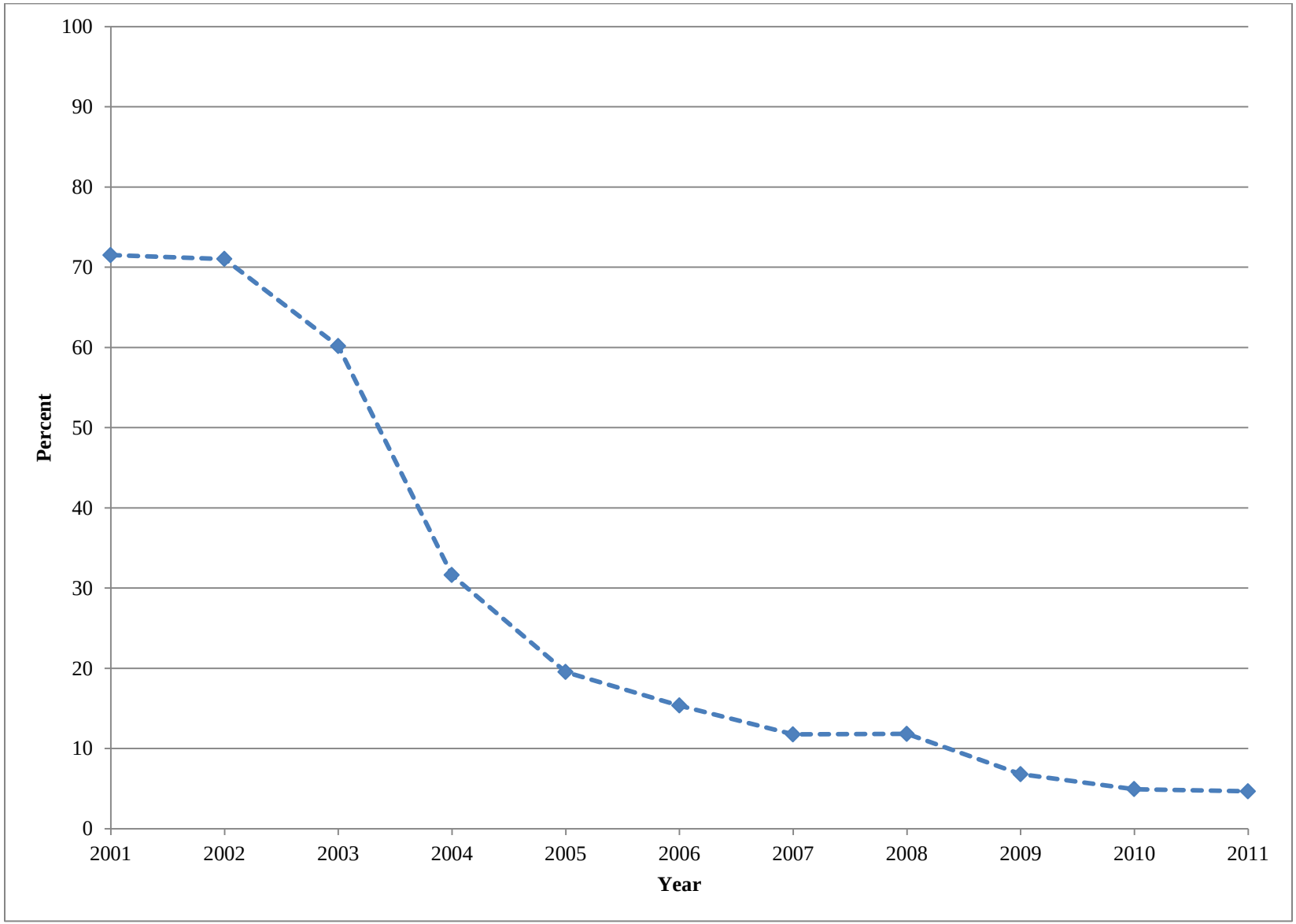
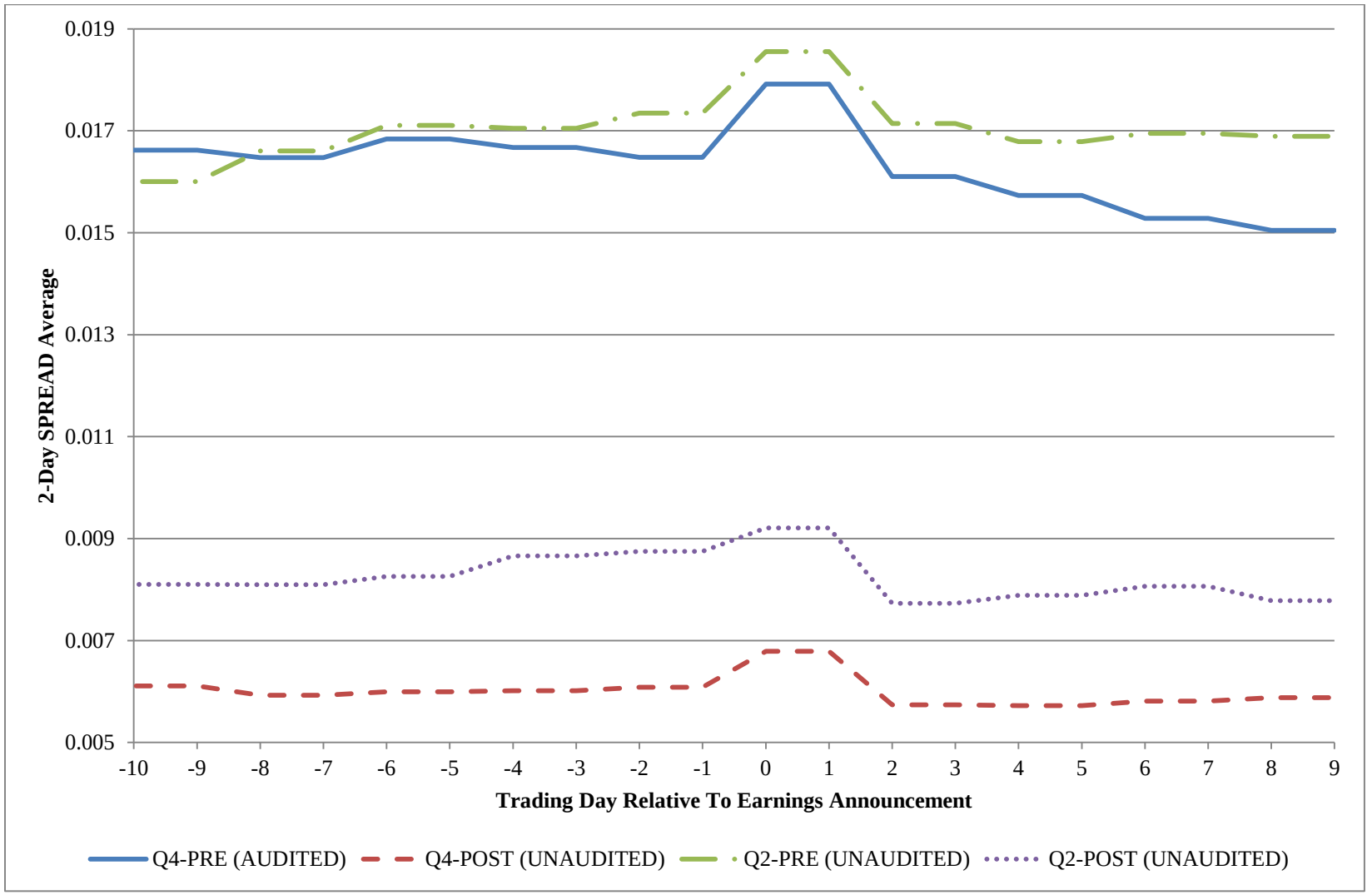
Figure 1
Annual percentage of companies issuing earnings announcements after audit completion



