WHAT IS THE ROLE OF AUDITING IN EARNINGS ANNOUNCEMENT DISCLOSURES? THE IMPACT OF AUDIT COMPLETENESS AND QUALITY ON GAAP DISCLOSURE DETAILS

By

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ABSTRACT

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This study examines the role of the external auditor in management's decision about the amount of GAAP financial statement information to disclose in the annual earnings announcement. The earnings announcement is a key disclosure provided by public companies, and the value relevance of the earnings announcement is increasing in the amount of GAAP financial statement information included in the release. Despite the importance of earnings announcements as an information source for investors, there is no requirement that earnings announcements contain audited earnings numbers; in fact, recent trends show that the majority of companies release earnings before the completion of year-end audit fieldwork. I predict that companies that wait until the audit is complete (or closer to completion) prior to the release of their earnings announcement and companies with higher quality audits will provide more detailed GAAP disclosures in their earnings announcements because management has more confidence in the financial reporting system and the underlying financial statement balances. In addition, management benefits from a reduced risk of litigation and reputation loss. Consistent with my predictions, I find that when the audit is closer to completion at the earnings announcement release date and is of higher quality, the earnings announcement disclosure contains more overall GAAP disclosures, driven primarily by more detailed balance sheet and cash flow statement disclosures. The results of this study contribute to the academic literature by providing evidence that auditing facilitates more detailed earnings announcement GAAP

disclosures. Furthermore, this study makes a key contribution to a new stream of literature that examines the impact of audit completeness on management disclosure decisions. These results are also important to regulators because they suggest that the external audit function plays an important role in key financial statement disclosure decisions beyond the mandatory audited financial statements included in the 10-K filing.

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CHAPTER 1: INTRODUCTION

The annual earnings announcement is an important disclosure that is provided by public companies. Due to its timely release and salience, investors respond more strongly to the earnings announcement than to the subsequent release of the 10-K filing (Kothari, 2001; Li and Ramesh, 2009; Beyer, Cohen, Lys and Walther, 2010; Basu, Duong, Markov and Tan, 2011). Furthermore, recent research suggests that earnings announcements are more informative to investors when the announcements contain more detailed GAAP financial statement information (Francis, Schipper and Vincent, 2002; Collins, Li and Xie, 2009; Pawlewicz, 2011; Miao, Teoh and Zhu, 2013).[1] Despite the attention earnings announcements receive from investors, there is no regulation requiring an audit of the GAAP financial statement information presented in the earnings announcement.

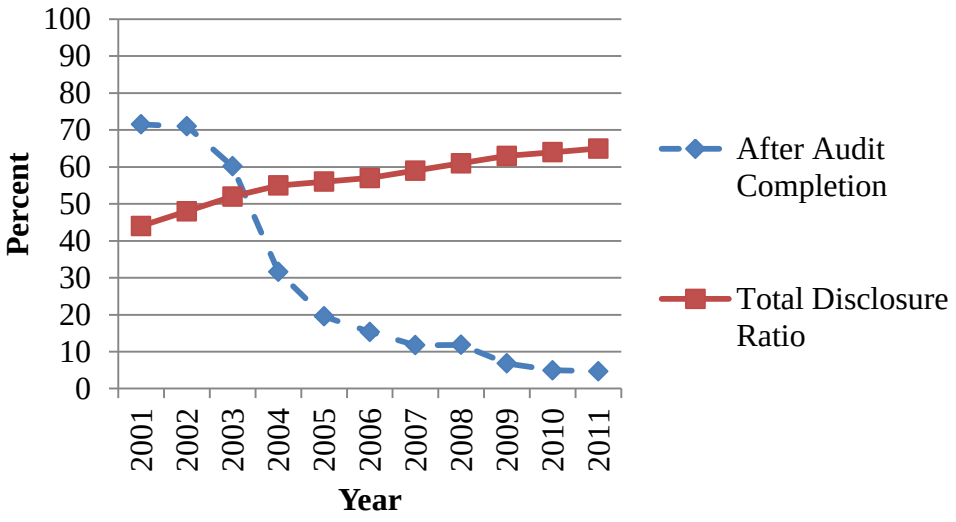
Contrary to the widespread belief that the financial statement information in the announcement is audited (SEC, 2002; SEC, 2003),[2] recent empirical research indicates that the majority of companies are now issuing their earnings announcements before the completion of the year-end audit (Krishnan and Yang, 2009; Bronson, Hogan, Johnson and Ramesh, 2011). At the same time, there has been an increasing trend of companies providing more GAAP financial statement details in the earnings announcement (Pawlewicz, 2011; Miao et al., 2013). Figure 1

[1] Earnings announcement disclosures range from less detailed income statement summary disclosures to managers providing the full set of GAAP financial statements (i.e. income statement, balance sheet and cash flow statement). See Appendix A for example earnings announcement disclosures.

[2] One of the key assumptions underlying the SEC proposal to shorten the filing deadlines for the 10-K (10-Q) was the year-end (quarter-end) audit (review) was "essentially complete" as of the release date of the earnings announcement, thus resulting in little cost on firms to escalate the periodic reporting filing dates.

illustrates these trends showing that the percentage of firms waiting until on or after the audit report date to release the earnings announcement has gone from a high of 72 percent in 2001 to a low of 5 percent in 2011. At the same time, overall GAAP disclosures, measured using the disclosure ratio from D'Souza, Ramesh and Shen (2010), increased 50% between 2001 and 2011.[3] This raises the question of the external auditor's role in management's decision to disclose GAAP financial statement information in the annual earnings announcement.

FIGURE 1
EA in Relation to Audit Completion & Disclosure Ratio Trends



In this dissertation, I examine whether or not the extent to which the audit is complete at the earnings announcement release date and audit quality are associated with the amount of GAAP financial statement information that management includes in their earnings announcements. This allows for a better understanding of the auditor's role in facilitating more detailed disclosures. Management may be more willing to disclose additional GAAP financial

[3] The D'Souza et al. (2010) disclosure ratio is the number of line items for all three financial statements reported in the earnings announcement per the Compustat Preliminary History File divided by the total line items that subsequently appear in the initial 10-K filing per the Compustat Unrestated Quarterly File.

statement information, such as more details from the income statement, balance sheet and/or cash flow statement, when there is a more complete audit at the earnings announcement release date and a higher quality audit because management will have more confidence in the financial reporting system and the underlying financial statement balances. Alternatively, the auditor may have little effect on management's disclosure decisions because of existing regulations, the market demand for timely information, and the presence of alternative governance mechanisms that increase management's confidence in the financial statements.

Prior research finds, both cross-sectionally and over time, that more detailed GAAP disclosure in the earnings announcement results in more information for investors. Greater detail allows investors to understand the implications of current performance on future performance (Francis et al., 2002; Collins et al., 2009; Pawlewicz, 2011). Providing only net income in the earnings announcement makes it challenging for investors to determine the quality and valuation implications of earnings. By providing balance sheet and cash flow statement information in the earnings announcement investors are able to parse out noise in accruals, leading to better forecasts of future earnings and cash flows (Chen, DeFond and Park, 2002; Baber, Chen and Kang, 2006; Wasley and Wu, 2006; D'Souza, Ramesh and Shen, 2010; Miao et al. 2013).

Given that investors value more detailed GAAP disclosures in earnings announcements, it is important to determine whether or not the auditor facilitates the provision of more detailed disclosures. Practitioner organizations recommend the inclusion of the external auditor in the earnings announcement disclosure review process as a "best practice." They also encourage member companies to wait until the audit is complete (or substantially complete) prior to releasing the earnings announcement (Bochner and Blake, 2008; Diamond and Yevmenenko, 2011; Deloitte, 2012). Releasing the earnings announcement closer to or after the completion of

year-end audit fieldwork reduces management's uncertainty about specific account balances and lowers the likelihood that the preliminary financial statement information included in the earnings announcement will change before the filing of the 10-K (Bronson et al., 2011).

Higher quality audits improve the quality of the financial reporting system through internal control testing and earlier interim procedures, as well as resolving key financial statement issues more timely and accurately. A higher quality financial reporting system ensures that the financial information provided by that system is materially consistent with GAAP. Taken together, more complete audits and higher quality audits improve the quality of the financial reporting system, the financial statement outputs, and the underlying account balances, thereby increasing management's confidence that the financial statement balances will not change between the earnings announcement release date and the filing of the 10-K. As a result, management is less exposed to litigation risk[4] and reputation loss (Trueman, 1986; Desai, Hogan and Wilkins, 2006; Yang, 2012), which makes it less costly to release more detailed financial statement information in the earnings announcement.

On the other hand, existing regulations and market demand for more timely information suggest the auditor may not play a role in management's earnings announcement disclosure decisions. There is no SEC regulation requiring an audit of the information included in the earnings announcement, thus management may release the preliminary financial statement

[4] The historical GAAP financial statements presented in the earnings announcement are subject to the antifraud provisions of Section 10(b) and Rule 10b-5 of the Securities Exchange Act of 1934 (Bochner and Blake, 2008; Steinberg, 2009). Revisions of GAAP financial results reported in the earnings announcement could result in management/companies being named in a class action lawsuit. A recent example is Groupon v. Zhang in which Groupon was accused of filing false and misleading financial results in the Q4 2012 earnings announcement. Specifically, Groupon announced on March 30, 2012 a downward revision of $0.04 per share to their previously-issued February 8, 2012 earnings announcement due to revenue recognition concerns identified by their auditor (Stemphel, 2012; Zhang v. Groupon, 2012).

information marking it as "unaudited" (Bochner and Blake, 2008; Steinberg, 2009). Furthermore, managers who feel pressure to meet the market's demand for timely information may not be willing to wait for the completion of audit fieldwork (Krishnan and Yang, 2009; Bronson et al., 2011). Instead, these managers may increase their confidence in the historical GAAP information provided in the earnings announcement by making investments in alternative governance mechanisms, such as effective internal controls, a competent and objective internal audit function, and/or an expert audit committee, substituting for the role of the external auditor.

Despite these possibilities, I predict that audit completeness and audit quality will be positively associated with the amount of GAAP financial statement information in the earnings announcement. I consider two proxies for audit completeness. The first is the number of days between the earnings announcement date and the audit report date, which is the date audit fieldwork is complete (Bronson et al., 2011). The second is the presence of a current period earnings announcement revision as companies experiencing a revision are more likely to have announced earnings before the completion of the audit and have the greatest ex ante uncertainty surrounding the audit (Bronson et al., 2011). In addition, I also consider two proxies for audit quality – size/resources and excess audit fees. Higher quality audits are more likely to be those done by larger audit firms that possess more resources and expertise (DeAngelo, 1981; Francis, 2004; Francis, 2011). Higher quality audits are also likely to be positively associated with higher audit fees. Companies that desire higher levels of assurance over their financial statement balances are more likely to pay higher-than-expected levels of audit fees to ensure that the audit firm can complete its job without making trade-offs between engagement profitability and audit quality (Blankley, Hurtt and MacGregor, 2012; Ball, Jayaraman and Shivakumar, 2012).

Using a sample of 23,134 annual earnings announcement disclosures from 2001 to 2011, I find results consistent with the relations I hypothesize above. I measure the level of detail provided in the earnings announcement by calculating the ratio of financial statement line items in the earnings announcement to the number of line items included in the 10-K (D'Souza et al., 2010). The main measure is the total GAAP financial statement disclosure ratio, with additional analysis examining the income statement, balance sheet and cash flow statement ratios separately to determine if the audit has a greater impact on certain financial statement disclosure details. I find that the level of detail provided in the earnings announcement is positively associated with both more complete audits and higher quality audits, after controlling for other factors affecting disclosure details.[5] Specifically, I find that1) companies that wait until the audit is complete (or closer to completion) before issuing the earnings announcement; 2) companies that do not experience a current period earnings announcement revision; 3) companies engaging a Big 4 audit firm;[6] and 4) companies paying higher than expected audit fees provide more overall financial statement disclosures. These results are driven primarily by detailed balance sheet and cash flow statement disclosures.

Regulatory changes resulting from the Sarbanes Oxley Act ("SOX") provide a setting in which to further examine the role of auditing in management's earnings announcement GAAP disclosure decisions because regulation has the potential to change this relation. The creation of the PCAOB by SOX may have standardized the audit process reducing quality and resource

[5] Consistent with D'Souza et al. (2010) I include measures for size, information demand/environment, litigation risk, bad news information, filer characteristics, earnings announcement timing, industry effects and year effects to control for other determinants of disclosure details in the earnings announcement.

[6] Big 4 audit firms include PricewaterhouseCoopers, Ernst & Young, Deloitte, KPMG and Andersen (when in existence).

differences amongst the audit firms through its inspection process and standard setting (Boone, Khurana and Rama, 2010; Chang, Cheng and Reichelt, 2010; DeFond and Lennox, 2011; Hoag, Myring and Schroeder, 2013). PCAOB Auditing Standard No. 2 ("AS2") established Section 404(b) internal control testing requirements, and PCAOB Auditing Standard No. 3 ("AS3") changed audit workpaper documentation requirements. Together these regulatory changes prolonged the completion of year-end audit fieldwork. In response a majority of companies issued their EAs before audit completion rather than delaying EAs (PCAOB 2004a; PCAOB 2004b; Bronson et al., 2011).[7] Furthermore, key provisions of SOX that strengthened internal control and internal governance may have had a substitution effect reducing the importance of higher quality audits.[8]

I examine the effects of SOX and audit related regulation by separating my sample into pre- and post-regulation periods.[9] I further document that the positive association between more detailed earnings announcement GAAP disclosures and more complete audits and higher quality audits, respectively, hold in both the pre- and post-regulation periods. However, I find that engaging a Big N audit firm decreases in importance (but is still explanatory of disclosure

[7] Prior to AS2 and AS3 approximately 70 to 78 percent of annual EAs were issued after the audit report date (Givoly and Palmon, 1982; Bamber et al., 1993; Schwartz and Soo, 1996). Following the adoption of AS2 and AS3, audit report lags increased from an average of 49 days in 2003 to 66 days in 2004 resulting in approximately 80 to 90 percent of companies now issuing their EAs before the audit report date (Krishnan and Yang, 2009; Bronson et al., 2011).

[8] Section 302 of SOX, "Corporate Responsibility for Financial Reports," requires the CEO and CFO to certify their financial statement and disclosures. Furthermore, it requires that management establish and maintain internal controls over the financial reporting process and certify/disclose the effectiveness of those controls in periodic filings. Section 404(a) requires management to issue a report on the effectiveness of internal controls over the financial reporting process disclosing any material weaknesses.

[9] I use the effective date of November 15, 2004 for AS2 and AS3 as the cut-off in my analysis as these two standards had the greatest effect on the timing of the completion of audit fieldwork.

details) during the post-regulation period consistent with recent studies showing little difference in quality between Big N and non-Big N firms during the post-SOX period (Boone et al., 2010, Chang, Cheng and Reichelt, 2010; DeFond and Lennox, 2011; Hoag et al., 2013). Additional analysis of the subsample of firms that released the earnings announcement on or after the audit report date during 2001 to 2003 suggests that firms made trade-offs in terms of audit quality and audit completeness in 2004 (the first year after the exogenous shock on audit report date completion). The results suggest that firms that invest more in audit quality are more likely to release detailed earnings announcements before audit completion, while those that do not have those resources are more likely to respond by focusing on an audit completion strategy by changing audit firms or delaying the earnings announcement until audit completion. Consequently, SOX had an economic impact of either added costs associated with audit quality or less timely earnings announcement disclosures.

This study contributes to the accounting literature in several ways. First, prior research on the role of auditing in voluntary disclosure decisions is limited, and the results are mixed. Ball et al. (2012) find that higher audit fees are associated with higher quality management forecasts (i.e. frequency, precision, timing, and accuracy), while Krishnan, Pevzner and Sengupta (2012) find the opposite association. Dunn and Mayhew (2004) find that engaging a specialist audit firm is associated with higher AIMR disclosure ratings. Finally, Bronson et al. (2011) present evidence that firms that wait until after the audit is complete to release their earnings announcement are less likely to experience an earnings announcement revision. My research extends these studies by using managements' earnings announcement GAAP financial statement disclosure content decisions as an alternative disclosure setting. The results support a complementary relationship between auditing and disclosure quality further supporting the

conclusions of Ball et al. (2012), as well as their call for more research examining the impact of auditing in other key disclosure settings.

Second, I contribute to an emerging stream of literature examining the new construct of audit completeness. Concurrent and prior studies have explored the impact of audit completeness on earnings announcement disclosure reliability (Bronson et al., 2011), the market's response to earnings announcements (Marshall, Schroeder and Yohn, 2013), and audit risk resulting in higher auditor fees, lower audit quality (measured by future restatement likelihood) and increased likelihood of auditor turnover (Bronson, Masli and Schroeder, 2013). Since Section 404(b) went into effect in 2004, audits have taken on average 17 days longer (Bronson et al. 2011) resulting in over 80 to 95 percent of earnings announcements being issued before audit completion, when during the 2001 to 2003 period the majority of earnings announcements were issued on or after audit completion (see Figure 1). Consequently, it is important to understand how audit completeness impacts earnings announcement disclosures. The findings of this study indicate that audit completeness does facilitate more detailed GAAP disclosures, which have been shown to be valued by investors in prior research (Francis et al., 2002; Collins et al., 2009; Pawlewicz, 2011).

Third, I contribute to the audit quality literature by further examining two common proxies for audit quality in a voluntary disclosure setting, which has largely been unexplored (in favor of 10-K filings). My results show that the size/resources proxy for audit quality (i.e. Big 4 vs. non-Big 4) is positively associated with more detailed earnings announcement disclosures in both the pre and post-regulation periods; however, differences between Big N and non-Big N firms are diminishing in the post-regulation period consistent with a standardization of audit quality amongst Big N and non-Big N firms (Boone et al., 2010; Change, Cheng and Reichelt,

2010; DeFond and Lennox, 2011; Hoag et al., 2013). Prior research is mixed on whether excess audit fees (i.e. abnormal audit fees) is a measure of higher audit quality (Blankely et al, 2012; Ball et al., 2012) or lower audit quality (Kinney and Libby, 2002; Choi, Kim and Zhang 2010). My results suggest a positive association between excess audit fees and more detailed earnings announcement disclosures.

Finally, the results of my study should be of interest to regulators. SOX and other key regulations were passed with the goal of restoring investor trust in the capital markets by strengthening the internal control and governance surrounding the financial reporting system, increasing executive accountability, and improving the quality of public company audits (Farrell, 2007). The results of this study suggest that auditing plays an important role in key financial statement disclosures (i.e. earnings announcements) that are not subject to audit requirements. Consequently, regulators should continue to evaluate the impact of recent regulation that may have had the unintended effect of shifting the auditor's attention away from other key financial disclosures that are important to investors towards having the auditors solely focus on the 10-K filing.

The remainder of the dissertation is organized as follows. Chapter 2 provides a discussion of related literature and develops the hypotheses. Chapter 3 discusses the research design and sample. Chapter 4 presents the empirical results of the main analysis. Chapter 5 presents the results of the pre/post-SOX analysis. Chapter 6 provides the results of additional analyses to provide further perspective about the main findings reported in Chapter 4. Chapter 7 provides concluding remarks about the dissertation.

CHAPTER 2: LITERATURE REVIEW AND HYPOTHESES

I begin this chapter by discussing the literature that explores the relevance of the earnings announcement ("EA") as an information source for investors and the determinants of more detailed GAAP financial statement disclosures. I follow this by discussing the role of the external auditor in management's annual EA disclosure decisions. I then discuss audit completeness and audit quality and the positive association I predict that these will have with more detailed EA GAAP financial statement disclosures.

2.1. Earnings Announcement Value Relevance and Disclosure Determinants

The annual EA is a key information source for investors as it provides the initial benchmark for assessing the accuracy of earlier management forecasts and other information sources (Beyer et al., 2010; Basu et al., 2011). Furthermore, investors value the information content included in the EA more than that included in subsequently issued periodic filings (i.e. 10-K), as evidenced by higher market reactions, due to the EA's timelier release and the salience of the disclosure (Stice, 1991; Kothari, 2001; Amir and Livnant, 2005; Li and Ramesh, 2009). Although the EA is an important information source for investors, it is a voluntary disclosure. There are no formal SEC requirements that require companies to issue an EA,[10] that specify the information that should be included in an EA, or that require the information in an EA be certified by an independent audit firm (Bochner and Blake, 2008; Steinberg, 2009). Consequently, there is widespread variation in the amount of GAAP financial statement

[10] There are NYSE and NASDAQ requirements that listed companies provide an EA to the market; however, there are no requirements regarding content and the timing of the EA release or that the information included be audited (Evans, 2011).

information that management provides in the EA disclosure (See Appendix A for examples), ranging from limited summary income statement information to the full release of the GAAP financial statements (i.e. income statement, balance sheet and cash flow statement).

Regulators and the practitioner community strongly encourage companies to provide more detailed GAAP financial statement disclosures from all three financial statements in the EA. The National Investor Relations Institutes's (NIRI) Standards of Practice on Earnings Release Content urges firms to include in their EA a balance sheet and cash flow statement, in addition to the traditional income statement (NIRI, 2012). The Chartered Financial Analyst Institute and the SEC Committee on Improvements in Financial Reports (CIFiR) also make similar recommendations (CFA Institute 2007; SEC 2008). These calls by regulators and practitioner organizations indicate the importance of more detailed EA GAAP disclosures for investors.

Prior research finds that the information content of the EA has been increasing over time, due to more managers providing more detailed income statement, balance sheet and cash flow statement summary information (Francis et al., 2002; Collins et al., 2009; Pawlewicz, 2011). More detailed GAAP financial statement information allows investors to better evaluate the quality of earnings for valuation purposes and to form their expectations of a company's future earnings and cash flows (Chen et al., 2002; Baber et al., 2006; Wasley and Wu, 2006; D'Souza et al., 2010). Furthermore, providing the full set of financial statements (especially the cash flow statement) increases the saliency of accrual and cash flow information improving both unsophisticated and sophisticated investor valuation of earnings (Miao et al., 2013). Prior research also finds that companies with increased information demands (i.e. greater analyst following, more institutional investors and larger market capitalization), noisier earnings, bad

news information, and higher litigation risk are most likely to provide more detailed EA GAAP summary disclosures (Chen et al., 2002; D'Souza et al., 2010).

