Earnings announcement delays and implications for the auditor-client relationship

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January 28, 2021

*Corresponding author. We thank Peter Easton (editor), two anonymous reviewers, Ken Bills, Cory Cassell, Brant Christensen, Jared Jennings, Harold Kazanabon, and workshop participants at Brigham Young University and Wichita State University for helpful comments and suggestions. Kimball Chapman gratefully recognizes financial support of the Olin School of Business, Joseph Schroeder appreciates the support of the IU Kelley School of Business PwC Faculty Fellowship, and Michael Drake and Timothy Seidel recognize the financial support of the BYU Marriott School of Business.

Earnings Announcement Delays and Implications for the Auditor-Client Relationship

Abstract: We examine whether delays in the expected release of annual earnings have implications for the future auditor-client relationship. Managers have strong incentives to release earnings on schedule and auditors play an important role in helping their clients avoid costly earnings announcement delays. We find an increased likelihood of subsequent auditor-client realignments after earnings announcement delays. We further find that clients changing auditors realign with audit firms that better meet their earnings announcement timing demands without any evidence of a significant compromise to the reliability of the financial statement numbers in the earnings announcement. Our results help inform regulatory concerns about audit market concentration and how audit firm turnover has the potential to impact the auditor-client dynamic. While it is possible that auditor turnover could lead to a power imbalance where clients gain leverage in the relationship, our results suggest otherwise.

1 Introduction

Earnings announcements (EAs) are among the most important financial disclosures. Prior research finds that investors place greater reliance on the information disclosed in the EA than on that disclosed in the subsequent 10-K filing (Li and Ramesh 2009, Beyer et al. 2010). Historically, EAs were released on or before the audit report date, which provided users with some assurance that the financial results announced were reliable (Bamber et al. 1993; Schwartz and Soo 1996). However, since the enactment of the Sarbanes Oxley Act of 2002 (SOX) and the issuance of Public Company Accounting Oversight Board (PCAOB) auditing standards, the amount of audit work required for a public company audit has increased resulting in year-end audit fieldwork taking longer to complete, coupled with regulatory reductions in required filing deadlines (Bronson et al. 2011; Glover et al. 2020).[1] Because investors continue to demand timely information, many firms now release earnings well in advance of the completion of the audit (Schroeder 2016).

Recent survey evidence indicates that approximately 80 percent of total audit engagement hours are incurred prior to the EA (Bhaskar et al. 2019), which suggest that a non-trivial portion of the audit occurs after the EA. Managers face two options when the audit is not likely to be completed by the EA: 1) release earnings as scheduled and bear the risk of a subsequent earnings revision should material audit adjustments arise, or 2) delay the earnings release until the risk of potential audit adjustments is reduced to an acceptable level. Prior research finds that both options can be costly as revisions to previously announced earnings and non-trivial delays from

[1] The enactment of the Sarbanes-Oxley Act triggered the requirement of an audit of internal controls over financial reporting for accelerated filers and the creation of the PCAOB. The PCAOB has issued several auditing standards that have resulted in increased audit effort such as: Auditing Standard (AS) 2 (subsequently superseded by AS 5) related to internal controls over financial reporting; AS 7 related to the nature and extent of the engagement quality review; AS 3 and AS 8-16 related to risk assessment procedures and the sufficiency and evaluation of audit evidence.

the expected EA date are associated with negative market reactions (Chambers and Penman 1984; Bagnoli et al. 2002; Bronson et al. 2011; Livnat and Zhang 2015). Given strong market incentives to release reliable earnings on schedule, both options likely strain the auditor-client relationship. Prior research examines the first option and finds that auditor dismissals are more likely following late audit adjustments that lead to earnings revisions (Haislip et al. 2017). However, these auditor changes are likely punitive given the potential reputational damage to the company and its executive management despite a presumed improvement in the quality of the financial reports. We extend prior research by focusing on the second option. We examine whether clients respond to EA delays by dismissing their audit firms, and if so, whether or not they align with a new audit firm that is better able to meet their EA timing needs, while also ensuring overall quality.

This examination is important given the potential strain EA delays can have on the auditor-client relationship and the importance of understanding outcomes of auditor realignment decisions. Regulators have expressed concerns about audit market concentration and how audit firm turnover has the potential to impact the auditor-client dynamic (GAO 2003; 2008; ACAP 2008).[2] A key objective of regulatory proposals is that a new tier of audit firms arises that can better fit the needs of certain public companies. However, there are also concerns that auditor turnover could result in clients possessing greater bargaining power that may lead to lower quality or other undesirable outcomes. This view is consistent with prior studies that conceptualize client bargaining power in terms of situational factors that exert pressure on auditors (Kanodia and Mukherji 1994; Windsor and Ashkanasy 1995). One such situational

[2] Specifically, the GAO and the Advisory Committee on the Audit Profession (ACAP) highlighted the importance of the Big 4 firms managing risk in their client portfolio and the need for lower tiered firms to emerge as viable alternatives that provide high quality audits for public companies.

factor is the risk of the client requesting tenders for audit services (Windsor and Ashkanasy 1995). Consistent with this idea, Kanodia and Mukherji (1994) suggest that greater competition in the market for auditors enhances a client's bargaining position and evidence in Newton, Wang and Wilkins (2013) suggests that this enhanced bargaining position can negatively impact audit quality.

We perform our analyses using data from Wall Street Horizon that identifies delays from expected annual EA dates between 2005 and 2017. During this period, almost 12 percent of annual EAs are delayed, with an average delay of 6.3 days. Our first hypothesis is that delayed EAs increase the likelihood of auditor-client realignments. The decision to delay the release of earnings beyond the previously scheduled date comes at the risk of reputational damage to the company and the executive management team because future scheduled dates will be viewed less credibly (Einhorn and Ziv 2008; Schroeder 2016). The auditor-client relationship is dynamic with realignments potentially occurring based on changing factors faced by either the client or the audit firm (Johnson and Lys 1990). Given the importance of timely and reliable earnings releases, we argue that companies that delay their EA will be more inclined to realign with an audit firm that is better able to meet their EA timing demands. We also argue that this effect will be more pronounced for longer delays, defined as those in excess of a week, which tend to elicit more severe market penalties than short delays of a few days (Livnat and Zhang 2015).

Consistent with our prediction, we find a higher likelihood of auditor dismissal following EA delays. Specifically, a delayed earnings release increases the odds of dismissal by 16.1 percent. This increased likelihood of auditor dismissal is concentrated in delays of longer than one week. These results hold using a propensity-score matched sample of firms that differ in whether they have an earnings announcement delay, but that are similar along a host of relevant

observable dimensions, including the length of time between the fiscal year end and the expected earnings announcement date. Further analyses reveal that this realignment effect is most pronounced among smaller clients, which would be in a stronger bargaining position because they tend to have a larger set of viable audit firms to choose from when they realign (Kanodia and Mukherji 1994; Windsor and Ashkanasy 1995).[3] This evidence suggests that the decision to dismiss the auditor is, in part, reflective of the demand for timely audits among clients with enhanced bargaining power.

Our second hypothesis relates to the subsequent hiring decisions of clients that dismissed their audit firm following an earnings announcement delay.[4] We predict that companies that switch auditors will realign with a new audit firm that is able to meet their earnings announcement timing and reliability demands. Consistent with this prediction, we find among firms that experience an EA delay, EA lags are reduced, audits are more complete at the EA date, and the likelihood of delaying the EA is lower in the following three years among firms that realign with a new auditor. With respect to reliability of the numbers released at the EA, we find no evidence that auditor-client realignment has an impact. Importantly, we find that client bargaining power does not have a moderating effect on audit quality. Additionally, in further analysis, we break out subsequently engaged Big N auditors from subsequently engaged non-Big N auditors and find no evidence that audit quality suffers among larger public companies even

[3] The bargaining power of larger public companies would potentially be constrained given the smaller pool of potential audit firm candidates. In GAO surveys of large public companies issued in 2003 and 2008, 82 to 94 percent of respondents indicated that they would not consider using a non-Big 4 firm (GAO 2003, 2008). Even changes among the Big 4 firms may be limited given that large public companies tend to use the larger accounting firms for advisory and other work, which their auditor is prohibited from providing following the Sarbanes-Oxley Act of 2002 (SOX).

[4] In a supplemental set of exploratory analyses we also examine the set of companies that *choose to retain* their auditor following an earnings announcement delay. In the first and second year after appointing the new auditor, we find that audits are more complete at the earnings announcement date and no difference in financial reporting/audit quality. This suggests that the earnings announcement delays were likely shorter and the auditors take actions to subsequently meet the client's demand for timely and reliable earnings.

when they engage a smaller auditor. Thus, despite improvement in EA timeliness following the auditor realignment, there is no evidence of a decline in quality of the client's EA. These results suggest that clients are switching to auditors that can meet EA timing demands without compromising financial reporting quality.

We next conduct additional analyses to further examine auditor-client realignment around EA delays. We find that the new auditor is more likely to be a second tier audit firm, which extant research indicates that during the post-SOX regime are not of lower quality and have more nimble control structures to expedite consultation processes (Whisenant 2006; Boone et al. 2010; Hux and Zimmerman 2020). We also find that clients dismissing their auditor following an EA delay are less likely to engage an auditor whose other local and national clients had more EA delays within the previous two years. This provides additional evidence of clients selecting auditors at least in part based on their ability to meet their EA timing demands. Additionally, we also find the market reactions to the announcement of the auditor change is positive following non-trivial EA delays, suggesting investors view auditor realignment after EA delays as good news.

Lastly, we provide evidence in support of an important assumption underlying our results, which is that EA delays are influenced, at least in part, by the audit. In particular, we show that EA quality is associated with longer EA delays, EA delays are more frequent for fourth quarter/annual filings relative to interim quarters, and the increased likelihood of auditor dismissal is evident only among companies with incomplete audits at the EA date and companies with a higher quality audit committee. These results support the assumption that audit considerations and efficiencies play an important role in non-trivial EA delays.

This study provides several important contributions to the literature. Although prior

research examines the effect of delayed EAs, it does not consider implications for the future auditor-client relationship. This examination is important because a delay in the annual EA is likely to be influenced by audit-related factors. Additionally, this study contributes to prior research by examining the effect of a specific demand-side factor, namely the clients' preferences for a timely EA, on auditor-client realignments (Johnson and Lys 1990; Shu 2000; Landsman et al. 2009, Hogan and Martin 2009; Schroeder and Hogan 2013). The study also provides new insights into the effect of auditor-client realignments following EA delays on the subsequent timeliness and quality of the EA. The combined results are also informative to regulators as they suggest that audit firms beyond the concentrated Big 4 tier are emerging as viable alternatives that can meet clients EA timing demands without compromising audit quality.

2 Prior literature and hypotheses development

2.1 Background

The EA is a key financial disclosure for stakeholders because it contains important financial information and is often more timely than the corresponding SEC periodic filing (Beyer et al. 2010). Increased predictability in the timing of EAs motivates management to release earnings when expected in order to avoid market penalties. For instance, Chambers and Penman (1984) find that the market penalizes companies that announce earnings later than expected as reflected in significantly negative abnormal returns on the expected EA date.[5] Bagnoli et al. (2002) extend this line of research by examining companies that voluntarily disclose the expected EA date via their own public disclosure or via an information intermediary such as First Call or Thomson Financial. Consistent with Chambers and Penman (1984), Bagnoli et al. (2002)

[5] Chambers and Penman (1984) identify a sample of companies that released earnings later than expected using the number of days between the fiscal-year end and the earnings announcement date in the previous year to determine the expected earnings announcement date in the current year.

observe negative abnormal returns on the expected EA date and the following day for companies that missed the date. Finally, Livnat and Zhang (2015) document negative abnormal returns for EAs that are delayed by more than four days. While penalties for delaying the EA create pressure to release earnings on the expected date, investors also expect the disclosed results to be reliable. Prior research provides evidence of negative market penalties when results in the EA are subsequently revised in the SEC filing (Hollie et al. 2005, 2012; Bronson et al. 2011).

Historically, the fact that the audit was typically complete by the EA date (Bamber et al. 1993; Schwartz and Soo 1996) minimized concerns about the reliability of the financial results. However, regulatory reductions in required filing deadlines and audit requirements from SOX and the PCAOB have increased auditor workload and time constraints such that most audits are not complete until closer to the SEC filing date (Krishnan and Yang 2009; Bronson et al. 2011; Schroeder 2016; Glover et al. 2020). Consequently, year-end EAs now *precede* the completion of the audit by 16 days (on average), which does not always allow sufficient time to fully resolve outstanding audit issues prior to the EA date (Schroeder 2016; Marshall et al. 2019; Bhaskar et al. 2019). As a result, when uncertainty exists about potential audit adjustments at the expected or scheduled earnings release date, managers are forced to consider the risk of subsequently needing to revise earnings if they release when expected and material audit adjustments subsequently arise, as well as the repercussions of delaying the earnings release to ensure the announced results are reliable. Our objective is to understand the implications and consequences to the auditor-client relationship when EAs are delayed.

2.2 Hypotheses development

Given the strong incentives to release earnings on time, we argue that the decision to delay the announcement is likely to be influenced by audit considerations. Duarte-Silva, Noe,

and Ramesh (2013) find that almost two-thirds of delays accompanied with disclosure cite accounting related issues as the primary reason for the delay.[6] Auditors play an important role in considering and resolving accounting issues. The resolution of these issues may however cause delays in audit timeliness as auditors expand procedures in response or engage in additional consultations with national office professionals (Dichev et al. 2013; Christensen et al. 2016).[7] By delaying the EA, auditors are able to provide more confidence to management that the results are final and not subject to change. However, we argue that audit driven delays of the scheduled EA (whether due to additional procedures or perceived inefficiencies) are likely to strain the auditor-client relationship given the potential reputational damage to the company and its executive management because future scheduled dates will be viewed less credibly (Einhorn and Ziv 2008; Schroeder 2016). Ample research suggests that auditor dismissal is more likely when auditors take actions that could be viewed as displeasing to management such as issuing first-time going-concern opinions, providing adverse opinions on internal controls, or requiring goodwill impairments (Carcello and Neal 2003; Ettredge et al. 2011; Ayres et al. 2018).