Notes: This figure presents a graph of the percentage of companies in each year from 2001 through 2011 that released annual earnings announcements after the completion of the audit, as measured by the audit report date. The graph is based on a sample of 30,636 U.S. companies (excluding SIC codes 6000 to 6999) that released an earnings announcement prior to the 10-K filing and had data available on Audit Analytics, Compustat and CRSP.

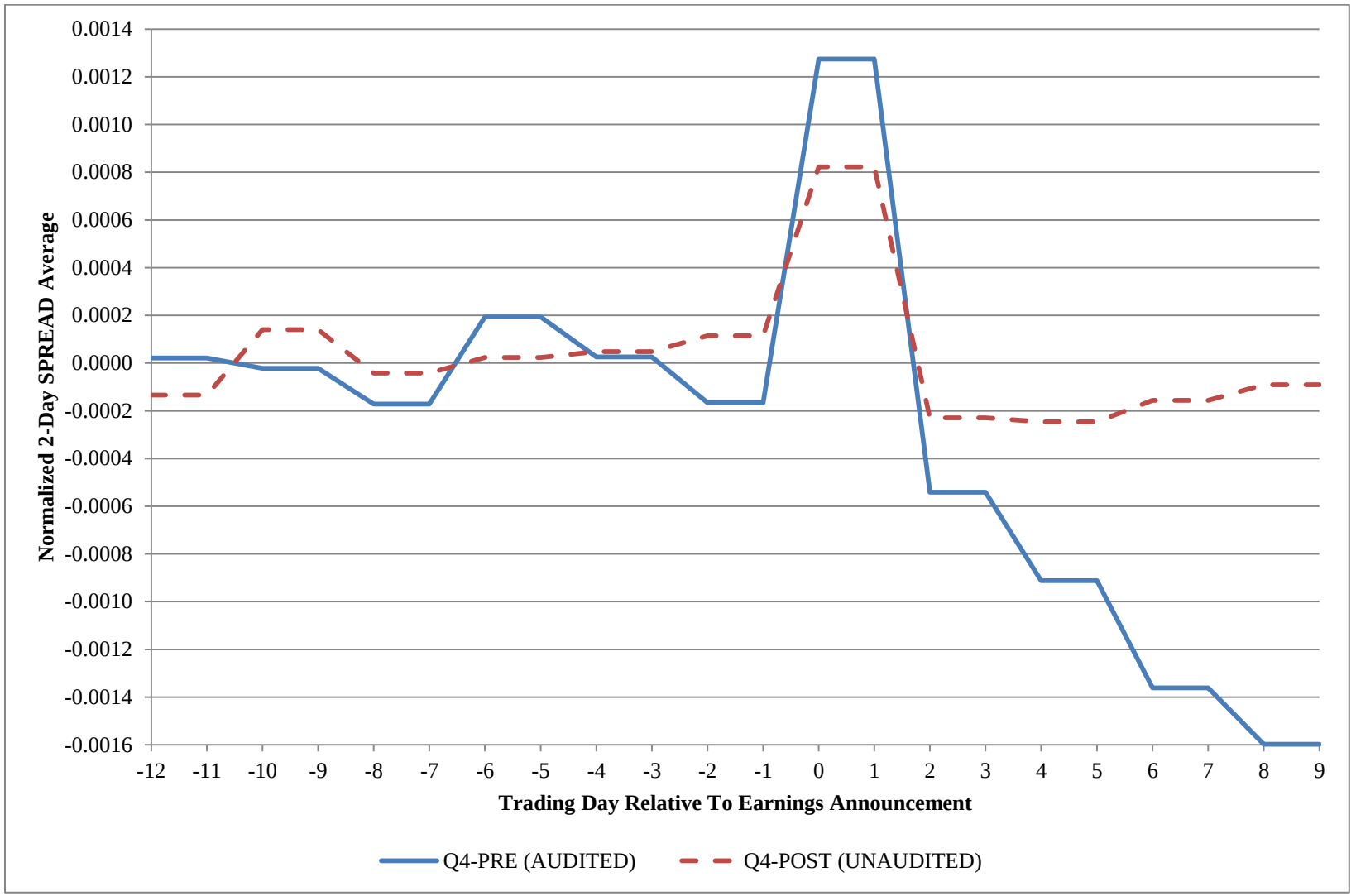
Figure 2
Two-day average bid-ask spreads around earnings announcements, by audit completion group



Notes: This figure presents a graphical depiction of the two-day average bid-ask spreads around earnings announcements for the four audit completion groups. We calculate *SPREAD* as the average effective bid-ask-spread during the day, scaled by trade price (see table 4 for further details). *Q4-PRE (AUDITED)* is the group of annual earnings announcements in the 2001 to 2003 period; *Q4-POST (UNAUDITED)* is the group of annual earnings announcements in the 2004 to 2006 period; *Q2-PRE (UNAUDITED)* is the group of second quarter earnings announcements in the 2001 to 2003 period; *Q2-POST (UNAUDITED)* is the group of second quarter earnings announcements in the 2004 to 2006 period.