In order to understand these patterns, it is crucial to remember that management faces the risk of litigation and personal reputation loss in the event that the EA contains financial statement information that is subject to change. The historical GAAP financial statements provided in the EA are subject to the anti-fraud provisions of Section 10(b) and Rule 10b-5 of the Securities Exchange Act of 1934 (Steinberg, 2009). Consequently, management faces increased litigation risk if the disclosed EA GAAP summary financial statement information differs from the 10-K.[11] Managers have strong reputational incentives to ensure that their disclosure practices and financial statements are credible and reliable. Managers develop a strong reputation for disclosure quality that is rewarded by the market (Trueman, 1986; Yang, 2012). Conversely, management is penalized for lower quality disclosures by increased likelihood of termination and a lowering of their future job prospects (Desai, Hogan and Wilkins, 2006; Mergenthaler, Rajgopal and Srinivasan, 2012). Given the litigation and reputation risk associated with issuing EA disclosures that may be subject to change, management has a need for mechanisms that can increase their confidence in the financial reporting process. Auditing serves as one such mechanism that will be discussed further in the next section.

[11] A recent example is Groupon v. Zhang where Groupon is accused of filing false and misleading financial results in its Q4/Annual earnings announcement (Stemphel, 2012; Groupon v. Zhang, 2012). Specifically, Groupon announced on March 31, 2012 a revision of $0.04 per share to their previously released earnings announcement on February 8, 2012 due to revenue recognition policy differences with their auditor. Had Groupon waited to file its earnings announcement closer to audit completion (i.e. March 30, 2012 audit report date), the revision triggering the class action lawsuit may have been avoided.

2.2. External Auditing and EA GAAP Financial Statement Disclosures

Because more detailed EA GAAP financial statement disclosures are more informative, it is important to determine whether or not auditing, and more specifically, more complete and higher quality audits, helps managers provide this information. Although there is no formal audit requirement for the EA disclosure, the auditor may play a role in management's EA disclosure decisions by improving the quality of the company's financial reporting system, the financial statement outputs of that system, and the underlying financial statement balances. In turn, management will have more confidence that the underlying financial statement balances will not change between the EA release date and the 10-K filing date. Consequently, management is less exposed to litigation risk and reputation loss making it less costly to release the full set of financial statements in the EA.

Waiting until the audit is complete (or substantially complete) before releasing the earnings announcement reduces the uncertainty surrounding specific account balances and provides management with the highest confidence that the underlying financial statement balances will not change between the EA date and 10-K date. Practitioner organizations strongly encourage companies to actively involve the external auditor in the EA disclosure process and to wait until the audit is complete prior to releasing the EA to the market to reduce concerns that subsequent adjustments will be detected (Bochner and Blake, 2008; Diamond and Yevmenenko, 2011; Deloitte, 2012). Auditors require considerable time after year-end to evaluate the appropriateness of complex accounting estimates that are included in the financial statements (e.g. bad debt reserves, inventory obsolescence reserves, fair value estimates and income tax provision) (Lambert, Jones and Brazel, 2011). Consequently, releasing the EA before the auditor has had sufficient time to complete substantive testing increases the likelihood that the financial

statement balances included in the earnings announcement will differ from the audited numbers in the 10-K filing (Bronson et al., 2011).

Management's investment in higher quality audits, by engaging a larger audit firm and providing more resources (i.e. audit fees) to the auditor, will increase the quality of the financial reporting system and increase the likelihood that significant accounting issues are addressed in a more timely and reliable manner at the earnings announcement release date, increasing management's confidence in the financial statement balances. The Big 4 audit firms are international networks of member firms that share personnel resources and expertise across offices and engagement teams (Francis, 2004; Francis and Yu, 2009; Francis, 2011). Furthermore, the Big 4 firms have national consulting offices to assist in addressing complex accounting issues surrounding the financial statements prior to year-end or earlier during year-end audit fieldwork. Furthermore, extant audit quality literature has found a positive association between auditor size and financial reporting quality in the 10-K (e.g. Dopuch and Simunic 1980; DeAngelo 1981; Teoh and Wong 1993; Becker, DeFond, Jiambalvo and Subramanyum 1998; Reynolds and Francis 2000; Behn, Choi and Kang 2008). Consequently, it is reasonable to believe that the financial information released at the time of the EA will be of higher quality as well.

Providing more resources to the audit firm allows the audit firm to perform the full extent of their procedures at various points during interim and year end without making trade-offs between engagement profitability and audit quality. Auditors can use these resources to perform earlier internal control testing and interim procedures increasing management's confidence in the financial reporting system and the output of that system, the financial statements. Higher quality audits of internal controls at interim dates allows the auditor to evaluate the effectiveness of

internal controls over the financial reporting system, thereby reducing the likelihood of material misstatements going undetected (Ge and McVay, 2005; Asbaugh-Skaife et al., 2007). Performing more substantive procedures at interim periods helps evaluate management's financial statement close process and the appropriateness of the key assumptions used for complex accounting estimates. Furthermore, earlier interim procedures allow the auditor to audit the recording of material transactions prior to year-end audit fieldwork. With effective internal controls and the audit process at interim dates, management will have more confidence in the year-end close process even if the audit is not fully complete at the EA release date. Furthermore, an audit firm paid excess compensation can allocate more resources (personnel and expertise) during year-end audit fieldwork prior to the EA release allowing for more timely and accurate assessments of many key complex estimates. .

On the other hand, it is possible that the auditor may not play a role in management's EA GAAP financial statement disclosure decisions. There is no specific requirement by the SEC that the historical GAAP financial statement information included in the EA be audited (Bochner and Blake, 2008; Steinberg, 2009). Consequently, management could release the full set of GAAP financial statement information with unresolved audit issues and simply indicate the balances are unaudited suggesting no relationship between management's EA disclosure decisions and audit quality or audit completeness. Furthermore, managers are faced with market pressures to provide timely, detailed and consistent EA disclosures or face market penalties if deviating from market expectations (Kross, 1981; Givoly and Palmon, 1982; Kross and Schroeder, 1984; Begley and Fischer, 1998; Bagnoli, Kross and Watts, 2002; Einhorn and Ziv, 2008; Tang, 2012). Consequently, management may not be willing to wait for the completion of audit fieldwork, especially post-SOX Section 404(b) when audits take on average 17 days longer

(Krishnan and Yang, 2009; Bronson et al., 2011). Instead, companies may utilize alternative mechanisms as a substitute for the external auditor. Specifically, companies may invest in effective internal controls over the financial reporting process, a more competent/objective internal audit function, and an audit committee that possesses sufficient accounting expertise to increase the confidence management has in the historical GAAP information in the earnings announcement. Thus, it is an empirical question whether or not the auditor plays a role in the level of detail disclosed by management.

2.3. Hypothesis Development

2.3.1. Audit Completeness and EA GAAP Disclosures

I predict that managers who release their EA closer to or after the completion of audit fieldwork will provide more detailed GAAP financial statement disclosures in the EA. Waiting until the completion of the audit before releasing the EA reduces the likelihood that the financial statement balances will change between the EA release date and the 10-K filing date. Accordingly, management will be less exposed to litigation and/or loss of reputation. However, management also has to face the demands for timely and consistent EA disclosures (or avoid a market penalty for deviating from expected disclosure behavior)[12], demands that result in pressures to release the EA prior to the completion of the audit. In this situation, management is likely to release less detailed summary financial information as the financial statement balances

[12] Management disclosure practices are typically sticky and consistent with prior years as the market will react negatively to deviations in disclosure behavior (Einhorn and Ziv, 2008; Tang, 2012). Furthermore, the literature examining EA delays and the "good news early bad news late" phenomenon provide evidence of market penalties when companies choose to delay an anticipated EA as the market infers that the delay is due to bad news (Kross, 1981; Givoly and Palmon, 1982; Kross and Schroeder, 1984; Begley and Fischer, 1998; Bagnoli, Kross and Watts, 2002).

are not final and management has less confidence in the underlying balances. These arguments lead to the first hypothesis, stated in alternative form:

H1: *Ceteris paribus*, the more complete the year-end audit field work is at the time of the EA release the more detailed GAAP financial statement disclosures companies will provide in their EA.

2.3.2. Audit Quality and EA GAAP Disclosures

Despite the trade-offs management faces when making EA disclosure decisions, I predict that companies that receive a higher quality audit are more likely to disclose more GAAP financial statement information in their EA. Larger audit firms have greater resources available to their clients in terms of training, technology, human capital and accounting expertise (Francis, 2004; Francis, 2011). These resources increase management's confidence in the financial reporting system and financial statements at the EA release date, as well as mitigate concerns that the underlying balances will change between the EA release date and 10-K filing date.

Companies that demand higher levels of assurance over their financial statement balances are more likely to provide higher-than-expected levels of audit fees to their audit firm in order to ensure the auditors can complete their job without making trade-offs between engagement profitability and audit quality. Companies may pay higher than expected audit fees to increase the amount of effort/assurance provided by the auditor. Audit firms seek to maximize their own profits contingent on providing audits that are in compliance with auditing standards and reducing exposure to future litigation losses (Simunic, 1980). Consequently, audit firms that receive lower-than-expected audit fees from their clients must either provide the necessary level of assurance at a loss or reduce the level of assurance provided in order to remain profitable. Conversely, companies that value higher quality audits will provide excess audit fees to their

auditor to help increase the quality of their financial statement information (Blankley et al., 2012; Ball et al., 2012).[13] This argument leads to the second hypothesis, stated in alternative form.

H2: *Ceteris paribus*, companies that receive higher quality audits (measured in terms of audit firm size and excess audit fees) provide more detailed EA GAAP financial statement disclosures.

[13] I use abnormal audit fees (actual fee minus expected fee obtained from a standard audit fee model) to capture whether audit fees are above or below expectations, with further details discussed in Chapter 3. The literature presents two theories as to what positive vs. negative abnormal fees represent. Some studies argue that positive abnormal fees represent higher fees that create an economic bond between the audit firm and the client resulting in reduced auditor independence and audit quality (Causholli et al., 2010; Kinney and Libby, 2002; Choi et al., 2010). Other studies posit that positive abnormal audit fees indicate greater auditor effort and/or resources committed to auditor verification resulting in higher quality audits (Causholli et al., 2010; Blankley et al., 2012; Ball et al., 2012). Consistent with the later stream of research, I use positive abnormal audit fees to represent increased audit quality. It is possible that it represents economic bonding, which would result in either no or a negative association between audit fees and detailed EA GAAP disclosures.

CHAPTER 3: RESEARCH DESIGN AND SAMPLE SELECTION

Chapter 3 discusses the research design and sample selection. I begin by presenting the empirical model used to test H1 and H2 that predict a positive association between EA GAAP disclosure details and audit completeness and audit quality, respectively. I discuss the dependent variable, measures for audit completeness and audit quality, and control measures in detail. I follow with a discussion of the sample used in this dissertation.

3.1. Research Design

I estimate the following OLS regression model to test the predictions that more complete audits (H1) and higher quality audits (H2) are positively associated with managers providing more detailed GAAP financial statement disclosures in their earnings announcements.

$$\begin{aligned} DR_{i,t} = \; & \beta_0 + \beta_1 AUDCOMP_{i,t} + \beta_2 EARVZ_{i,t} + \beta_3 BIGN_{i,t} + \beta_4 ABFEES_{i,t} + \\ & \beta_5 SUPDISC_{i,t} + \beta_6 INFOENVT_{i,t} + \beta_7 LITRISK_{i,t} + \beta_8 BADNEWS_{i,t} + \\ & \beta_9 COMPLX_{i,t} + \beta_{10} INFOD_{i,t} + \beta_{11} EA\_LAG_{i,t} + \beta_{12} ACCEL_{i,t} + \\ & \beta_{13} LGACCEL_{i,t} + \textit{industry fixed effects} + \textit{year fixed effects} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

The model is adapted from D'Souza et al. (2010); variables are defined in Appendix B and discussed further below. I first estimate the model using levels of the dependent and independent variables. I then estimate the model using a change specification to reduce concerns about correlated omitted variables. The change specification (i.e. first-differencing) is appealing as it also holds constant time invariant unobservable characteristics of the companies and addresses concerns about endogenous choice of disclosure details and auditor characteristics (Wooldridge, 2002).

3.1.1. Measure of EA GAAP Disclosure Detail (Dependent Variable)

I measure EA GAAP financial statement disclosure details using the total GAAP financial statement disclosure ratio (DR_{TOT}) from D'Souza et al. (2010),[14] which is calculated as follows:

$$\frac{\text{Number of Financial Statement Line Items Disclosed in the Earnings Announcement}}{\text{Number of Financial Statement Line Items Disclosed in the Initial 10-K filing}} \quad (2)$$

This ratio is based on the 4th quarter EA.[15] The numerator represents the number of non-missing data items from Compustat's Quarterly Preliminary History database, which collects data from companies' quarterly EAs. The denominator represents the number of non-missing data items from Compustat's Unrestated Quarterly database, which collects data from the initial SEC periodic filing. The ratios are based on a total of 84 data items from the three financial statements (23 from the income statement, 28 from the balance sheet, and 33 from the cash flow statement) with specific definitions found in Appendix C. I further examine three separate ratios for the income statement (DR_{IS}), balance sheet (DR_{BS}) and cash flow statement (DR_{CF}) to further understand which financial statement disclosures drive the overall total disclosure ratio result.

[14] Evans (2011) uses the D'Souza et al. (2010) balance sheet ratio to examine the association between disclosure commitment and cost of capital providing additional validation of this measure.

[15] D'Souza et al. (2010) verify the accuracy of the quarterly Preliminary History and Unrestated Quarterly files and indicate that the annual files are less reliable due to Compustat's data collection practices. D'Souza et al. (2010) indicate that the annual files may be populated with either data from the earnings announcement, SEC 10-K filings, or Annual Reports causing potential bias in the calculated disclosure ratios. The Q4 disclosure ratio serves as a good proxy for the annual disclosure ratio because EAs typically provide both quarterly and annual information side-by-side for the income statement and cash flow statements. Therefore, the line items will be the same for the Q4 and Annual EA GAAP disclosures. Furthermore, the balance sheet is at a point-in-time, making the Q4 and Annual GAAP balance sheet line items the same.

Given most audit firm methodologies are focused on a balance sheet approach, it is possible that auditors provide greatest confidence for balance sheet line items.

The disclosure ratios are a relevant measure of disclosure details for three reasons. First, the availability of the Preliminary History Database provides a large sample of EA GAAP line item disclosures, as opposed to smaller hand collected samples used in prior studies (i.e. Francis et al. 2002 and Chen et al. 2002). Second, the ratio provides a continuous measure of a company's disclosure strategy instead of a dichotomous measure as used in prior studies of a firm's decision to disclose a certain financial statement (i.e. Chen et al. 2002; Collins et al. 2009; Pawlewicz 2011). Finally, the disclosure ratio is not impacted by firm size (i.e. bigger companies have more line items) as it captures managements' voluntary disclosure decisions by taking the ratio of disclosed line items to potentially "disclosable" line items.

3.1.2. Measures of Audit Completeness

I use two variables to measure *audit completeness*, *AUDCOMP* and *EARVZ*. *AUDCOMP* captures the completeness of the audit as of the EA release date. Consistent with Bronson et al. (2011), I consider audit completion to be the audit report date. *AUDCOMP* is a continuous measure of the difference, measured in number of days, between the EA release date and the audit report date with positive (negative) values indicating the EA was released after (before) the completion of the audit. Furthermore, *AUDCOMP* captures the likelihood the audit is complete at the EA release date (e.g. -20 would be less complete than -1).[16] Consistent with H1, I expect a positive coefficient on *AUDCOMP*.

[16] The assumption of the *AUDCOMP* variable is that each day closer to (or after) the audit report date results in incremental confidence in the financial statements prior to EA release. It is possible that incremental days after the audit report date are no more beneficial than issuing the EA concurrent with the audit report date. In Chapter 6 Section 6.4 I perform additional specifications with alternative versions of the *AUDCOMP* variable to determine if audit

EARVZ is a dichotomous variable that captures whether the firm experiences a current period EA revision where net income reported in the EA is different than what is subsequently reported in the 10-K filing. Bronson et al. (2011) find that firms that issue their EA before the audit report date are more likely to experience an EA revision. Therefore, I interpret an ex post EA revision during the current period to be an indication of ex ante unresolved audit issues at the date of the EA release. *EARVZ* proxies for uncertainty and greater uncertainty will result in less disclosed GAAP information. Consistent with H1, I expect a negative coefficient on *EARVZ*.

3.1.3. Measures of Audit Quality

I use two measures to capture *audit quality*, *BIGN* (i.e. *size/resources)* and *ABFEES* (i.e. *audit fees*). *BIGN* is an indicator variable that captures whether or not the firm engages one of the Big 4 firms. Consistent with H2, I predict a positive coefficient on *BIGN*. *ABFEES* is the residual from a standard audit fee model modified from prior studies (e.g. Hay, Knechel and Wong, 2006; Hogan and Wilkins, 2008), scaled by the natural log of total audit fees to adjust for size effects, with positive (negative) values indicating that the audit fees paid by the firm were higher (lower) than model expectations (see Appendix A for specific model). I make the assumption that the residual from this model captures increased resources provided to the auditor facilitating greater audit effort and assurance (Causholli et al. 2010; Ball et al. 2012; Blankley et al. 2012). Consistent with the prediction of H2, I expect the coefficient on *ABFEES* to be positive.

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completeness matters more for the firms that issue before the audit report date, if incremental days after the audit report date matter, and whether having absolute assurance that comes with the audit report date being on or before the EA release date (i.e. 1/0 indicator variable) impacts EA GAAP disclosure details.

3.1.4. Control variables for other disclosure incentives

Chen et al. (2002) find that firms are more likely to provide supplemental balance sheet disclosures when net income is a poor predictor of future earnings and cash flows. I include a composite measure (*SUPDISC*) from D'Souza et al. (2010) based on six attributes documented in Chen et al. (2002) to capture the demand for supplemental GAAP disclosures. I expect a positive coefficient on *SUPDISC*.

The voluntary disclosure literature has identified four economic constructs that are likely to impact the disclosure strategies of firms: the richness of the information environment, the extent of litigation risk, the degree of proprietary costs, and the existence of bad news (Healy and Palepu, 2001). Consistent with D'Souza et al. (2010), I use factor analysis to reduce the dimensionality of 16 specific variables used in the literature to proxy for the above disclosure incentives; more specific details regarding this can be found in Appendix D.[17] The factor analysis results in five specific factors, which I include in the above models. The first factor captures the richness of the firm's information environment (*INFOENVMT*) and loads on measures that capture market capitalization, analyst following, analyst coverage, and institutional investor holdings. I predict a positive coefficient on *INFOENVT*, which is consistent with prior research that suggests that management will provide more detailed EA disclosures when there is a greater stakeholder demand (Healy and Palepu 2001; Lang and Lundholm 1993; Verrecchia 2001; Botosan 1997; Botosan and Plumlee 2002; Graham et al. 2005; Frankel et al. 1999; Chen et al. 2002; Bushee et al. 2003; Diamond 1985; Scott 1994).

[17] Factor analysis provides more concrete measures of the economic constructs explored in the voluntary disclosure literature as opposed to including 16 different measures that may proxy for multiple constructs and introduce multicollinearity into the model. See Chapter 6 Section 6.6 where I present the results of the model that replaces the factor measures with the 16 individual disclosure control variables.

The second factor captures the firm's exposure to litigation risk (*LITRISK*) and loads on variables capturing membership in a high litigation risk industry, higher stock return volatility, and higher stock volume. I do not make a prediction for the sign of the coefficient since prior literature has demonstrated mixed results: some studies suggest litigation risk will result in more detailed disclosures (i.e. Bushee et al., 2003; Botosan and Harris, 2000; Field et al., 2005; Chen et al., 2002) while others suggest less detailed disclosures accompany higher litigation risk (i.e. Rogers and Van Buskirk, 2009).

The third factor captures the existence of bad news (*BADNEWS*) and loads on variables that capture current period loss, unexpected earnings declines, lower operating cash flows and lower return on assets. Chen et al. (2002) suggest that firms with less informative earnings (e.g. bad news information) will provide balance sheet disclosures as a context for the bad news, suggesting a positive coefficient. However, Wasley and Wu (2006) suggest that firms are less likely to disclose bad news cash flow information. Accordingly, I do not make a prediction regarding the coefficient on *BADNEWS*.

The fourth factor captures operational complexity (*COMPLX*) and loads positively on market value of equity, business segments and total shareholders. With increased operational complexity, I expect that investors will demand, and firms will provide, more detailed EA GAAP disclosures. The final factor (*DFACT*) does not load consistently on any specific measure classification. *DFACT* loads positively on presence of special items and negatively on market to book ratio. I do not make predictions regarding the coefficient sign on *DFACT*.

Finally, I include a measure that captures the timing of the EA release (EA_LAG), measured as the difference between the EA release date and the fiscal period end date, to further control for information demand and the strength of the firm's internal governance systems. I

expect a negative coefficient on *EA_LAG* (D'Souza et al., 2010). I also include indicator variables capturing filer status (*ACCEL* and *LGACCEL*) to control for size[18], as well as differential SEC filing and disclosure demands. Industry and year fixed effects are also included to control for industry-wide and year-specific macroeconomic effects.

3.2. Sample Selection

The sample used for the analyses includes all available annual EAs for the years 2001 to 2011. Table 5 provides a summary of the sample selection. I begin with the Audit Analytics opinion file in order to identify audit report dates, audit fees and 10-K filing dates. I eliminate 16,345 observations that are foreign, 1,722 duplicate observations, and 4,984 observations with missing audit fee data. When I merge with Compustat to obtain the financial statement variables and identify the earnings announcement dates, I lose 93,678 observations (primarily mutual funds, benefit plans and missing CIK in Compustat necessary for merge). I then eliminate 14,433 financial institutions (SIC codes between 6000 to 6999) due to the regulatory disclosure requirements of that industry and 1,285 observations with missing EA dates. I then eliminate 8,336 observations in which the 10-K filing was significantly delayed (i.e. 10-K filed after the possible 15 day NT 10-K extension). I then eliminate 12,015 observations where the earnings announcement is concurrent with the 10-K filing date as the focus of this study is on companies

[18] The natural log of market value of equity is also a control for size and is captured in the five factor scores used as control variables. In Chapter 6 Section 6.3 I provide additional analyses by including a control variable for firm size (natural log of total assets) and re-estimate the model for subsamples based on large-accelerated, accelerated and non-accelerated filer status.

that elect to issue an earnings announcement prior to the 10-K filing.[19] This results in a final sample of 30,636 observations available for the disclosure trend analysis at Table 6. I then lose 3,222 and 1,488 observations due to missing values in Compustat and CRSP, respectively, necessary to construct the control variables. This results in a final sample of 23,134 observations for the levels analysis (Table 9 and 11). The sample for the change analysis is reduced by 5,357 observations to a total of 17,777 observations (Table 10) due to attrition and the sample period being 2002 to 2011 by design

[19] Chapter 6 Section 6.7 provides discussion of an additional analysis that includes firms that issue the EA concurrent with the 10-K in the sample. Results continue to support the predictions of H1 and H2.