Prior research suggests that the timeliness of audit findings are important to the client because audit-related earnings revisions (i.e., late audit adjustments) increase the likelihood of auditor turnover (Haislip et al. 2017). Following an EA delay, a client may elect to change to an audit firm that can provide an effective audit in a timely manner. For instance, Johnson and Lys (1990) argue that auditor turnover occurs when there is an imbalance between the auditor and client in terms of the demand for assurance services and/or the desire to supply those services. Prior research not only demonstrates that audit firm turnover is more likely to occur in situations

[6] Following accounting related issues, other cited reasons for delay include business events (approximately 20 percent) and accounting rule changes (approximately 7 percent).
[7] Steinhoff, a PwC client, is an anecdote of delaying earnings due to auditing complexities and increased audit work. See https://www.accountingtoday.com/articles/steinhoff-delays-earnings-report-over-audit-complexities.

where there is misalignment between the audit firm and the client (Shu 2000; Landsman et al. 2009; Hogan and Martin 2009; Schroeder and Hogan 2013), but it also demonstrates that clients seek out auditors that will better suit their goals and reporting demands. For instance, firms receiving going-concern or adverse internal control opinions are more likely to dismiss their auditor in search of one more willing to report favorably (Lennox 2000; Newton et al. 2015) or to improve quality and repair reputation (Ettredge et al. 2011; Hennes et al. 2014). This evidence motivates our prediction that EA delays will strain the auditor-client relationship and create incentives for management to seek realignment with an auditor that can provide an effective audit in an efficient manner. Our first hypothesis is formally stated as follows:

H1: Earnings announcement delays are positively associated with auditor dismissal in the subsequent year.

Our second hypothesis focuses on the setting when an EA delay is followed by an auditor dismissal. This hypothesis assumes a certain level of heterogeneity in auditor offerings, such that companies are able to realign with another audit firm that can, at least in expectation, better meet their needs. This assumption is well supported by prior research (Magee and Tseng 1990; Balachandran and Ramakrishnan 1987; Simunic and Stein 1990; Matsumura et al. 1997). For example, the results in DeFond and Subramanyam (1998) suggest that companies dismiss their auditors for being overly conservative, and engage new auditors that are less conservative than the predecessor. Although the arguments above suggest that audit efficiency may come at the expense of audit quality, some audit firms (or audit offices) serve a smaller number of publicly traded companies that release earnings and have less extensive consultation processes (Hux and Zimmerman 2020). This could potentially free up resources and time to meet client demands for timeliness without compromising audit quality. We predict that the effectiveness and efficiency of the audit in relation to the timing of the EA are important factors in the auditor-client

realignment decision. This leads to our second hypothesis:

H2: Companies that switch auditors will realign with a new audit firm that is able to meet their timing and reliability demands with respect to the earnings announcement.

3 Research design and sample

3.1 Research method

We test our first hypothesis using the following logistic regression with variables defined in the Appendix:

$$Dismiss_{it+1} = \gamma_{Industry} + \gamma_{Year} + \gamma_1 EA\ Delay_{it} + \gamma_2 Expected\ EA\ Lag_{it} + \gamma_3 Size_{it} + \gamma_4 Leverage_{it} + \gamma_5 BTM_{it} + \gamma_6 Loss_{it} + \gamma_7 ROA_{it} + \gamma_8 GC_{it} + \gamma_9 Analyst\ Following_{it} + \gamma_{10} NR\ Restate_{it} + \gamma_{11} ICMW_{it} + \gamma_{12} Specialist_{it} + \gamma_{13} BigN_{it} + \gamma_{14} Tenure_{it} + \gamma_{15} \Delta Audit\ Fees_{it} + \varepsilon_{it} \quad (1)$$

$Dismiss_{it+1}$ is equal to one if the auditor is dismissed following the filing of the current year 10-K but before the filing of the subsequent year's 10-K, and zero otherwise. [8] The variable of interest is *EA Delay*, which takes the value of one if the EA is delayed beyond the expected annual EA release date, and zero otherwise. Consistent with H1, we expect a positive coefficient on *EA Delay*.

Model (1) controls for the expected EA lag (*Expected EA Lag*)[9] and a set of general client characteristics including size (*Size*), leverage (*Leverage*), growth (*BTM*), performance (*ROA*), financial distress (*Loss*, *GC*) and analyst following (*Analyst Following*). Consistent with prior research, we expect a negative association between client size and auditor dismissals (Ettredge et al. 2007; Bronson et al. 2009; Ettredge et al. 2011), a positive association between a company's

[8] In our main analyses we remove auditor resignations from our sample to focus on client demands for reporting timeliness and quality. In additional untabulated analyses, we incorporate auditor resignations and examine the influence of EA delays on auditor resignations. We find that short EA delays are positively (marginally) associated with future auditor resignations (whether includeing or excluding auditor dimissals from the sample). Although auditors are more likely to resign from a client following a short EA delay, this is not the case for longer delays. We also find that clients are more likely to shift from one Big N auditor to another Big N auditor in response to an auditor resignation.

[9] We use the length of time in days to the expected rather than the actual earnings announcement date to capture clients' expected release of earnings and to avoid confounding effects with our variable of interest.

book-to-market ratio and the likelihood of auditor dismissal (Ettredge et al. 2011), a negative association between company performance and auditor dismissal, and a positive association between auditor dismissal and company leverage, reported losses, and going-concern report modifications (Carcello and Neal 2003; Ettredge et al. 2007; Bronson et al. 2009; Ettredge et al. 2011). We control for the announcement of a non-reliance restatement during the year (*NR Restate*) and for an adverse internal control audit opinion (*ICMW*) because prior research finds an increased likelihood of auditor dismissal following these public disclosures (Ettredge et al. 2011; Hennes et al. 2014).

In model (1), we further control for auditor-related factors previously shown to affect the likelihood of an auditor dismissal, including auditor size (*BigN*), industry specialization (*Specialist*), tenure (*Tenure*), and changes in fees (*ΔAudit Fees*). Although we do not make a directional prediction on auditor size given mixed evidence from prior research (Ettredge et al. 2007; Hoitash and Hoitash 2009; Ettredge et al. 2011; Hennes et al. 2014), we expect a negative association between auditor tenure and industry specialization and subsequent auditor dismissal (Carcello and Neal 2003; Bronson et al. 2009) and a positive association between auditor dismissal and changes in audit fees (Ettredge et al. 2007; Ettredge et al. 2011). Finally, we include industry and year fixed-effects in the model to control for variation in the dependent variable across industries and over time.

We also present an alternative specification of model (1) that conditions on the length of the delay. Because we expect the positive association between EA delays and auditor dismissals to be more pronounced for non-trivial delays that elicit more severe market penalties (Livnat and Zhang 2015), we also estimate equation (1) replacing *EA Delay* with separate variables that indicate delays of less than one week (*EA Delay < 7 days*) and delays of one week or more (*EA*

Delay ≥ 7 days). Further, to reduce the possibility that the auditor dismissal is driven by other issues unrelated to auditor supply constraints, we use Audit Analytics to identify all dismissals that include a specific disclosed reason for the dismissal in the 8-K filing. We then re-estimate model (1) after removing any disclosed auditor-client disagreements, and after removing any specific reason other than timing constraints or inability to meet regulatory deadlines.

Our second hypothesis examines clients that had a delay in their EA and whether realignment with a new audit firm impacts EA timeliness and reliability going forward. To test this hypothesis, we limit the sample to companies with an EA delay in any of the previous three years as prior research suggests a learning curve in the early years of the auditor-client relationship and prior research often defines short auditor tenure as three years or less (Johnson, Khurana, and Reynolds 2002; Carcello and Nagy 2004; Cassell, Hansen, Myers, and Seidel 2017). We estimate the following OLS regressions with variable definitions in the Appendix:

$$\begin{aligned}\Delta EA\ Lag_{it} = {} & \psi_{Industry} + \psi_{Year} + \psi_1 Dismiss\ Following\ Delay_{it} + \psi_2 EA\ Delay_{it} + \\ & \psi_3 Lag\ EA\ Audit\ Completeness_{it-1} + \psi_4 \Delta Expected\ EA\ Lag_{it} + \psi_5 \Delta Size_{it} + \\ & \psi_6 \Delta Analyst\ Following_{it} + \psi_7 \Delta ROA_{it} + \psi_8 \Delta OCF_{it} + \psi_9 \Delta Leverage_{it} + \psi_{10} \Delta UE\ NEG_{it} + \\ & \psi_{11} \Delta Loss_{it} + \psi_{12} \Delta LIT_{it} + \psi_{13} \Delta Busy_{it} + \psi_{14} \Delta MTB_{it} + \psi_{15} \Delta ARINV_{it} + \psi_{16} \Delta M\&A_{it} + \\ & \psi_{17} \Delta GC_{it} + \psi_{18} \Delta BigN_{it} + \psi_{19} \Delta Accelerated_{it} + \psi_{20} \Delta ACCEL\ LARGE_{it} + \psi_{21} \Delta ICMW_{it} + \varepsilon_{it} \quad (2)\end{aligned}$$

and

$$\begin{aligned}\Delta EA\ Audit\ Completeness_{it} = {} & \psi_{Industry} + \psi_{Year} + \psi_1 Dismiss\ Following\ Delay_{it} + \psi_2 EA\ Delay_{it} + \\ & \psi_3 Lag\ EA\ Audit\ Completeness_{it-1} + \psi_4 \Delta Expected\ EA\ Lag_{it} + \psi_5 \Delta Size_{it} + \\ & \psi_6 \Delta Analyst\ Following_{it} + \psi_7 \Delta ROA_{it} + \psi_8 \Delta OCF_{it} + \psi_9 \Delta Leverage_{it} + \psi_{10} \Delta UE\ NEG_{it} + \\ & \psi_{11} \Delta Loss_{it} + \psi_{12} \Delta LIT_{it} + \psi_{13} \Delta Busy_{it} + \psi_{14} \Delta MTB_{it} + \psi_{15} \Delta ARINV_{it} + \psi_{16} \Delta M\&A_{it} + \\ & \psi_{17} \Delta GC_{it} + \psi_{18} \Delta BigN_{it} + \psi_{19} \Delta Accelerated_{it} + \psi_{20} \Delta ACCEL\ LARGE_{it} + \psi_{21} \Delta ICMW_{it} + \varepsilon_{it} \quad (3)\end{aligned}$$

We measure timeliness in two ways. *ΔEA Lag* is the change from the prior year EA lag, which is the number of days between client fiscal year end and the EA release date. *ΔEA Audit Completeness*, is the difference in audit completeness at the EA release date for the current year relative to the prior year. We measure audit completeness consistent with Schroeder (2016),

which is set equal to zero when the EA is released on or after the audit report date and equals the number of days between the EA date and the audit report date when the EA is released before the audit report date (resulting in negative values). The variable of interest is *Dismiss Following Delay*, which captures the three years following the EA delay with a successor auditor. Consistent with H2, we expect a negative (positive) coefficient on *Dismiss Following Delay* in the change in EA lag (change in audit completeness at the EA date).

In both models, we include a set of control variables that follow prior literature examining EA lags and audit completeness at the time of the EA (Sengupta 2004; Schroeder 2016). When the dependent variable is *ΔEA Lag* we control for the length of the prior year EA delay to capture mean reversion (*Length Prior EA Delay*). When the dependent variable is *ΔEA Audit Completeness* we control for the audit completeness at the time of the EA in the previous year (*Lag EA Audit Completeness*) and the change in the expected EA timing (*ΔExpected EA Lag*) as this could significantly influence the change in audit completeness at the EA. We control for variables that could reasonably affect the change in timing of the EA and the completeness of the audit at that date such as changes in company size (*ΔSize*), analyst following (*ΔAnalyst Following*), company performance (*ΔROA, ΔOCF, ΔLoss*), leverage (*ΔLeverage*), bad news (i.e., negative earnings surprise) (*ΔUE NEG*), litigation risk (*ΔLIT*), expected company growth (*ΔMTB*), whether the company's fiscal year end falls in auditors' busy season (*ΔBusy*), the ratio of accounts receivable and inventory to total assets (as these assets require significant audit attention) (*ΔARINV*), merger or acquisition activity (*ΔM&A*), going concern issues resulting in a modified audit opinion (*ΔGC*), auditor size (*ΔBigN*), filer status (*ΔAccelerated, ΔACCEL LARGE*), and weak internal controls over financial reporting (*ΔICMW*). Finally, we include industry and year fixed-effects.

When we examine the change in audit completeness at the EA date using model (3), we limit the sample to client fiscal years ending on or before June 15, 2009. Glover et al. (2020) present evidence suggesting that after that date, the audit report date, which is used to determine audit completeness, reflects the date financial statements are widely distributed to the public (i.e., the SEC filing date) regardless of whether or not that date approximates the date that account-level audit procedures were substantially complete (i.e., end of fieldwork). Thus, the audit report date best captures the level of substantial completeness of audit fieldwork for fiscal years ending prior to June 15, 2009.

