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# How Busyness Influences SEC Compliance Activities: Evidence from the Filing Review Process and Comment Letters

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# How Busyness Influences SEC Compliance Activities: Evidence from the Filing Review Process and Comment Letters

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# How Busyness Influences SEC Compliance Activities: Evidence from the Filing Review Process and Comment Letters

ABSTRACT

Compliance plays an important role in the financial reporting oversight function of the U.S. Securities and Exchange Commission (SEC). SEC compliance actions include reviewing firm filings and issuing comment letters on those filings. The SEC's compliance activities are seasonally compressed because over 70 percent of registrants have a December fiscal year-end. Prior literature finds that busyness leads to negative outcomes in other financial reporting settings and that comment letters play an important role in the assessment of firm value. Therefore, understanding how busyness influences SEC compliance activities is important. As such, we examine how busyness impacts the frequency, scope, and timeliness of comment letters. Our results suggest that, despite issuing fewer comment letters when busy, the SEC focuses its limited resources on the most severe cases of disclosure noncompliance. They also extend the amount of time between receiving a firm's filing and issuing a comment letter. We find no evidence to suggest that the SEC misses more serious compliance issues when busy. Our results have implications for policymakers responsible for allocating resources to the SEC.

# 1. Introduction

To facilitate compliance with disclosure regulations, Assistant Director Offices (ADOs) of the Division of Corporation Finance ("Corp Fin") at the Securities and Exchange Commission (SEC) review filings of public registrants and issue comment letters for noncompliance with Generally Accepted Accounting Principles (GAAP) or deficiencies in disclosure.[1] The workload for filing reviews is seasonally compressed because a majority of registrants have a December fiscal year-end. Given that the filing review process is a critical part of the SEC's oversight function, we attempt to understand how the SEC directs its limited resources when busy. More specifically, we examine how busyness impacts the frequency, scope, and timeliness of comment letters.

Several studies suggest that workload compression ("busyness") negatively impacts the outcomes of various financial professionals. For example, Lopez and Peters (2012) find that audit quality is lower when auditors are busy. Tanyi and Smith (2015) find similar results for busy financial experts on the audit committee; their results imply that financial reporting quality declines when expert directors are busy. Finally, Fich and Shivdasani (2006) report that having busy directors is associated with weaker corporate governance. Previous studies also find that comment letters influence a firm's information environment and have capital market consequences. For example, Johnston and Petacchi (2017) report that comment letters improve firms' information environment, and Dechow et al. (2016) find a negative market reaction and increased insider sales around the announcement of 10-K comment letters related to revenue recognition. Given the potential for workload compression to adversely affect SEC compliance activities and

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[1] We use the terms SEC, ADO, and Corp Fin interchangeably.

the critical role the comment letter process plays in the assessment of firm value, it is important to understand how the SEC responds to seasonal busyness.

Seasonality in firms' choice of fiscal year-end leads to predictable clustering of 10-K filing dates across ADO offices. We use a binary variable to indicate December fiscal year-end as our busyness proxy because over 70 percent of firm-years in our sample end their fiscal year in December. To mitigate concerns that our measure captures variation in reporting quality concurrent with fiscal year-end choice, we include other firm determinants known to vary predictably with fiscal year-end choice (including firm size, leverage, beta, and industry membership).

Our first hypothesis examines the association between ADO busyness and 10-K comment letter issuance. The SEC's decision to issue a comment letter is a joint function of the probability that a filing is reviewed and the probability that a comment letter is issued, conditional on review. We employ a bivariate probit model that allows us to explicitly model both of the processes underlying the observable outcome of comment letter issuance. This methodology represents an innovation over prior literature because assuming that the probability of review is embedded in the issuance of a comment letter leads to biased estimators.[2] We find that the SEC exhibits a lower propensity to issue a 10-K comment letter (conditional on the probability of a filing review) for registrants with a December fiscal year-end relative to registrants with a non-December fiscal year-end.

Our second set of hypotheses explores how the SEC allocates its limited resources during periods of workload compression. If the SEC issues fewer comment letters but

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[2] We discuss the bivariate probit model in greater detail in section 5.

focuses attention on the most significant issues of noncompliance, we would expect to find more serious comment letters for registrants with a December fiscal year-end relative to registrants with a non-December fiscal year-end. We follow prior literature and classify comment letters as serious when they initiate a financial statement restatement or identify an issue related to revenue recognition. Despite issuing fewer comment letters when busy, our results suggest that the SEC balances its workload by focusing on more serious issues of noncompliance during busy periods. We find no evidence to suggest that the SEC has a higher instance of overlooking material noncompliance during periods of workload compression.

Our third and final hypothesis explores the impact of busyness on the timeliness of the comment letter process. Timeliness is an important metric of the comment letter process because comment letters contain incremental information about disclosure quality. Unlike financial professionals such as auditors, ADOs do not face external deadlines with regard to comment letter issuance. Due to the lack of deadlines surrounding the filing review process, ADOs may postpone comment letter issuance during periods of high workload compression. Consistent with this hypothesis, we find a positive association between busyness and comment letter processing time, suggesting that the SEC takes longer to process comment letters when busy. We also find evidence that suggests that they prioritize larger firms when busy.