CHAPTER 4: MAIN RESULTS

In Chapter 4, I begin by providing earnings announcement disclosure trends for the sample period 2001 to 2011. I then present descriptive statistics for the levels and change samples, followed by the main empirical results testing H1 and H2 in both a levels and change specification.

4.1. Descriptive Statistics

4.1.1. Earnings Announcement Disclosure Trends 2001 to 2011

Table 6 provides descriptive trends by year for those companies that choose to issue an EA prior to the 10-K filing. Panel A presents trends on whether the EA was issued before or after the audit report date (i.e. completion of the audit), EA release lags, audit report date lags, and the number of days between the EA release and the audit report date. The percentage of companies releasing their earnings announcements before the completion of the audit is increasing over time from 29 percent in 2001 to 95 percent in 2011, with a significant shift occurring from 2003 to 2004 (40 percent vs. 68 percent), the first year of SOX Section 404(b) integrated audits. This shift is largely due to the prolonging of year-end audit fieldwork from 46 to 49 days (2001 to 2003) to 60 to 65 days (2004 to 2011) due to additional internal control (PCAOB AS2)[20] and documentation (PCAOB AS3) requirements (Bronson et al., 2011). Over time it appears that companies are waiting longer after year-end to release the EA from a low of 43.6 days in 2001 to approximately 46.8 to 48.5 days during the years after Section 404(b) implementation, but not enough to ensure the EA was released after audit completion.

[20] PCAOB Auditing Standard No. 5 superseded AS2 effective November 15, 2007 scaling back audit requirements necessary for a Section 404(b) internal control audit (PCAOB, 2007).

Consequently, EAs are released on average 15.6 days before audit completion in 2011 (last year of sample period) compared to 2.8 days in 2001. Furthermore, it appears that in the later years of the sample period (2009 to 2010) that the audit report date lags are essentially the same as the 10-K filing lags suggesting that auditors are more likely to issue their audit opinions within days of the 10-K filing. The 10-K filing lags have decreased from a high of 83.1 days in 2001 to a low of 62.9 days in 2011. This is due to the change in SEC filing deadlines for accelerated and large accelerated filers from 90 to 75 days for years ending on or after December 15, 2003 and a further reduction to 60 days for large accelerated filers for years ending on or after December 15, 2005 (Lambert et al., 2011).

Panel B presents the disclosure ratio trends from 2001 to 2011 for the sample used in the multivariate analysis (23,134 company-year observations). Although there has been an increasing trend of companies releasing the EA before the completion of the audit, it appears that companies are providing more detailed GAAP financial statement disclosures over time. Overall GAAP financial statement disclosures have increased from an average of 44 percent in 2001 to 65 percent in 2011. This is largely due to companies providing more detailed balance sheet disclosures (53 percent in 2001 vs. 72 percent in 2011) and cash flow statement disclosures (7 percent in 2001 vs. 40 percent in 2011) with income statement disclosures remaining consistent over time (84 percent in 2001 vs. 89 percent in 2007).

In summary, there has been a significant shift in the number of EA disclosures released before the completion of audit fieldwork. Despite this shift, companies are providing more detailed financial statement disclosures in the earnings announcement. These trends suggest that the auditor plays a limited role in the EA disclosure decisions of management and raises the empirical question as to what role, if any, does the auditor play regarding the EA disclosure.

4.1.2. Descriptive Statistics

Table 7 provides descriptive statistics for the dependent, independent and control variables used in the regression analyses. The dependent variable is the total disclosure ratio (DR_{TOT}), which has considerable variability (SD=0.231). This is largely driven by the balance sheet ratio (SD=0.318) and cash flow statement ratio (SD=0.403). The income statement ratio has less variability (SD=0.093), which is consistent with most firms providing detailed income statement disclosures (Francis et al., 2002). These statistics are consistent with prior studies, indicating that differences in EA GAAP disclosure details derive mainly from supplemental balance sheet and cash flow statement information (Chen et al., 2002; Collins et al., 2009; D'Souza et al., 2010).

The measures of *audit completeness* are *AUDCOMP* and *EARVZ*. Sample observations on average issue their EAs 13 days (with a median of 12 days) before the audit report date, with 28.3 percent of the sample waiting until on or after the completion of the audit to issue the EA. Untabulated results indicate that this result is primarily driven by the post-SOX Section 404(b) period: with 10 percent waiting until audit completion compared to 65 percent during the pre-SOX Section 404(b) period. Consistent with prior studies, 3.8 percent of the sample experiences an EA revision in the current period (Bronson et al., 2011; Hollie et al., 2012). The measures of *audit quality* are *BIGN* and *ABFEES*. Consistent with data from prior studies, 83 percent of the sample is audited by a Big 4 firm. The mean (median) value of *ABFEES* is -0.001 (0.000), which is both consistent with the variable design (i.e. residual from standard audit fee model) and separates the sample into observations that pay above or below expected audit fees. The remaining control variables have mean and median values and distributions consistent with prior disclosure studies (i.e. D'Souza et al., 2011).

Table 8 provides the Pearson correlations for the dependent, independent and control variables. The two measures for audit completeness are either negatively and significantly correlated (*AUDCOMP*) or not significantly correlated (*EARVZ*) with the disclosure ratios, inconsistent with the prediction of H1. In untabulated results, *AUDCOMP* is negatively and significantly correlated with measures of size ($p<0.01$ for natural log of total assets and market value of equity) indicating that smaller companies are more likely to wait until audit completion before releasing their EA. Furthermore, *AUDCOMP* is positively and significantly correlated with *EA_LAG* indicating that later EA releases are more likely to be audited. This demonstrates the importance of controlling for size and the EA release date in the multivariate models. The measures for audit quality (*BIGN* and *ABFEES*) are positively and significantly correlated with the four disclosure ratios consistent with the predictions of H2.

4.2. Multivariate Results

4.2.1. Levels Analysis

Table 9 presents the multivariate results of the levels analysis. Column (1) provides the results in which the dependent variable is the total GAAP financial statement ratio (DR_{TOT}). Columns (2) to (4) provide the results of the three separate disclosure ratios for the income statement (DR_{IS}), balance sheet (DR_{BS}) and cash flow statement (DR_{CF}), respectively to identify if the auditor has a greater impact on certain financial statement disclosures.

Recall that H1 relates to *audit completeness* and is operationalized as both the proximity of the EA release date to the audit report date (positive coefficient on *AUDCOMP*) and the lack of a current period EA revision (negative coefficient on *EARVZ*). Consistent with the prediction of H1, the coefficient on *AUDCOMP* is positive and significant ($p<0.01$) and the coefficient on

EARVZ is negative and significant (p<0.01) for the total disclosure ratio model (DR_{TOT}). When looking at the separate financial statement ratios, the coefficients on *AUDCOMP* and *EARVZ* are significant and in the predicted direction for the balance sheet ratio (DR_{BS}) and cash flow statement ratio (DR_{CF}) models; however, only the coefficient on *EARVZ* is significant in the income statement ratio (DR_{IS}) model. The individual financial statement ratio results are consistent with the auditor providing management with the most confidence around the balance sheet and cash flow statement disclosures, with the balance sheet disclosure being consistent with the balance sheet audit methodology approach adopted by most audit firms. The combined results suggest that the release of the EA closer to or after the completion of audit fieldwork is associated with management being more willing to provide more detailed EA GAAP disclosures.[21]

Consistent with the prediction of H2, the coefficients on *BIGN* and *ABFEES* (measures of audit quality) are both positive and significant (p<0.01) in the total disclosure ratio model (DR_{TOT}), as well as the income statement (DR_{IS}) (p<0.10 for *ABFEES*), balance sheet (DR_{BS}) and cash flow statement models (DR_{CF}). These results suggest that companies that invest more in higher quality audits, either by engaging a larger audit firm with expertise/resources and/or by providing higher than expected audit fees to their auditor, also provide more detailed EA financial statements disclosures.

[21] In Chapter 6 section 6.4, Supplemental Analysis, I examine alternative specifications of the *audit completeness construct* to determine whether absolute completeness (i.e. 1/0 indicator variable on whether EA is issued on or after audit report date) drives the main *AUDCOMP* finding and if incremental days of completeness in the subsamples that issue before or after the audit report date have an effect on EA GAAP disclosure details. Refer to this section for more detailed discussion of the results.

The signs and significance of the coefficients on the control variables are consistent with prior disclosure studies. Companies provide more detailed GAAP disclosures if they are larger (*ACCEL* and *LGACCEL*), issue their EA closer to year-end (*EA_LAG*), have increased incentive to provide supplemental GAAP disclosures (*SUPDISC*), have greater information demands (*INFOENVT*), and are exposed to higher litigation risk (*LITRISK*). We note that firms subject to bad news (*BADNEWS*) are less likely to provide cash flow statement disclosures, but there is no relationship between bad news and the other EA GAAP financial disclosure ratios. The negative relationship between detailed cash flow statement disclosures and the bad news measure is consistent with the argument in Wasley and Wu (2006) that management is less likely to highlight poorer cash flow prospects. The coefficient on the complexity measure (*COMPLX*) is not statistically significant in the overall disclosure ratio model; however, it is negative (positive) and significant in the income statement and balance sheet (cash flow statement) ratio models. The coefficient on the final disclosure factor that loads positive on special items and negative on the market-to-book ratio is positive and significant across all models.

4.2.2. Change Analysis

The change model (i.e. first differencing) is used to address concerns that company specific unobservable characteristics might be a correlated omitted variable in the levels specification. This specification holds constant time invariant unobservable characteristics specific to the company and determines whether changes in the disclosure ratio co-vary with changes in the audit completeness (Δ*AUDCOMP* and Δ*EARVZ*) and audit quality (Δ*BIGN* and Δ*ABFEES*) measures (Wooldridge, 2002). Table 10 presents the results of the change analysis. The coefficients on the change in the audit completeness measures (Δ*AUDCOMP* and Δ*EARVZ*) and one of the change in audit quality measures (Δ*BIGN)* are significant and in the predicted

direction for the total disclosure ratio change model (ΔDR_{TOT}) consistent with H1 and H2, respectively. The coefficient on the change in abnormal audit fee measure ($\Delta ABFEES$) is positive consistent with the prediction of H2, however, is not statistically significant. Further examination of the sample period 2001 to 2011 indicates that the coefficients on $\Delta ABFEES$ are all positive and significant for the years 2002 to 2007 and 2010 to 2011. It appears that during 2008 and 2009 abnormal audit fee changes are muting the effect for the entire sample period of 2001 to 2011. This is likely due to the economic recession that occurred from December 2007 to June 2009 as fees were declining and/or holding constant even though economic indicators would predict otherwise.[22]

When examining the individual financial statement ratios (columns 2 to 4), the total disclosure ratio change results are driven by the balance sheet ratio change model as the coefficients on the audit completeness and one of the audit quality ($\Delta BIGN$) measures are statistically significant and in the predicted direction consistent with H1 and H2.[23] However, the coefficients on the audit completeness and audit quality measures are not significant for the income statement disclosure change model and only one of the coefficients on the audit completeness measures ($\Delta AUDCOMP$) is statistically significant in the cash flow statement disclosure change model. Taken together the results suggest that increased completion (as compared to the prior year) of the audit at the EA release date and investments in higher quality

[22] According to the National Bureau of Economic Research, the recessionary period for the most recent economic recession was December 2007-June 2009 (see http://www.nber.org/cycles.html).

[23] In untabulated results, the change in abnormal audit fee measure is significant in the balance sheet change model for all years with the exception of 2008 and 2009. This is likely due to the effects of the economic recession from December 2007 to June 2009 (see http://www.nber.org/cycles.html).

audits (compare to the prior year) are associated with management increasing their overall EA GAAP disclosures, with the change in balance sheet disclosure being the main component. The results of the change analysis suggest that changes in EA GAAP disclosure details co-vary with changes in the audit completeness and audit quality measures reducing concerns about time invariant unobservable characteristics driving the results.[24]

[24] The change specification provides strong evidence supporting H1 and partial evidence supporting H2. However, the stickiness in disclosures over time and the different audit completeness and audit quality measures raises concerns over the power of the specification. In addition to the change specification to control for time invariant unobservable characteristics, I also consider firm fixed effects and lagged disclosure ratio analysis to control for potential endogeneity concerns. See Chapter 6 Section 6.2 for further discussion.

CHAPTER 5: IMPACT OF SOX REGULATION CHANGE

In Chapter 5, I examine the impact of SOX and PCAOB auditing standards No. 2 and 3 on the role of auditing in EA GAAP disclosure details. The chapter begins by discussing SOX related regulation changes, recent SOX-related literature and a discussion of possible impacts of the regulation on the role of auditing in EA GAAP disclosure details. Next, I perform additional multivariate analyses examining the pre/post-Section 404(b) period to examine whether the importance of audit completeness and/or audit quality changed during the post-404(b) period. Finally, I look at a subsample of firms that consistently issued EAs concurrent with or after the audit report date during the years 2001 to 2003 to see their immediate reaction to the exogenous shock of PCAOB AS2 and AS3 that significantly prolonged audit completion. I examine what types of firms chose to 1) remain "audited" (i.e. waiting until the completion of the audit to announce earnings); 2) switch to an "unaudited classification;" or 3) chose to issue the EA concurrent with the 10-K filing (i.e. no longer issue a preliminary earnings announcement).

5.1. Discussion of Regulation Change

Recent regulatory changes have the potential to change the role of auditing in management's EA GAAP disclosure decisions. Recent regulation may have increased the quality of internal governance systems reducing the need for external auditing, standardized the audit process reducing reputation/resource differences amongst audit firms, and prolonged the audit process resulting in more companies releasing the EA before audit completion.

Section 302 of SOX ("Corporate Responsibility for Financial Reports") requires the CEO and CFO to certify that the financial statements are presented fairly in all material respects.

Furthermore, Section 302 requires management to establish and maintain internal controls over the financial reporting process and certify/disclose the effectiveness (and weaknesses) of those controls in periodic filings. Furthermore, Section 404(a) requires management to issue a report over internal control effectiveness documenting any material weaknesses. Prior studies have found post-SOX that higher quality internal control systems and internal governance are associated with higher quality financial reports and are valued by market participants (Cohen et al., 2008; Ashbaugh et al., 2009; Dhaliwal et al., 2011). Increased responsibility for financial statements along with improvements in internal control systems may have increased the role of internal governance systems potentially having a substitutive effect by reducing the need for higher quality external audits.

SOX established the PCAOB as the oversight body for auditors of publicly-traded companies with the authority to set auditing standards for, and conduct periodic inspections of, audit firms that perform audits of issuers. The inspection process started in 2003 and involves an assessment of the quality control procedures of the audit firm along with inspections of selected audit engagements (PCAOB, 2004c). The focus of the PCAOB on quality control, audit work programs and individual engagement quality has the potential to standardize the audit process reducing quality and resource differences amongst public company audit firms. Consistent with this argument, recent studies have found little or no difference in accruals quality, analyst forecast properties, and market perception of audit quality between Big N and non-Big N audit firms during the post-regulation period (Boone et al., 2010; Chang et al., 2010; Hoag et al., 2013). Furthermore, DeFond and Lennox (2011) document that many lower quality audit firms elected to stop performing public company audits post-SOX due to the rigors of the PCAOB

inspection process with their former clients experiencing an increase in audit quality (measured by propensity to issue a going concern opinion).

Effective November 15, 2004, there were two regulations that had the effect of prolonging year-end audit fieldwork. SOX Section 404(b), implemented by AS2, required accelerated filers to undergo an audit of their internal controls over financial reporting, substantially increasing the scope of audit work and resulting in delayed completion of the audit (PCAOB, 2004a; Ettredge et al., 2006; Bronson et al. 2011).[25] AS3 provided new working paper documentation requirements that prior to the audit report date, the engagement team complete all necessary audit procedures, obtain sufficient evidence to support their opinion, and clear all review notes (i.e. after partner review) (PCAOB, 2004b).[26] Prior to AS2 and AS3, the majority of companies (70 to 78 percent) waited until audit completion[27] before releasing the EA (Givoly and Palmon, 1982; Bamber, Bamber and Schoderbek, 1993; Schwartz and Soo, 1996; Bronson et al. 2011). However, following these regulatory changes, there has been an increasing trend of companies issuing their EAs prior to the completion of audit field work, with

[25] Raghunandan and Rama (2006) document that audit fees were on average 86% higher from 2003 to 2004, the first year of SOX compliance. Further evidence suggests that audit firms were faced with capacity constraints due to the increased work resulting in audit firms rebalancing their client portfolios (Landsman et al. 2002; Hogan and Martin, 2009). This suggests that Section 404(b) significantly increased the efforts of audit firms indicating that increased time to conduct the year-end audit is likely.

[26] Though AS3 may have arbitrarily increased the audit report date even though the fieldwork could be completed at an earlier date, the additional documentation requirements have the potential to result in additional audit adjustments and subsequent events that would impact the financial statements reported in the 10-K.

[27] AU Section 530 paragraph 1 states "the auditor's report should not be dated earlier than the date on which the auditor has obtained sufficient appropriate audit evidence to support the opinion." This is commonly considered the end of audit fieldwork. Consistent with this definition, the academic literature has used the audit opinion sign-off date as a proxy for audit fieldwork completion.

approximately 80 percent of firms issuing their EA prior to audit completion starting in 2004 (Krishnan and Yang 2009; Bronson et al. 2011; Hollie et al. 2012). This suggests that management is no longer willing to wait until audit completion before releasing their EA.

Although regulation may have had the potential to reduce (or eliminate) the role of auditing in management's EA GAAP disclosure decisions, it is possible that the relationship did not change. Companies may respond by either investing more in a higher quality audit or by coordinating with their audit firm to ensure the audit is complete at the EA release date. Companies can invest more in a higher quality audit by providing more compensation to their auditor to perform additional control testing and interim procedures earlier in the year (as opposed to during year-end fieldwork) to increase their confidence that the financial statement balances will not change at the EA date even though the audit is not fully complete. Furthermore, companies can switch audit firms to one that possesses the desired reputation, resources, and expertise, but also has the ability to make them a priority in terms of audit fieldwork timing. Companies that are unable to invest more in a higher quality audit may respond by delaying their EA until the audit is complete to maintain their desired confidence level in the underlying financial statement balances.

5.2. Multivariate Analysis pre/post-Regulation

To evaluate whether the various regulations changed the relationship between audit completeness/quality and EA GAAP disclosure details, I re-estimate equation (1) by including an indicator variable (POST) that takes the value of 1 if the firm-year observation is during the period from November 15, 2004 to December 31, 2011 and 0 if the firm-year observation is during the period from January 1, 2001 to November 14, 2004. The effective date of November

15, 2004 for PCAOB AS2 and AS3 is used as the inflection point as these regulations resulted in longer audit report lags (Bronson et al., 2011). The *POST* variable is interacted with the audit completeness (*AUDCOMP* and *EARVZ*) and audit quality (*BIGN* and *ABFEES*) measures to capture the incremental effect of the regulation change on the relationship between the variables of interest and EA GAAP disclosure details.

Panel A of Table 11 presents the results of the pre-/post-regulation analysis. Consistent with the results reported in Table 9, the coefficients on the measures of audit completeness (*AUDCOMP* and *EARVZ*) and audit quality (*BIGN* and *ABFEES*) are statistically significant and in the predicted directions suggesting audit completeness and audit quality are key determinant of EA GAAP disclosure details in the pre-regulation period. The coefficient on the *POST* variable is positive and significant ($p<0.01$) for the total GAAP, income statement and balance sheet models indicating that firms are providing more EA GAAP disclosures during the post-regulation period. The coefficients on *AUDCOMP*POST* and *EARVZ*POST* are not significant in any of the models, indicating that audit completeness as a determinant of EA GAAP disclosure details has not changed pre-/post-regulation. The coefficient on *BIGN*POST* is negative and significant ($p<0.01$) in the total GAAP, income statement, and balance sheet models suggesting that engaging a Big 4 audit firm plays less of a role in the EA GAAP disclosure decisions of management; however, the sum of *BIGN* and *BIGN*POST* is still positive and significant. This result is consistent with other studies suggesting that quality/resource differences between the Big 4 and the non-Big 4 are lower post-SOX due to the standardizing effect of SOX and audit related regulations (Boone et al., 2010; Chang et al., 2010). However, the coefficient on *BIGN*POST* in the cash flow statement model is positive and significant indicating that companies that engage a Big N audit firm are providing marginally more cash

flow disclosures in the post-regulation period. The coefficients on *ABFEES*POST* are not statistically significant in any of the models, which suggests that excess audit fees as a determinant of EA GAAP disclosures has not changed pre-/post-regulation.

Panel B of Table 11 provides tests of the combined significance of the coefficients on the main and interaction variables for audit quality and audit completeness in order to determine if the same relationship holds in the post-regulation period (11/15/2004 to 12/31/2007). Consistent with the prediction of H1 the coefficients on *AUDCOMP* are positive and significant for the overall, balance sheet and cash flow models and the coefficient on *EARVZ* is negative and significant across all four ratio models. The coefficients on *BIGN* are positive and significant across all models and the coefficients on *ABFEES* are positive and significant for the overall, balance sheet and cash flow statement models.

The overall results suggest that audit completeness and audit quality continue to have a positive association with EA GAAP disclosure details during the post-regulation period. Consequently, changes in regulation that appear to have shifted the focus of the auditor away from the earnings announcement in terms of audit completion did not change the observed positive association between EA GAAP details and audit completeness and audit quality, respectively.

5.3. Changes in Earnings Announcement Timing following 2004 Regulations

I perform an additional analysis examining the reaction in 2004 to the exogenous shock of PCAOB AS2 and AS3 for the subset of firms (from the main sample of 23,134 observations) that issued their earnings announcements either concurrent with or after the audit report date for years 2001 to 2003. I examine this subsample because these are firms that seemingly placed

value on the audit being complete at the time of the earnings announcement prior to the regulation, and thus I am interested in the trade-offs made by these firms following the regulation. Of a total of 1,396 firms that meet this criteria: 494 (35%) issued a preliminary earnings release concurrent with or after the audit report date in 2004; 820 (59%) issued before the audit report date; and 82 (6%) chose to issue the earnings announcement concurrent with the 10-K. Below is further discussion of univariate comparisons of the three subgroups. I follow with logistic regression analysis comparing the different subgroups.