To further examine whether auditors appointed after an EA delay meet the reporting timeliness demands of their clients, we estimate the following logistic regression:

$$\begin{aligned}EA\ Delay_{it} = {} & \alpha_{Industry} + \alpha_{Year} + \alpha_1 Dismiss\ Following\ Delay_{it} + \alpha_2 EA\ Delay\ (\text{Q1 through Q3})_{it} + \\ & \alpha_3 NR\ Restate_{it} + \alpha_4 Size_{it} + \alpha_5 Analyst\ Following_{it} + \alpha_6 OCF_{it} + \alpha_7 Leverage_{it} + \alpha_8 UE\ NEG_{it} + \\ & \alpha_9 Loss_{it} + \alpha_{10} Issue_{it} + \alpha_{11} \sigma CASHREV_{it} + \alpha_{12} \sigma CFO_{it} + \alpha_{13} LIT_{it} + \alpha_{14} MTB_{it} + \alpha_{15} ARINV_{it} + \\ & \alpha_{16} M\&A_{it} + \alpha_{17} Restructure_{it} + \alpha_{18} GC_{it} + \alpha_{19} Accelerated_{it} + \alpha_{20} ACCEL\ LARGE_{it} + \\ & \alpha_{21} ICMW_{it} + \alpha_{22} BigN_{it} + \alpha_{23} Second\ Tier_{it} + \alpha_{24} Specialist_{it} + \alpha_{25} Tenure_{it} + \alpha_{26} Busy_{it} + \varepsilon_{it} \quad (4)\end{aligned}$$

where all variables are defined in the Appendix. The variable of interest in model (4) is *Dismiss Following Delay*, which we expect to have a negative coefficient consistent with H2. We control for earnings delays experienced in the interim quarters (*EA Delay* (Q1 through Q3)), and the announcement of a restatement of the financial statements during the year (*NR Restate*). We also incorporate several other control variables from equations (2) and (3) that could affect the likelihood of delaying the EA, except that we control for the level of these variables rather than changes from the previous year.

To examine whether auditors appointed after an EA delay meet the reporting reliability demands of their clients, we examine EA quality in the years following auditor-client realignments. We measure EA reliability as instances where the financial results reported in the

EA are subsequently revised/restated. This happens in one of two ways. First, there can be an EA revision where the financial results in the EA are subsequently revised prior to the 10-K filing (i.e., EA revisions) (Bronson et al. 2011; Haislip et al. 2017). To identify EA revisions, we utilize the Compustat Snapshot database to compare net income as reported in the EA relative to the initial 10-K filing.[10] Second, there can be a restatement of the 10-K filing that incorporated the financial statements of the EA release (i.e., subsequent restatements). We use the Audit Analytics advanced restatement database to identify subsequent restatements. The primary difference between an EA revision and a subsequent restatement is the timing of the error detection and disclosure, but both reflect a lower quality EA. Prior research demonstrates that restatement likelihood is higher when clients release earnings in advance of audit completion (e.g. Bhaskar et al. 2019; Marshall et al. 2019). The underlying theory in these studies is that when clients release earnings early, auditors switch to a goal commitment frame of mind and unconsciously support the clients numbers released in the earnings announcement. Because of this, the financial results released in both the EA and the 10-K filing are more likely to contain misstatements that would be subject to higher restatement risk during future periods. We estimate the following logistic regression that models the occurrence of EA revisions or subsequent restatements (where all variables are defined in the Appendix):

$$\begin{aligned}\textit{EA Revision or Restate}_{it} = {} & \beta_{\textit{Industry}} + \beta_{\textit{Year}} + \beta_1\textit{Dismiss Following Delay}_{it} + \beta_2\textit{Expected EA Lag}_{it} + \\ & \beta_3\textit{UE NEG}_{it} + \beta_4\textit{Loss}_{it} + \beta_5\textit{Size}_{it} + \beta_6\textit{Analyst Following}_{it} + \beta_7\textit{BTM}_{it} + \beta_8\textit{Leverage}_{it} + \\ & \beta_9\textit{M\&A}_{it} + \beta_{10}\textit{Restructure}_{it} + \beta_{11}\textit{GC}_{it} + \beta_{12}\textit{Special}_{it} + \beta_{13}\textit{Issue}_{it} + \beta_{14}\textit{Accelerated}_{it} + \\ & \beta_{15}\textit{ACCEL LARGE}_{it} + \beta_{16}\textit{ICMW}_{it} + \beta_{17}\textit{Specialist}_{it} + \beta_{18}\textit{BigN}_{it} + \beta_{19}\textit{Tenure}_{it} + \\ & \beta_{20}\textit{Busy}_{it} + \varepsilon_{it} \qquad (5)\end{aligned}$$

The variable of interest in model (5) is *Dismiss Following Delay*. In addition to controlling for the expected EA lag (*Expected EA Lag*), we include a broad set of company

[10] Instances where net income is different per the database are then hand verified by examining the 8-K and 10-K filing to ensure they are actually EA revisions, rather than rounding differences.

characteristics and events that prior research finds to be associated with lower quality financial reports including unexpected negative earnings (*UE Neg*), reported losses (*Loss*), company size (*Size*) (Becker et al. 1998), analyst following (*Analyst Following*) (Yu 2008), expected growth (*BTM*) (Dechow et al. 1996), leverage (*Leverage*) (DeFond and Jiambalvo 1994), M&A (*M&A*) and restructuring activities (*Restructure*) (Kinney et al. 2004; Cao et al. 2012), financial distress (*GC*), special items (*Special*), equity issuances (*Issue*) (Dechow et al. 1996, Cao et al. 2012), whether the company is an accelerated filer (*Accelerated*) or large accelerated filer (*ACCEL LARGE*) and subject to shorter required filing deadlines, and the presence of internal control weaknesses (*ICMW*) (Blankley et al. 2012; Seidel 2017). We further control for audit-related variables that could impact the quality of the EA including auditor industry specialization (*Specialist*) (Reichelt and Wang 2010; Cao et al. 2012), auditor size (*BigN*) (Becker et al. 1998), auditor tenure (*Tenure*) (Myers et al. 2003), and auditor workload compression during busy season (*Busy*). Again, we include year and industry fixed effects.

3.2 Data and sample selection

Our empirical models require data from Audit Analytics, I/B/E/S, and Compustat. We use data from Wall Street Horizon to identify delays from expected annual EA dates. These data identify changes in expected EA dates using a range of information sources, including earnings notifications disclosed by the firm (Chapman 2018) or by direct communication with the managers. When the anticipated EA date has not been disclosed by the firm, Wall Street Horizon predicts the date using a proprietary algorithm that is more accurate than traditional methods such as simply using the number of days between the close of the fiscal period and the EA date in prior years. The resulting data precisely identifies the occurrence and length of EA delays which are associated with various capital market outcomes, including the prediction of earnings

surprises (Johnson and So 2018).[11] We use these data to calculate the EA delay as the number of days between the scheduled or expected date and the actual EA date.[12]

Our sample period begins in 2005 when the Wall Street Horizon data is first available and ends in 2017. We focus on delays to annual EAs because they have the potential to be audit-related and interim quarterly filings are unaudited. We then impose two additional data restrictions. First, we remove companies from financial and regulated industries (i.e., SIC 4900 through 4999 and 6000 through 6999) and observations where the EA delay is greater than 30 days because they are likely to capture major complications or potential errors in the Wall Street Horizon data.[13] Second, because resignations are initiated by the auditor rather than the client, we exclude companies where the auditor resigns in the following year.[14] The final sample used to test H1 consists of 42,476 company-year observations. Of these observations, we find that 5,037 or 11.9 percent experience a delay from the expected EA date. Among the observations with an EA delay, the average delay is 6.3 days with a standard deviation of 5 days.

To test H2, we remove 7,689 observations with missing Wall Street Horizon data in previous years or missing data to calculate first-differences and 24,545 observations that do not experience an EA delay in the previous three years. The final sample used to test H2 consists of 10,242 company-year observations. We provide a detailed description of our sample selection process in Table 1.

[11] Prior research examining EA delays typically use the prior year's EA release date as the expectation and classifies delays as cases where the current year EA is later than the previous year's EA. As a robustness test we redefine EA Delay consistent with this approach. In untabulated analyses, we find results consistent with our primary analyses reported later in the paper.
[12] Verified and tentative earnings announcement date changes include WSH codes DVV, DVT, DTV and DTT.
[13] In untabulated tests, inferences are consistent if we include these observations in the sample.
[14] In untabulated tests, inferences are consistent if we include auditor resignations (976 company-year observations) in the sample and examine auditor changes (dismissals and resignations) holistically. In Section 4.3.3, we incorporate auditor resignations back into our sample and examine the implications of earnings announcement delays on auditor resignations.

3.3 Descriptive statistics

In Table 2, Panels A and B, we present descriptive statistics for the variables used to test H1 and H2, respectively. In Panel A, we observe that company-years with a subsequent auditor dismissal (in the year period following filing date of the annual financial statements) comprise 5.5 percent of the sample (*Dismiss*). In Panel B, we find that the mean change in EA lag (*ΔEA Lag*) among companies experiencing an EA delay in the previous three years is -1.016, consistent with more timely EAs. We find that the mean change in audit completeness at the EA date (*ΔEA Audit Completeness)* is positive (3.508). We find that in the three years following an EA delay, the frequency of an EA delay is 18.4 percent (*EA Delay*). We also find that 4.7 percent of these sample observations have EAs that are either revised before the annual report filing or the annual report filing is subsequently restated (*EA Revision or Restate)*.[15]

In Table 3, we present the Pearson and Spearman correlations for the sample used to test H1. Although we do not find a significant correlation between *EA Delay* and subsequent auditor dismissals ($p = 0.123$), we examine this relation more fully using a multiple regression framework in the next section. Other correlations appear reasonable and consistent with prior research (Ettredge et al. 2007; Bronson et al. 2009; Ettredge et al. 2011). The Pearson and Spearman correlations for the samples used to test H2 are included in the online appendix. We find a negative (positive) correlation between *Dismiss Following Delay* and *ΔEA Delay* (*ΔEA Audit Completeness*). We find insignificant correlations between *Dismiss Following Delay* and

[15] We note that certain variables exhibit the influence of outliers despite our procedure to winsorize continuous variables at the 1/99 percent levels (based on standard deviations, means, and interquartile ranges). To determine the extent to which potential outliers influence our results, in additional untabulated analyses, we re-perform our tests after further winsorizing certain variables at the 5/95 percent level within the respective sample distributions (*Leverage* and *ΔAudit Fees* in our sample to test H1 and *OCF*, *σCASHREV*, and *σCFO* in our sample to test H2). After further winsorization of these variables, sample distributions appear more reasonable in that the sample mean for these variables now falls within the first and third quartiles of the sample distribution and all results are consistent with those in our main analyses suggesting that outliers are not unduly influencing our results.

both *EA Delay* and *EA Revision or Restate*.

4 Results

4.1 Main hypotheses tests

We present our main test of H1 in Table 4.[16] In Table 4, Panel A, we provide the cause of dismissal as coded in Audit Analytics. While some disclosures contain more than one disclosed reason, we note that the majority (71.5 percent) provide only general disclosure with no specific reasons. In Table 4, Panel B, we present the regression results for H1. In column 1 we present the results of the full sample that includes 2,322 auditor dismissals. In column 2, we repeat the analysis in column (1) after disaggregating *EA Delay* into delays of less than or at least one week (*EA Delay < 7 days and EA Delay* $\geq$ *7 days*, respectively).[17] In columns (3) and (4), we remove auditor dismissals that disclose any specific reason other than timing constraints or inability to meet regulatory deadlines (i.e., we remove 662 auditor dismissal observations that were included in any of the categories from Panel A other than observations from the 'other' category that specifically mentioned timing constraints or inability to meet regulatory deadlines).[18]

Consistent with *H1*, we find a positive and significant coefficient on *EA Delay* in columns (1) and (3), and in columns (2) and (4) we find an increased likelihood of auditor dismissal, but only for *longer delays* (i.e., seven or more days). We find no evidence of a significant association between auditor dismissal and short delays (i.e., fewer than seven days - *EA Delay < 7 days*) of the EA. This evidence suggests that longer EA delays are associated with

[16] Variance inflation factors for tests of H1 are 3.9 or lower suggesting no multicollinearity concerns.
[17] In untabulated analyses, we find similar results if we remove 37 auditor dismissal observations that were included in the 'auditor company disagreement' or 'auditor letter disagreement' categories from Table 4 Panel A.
[18] We examined the actual 8-K disclosures for all auditor dismissals in the 'other' category and found one dismissal where the disclosure stated that communication and coordination inefficiencies related to the auditor not being located close to the client was the reason for the auditor change.

a significantly higher likelihood of auditor dismissal in the subsequent year and indicates that longer EA delays strain the auditor-client relationship. In terms of the economic magnitude, we find that longer earnings announcement delays (*EA Delay* $\geq$ *7 days*) increase the odds of auditor dismissal by approximately 31.3 percent (based on column 1 results).[19] Further, we find that these longer EA delays increase the predicted probability of auditor dismissal from 5.4 to 6.9 percent, an increase of 27.8 percent.[20] Thus, auditors bear a higher risk of economic consequences for missing the EA timing demands of their clients by seven days or more. To determine whether this effect is most pronounced among clients with greater bargaining power, we re-estimate model (1) after adding the natural log of the market value of equity interacted with EA Delay. Untabulated analyses reveal that the effect of EA Delay is decreasing for larger clients. This is consistent with smaller clients possessing greater bargaining power given the increased competition in the audit market.