We make several contributions to extant literature. We are the first to investigate how resource constraints caused by seasonal busyness affect SEC compliance activities, particularly filing reviews and the issuance of comment letters. Several related papers examine the association between the SEC's workload and its enforcement activities,

which differ in nature and purpose from compliance. For example, Kedia and Rajgopal (2011) find that firms located closer to SEC regional offices, where the SEC's enforcement role is undertaken, are more likely to restate their financial statements. DeFond et al. (forthcoming) find that non-Big 4 auditors' behavior is affected by proximity to the SEC's regional offices and that this proximity affects enforcement. Given the disparate nature of these functions with separate budgets and employees at the SEC, understanding how compliance activities are influenced by resource constraints is equally important.[3]

Second, we introduce an econometric tool to address the partial observability problem inherent in studies dealing with comment letter issuance. Partial observability arises when an observable outcome is a function of dual underlying latent processes, one of which is unobservable. In our setting, the SEC's decision to issue a comment letter is a joint function of the probability that a filing is reviewed and the probability that a comment letter is issued on that filing. The decision to a review a filing is not observable to researchers; prior literature on compliance implicitly assumes that the probability of filing review is embedded in the observable outcome of comment letter issuance. However, Poirier (1980) suggests that doing so biases estimators. To address this issue, we employ a bivariate probit model that estimates both the probability that the SEC selects a filing for review and the probability that a comment letter is issued (conditional on a filing review having been conducted). To the best of our knowledge, we are the first

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[3] For example, the SEC Congressional Budget Justification Report (SEC 2014, 13–14) reports that the Division of Corporation Finance comprises 10.12 percent of the annual SEC budget and 11.99 percent of total employees at the SEC. The Division of Enforcement comprises 32.74 percent of the annual SEC budget and 33 percent of total employees at the SEC.

to incorporate this tool into studies of the comment letter process, and our results should be of interest to scholars in this area.

Our third contribution is that we extend the literature on the impact of workload compression on financial professionals. Prior literature on workload compression is somewhat limited by researchers' inability to observe the outcomes of financial professionals' work, such as audit reports. In contrast, our setting is advantageous because comment letters are directly observable and contain significant details. For example, we can observe the frequency of comment letters, describe the issues identified, determine whether the comment letter initiates a financial statement restatement, and measure the time delay between the filing date and comment letter issuance. The output of other financial professions (e.g., auditors and directors) is not directly observable and is usually measured using proxies for financial reporting quality.

Our results have implications for policymakers responsible for allocating resources to the SEC. Our findings suggest that allocating additional resources to ADOs would likely broaden the scope of comment letters beyond identifying issues pertaining to GAAP compliance and revenue recognition during ADOs' busy periods. Our results also suggest that allocating additional resources to the SEC will reduce comment letter processing time, which will enhance the speed with which firm-specific information reaches the public. When deciding whether to allocate additional resources to Corp Fin, policymakers should weigh the benefits of comment letters that are broader in scope and timelier, net of the cost of devoting additional resources to the compliance process.

**2. Background on SEC Filing Review Process**

The SEC is organized into five divisions: Corp Fin, Enforcement, Investment

Management, Economic and Risk Analysis, and Trading and Markets. Each division

plays an important role in the SEC's financial reporting oversight. According to the SEC

Agency Financial Report (SEC 2017, 10) the goals of Corp Fin are to help "investors

gain access to materially complete and accurate information about companies and the

securities they offer and sell to facilitate capital formation." To execute its compliance

function, Corp Fin reviews registrants' filings, such as 10-Ks and 10-Qs, and issues

comment letters to address deficiencies in the disclosures of these filings.

Corp Fin is comprised of 11 ADOs, each of which is wholly responsible for

reviewing firms in a given industry (4-digit Standard Industrial Classification, or SIC,

code).[4] In addition to requiring that registrants be reviewed at least once every three

years, the Sarbanes-Oxley Act (SOX) establishes criteria to assist the SEC in selecting

filings for review. SOX Section 408 lists these criteria as (i) issuers that have issued

material restatements of financial results; (ii) issuers that experience significant volatility

in their stock price as compared to other issuers; (iii) issuers with the largest market

capitalization; (iv) emerging companies with disparities in price to earnings ratios; and

(v) issuers whose operations significantly affect any material sector of the economy.[5]

Apart from these guidelines, ADOs have sole discretion over which firms and filings to

review. Reviews vary in scope and may be cover to cover (a complete review of the

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[4] In 2011, the SEC added a second ADO dedicated to the financial services industry. Before 2011, there were 11 ADOs. However, ADO Financial Services II issued an unusually low number of comment letters. Therefore, we combined both ADOs dedicated to the financial services industry for the duration of our sample period. Results are robust to separately classifying these two offices.
[5] See https://www.sec.gov/about/laws/soa2002.pdf

financial statements and footnotes), financial statements only (with key disclosures), or targeted issues (only disclosures related to a specific topic, such as revenue recognition).

If a filing review reveals any GAAP noncompliance or deficiency in disclosure, the ADO will issue a comment letter requesting additional information, recommending a disclosure revision in the current filing, or requesting that a disclosure be amended in all future filings. A comment letter may address multiple concerns, and firms have 10 days to respond to the SEC. Comment letters sometimes undergo multiple rounds before resolution. When the issues are adequately remediated, the ADO will issue a letter stating that it has no further comments and that the process is closed.