5.3.1. Univariate Comparisons

Table 12 presents the univariate comparisons of the subgroups during 2004, the first year PCAOB AS2 and AS3 was effective. The firms that elected to wait until the audit is complete before issuing the preliminary earnings announcement (i.e. audited) during 2004 are uniquely different from those firms that respond by issuing their EAs before the audit report date (i.e. unaudited). Specifically, audited firms, compared to unaudited firms, disclose less GAAP financial statement information (recall size is a key determinant of disclosure details and unaudited firms are significantly larger than audited firms), are less likely to be audited by a Big N audit firm, pay lower than expected audit fees, are more likely to change audit firms from 2003 to 2004, have lower market demands for supplemental GAAP disclosures, have more bad news in terms of operating performance, are less complex operationally, issue their earnings announcements later after year-end, experience little change in audit report date lags (both in the current and prior year), are more likely to be non-accelerated filers, and are smaller. Two key observations result from comparing audited vs. unaudited subgroups. The audited subgroup was more likely to experience an auditor turnover compared to the unaudited subgroup (7.9 percent vs. 3.2 percent) suggesting the audited subgroup selected an audit firm that would coordinate

completion in-line with their EA timing. Audit lags (i.e. number of days after year-end until the audit report is released) year-over-year for the audited group were 40.5 in 2003 compared to 42.8 in 2004, while the unaudited subgroup was 35.5 in 2003 compared to 64.7 in 2004. When comparing the audit quality measures between the subgroups, the unaudited group pays higher than expected audit fees and is more likely to engage a Big N audit firm. Consequently, this subgroup may compensate for less complete audits at the EA release date by having higher audit quality.

Comparisons between the audited subgroup and the subgroup of firms that chose to issue their EA concurrent with the 10-K (i.e. not issue preliminary earnings announcements) indicate that firms in the concurrent group, on average, have lower market information demands, are more likely to experience bad news in the reporting period, and are less complex operationally. However, there is no difference between the audited and concurrent subgroups in terms of auditor characteristics (*BIGN* and *ABFEES*) and current year auditor turnover. Comparisons between the unaudited and concurrent subgroups are mostly consistent with differences between the audited and unaudited subgroups.

In summary, it appears that the firms that chose to remain audited or issued the EA concurrent with the 10-K have lower audit quality characteristics in terms of being less likely to be audited by a Big N audit firm and paying lower than expected audit fees. Given audit quality characteristics are lower for this subgroup of firms, management will likely turn to an audit completeness strategy to increase their confidence in the GAAP financial statement details by waiting until the audit is complete (or closer to completion) and/or changing audit firms to coordinate with their EA timing. The unaudited subgroup appears to have greater market demands for timely disclosure and more detailed disclosure and appears to make a larger

investment in higher quality audits to compensate for issuing their EA before the audit is technically complete. Next I turn to logistic regression comparisons.

5.3.2. Logistic Regression Results

Below is the logistic model that I estimate where the dependent variable takes the value of 1 or 0 based on the respective comparison. All variables are as of 2004 with change variables being the difference between 2004 and 2003. Variable definitions can be found in the notes to Table 12 or Appendix B:

$$\underline{\textit{1/0 Indicator =}}\ \begin{matrix}\text{Aud vs. Unaud}\\ \text{Aud vs. Concur}\\ \text{Unaud vs. Concur}\end{matrix}\quad \beta_0 + \beta_1 DR_{TOTi} + \beta_2 \Delta EA\_LAG_i + \beta_3 \Delta AUSO\_LAG_i + \beta_4 \Delta ABFEES_i + \beta_5 AUD\_TURN_i + \beta_6 BIGN_i + \beta_7 SUPDISC_i + \beta_8 INFOENVT_i + \beta_9 LITRISK_i + \beta_{10} BADNEWS_i + \beta_{11} COMPLX_i + \beta_{12} INFOD_i + \beta_{13} NONACCEL_i + \beta_{14} LNASSETS_i + \textit{industry fixed effects} + \varepsilon_i \qquad (3)$$

ΔEA_LAG captures the change in earnings announcement timing year over year. I expect that the audited and concurrent filers are more likely to delay the EA to ensure more complete audits at the date of the release. *ΔAUSO_LAG* captures the change in audit report date lags (i.e. number of days after year end until the audit report date) year over year. I expect the unaudited subgroup experiences greater audit report days resulting in an increased likelihood that they release before the audit is complete. *ΔABFEES* is the change in abnormal audit fees year over year. I expect the unaudited subgroup to have a larger change in abnormal audit fees as they compensate for lower audit completeness by investing in higher audit quality. *AUD_TURN* takes the value of 1 if the audit firm is new in 2004 and 0 otherwise. I expect the audited and concurrent subgroups to be more likely to change audit firms compared to the unaudited subgroup to maintain a completeness strategy. *BIGN* takes the value of 1 if audited by a Big N audit firm and 0 otherwise. I expect the unaudited subgroup to more likely be audited by a Big N audit firm consistent with investing in higher audit quality to compensate for less complete audits. The

remaining control variables hold constant information demands, firm risk and other characteristics that might explain differences between the three subgroups examined.

Table 13 provides the results of the logistic regressions. In the audited vs. unaudited comparison, the results are generally consistent with the univariate comparison in Table 12. The coefficients on *ΔEA_LAG* and *ΔAUSO_LAG* are significantly positive and negative respectively. This is consistent with the audited subgroup responding to audit changes brought about by regulation by delaying their EA more than the unaudited subgroup and coordinating with their auditors to ensure audit completion occurs closer to the EA date. The audited subgroup is less likely to be audited by a Big N audit firm consistent with that subgroup receiving lower audit quality; however, there is no difference in the change in abnormal audit fees (*ΔABFEES*). However, in untabulated results that replace *ΔABFEES* with a measure of *ABFEES* in 2004 indicate that the unaudited subgroup pays more audit fees (than expected) to their audit firm than the audited subgroup consistent with greater emphasis on audit quality. EA GAAP disclosure details are not different between the two subgroups.

The results of the audited earnings announcement vs. the subgroup that issues the earnings announcement concurrent with the 10-K are generally consistent with the univariate comparisons of Table 12. Mostly, there are no differences between the subgroups with the exception of a negative and significant coefficient on *ΔEA_LAG*, which indicates the audited subgroup delayed their EA more than the concurrent subgroup. The results of the unaudited vs. concurrent subgroup comparisons indicate that the unaudited subgroup was more likely to delay the EA from 2003 to 2004, experienced lower litigation risk, and had more bad news holding all else equal.

5.4. Overall Summary of Results

In summary, the overall pooled results comparing the impact of audit completeness and audit quality on EA GAAP disclosure details pre/post-PCAOB AS2/AS3 as discussed in Chapter 5.2 suggest that the role of auditing in EA GAAP disclosures has not changed. However, an analysis of the subsample of firms that released the EA on or after audit completion during 2001 to 2003 suggests that firms made trade-offs in terms of audit quality and audit completeness in 2004, the first year of exogenous shock on audit report date completion. The results suggest that firms that invest more in audit quality are more likely to release their EA before audit completion, while those with lower audit quality are more likely to respond by focusing on an audit completion strategy via auditor turnover or waiting until audit completion.

CHAPTER 6: SUPPLEMENTAL ANALYSES

In Chapter 6, I perform several additional analyses to provide further perspective about the main findings reported in Chapter 4. All additional analyses are performed using the total disclosure ratio measure as the dependent variable (DR_{TOT}) as the focus of this study is on overall EA GAAP disclosure details. I begin by focusing on the interaction effect of audit completeness and audit quality. I next examine additional specifications to further rule out concerns about omitted correlated variable bias in the main model. I then examine the impact of firm size. I follow by examining alternative ways of measuring audit completeness. I then examine two different measures of audit quality commonly used in the literature, industry specialization and audit office size. I follow by providing a discussion of the main model including the 16 different disclosure variables from prior literature replacing the five factor scores used in the main analysis. I conclude by re-estimating the main models including those firm observations that either do not issue EAs or that issue the EA concurrent with the 10-K.

6.1. Interaction Effect of Audit Completeness and Audit Quality

In the main analysis reported in Chapter 4, measures of audit completeness and audit quality are included simultaneously in the model. Consequently, the results of audit completeness (audit quality) are interpreted holding constant audit quality (audit completeness). As an additional analysis, I perform specifications that include audit completeness and audit quality measures separately, as well as an interaction of audit completeness and audit quality to measure the incremental impact of higher audit completeness and audit quality on EA GAAP disclosure details. I re-estimate the levels version of equation (1) by first dropping the audit

quality measures (*BIGN* and *ABFEES*) and then dropping the audit completeness measures (*AUDCOMP* and *EARVZ*). To examine the interactive effect of audit completeness and audit quality I focus on the *AUDCOMP* measure alone and run separate specifications with either *BIGN* or *ABFEES* as the sole measure of audit quality.

Table 14 presents the results of the separate specifications for audit completeness, audit quality and the interaction effect of audit completeness and audit quality reported in columns (1), (2) and (3)/(4), respectively. In Column (1) I find positive (negative) significant coefficients on *AUDCOMP* (*EARVZ*) consistent with the predictions of H1 that more complete audits are associated with more detailed EA GAAP disclosures. In Column (2) I find positive and significant coefficients on *BIGN* and *ABFEES* consistent with the prediction of H2 that higher audit quality is associated with more detailed EA GAAP disclosures. In the two interaction specifications reported in columns (3) and (4) I find positive and significant coefficients on *AUDCOMP*BIGN* and *AUDCOMP*ABFEES*, respectively. This indicates that EA GAAP disclosure details are the highest when the audit is complete (or more complete) and the firm receives a higher quality audit. The coefficients on *BIGN* and *ABFEES* in columns (3) and (4) are positive and significant indicating that audit quality has an impact on EA GAAP disclosure details at lower levels of audit completeness. However, the coefficient on *AUDCOMP* is only significant in column (4) when audit quality is proxied by abnormal audit fees (*ABFEES*). The lack of significance on *AUDCOMP* in column (3) when audit quality is proxied by *BIGN* indicates that audit completeness is not explanatory of EA GAAP disclosure details in the non-Big N subset of firms.

In summary, both audit completeness and audit quality individually explain EA GAAP disclosure details consistent with the predictions of H1 and H2, respectively. The results of the

interaction analyses suggest that EA GAAP disclosures are the highest for firms that have more complete audits at the EA release date and engage a higher quality audit. However, it appears that audit completeness is less important for the subset of firms that engage a non-Big N audit firm, which can be interpreted as those companies valuing the overall audit process the least when it comes to EA GAAP disclosure details.

6.2. Analysis with Firm Fixed Effects and Lagged Disclosure Ratios

In the main analysis I perform a change specification (a.k.a first-differencing) (Table 10) to address concerns that company specific unobservable characteristics might be a correlated omitted variable in the levels results reported in Table 9. However, as disclosures, EA timing and audit characteristics are typically sticky over time. There is little variability in the variables included in the change specification (see Table 7 Panel B for descriptive statistics). As an additional sensitivity test, I perform a firm fixed effect specification by adapting equation (1) to include *indicator variables for each company* over the sample period. Both the changes and fixed effect specifications capture unobservable company characteristics that are held constant over the time period (Wooldridge, 2002). The firm fixed effect specification is a less powerful test compared to the change specification given the reduced degrees of freedom due to the additional indicator variables for each company (4,393 unique company indicator variables). Furthermore, firm fixed effects assume that the unobservable characteristics are constant over the sample period 2001 to 2011, whereas this assumption is not binding in the change specification (Wooldridge, 2002).

Column (1) of Table 15 reports the results of the fixed effects specification. Consistent with the main findings reported in Chapter 4, I continue to find support for H1 and H2 after

controlling for time invariant unobservable firm characteristics. Specifically, I find significantly positive and negative coefficients on *AUDCOMP* ($p<0.01$) and *EARVZ* ($p<0.10$), respectively, consistent with audit completeness having a positive association with EA GAAP disclosure details. For the audit quality measures I find a positive and significant coefficient on *BIGN* ($p<0.05$); however, the coefficient on *ABFEES* is not statistically significant. This provides mixed evidence regarding the prediction of H2 of a positive relationship between audit quality and EA GAAP disclosure details as the abnormal audit fee measure is sensitive to including firm fixed effects. It is also important to note that the statistically significant result on *BIGN* is present even after controlling for firm fixed effects as recent research suggests that *BIGN* measure is biased and is merely capturing client specific characteristics (Lawrence et al., 2011).

A recent stream of literature notes that management disclosure practices are sticky and consistent with prior years as managers have incentives to maintain their disclosure practices as any deviation from the standard practice will result in negative response from the market (i.e. higher cost of capital or market price protection) (Einhorn and Ziv, 2008; Tang, 2012). Specific to this point, Tang (2012) finds, using management forecasts as the setting, that many of the key determinants of disclosure documented in prior research are sensitive to the inclusion of prior year disclosures as an explanatory variable. Essentially, the key determinant of current year disclosures decisions is what was disclosed during the previous year. To rule out concerns that equation (1) is misidentified by excluding measures of prior year disclosure details, I re-estimate the model by including the total disclosure ratio from the prior year as an additional control variable (LAG_DR_{TOT}).

Column (2) of Table 15 presents the results of the lagged disclosure ratio analysis. I continue to find support for H1 and H2 after controlling for the EA GAAP lagged disclosure

ratio. Specifically, I find positive and negative significant coefficients on *AUDCOMP* ($p<0.01$) and *EARVZ* ($p<0.10$), respectively. I find a positive and significant coefficient on *ABFEES* ($p<0.01$); however, the coefficient on *BIGN* is not statistically significant. Consistent with the findings of Tang (2012), I find that the inclusion of the lagged disclosure ratio significantly increases the explanatory power of the model (adjusted R^2 of 0.58 vs. 0.19 in Table 9); however, the disclosure factor scores continue to be explanatory of EA GAAP disclosure details. Tang (2012) uses many of the individual variables that I use to construct the factor variables finding that they are no longer significant after controlling for prior period management forecast properties. This suggests that future researchers should consider using the factor score measures to capturing the underlying construct predicted to explain disclosure details. Furthermore, it suggests that the *BIGN* measure is sensitive to including the lagged disclosure ratio (LAG_DR_{TOT}). However, the change results reported in Chapter 4 and Table 10, which is similar in nature to including the lagged disclosure ratio, provide evidence that changes to (from) a Big N audit firm are associated with an increase (decrease) in total EA GAAP disclosure details year over year.

6.3. Additional Analysis to Examine the Effect of Firm Size

Equation (1) in the main analysis controls for firm size by including the natural log of market value of equity as one of the 16 variables that make up the five principle component factor measures (*INFOENVT*, *LITRISK*, *BADNEWS*, *COMPLX*, and *DFACT*) included in the model, as well as controlling for filer status (i.e. *ACCEL* and *LGACCEL*). However, given principle component factor analysis reduces the dimensionality of the 16 measures into unique factors, it is possible that the current model does not adequately control for the effect of firms

size potentially biasing the audit completeness and audit quality coefficients. To further address the concern about firm size, I include the natural log of total assets (*LNASSETS*) as an additional control variable to equation (1). I further re-estimate equation (1) (excluding *LNASSETS*) by filer status to evaluate whether the relationship between audit completeness, audit quality and EA GAAP disclosure details is different in the large accelerated (market capitalization greater than $700 million), accelerated (market capitalization between $75 million and $700 million), and non-accelerated (market capitalization less than $75 million) filer status groups.[28]

Table 16 Column (1) presents the results of the specification that includes *LNASSETS*. The results are consistent with the main findings reported in Table 9 and support the predictions of H1 and H2. Specifically, the coefficients on *AUDCOMP* and *EARVZ* continue to be significantly positive and negative, respectively, consistent with a positive association between more complete audits at the EA release date and more detailed EA GAAP disclosure details. Furthermore, the coefficients on *BIGN* and *ABFEES* continue to be positive and significant supporting a positive association between higher audit quality and more detailed EA GAAP disclosure details. Further analysis of this specification suggests that including *LNASSETS* in the model induces concerns about multicollinearity as the variance inflation factor score for *LNASSETS* is 33.83, well above the commonly accepted threshold of 10 (Belsley, Kuh and Welsch, 1980). This is caused by the fact that *LNASSETS* is highly correlated with the information environment (*INFO_ENVT*) and complexity (*COMPLX*) factor scores (untabulated positive significant correlations of 0.655 and 0.668, respectively), both of which load heavily on

[28] Large accelerated, accelerated and non-accelerated filer status is determined using Audit Analytics "Filer Status" variable for years 2004 to 2011. For year prior to 2004, and when Audit Analytics Filer Status variable is inclusive or missing, I use the market value of equity variable from Compustat to classify observations into large accelerated (greater than or equal to $700 million), accelerated (between $75 million and $700 million) and non-accelerated (less than or equal to $75 million) categories (Schroeder and Hogan, 2013).

the natural log of market value of equity (see Appendix D for further details). Consequently, it appears that the main model is adequately controlling for the effect of firm size (given the correlation results), and the results continue to hold when including an additional measure of size.

Table 16 Columns (2) to (4) present the results for the large accelerated, accelerated and non-accelerated filer subsamples. The results for the large accelerated and accelerated subsamples are consistent with the overall sample findings reported in Table 9, with positive and significant coefficients for *AUDCOMP, BIGN* and *ABFEES* and a negative and significant coefficient on *EARVZ*. The results for the non-accelerated filer subsample are consistent with Table 9 for *EARVZ, BIGN* and *ABFEES*; however, the coefficient on *AUDCOMP* is no longer statistically significant. The results as a whole continue to support the overall predictions of a positive relationship between audit completeness, audit quality and EA GAAP disclosure details. However, it does suggest that the proximity between the EA date and audit report date is not a key determinant of EA GAAP disclosure details for the non-accelerated filer subgroup. In untabulated results, it appears that the non-accelerated *AUDCOMP* finding is largely due to non-accelerated filers having little variation in the timing of their EAs as these firms are more likely to issue their EAs closer to audit completion.

In summary, the additional specifications to evaluate concerns of size yield results consistent with the main findings of Table 9. Consequently, it appears that equation (1) adequately controls for size and that the predictions of H1 and H2 continue to hold within the different filer status subgroups. However, it does appear that the proximity of the EA date to the audit report date is not informative of EA GAAP disclosure details for the non-accelerated filer subgroup.

6.4. Additional Analysis of Audit Completeness Construct

In the main analysis the proxy for audit completeness (*AUDCOMP*) is the difference between the earnings announcement release date and the audit report date. By construction the variable takes a negative (positive) value if the EA is released prior (subsequent) to the audit report date and the difference captures the relative distance between the corresponding dates with the largest values (instances where the EA is released many days after the audit report date) indicating the audit is most complete. The underlying assumption of this variable is that EAs issued many days after the audit report date are more complete than EAs issued on or slightly after the audit report date. This assumption accounts for the possibility that residual audit procedures and wrap-up still occurs even after the audit report date, which is deemed to be the completion of the audit (PCAOB 2004b). However, it is possible that the audit is technically complete as of the audit report date and subsequent days do not add any incremental value in terms of predicted relationship between audit completeness and EA GAAP disclosure details.

To address this concern I perform three additional specifications replacing the original *AUDCOMP* variable with three alternative measures. The first analysis measures the effect of additional days of completion separately for firms that issue EAs before or after the audit report date. I replace the *AUDCOMP* measure with two new variables. *AUDCOMP_PRE* is the difference between the EA date and the audit report date for firms that issue the EA before the audit report date and is zero for firms that issue the EA concurrent with or after the audit report date. *AUDCOMP_POST* is the difference between the EA date and the audit report date for firms that issue the EA after the audit report date and is zero for firms that issue the EA before or concurrent with the audit report date. The second analysis captures the absolute effect of audit completion on EA GAAP disclosure details by replacing the *AUDCOMP* variable with an

indicator variable that takes the value of 1 if the EA is issued concurrent with or after the audit report date and 0 if the EA is issued before the audit report date (*AUD_PR*). The final analysis modifies the *AUDCOMP* variable for firms that issue concurrent with or after the audit report date, by replacing the difference between the EA and audit report dates with the value of 0. Firms that issue before the EA release date (values are negative by design) continue to report the difference between the EA and audit report date.

Table 17 presents the results of the audit completeness alternative specifications. Column (1) presents the results of the specification that separately measures the relative days of completeness for those firms that issue before (*AUDCOMP_PRE*) or after (*AUDCOMP_POST*) the audit report date. The coefficient on *AUDCOMP_PRE* is positive and significant ($p<0.01$), while the coefficient on *AUDCOMP_POST* is not statistically significant. The results suggest that additional days of audit completeness are only important in instances where the EA is issued before audit completion; however, additional days after the audit report date (measure of completion of audit fieldwork) do not affect the GAAP financial statement details included in the EA. Column (2) presents the results of the specification that defines audit completeness with an indicator variable (AUD_PR) that takes the value of 1 if the EA is issued on or after the audit report date and 0 otherwise. The coefficient on *AUD_PR* is positive and marginally significant ($p<0.10$) suggesting that having complete assurance from the auditor (i.e. EA concurrent with or after audit report date) is associated with firms providing the most overall EA GAAP disclosure. Column (3) presents the alternative audit completeness measure that treats all EAs issued concurrent with or after the audit report date as having the same completeness level, with the relative difference in days for EAs issued before the audit report date. The coefficient on *AUDCOMP_ALT* is positive and significant ($p<0.01$) yielding continued support that waiting

until the audit report date before releasing the EA is associated with the most EA GAAP disclosure with each day closer to the audit report date resulting in an incremental increase in EA GAAP disclosure.

The three analyses taken together continue to support the main findings of a positive association between audit completeness and more detailed EA GAAP disclosures. The effect of completeness on EA GAAP disclosure is most pronounced when the EA is concurrent with or after the audit report date. Furthermore, each additional day of completion prior to the audit report date yields more detailed EA GAAP disclosures. Finally, it appears that additional days after the audit report date have no effect on EA GAAP disclosure details.

6.5. Additional Analysis of Audit Quality Construct

In the extant audit quality literature there are alternative measures available beyond auditor size (*BIGN*) and abnormal audit fees (*ABFEES*), which I use in the main analysis. In the following section I examine the impact of auditor industry specialization and auditor office size as alternative audit quality measures to determine if they demonstrate similar relationships with EA GAAP disclosure details consistent with the prediction of H2 (Francis, 2011).

6.5.1. Auditor Industry Specialization

The extant auditor industry specialization literature is based on the notion that as audit firms secure work within a particular industry, they in-turn acquire and invest in unique knowledge and technical expertise of the types of contracts, transactions and unique reporting requirements that prevail in the industry. Consequently, this unique expertise and industry specific investment will result in higher audit quality (Shockley and Holt, 1983; Craswell et al., 1995; Balsam et al., 2003; Behn et al., 2008; Reichelt and Wang, 2010). Consistent with this

conjecture, prior research has found industry specialist audit firms provide higher audit quality to their clients as evidenced by higher quality earnings properties (Reichelt and Wang, 2010) and disclosures (Dunn and Mayhew, 2004). I perform an additional specification by replacing the audit quality measures in equation (1) (*BIGN* and *ABFEES*) with measures of auditor industry expertise at the national and city level.