In Table 5, Panel A, we present the results of models (2) and (3) used to test H2.[21] We find that firms changing auditors following an EA delay exhibit an average reduction in EA lag of approximately 1.8 days in the three years with the new auditor relative to firms that retain their auditor. We also find that firms who change auditors following an EA delay have more complete audits by the EA date than clients who retain their auditor.[22] These results support H2 and suggest that audit timeliness influences auditor realignments following EA delays.[23]

[19] The odds ratio for *EA Delay* $\geq$ *7 days* in column (1) is 1.313 (untabulated). Thus, holding other predictor variables fixed, the odds of auditor dismissal for firms with an earnings announcement delay of at least seven days is 31.3 percent higher than the odds of auditor dismissal for firms without an earnings announcement delay.
[20] We identify these predicted probabilities of *Dismissal* when *EA Delay* equals one/zero using the 'mtable' command in Stata.
[21] Variance inflation factors for tests of H2 are 6 or lower suggesting no multicollinearity concerns.
[22] We find similar inferences if we expand the sample to include company-year observations that did not experience an EA delay in the previous three years.
[23] We find that the results for models (2) and (3) are robust to specifying all control variables as levels and incorporating first-differences of the continuous control variables (*SIZE, ROA, LEVERAGE, MTB, and ARINV*). We also find that the results are robust to a levels specification of all discrete control variables, removing the levels

In Table 5, Panel B, we present the results of model (4). In the three years following an EA delay, we find that firms changing auditors exhibit a lower likelihood of an EA delay relative to firms that retain their auditor. Taken together, the results in Table 5 suggest that EA timeliness improves after clients realign with a new audit firm.

In Table 6, we present the results of our tests of the implications of auditor dismissal on EA quality. Among firms that experience an EA delay, we do not find a significant difference in EA quality, as measured by the likelihood of an EA revision or a subsequent restatement of the annual report, in the following three years between those that dismiss the auditor and those that retain their auditor.[24] Importantly, in untabulated analysis we find no evidence that our effect is incrementally different when interacting *Dismiss Following Delay* with client size (*LNMVE*) or that EA quality suffers among larger public companies (i.e., large accelerated filers or accelerated filers) even after clients realign with a smaller auditor (i.e., non-Big N audit firm). Thus, despite concerns about smaller clients exhibiting enhanced bargaining power or smaller auditors having the capacity/expertise to service larger clients, we do not find a distinguishable impact to audit quality. Although we perform additional procedures to examine whether the failure to reject the null hypothesis reflects a lack of sufficient power in our tests, we recognize that some of these procedures do not provide conclusive evidence.[25] As such, we caveat our

continuous control variables and incorporating first-difference changes of the continuous control variables (*SIZE, ROA, LEVERAGE, MTB, and ARINV*). In these alternative specifications, the only difference we note relates to firms that retain their auditor following a delay. For these firms we only find evidence of a more complete audit at the earnings announcement date in the first year following the delay.

[24] In untabulated analyses we decompose our earnings announcement quality variable into its two components – earnings revisions and restatements of subsequently issued financial statements containing the earnings announcement information. We find similar insignificant results across both aspects of quality.

[25] To mitigate the potential concern that our non-result on reporting reliability is attributable to low power, we use the power one mean function in Stata to estimate the required sample size needed to detect a change of 0.5 percent or less in the dependent variable (*EA Revision or Restate*). This procedure suggests that our sample size is more than sufficient to detect this small difference in our dependent variable. While this could suggest that the insignificant results we report are attributable to the absence of a detectable signal rather than insufficient test power, we recognize that there is no perfect statistical test to demonstrate sufficient power to reject a null hypothesis. Prior research recommends considering the breadth of the confidence interval (Hoenig and Heisey 2001; Cunningham, Li,

findings with this potential limitation.[26]

4.2 Additional Analyses

4.2.1 Subsequent auditor choice

We next examine the choice of audit firm by clients after an EA delay. We assign audit firms to one of three groups, Big N (Deloitte, EY, KPMG, and PwC), second tier (BDO, GT, RSM, and Crowe), and other (all other audit firms). We then examine the realignment from the predecessor to the successor audit firm following an EA delay. This results in a 3 x 3 matrix of realignment combinations, from which we create nine different dependent variables (*Predecessor-to-Successor Auditor*). We estimate the following logistic regression model nine times using the alternative dependent variables with variables defined in the Appendix:

$$\begin{aligned} \textit{Predecessor-to-Successor Auditor} = {} & \alpha_{Industry} + \alpha_{Year} + \alpha_1 \textit{Post Dismiss}_{it} + \alpha_2 \textit{Size}_{it} + \alpha_3 \textit{Analyst Following}_{it} \\ & + \alpha_4 \textit{Leverage}_{it} + \alpha_5 \textit{BTM}_{it} + \alpha_6 \textit{Loss}_{it} + \alpha_7 \textit{ROA}_{it} + \alpha_8 \textit{GC}_{it} + \alpha_9 \textit{ICMW}_{it} + \\ & \alpha_{10} \textit{NR Restate}_{it} + \varepsilon_{it} \end{aligned} \quad (6)$$

The variable of interest is *Post Dismiss*, which is an indicator variable equal to one for years with the successor auditor following an auditor dismissal, and zero otherwise. A significant coefficient on *Post Dismiss* indicates that a certain type of audit firm transition is more likely

Stein, and Wright 2019). In our EA quality test, the 95% confidence interval for the variable of interest, *Dismiss After EA Delay*, ranges from -0.498 to 0.559. The standard deviation of *EA Revision or Restate* for the same sample is 0.212. This comparison suggests that the potential effect size ranges from a 2.352 standard deviation decrease to a 2.643 standard deviation increase in *EA Revision or Restate*. Given the breadth of the confidence interval, we recommend caution in interpreting no effect exists.

[26] To determine if other events affecting audit report lags are influencing the results of our tests, we re-estimate our test of H1 and H2 splitting the sample into 3 periods: 2005-2007, 2008-2010, and 2011-2015. For the test of H1, we find similar results to our main analysis across all three sample periods. For the test of change in EA lag, the results are statically negative in the 2005-2007 and 2011-2015 periods, and directionally consistent (although not statistical at conventional levels) in the 2008-2010 period. For the test of change in audit completeness at the EA date, the results are statically negative in the 2005-2007 period and insignificant in the 2008-2010 (although we recognize that this sample period only comprises firm-years ending prior to June 2009 and as such likely lacks power given the small sample size). For the likelihood of an EA delay test, the result is negative and significant in the 2011-2015 sample period, but insignificant in the earlier subsample periods. The EA quality tests are insignificant across all three periods. Taken together, the results do not suggest that other events occurring during the sample period are unduly affecting our inferences.

following an EA delay. We include the following controls for client size (*Size*), analyst following (*Analyst Following*), complexity (*Leverage*, *BTM*), performance (*Loss*, *ROA*), and risk (*GC*, *ICMW*, *NR Restate*) (Landsman et al. 2009; Ettredge et al. 2011; Hennes et al. 2014). Finally, we include industry and year fixed effects.

We present the results of model (6) in Table 7, Panel A. In column (2), we find an increased likelihood of switching from Big N to second tier audit firms. In column (5), we find an increased likelihood of a lateral switch from a second tier to another second tier audit firm. In column (9), we find a lower likelihood of switching from a smaller audit firm to another smaller audit firm. These results suggest that clients changing auditors following an EA delay are more likely to engage a second tier audit firm.

While not all firms realign with a second tier audit firm following an EA delay, there is an increased likelihood of engaging a second tier audit firm, which could be for two reasons. First, second tier audit firms may be able to give priority to the client since they have fewer publicly traded companies in their portfolio (Hogan and Martin 2009). Second, given their smaller size, they may be able to avoid lengthy consultations with national office personnel that would otherwise delay the substantial completion of the audit. This view is expressed by current non-Big N partners that formerly worked at Big N firms.[27]

These results, in conjunction with our earlier findings, suggest that clients respond to an EA delay by switching to new audit firms that are able to meet their EA timing demands without sacrificing audit quality. The greater likelihood of realignment to second tier audit firms is consistent with recent research that suggests that second tier audit firms are emerging as viable

[27] Current non-Big N partners that formerly worked at Big N firms "perceive that Big 4 firms tend to have greater administration [and] bureaucracy" and that the non-Big N structures are "more nimble, easier to do business with when it comes to client acceptance and engagement administration" (Hux and Zimmerman 2020, 25-26).

alternatives to Big 4 audit firms (Whisenant 2006; Hogan and Martin 2009; Boone et al. 2010; Hoag et al. 2017). The combined results are consistent with regulator hopes that other audit firms can emerge as viable alternatives to Big N audit firms in the public company auditing market.

We next examine whether clients choose their new auditor based on the auditor's previous track record of helping their clients meet EA deadlines. We perform these analyses across the entire audit firm as well as within the local metropolitan statistical area (MSA). To do this, we calculate the percentage of clients with EA delays for each audit firm-year and for each audit firm-MSA-year. We then calculate the proportion of clients within every audit firm-year (audit firm-MSA-year) that experience an EA delay and find the average over the two preceding years for each audit firm-year (and audit firm-MSA-year). Higher values of this measure indicate that the audit firm (or local audit office) has a worse track record of helping its clients release earnings on time. We limit the sample to firms that experience an EA delay and subsequently dismiss their auditor in the following year. Specifically, we capture the year of the EA delay (with the predecessor auditor) and the year following the EA delay (with the subsequently engaged auditor). We then estimate the following OLS regression model:

$$\begin{aligned} \textit{2 Yr Avg \% EA Delay (Audit Firm) or 2 Yr Avg \% EA Delay (Audit Firm MSA)} = {} & \beta_{\textit{Industry}} + \beta_{\textit{Year}} + \\ & \beta_1 \textit{Post\_Dismiss} + \beta_2 \textit{Size}_{it} + \beta_3 \textit{Analyst Following}_{it} + \beta_4 \textit{Leverage}_{it} + \beta_5 \textit{BTM}_{it} + \beta_6 \textit{Loss}_{it} + \\ & \beta_7 \textit{ROA}_{it} + \beta_8 \textit{GC}_{it} + \beta_9 \textit{ICMW}_{it} + \beta_{10} \textit{NR Restate}_{it} + \beta_{11} \textit{BigN}_{it-1} + \beta_{12} \textit{Second Tier}_{it-1} + \\ & \beta_{13} \textit{BigN}_{it} + \beta_{14} \textit{Second Tier}_{it} + \varepsilon_{it} \end{aligned} \quad (7)$$

where *2 Yr Avg % EA Delay (Audit Firm)* (*2 Yr Avg % EA Delay (Audit Firm MSA*)) equals the average proportion of clients within an audit firm (audit firm-MSA) over the two previous years that experience an EA delay. All other variables are defined in the Appendix.

We present the results of model (7) in Table 7, Panel B. At the national audit firm level as well as the local audit firm level, we find a statistically significant negative association. This implies that firms are less likely to engage an auditor whose clients have had more

announcement delays in the previous two years. These analyses provide further evidence that the auditor change is likely attributable to deliberate selection on the part of clients who are prioritizing the auditor's ability to help them avoid EA delays.

4.2.2 Costs vs. benefits of switching auditors

We next examine the potential costs associated with switching auditors after EA delays. If the market views an auditor change as a negative signal (e.g. Whisenant et al. 2003; Beneish et al. 2005), then this could exacerbate the market-related costs associated with longer EA delays (Chambers and Penman 1984; Livnat and Zhang 2015). However, to the extent that the auditor change is in response to a negative outcome or if it is to lead to a better economic alignment between the auditor and the client, there may be a positive market reaction (Johnson and Lys 1990; Hennes et al. 2014). We examine short-window stock market reactions (i.e., cumulative abnormal returns around various windows) around both the expected and actual date of the EA for all firms experiencing an EA delay in our sample. For firms changing auditors in the year following an EA delay, we present the short-window stock market reactions to the auditor change disclosure. We examine these reactions broadly, as well as separately based on the length of the delay (i.e., delays less than a week and delays greater than a week) given that our auditor dismissal findings are concentrated among clients with longer EA delays.

We present the results in Table 8, Panel A. At the expected EA date, we find some evidence of a negative market reaction among clients that end up delaying longer. At the actual EA date, we also find evidence of a negative market reaction, which again, is driven by clients with a longer delay. However, among these clients experiencing longer EA delays that subsequently dismiss their auditor, we find a positive market reaction to the auditor dismissal announcement. The positive reaction for the longer delay group implies investors perceive this

realignment in a positive light, which may indicate that investors believe the firm is taking action to improve reporting timeliness.[28] This evidence suggests that at least when considering the costs of negative announcement and dismissal returns, firms are better off by switching auditors following a long EA delay.

Next, we examine audit fees. This test is motivated by the possibility that in switching auditors, firms incur higher audit fees, particularly if they are switching in order to find an auditor that will provide the effort and resources to better meet their demand for a high quality, timely audit. Alternatively, to the extent the client aligns with a new auditor that will give greater priority to the client and use resources efficiently to meet the client's quality and timeliness demands, audit fees could decrease or remain stable. To perform this examination, we estimate the following OLS regression with variable definitions in the Appendix:

$$\begin{aligned} \textit{Log Audit Fees} = {} & \delta_{\textit{Industry}} + \delta_{\textit{Year}} + \delta_1 \textit{Dismiss Following Delay}_{it} + \delta_2 \textit{Restate Prior 2yrs}_{it} + \delta_3 \textit{Size}_{it} \\ & + \delta_4 \textit{Analyst Following}_{it} + \delta_5 \textit{Leverage}_{it} + \delta_6 \textit{Loss}_{it} + \delta_7 \textit{MTB}_{it} + \delta_8 \textit{LIT}_{it} + \delta_9 \textit{ARINV}_{it} + \delta_{10} \textit{M\&A}_{it} + \\ & \delta_{11} \textit{Restructure}_{it} + \delta_{12} \textit{GC}_{it} + \delta_{13} \textit{Busy}_{it} + \delta_{14} \textit{Accelerated}_{it} + \delta_{15} \textit{SLARGE ACCEL}_{it} + \delta_{16} \textit{ICMW}_{it} + \\ & \delta_{17} \textit{BigN}_{it} + \delta_{18} \textit{Second Tier}_{it} + \varepsilon_{it} \end{aligned} \quad (8)$$

We present the results of model (8) in Table 8, Panel B. In column (1), we present the results using the sample of firms with an EA delay in any of the previous three years. In column (2), we further restrict the sample to firms with an EA delay that subsequently dismiss the auditor, including the year of the EA delay and the first year with the newly engaged auditor. In both columns, we find no evidence of an increase in audit fees following auditor realignment.