## 3. Hypothesis development

As discussed in section 1, extant literature generally finds that financial experts' workload compression is associated with adverse firm outcomes. For example, busy boards of directors are associated with weaker corporate governance, while auditor workload compression is negatively associated with measures of reporting quality. Another stream of literature suggests that resource constraints may reduce the effectiveness of SEC oversight. Our first hypothesis tests the impact of SEC busyness on the comment letter process, specifically comment letter issuance. Given that firms' fiscal year-ends tend to cluster around December, ADOs may be inundated with filings during busy periods. Workload compression could motivate ADOs to review fewer filings or reduce the extent of their review, both reducing the likelihood that a 10-K comment letter is issued. This leads to our first hypothesis:

HYPOTHESIS 1. *There is a negative association between ADO busyness and the SEC's propensity to issue a comment letter.*

Our second set of hypotheses explores how effectively the SEC identifies serious instances of noncompliance, conditional on ADO busyness. As previously discussed, filing review processes that are narrower in scope may reduce the SEC's ability to identify deficiencies, leading to a negative association between resource constraints and the severity of comment letter outcomes. However, the SEC may devote limited resources to remediating serious disclosure issues, consistent with its goal of "continually [directing] its resources towards the most productive uses for investors and the public" (SEC 2012, 42). Therefore, we expect ADOs to devote greater attention to egregious issues during busy periods, leading to more restatements arising from comment letters (which we refer to as comment letter-initiated restatements) and more comment letters related to revenue recognition. This leads to the following hypotheses:

> HYPOTHESIS 2A. *There is a positive association between ADO busyness and the likelihood that a comment letter initiates a financial statement restatement.*

> HYPOTHESIS 2B. *There is a positive association between ADO busyness and the likelihood that a comment letter identifies a revenue recognition issue.*

Our final hypothesis explores the impact of SEC resource constraints on the speed with which comment letters reach market participants. Timeliness is an important metric of the filing review process because comment letters contain information relevant to the assessment of firm value. Unlike other financial professionals, ADOs do not have deadlines for filing reviews.[6] Therefore, ADOs could balance their increased workload by extending the filing review process into the future. To the extent this is true, we would expect to see a positive association

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[6] Augmenting this contention is a discussion with a former Corp Fin employee who suggested that ADOs hire temporary employees to facilitate the filing review process during busy periods.

between busyness and comment letter processing time. We state our final hypothesis
as follows:

  HYPOTHESIS 3. *There is a positive association between ADO busyness and comment
     letter processing time.*

## 4. Sample selection and variable measurement

*Sample selection*

  Figure 1 summarizes the sample selection process. To test our hypotheses that ADO
busyness influences the comment letter process, we begin with 58,490 firms in the
Compustat Annual database between 2005 and 2013. Next, we require each observation to
have an audit opinion in the Audit Analytics database. This requirement yields a sample of
54,006 firm-years. In May 2004, the SEC began publicly disclosing all comment letter
correspondence on the Electronic Data Gathering, Analysis and Retrieval (EDGAR)
system no sooner than 20 days after resolution of the comment letter process. We begin
our sample in 2005 even though comment letter correspondence became publicly available
in 2004 because the majority of comment letters in 2004 relate to disclosures of auditor
changes on Form 8-K. We end our sample in 2013 (i.e., fiscal year-ends through May 31,
2014) to allow for sufficient time for resolution of comment letter items and disclosure of
financial restatements. Next, we delete observations without the necessary data to calculate
our control variables (from Compustat, CRSP, or Audit Analytics). These steps result in a
sample of 26,620 firm-years, including 7,386 firm-years with 10-K comment letters.

<p align="center">[Insert Figure 1 here]</p>

*Busyness measure*

  ADOs under Corp Fin have two main responsibilities: conducting filings reviews
and issuing comment letters. Although the SEC may review any of a registrant's filings,

<p align="right">11</p>

we focus on 10-K filings for two reasons. First, according to Dechow et al. (2016), Form 10-Ks contain the most comprehensive disclosure about a firm's critical accounting policies and application of GAAP during the period. Thus, 10-K reviews conducted by ADOs are likely to be more time-consuming and require greater resources than reviews of other filings such as 8-Ks. Second, Bozanic et al. (2017) suggest that over 70 percent of filing reviews conducted by the SEC focus exclusively on 10-Ks. Therefore, we focus on ADO busyness based on the number of 10-Ks filed.

To understand ADO busyness, we examine the frequency of firms' 10-K filings dates by month and ADO office. Table 1 reveals that an overwhelming majority of firms have a December fiscal year-end (i.e., 19,023/26,620 = 71.46 percent). The next busiest fiscal year-end is June in which only 6.37 percent (1,697/26,620) of firms file their 10-K. The filing volume by month indicates that ADOs would be resource constrained in December but less so in other months of the year. Therefore, we proxy for ADO busyness with a binary variable equal to one if a firm has a December fiscal year-end and zero otherwise (*FYR12*).

[Insert Table 1 here]

### Comment letters

We retrieve information about 10-K comment letters from Audit Analytics' Comment Letters database. Our comment letter variable (*Comment*) is an indicator variable equal to one if the firm received a comment letter on its 10-K filing for fiscal year t and zero otherwise.

### Comment letter severity: SEC-initiated restatements and comment letters related to revenue recognition

We follow Cassell et al. (2013) to identify SEC-initiated restatements. First, for our sample of 7,386 comment letter firms, we identify firm-years where a 10-K restatement was disclosed between the initial comment letter date and the comment letter correspondence date posted to SEC EDGAR (i.e., the dissemination date). This results in a sample of 760 restatements. For each restatement in this sample, we read the restatement disclosure and the comment letter correspondence to determine whether the restatement was initiated by the comment letter process. This process resulted in a final sample of 303 SEC-initiated restatements arising from comment letters. We define an indicator variable equal to one if a financial statement restatement was initiated by a comment letter and zero otherwise (*SECInitiated_Rest*).