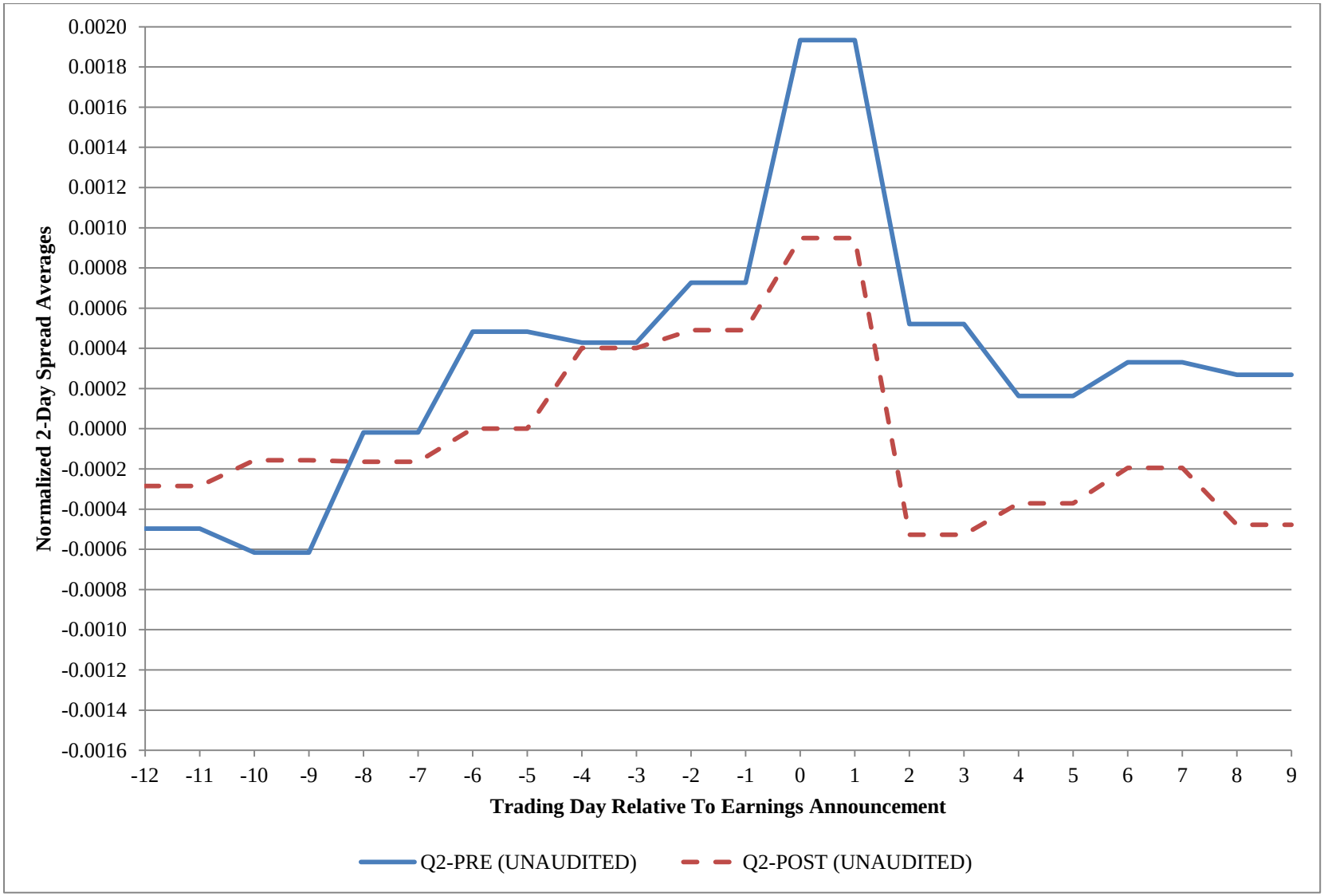
Figure 3
Normalized two-day average bid-ask spreads around earnings announcements

Panel A: Annual earnings announcements



Notes: This figure presents a graphical depiction of the normalized two-day average bid-ask spreads around earnings announcements for the annual earnings announcement groups. Normalized spreads subtract the mean spread during the control window (-12,-2) from each two-day average. We calculate *SPREAD* as the average effective bid-ask-spread during the day, scaled by trade price (see table 4 for further details). *Q4-PRE (AUDITED)* is the group of annual earnings announcements in the 2001 to 2003 period; *Q4-POST (UNAUDITED)* is the group of annual earnings announcements in the 2004 to 2006 period.