4.2.3 Additional tests to support that longer EA delays are likely audit driven

We recognize that we cannot explicitly observe whether EA delays are audit driven. While we recognize that the firm often sets the expectation for when earnings will be released,

[28] Although we find some limited evidence of a negative reaction to the auditor change disclosure for the short delay group (in the 0, +2 window), the market does not appear to react to the missed EA or the actual EA following the short delay.

which presumably incorporates some aspect of audit timing, they are less likely to have the same level of visibility and control over the timing of the audit process. We perform a series of tests to help validate this key assumption. First, if delays occur when there is greater uncertainty about material audit adjustments, then the extra time needed to resolve this uncertainty should lead to higher financial reporting quality. To examine this possibility, we re-estimate equation (5) replacing *Dismiss Following Delay* with *EA delay* or *EA Delay < 7 days* and *EA Delay* $\geq$ *7 days*. We present the results in Table 9. We find a lower likelihood of an EA revision or subsequent restatement of the annual report with the EA numbers when firms delay the EA. When we split our variable of interest into shorter and longer delays (less than or at least a week), we find that the effect is concentrated among longer delays. These findings are consistent with the argument that longer delays, likely requiring more audit procedures or more consultations on uncertain audit matters, improve the quality of the reported financial numbers.[29]

We next examine whether the likelihood of auditor dismissal following EA delays is higher for fourth quarter/annual EAs relative to interim EAs (Q1 to Q3). EA delays in interim quarters are less likely to be attributed audit practices and timelines given interim EAs are subject to lower levels of assurance (i.e., review procedures). Table 10, Panel A, shows interim quarter EAs have far fewer delays (0.6 percent) than fourth quarter/ annual EAs (11.9 percent). This suggests that EA delays are more common when there is significant audit involvement. We then re-estimate model (1), incorporating an additional indicator variable for EA delays related to interim quarters only and present the results in Table 10, Panel B. Unlike annual EA delays, we fail to find evidence of an association between interim quarterly EA delays and subsequent

[29] In untabulated analyses we decompose our EA quality variable into its two components – earnings revisions and restatements of subsequently issued financial statements containing the EA information. For delayed EAs, we find that the higher quality is driven primarily by a lower likelihood of subsequent restatements.

auditor dismissals. However, a test of the difference between the coefficients on *EA Delay* (Q1 through Q3 only) and *EA Delay* (Q4/Annual) is not significant. While this may be an artifact of the extremely low frequency of interim quarter EA delays, we recognize this limitation.

To further substantiate whether audit timeliness plays a factor in auditor dismissal following an EA delay, we partition our sample on: 1) audit completeness at the EA date, 2) auditor workload compression, and 3) audit committee accounting expertise. If the timeliness of the audit plays a role in the decision to switch auditors, then we would expect the observed association between EA delays and auditor dismissals to be manifest among those audits that were not fully complete at the EA date (based on the audit report date). We present the results in Table 11. In Panel A we find that the observed association is manifest among the subsample of observations where the audit is not complete at the EA date. We do not find a significant association in the subsample of observations where the audit is complete at the EA date.[30]

We next examine auditor office workload compression. Although increased auditor busyness could potentially explain the less timely audit resulting in a delay, it is unclear the client can observe this or not. Additionally, clients may be even more dissatisfied with the auditor for delays in timeliness when observable compression is lighter. We examine this possibility in Table 11, Panel B, where we partition the sample based on the sample median value of auditor office workload compression (measured as the proportion of audit fees from office clients with the same fiscal year-end). We find similar results across both partitions of the sample, suggesting that dismissal is not incrementally higher when audit office workload compression is greater.

Finally, we examine whether the association between EA delays and auditor dismissal is

[30] Results are similar if we limit the sample to fiscal years ending on or before June 2009 when the convention for dating the audit report changed to the 10-K filing date.

most pronounced among companies with a higher quality audit committee. Prior research not only suggests that higher quality audit committees demand high quality audits (Abbott et al. 2004), but also timely, efficient audits (Abernathy et al. 2014). If audit delays or perceived inefficiencies in the audit/consultation process are driving the delay of the earnings release, then a higher quality audit committee (i.e., one with accounting expertise) may more easily identify these inefficiencies and be more inclined to realign with a new audit firm that can meet their expectations for both efficiency and effectiveness. If the delays are solely a function of management inefficiencies or competencies, then we would not necessarily expect a higher likelihood of auditor dismissal with a higher quality audit committee. To examine this possibility, we define high audit committee quality as an audit committee with at least one accounting expert (i.e., prior experience as a public accountant, CPA, auditor, principal financial officer, CFO, controller, principal accounting officer, or chief accounting officer according to BoardEx). We present the results in Table 11, Panel C. We find that the observed associations in our main results are only manifest in the subsample with higher audit committee quality, not in the subsample of lower audit committee quality. This result is consistent with the assumption that EA delays are audit driven and suggests that inefficiencies in the audit process (real or perceived) play an important role in these delays.

4.3 Robustness Tests

4.3.1 Propensity-score matching

We recognize that our analyses could suffer from functional form misspecification. We address this by re-performing our analyses with propensity-score matched (PSM) samples (Armstrong et al. 2010; Shipman et al. 2017). For each sample, we identify a sample of control companies that do *not* experience an EA delay, but are otherwise similar to companies that

experience an EA delay along a host of relevant observable dimensions (i.e., the control variables in model (1) including the lag for the expected EA date).[31]

In untabulated analysis, we assess how well our matching procedure achieved covariate balance by examining differences in mean and median values of the matching variables between the treatment and control groups. Overall, our matched samples are generally well-balanced.[32] We replicate our hypotheses tests using the PSM sample and find consistent results.

4.3.2 Removing pervasive delayers

Most EA delays (79 percent) appear to be isolated events (i.e., there is delay of the annual EA but no delay in the previous year or within the current year's interim quarters). Annual EA delays occurring over consecutive years comprise 18.4 percent of the delay observations, whereas the remaining 2.5 percent are annual EA delays that also experienced a delay during at least one of the interim quarters. In untabulated analysis, we find that the likelihood of auditor dismissal is only significantly higher among the single annual EA delays and the small set of annual EA delays that also experienced an interim quarterly delay in the same year. We also replicate our main results after omitting observations with consecutive annual EA delays or those with delays in any of the interim quarters and the annual announcement and find similar results. This suggests that the results are not driven by chronic delay firms.

[31] We use the propensity scores from the first stage regression to match, without replacement, each company-year observation that has an EA delay with the company-year observation that does not have an EA delay from the same industry and year with the closest predicted value (using a maximum distance of 0.1 percent). We perform a similar procedure to obtain a PSM sample for our second hypothesis, where our first stage model includes all control variables in equations (2) and (3) with the exception of *ΔExpected EA Lag*.

[32] For the PSM sample used to test H1, we only find a significant difference in one of the 14 matched covariates (the average change in audit fees). We find differences in the median values in four of the 14 matched covariates (i.e., *Expected EA Lag*, *BTM*, *Tenure*, and *ΔAudit Fees*) and these differences appear to be economically small. For the PSM sample used to test H2, we only find significant differences in mean change in audit fees, and this difference appears to be economically small. We find differences in the median values of *Size*, *ROA*, and *OCF* and these differences appear to be economically small. Differences in medians are based on two-sample Wilcoxon rank-sum (Mann-Whitney) tests.

4.3.3 Good news vs. bad news

In untabulated analyses, we find that EA delays are positively associated with proxies for bad news (i.e. negative earnings growth from prior year and missing analyst expectations). Yet, a significant portion of EA delay firms report good news. The fact that the general pattern of announcing good news early and bad news late pattern still holds in our sample is possibly driven by higher unexpected work in the audit, which could arise from either unusually good or bad economic conditions. Thus, the delay could be associated with either good or bad news. In further analyses, we replicate our main results partitioning our sample into two groups based on whether earnings revealed good or bad news. We find that our main result (that auditor dismissal is increasing in an EA delay) holds across both partitioned samples, with comparable magnitudes, suggesting a positive earnings surprise cannot overcome the relationship frictions caused between auditors and clients when there is an EA delay.

4.3.4 EA delay, audit completeness at the EA date, and EA quality

Finally, we perform path analysis to examine the direct effect of EA delays on EA quality as well as the indirect effect on quality through the moderating variable of audit completeness at the EA date. We present the results of this analysis in Table 12. We find a positive association (0.014, 2-tailed $p = 0.003$) between EA delays and audit completeness at the EA date. We find a negative association (-0.011, 2-tailed $p = 0.022$) between audit completeness at the EA date and lower EA quality (measured as a subsequent earnings revision of restatement). The direct path between EA delays and EA quality is only marginally negatively significant in a 1-tailed test (-0.006, 2-tailed $p = 0.195$). This test provides further insight into the mechanism of how EA delays result in higher quality reported financial numbers in both the EA and 10-K.

5 Summary and conclusions

This study examines whether EA delays lead to auditor-client realignments and whether companies changing auditors engage a new audit firm that will better meet the company's EA timing and reliability demands in the years that follow. The rationale for our study is that EA delays are likely indicative of uncertainty in the audit and future revision risk because managers would otherwise strongly prefer to announce earnings on time in order to avoid the market penalties of a delayed announcement. Although prior research suggests that auditors bear a cost when identifying and requiring revisions to previously released earnings, less is known about the consequences auditors may face when audit considerations (or inefficiencies) likely lead to a delay in the EA beyond the expected release date.

We contribute three new findings to the literature. First, we find an increased likelihood of auditor realignment following a delayed earnings release with a higher likelihood of engaging an auditor with a previous track record of helping their clients meet EA deadlines. The successor auditor is more likely to be a second tier auditor that can likely make the client a priority to help meet their demands for audit effectiveness and efficiency and the market reacts positively to this change. Second, in the three years following an EA delay, firms that realign with a new auditor have reduced EA lag, greater audit completeness at the EA date, and a lower likelihood of an EA delay relative to firms that retain their auditor. These results suggest that the realignment with a new auditor has a beneficial impact on reporting timeliness. Finally, for companies that change auditors following an EA delay, EA reliability does not appear to be significantly compromised despite the fact that realignment is most pronounced among clients with greater bargaining power. Collectively, these findings suggest that companies' that face an EA delay are more likely to realign with new audit firms that are better able to service their EA disclosure timing demands

without compromising EA reliability.

Our results help inform regulatory concerns about audit market concentration and how audit firm turnover has the potential to impact the auditor-client dynamic. While it is possible that auditor turnover could lead to a power imbalance where clients gain leverage in the relationship, our results suggest otherwise. Our evidence is important as it demonstrates that in a time period where there is considerable strain on the timing of the earnings release due to audit constraints, clients are seeking out new audit firms that can meet their desired EA timing without compromising overall audit/financial reporting quality.

Appendix: Variable definitions

Variable	Definition
ΔAccelerated	The change in whether firm is an accelerated filer under SEC rules in the current year, relative to the prior year
ΔAnalyst Following	The change in the number of analysts that follow the firm (from I/B/E/S) from the prior year
ΔARINV	The change in the sum of accounts receivable and inventory scaled by total assets from the prior year
ΔAudit Fees	The percentage change in audit fees relative to the prior year
ΔBigN	The change in whether the firm is audited by a Big N audit firm in the current year relative to the prior year
ΔBusy	The change in whether the firm's fiscal year ends in December or January in the current compared to the prior year
ΔEA Audit Completeness	Captures the change in the degree of audit completeness at the EA date; *EA Audit Completeness* is set equal to zero when the EA is released on or after the audit report date and equals the number of days between the EA date and the audit report date when the EA is released before the audit report date
ΔEA Lag	The difference in annual EA lag (i.e., the number of days between the client's fiscal year end and the EA date) relative to the prior year
ΔExpected EA Lag	The difference in expected annual EA lag (i.e., the number of days between the client's fiscal year end and the expected EA date based on Wall Street Horizon data) relative to the prior year EA lag
ΔGC	The change in whether the firm received a going-concern audit report modification relative to the prior year
ΔICMW	The change in whether the firm received an adverse internal controls audit opinion (or disclosed a material weakness) in the current compared to the prior year
ΔLARGE ACCEL	The change in whether firm is a large accelerated filer under SEC rules in the current year, relative to the prior year
ΔLeverage	The change in leverage compared to the prior year