Dechow et al. (2016) identify revenue recognition issues as a proxy for comment letter severity. The Audit Analytics Comment Letters Database assigns a code of 212—"Revenue recognition (including deferred revenue) issues"—to comment letters pertaining to revenue recognition. Therefore, we construct an indicator variable equal to one if the firm's comment letter identifies a revenue recognition-related issue and zero otherwise (*Revenue_Comment*).

*Comment letter processing time*

ADOs have discretion over various aspects of the filing review process, including control over the timeliness of comment letters. To capture the timeless of comment letters, we define a variable (*DaystoProcess)*, calculated as the number of days between a firm's 10-K filing date and the date of the initial comment letter from the SEC.

**5. Research design**

*Testing Hypothesis 1*

Comment letters arise as a result of two underlying processes. The first of these is the SEC's decision to review a 10-K, and the second is the probability that the SEC issues a comment letter, conditional on review. Of these two processes, only the comment letter is directly observable. Prior literature examining the receipt of comment letters in a given year t disregards this problem of partial observability and treats firms without comment letters as if they had been reviewed. In other words, such studies equate the probability of review with the probability of receiving a comment letter. However, firms with no comment letter may have not been reviewed, or were reviewed but the SEC detected no errors. Ignoring this problem of partial observability results in inefficient estimators compared to those obtained under fully observable outcomes (Feinstein 1990; Poirier 1980).

To address this concern, we use a binary probit model that explicitly models both the SEC's decision to review a 10-K and the probability that they issue a comment letter, holding constant the probability of a filing review.[7] The binary probit model has several advantages. According to Poirier (1980) and Feinstein (1990), under conditions of partial observability, estimators produced by the binary probit model are more efficient and contain reduced measurement error relative to OLS estimators. Second, disaggregating the comment letter process into its component decisions allows us to understand better the relative impact the SEC's underlying actions (reviewing the filing and addressing deficiencies) have on the observable outcome of comment letter issuance.

*Bivariate probit model with partial observability*

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[7] We assume that if the SEC issues a comment letter, the issue identified is valid (i.e., we assume there are no Type I errors in our sample). To the extent this assumption is spurious, measurement error would be embedded in our empirical models. This possibility reduces measurement power rather than introducing systematic bias.

In constructing our bivariate probit model, we follow Wang (2013).[8] To illustrate our methodology, let $R_i$ be the probability that the SEC reviews firm $i$'s 10-K and $L_i$ be the probability the SEC issues a comment letter, conditional on the probability of review (conditional on $R_i$). Both $R_i$ and $L_i$ are the result of SEC- and firm-specific factors related to the SEC's assessment of firm's ex ante disclosure quality. Further, $R_i$ and $L_i$ are strictly greater than zero if a 10-K is reviewed and the SEC issues a comment letter. Comment letter issuance, $C_i$, is defined as the interaction between $R_i$ and $L_i$ ($R_i \times L_i$). Following Wang (2013), we define $R_i$ and $L_i$ to have mean-zero error terms with a correlation of $\rho$.

Two conditions are required for identification of the bivariate probit model parameters. First, the vectors of explanatory variables for the probability of filing review and the probability comment letter issuance cannot be identical (i.e., each process has distinct determinants). Second, explanatory variables in both bivariate models should exhibit as much variation as possible. Thus, continuous covariates are preferable to discrete ones.[9] We follow prior literature and economic theory to select the determinants of the probability that the SEC reviews the 10-K and issues a comment letter on that filing (conditional on review). We obtain the estimator of interest, $C_i$ (the probability of comment letter issuance, conditional on filing review), through maximum likelihood of the interaction between $R_i$ and $L_i$.

*Determinants of the probability of a 10-K filing review: "Prob(Review)"*

We model the probability that a given filing is reviewed as a function of the following factors. First, the likelihood that a firm's 10-K is reviewed is strongly

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[8] Wang (2013) uses the bivariate probit model to address a setting comparable to comment letters. Her study explicitly models the probability of securities fraud as a product of fraud being committed and fraud being detected, conditional on having occurred.

[9] The criteria for the identification of bivariate probit model parameters are from Poirier (1980).

associated with firm size. Conversations with a former Corp Fin employee revealed that ADOs generally review large firms annually and smaller firms once every three years. While there is no explicit guidance surrounding filing review processes for larger and smaller firms, the employee suggested that the SEC uses accelerated filer status as a metric when designing review frequency. Therefore, we use accelerated filer status to capture predictable variation in review frequency attributable to firm size. Specifically, we include an indicator variable equal to one if the firm is a large accelerated filer (i.e., the public float is $700 million or more) and zero otherwise (*Large*). We also include an indicator variable equal to one if the firm is a small non-accelerated filer (i.e., the public float is less than $75 million) and zero otherwise (*Small*).

Consistent with the determinants of SEC review discussed in SOX, we include whether the firm announced a 10-K restatement during the fiscal year (*Rest_Announced*). We also measure the volatility of abnormal monthly stock returns (*Volatility*) and whether the firm is in the highest quintile of price-to-earnings ratio (*HighPE*). Therefore, we model the probability that the SEC reviews a 10-K filing as follows:

$$Comment_{it} = \beta_0 + \beta_1 Rest\_Announced_{it} + \beta_2 Volatility_{it} + \beta_3 HighPE_{it} + \beta_4 Large_{it} + \beta_5 Small_{it} + \varepsilon_{it}. \tag{1a}$$

See Appendix for variable definitions. In all regressions, we include a series of indicator variables for fiscal year and industry (based on ADO assignment).