Panel B: Second quarter earnings announcements



Notes: This figure presents a graphical depiction of the normalized two-day average bid-ask spreads around earnings announcements for the second quarter earnings announcement groups. Normalized spreads subtract the mean spread during the control window (-12,-2) from each two-day average. We calculate *SPREAD* as the average effective bid-ask-spread during the day, scaled by trade price (see table 4 for further details). *Q2-PRE (UNAUDITED)* is the group of second quarter earnings announcements in the 2001 to 2003 period; *Q2-POST (UNAUDITED)* is the group of second quarter earnings announcements in the 2004 to 2006 period.

Table 1
Sample selection

	# Firms	# Firm-Years
Firms where audit is complete at Earnings Announcement for 2001-2003 and not complete (i.e., more than 10 days from completion) for 2004-2006	331	1,794
Less: Firms without at least 10 trades per day in the window surrounding the earnings announcement [-12,+10]	(33)	(270)
Information Asymmetry Analysis Sample	**298**	**1,524**
Less: Firms without analyst following for expected earnings estimate	(13)	(78)
Earnings Response Coefficient Analysis Sample	**285**	**1,446**

Notes: This table presents an overview of the sample selection procedure. The table begins with a selection of U.S. companies with data available from the intersection of Audit Analytics, Compustat, and CRSP (SIC codes 6000 to 6999 excluded) that consistently released the earnings announcement after the audit report date in the period from 2001 to 2003 and before the audit report date in the period from 2004 to 2006. These companies also had to release an annual earnings announcement prior to the 10-K filing. We then narrow the sample to companies that have at least ten trades per day in the period surrounding the earnings announcement. This yields the sample for our information asymmetry analysis. For our earnings response coefficient analysis, we also eliminate companies that are not followed by analysts.

Table 2
Sample descriptive statistics relative to population

Panel A: Descriptive comparisons

	Population (n = 15,212)		Sample (n = 1,524)		Compare Population to Sample p-value (t-test/chi-square)	
	Mean	Median	Mean	Median	Mean	Median
Earnings Announcement Lag	44.278	43.000	35.159	33.000	0.000 ***	0.000 ***
Audit Report Date Lag	54.299	57.000	47.701	48.000	0.000 ***	0.000 ***
10-k Filing Date Lag	76.430	75.000	73.668	74.000	0.000 ***	0.000 ***
Big-N Auditor	0.878	1.000	0.962	1.000	0.000 ***	0.000 ***
Going Concern Opinion	0.014	0.000	0.000	0.000	0.000 ***	0.000 ***
Material I/C Weakness	0.077	0.000	0.064	0.000	0.050 *	0.067 *
Audit Fees	1.068	0.430	1.687	0.773	0.000 ***	0.000 ***
Firm Size	5.937	5.939	7.080	6.913	0.000 ***	0.000 ***
Analyst Following	6.270	4.000	9.213	7.000	0.000 ***	0.000 ***
Institutional Ownership	0.467	0.489	0.634	0.716	0.000 ***	0.000 ***
Return on Assets	-0.033	0.033	0.025	0.053	0.000 ***	0.000 ***
Operating Cash Flow	0.048	0.084	0.098	0.107	0.000 ***	0.000 ***
Loss	0.336	0.000	0.222	0.000	0.000 ***	0.000 ***
Trading Volume	1.775	1.223	2.041	1.506	0.000 ***	0.000 ***
Return Volatility	0.037	0.031	0.029	0.025	0.000 ***	0.000 ***
Business Segments	0.557	0.000	0.593	0.000	0.051 *	0.044 **
Market-to-Book Ratio	2.909	2.114	3.226	2.502	0.038 **	0.000 ***
Accelerated Filer	0.420	0.000	0.403	0.000	0.191	0.193
Large Accelerated Filer	0.37	0.00	0.59	1.00	0.000 ***	0.000 ***

Panel B: Comparison of 1-digit SIC codes

	Population		Sample	
	Count	Percentage	Count	Percentage
0	67	0.4%	4	0.3%
1	586	3.9%	56	3.7%
2	2,782	18.3%	340	22.3%
3	5,041	33.1%	581	38.1%
4	1,488	9.8%	106	7.0%
5	1,801	11.8%	124	8.1%
7	2,611	17.2%	218	14.3%
8	780	5.1%	89	5.8%
9	56	0.4%	6	0.4%
Total	15,212		1,524	

Notes: This table presents descriptive statistics to compare our sample companies to the population of U.S. companies (excluding SIC codes 6000 to 6999) that released the earnings announcement before the 10-K filing and is in the intersection of the Compustat, CRSP, and Audit Analytics databases. Panel A presents descriptive comparisons along a number of dimensions and panel B presents a comparison of industry composition.