ΔLIT	The change in whether the firm is in a high litigation-risk industry relative to the prior year
ΔLoss	The change in whether the firm reported a loss in the current year compared to the prior year
ΔM&A	The change in whether the firm reported merger or acquisition activity in the current compared to the prior year
ΔMTB	The change in the market-to-book ratio from the prior year
ΔOCF	The change in operating cash flows from the prior year
ΔROA	The change in return-on-assets from the prior year
ΔSize	The change in the natural log of total assets from the prior year
ΔUE NEG	The change in unexpected earnings relative to the prior year
σCASHREV	Standard deviation of cash-based revenues (revenues - Δ accounts receivable) divided by lagged total assets computed over the period *t-5* to *t*
σCFO	Standard deviation of cash flows divided by lagged total assets computed over the period *t-5* to *t*
Industry	Industry fixed effects using SIC codes to define industries as follows (Ashbaugh et al. 2003): agriculture (0100-0999), mining and construction (1000-1999, excluding 1300-1399), food (2000-2111), textiles and printing/publishing (2200-2799), chemicals (2800-2824; 2840-2899), pharmaceuticals (2830-2836), extractive (1300-1399; 2900-2999), durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679), transportation (4000-4899), retail (5000-5999), services (7000-8999, excluding 7370-7379), computers (3570-3579; 3670-3679; 7370-7379), and utilities (4900-4999)
Year	Year fixed effects
2 Yr Avg % EA Delay (Audit Firm)	The average proportion of clients within an audit firm over the two previous years that experience an EA delay
2 Yr Avg % EA Delay (Audit Firm MSA)	The average proportion of clients within an audit firm-MSA over the two previous years that experience an EA delay
Accelerated	An indicator variable set equal to one if the firm is an accelerated

	filer under SEC rules, and zero otherwise
ACCEL LARGE	An indicator variable set equal to one if the firm is a large accelerated filer under SEC rules, and zero otherwise
Analyst Following	An indicator variable equal to one if analysts follow the firm (from I/B/E/S), and zero otherwise
ARINV	The sum of accounts receivable and inventory scaled by total assets
BigN	An indicator variable set equal to one if the firm is audited by one of the Big N audit firms, and zero otherwise
BTM	The ratio of the book value of common equity to the market value of common equity
Busy	An indicator variable set equal to one if the firm's fiscal year ends in December or January, and zero otherwise
CAR	Cumulative abnormal (market-adjusted) returns
Dismiss	An indicator variable set equal to one if the auditor is dismissed in the year following the filing of the 10-K but before the filing of the subsequent year 10-K, and zero otherwise
Dismiss Following Delay	An indicator variable set equal to one if 1 if the auditor was dismissed in the year following an EA Delay that occurred in year t-1, t-2, or t-3, and to zero otherwise
EA Delay	An indicator variable set equal to one if there is a delay in the expected annual EA date, and zero otherwise
EA Delay < 7 days	An indicator variable set equal to one if there is a delay of 7 days or less in the expected annual EA date, and zero otherwise
EA Delay $\geq$ *7 days*	An indicator variable set equal to one if there is a delay of 7 or more days in the expected annual EA date, and zero otherwise
EA Delay (Q1 through Q3)	An indicator variable set equal to one if there is a delay in the expected EA date during any of the interim quarters but not the annual EA, and zero otherwise
EA Revision or Restate	An indicator variable set equal to one if the EA is revised prior to the filing of the annual financial statements or the financial statements in the annual filing are subsequently restated (as

	revealed through a subsequent Item 4.02 non-reliance restatement), and zero otherwise
Expected EA Lag	The number of days between the firm's fiscal year-end and the expected EA date
GC	An indicator variable set equal to one if the firm receives a going-concern modification in the audit report, and zero otherwise
ICMW	An indicator variable set equal to one if the firm reports a material weakness in internal controls over financial reporting, and zero otherwise
Issue	An indicator variable set equal to one if the firm issued debt and/or equity during the year, and zero otherwise
Lag EA Audit Completeness	The completeness of the audit at the EA date in the previous year. Following Schroeder (2016), audit completeness at the EA date is captured as zero if the EA is released on or after the audit report date (i.e., complete audits). If the EA is released prior to the audit report date, then audit completeness equals the number of days between the EA date and the audit report date, which results in negative values.
Length Prior EA Delay	The number of days of the EA delay in the previous year
Leverage	Long-term debt plus the current portion of long-term debt scaled by total assets
LIT	An indicator variable set equal to one if the firm is in a high litigation-risk industry, where high litigation-risk industries are defined as companies with SIC codes in the following industries: 2833-2836, 3570-3577, 7370-7374, 3600-3674, and 5200-5961, and zero otherwise
Log Audit Fees	The natural log of audit fees
Loss	An indicator variable set equal to one if net income is less than zero, and zero otherwise
M&A	An indicator variable set equal to one if there was a merger or acquisition in the year, and zero otherwise
MTB	The ratio of the market value of common equity to the book value of common equity
NR Restate	An indicator variable set equal to one if an Item 4.02 non-reliance

	restatement is announced during the year, and zero otherwise
OCF	Cash flows from operations scaled by total assets
Post Dismiss	An indicator variable set equal to one capturing years with the successor auditor following an auditor dismissal, and zero otherwise
Predecessor-to-Successor Auditor	One of nine indicator variables capturing the change from a Big N auditor to either another Big N auditor, a second tier auditor, or another auditor, the change from a second tier auditor to a Big N auditor, another second tier auditor, or another auditor, or the change from another auditor to a Big N auditor, a second tier auditor, or another auditor, and zero otherwise
Restate Prior 2yrs	An indicator variable set equal to one if the client announces a restatement during the current year under audit or during the previous year, and zero otherwise
Restructure	An indicator variable set equal to one if the firm incurred restructuring charges during the year, and zero otherwise
ROA	Return on assets measured as income before extraordinary items divided by total assets
Second Tier	An indicator variable set equal to one if the firm is audited by one of the second tier audit firms (GT, BDO, McGladrey, Crowe Chizek), and zero otherwise
Size	The natural log of total assets
Special	An indicator variable equal to one if the firm reported special items, and zero otherwise
Specialist	An indicator variable equal to one if the auditor is an industry specialist, defined following Reichelt and Wang (2010) as an auditor whose audit fee market share in the 2-digit SIC code exceeds 30 percent at the national level, and zero otherwise
Tenure	The number of consecutive years to date of the auditor-client relationship
UE NEG	An indicator variable set equal to one if income before extraordinary items for the current year is less than income before extraordinary items during the previous year, and zero otherwise

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TABLE 1
Sample Selection

Samples	**N**
Company-year observations from 2005 through 2017, inclusive, with available date to construct model variables	62,719
Less: Company-year observations from regulated industries (2 digit SIC codes 49, and 60 – 69)	(16,718)
Less: Company-year observations where EA delay is greater than 30 days	(2,549)
Less: Company-year observations where the auditor resigns in the following year	(976)
Sample for Tests of H1	**42,476**
Less: Company-year observations from the H1 sample with missing year t–1 to t–3 data	(7,689)
Less: Company-year observations that do not experience an earnings announcement delay in the previous 3 years	(24,545)
Sample for Tests of H2	**10,242**

	N	**% of sample**
EA Delay	5,037	11.9%

	Mean	**STD**	**P5**	**P10**	**P25**	**P50**	**P75**	**P90**	**P95**
# Days	6.298	5.046	1.000	1.000	3.000	6.000	7.000	13.000	15.000

TABLE 2
Descriptive Statistics

Panel A: Sample to test H1 (N=42,476)

Variable	Mean	STD	P25	P50	P75
Dismiss	0.055	0.227	0.000	0.000	0.000
EA Delay	0.119	0.323	0.000	0.000	0.000
Expected EA Lag	62.868	49.213	40.000	56.000	75.000
Size	5.621	2.808	3.912	5.840	7.544
Leverage	0.384	1.089	0.007	0.175	0.368
BTM	0.378	1.402	0.177	0.390	0.712
Loss	0.418	0.493	0.000	0.000	1.000
ROA	-0.460	2.316	-0.125	0.020	0.069
GC	0.109	0.311	0.000	0.000	0.000
Analyst Following	0.609	0.488	0.000	1.000	1.000
NR Restate	0.038	0.190	0.000	0.000	0.000
ICMW	0.102	0.303	0.000	0.000	0.000
Specialist	0.195	0.396	0.000	0.000	0.000
BigN	0.648	0.478	0.000	1.000	1.000
Tenure	7.238	5.628	3.000	6.000	10.000
ΔAudit Fees	0.209	1.873	-0.069	0.025	0.176

Panel B: Sample to test H2 (N=10,242)

Variable	Mean	STD	P25	P50	P75
ΔEA Lag	-1.016	12.025	-2.000	-1.000	2.000
ΔEA Audit Completeness	3.508	12.793	-1.000	1.000	7.000
ΔEA Audit Completeness (N=2053)	5.915	16.184	-1.000	3.000	11.000
EA Delay	0.184	0.387	0.000	0.000	0.000
EA Revision or Restate	0.047	0.212	0.000	0.000	0.000
Dismiss Following Delay	0.059	0.236	0.000	0.000	0.000
Length Prior EA Delay	2.770	4.530	0.000	0.000	5.000
Lag EA Audit Completeness	-20.761	31.333	-28.000	-15.000	-4.000
ΔExpected EA Lag	0.708	11.969	-2.000	0.000	5.000
ΔSize	0.047	0.286	-0.053	0.034	0.135
ΔAnalyst Following	0.011	0.213	0.000	0.000	0.000
ΔROA	-0.008	0.391	-0.034	-0.001	0.027
ΔOCF	-0.005	0.305	-0.038	0.000	0.035
ΔLeverage	0.009	0.163	-0.021	0.000	0.024
ΔUE NEG	0.010	0.716	-1.000	0.000	1.000
ΔLoss	0.010	0.413	0.000	0.000	0.000
ΔLIT	0.001	0.079	0.000	0.000	0.000
ΔBusy	0.006	0.088	0.000	0.000	0.000
ΔMTB	-0.116	8.225	-0.528	0.003	0.537
ΔARINV	0.000	0.054	-0.017	0.000	0.019
ΔM&A	0.026	0.417	0.000	0.000	0.000
ΔGC	0.004	0.148	0.000	0.000	0.000
ΔBigN	-0.010	0.138	0.000	0.000	0.000
ΔAccelerated	-0.518	0.500	-1.000	-1.000	0.000
ΔACCEL LARGE	-0.001	0.028	0.000	0.000	0.000
ΔICMW	-0.002	0.274	0.000	0.000	0.000
EA Delay (Q1 through Q3)	0.007	0.086	0.000	0.000	0.000
NR Restate	0.022	0.146	0.000	0.000	0.000
Size	6.551	2.040	5.144	6.459	7.906
Analyst Following	0.809	0.393	1.000	1.000	1.000
OCF	0.027	0.361	0.024	0.080	0.129
Leverage	0.223	0.278	0.007	0.168	0.338
UE Neg	0.446	0.497	0.000	0.000	1.000
Loss	0.340	0.474	0.000	0.000	1.000
Issue	0.916	0.278	1.000	1.000	1.000
σCASHREV	0.239	0.407	0.078	0.146	0.269
σCFO	0.142	0.896	0.028	0.050	0.093
LIT	0.218	0.413	0.000	0.000	0.000
MTB	2.873	6.804	1.155	2.007	3.593
ARINV	0.240	0.178	0.097	0.213	0.340
M&A	0.263	0.440	0.000	0.000	1.000
Restructure	0.337	0.473	0.000	0.000	1.000
GC	0.030	0.171	0.000	0.000	0.000
Accelerated	0.313	0.464	0.000	0.000	1.000
ACCEL LARGE	0.538	0.518	0.000	1.000	1.000
ICMW	0.058	0.234	0.000	0.000	0.000
BigN	0.772	0.420	1.000	1.000	1.000
Second Tier	0.115	0.319	0.000	0.000	0.000
Specialist	0.233	0.423	0.000	0.000	0.000
Tenure	8.856	5.766	5.000	8.000	12.000
Busy	0.758	0.428	1.000	1.000	1.000

Variable definitions are included in the Appendix.

TABLE 3

Pearson and Spearman Correlations for Auditor Dismissal Sample

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*
(1) Dismiss		-0.01	**0.12**	**-0.11**	0.00	-0.01	**0.08**	**-0.08**	**0.09**	**-0.09**	**0.04**	**0.12**	**-0.02**	**-0.07**	**-0.04**	**0.04**
(2) EA Delay	-0.01		**-0.14**	**0.08**	**-0.04**	**0.07**	**-0.05**	**0.05**	**-0.10**	**0.13**	0.00	**-0.03**	**0.03**	**0.10**	**0.03**	**0.02**
(3) Expected EA Lag	**0.10**	**-0.08**		**-0.64**	**0.06**	**-0.06**	**0.40**	**-0.43**	**0.42**	**-0.52**	**0.09**	**0.31**	**-0.23**	**-0.54**	**-0.39**	**0.01**
(4) Size	**-0.11**	**0.09**	**-0.42**		**0.23**	**0.19**	**-0.46**	**0.47**	**-0.45**	**0.52**	**-0.05**	**-0.22**	**0.30**	**0.65**	**0.41**	**0.01**
(5) Leverage	**0.05**	**-0.06**	**0.24**	**-0.34**		**-0.19**	**0.04**	**-0.12**	**0.18**	**-0.02**	**0.02**	**0.07**	**0.07**	**0.04**	**0.04**	-0.01
(6) BTM	-0.01	**0.05**	**-0.14**	**0.21**	**-0.41**		**-0.14**	**0.11**	**-0.33**	**0.05**	**-0.01**	**-0.09**	**0.03**	**0.08**	**0.07**	**-0.06**
(7) Loss	**0.08**	**-0.05**	**0.25**	**-0.46**	**0.17**	**-0.11**		**-0.85**	**0.37**	**-0.31**	**0.05**	**0.18**	**-0.11**	**-0.27**	**-0.23**	**-0.04**
(8) ROA	**-0.07**	**0.07**	**-0.27**	**0.48**	**-0.68**	**0.28**	**-0.27**		**-0.44**	**0.33**	**-0.05**	**-0.20**	**0.12**	**0.29**	**0.23**	**0.04**
(9) GC	**0.09**	**-0.10**	**0.33**	**-0.54**	**0.43**	**-0.31**	**0.37**	**-0.50**		**-0.37**	**0.04**	**0.30**	**-0.13**	**-0.36**	**-0.23**	**-0.03**
(10) Analyst Following	**-0.09**	**0.13**	**-0.33**	**0.53**	**-0.18**	**0.09**	**-0.31**	**0.23**	**-0.37**		**-0.05**	**-0.18**	**0.19**	**0.44**	**0.28**	**0.02**
(11) NR Restate	**0.04**	0.00	**0.09**	**-0.05**	0.01	**-0.02**	**0.05**	**-0.02**	**0.04**	**-0.05**		**0.15**	**-0.01**	**-0.04**	**-0.09**	**0.03**
(12) ICMW	**0.12**	**-0.03**	**0.30**	**-0.26**	**0.19**	**-0.10**	**0.18**	**-0.25**	**0.30**	**-0.18**	**0.15**		**-0.08**	**-0.21**	**-0.18**	**0.04**
(13) Specialist	**-0.02**	**0.03**	**-0.14**	**0.29**	**-0.05**	**0.02**	**-0.11**	**0.09**	**-0.13**	**0.19**	**-0.01**	**-0.08**		**0.36**	**0.20**	0.00
(14) BigN	**-0.07**	**0.10**	**-0.33**	**0.64**	**-0.18**	**0.09**	**-0.27**	**0.25**	**-0.36**	**0.44**	**-0.04**	**-0.21**	**0.36**		**0.46**	**0.02**
(15) Tenure	**-0.04**	**0.01**	**-0.21**	**0.34**	**-0.08**	**0.04**	**-0.19**	**0.12**	**-0.19**	**0.25**	**-0.07**	**-0.15**	**0.18**	**0.39**		0.00
(16) ΔAudit Fees	**0.02**	**0.01**	**0.06**	**-0.02**	**-0.01**	-0.01	**0.03**	0.00	0.00	0.01	**0.03**	**0.03**	0.00	**0.01**	**-0.05**	

This table presents Pearson (below diagonal) and Spearman (above diagonal) correlations for the H1 sample related to auditor dismissals. Bolded correlations are significant at the 5 percent level. Variable definitions are included in the Appendix.