*Determinants of the probability of issuing a comment letter conditional on review: "Prob(Comment Letter | Review)"*

Our model for the probability that the SEC issues a comment letter, conditional on a review of the 10-K filing, is as follows:

$$Comment_{it} = \beta_0 + \beta_1 FYR12_{it} + \beta_2 LogMV_{it} + \beta_3 FirmAge_{it} + \beta_4 Loss_{it} + \beta_5 AltZ_{it} + \beta_6 ExtFin_{it} + \beta_7 SalesGrowth_{it} + \beta_8 Segments_{it} + \beta_9 M\&A_{it}$$

$$+\beta_{10}Restructure_{it} + \beta_{11}Big4_{it} + \beta_{12}2ndTier_{it} + \beta_{13}Lev_{it} + \beta_{14}Beta_{it} + \varepsilon_{it}.$$

(1b)

Prior literature finds that firm size and age are positively associated with the receipt of a comment letter (Cassell et al. 2013; Johnston and Petacchi 2017). Therefore, we expect a positive coefficient on *logMV* and *FirmAge*. Financially distressed firms face greater capital market pressures and are more likely to manipulate the financial statements and related disclosures in response to these pressures. We expect *Loss* and *AltZ* to be positively associated with comment letter issuance. High growth firms likely face similar pressures as distressed firms, so we expect *SalesGrowth* to be positively associated with comment letter receipt. Firms raising external financing also have incentives to manipulate accounting numbers and information; however, these firms also face higher levels of monitoring by outside stakeholders. Thus, the effect of *ExtFinance* on comment letter activity is unclear.

Cassell et al. (2013) note that operational complexity may allow a firm to conceal manipulation of accounting information. Therefore, we expect *Segments*, *M&A*, and *Restructure* to be positively associated with the SEC's propensity to issue a comment letter. If the presence of a high quality external auditor improves reporting quality, we expect *Big4* and *2ndTier* will be negatively associated with comment letter issuance.

Lastly, the prior literature suggests that firms' choice of fiscal year-end differs by industry membership (Feng 2013; Huberman and Kandel 1989; Kamp 2002) and firm characteristics including size, market beta, and leverage (Smith and Pourciau 1988). As such, we include controls for industry membership—a series of indicator variables for

each industry based on the ADO office to which the registrant is assigned.[10] We also

include the mean value of the year-end decile-ranked beta portfolio for which the firm is

assigned by CRSP (*Beta*) and total liabilities divided by total assets (*Lev*).[11]

### Testing Hypothesis 2

To test Hypothesis 2a, we estimate the following logistic regression on the 7,386

firm-years that received a 10-K comment letter.

$$
\begin{aligned}
SECInitiated\_Rest_{it} = {} & \psi_0 + \psi_1 FYR12_{it} + \psi_2 Rest\_Announced_{it} + \psi_3 Volatility_{it} \\
& + \psi_4 HighPE_{it} + \psi_5 LogMV_{it} + \psi_6 FirmAge_{it} + \psi_7 Loss_{it} + \psi_8 AltZ_{it} \\
& + \psi_9 ExtFin_{it} + \psi_{10} SalesGrowth_{it} + \psi_{11} Segments_{it} + \psi_{12} M\&A_{it} \\
& + \psi_{13} Restructure_{it} + \psi_{14} Big4_{it} + \psi_{15} 2ndTier_{it} + \psi_{16} Lev_{it} + \psi_{17} Beta_{it} + \varepsilon_{it}.
\end{aligned}
$$

(2a)

To facilitate efficient capital allocation, the SEC might focus its limited resources

on firms with the most serious disclosure noncompliance during busy periods. Serious

disclosure deficiencies identified during the comment letter process are more likely to

result in a financial statement restatement. To test the SEC's propensity to identify

serious issues when busy, we define a serious disclosure deficiency as those where the

firm has a restatement that was initiated by the comment letter process

(*SECInitiated_Rest*). We then regress *SECInitiated_Rest* on the same covariates

identified in equation (1b) in addition to three additional variables identified by Cassell et

al. (2013) to explain comment letter severity: *Rest_Announced*, *Volatility*, and *HighPE*.

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[10] In unbtabulated sensitivity analysis, we include industry indicator variables based on the 19 industries defined by Huberman and Kandel (1989) and the 14 industries defined by Feng (2013). Our results are robust to these alternative measures of industry membership.

[11] Cassell et al. (2013) find that whether the CEO is also the chairman of the board (*CEO_Chair*) is positively and significantly related to comment letter receipt. We are unable achieve convergence of the bivariate probit model when we include *CEO_Chair* because the inclusion of too many binary explanatory variables reduces our ability to fully specify the model. However, sensitivity analysis reveals that our results are robust to including *CEO_Chair* when we combine *Big4* and *2ndTier* into a single control variable.

The main coefficient of interest in equation (2a) is $\psi_1$. We predict that $\psi_1$ will be positive, which is consistent with the SEC focusing its limited resources on the most egregious instances of noncompliance when busy.