Earnings Announcement Lag, *Audit Report Date Lag*, and *10-k Filing Date Lag* report the number of days between the fiscal year end and the date of interest. *Big-N Auditor* is an indicator variable set to one if the firm is audited by a Big-N audit firm, zero otherwise. *Going Concern* is an indicator variable set to one if the auditor issues a going concern opinion, zero otherwise. *Material I/C Weakness* is an indicator variable set to one if the client reports a section 302 internal control weakness, zero otherwise. *Audit Fees* reports the total audit fees in millions. *Firm Size* reports the natural log of the market value of equity as of the fiscal year end. *Analyst Following* reports the number of analysts following the company in IBES during the current year. *Institutional Ownership* reports the percentage of shares held by institutions, according to the Thomson Reuters 13-F database. We calculate *Return on Assets* as income before extraordinary items divided by total assets. *Operating Cash Flow* reports the total operating cash flows divided by total assets. *Negative Unexpected Earnings* is an indicator variable set to one if income before extraordinary items for the current year is less than income before extraordinary items during the prior year and zero otherwise. *Loss* is an indicator variable set to one if income before extraordinary items is negative, zero otherwise. *Trading Volume* is the total number of shares traded over the year, scaled by the shares outstanding at the end of the year. Return volatility is the standard deviation of stock returns measured over the previous 250 days. *Business Segments* is the natural log of the number of business segments reported in Compustat's segment file. *Accelerated Filer* is an indicator set to one if Audit Analytics identifies the firm as an accelerated filer, zero otherwise. *Large Accelerated Filer* is an indicator variable set to one if Audit Analytics identifies the firm as a large accelerated filer, zero otherwise.

***/**/* represent significance at the 1%, 5%, and 10% levels, respectively.

Table 3
Sample descriptive statistics comparing the pre-AS2/3 and post-AS2/3 periods

	Pre-PCAOB AS2/3 (n = 789)		Post-PCAOB AS2/3 (n = 735)		Comparison of Pre/Post p-value (t-test/chi-square)	
	Mean	Median	Mean	Median	Mean	Median
Earnings Announcement Lag	35.162	32.000	35.156	33.000	0.994	0.028 **
Audit Report Date Lag	31.735	29.000	64.841	67.000	0.000 ***	0.000 ***
10-k Filing Date Lag	78.387	77.000	68.603	72.000	0.000 ***	0.000 ***
Big-N Auditor	0.971	1.000	0.952	1.000	0.062 *	0.060 *
Going Concern Opinion	0.000	0.000	0.000	0.000	1.000	1.000
Material I/C Weakness	0.006	0.000	0.125	0.000	0.000 ***	0.000 ***
Audit Fees	1.041	0.458	2.380	1.310	0.000 ***	0.000 ***
Firm Size	6.938	6.749	7.232	7.137	0.000 ***	0.000 ***
Analyst Following	8.643	7.000	9.826	8.000	0.007 ***	0.001 ***
Institutional Ownership	0.580	0.660	0.692	0.782	0.000 ***	0.000 ***
Return on Assets	0.000	0.041	0.051	0.062	0.000 ***	0.000 ***
Operating Cash Flow	0.089	0.104	0.107	0.108	0.013 **	0.191
Unexpected Earnings	0.015	0.010	0.018	0.010	0.450	0.281
Loss	0.284	0.000	0.155	0.000	0.000 ***	0.000 ***
Trading Volume	1.887	1.326	2.210	1.689	0.000 ***	0.000 ***
Return Volatility	0.034	0.031	0.023	0.021	0.000 ***	0.000 ***
Business Segments	0.599	0.000	0.587	0.000	0.743	0.754
Market-to-Book Ratio	3.124	2.354	3.335	2.648	0.465	0.002 ***
Accelerated Filer	0.442	0.000	0.361	0.000	0.001 ***	0.001 ***
Large Accelerated Filer	0.54	1.00	0.64	1.00	0.000 ***	0.000 ***

Notes: This table presents descriptive statistics to the pre-AS2/3 and post-AS2/3 periods for our sample companies. We define *Unexpected Earnings* as the difference between IBES actual earnings per share and the median IBES estimate from the calculation date immediately preceding the earnings announcement date. We define all other variables in table 2.