TABLE 4
Tests of H1: Auditor Dismissal

Panel A: Disclosed Reasons for Auditor Dismissals in Sample

For the 2,322 auditor dismissals included in our sample for H1, we provide the Audit Analytics' classifications for why the auditor was dismissed based on companies' 8-K disclosures. Some disclosures contain more than one disclosed reason.

Disclosed Reason	N	Percent of Sample Dismissals
Auditor company disagreement	25	1.1%
Auditor letter disagreement	12	0.5%
Accounting issue	81	3.5%
Audit opinion issue	93	4.0%
Auditor merger	19	0.8%
Company merger	30	1.3%
Bankruptcy issue	12	0.5%
SEC banned auditor	2	0.1%
SEC investigation/inquiry	4	0.2%
Internal control issue	522	22.5%
Illegal acts	5	0.2%
Auditor lacks independence	11	0.5%
Management representation issue	8	0.3%
Scope limitation	6	0.3%
Auditor exiting public audits	3	0.1%
Auditor no longer registered with PCAOB	19	0.8%
Audit fee issue	45	1.9%
Re-audit previous year	11	0.5%
Restatement issue	86	3.7%
Other	19	0.8%
General disclosure (no reason)	1,660	71.5%

Panel B: Multiple Regression Results

		Full Sample DV = *Dismiss*				Remove Dismissals with Auditor Disagreement or any Disclosed Reason DV = *Dismiss*			
		(1)		(2)		(3)		(4)	
Variable		**Coefficient**	**t-statistic**	**Coefficient**	**t-statistic**	**Coefficient**	**t-statistic**	**Coefficient**	**t-statistic**
EA Delay	**+**	**0.149****	**2.070**			**0.012***	**1.370**		
EA Delay < 7 days	**?**			**0.012**	**0.120**			**0.037**	**0.310**
EA Delay ≥ 7 days	**+**			**0.272*****	**2.890**			**0.203****	**1.710**
Expected EA Lag		0.001***	4.140	0.001***	4.140	0.001***	3.450	0.001***	3.450
Size		-0.111***	-7.730	-0.111***	-7.710	-0.134***	-7.770	-0.134***	-7.760
Leverage		-0.002	-0.090	-0.002	-0.090	-0.004	-0.180	-0.004	-0.180
BTM		0.081***	4.630	0.080***	4.620	0.088***	3.980	0.088***	3.970
Loss		0.262***	4.980	0.260***	4.940	0.165***	2.720	0.164***	2.690
ROA		0.015	1.560	0.015	1.540	0.002	0.210	0.002	0.210
GC		0.146*	1.960	0.146*	1.960	0.190**	2.150	0.190**	2.150
Analyst Following		-0.262***	-4.520	-0.261***	-4.520	-0.223***	-3.280	-0.223***	-3.280
NR Restate		0.237**	2.480	0.234**	2.440	-0.244*	-1.670	-0.246*	-1.680
ICMW		0.807***	12.820	0.805***	12.790	0.089	1.080	0.088	1.070
Specialist		0.103	1.490	0.103	1.500	0.153*	1.830	0.153*	1.830
BigN		0.098	1.390	0.096	1.360	-0.058	-0.690	-0.059	-0.710
Tenure		0.011**	2.320	0.011**	2.330	0.012**	2.250	0.012**	2.250
ΔAudit Fees		0.013**	2.320	0.012**	2.300	0.011**	2.140	0.011**	2.120
Industry and Year FE		Included		Included		Included		Included	
N		42,476		42,476		41,814		41,814	
Pseudo R^2		0.054		0.055		0.044		0.044	
Area under ROC curve		0.684		0.685		0.665		0.666	
HL goodness-of-fit test (*p*-value)		0.915		0.909		0.788		0.796	

Reported standard errors are clustered by company. t-statistics are presented next to coefficient estimates. Variable definitions are included in the Appendix. Columns (1) and (2) present the results using the full sample to test H1. Columns (3) and (4) present the results after removing any auditor dismissals with an auditor disagreement or any other disclosed reason for the dismissal. Columns (1) and (3) estimate Equation (1) with our variable of interest, *EA Delay*. Columns (2) and (4) present the results estimating Equation (1) splitting *EA Delay* into shorter versus longer delays. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 5

Tests of H2: Short-term Implications for EA Lags, Audit Completeness, and EA Delays

Panel A: Tests of Changes in EA Lag and Audit Completeness at the EA Date

		DV = *ΔEA Lag*		DV = *ΔEA Audit Completeness*	
Variable		**Coefficient**	**t-statistic**	**Coefficient**	**t-statistic**
Dismiss Following Delay	**-/+**	**-1.845*** **	**-3.400**	**1.922** **	**1.650**
Length Prior EA Delay		-0.336***	-9.100		
Lag EA Audit Completeness				-0.121***	-3.390
ΔExpected EA Lag				0.038	0.760
ΔSize		-0.367	-0.600	-1.081	-0.860
ΔAnalyst Following		1.099	1.370	3.196	1.510
ΔROA		-0.785	-1.000	1.934	0.920
ΔOCF		-1.092	-1.070	-2.624*	-1.660
ΔLeverage		3.111	1.340	2.929	1.540
ΔUE NEG		0.241	1.330	0.298	0.570
ΔLoss		1.406***	4.080	-0.232	-0.270
ΔLIT		0.714	0.350	-7.891	-1.590
ΔBusy		-0.271	-0.220	3.938	1.040
ΔMTB		0.008	0.390	-0.017	-0.400
ΔARINV		-0.864	-0.230	3.456	0.560
ΔM&A		0.286	1.130	-1.511	-1.510
ΔGC		6.084***	3.580	-3.998	-1.270
ΔBigN		2.650**	1.980	-2.301	-0.670
ΔAccelerated		0.433**	2.370	0.748	1.270
ΔACCEL LARGE		-2.629*	-1.620	-2.586	-1.260
ΔICMW		7.858***	9.020	-9.391***	-5.880
Industry and *Year FE*		Included		Included	
N		10,242		2,053	
Adjusted R^2		0.079		0.225	

Panel B: The Likelihood of Subsequent EA Delay

		DV = *EA Delay*	
Variable		**Coefficient**	**t-statistic**
Dismiss Following Delay	**-**	**-0.212****	**-1.900**
EA Delay (Q1 through Q3)		0.142	0.700
NR Restate		-0.062	-0.360
Size		0.019	0.900
Analyst Following		-0.025	-0.310
OCF		0.045	0.610
Leverage		-0.077	-0.780
UE Neg		0.256***	4.530
Loss		0.108	1.600
Issue		0.115	1.080
σCASHREV		-0.005	-0.070
σCFO		0.048	1.640
LIT		-0.089	-1.110
MTB		-0.006	-1.290
ARINV		-0.046	-0.230
M&A		0.006	0.080
Restructure		-0.025	-0.400
GC		0.075	0.470
Accelerated		0.011	0.120
ACCEL LARGE		-0.287***	-2.790
ICMW		0.576***	5.250
BigN		0.043	0.380
Second Tier		0.105	0.900
Specialist		0.119*	1.840
Tenure		0.004	0.760
Busy		0.150**	2.210
Industry and *Year FE*		Included	
N		10,242	
Pseudo R^2		0.148	
Area under ROC curve		0.750	
HL goodness-of-fit test (*p*-value)		0.002	

Panel A of this table presents the results of estimating Equation (2) and (3) when the dependent variables are *ΔEA Lag* and *ΔAudit Completeness* respectively. The sample for these tests is limited to observations experiencing an EA delay in the previous three years. Equation (3) is estimated after further limiting the sample to observations with fiscal years ending before June 15, 2009. Panel B of this table presents the results of estimating Equation (4) when the dependent variable is *EA Delay*. The sample for this test is limited to observations experiencing an EA delay in the previous three years. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 6

Tests of H2: Short-term Implications for Earnings Announcement Quality

		DV = *EA Revision or Restate*	
Variable		**Coefficient**	**z-statistic**
Dismiss Following Delay	**?**	**0.031**	**0.110**
Expected EA Lag		-0.024***	-4.670
UE Neg		-0.016	-0.170
Loss		0.371***	2.740
Size		-0.036	-0.740
Analyst Following		-0.107	-0.610
BTM		-0.011	-0.200
Leverage		0.354*	1.890
M&A		0.33**	2.470
Restructure		0.357***	2.870
GC		-0.856**	-2.340
Special		0.157	1.010
Issue		0.394	1.740
Accelerated		0.046	0.230
ACCEL LARGE		-0.46*	-1.950
ICMW		1.762***	12.410
Specialist		0.245	1.640
BigN		-0.307*	-1.770
Tenure		0.004	0.350
Busy		0.018	0.120
Industry and *Year FE*		Included	
N		10,242	
Pseudo R^2		0.072	
Area under ROC curve		0.701	
HL goodness-of-fit test (*p*-value)		0.118	

This table presents the results of estimating Equation (5) when the dependent variable is *EA Revision or Restate*. The sample for these tests is limited to observations experiencing an EA delay in the previous three years. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 7

Additional Tests: Subsequent Auditor Choice

Panel A: Type of Auditor Change

		(1) DV = *BigN-to-BigN*		(2) DV = *BigN-to-Second Tier*		(3) DV = *BigN-to-Other*	
Variable		**Coefficient**	**z-statistic**	**Coefficient**	**z-statistic**	**Coefficient**	**z-statistic**
EA Delay$_{it-1}$	?	-0.053	-0.270	0.504**	2.270	0.174	0.670
Controls		Included		Included		Included	
Industry and Year Fixed Effects		Included		Included		Included	
N		1,808		1,808		1,808	
N DV		466		213		186	
Area under ROC curve		0.899		0.709		0.718	

		(4) DV = *Second Tier-to-BigN*		(5) DV = *Second Tier-to-Second Tier*		(6) DV = *Second Tier-to-Other*	
Variable		**Coefficient**	**z-statistic**	**Coefficient**	**z-statistic**	**Coefficient**	**z-statistic**
EA Delay$_{it-1}$	?	0.037	0.110	1.909***	3.640	0.434	1.110
Controls		Included		Included		Included	
Industry and Year Fixed Effects		Included		Included		Included	
N		1,808		1,808		1,808	
N DV		87		27		93	
Area under ROC curve		0.747		0.814		0.787	

		(7) DV = *Other-to-BigN*		(8) DV = *Other-to-Second Tier*		(9) DV = *Other-to-Other*	
Variable		**Coefficient**	**z-statistic**	**Coefficient**	**z-statistic**	**Coefficient**	**z-statistic**
EA Delay$_{it-1}$	?	-0.186	-0.480	0.030	0.070	-1.389***	-2.990
Controls		Included		Included		Included	
Industry and Year Fixed Effects		Included		Included		Included	
N		1,808		1,808		1,808	
N DV		77		81		578	
Area under ROC curve		0.748		0.729		0.910	

Panel B: Do Companies Choose an Auditor that Better Help Clients Meet EA Deadlines

Variable		DV = *2 Yr Avg % EA Delay (Audit Firm)* Coefficient	t-statistic	DV = *2 Yr Avg % EA Delay (Audit Firm MSA)* Coefficient	t-statistic
Post Dismiss	**-**	**-0.016****	**-1.950**	**-0.067*****	**-3.590**
Size		0.004	1.640	0.004	0.660
Analyst Following		0.011	1.170	0.015	0.760
Leverage		-0.026*	-1.760	-0.052	-1.620
BTM		-0.001	-0.290	-0.008	-1.320
Loss		-0.009	-1.170	-0.023	-1.110
ROA		-0.035***	-2.620	-0.033	-0.990
GC		-0.006	-0.370	-0.004	-0.140
ICMW		0.007	0.990	0.005	0.230
NR Restate		-0.011	-0.830	0.016	0.420
$BigN_{it-1}$		-0.013*	-1.650	-0.017	-0.810
$Second\ Tier_{it-1}$		-0.022*	-1.730	-0.008	-0.270
$Big\ N_{it}$		0.027*	1.690	0.019	0.640
$Second\ Tier_{it}$		0.012	0.750	-0.001	-0.040
Industry and *Year FE*		Included		Included	
N		496		480	
Adjusted R^2		0.532		0.169	