Consistent with Reichelt and Wang (2010)[29] I measure national (city) auditor industry expertise based on market share of audit fees[30] within a two-digit SIC category (two-digit SIC category within a particular city).[31] I use two definitions of national and city specialists. The first classifies an audit firm as a national (city) specialist audit firm if they are the industry (industry-city) leader and have a market share that is 10 percent greater than the second largest industry leader (Mayhew and Wilkins, 2003). The second definition classifies an audit firm as a national (city) specialist if their market share is greater than 30 percent (50 percent) in a two-digit SIC category (two-digit SIC category within a particular city). I re-estimate the models separately for the four different specialist classifications excluding the other measures of audit quality: *NATSPEC1*, *NATSPEC2*, *CITYSPEC1*, and *CITYSPEC2*. I then include the other two measures of audit quality (*BIGN* and *ABFEES*) to see if industry specialization continues to have an effect, holding constant auditor size and abnormal auditor effort.

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[29] The auditor specialist classification used in Reichelt and Wang (2010) is based on prior methodologies established in Ferguson, Francis and Stokes (2003), Hogan and Jeter (1999) and Francis, Reichelt and Wang (2005), which are papers that look at audit engagement pricing for specialist audit firms.

[30] Market shares of audit fees by two-digit SIC code are based on all available observations in Audit Analytics from 2001 to 2011. Market shares are calculated each year for auditor industry specialist classification.

[31] A city is defined as a Metropolitan Statistical Area (MSA) following Francis, Reichelt and Wang (2005).

Table 18 Panel A presents the results of the national industry specialist specification with *NATSPEC1* reported in columns (1) and (2) and *NATSPEC2* reported in columns (3) and (4). The coefficients on *NATSPEC1* and *NATSPEC2* are not statistically significant in either the specifications where the variables appear alone or the specification that includes the other two audit quality measures. The coefficients on *AUDCOMP* and *EARVZ* continue to be significantly positive and negative ($p<0.01$ for both) consistent with the prediction of H1. Furthermore, *BIGN* and *ABFEES* are positive and significant ($p<0.01$ for both) consistent with the prediction of H2 even after controlling for the national auditor specialization measures.

Table 18 Panel B presents the results of the city industry specialist specification with *CITYSPEC1* reported in columns (1) and (2) and *CITYSPEC2* reported in columns (3) and (4). The coefficient on *CITYSPEC1* is positive and significant in the specification that excludes the other audit quality measures; however, is no longer significant when *BIGN* and *ABFEES* are included in the model. The coefficient on *CITYSPEC2* is positive and significant ($p<0.01$ in Column (3) and $p<0.05$ in Column (4)) in both specifications that either exclude or include the other audit quality measures. Together, the results are consistent with the prediction of H2 suggesting that firms that engage a city industry specialist audit firm are associated with more detailed EA GAAP disclosure details. The coefficients on *AUDCOMP* and *EARVZ* continue to be significantly positive and negative ($p<0.01$ for both) consistent with the prediction of H1. Furthermore, *BIGN* and *ABFEES* are positive and significant ($p<0.01$ for both) consistent with the prediction of H2 even after controlling for the national auditor specialization measures.

In summary, I find that firms that engage a city specialist audit firm are associated with more detailed EA GAAP disclosures, and the effect continues to be significant after controlling for auditor size and excess compensation. This finding is consistent with H2 using an alternative

audit quality proxy measure. However, I note that national industry specialist audit firms do not have an impact on EA GAAP disclosure details. I do caution how one interprets these results as a recent study by Minutti-Meza (2013) finds that the traditional measures of national auditor industry specialization (i.e. Reichelt and Wang 2010) are potentially biased and capturing client specific characteristics. In light of the concerns raised by Minutti-Meza (2013) findings and the fact that the auditor size measure of quality (*BIGN*) continues to hold after controlling for firm fixed effects (see section? 6.2 above), which addresses concerns raised in Lawrence et al. (2011), I believe the measures for audit quality in the main model are accurately capturing the construct of audit quality.

6.5.2. Auditor Office Size

A recent study by Francis and Yu (2009) presents an alternative audit quality measure based on the prediction that larger audit offices will provide higher audit quality. The argument is that larger offices develop and invest in greater in-house expertise due to the more complex clients located in larger municipalities resulting in higher audit quality. To evaluate the effect of auditor office size in this setting, I modify equation (1) by replacing the audit quality measures with measures of auditor office size. Consistent with Francis and Yu (2009), I measure audit office size two ways. The first measure is the natural log of total public client audit fees for the unique audit office (*LNOFFICE_AF*) assigned in Audit Analytics. The second measure is the natural log of total public client audit and non-audit fees for the unique audit office (*LNOFFICE_TF*) assigned in Audit Analytics. Consistent with the prediction of H2, I expect larger audit offices to be associated with more detailed EA GAAP disclosures.

Table 19 presents the results of the auditor office specifications using the office total audit fees (columns (1) and (2)) and total audit/non-audit fees (columns (3) and (4)). Column (1) and (3) provide the results of the models that exclude the other two audit quality measures, while Columns (2) and (4) provide the results that include the other two audit quality measures. In the specifications that exclude the other two audit quality measures, I find marginal support for the predictions of H2 where audit quality is proxied by office size. Specifically, the coefficients on *LNOFFICE_AF* and *LNOFFICE_TF* are positive and marginally significant ($p<0.15$ two-tail and $p<0.10$ one-tail). However, holding constant auditor size and excess compensation, audit office size is no longer significant. The results taken together provide marginal evidence that audit office size is positively associated with firms providing more detailed EA GAAP disclosures.

6.6. Model Including Detailed Disclosure Controls as Opposed to Factor Scores

In the main analysis I collapse 16 variables commonly used in the disclosure literature into five principle component factor scores capturing the underlying constructs predicted to impact disclosure quality: information environment, litigation risk, bad news and complexity. However, this approach does not allow the reader to understand how each of the 16 variables individually impacts EA GAAP disclosure details. Table 20 reproduces the results of Table 9 replacing the factor scores with the 16 individual variables that make-up the factor scores. The results for the audit completeness and audit quality measures are consistent with what is reported in the main findings of Table 9. Specifically, more complete audits and higher quality audits are associated with more detailed overall EA GAAP disclosures, primarily driven by balance sheet and cash flow disclosures that are most likely impacted by the audit process. Many of the control variables are also consistent with the predicted relationships with prior disclosure

research, but many are not statistically significant. This is likely the artifact of multicollinearity concerns as many of the variables have VIF scores greater than 10 with the remaining above 5 (Belsley et al. 1980). The VIF scores for the specifications that include the disclosure factor scores raise lower concerns for multicollinearity as the VIFs are all below 10. Consequently, the main model discussed in Chapter 3 and results in Chapter 4 that use the factor scores are more appropriate. Tabulating the results is merely included in this dissertation to increase transparency.

6.7. Analysis Including EA Concurrent with 10-K Observations

In constructing the main sample used for the empirical analyses (23,134 firm-year observations), I exclude firms that either issue the EA concurrent with the 10-K or choose not to issue an EA. This represents anywhere from 22 to 35 percent of the population of firms that merge between Audit Analytics and Compustat (Li and Ramesh, 2009). These observations were excluded because the focus of this study is on the impact of audit completeness and audit quality on EA GAAP disclosure details for those firms that elect to issue an EA before the 10-K. However, I perform an additional analysis by including these observations in the main sample. This increases the sample size by 6,199 firm observations for the sample period 2001 to 2011 that issue the EA concurrent with the 10-K filing date (or the 10-K is the EA) and had information necessary to create the control variables included in equation (1). The issue with including these observations is what value should be provided for the disclosure ratios. Given the 10-K is available on the EA release date, I elect to classify these observations with a ratio value of 1 because the market has access to full set of financial statements on that day. However, I caution that this essentially adds 6,199 firm-year observations with full disclosure of GAAP

financial statements to the overall sample that are 1) 100 percent complete in terms of the audit, 2) do not experience earnings announcement revisions, 3) are more likely to be audited by non-Big N audit firms, and 4) have completely different audit pricing demands. Consequently, by including these fundamentally different types of firms it has the potential to impact the model coefficients by design. Nonetheless, I include the results in this dissertation for transparency purposes and to further evaluate the impact on the predictions of H1 and H2.

Table 21 provides the regression results with Column (1) providing the overall disclosure ratio as the dependent variable and columns (2) to (4) providing the results for the individual financial statements. The coefficients on *AUDCOMP* and *EARVZ* are significantly positive and negative ($p<0.01$), respectively, consistent with the prediction of H1 that more complete audits will be associated with more detailed EA GAAP disclosures. The t-statistics are considerably higher for this sample compared to the main sample, which is likely by design given firms that issue EAs concurrent with the 10-K are complete from an audit perspective and also are assigned a value of 1. The coefficient on *ABFEES* is positive and significant in the overall ($p<0.01$), balance sheet ($p<0.01$) and cash flow statement ratio ($p<0.10$) models supporting the prediction of H2 of a positive relationship between audit quality and EA GAAP disclosure details. However, the coefficient on *BIGN* is only positive and significant in the income statement disclosure ratio model. The results for *BIGN* are likely driven by added noise for including observations with concurrent EA and 10-K observations. These observations are smaller in nature and are more likely audited by non-Big N audit firms.

In summary, it appears that including firms that issue EAs concurrent with the 10-K yield similar results as the main findings reported in Chapter 4 and in Table 9. However, companies that issue the EA concurrent with the 10-K are fundamentally different in terms of their overall

disclosure strategies, investments in audit quality, and overall information environment. Given the focus of this dissertation is on those firms that elect to release the EA before the 10-K filing and how auditing impacts the quantity of GAAP disclosure contained within, the main analyses focus on this sample of companies.

CHAPTER 7: CONCLUDING REMARKS

This dissertation examines the role of the external auditor in management's EA GAAP disclosure decisions. The EA is a key financial statement disclosure that has been shown to be more informative to investors than the 10-K filing. Despite the importance of the EA to investors, there is no requirement specifying disclosure content or that the historical GAAP financial statement summary information is certified by the auditor. In fact, recent trends (post-SOX) indicate that the majority of EA disclosures are now issued before the completion of the audit suggesting that the auditor plays little or no role in this key disclosure. Prior research has focused primarily on the role of auditing in improving financial statement quality; however, there is relatively little research linking the external auditor to management disclosure decisions, especially in an EA setting. More complete audits at the EA release date, along with higher quality audits will increase the quality of the financial reporting system and the confidence management has in the underlying balances. In turn, this will increase management's willingness to provide more detailed income statement, balance sheet and cash flow statement disclosures in the EA, which has been shown to be informative to, and valued by, market participants. Using both levels and a changes specifications, I find results consistent with the hypotheses that more complete audits at the EA release date and higher quality audits are positively associated with more detailed EA GAAP disclosures. This suggests that auditing does play a role in management's EA disclosure strategy.

The results of this study should be of interest to academics and regulators. Future disclosure and audit quality studies should continue to explore the role of auditing in facilitating higher quality disclosures and in examining the effects of higher quality and more complete

audits on other key disclosure decisions. Furthermore, regulators should continue to evaluate the impact of recent regulation that has prolonged the year-end audit process and potentially shifted the focus of the auditor towards the 10-K filing at the expense of other key disclosures provided by management. The results of this study suggest that the external auditor plays an important role in earnings announcement disclosure decisions despite there being no formal audit requirement.

APPENDICES

APPENDIX A

EARNINGS ANNOUNCEMENT EXAMPLES

Hampshire Group 2003 Earnings Announcement GAAP Disclosure (CIK 887150; Announcement Date March 4, 2004; 2-digit SIC Code 22)

The below example is an earnings announcement that only provides limited summary income statement information (DR_{IS}=53 percent) and excludes balance sheet and cash flow statement details. This company had negative abnormal audit fees and issued the earnings announcement 22 days before the completion of year-end audit fieldwork (i.e. audit report date). This table/figure was reproduced exactly from the earnings announcement disclosure on the SEC direct edgar website.

TABLE 1
Hampshire Group, Limited
Comparative Summary of Earnings

(In thousands, except per share data

		December 31, 2003	December 31, 2002
Net sales		$292,651	$293,268
Net income from continuing operations		$11,423	$18,541
Net income		$5,627	$17,048
Net income per share from	Basic	$2.50	$3.94
	Diluted	$2.43	$3.84
Net income	Basic	$1.23	$3.62
	Diluted	$1.20	$3.53
Weighted average number of shares outstanding:	Basic	4,573	4,711
	Diluted	4,696	4,834

Note: Figure reproduced from Hampshire Group 2003 annual earnings announcement found on the SEC Edgar database (CIK 887150; Announcement Date March 4, 2004; 2-digit SIC Code 22).

Delta Woodside Industries 2003 Earnings Announcement GAAP Disclosure (CIK 806624; Announcement Date August 19, 2003; 2-digit SIC Code 22)

The below example is an earnings announcement that provides detailed income statement (DR_{IS}=95 percent), balance sheet (DR_{BS}=100 percent) and cash flow statement (DR_{CF}=85 percent) disclosures that are consistent with what is reported in the 10-K filing. This company engaged a Big 4 audit firm, had positive abnormal audit fees and issued the earnings announcement 25 days after the completion of year-end audit fieldwork (i.e. audit report date). This table/figure was reproduced exactly from the earnings announcement disclosure on the SEC direct edgar website.

TABLE 2
Delta Woodside Industries Inc.
Consolidated Statements of Operations

(In thousands, except per share data)

	3 months ended June 28, 2003	3 months ended June 29, 2002	12 months ended June 28, 2003	12 months ended June 29, 2002
Net sales	$48,672	$52,366	$177,193	$174,673
Cost of goods sold	43,783	46,767	160,234	165,267
Gross profit	4,889	5,599	16,959	9,406
SGA expenses	2,940	3,080	11,370	11,576
Impairment & Restructuring			398	8,683
Other income	46	390	582	480
Operating profit (loss)	1,995	2,909	5,773	(10,373)
Other (expense) income:				
Interest expense	(1,178)	(1,683)	(5,275)	(9,025)
Interest income		37		263
Gain on extinguish of debt	2,340	15,572	3,643	16,072
	1,162	13,926	(1,632)	7,310
Income (loss) before taxes	3,157	16,835	4,141	(3,063)
Income tax expense (benefit)	1,189	6,002	1,558	(958)
Net Income (loss)	$1,968	$10,833	$2,583	$(2,105)
Basic and diluted EPS	$0.34	$1.86	$0.44	$(0.36)
Weighted average shares os	5,862	5,829	5,862	5,831

Note: Figure reproduced using the earnings announcement disclosure per SEC Edgar

TABLE 3
Delta Woodside Industries Inc.
Consolidated Balance Sheets

(in thousands)	June 28, 2003	June 29, 2002
Assets		
Current Assets		
Cash and cash equivalents	$781	$314
Accounts receivable:		
Factor and other	44,628	49,980
Less Allowance for doubtful accounts and return	180	32
	44,448	49,948
Inventories		
Finished goods	7,711	7,085
Work in process	25,765	19,878
Raw materials and supplies	10,659	5,784
	44,135	32,747
Deferred income taxes	1,539	1,895
Other assets	519	19
Total current assets	91,422	84,923
Assets held for sale	3,948	3,141
Property Plan and Equipment at cost	157,400	159,597
Less accumulated depreciation	90,619	89,096
	66,781	70,501
Deferred loan costs and other assets	503	816
Deferred income taxes	5,660	6,499
	$168,314	$165,880
Liabilities and shareholders equity		
Current liabilities		
Trade accounts payable	$14,217	$11,675
Revolver	24,856	11,365
Accrued employee compensation	1,414	1,696
Accrued and sundry liabilities	10,303	10,798
Total current liabilities	50,790	35,534
Long-term debt	31,941	47,819
Deferred compensation	7,578	7,281
Shareholders' equity	59	58
Additional paid-in capital	86,369	86,694
Retained deficit	(8,923)	(11,506)
	$168,314	$165,880

Note: Figure reproduced using EA from SEC Direct Edgar database

TABLE 4
Delta Woodside Industries Inc.
Consolidated Statements of Cash Flows

(in thousands)	12 months ended June 28, 2003	12 months ended June 29, 2002
Operating Activities		
Net income (loss)	$2,583	($2,105)
Adjustments to reconcile net income (loss to net cash provided (used) by operating activities:		
Depreciation	8,979	9,174
Amortization	135	370
Decrease in deferred loan costs	175	541
Gain on early retirement of debt	(3,818)	(16,613)
Provision for impairment and restructuring	398	8,683
Gains on disposition of P&E	(433)	(356)
Change in deferred income taxes	1,195	(469)
Deferred compensation	297	673
Changes in operating assets and liabilities	(4,988)	54
Net cash provided (used) by operating activities	4,523	(48)
Investing Activities		
Property, plant and equipment:		
Purchases	(6,442)	(6,496)
Proceeds of dispositions	807	429
Net cash used by investing activities	(5,635)	(6,067)
Financing Activities		
Proceeds from revolving lines of credit	195,461	44,979
Repayments on revolving line of credit	(181,970)	(33,614)
Repurchase and retirement of long term D	(11,888)	(19,383)
Repurchase common stock	(24)	(44)
Net cash provided (used) by financing	1,579	(8,062)
Increase (decrease) in cash and cash equivalents	467	(14,177)
Cash and cash equivalents beg of year	314	14,491
Cash and cash equivalents end of period	$781	$314

Note: Figure reproduced using EA from SEC Direct Edgar database

APPENDIX B

VARIABLE DEFINITIONS

Variable	Definition
Dependent Variables	
DR_{TOT}	Sum of total non-missing financial statement items per Compustat Preliminary History divided by sum of total non-missing items per Compustat Unrestated Quarterly. A list of the financial statement items used in the calculation is provided in Appendix C.
DR_{IS}	Sum of total non-missing income statement items per Compustat Preliminary History divided by sum of total non-missing items per Compustat Unrestated Quarterly. A list of the financial statement items used in the calculation is provided in Appendix C.
DR_{BS}	Sum of total non-missing balance sheet items per Compustat Preliminary History divided by sum of total non-missing items per Compustat Unrestated Quarterly. A list of the financial statement items used in the calculation is provided in Appendix C.
DR_{CF}	Sum of total non-missing cash flow statement items per Compustat Preliminary History divided by sum of total non-missing items per Compustat Unrestated Quarterly. A list of the financial statement items used in the calculation is provided in Appendix C.
Independent Variables	
BIGN	An indicator variable equal to 1 if the firm is audited by a Big N audit firm, and 0 otherwise.
ABFEES	The residual from the following regression based on Hogan and Wilkins's (2008) scaled by the natural log of audit fees. $LOGFEE = \beta_1 LOGASSETS + \beta_2 LEVERAGE + \beta_3 ROA + \beta_4 GROWTH + \beta_5 LOSS + \beta_6 ARINV + \beta_7 MERGER + \beta_8 LNBSEG + \beta_9 FOREIGN + \beta_{10} GC + \beta_{11} BIGN + \beta_{12} INITIALAUD + \beta_{13} YE + \beta_{14} AUD\_LAG + \beta_{15} OP\_404b + \beta_{16} MW\_302$ + industry fixed effects + year fixed effects + ε *LOGFEE* = natural log of total audit fees; *LOGASSETS*= natural log total assets (AT); *LEVERAGE* = total liabilities (LT) divided by total assets (AT); *ROA* = net income before extraordinary items (IB) divided by average total assets (AT); *GROWTH* = current year assets less prior year assets divided by prior year assets; *LOSS* = An indicator variable equal to 1 if income before extraordinary items is negative (IB), and 0 otherwise; *ARINV* = accounts receivable (RECT) plus inventory (INVT) divided by total assets (AT); *MERGER* = An indicator variable equal to 1 if firms are involved in a

	merger, and 0 otherwise; *LNBSEG* = natural log of the total number of business segments; *FOREIGN* = An indicator variable equal to 1 if firm reports foreign currency adjustment (FCA), and 0 otherwise; *GC* = An indicator variable equal to 1 if auditor issues a going concern opinion, and 0 otherwise; *BIGN* = An indicator variable equal to 1 if audited by a Big 4 audit firm, and 0 otherwise; *INITIALAUD* = An indicator variable equal to 1 if first year of auditor/client relationship, and 0 otherwise; *YE* = An indicator variable equal to 1 if client fiscal year ends December 31, and 0 otherwise; *AUD_LAG* = number of days between financial statement period end and the audit report date; *OP_404b* = An indicator variable equal to 1 if client receives a 404b opinion, and 0 otherwise; *MW_302* = An indicator variable equal to 1 if client reports a section 302 internal control weakness, and 0 otherwise; *Industry fixed effects* = Indicator variables for each 2-digit SIC code classification *Year fixed effects* = Indicator variables for the year of the observation
AUD_PR	An indicator variable equal to 1 if the earnings announcement is issued on or after the audit-opinion sign-off date, and 0 otherwise.
AUDCOMP	The number of days between the earnings announcement date and the audit report sign-off date.
EARVZ	An indicator variable equal to 1 if the net income balance reported in the current period earnings announcement is different than the net income balance reported in the 10-K filing, 0 otherwise. Data is hand verified by comparing Preliminary History and Unrestated Quarterly.
Control Variables (Also see Appendix D and Table 22)	
EA_LAG	Number of days between the fiscal year end and the earnings announcement date (RDQ – DATADATE).
SUPDISCDMD	Sum of six indicator variables: 1) HIGHTECH, 1 for firms with SIC codes 2833-2836 (Drugs), 8731-8734 (R&D services), 7371-7379 (programming), 3570-3577 (computers), 3600-3674 (electronics), or 3810-3845 (precise measurement instruments), and 0 otherwise; 2) LOSS, 1 if earnings before extraordinary items (IB) is negative for the year, and 0 otherwise; 3) ABSFE, 1 if the absolute value of expectation error (defined as reported EPS minus most recent consensus mean analysts' forecast for I/B/E/S firms or seasonally adjusted change in EPS if non-I/B/E/S firms) is greater than $0.01 during the current year, and 0 otherwise; 4) MERGER,

	1 if the firm engages in M&A activities during the current year, and 0 otherwise; 5) STDRET, 1 if the standard deviation of stock returns measured over the previous 250 days (at least 100 days of stock returns required) is above the median, and 0 otherwise; and 6) AGE, 1 if the firm's age (from the first day reported in Compustat to the current period) is below the 2-digit SIC industry median, and 0 otherwise.
LNMVE	Natural log of market value of equity (CSHO * PRCC_F).
ANALYST_FOLL	Number of analysts following the company on the I/B/E/S database during the current year, and 0 if not on the I/B/E/S database.
ANALYST_COVG	An indicator variable equal to 1 if the firm is followed by analysts on the I/B/E/S database during the current year and 0 otherwise.
SHAREHOLDER	Natural log of the total number of common shareholders (CSHR).
INSTHOLD	Percentage of shares held by institutions obtained from the Thomson Reuters 13-F database.
ROA	Income before extraordinary items (IB) divided by total assets (AT).
OCF	Total operating cash flows (OANCF) divided by total assets (AT).
UE_NEG	An indicator variable equal to 1 if income before extraordinary items (IB) for the current year is less than income before extraordinary items during the previous year (IB at time t-1) and 0 otherwise.
LOSS	An indicator variable equal to 1 if income before extraordinary items (IB) is less than 0 for the current year, and 0 otherwise.
SPECITM	An indicator variable equal to 1 if there is a special item disclosure in Compustat with a value (SPI), and 0 otherwise.
LIT	An indicator variable equal to 1 if the company is in a high litigation risk industry as defined in Francis et al. (1994) and 0 otherwise. High litigation risk industries are defined as firms with SIC codes in the following industries: 2833-2836 (biotechnology); 3570-3577 and 7370-7374 (computers); 3600-3674 (electronics); and 5200-5961 (retailing).
VOLUME	Total number of shares traded over the year (from CRSP) divided by outstanding shares at the end of the year (CSHO).
STDRET	Standard deviation of stock returns (from CRSP) measured over the previous 250 days (a minimum of 100 days of stock returns is required).