***/**/* represent significance at the 1%, 5%, and 10% levels, respectively.

Table 4
Regression analyses of daily spreads on audit completion groups and control variables

Dependent Variable: SPREAD	(1)		(2)		(3)		(4)	
	WINDOW=[0,+1]		WINDOW=[+2,+10]		WINDOW=[+6,+10]		WINDOW=[+6,+10]	
	Coef.	*t-stat*	Coef.	*t-stat*	Coef.	*t-stat*	Coef.	*t-stat*
Control Window Variables [-12,-2]								
Q4-PRE (AUDITED)	0.0108	*15.59* ***	0.0108	*15.39* ***	0.0109	*15.38* ***	0.0098	*11.39* ***
Q4-POST (UNAUDITED)	0.0040	*9.57* ***	0.0041	*9.60* ***	0.0042	*9.45* ***	0.0041	*6.99* ***
Q2-PRE (UNAUDITED)	0.0091	*11.75* ***	0.0091	*11.78* ***	0.0092	*11.81* ***	0.0084	*8.69* ***
Q2-POST (UNAUDITED)	0.0058	*10.89* ***	0.0059	*10.86* ***	0.0059	*10.75* ***	0.0053	*7.43* ***
Announcement Window Variables								
*(1) Q4-PRE (AUDITED) * WINDOW*	0.0015	*4.32* ***	-0.0008	*-2.54* **	-0.0013	*-3.66* ***	-0.0010	*-2.17* **
*(2)Q4-POST (UNAUDITED) * WINDOW*	0.0020	*7.11* ***	0.0003	*3.28* ***	0.0002	*1.88* *	0.0001	*0.56*
*(3) Q2-PRE (UNAUDITED) * WINDOW*	0.0018	*4.60* ***	0.0004	*1.21*	0.0003	*0.81*	0.0006	*1.20*
*(4) Q2-POST (UNAUDITED) * WINDOW*	0.0018	*6.42* ***	-0.0001	*-0.62*	-0.0002	*-1.30*	-0.0001	*-0.70*
Other Control Variables								
TURNOVER	-0.0002	*-7.40* ***	-0.0002	*-7.21* ***	-0.0002	*-6.97* ***	-0.0002	*-4.18* ***
IDRET_VOL	3.2890	*14.00* ***	3.3355	*14.61* ***	3.3076	*14.51* ***	3.2913	*10.79* ***
Clustered Standard Errors	*Firm*		*Firm*		*Firm*		*Firm*	
Adj. R-Square	*0.472*		*0.475*		*0.473*		*0.463*	
Sample	*Full Sample*		*Full Sample*		*Full Sample*		*Balanced Panel*	
N	*39,624*		*60,960*		*48,768*		*26,688*	
Coefficient Tests	*Coef. Diff*	*p-value*	*Coef. Diff*	*p-value*	*Coef. Diff*	*p-value*	*Coef. Diff*	*p-value*
(1) - (2) = 0	**-0.0005**	***0.18***	**-0.0012**	***0.00***	**-0.0015**	***0.00***	**-0.0010**	***0.03***
(3) - (4) = 0	0.0001	*0.89*	0.0005	*0.18*	0.0006	*0.20*	0.0007	*0.22*
[(1) - (2)] - [(3) - (4)] = 0	**-0.0005**	***0.35***	**-0.0017**	***0.00***	**-0.0021**	***0.00***	**-0.0018**	***0.01***

Notes: This table presents the results of regression analyses of daily spreads on audit completion groups and control variables. We present this analysis to examine the effect of audit completion on the information asymmetry surrounding earnings announcements.

The dependent variable in these analyses is the daily average bid-ask-spread. We calculate *SPREAD* as the average effective bid-ask-spread during the day, scaled by trade price. We match quotes and trades in the TAQ database with a one-second delay after we perform a number of steps (consistent with prior literature) to clean the quotes and trades files. Our filtering of the quotes file involves the following steps: (i) we only include quotes between 09:00 and 16:00 to account for open-trading hours plus a period to capture the opening quotes; (ii) we require positive bid and offer prices and sizes; (iii) we exclude quotes with abnormal quote conditions (i.e., a mode of 4,7,9,11,13,14,15,19,20,27,or 28); (iv) we exclude quotes where the bid price is greater than the ask price and those where the spread is greater than ten dollars. Our filtering of the trades file involves the following steps: (i) we require the trade to be during regular trading hours (09:30-16:00); (ii) we require the trade price and size to be greater than zero; (iii) we require normal correction designations (0,1,2); (iv) we exclude trades with abnormal conditions (i.e., O, Z, B, T, L, G, W, J, or K).