Panel A of this table presents results of estimating Equation (6) when the samples are limited to years with an auditor dismissal and the dependent variables capture the change in the predecessor to the successor audit firm type. Panel B of this table presents results of estimating Equation (7) when the dependent variables are *2 Yr Avg % EA Delay (Audit Firm)* and *2 Yr Avg % EA Delay (Audit Firm MSA)* respectively. These dependent variables capture the average proportion of audit firm (audit firm MSA) clients that experienced an earnings announcement delay over the two previous years. The samples for these tests are limited to firms experiencing an EA delay that dismiss the auditor in the following year and comprise the EA delay year (with the predecessor auditor) and the first year with the successor auditor. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 8

Additional Tests: Costs of EA Delay and Related Auditor Changes

Panel A: Short-Window Cumulative Abnormal Returns Tests

	Around Expected EA Date			Around Actual EA Date			Around Auditor Change Disclosure		
Variable	***EA Delay***	***EA Delay* < *7 days***	***EA Delay* ≥ *7 days***	***EA Delay***	***EA Delay* < *7 days***	***EA Delay* ≥ *7 days***	***EA Delay***	***EA Delay* < *7 days***	***EA Delay* ≥ *7 days***
CAR (-1, +1)	-0.0004	0.0015	-0.0027**	-0.0026*	-0.0018	-0.0037*	0.0037	-0.0011	0.0087
p-value	0.642	0.165	0.024	0.068	0.354	0.093	0.336	0.801	0.173
CAR (0, +2)	0.0004	0.0020	-0.0014	-0.0045***	-0.0032	-0.0060***	0.0041	-0.0065*	0.0139*
p-value	0.667	0.187	0.223	0.003	0.116	0.006	0.385	0.071	0.088
CAR (-1, +2)	0.0007	0.0035**	-0.0027*	-0.0035**	-0.0031	-0.0041*	0.0066	-0.0054	0.0180**
p-value	0.525	0.029	0.051	0.024	0.147	0.077	0.205	0.228	0.044

Panel B: Audit Fee Tests

		(1) DV = *Log Audit Fees*		(2) DV = *Log Audit Fees*	
Variable		**Coefficient**	**t-statistic**	**Coefficient**	**t-statistic**
Dismiss Following Delay	?	-0.048	-1.350	0.022	0.380
Controls		Included		Included	
Industry and Year Fixed Effects		Included		Included	
N		10,242		484	
Adjusted R^2		0.818		0.774	

Panel A of this table presents various mean short-window cumulative abnormal returns relative to the expected earnings announcement date, the actual earnings announcement date, and the auditor change disclosure (8-K release). Panel B presents the results of estimating Equation (8) when the dependent variable is the natural logarithm of audit fees. Column (1) of Panel B reports the results where the sample is limited to observations experiencing an EA delay in the previous three years. Column (2) reports the results after limiting the sample to firms experiencing an EA delay that dismiss the auditor in the following year. Specifically, this sample comprises the EA delay year (with the predecessor auditor) and the first year with the successor auditor. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 9

Additional Tests: EA Quality in Year of EA Delay

Variable		DV = *EA Revision or Restate* Coefficient	z-statistic	DV = *EA Revision or Restate* Coefficient	z-statistic
EA Delay	**?**	**-0.132***	**-1.930**		
EA Delay < 7 days	**?**			**-0.070**	**-0.790**
EA Delay ≥ 7 days	**?**			**-0.198****	**-2.070**
Expected EA Lag		-0.006***	-4.580	-0.006***	-4.570
UE Neg		0.101**	2.210	0.101**	2.230
Loss		0.167**	2.560	0.168**	2.570
Size		0.020	1.060	0.019	1.050
Analyst Following		-0.053	-0.740	-0.053	-0.740
BTM		-0.030*	-1.650	-0.030*	-1.650
Leverage		-0.044	-1.500	-0.044	-1.500
M&A		0.321***	4.580	0.321***	4.570
Restructure		0.286***	4.660	0.286***	4.670
GC		-0.444***	-3.630	-0.443***	-3.620
Special		0.209***	3.330	0.210***	3.330
Issue		0.430***	4.540	0.430***	4.540
Accelerated		0.234***	2.740	0.235***	2.750
ACCEL LARGE		-0.209**	-2.190	-0.210**	-2.190
ICMW		1.370***	20.000	1.371***	20.010
Specialist		0.106	1.390	0.106	1.390
BigN		-0.210**	-2.540	-0.210**	-2.530
Tenure		0.006	1.070	0.006	1.070
Busy		0.004	0.060	0.004	0.060
Industry and Year FE		Included		Included	
N		42,476		42,476	
Pseudo R^2		0.063		0.063	
Area under ROC curve		0.689		0.689	
HL goodness-of-fit test (*p*-value)		0.183		0.153	

This table presents the results of estimating Equation (5) replacing the various indicators capturing the three years following the earnings announcement delay with *EA delay* or *EA Delay < 7 days* and *EA Delay ≥ 7 days*. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 10

Additional Tests: Q4/Annual vs. Interim Quarterly EA Delays

Panel A: Descriptive Statistics (N=42,476)

Variable	Mean
EA Delay (Q1 through Q3 only)	0.006
EA Delay (Q4/Annual)	0.119

Panel B: Multiple Regression Analysis

		DV = *Dismiss*	
Variable		**Coefficient**	**z-statistic**
***EA Delay* (Q1 through Q3 only)**	**?**	**0.095**	**0.340**
***EA Delay* (Q4/Annual)**	**?**	**0.150****	**2.080**
Expected EA Lag		0.001***	4.120
Size		-0.112***	-7.740
Leverage		-0.002	-0.090
BTM		0.081***	4.630
Loss		0.262***	4.980
ROA		0.015	1.560
GC		0.146**	1.970
Analyst Following		-0.262***	-4.520
NR Restate		0.235**	2.450
ICMW		0.806***	12.780
Specialist		0.103	1.500
BigN		0.097	1.380
Tenure		0.011**	2.320
ΔAudit Fees		0.013**	2.320
Industry and *Year FE*		Included	
N		42,476	
Pseudo R^2		0.054	
Area under ROC curve		0.684	
HL goodness-of-fit test (*p*-value)		0.915	

This table presents results from estimating Equation (1) incorporating an additional indicator variable for EA delays related to interim quarters only. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 11
Additional Tests: Sample Partitions

Panel A: Audit Completeness at Earnings Announcement Date Partition

		Audit Complete at EA Date				Audit Not Complete at EA Date			
		DV = *Dismiss*		DV = *Dismiss*		DV = *Dismiss*		DV = *Dismiss*	
Variable		**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**
EA Delay	?	-0.004	-0.010			0.166**	2.240		
EA Delay < 7 days	?			-0.785	-0.750			0.040	0.390
EA Delay ≥ 7 days	?			0.502	0.820			0.280***	2.900
Controls		Included		Included		Included		Included	
Industry and *Year FE*		Included		Included		Included		Included	
N		6,443		6,433		36,033		36,033	
Pseudo R^2		0.047		0.048		0.049		0.049	
Area under ROC curve		0.669		0.669		0.677		0.677	
HL goodness-of-fit test (*p*-value)		0.318		0.322		0.952		0.950	

Panel B: Audit Workload Compression Partition

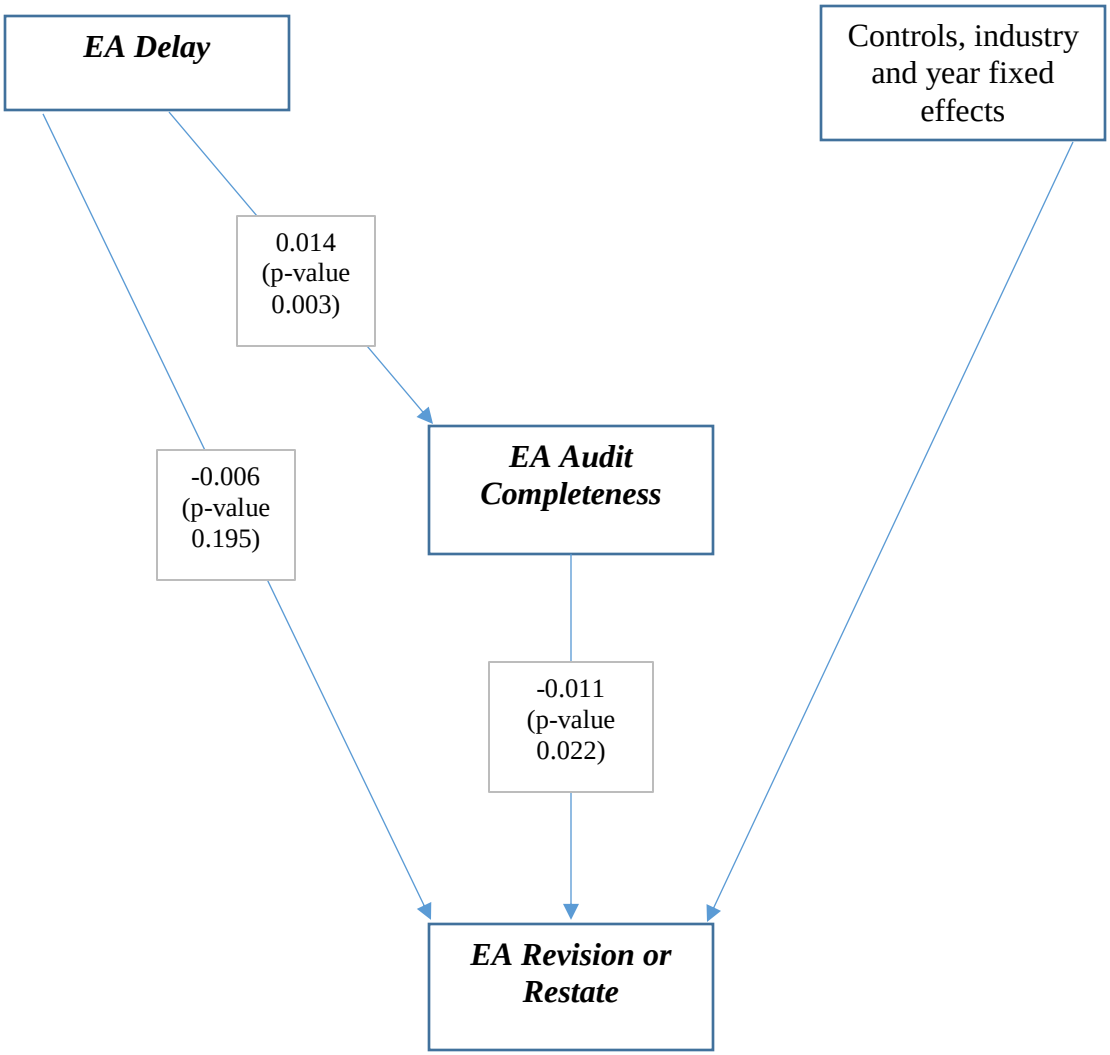
		High Audit Workload Compression				Low Audit Workload Compression			
		DV = *Dismiss*		DV = *Dismiss*		DV = *Dismiss*		DV = *Dismiss*	
Variable		**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**
EA Delay	?	0.118	1.180			0.183*	1.750		
EA Delay < 7 days	?			-0.064	-0.450			0.093	0.640
EA Delay ≥ 7 days	?			0.281**	2.150			0.265*	1.950
Controls		Included		Included		Included		Included	
Industry and *Year FE*		Included		Included		Included		Included	
N		21,233		21,233		21,243		21,243	
Pseudo R^2		0.051		0.052		0.065		0.065	
Area under ROC curve		0.679		0.679		0.701		0.701	
HL goodness-of-fit test (*p*-value)		0.865		0.852		0.701		0.689	

Panel C: Audit Committee Accounting Expertise Partition

		AC has an Accounting Expert				*AC does not have an Accounting Expert*			
		DV = *Dismiss*		**DV = *Dismiss***		**DV = *Dismiss***		**DV = *Dismiss***	
Variable		**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**	**Coeff.**	**z-statistic**
EA Delay	?	0.196**	2.040			0.123	0.710		
EA Delay < 7 days	?			0.084	0.630			0.083	0.370
EA Delay ≥ 7 days	?			0.297**	2.390			0.163	0.690
Controls		Included		Included		Included		Included	
Industry and *Year FE*		Included		Included		Included		Included	
N		21,520		21,520		6,241		6,241	
Pseudo R^2		0.065		0.065		0.059		0.059	
Area under ROC curve		0.699		0.699		0.687		0.687	
HL goodness-of-fit test (*p*-value)		0.792		0.792		0.381		0.387	

This table presents the results of partitioning the sample to test H1. Panel A presents the results of estimating Equation (1) after splitting the sample on whether the audit was complete by the earnings announcement date as evidenced by an audit report date on or before the earnings announcement date. Panel B presents the results of estimating Equation (1) after splitting the sample on whether audit office workload compression is higher or lower where audit office workload compression is measured as audit fees charged to clients with the same fiscal year-end month in each office divided by the sum of total office audit fees during the fiscal year. We split this measure at the sample median to capture higher or lower audit workload compression. Panel C presents the results of estimating Equation (1) after splitting the sample on whether the audit committee has at least one audit committee accounting expert, defined as an individual with experience as a public accountant, CPA, auditor, principal financial officer, CFO, controller, or principal accounting officer, or chief accounting officer, or not. Reported standard errors are clustered by company. P-values are two-tailed unless a directional prediction is made. *, **, and *** denote statistical significance at the 10, 5 and 1% levels, respectively.

TABLE 12
Path Analysis: EA delays, Audit Completeness at the EA date, and EA quality



This table presents a diagram of the results of path analysis using the stata command pathreg. The diagram depicts a positive association between *EA Delay* and *EA Audit Completeness*, and a negative association between *EA Audit Completeness* and *EA Revision or Restate*, highlighting the indirect effect of an *EA delay* on quality through the moderating variable of *EA Audit Completeness*.