To test Hypothesis 2b, we model the probability that a comment letter includes a revenue-related issue as follows:

$$
\begin{aligned}
Revenue\_Comment_{it} = {} & \mu_1 FYR12_{it} + \mu_2 Rest\_Announced_{it} + \mu_3 Volatility_{it} \\
& + \mu_4 HighPE_{it} + \mu_5 LogMV_{it} + \mu_6 FirmAge_{it} + \mu_7 Loss_{it} + \mu_8 AltZ_{it} \\
& + \mu_9 ExtFin_{it} + \mu_{10} SalesGrowth_{it} + \mu_{11} Segments_{it} + \mu_{12} M\&A_{it} \\
& + \mu_{13} Restructure_{it} + \mu_{14} Big4_{it} + \mu_{15} 2ndTier_{it} + \mu_{16} Lev_{it} + \mu_{17} Beta_{it} + \varepsilon_{it}.
\end{aligned}
$$
(2b)

The main coefficient of interest in equation (2b) is $\mu_1$. We predict that $\mu_1$ will be positive, which is consistent with the SEC focusing its limited resources on compliance issues related to revenue recognition. The association between filer characteristics and comment letter topics is briefly discussed in Cassell et al. (2013) but largely remains an empirical question. Therefore, we do not make predictions for the control variables in equation (2b).

*Testing Hypothesis 3*

In this section, we examine how busyness influences the timeliness with which comment letter information is conveyed. Since comment letter processing time is available only for firms that received comment letters, we estimate the following OLS regressions on the 7,386 firm-years that received a 10-K comment letter.

$$
\begin{aligned}
DaysToProcess_{it} = {} & \lambda_0 + \lambda_1 FYR12_{it} + \lambda_2 Rest\_Announced_{it} + \lambda_3 Volatility_{it} \\
& + \lambda_4 HighPE_{it} + \lambda_5 LogMV_{it} + \lambda_6 FirmAge_{it} + \lambda_7 Loss_{it} + \lambda_8 AltZ_{it} \\
& + \lambda_9 ExtFin_{it} + \lambda_{10} SalesGrowth_{it} + \lambda_{11} Segments_{it} + \lambda_{12} M\&A_{it} \\
& + \lambda_{13} Restructure_{it} + \lambda_{14} Big4_{it} + \lambda_{15} 2ndTier_{it} + \lambda_{16} Lev_{it} + \lambda_{17} Beta_{it} \\
& + \lambda_{18} NumRounds + \lambda_{19} NumTopics + {}_{20} FYR12_{it} \times Rest\_Announced_{it} \\
& + \lambda_{21} FYR12_{it} \times Volatility_{it} + \lambda_{22} FYR12_{it} \times HighPE_{it} + \lambda_{23} FYR12_{it} \times LogMV_{it} \\
& + \lambda_{24} FYR12_{it} \times FirmAge_{it} + \lambda_{25} FYR12_{it} \times Loss_{it} + \lambda_{26} FYR12_{it} \times AltZ_{it} \\
& + \lambda_{27} FYR12_{it} \times ExtFin_{it} + \lambda_{28} FYR12_{it} \times SalesGrowth_{it}
\end{aligned}
$$

$$+ \ \lambda_{29}FYR12_{it} \times Segments_{it} + \lambda_{30}FYR12_{it} \times M\&A_{it} +$$
$$\lambda_{31}FYR12_{it} \times Restructure_{it}$$
$$+ \ \lambda_{32}FYR12_{it} \times Big4_{it} + \lambda_{33}FYR12_{it} \times 2ndTier_{it} + \lambda_{34}FYR12_{it} \times Lev_{it}$$
$$+ \ \lambda_{35}FYR12_{it} \times Beta_{it} + \lambda_{36}FYR12_{it} \times NumRounds_{it}$$
$$+ \ \lambda_{37}FYR12_{it} \times NumTopics_{it} + \varepsilon_{it}. \qquad\qquad (3)$$

We regress *DaysToProcess* on the same covariates identified in equations (2a)

and (2b) and also interact busyness with each control variable. In addition, we include

two variables that capture comment letter characteristics that are likely related to

processing time. First, we include the number of rounds (*NumRounds*), which is equal to

the number of letters sent from the SEC during the comment letter process. Second, we

include the total number of topics (*NumTopics*) identified by Audit Analytics in the

comment letter. Cassell et al. (2013) use the number of comment letter rounds to proxy

for the costs of remediation and the number of topics to measure the extent of the SEC's

review procedures. Presumably, a greater value of *NumRounds* represents higher

remediation costs, as do comment letters that address many topics. We thus predict that

*NumTopics* and *NumRounds* will be positively associated with our measure of comment

letter processing time.

The main coefficient of interest in equation (3) is $\lambda_1$. We predict that $\lambda_1$ will be

positive, which is consistent with the SEC taking longer to issue comment letters when

busy. The interactions can shed light on which firm factors influence the relation between

ADO busyness and the timeliness of the comment letter process. For example, if the SEC

prioritizes larger firms when busy, we would expect a negative coefficient on the

interaction between busyness and size ($FYR12_{it} \times LogMV_{it}$).

**6. Descriptive statistics**

Table 1 reports the distribution of firms' 10-K filing dates across each of the 11 ADOs. December is the busiest month for all of the ADOs, followed by June. The last two columns of Table 1 report the frequency of comment letters by ADO. Twenty-eight percent of the firm-years in our sample period receive a 10-K comment letter. There is intra-ADO variation in the number of comment letters issued during our sample period, consistent with variation in the number of firms comprising various sectors of the economy. However, the variation is not so pronounced as to suggest that ADO-specific characteristics explain comment letter issuance.