LNBSEG	Natural log of the number of business segments reported in Compustat's Segment File.
MBR	Market value / net book value [(CSHO*PRCC_F)/(AT-LT)].
MKTCONC	Herfindahl Index calculated for each 2-digit SIC code using Compustat observations.
ACCEL	An indicator variable equal to 1 if Audit Analytics identifies as an accelerated filer, and 0 otherwise. If data are missing in Audit Analytics, I calculate market capitalization from Compustat (CSHO*PRCC_F) classifying those firms with market capitalization between $75 million to $700 million as 1 and 0 otherwise.
LGACCEL	An indicator variable equal to 1 if Audit Analytics identifies as a large accelerated filer, and 0 otherwise. If data are missing in Audit Analytics, I calculate market capitalization from Compustat (CSHO*PRCC_F) classifying those firms with market capitalization greater than or equal to $700 million as 1 and 0 otherwise.
Industry FE	Indicator variables for the 2-digit SIC codes
Year FE	Indicator variables for each year in the sample
Compustat data items are in parentheses.	

APPENDIX C

DISCLOSURE RATIO CALCULATION

The disclosure ratios from D'Souza et al. (2010) are based on a total of 84 data items that are collected by Compustat: 23 from the income statement, 28 from the balance sheet, and 33 from the cash flow statement. The numerator of the ratio is the sum of the number of non-missing items in the Compustat Preliminary History Quarterly Database. The denominator is the sum of the number of non-missing items recorded in the Compustat Unrestated Quarterly Database (also found in Compustat Point-in-Time Database) from the initial 10-Q or 10-K filings. The table below lists the data items for each financial statement.

Variable Name	Preliminary History Quarterly	Unrestated Quarterly
Income Statement		
Selling, General and Administrative Expenses	XSGAQ_P	XSGAQR
Sales (Net)	SALEQ_P	SALEQR
Minority Interest (Income Account)	MIIQ_P	MIIQR
R&D Expense	XRDQ_P	XRDQR
Depreciation and Amortization	DPQ_P	DPQR
Income Taxes – Total	TXTQ_P	TXTQR
Income Before Etraordinary Items	IBQ_P	IBQR
Income Before EI – Adjusted from CSE	IBADJQ_P	IBADJQR
Operating Income Before Depreciation	OIBDPQ_P	OIBDPQR
Interest Expense	XINTQ_P	XINTQR
Pretax Income	PIQ_P	PIQR
Dividends – Preferred	DVPQ_P	DVPQR
Income Before EI – Avail for Common	IBCOMQ_P	IBCOMQR
EI and Discontinued Operations	XIDOQ_P	XIDOQR
Cost of Goods Sold	COGSQ_P	COGSQR
Non-operating Income (Expense)	NOPIQ_P	NOPIQR
Special Items	SPIQ_P	SPIQR
Discontinued Operations	DOQ_P	DOQR
Deferred Taxes (Income Account)	TXDIQ_P	TXDIQR
Net Income (Loss)	NIQ_P	NIQR
Accounting Changes – Cum. Effect	ACCHGQ_P	ACCHGQR
Extraordinary Items	XIQ_P	XIQR
Common Stock Equiv – Dollar Savings	CSTKEQ_P	CSTKEQR
Balance Sheet		
Cash and Short-Term Investments	CHEQ_P	CHEQR
Receivables – Total	RECTQ_P	RECTQR
Inventories – Total	INVTQ_P	INVTQR

Balance Sheet (Continued)		
Current Assets – Other	ACOQ_P	ACOQR
Current Assets – Total	ACTQ_P	ACTQR
Depreciation, Depletion & Amortization (Accum)	DPACTQ_P	DPACTQR
Property, Plant & Equip – Total (Net)	PPENTQ_P	PPENTQR
Assets – Other	AOQ_P	AOQR
Assets – Total	ATQ_P	ATQR
Debt in Current Liabilities	DLCQ_P	DLCQR
Accounts Payable	APQ_P	APQR
Income Taxes Payable	TXPQ_P	TXPQR
Current Liabilities – Other	LCOQ_P	LCOQR
Current Liabilities – Total	LCTQ_P	LCTQR
Liabilities – Other	LOQ_P	LOQR
Long-Term Debt – Total	DLTTQ_P	DLTTQR
Deferred Taxes & Inv Tax Credits	TXDITCQ_P	TXDITCQR
Minority Interest	MIBQ_P	MIBQR
Liabilities – Total	LTQ_P	LTQR
Preferred Stock – Carrying Value	PSTKQ_P	PSTKQR
Common Stock	CSTKQ_P	CSTKQR
Capital Surplus	CAPSQ_P	CAPSQR
Retained Earnings	REQ_P	REQR
Common Equity – Total	CEQQ_P	CEQQR
Stockholders' Equity – Total	SEQQ_P	SEQQR
Preferred Stock – Redeemable	PSTKRQ_P	PSTKRQR
Treasury Stock – Total Dollar Amount	TSTKQ_P	TSTKQR
Property, Plant & Equipment – Total (Gross)	PPEGTQ_P	PPEGTQR
Statement of Cash Flows		
Cash and Cash Equiv – Inc (Dec) (SCF)	CHECHQ_P	CHECHQR
Changes in Current Debt (SCF)	DLCCHQ_P	DLCCHQR
Income Before EI (SCF)	IBCQ_P	IBCQR
Depreciation and Amortization (SCF)	DPCQ_P	DPCQR
EI and Discontinued Operations (SCF)	XIDOCQ_P	XIDOCQR
Deferred Taxes (SCF)	TXDCQ_P	TXDCQR
Equity in Net Loss (Earnings) (SCF)	ESUBCQ_P	ESUBCQR
Funds from Operations – Other (SCF)	FOPOQ_P	FOPOQR
Sale of Property, Plant & Equipment (SCF)	SSPEQ_P	SSPEQR
Sale of Common & Preferred Stock (SCF)	SSTKQ_P	SSTKQR
Sale of Investments (SCF)	SIVQ_P	SIVQR
Long-Term Debt – Issuance (SCF)	DLTISQ_P	DLTISQR
Cash Dividends (SCF)	DVQ_P	DVQR
Capital Expenditures (SCF)	CAPXQ_P	CAPXQR
Increase in Investments (SCF)	IVCHQ_P	IVCHQR
Long-Term Debt – Reduction (SCF)	DLTRQ_P	DLTRQR
Purchase of Com & Preferred Stock (SCF)	PRSTKCQ_P	PRSTKCQR
Acquisitions (SCF)	AQCQ_P	AQCQR

Statement of Cash Flows (Continued)		
Sale of PP&E & Sale of Investment (SCF)	SPPIVQ_P	SPPIVQR
Accounts Receivable – Dec (Inc) (SCF)	RECCHQ_P	RECCHQR
Inventory – Dec (Inc) (SCF)	INVCHQ_P	INVCHQR
Acct Payable & Accrued Liability (SCF)	APALCHQ_P	APALCHQR
Income Tax – Accrued – Inc (Dec) (SCF)	TXACHQ_P	TXACHQR
Assets and Liabilities – Other (NC) (SCF)	AOLOCHQ_P	AOLOCHQR
Operating Activities – Net CF (SCF)	OANCFQ_P	OANCFQR
Short-Term Investment – Change (SCF)	IVSTCHQ_P	IVSTCHQR
Investing Activities – Other (SCF)	IVACOQ_P	IVACOQR
Investing Activities – Net CF (SCF)	IVNCFQ_P	IVNCFQR
Financing Activities – Other (SCF)	FIAOQ_P	FIAOQR
Financing Activities – Net CF (SCF)	FINCFQ_P	FINCFQR
Exchange Rate Effect – (SCF)	EXREQ_P	EXREQR
Interest Paid – Net (SCF)	INTPNQ_P	INTPNQR
Income Taxes Paid (SCF)	TXPDQ_P	TXPDQR

APPENDIX D

FACTOR ANALYSIS FOR CONTROL VARIABLES

As discussed in Chapter 3, I use principle component factor analysis to reduce the dimensionality of the 16 disclosure measures used in prior studies. The results are presented in Table 22. I use 23,134 observations from 2001 to 2011 for the multivariate levels regression analysis to conduct the factor analysis (see Table 5). Consistent with D'Souza et al. (2010) I use promax oblique rotation to allow the extracted factors to be correlated, which is consistent with the relationships of the underlying constructs (i.e., bad news is likely correlated with litigation risk). I retain factors based on the Scree test, as well as the proportion of variance explained by the factors (Cattell and Vogelman 1977). I identify five factors that explain a combined 69.75% of the total variation in the 16 disclosure measures.

The first factor, which I label Information Environment (*INFOENVT*), loads positively on variables capturing market demand for information: market value of equity (*LNMVE*), number of analysts following the firm (*ANALYST_FOLL*), whether the firm is followed by analysts (*ANALYST_COVG*), and the proportion of shares held by institutional investors (*INSTHOLD*).

The second factor, which I label Litigation Risk (*LITRISK*), loads positively on variables capturing whether the firm is in a high litigation risk industry (*LIT*), has high trading volume during the year (*VOLUME*), and has high stock return volatility during the year (*STDRET*) and negatively on market concentration (*MKTCONC*). Prior research suggests that class action law suits are more likely for firms with greater trading volume and price volatility, providing the necessary stock price decline after unfavorable news to make the case there was a material misrepresentation that resulted in damages to the investor (Kasznik and Lev 1995; Johnson et al. 2001; Alexander 1991; Lang and Lundholm 1993).

The third factor, which I label Bad News (*BADNEWS*) loads positively on measures capturing whether the firm experienced a net loss during the current year (*LOSS*) and missed

earnings expectations (*UE_NEG*). It also loads negatively on measures of return on assets and operating cash flows. Prior literature associates *LOSS* and *UE_NEG* with short-term bad news, which may cause firms to delay or limit the content of their earnings announcement. *ROA* and *OCF* are measures of long-term growth prospects that are associated with increased disclosures (Lang and Lundholm 1993).

The fourth factor, which is labeled Complexity (*COMPLX*) loads positively on measures of size (*LNMVE*), number of shareholders (*SHAREHOLDER*), and complexity (*LNBSEG*), which appears to capture information demand and complexity. The fifth factor (*INFOD*) loads positively on an indicator for special items (*SPECITM*) and negatively on the market-to-book ratio (*MBR*), which has been used as a measure of disclosure complexity, information environment and proprietary cost.

The measure for proprietary cost (*MKTCONC*) loads negative in the Litigation Risk factor consistent with the factor loadings in D'Souza et al. (2010), but does not appear to have a definitive separate factor capturing the construct of proprietary cost. D'Souza et al. (2010) points out that proprietary costs may be less important for firms that have already made the decision to issue an earnings announcement as most proprietary cost models measure the decision to disclose their private information conditional on potential costs associated with competitors and other third party groups.

APPENDIX E

TABLES

TABLE 5
Sample Selection

Audit Analytics Opinion File firm years from 2001 to 2011	183,434
Less: Foreign and Canadian observations	(16,345)
Less: Duplicate observations (amended filings, auditor changes)	(1,722)
Less: Observations missing audit fees from Audit Analytics Fee File	(4,984)
Less: Observations not found in Compustat	(93,678)
Less: Observations with SIC codes between 6000 and 6999	(14,433)
Less: Missing Compustat EA date, EA pre year-end, or EA post file date	(1,285)
Less: Delayed 10-K filings (i.e. filed greater than 105 days per Audit Analytics)	(8,336)
Less: EA filed concurrently with or was 10-K filing	(12,015)
Observations available for analysis of EA trends	30,636
Less: Missing CRSP data	(1,488)
Less: Missing Compustat data to create variables	(3,222)
Sample used for 2001 to 2011 levels regression analysis	23,134
Less: Observations not available for the change analysis	(5,357)
Sample used for 2002 to 2011 change regression analysis	17,777

TABLE 6
Descriptive Earnings Announcement Disclosure Trends

Panel A: Earnings announcement disclosure trends in relation to audit completion (Sample = 30,636)

	2001		2002		2003		2004		2005		2006	
	Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
EA on or After ARD	2,430	72%	2,343	71%	1,859	60%	923	32%	562	20%	429	15%
EA issued before audit report date	968	29%	956	29%	1,230	40%	1,996	68%	2,314	80%	2,363	85%
Total	3,398		3,299		3,089		2,919		2,876		2,792	

	2007		2008		2009		2010		2011	
	Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
EA on or After ARD	314	12%	298	12%	167	7%	116	5%	106	5%
EA issued before audit report date	2,354	88%	2,222	88%	2,289	93%	2,235	95%	2,162	95%
Total	2,668		2,520		2,456		2,351		2,268	

	2001		2002		2003		2004		2005		2006	
	Mean	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**
EA lag	43.6	42.0	44.2	42.0	43.7	42.0	45.6	44.0	47.4	46.0	48.2	46.0
Audit report date lag	46.4	43.0	47.7	43.0	49.0	48.0	60.4	66.0	64.6	67.0	65.2	66.0
10-K file lag	83.1	87.0	81.8	86.0	76.1	75.0	76.1	75.0	72.4	74.0	69.9	72.0
Diff between EA lag and ARD lag	-2.8	1.0	-3.5	1.0	-5.4	0	-14.8	-15.0	-17.2	-18.0	-17.0	-17.5

	2007		2008		2009		2010		2011	
	Mean	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**
EA lag	48.5	46.0	48.0	47.0	47.8	47.0	46.8	46.0	47.0	46.0
Audit report date lag	64.9	60.0	63.6	61.0	63.6	60.0	62.8	60.0	62.6	60.0
10-K file lag	67.4	65.0	65.6	61.0	64.3	60.0	63.2	60.0	62.9	60.0
Diff between EA lag and ARD lag	-16.3	-16.0	-15.7	-15.0	-15.8	-15.0	-15.9	-15.0	-15.6	-14.0

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TABLE 6 (cont'd)

Panel B: Earnings announcement disclosure ratio trends (Sample = 23,134)

	2001		2002		2003		2004		2005		2006	
	Mean	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**
DR_{TOT}	0.44	0.46	0.48	0.48	0.52	0.50	0.55	0.52	0.56	0.53	0.57	0.54
DR_{IS}	0.84	0.86	0.84	0.86	0.86	0.86	0.86	0.87	0.87	0.87	0.87	0.87
DR_{BS}	0.53	0.64	0.58	0.71	0.62	0.75	0.64	0.79	0.65	0.78	0.66	0.79
DR_{CF}	0.07	0.00	0.13	0.00	0.19	0.00	0.23	0.00	0.26	0.00	0.27	0.00

	2007		2008		2009		2010		2011	
	Mean	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**	**Mean**	**Med.**
DR_{TOT}	0.59	0.54	0.61	0.55	0.63	0.56	0.64	0.57	0.65	0.58
DR_{IS}	0.88	0.87	0.88	0.87	0.88	0.87	0.89	0.90	0.89	0.91
DR_{BS}	0.67	0.79	0.70	0.79	0.71	0.81	0.71	0.82	0.72	0.82
DR_{CF}	0.30	0.00	0.34	0.00	0.37	0.03	0.39	0.04	0.40	0.06

Note: The above table provides descriptive earnings announcement disclosure trends separated by year. Panel A is based on the broader sample of 21,067 company-year observations (see Table 5) to understand the trend of earnings announcement release dates in proximity to the completion of the year-end audit. Panel B is based on the sample of observations available to perform the multivariate analysis in Table 9 and provides the disclosure ratio trends over time.

TABLE 7
Descriptive Statistics Main Sample

Panel A: Descriptive Statistics for Levels Regression (n=23,134)

Variables	Mean	25%	Median	75%	SD
DR_{TOT}	0.561	0.398	0.526	0.772	0.231
DR_{IS}	0.868	0.826	0.870	0.952	0.093
DR_{BS}	0.651	0.444	0.786	0.926	0.317
DR_{CF}	0.261	0.000	0.000	0.767	0.403
AUD_PR	0.283	0.000	0.000	1.000	0.450
AUDCOMP	-13.15	-26.000	-12.000	0.000	16.734
EARVZ	0.038	0.000	0.000	0.000	0.192
BIGN	0.834	1.000	1.000	1.000	0.372
ABFEES	-0.001	-0.025	0.000	0.024	0.038
SUPDISC	2.766	2.000	3.000	3.000	1.032
INFOENVT	0.020	-0.686	0.210	0.784	1.005
LITRISK	0.020	-0.685	-0.057	0.686	0.999
BADNEWS	-0.010	-0.671	-0.329	0.572	1.005
COMPLX	-0.029	-0.718	-0.156	0.565	0.974
DFACT	-0.006	-0.657	0.036	0.636	1.005
EA_LAG	45.380	33.000	44.000	56.000	16.036
ACCEL	0.416	0.000	0.000	1.000	0.493
LGACCEL	0.398	0.000	0.000	1.000	0.489

Panel B: Descriptive Statistics for Change Regression (n=17,777)

Variables	Mean	25%	Median	75%	SD
ΔDR_{TOT}	0.019	-0.012	0.000	0.024	0.115
ΔDR_{IS}	0.006	0.000	0.000	0.008	0.071
ΔDR_{BS}	0.019	0.000	0.000	0.036	0.166
ΔDR_{CF}	0.030	0.000	0.000	0.000	0.203
Δ*AUDCOMP*	-1.738	-6.000	0.000	4.000	14.414
Δ*EARVZ*	0.002	0.000	0.000	0.000	0.257
Δ*BIGN*	-0.013	0.000	0.000	0.000	0.134
Δ*ABFEES*	-0.001	-0.012	-0.001	0.010	0.023
Δ*SUPDISC*	-0.042	-1.000	0.000	0.000	0.896
Δ*INFOENVT*	0.080	-0.075	0.051	0.185	0.344

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TABLE 7 (cont'd)

Variables	Mean	25%	Median	75%	SD
Δ*LITRISK*	-0.000	-0.253	0.003	0.242	0.468
Δ*BADNEWS*	-0.047	-0.417	-0.027	0.374	0.717
Δ*COMPLX*	0.011	-0.180	0.018	0.208	0.369
Δ*DFACT*	-0.003	-0.610	-0.007	0.575	1.112
Δ*EA_LAG*	0.834	0.000	0.000	4.000	7.333
Δ*ACCEL*	-0.013	0.000	0.000	0.000	0.390
Δ*LGACCEL*	0.014	0.000	0.000	0.000	0.286

Note: The above table provides descriptive statistics for the dependent, independent and control variables used in the levels analysis. All variables are defined in Appendix B. The change variables presented in Panel B are the difference between current year and prior year values for the respective variables.

TABLE 8
Correlation Matrix for Main Analysis

Sample Size = 23,134

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	DR_{TOT}									
(2)	DR_{IS}	0.470								
(3)	DR_{BS}	0.761	0.300							
(4)	DR_{CF}	0.883	0.329	0.382						
(5)	*AUDCOMP*	-0.138	-0.092	-0.110	-0.112					
(6)	*EARVZ*	-0.010	-0.010	-0.003	-0.012	-0.148				
(7)	*BIGN*	0.084	0.089	0.026	0.089	-0.110	0.015			
(8)	*ABFEES*	0062	0.021	0.061	0.046	-0.007	0.039	-0.010		
(9)	*SUPDISC*	-0.004	0.004	0.067	-0.057	-0.040	0.038	0.062	0.017	
(10)	*INFOENVT*	0.251	0.183	0.120	0.257	-0.249	-0.002	0.321	-0.001	-0.073
(11)	*LITRISK*	0.062	0.029	0.131	-0.008	-0.077	0.037	0.072	0.038	0.246
(12)	*BADNEWS*	-0.127	-0.054	-0.013	-0.173	0.105	0.038	-0.067	0.040	0.383
(13)	*COMPLX*	0.110	0.010	-0.035	0.184	-0.132	0.011	0.226	0.054	-0.112
(14)	*DFACT*	0.031	0.038	0.035	0.014	-0.006	0.047	0.035	0.008	0.073
(15)	*EA_LAG*	-0.158	-0.054	-0.121	-0.140	0.473	-0.060	-0.323	0.012	-0.010
(16)	*ACCEL*	-0.039	0.027	0.040	-0.090	0.013	0.011	-0.020	-0.043	0.058
(17)	*LGACCEL*	0.182	0.091	0.022	0.239	-0.170	-0.009	0.298	0.037	-0.068
(18)	*POST*	0.217	0.153	0.134	0.203	-0.370	0.021	-0.141	0.057	-0.025

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TABLE 8 (cont'd)

Sample Size = 23,134

		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(10)	*INFOENVT*								
(11)	*LITRISK*	0.031							
(12)	*BADNEWS*	-0.326	0.165						
(13)	*COMPLX*	0.294	0.068	-0.273					
(14)	*DFACT*	-0.010	-0.014	0.179	-0.102				
(15)	*EA_LAG*	-0.399	-0.166	0.219	-0.342	0.022			
(16)	*ACCEL*	-0.104	-0.070	0.132	-0.284	0.018	0.118		
(17)	*LGACCEL*	0.567	0.102	-0.357	0.564	-0.080	-0.406	-0.686	
(18)	*POST*	0.256	-0.022	-0.098	0.035	-0.020	0.103	-0.020	0.122

Note: The above table provides Pearson correlations with all non-bolded values being significant at the 0.05 level (two-tail p-values) Variables are defined in Appendix B.