We define the other variables in these analyses as follows: *Q4-PRE (AUDITED)* is an indicator variable set to one for annual earnings announcements in the 2001 to 2003 period, zero otherwise; *Q4-POST (UNAUDITED)* is an indicator variable set to one for annual earnings announcements in the 2004 to 2006 period, zero otherwise; *Q2-PRE (UNAUDITED)* is an indicator variable set to one for second quarter observations in the 2001 to 2003 period, zero otherwise; *Q2-POST (UNAUDITED)* is an indicator variable set to one for second quarter observations in the 2004 to 2006 period, zero otherwise; *WINDOW* is an indicator variable that is set to one for the trading days of interest, where day zero is the earnings announcement (e.g., for *WINDOW=[0,+1]*, *WINDOW* is set to one for trading days 0 and 1, and zero otherwise); each of the analyses include days -12 through -2 as a control window, which we compare to the days of interest; *TURNOVER* is the daily volume scaled by the number of shares outstanding; *IDRET_VOL* is the intra-day return volatility, calculated as the standard deviation of intra-day returns.

*/**/*** represent significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

Table 5
Earnings response coefficient regression analyses across audit completion groups

Dependent Variable: UNRETURN						
	(1)		(2)		(3)	
	Coef.	*t-stat*	Coef.	*t-stat*	Coef.	*t-stat*
Audit Completion Groups						
*(1) Q4-PRE (AUDITED) * UE*	0.3459	*6.02* ***	0.3453	*5.97* ***	0.3874	*4.57* ***
*(2) Q4-POST (UNAUDITED) * UE*	0.2429	*4.71* ***	0.2424	*4.68* ***	0.2697	*3.65* ***
*(3) Q2-PRE (UNAUDITED) * UE*	0.3112	*5.02* ***	0.3099	*5.00* ***	0.2702	*3.25* ***
*(4) Q2-POST (UNAUDITED) * UE*	0.3218	*6.40* ***	0.3266	*6.45* ***	0.3109	*4.27* ***
Other Variables						
*LOSS * UE*	-0.1882	*-3.29* ***	-0.1899	*-3.31* ***	-0.1961	*-2.23* **
Clustered Standard Errors	*Firm*		*Firm*		*Firm*	
Year Fixed Effects	*No*		*Yes*		*Yes*	
Firm Fixed Effects	*Yes*		*Yes*		*Yes*	
Adj. R-Square	*0.070*		*0.070*		*0.090*	
Firm Sample	*Full Sample*		*Full Sample*		*Balanced Panel*	
N	*2,892*		*2,892*		*1,488*	
Coefficient Tests	*Coef. Diff*	*p-value*	*Coef. Diff*	*p-value*	*Coef. Diff*	*p-value*
(1) - (2) = 0	**0.1029**	***0.05***	**0.1030**	***0.06***	**0.1178**	***0.05***
(3) - (4) = 0	-0.0106	*0.87*	-0.0168	*0.79*	-0.0407	*0.62*
[(1) - (2)] - [(3) - (4)] = 0	**0.1136**	***0.13***	**0.1197**	***0.11***	**0.1585**	***0.11***

Notes: This table presents the results of regression analyses of unexpected returns on unexpected earnings by audit completion group. We present this analysis to examine the effect of audit completion on earnings response coefficients.

The dependent variable in these analyses is unexpected returns *(UNRETURN)*, which we define as 3-day size-adjusted returns, centered on the earnings announcement date. *UE* is the unexpected earnings, which we define as the difference between IBES actual earnings per share and the median IBES estimate from the calculation date immediately preceding the earnings announcement date. We define the audit completion groups in the same manner as table 4: *Q4-PRE (AUDITED)* is an indicator variable set to one for annual earnings announcements in the 2001 to 2003 period, zero otherwise; *Q4-POST (UNAUDITED)* is an indicator variable set to one for annual earnings announcements in the 2004 to 2006 period, zero otherwise; *Q2-PRE (UNAUDITED)* is an indicator variable set to one for second quarter observations in the 2001 to 2003 period, zero otherwise; *Q2-POST (UNAUDITED)* is an indicator variable set to one for second quarter observations in the 2004 to 2006 period, zero otherwise. *LOSS* is an indicator set to one if the IBES actual earnings is negative.

*/**/*** represent significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Fixed effects and the intercept are not tabulated for brevity.