Panels A and B of Table 2 report descriptive statistics for the full sample of 26,620 firm-years between 2005 and 2013 with nonmissing data. As previously stated, 27.7 percent (7,386) of firm-years are the recipient of a comment letter on the 10-K (*Comment*). Consistent with the majority of firms following a calendar-year fiscal year, 71.5 percent of observations have a December fiscal year-end (*FYR12*). A small but nontrivial proportion (9.2 percent) of firms announce a financial statement restatement during the sample period (*Rest_Announced*). Almost 40 percent of firm-years have large accelerated filer status (*Large*), and approximately 11.2 percent are small non-accelerated filers (*Small*). Our average firms in our sample are older, with mean *FirmAge* of slightly under 18 years; consistent with more established firms hiring reputable auditors, 73.9 percent of firm-years use a Big Four Auditor (*Big4*), and 11.6 percent use a national audit firm (*2ndTier*).

[Insert Table 2 here]

In the last three rows of Table 2A, we provide descriptive statistics for the 7,386 firm-years that received a comment letter. We find that 4 percent (303/7,386) of comment

letter firm-years have a restatement that was initiated by the SEC comment letter process (*SECInitiated_Rest*). This percentage is similar to Casell et al. (2013) who find that over 3.1 percent of their sample firm-years (211/6,702) have a restatement attributable to a comment letter. Among 7,386 firm-years with a comment letter, 20.6 percent of comment letters addressed a revenue recognition-related issue (*Revenue_Comment*). Finally, the average processing time (*DaystoProcess*, or the number of days between the 10-K filing date and the date of the initial comment letter) is 152.

Table 2 panel B reports Pearson correlations for the covariates in our bivariate probit and logistic regressions. Contrary to our prediction that comment letter issuance declines with ADO busyness, *Comment* is positively correlated with *FYR12*. However, we note that *Comment* is significantly correlated with our proxies for firm size. The largest Pearson correlation coefficients in column 1 are between *Comment* and *Large* (correlation = 0.159, significant at 1 percent level) and *Comment* and *logMV* (correlation = 0.135, significant at 1 percent level). In addition, *FYR12* is positively correlated with multiple measures of size (*Large* and *logMV*), which suggests that firm size is a determinant of both 10-K filing dates and comment letter issuance. We suggest caution when interpreting univariate correlations reported in Table 2 panel B, as results may suffer from correlated omitted variables bias. Consistent with prior literature, comment letter issuance is also correlated with financial distress (*AltZ*), operational complexity (*Segments* and *M&A*), and leverage *(Lev)*.

**7. Results**

***Results of testing Hypothesis 1***

Panel A of Table 3 reports univariate results for the test of Hypothesis 1 that comment letter issuance decreases with ADO busyness. We divide the full sample of 29,620 firm-years into subsamples of comment letter firms (7,386 firm-years) and noncomment letter firms. We then compare the mean and median values of *FYR12* across the subsamples. Consistent with the correlation results in Table 2 panel B, the mean and median values of *FY12* are significantly higher for comment letter firms relative to noncomment letter firms. These univariate results are contrary to our intuition that comment letter issuance decreases with SEC workload compression. However, as explained in the discussion of Table 2 panel B, these results are likely attributable to correlated omitted variables. Panel B of Table 3 repeats the univariate analysis on firm-years with a December fiscal year-end, stratified by comment letter receipt and size quintile. The results reveal that the positive correlation between *FYR12* and *Comment* is driven by the largest quintile of market. This result implies that, consistent with the guidance in SOX, the SEC prioritizes large firms when designing its review procedures. Overall, our univariate results highlight the importance of carefully considering firm characteristics when modeling the probability that the SEC reviews a filing or issues a comment letter.

[Insert Table 3 here]

We test Hypothesis 1 by estimating models (1a) and (1b); the results of these estimations are reported in Table 4. The first stage regression models the probability that the SEC selects a firm's 10-K for review. The coefficients on *Rest_Announced* and *Volatility* are positive and significant (coefficients = 0.121 and 0.144, *p*-values = 0.000 and 0.094, respectively), which suggests that financial statement restatements and stock

price volatility increase the probability of review. Consistent with larger firms being reviewed more frequently, *Large* is significant and positive (coefficient = 0.180, *p*-value = 0.000).

[Insert Table 4 here]

The second bivariate regression in Table 4 reports the results of estimating the probability that the SEC issues a 10-K comment letter, conditional on having selected that 10-K for review. Consistent with our first hypothesis, we find that ADO busyness around the firm's 10-K filing date is associated with a lower propensity to issue a comment letter (*FYR12* coefficient = -0.128, *p*-value = 0.010). When all variables are set to their mean values, the likelihood that the SEC issues a comment letter is 1.56 percent lower during busy relative to less busy periods, holding constant the probability of filing review.[12]

Other significant determinants of the propensity to issue a comment letter are size (*logMV* coefficient = 0.374, *p*-value = 0.000), *FirmAge* (coefficient = 0.007, *p*-value = 0.017), financial distress (*AltZ* coefficient = 0.047, *p*-value = 0.000), operational complexity (*Segments*, *M&A*, and *Restructure,* coefficients = 0.041, 0.218, and 0.554, *p*-values = 0.032, 0.095, and 0.091, respectively), and having a high quality auditor (*Big4* coefficient = -0.435, *p*-value = 0.000, *2ndTier* coefficient = -0.163, *p*-value = 0.073). Taken together, the results in Tables 3 and 4 are consistent with the prediction that ADO busyness decreases the SEC's propensity to issue a comment letter, holding constant the probability of filing review.