TABLE 9
OLS Levels Regression (2001 to 2011)

Variables	Pred. Sign	DR_{TOT} (1) Coef. (t-stat)		DR_{IS} (2) Coef. (t-stat)		DR_{BS} (3) Coef. (t-stat)		DR_{CF} (4) Coef. (t-stat)	
Intercept		0.6458	***	0.8562	***	0.7820	***	0.3745	***
		(37.16)		(121.18)		(30.03)		(12.85)	
AUDCOMP	+	0.0006	***	-0.0000		0.0006	***	0.0010	***
		(4.53)		(-0.30)		(3.17)		(4.41)	
EARVZ	-	-0.0266	***	-0.0090	***	-0.0366	***	-0.0303	**
		(-3.35)		(-2.64)		(-3.33)		(-2.14)	
BIGN	+	0.0261	***	0.0141	***	0.0225	*	0.0367	***
		(3.29)		(4.07)		(1.96)		(2.62)	
ABFEES	+	0.2939	***	0.0457	*	0.4318	***	0.3418	***
		(4.14)		(1.65)		(4.36)		(2.82)	
SUPDISC	+	0.0062	**	0.0041	***	0.0050		0.0082	*
		(2.41)		(4.17)		(1.40)		(1.79)	
INFOENVT	+	0.0180	***	0.0079	***	0.0168	***	0.0261	***
		(4.59)		(5.40)		(3.12)		(3.83)	
LITRISK	+/-	0.0088	**	0.0019		0.0307	***	-0.0063	
		(2.35)		(1.37)		(6.03)		(-0.94)	
BADNEWS	+/-	-0.0033		0.0011		0.0061		-0.0154	***
		(-1.35)		(1.01)		(1.58)		(-3.84)	
COMPLX	+/-	0.0032		-0.0053	***	-0.0226	***	0.0314	***
		(0.79)		(-3.88)		(-4.05)		(4.36)	
DFACT	+/-	0.0065	***	0.0027	***	0.0070	**	0.0081	**
		(3.12)		(3.39)		(2.38)		(2.24)	
EA_LAG	-	-0.0014	***	-0.0001		-0.0022	***	-0.0016	***
		(-6.61)		(-1.32)		(-6.75)		(-4.58)	
ACCEL	+/-	0.0295	***	0.0155	***	0.0365	***	0.0311	***
		(4.13)		(4.59)		(3.35)		(2.62)	
LGACCEL	+/-	0.0441	***	0.0143	***	0.0109		0.0924	***
		(4.00)		(3.09)		(0.68)		(4.95)	
Year FE		Yes		Yes		Yes		Yes	
Industry FE		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adj. R^2		0.191		0.116		0.155		0.180	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Variable definitions can be found in Appendix B.

TABLE 10
OLS Change Regression (2002 to 2011)

Variables	Pred. Sign	ΔDR_{TOT} (1) Coef. (t-stat)		ΔDR_{IS} (2) Coef. (t-stat)		ΔDR_{BS} (3) Coef. (t-stat)		ΔDR_{CF} (4) Coef. (t-stat)	
Intercept		0.0060	***	0.0031	***	0.0099	***	0.0041	
		(3.24)		(2.48)		(3.45)		(1.24)	
Δ***AUDCOMP***	+	0.0003	***	0.0000		0.0003	***	0.0004	***
		(3.52)		(0.24)		(3.16)		(2.62)	
Δ***EARVZ***	+	-0.0079	**	-0.0016		-0.0133	**	-0.0064	
		(-2.01)		(-0.62)		(-2.08)		(-0.99)	
Δ***BIGN***	+	0.0134	*	0.0058		0.0175	*	0.0151	
		(1.88)		(1.40)		(1.79)		(1.24)	
Δ***ABFEES***	-	0.0447		0.0187		0.0803		0.0183	
		(1.10)		(0.69)		(1.29)		(0.25)	
Δ*SUPDISC*	+	-0.0020	*	-0.0000		-0.0029	*	-0.0027	
		(-1.75)		(-0.06)		(-1.80)		(-1.34)	
Δ*INFOENVT*	+	0.0055	**	0.0019		0.0085	**	0.0051	
		(2.20)		(1.17)		(2.07)		(1.17)	
Δ*LITRISK*	+/-	0.0029		0.0027	**	0.0002		0.0052	
		(1.47)		(2.11)		(0.06)		(1.47)	
Δ*BADNEWS*	+/-	-0.0005		0.0009		-0.0013		-0.0003	
		(-0.33)		(0.93)		(-0.62)		(-0.11)	
Δ*COMPLX*	+/-	-0.0027		-0.0004		-0.0051		-0.0023	
		(-1.02)		(-0.26)		(-1.22)		(-0.46)	
Δ*DFACT*	+/-	-0.0006		-0.0009	*	-0.0005		-0.0006	
		(-0.65)		(-1.71)		(-0.36)		(-0.32)	
Δ*EA_LAG*	-	-0.0001		0.0001		0.0001		-0.0003	
		(-0.17)		(0.95)		(0.55)		(-1.09)	
Δ*ACCEL*	+/-	0.0030		0.0016		0.0052		0.0021	
		(0.93)		(0.76)		(1.03)		(0.37)	
Δ*LGACCEL*	+/-	0.0091	*	0.0036		0.0044		0.0170	*
		(1.87)		(1.18)		(0.61)		(1.93)	
Year FE		Yes		Yes		Yes		Yes	
Industry FE		Yes		Yes		Yes		Yes	
Observations		17,777		17,777		17,777		17,777	
Adj. R^2		0.020		0.007		0.016		0.014	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Variable definitions can be found in Appendix B. The change iteration is the difference between the current year and prior year variable values.

TABLE 11
Multivariate Analysis Examining SOX and Audit Regulation Change (2001 to 2011)

Panel A: Multivariate Model with Post-Regulation Interaction Variables

Variables	Pred. Sign	DR_{TOT} (1) Coef. (t-stat)		DR_{IS} (2) Coef. (t-stat)		DR_{BS} (3) Coef. (t-stat)		DR_{CF} (4) Coef. (t-stat)	
Intercept		0.6116	***	0.8255	***	0.7046	***	0.3768	***
		(30.75)		(86.38)		(22.54)		(11.71)	
AUDCOMP	+	0.0005	***	-0.0000		0.0005	**	0.0009	***
		(3.61)		(-0.04)		(2.22)		(3.82)	
EARVZ	-	-0.0252	*	-0.0103		-0.0367	*	-0.0262	
		(-1.92)		(-1.45)		(-1.71)		(-1.29)	
BIGN	+	0.0542	***	0.0352	***	0.1170	***	0.0094	
		(5.23)		(5.19)		(6.20)		(0.67)	
ABFEES	+	0.2540	***	0.0707	*	0.3451	***	0.2919	***
		(3.59)		(1.90)		(3.02)		(2.66)	
POST	+	0.0468	***	0.0373	***	0.1052	***	0.0007	
		(3.51)		(5.04)		(5.07)		(0.03)	
AUDCOMP*POST	+/-	0.0003		0.0001		0.0004		0.0003	
		(1.22)		(0.56)		(1.25)		(0.78)	
EARVZ*POST	+/-	-0.0008		0.0025		0.0028		-0.0057	
		(-0.05)		(0.32)		(0.11)		(-0.22)	
BIGN*POST	+/-	-0.0349	***	-0.0261	***	-0.1183	***	0.0343	**
		(-3.11)		(-3.95)		(-6.37)		(1.99)	
ABFEES*POST	+/-	0.0703		-0.0415		0.1738		0.0663	
		(0.73)		(-1.02)		(1.25)		(0.40)	
SUPDISC	+	0.0061	**	0.0040	***	0.0048		0.0082	*
		(2.39)		(4.15)		(1.37)		(1.78)	
INFOENVT	+	0.0179	***	0.0079	***	0.0166	***	0.0259	***
		(4.56)		(5.38)		(3.08)		(3.80)	
LITRISK	+/-	0.0091	**	0.0021		0.0313	***	-0.0063	
		(2.41)		(1.49)		(6.14)		(-0.95)	
BADNEWS	+/-	-0.0037		0.0009		0.0051		-0.0155	***
		(-1.52)		(0.79)		(1.33)		(-3.83)	
COMPLX	+/-	0.0033		-0.0053	***	-0.0224	***	0.0314	***
		(0.81)		(-3.86)		(-4.01)		(4.35)	
DFACT	+/-	0.0066	***	0.0027	***	0.0072	**	0.0081	**
		(3.14)		(3.45)		(2.43)		(2.22)	
EA_LAG	-	-0.0015	***	-0.0001		-0.0022	***	-0.0017	***
		(-6.88)		(-1.51)		(-6.77)		(-4.90)	

(Table Continued on Next Page)

TABLE 11 (cont'd)

Variables	Pred. Sign	DR_{TOT} (1) Coef. (t-stat)		DR_{IS} (2) Coef. (t-stat)		DR_{BS} (3) Coef. (t-stat)		DR_{CF} (4) Coef. (t-stat)	
ACCEL	+/-	0.0282	***	0.0149	***	0.0335	***	0.0311	***
		(3.95)		(4.38)		(3.06)		(2.62)	
LGACCEL	+/-	0.0429	***	0.0137	***	0.0095		0.0911	***
		(3.91)		(2.96)		(0.60)		(4.90)	
Year FE		Yes		Yes		Yes		Yes	
Industry FE		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adj. R-Square		0.191		0.118		0.159		0.180	

Panel B: F-test of Main and Interaction Coefficient (Post-Regulation Effect)

Variables	Pred. Sign	DR_{TOT} (1) Sum Coef (F-Stat)		DR_{IS} (2) Sum Coef (F-Stat)		DR_{BS} (3) Sum Coef (F-Stat)		DR_{CF} (4) Sum Coef (F-Stat)	
AUDCOMP	+	0.0008	***	0.0001		0.0009	***	0.0012	***
		(11.55)		(0.21)		(6.28)		(10.58)	
EARVZ	-	-0.0260	***	-0.0078	**	-0.0339	***	-0.0319	*
		(5.31)		(3.10)		(5.02)		(2.34)	
BIGN	+	0.0193	***	0.0091	***	-0.0013	***	0.0437	**
		(13.83)		(14.07)		(22.02)		(3.80)	
ABFEES	+	0.3243	***	0.0291		0.5189	***	0.3582	**
		(9.25)		(1.86)		(10.30)		(4.42)	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Variable definitions can be found in Appendix B. I separate my sample using the effective date of AS2 and AS3 as of November 15, 2004. The pre-regulation (post-regulation) period is 1/1/2001 to 11/14/2004 (11/15/2004 to 12/31/2011).

TABLE 12
Univariate Comparisons of 2004 Response to PCAOB AS2 and AS3 for 2001 to 2003 Audited Firms

	Mean Values			Difference in Means (p-values)					
Variables	**Remained Audited**	**Became Unaudited**	**Concurrent With 10-K**	**Audited vs. Unaudited**		**Audited vs. Concurrent 10-K**		**Unaudited vs. Concurrent 10-K**	
DR_{TOT}	0.507	0.559		0.000	***				
AUDCOMP	6.462	-23.526		0.000	***				
EARVZ	0.000	0.038		0.029	**				
BIGN	0.721	0.927	0.671	0.000	***	0.375		0.000	***
ABFEES	-0.010	-0.002	-0.010	0.001	***	0.864		0.079	*
ΔABFEES	-0.004	-0.003	-0.006	0.545		0.666		0.515	
AUD_TURN	0.079	0.032	0.073	0.001	***	0.854		0.164	
SUPDISC	2.536	2.715	2.695	0.001	***	0.198		0.871	
INFOENVT	-0.410	0.148	-0.825	0.000	***	0.000	***	0.000	***
LITRISK	-0.054	-0.037	-0.091	0.751		0.784		0.680	
BADNEWS	-0.166	-0.260	0.337	0.059	*	0.001	***	0.000	***
COMPLX	-0.039	0.170	-0.233	0.000	***	0.031	**	0.000	***
DFACT	-0.359	-0.307	-0.135	0.304		0.069	*	0.154	
EA_LAG	49.277	41.210	77.720	0.000	***	0.000	***	0.000	***
EA_LAG_PY	48.164	39.730	63.780	0.000	***	0.000	***	0.000	***
ΔEA_LAG	1.445	1.872	13.866	0.385		0.000	***	0.000	***
AUSO_LAG	42.816	64.735	66.402	0.000	***	0.000	***	0.347	
AUDSO_LAG_PY	40.468	35.546	53.366	0.000	***	0.000	***	0.000	***
ΔAUSO_LAG	2.348	29.189	13.037	0.000	***	0.000	***	0.000	***

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TABLE 12 (cont'd)

	Mean Values			Difference in Means (p-values)		
Variables	**Remained Audited**	**Became Unaudited**	**Concurrent With 10-K**	**Audited vs. Unaudited**	**Audited vs. Concurrent 10-K**	**Unaudited vs. Concurrent 10-K**
NONACCEL	0.312	0.068	0.402	0.000 ***	0.123	0.000 ***
LNASSETS	5.205	6.236	4.511	0.000 ***	0.001 ***	0.000 ***
Sample Size	494	820	82			

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests, using a t-test for comparison of mean values for continuous variables and a χ^2 test for comparison of dichotomous variables. The above analysis is for firm observations that released their earnings announcements concurrent with or after the audit report date during the years 2001 to 2003. The analysis compares the firms that responded in 2004 by continuing to release the earnings announcement on or after the audit report date, issued the earnings announcement before the audit report date, or chose to issue the earnings announcement concurrent with the 10-K. *AUD_TURN* is an indicator variable that takes the value of 1 if the company engages a new audit firm in 2004 and 0 otherwise. All other variable definitions can be found in Appendix B. Change variables (marked with a Δ) are the difference between the 2004 and 2003 variable values. Variables marked with a "PY" represent the respective variable value during 2003.

TABLE 13
Logistic Results of 2004 Response to PCAOB AS2 and AS3 for 2001 to 2003 Audited Firms

	Audited vs. Unaudited		Audited vs. Concurrent with 10-K		Unaudited vs. Concurrent with 10-K	
Variables	**Coef. (z-stat)**		**Coef. (z-stat)**		**Coef. (z-stat)**	
Intercept	4.1542	***	1.6913		-0.4227	
	(3.02)		(1.35)		(-0.26)	
DR_{TOT}	-0.4763					
	(-1.04)					
Δ*EA_LAG*	0.2411	***	-0.0863	***	0.2659	***
	(10.55)		(-4.45)		(6.48)	
Δ*AUSO_LAG*	-0.2878	***	-0.0110		-0.2034	***
	(-13.31)		(-0.67)		(-6.15)	
Δ*ABFEES*	-4.7564		-1.7888		-5.3014	
	(-1.07)		(-0.26)		(-0.79)	
AUD_TURN	-0.5890		0.9468		-0.7887	
	(-0.72)		(1.26)		(-0.96)	
BIGN	-1.2141	**	0.2386		-0.6390	
	(-2.45)		(0.66)		(-0.97)	
SUPDISC	-0.1593		-0.1654		-0.0254	
	(-1.29)		(-0.95)		(-0.13)	
INFOENVT	0.1588		0.2522		-0.3212	
	(1.02)		(1.30)		(-1.22)	
LITRISK	-0.0483		0.0191		-0.5118	**
	(-0.31)		(0.10)		(-2.01)	
BADNEWS	0.3963	*	-0.1252		0.5138	**
	(1.69)		(-0.74)		(2.02)	
COMPLX	0.0388		-0.1692		0.0393	
	(0.20)		(-0.58)		(0.14)	
DFACT	-0.1987		-0.0837		-0.1165	
	(-1.25)		(-0.52)		(-0.46)	
NONACCEL	1.4265	***	0.3917		0.3112	
	(2.83)		(1.04)		(0.50)	
LNASSETS	-0.1808		0.2614		-0.4603	**
	(-1.48)		(1.60)		(-2.32)	
Industry Fixed Effects	Yes		Yes		Yes	
Sample Size	1,314		576		902	
Pseudo R^2	0.709		0.238		0.642	
ROC Curve	0.976		0.824		0.969	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Variables found in Appendix B and Table 12.

TABLE 14
OLS Regression Analysis of Audit Completeness and Audit Quality Interaction

Variables	Pred. Sign	(1) Coef. (t-stat)		(2) Coef. (t-stat)		(3) Coef. (t-stat)		(4) Coef. (t-stat)	
Intercept		0.6624	***	0.6173	***	0.6386	***	0.6617	***
		(41.41)		(36.51)		(58.41)		(63.40)	
AUDCOMP	+	0.0007	***			0.0001		0.0007	***
		(5.06)				(0.72)		(6.48)	
EARVZ	-	-0.0230	***						
		(-2.96)							
BIGN	+			0.0251	***	0.0324	***		
				(3.15)		(6.98)			
ABFEES	+			0.2900	***			0.3278	***
				(4.08)				(7.67)	
AUDCOMP*BIGN	+					0.0006	***		
						(3.22)			
AUDCOMP*ABFEES	+/-							0.0034	*
								(1.76)	
SUPDISC	+	0.0071	***	0.0057	**	0.0060	***	0.0068	***
		(2.83)		(2.20)		(3.83)		(4.36)	
INFOENVT	+	0.0196	***	0.0184	***	0.0180	***	0.0196	***
		(5.22)		(4.71)		(8.76)		(9.68)	
LITRISK	+/-	0.0088	**	0.0091	**	0.0100	***	0.0088	***
		(2.40)		(2.41)		(4.94)		(4.45)	
BADNEWS	+/-	-0.0017		-0.0037		-0.0027	*	-0.003	*
		(-0.72)		(-1.51)		(-1.71)		(-1.87)	
COMPLX	+/-	0.0041		0.0033		0.0043	**	0.0036	*
		(1.03)		(0.80)		(2.21)		(1.87)	
DFACT	+/-	0.0072	***	0.0061	***	0.0063	***	0.0068	***
		(3.52)		(2.89)		(4.24)		(4.57)	
EA_LAG	-	-0.0015	***	-0.0010	***	-0.0014	***	-0.001	***
		(-7.14)		(-4.94)		(-11.1)		(-12.2)	
ACCEL	+/-	0.0333	***	0.0301	***	0.0287	***	0.034	***
		(4.74)		(4.21)		(6.58)		(7.95)	
LGACCEL	+/-	0.0510	***	0.0466	***	0.0449	***	0.0512	***
		(4.74)		(4.21)		(7.01)		(8.09)	
Year and Industry FE		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adjusted R^2		0.172		0.189		0.188		0.189	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Dependent variable is DR_{TOT}. Variable definitions can be found in Appendix B. The Audit Completeness Construct is proxied solely by *AUDCOMP* for purposes of the interaction analysis.

TABLE 15
OLS Levels Regression with Firm Fixed Effects and Lagged Disclosure Ratio

Variables	Pred. Sign	(1) With Firm Fixed Effects Coef. (t-stat)		(2) With Lagged Disc. Ratio Coef. (t-stat)	
Intercept		0.6214	***	0.2331	***
		(43.05)		(21.08)	
AUDCOMP	+	0.0003	***	0.0005	***
		(2.84)		(5.71)	
EARVZ	-	-0.0102	*	-0.0147	***
		(-1.90)		(-2.71)	
BIGN	+	0.0158	**	0.0004	
		(1.98)		(0.10)	
ABFEES	+	-0.0183		0.1997	***
		(-0.33)		(5.31)	
SUPDISC	+	-0.0016		0.0002	
		(-0.95)		(0.13)	
INFOENVT	+	0.0128	***	0.0034	*
		(3.55)		(1.68)	
LITRISK	+/-	-0.0016		0.0102	***
		(-0.59)		(5.14)	
BADNEWS	+/-	-0.0030	*	-0.0006	
		(-1.65)		(-0.38)	
COMPLX	+/-	-0.0000		0.0020	
		(-0.01)		(1.01)	
DFACT	+/-	-0.0000		0.0037	***
		(-0.03)		(2.81)	
EA_LAG	-	-0.0002		0.0004	***
		(-0.83)		(3.27)	
ACCEL	+/-	0.0101	**	0.0182	***
		(2.04)		(4.37)	
LGACCEL	+/-	0.0099		0.0300	***
		(1.34)		(4.88)	
LAG_DR_{TOT}	+			0.6225	***
				(75.41)	
Firm Fixed Effects		Yes		No	
Year & Industry Fixed Effects		Yes		Yes	
Observations		23,134		23,134	
Adj. R-Square		0.760		0.580	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Dependent variable is DR_{TOT}. LAG_DR_{TOT} is the total disclosure ratio from prior year. All other variable definitions can be found in Appendix B.

TABLE 16
Analysis to Further Control for Size and Examine Effects by SEC Filer Status

Variables	Pred. Sign	(1) Additional Control for Size Coef. (t-stat)		(2) LG Accel. Filer Coef. (t-stat)		(3) Accelerated Filer Coef. (t-stat)		(4) Non-Accel. Filer Coef. (t-stat)	
Intercept		0.6193	***	0.7031	***	0.6880	***	0.6020	***
		(23.92)		(31.50)		(44.28)		(27.89)	
AUDCOMP	+	0.0006	***	0.0012	***	0.0007	***	0.0001	
		(4.55)		(5.69)		(4.44)		(0.55)	
EARVZ	-	-0.0267	***	-0.0251	**	-0.0195	*	-0.0381	**
		(-3.37)		(-2.02)		(-1.86)		(-2.35)	
BIGN	+	0.0241	***	0.0475	***	0.0114	*	0.0151	**
		(2.97)		(3.25)		(1.93)		(2.27)	
ABFEES	+	0.2895	***	0.1436	**	0.3245	***	0.2636	***
		(4.09)		(2.16)		(5.87)		(3.40)	
SUPDISC	+	0.0058	**	-0.0004		0.0079	***	0.0150	***
		(2.26)		(-0.15)		(3.50)		(4.28)	
INFOENVT	+	0.0158	***	0.0057	*	0.0221	***	0.0324	***
		(3.77)		(1.66)		(7.20)		(6.23)	
LITRISK	+/-	0.0092	**	0.0052		0.0108	***	0.0158	***
		(2.45)		(1.60)		(3.50)		(3.11)	
BADNEWS	+/-	-0.0025		-0.0123	***	-0.0108	***	0.0074	***
		(-1.01)		(-2.97)		(-4.97)		(2.64)	
COMPLX	+/-	-0.0005		0.0081	***	-0.0012		-0.0021	
		(-0.10)		(2.92)		(-0.36)		(-0.39)	
DFACT	+/-	0.0053	***	0.0034		0.0079	***	0.0111	***
		(2.41)		(1.26)		(3.72)		(3.17)	
EA_LAG	-	-0.0014	***	-0.0015	***	-0.0016	***	-0.0009	***
		(-6.39)		(-5.75)		(-8.93)		(-4.56)	

(Table Continued on Next Page)

TABLE 16 (cont'd)

Variables	Pred. Sign	(1) Additional Control for Size Coef. (t-stat)		(2) LG Accel. Filer Coef. (t-stat)	(3) Accelerated Filer Coef. (t-stat)	(4) Non-Accel. Filer Coef. (t-stat)
ACCEL	+/-	0.0261	***			
		(3.53)				
LGACCEL	+/-	0.0355				
		(2.98)	***			
LNASSETS	+	0.0053				
		(1.45)				
Year Fixed Effects		Yes		Yes	Yes	Yes
Industry Fixed Effects		Yes		Yes	Yes	Yes
Observations		23,134		9,198	9,635	4,301
Adj. R^2		0.191		0.180	0.164	0.182

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Dependent variable is DR_{TOT}. *LNASSETS* is the natural log of total assets. All other variable definitions can be found in Appendix B. Columns (2) to (4) examines large accelerated (market cap greater than $700 million), accelerated (market cap between $75 and $700 million) and non-accelerated (market cap less than or equal to $75 million) filer subsamples, respectively.

TABLE 17
Alternative Specifications of Audit Completeness Measure

		(1) AUDCOMP Split pre/post-Audit Report Date		(2) AUDCOMP replaced with 1/0 Indicator Variable		(3) Alt. Specification of AUCOMP Variable	
Variables	**Pred. Sign**	**Coef. (t-stat)**		**Coef. (t-stat)**		**Coef. (t-stat)**	
Intercept		0.6499	***	0.6201	***	0.6498	***
		(37.44)		(62.76)		(37.35)	
AUDCOMP_PRE	+	0.0007	***				
		(4.51)					
AUDCOMP_POST	+	0.0000					
		(0.03)					
AUD_PR	+			0.0070	*		
				(1.83)			
AUDCOMP_ALT	+					0.0007	***
						(4.61)	
EARVZ	-	-0.0261	***	-0.0310	***	-0.0261	***
		(-3.28)		(-4.29)		(-3.28)	
BIGN	+	0.0255	***	0.0257	***	0.0255	***
		(3.19)		(6.10)		(3.21)	
ABFEES	+	0.2918	***	0.2949	***	0.2918	***
		(4.11)		(8.08)		(4.11)	
SUPDISC	+	0.0062	**	0.0059	***	0.0062	**
		(2.41)		(3.77)		(2.41)	
INFOENVT	+	0.0179	***	0.0184	***	0.0179	***
		(4.55)		(8.99)		(4.55)	
LITRISK	+/-	0.0090	**	0.0091	***	0.0090	**
		(2.39)		(4.57)		(2.39)	
BADNEWS	+/-	-0.0033		-0.0034	**	-0.0033	
		(-1.34)		(-2.16)		(-1.34)	
COMPLX	+/-	0.0032		0.0034	*	0.0032	
		(0.78)		(1.76)		(0.78)	
DFACT	+/-	0.0064	***	0.0064	***	0.0064	***
		(3.07)		(4.29)		(3.08)	
EA_LAG	-	-0.0014	***	-0.0011	***	-0.0014	***
		(-6.72)		(-10.03)		(-6.79)	

(Table Continued on Next Page)

TABLE 17 (cont'd)

Variables	Pred. Sign	(1) AUDCOMP Split pre/post-Audit Report Date Coef. (t-stat)		(2) AUDCOMP replaced with 1/0 Indicator Variable Coef. (t-stat)		(3) Alt. Specification of AUCOMP Variable Coef. (t-stat)	
ACCEL	+/-	0.0284	***	0.0302	***	0.0284	***
		(4.00)		(6.93)		(3.98)	
LGACCEL	+/-	0.0430	***	0.0463	***	0.0429	***
		(3.92)		(7.24)		(3.91)	
Year Fixed Effects		Yes		Yes		Yes	
Industry Fixed Effects		Yes		Yes		Yes	
Observations		23,134		23,134		23,134	
Adj. R-Square		0.191		0.190		0.191	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Dependent variable is DR_{TOT}. *AUDCOMP_PRE* is coded as 0 if the earnings announcement is issued on or after the audit report date and is the difference between the earnings announcement date and the audit report date for instances where the earnings announcement is issued before the audit report date. *AUDCOMP_POST* is coded as the difference between the earnings announcement release date and the audit report date for all instances where the earnings announcement occurs on or after the audit report date and is coded 0 if the earnings announcement occurs before the audit report date. *AUD_PR* is an indicator variable that takes the value of 1 if the earnings announcement is on or after the audit report date and 0 otherwise. *AUDCOMP_ALT* is coded as 0 if the earnings announcement is released on or after the audit report date and is coded as the difference between the earnings announcement date and audit report date for instances where the earnings announcement is issued before the audit report date. The remaining variable definitions can be found in Appendix B.

TABLE 18
OLS Levels Regression Examining Impact of Auditor Industry Specialization

Panel A: National industry specialization measure

		(1)		(2)		(3)		(4)	
Variables	**Pred. Sign**	**Coef. (t-stat)**		**Coef. (t-stat)**		**Coef. (t-stat)**		**Coef. (t-stat)**	
Intercept		0.6600	***	0.6458	***	0.6593	***	0.6457	***
		(40.13)		(37.15)		(39.99)		(37.16)	
NATSPEC1	+	0.0028		-0.0008					
		(0.36)		(-0.10)					
NATSPEC2	+					0.0059		0.0010	
						(0.92)		(0.15)	
AUDCOMP	+	0.0006	***	0.0006	***	0.0006	***	0.0006	***
		(4.39)		(4.52)		(4.44)		(4.52)	
EARVZ	-	-0.0246	***	-0.0266	***	-0.0245	***	-0.0266	***
		(-3.09)		(-3.35)		(-3.09)		(-3.35)	
BIGN	+			0.0262	***			0.0259	***
				(3.29)				(3.20)	
ABFEES	+			0.2941	***			0.2935	***
				(4.15)				(4.13)	
SUPDISC	+	0.0068	***	0.0062	**	0.0067	***	0.0062	**
		(2.63)		(2.41)		(2.61)		(2.40)	
INFOENVT	+	0.0194	***	0.0180	***	0.0193	***	0.0180	***
		(5.00)		(4.59)		(4.97)		(4.59)	
LITRISK	+/-	0.0097	**	0.0088	**	0.0098	**	0.0089	**
		(2.58)		(2.35)		(2.59)		(2.36)	
BADNEWS	+/-	-0.0019		-0.0033		-0.0020		-0.0033	
		(-0.80)		(-1.35)		(-0.82)		(-1.36)	
COMPLX	+/-	0.0045		0.0032		0.0044		0.0032	
		(1.09)		(0.79)		(1.06)		(0.78)	
DFACT	+/-	0.0070	***	0.0065	***	0.0070	***	0.0065	***
		(3.33)		(3.12)		(3.32)		(3.12)	
EA_LAG	-	-0.0014	***	-0.0014	***	-0.0014	***	-0.0014	***
		(-6.76)		(-6.61)		(-6.75)		(-6.61)	
ACCEL	+/-	0.0339	***	0.0295	***	0.0338	***	0.0294	***
		(4.63)		(4.13)		(4.61)		(4.13)	
LGACCEL	+/-	0.0514	***	0.0441	***	0.0512	***	0.0441	***
		(4.60)		(4.00)		(4.58)		(4.00)	
Year and Industry FE		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adj. R^2		0.187		0.191		0.187		0.191	

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TABLE 18 (cont'd)

Panel B: City industry specialization measure

Variables	Pred. Sign	(1) Coef. (t-stat)		(2) Coef. (t-stat)		(3) Coef. (t-stat)		(4) Coef. (t-stat)	
Intercept		0.6583	***	0.6456	***	0.6564	***	0.6444	***
		(39.87)		(37.13)		(39.66)		(37.01)	
CITYSPEC1	+	0.0119	**	0.0065					
		(2.03)		(1.09)					
CITYSPEC2	+					0.0169	***	0.0127	**
						(2.74)		(2.04)	
AUDCOMP	+	0.0006	***	0.0006	***	0.0006	***	0.0006	***
		(4.39)		(4.53)		(4.42)		(4.55)	
EARVZ	-	-0.0247	***	-0.0266	***	-0.0246	***	-0.0265	***
		(-3.11)		(-3.35)		(-3.11)		(-3.35)	
BIGN	+			0.0247	***			0.0236	***
				(3.06)				(2.94)	
ABFEES	+			0.2871	***			0.2852	***
				(4.03)				(4.01)	
SUPDISC	+	0.0065	**	0.0061	**	0.0066	**	0.0061	**
		(2.53)		(2.36)		(2.56)		(2.37)	
INFOENVT	+	0.0191	***	0.0179	***	0.0190	***	0.0178	***
		(4.92)		(4.56)		(4.90)		(4.54)	
LITRISK	+/-	0.0096	**	0.0088	**	0.0098	***	0.0090	**
		(2.54)		(2.34)		(2.60)		(2.38)	
BADNEWS	+/-	-0.0020		-0.0033		-0.0021		-0.0034	
		(-0.82)		(-1.35)		(-0.86)		(-1.38)	
COMPLX	+/-	0.0040		0.0030		0.0037		0.0027	
		(0.98)		(0.73)		(0.90)		(0.65)	
DFACT	+/-	0.0069	***	0.0065	***	0.0068	***	0.0065	***
		(3.27)		(3.10)		(3.26)		(3.08)	
EA_LAG	-	-0.0014	***	-0.0014	***	-0.0014	***	-0.0014	***
		(-6.75)		(-6.62)		(-6.73)		(-6.61)	
ACCEL	+/-	0.0336	***	0.0296	***	0.0339	***	0.0299	***
		(4.60)		(4.14)		(4.63)		(4.19)	
LGACCEL	+/-	0.0504	***	0.0439	***	0.0505	***	0.0440	***
		(4.51)		(3.98)		(4.52)		(4.00)	
Year and Industry FE		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adj. R^2		0.188		0.191		0.188		0.191	

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TABLE 18 (cont'd)

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Dependent variable is DR_{TOT}. *NATSPEC1* is an indicator variable with the value of 1 if the audit firm is deemed a national industry specialist as measured by having a 2-digit SIC code market share of total audit fees that is 10 percent greater than the second largest industry leader and 0 otherwise. *NATSPEC2* is an indicator variable with the value of 1 if the audit firm has a 2-digit SIC code market share of total audit fees that is 30 percent or greater and 0 otherwise. *CITYSPEC1* is an indicator variable with the value of 1 if the audit firm is deemed a city industry specialist as measured by having a 2-digit SIC code market share within a Metropolitan Statistical Area of total audit fees that is 10 percent greater than the second largest industry leader and 0 otherwise. *CITYSPEC2* is an indicator variable with the value of 1 if the audit firm has a 2-digit SIC code market share within a MSA of total audit fees that is 50 percent or greater and 0 otherwise. All other variable definitions can be found in Appendix B.

TABLE 19
OLS Levels Regression Examining Impact of Audit Firm Office Size

Variables	Pred. Sign	(1) Coef. (t-stat)		(2) Coef. (t-stat)		(3) Coef. (t-stat)		(4) Coef. (t-stat)	
Intercept		0.6107	***	0.6807	***	0.6103	***	0.6780	***
		(17.04)		(16.95)		(17.32)		(17.19)	
LNOFFICE_AF	+	0.0031	^	-0.0024					
		(1.58)		(-0.97)					
LNOFFICE_TF	+					0.0031	^	-0.0022	
						(1.62)		(-0.91)	
AUDCOMP	+	0.0006	***	0.0006	***	0.0006	***	0.0006	***
		(4.55)		(4.40)		(4.56)		(4.41)	
EARVZ	-	-0.0243	***	-0.0269	***	-0.0243	***	-0.0269	***
		(-3.06)		(-3.38)		(-3.06)		(-3.38)	
BIGN	+			0.0324	***			0.0320	***
				(3.16)				(3.12)	
ABFEES	+			0.3106	***			0.3086	***
				(4.29)				(4.27)	
SUPDISC	+	0.0064	**	0.0063	**	0.0064	**	0.0063	**
		(2.48)		(2.44)		(2.48)		(2.44)	
INFOENVT	+	0.0187	***	0.0182	***	0.0187	***	0.0182	***
		(4.77)		(4.64)		(4.77)		(4.63)	
LITRISK	+/-	0.0095	**	0.0089	**	0.0095	**	0.0089	**
		(2.51)		(2.36)		(2.52)		(2.36)	
BADNEWS	+/-	-0.0023		-0.0032		-0.0023		-0.0032	
		(-0.94)		(-1.31)		(-0.95)		(-1.31)	
COMPLX	+/-	0.0041		0.0034		0.0041		0.0034	
		(0.99)		(0.84)		(0.99)		(0.84)	
DFACT	+/-	0.0067	***	0.0066	***	0.0067	***	0.0066	***
		(3.21)		(3.15)		(3.21)		(3.15)	
EA_LAG	-	-0.0014	***	-0.0014	***	-0.0014	***	-0.0014	***
		(-6.72)		(-6.58)		(-6.71)		(-6.59)	

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TABLE 19 (cont'd)

Variables	Pred. Sign	(1) Coef. (t-stat)		(2) Coef. (t-stat)		(3) Coef. (t-stat)		(4) Coef. (t-stat)	
ACCEL	+/-	0.0320	***	0.0300	***	0.0319	***	0.0300	***
		(4.40)		(4.21)		(4.39)		(4.21)	
LGACCEL	+/-	0.0487	***	0.0448	***	0.0486	***	0.0448	***
		(4.37)		(4.08)		(4.36)		(4.07)	
Year Fixed Effects		Yes		Yes		Yes		Yes	
Industry Fixed Effects		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adj. R^2		0.187		0.191		0.187		0.191	

Note: ^, *, **, ***: p<0.15, p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Dependent variable is DR_{TOT}. *LNOFFICE_AF* is the natural log of total audit fees by audit office. *LNOFFICE_TF* is the natural log of total audit and non-audit fees by audit office. All other variable definitions can be found in Appendix B.

TABLE 20
OLS Levels Regression with Detailed Control Variables

Variables	Pred. Sign	DR_{TOT} (1) Coef. (t-stat)		DR_{IS} (2) Coef. (t-stat)		DR_{BS} (3) Coef. (t-stat)		DR_{CF} (4) Coef. (t-stat)	
Intercept		0.5384	***	0.8194	***	0.7129	***	0.1881	***
		(19.39)		(68.17)		(17.32)		(4.14)	
AUDCOMP	+	0.0006	***	-0.0000		0.0007	***	0.0010	***
		(4.68)		(-0.02)		(3.47)		(4.36)	
EARVZ	-	-0.0261	***	-0.0088	***	-0.0372	***	-0.0286	**
		(-3.32)		(-2.58)		(-3.41)		(-2.03)	
BIGN	+	0.0237	***	0.0130	***	0.0232	**	0.0306	**
		(2.98)		(3.77)		(2.02)		(2.18)	
ABFEES	+	0.2634	***	0.0277		0.4191	***	0.2888	**
		(3.66)		(0.99)		(4.18)		(2.34)	
SUPDISC	+	0.0073	**	0.0047	***	0.0054		0.0106	**
		(2.55)		(4.21)		(1.35)		(2.09)	
LNMVE	+	0.0108	***	0.0027	*	-0.0030		0.0282	***
		(2.65)		(1.83)		(-0.52)		(4.20)	
ANALYST_FOLL	+	-0.0003		-0.0006	***	-0.0003		-0.0001	
		(-0.52)		(-3.34)		(-0.50)		(-0.05)	
ANALYST_COVG	+	0.0274	***	0.0202	***	0.0600	***	0.0030	
		(3.53)		(5.60)		(5.11)		(0.24)	
SHAREHOLDER	+/-	0.0007		-0.0010	*	-0.0042	*	0.0065	**
		(0.42)		(-1.75)		(-1.81)		(2.06)	
INSTHOLD	+	0.0104		0.0083	*	-0.0202		0.0409	*
		(0.80)		(1.80)		(-1.14)		(1.78)	
ROA	+	-0.0108		-0.0013		-0.0118		-0.0136	
		(-0.85)		(-0.23)		(-0.61)		(-0.67)	
OCF	+	0.0347	***	0.0041		0.0356	**	0.0549	***
		(2.85)		(1.20)		(2.18)		(3.01)	
UE_NEG	+/-	-0.0005		-0.0016		-0.0066		0.0061	
		(-0.18)		(-1.22)		(-1.54)		(1.18)	
LOSS		0.0059		0.0043	*	0.0270	***	-0.0130	
		(0.97)		(1.70)		(3.11)		(-1.22)	
SPECITM		0.0130	***	0.0060	***	0.0124	**	0.0169	**
		(3.17)		(3.66)		(2.17)		(2.32)	

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TABLE 20 (cont'd)

Variables	Pred. Sign	DR_{TOT} (1) Coef. (t-stat)		DR_{IS} (2) Coef. (t-stat)		DR_{BS} (3) Coef. (t-stat)		DR_{CF} (4) Coef. (t-stat)	
LIT		-0.0136		-0.0037		0.0156		-0.0474	**
		(-1.07)		(-0.76)		(0.91)		(-2.13)	
VOLUME	+	0.0028	*	0.0010	*	0.0096	***	-0.0021	
		(1.88)		(1.95)		(4.87)		(-0.78)	
STDRET	-	0.3982	***	0.1991	***	0.6630	**	0.3043	
		(2.57)		(2.80)		(2.47)		(1.48)	
LNBSEG	+	-0.0043		-0.0045	**	-0.0127	*	0.0028	
		(-0.78)		(-2.23)		(-1.71)		(0.30)	
MBR	+	0.0002		-0.0001		0.0004		0.0003	
		(0.72)		(-0.87)		(0.92)		(0.62)	
MKTCONC	+	0.0085		-0.0052		-0.1307		0.1415	
		(0.07)		(-0.11)		(-0.89)		(0.68)	
EA_LAG	-	-0.0014	***	-0.0001		-0.0023	***	-0.0014	***
		(-6.33)		(-1.40)		(-7.01)		(-3.94)	
ACCEL	+/-	0.0165	*	0.0093	**	0.0349	***	0.0040	
		(1.87)		(2.55)		(2.68)		(0.27)	
LGACCEL	+/-	0.0242	*	0.0080		0.0207		0.0379	
		(1.68)		(1.43)		(1.03)		(1.57)	
Year FE		Yes		Yes		Yes		Yes	
Industry FE		Yes		Yes		Yes		Yes	
Observations		23,134		23,134		23,134		23,134	
Adj. R^2		0.193		0.120		0.158		0.183	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Variable definitions can be found in Appendix B.

TABLE 21
OLS Levels Regression Including EA Concurrent with 10-K Observations

Variables	Pred. Sign	DR_{TOT} (1) Coef. (t-stat)		DR_{IS} (2) Coef. (t-stat)		DR_{BS} (3) Coef. (t-stat)		DR_{CF} (4) Coef. (t-stat)	
Intercept		0.5206	***	0.8186	***	0.6580	***	0.1857	***
		(29.42)		(88.70)		(28.44)		(6.57)	
AUDCOMP	+	0.0018	***	0.0000		0.0015	***	0.0033	***
		(11.93)		(0.09)		(7.94)		(13.56)	
EARVZ	-	-0.0293	***	-0.0017		-0.0343	***	-0.0449	***
		(-3.40)		(-0.48)		(-3.02)		(-2.93)	
BIGN	+	0.0035		0.0085	**	0.0084		-0.0052	
		(0.46)		(2.14)		(0.90)		(-0.40)	
ABFEES	+	0.1667	**	-0.0502		0.2836	***	0.2112	*
		(2.42)		(-1.47)		(3.23)		(1.92)	
SUPDISC	+	0.0008		0.0017		0.0026		-0.0020	
		(0.30)		(1.26)		(0.80)		(-0.47)	
INFOENVT	+	0.0100	**	0.0055	***	0.0106	**	0.0126	*
		(2.54)		(2.92)		(2.14)		(1.94)	
LITRISK	+/-	0.0219	***	0.0062	***	0.0373	***	0.0189	***
		(6.09)		(3.57)		(8.41)		(3.13)	
BADNEWS	+/-	0.0146	***	0.0063	***	0.0170	***	0.0181	***
		(6.36)		(5.21)		(6.31)		(4.87)	
COMPLX	+/-	0.0101	***	-0.0039	**	-0.0142	***	0.0409	***
		(2.57)		(-2.34)		(-2.89)		(6.15)	
DFACT	+/-	0.0027		0.0005		0.0034		0.0030	
		(1.30)		(0.46)		(1.38)		(0.89)	
EA_LAG	-	0.0034	***	0.0010	***	0.0019	***	0.0064	***
		(16.73)		(9.70)		(7.33)		(19.74)	
ACCEL	+/-	0.0231	***	0.0107	***	0.0284	***	0.0259	**
		(3.08)		(2.60)		(2.98)		(2.16)	
LGACCEL	+/-	0.0674	***	0.0207	***	0.0282	**	0.1339	***
		(6.09)		(3.64)		(1.99)		(7.41)	
Year FE		Yes		Yes		Yes		Yes	
Industry FE		Yes		Yes		Yes		Yes	
Observations		29,333		29,333		29,333		29,333	
Adj. R^2		0.157		0.037		0.112		0.191	

Note: *, **, ***: p<0.10, p<0.05, p<0.01, respectively, two-tailed tests. Standard errors are clustered by firm to compute t-statistics. Variable definitions can be found in Appendix B.

TABLE 22
Factor Analysis

Variables	Information Environment (INFOENVT)	Litigation Risk (LITRISK)	Bad News (BADNEWS)	Complexity (COMPLX)	DFACT
LNMVE	**0.5358**	0.0769	-0.1011	**0.5012**	-0.0495
ANALYST_FOLL	**0.7077**	0.2744	-0.0032	0.2017	0.0019
ANALYST_COVG	**0.8962**	-0.0786	0.1241	-0.1456	-0.0525
SHAREHOLDER	-0.0549	-0.0210	0.0475	**0.8097**	0.0433
INSTHOLD	**0.8824**	-0.0290	-0.0525	-0.0704	0.0345
ROA	0.0049	-0.0538	**-0.8881**	-0.0219	0.0235
OCF	-0.0594	0.1077	**-0.8862**	-0.0764	0.2300
UE_NEG	0.1285	-0.1830	**0.4398**	-0.0102	0.3099
LOSS	-0.0525	0.1356	**0.6937**	-0.0758	0.1627
SPECITM	0.0705	0.1328	0.0450	0.3261	**0.6413**
LIT	-0.0116	**0.6836**	0.0672	-0.1463	-0.1242
VOLUME	0.3905	**0.5923**	-0.1105	-0.0677	0.2194
STDRET	-0.2821	**0.4234**	0.2184	-0.2876	0.2267
LNBSEG	-0.0673	-0.3753	0.0023	**0.6681**	0.2095
MBR	0.1063	0.1569	0.1764	0.0919	**-0.6377**
MKTCONC	0.2017	**-0.4417**	-0.0883	-0.2600	0.0973
Variance Explained	20.08	9.94	18.39	13.71	7.63
Sample 2001 to 2011	23,134	23,134	23,134	23,134	23,134

Note: The above loadings are based on principle component factoring with promax (oblique) rotation. Factor loadings greater than 0.40 in absolute value are bolded. Variable definitions can be found in Appendix B with further discussion of the factor scores in Appendix D.

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