***Results of testing Hypothesis 2***

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[12] We calculate economic significance by computing the difference between the probability that the SEC issues a comment letter $[1/(1 + \exp[-\beta_0 - \beta_1 * FYR12_{it} - CONTROLS])]$, when *FYR12* = 1 and *FYR12* = 0.

We test Hypothesis 2a by estimating a logistic regression of the probability that the firm-year subsequently announces a financial statement restatement arising from a comment letter issued on the 10-K (*SECInitiated_Rest*) on busyness. We report the results of estimating equation (2a) in Table 5. We find that *FYR12* is significantly and positively associated with *SECInitiated_Rest* (coefficient = 0.230, *p*-value = 0.023). These results are consistent with the SEC allocating its limited resources to identifying the most egregious instances of noncompliance (those that require a restatement) during periods of workload compression. In terms of economic significance, when all variables are set to their mean values the estimated probability of an SEC initiated restatement is 1.92 percent more likely when busy.

Regarding the control variables, the issuance of a restatement (likely on a prior year financial statement) is a significant determinant of a restatement initiated by the comment letter process (*Rest_Announced* coefficient = 0.733, *p*-value < 0.000). Contrary to intuition, firms with a large disparity in price-to-earnings ratios have a lower probability of an SEC-initiated restatement (*HighPE* coefficient = -0.406, *p*-value = 0.037). If the SEC closely monitors such firms in accordance with SOX guidance, then the filing review process may be a deterrent to misreporting so severe as to require a restatement. The deterrence effect of filing reviews may explain the negative coefficient on *HighPE* reported in Table 5. Size (*logMV)* and *FirmAge* are both negatively and significantly associated with *SECInitiated_Rest*, consistent with larger and older firms being less likely to experience a restatement arising from the comment letter process.

Finally, *Segments* is positively associated with *SECInitiated_Rest* (coefficient = 0.056, *p*-value = 0.065), consistent with operational complexity increasing the likelihood

of a restatement. Both our proxies of auditor quality are negatively associated with the dependent variable, suggesting that high quality auditors deter material misreporting (*Big4* and *2ndTier* coefficients = -0.436 and -0.610, *p*-values = 0.023 and 0.011, respectively).

[Insert Table 5 here]

We test our second hypothesis on comment letter severity by estimating equation (2b); results of this logistic regression are reported in Table 6. The positive association between ADO busyness (*FYR12* coefficient = 0.116, *p*-value = 0.044) and whether the comment letter includes a revenue-related issue (*Revenue_Comment*) suggests that firms filing their 10-K during the SEC's busy time are more likely to receive a comment letter related to revenue noncompliance. In terms of economic significance, when all variables are set to their mean values the estimated probability of a comment letter related to revenue is 3.74 percent more likely when busy. Firm characteristics of stock price volatility (*Volatility* coefficient = 0.636, *p*-value = 0.087) and firms with negative earnings (*Loss* coefficient = 0.414, *p*-value < 0.001) are also more likely to receive a comment letter relating to revenue recognition.

[Insert Table 6 here]

Regression results reported in Tables 5 and 6 pertain only to firm-years that received a comment letter. Isolating comment letter firm-years allows us to draw inferences regarding the extent to which the SEC successfully identifies material disclosure deficiencies, conditional on having reviewed the firm. In other words, the results we report in Tables 5 and 6 are not conflated by a greater probability of filing reviews being conducted during busy periods. Taken together, these results are consistent

with Hypotheses 2a and 2b, and suggest that ADOs focus on identifying the most egregious instances on noncompliance during busy periods.

*Additional test of Hypotheses 2a and 2b*

The results reported in section 7.2 naturally motivate the question as to whether ADOs are more likely to miss material compliance issues during periods of workload compression. To address this question, we identify firms that have a high ex ante probability of being reviewed and then examine subsequent financial statement restatements not issued by the SEC to determine whether the filing review process failed to identify a significant deficiency. In order to hold constant the likelihood of having a filing review, we executed model (1a) on the full sample of 26,620 firm-years and identified 16,249 firm-years with a greater than 70 percent probability of experiencing a filing review, regardless of comment letter issuance.[13] For the firm-years with a high review probability, we next identify those firms that announced a restatement not attributable to the comment letter process (*nonSECInitiated_Rest*). If the SEC misses more issues during busy periods, then our proxy of resource constraints, *FYR12*, should be positively and significantly associated with measures of restatements not resulting from a comment letter. We report the results of this sensitivity test in Table 7. We find that *FYR12* is not significantly associated with *nonSECInitiated_Rest*, consistent with the interpretation that workload compression does not cause the SEC to overlook material deficiencies in disclosure quality.

[Insert Table 7 here]

**Results of testing Hypothesis 3**

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[13] Results of the sensitivity analysis discussed in section 7.2.1 are robust to various probabilities of review (e.g., 80 and 90 percent) as well as including all observations ($n = 26,620$).

We next turn to assessing the impact of ADO busyness on the timeliness of the

comment letter process. We estimate an OLS regression of equation (3) on 7,386 firm-

years with a comment letter and report the results in Table 8. *FYR12* is significantly and

positively associated with *DaysToProcess* (coefficient = 46.883, *p*-value = 0.001),

consistent with Hypothesis 3. This result implies that ADO resource constraints reduce

the timeliness with which enhanced financial disclosures reach market participants. Other

factors that increase processing time include *Volatility* (coefficient = 59.879, *p*-value =

0.022) and *SalesGrowth* (coefficient = 5.043, *p*-value = 0.030). There are two potential

mechanisms linking ADO busyness and firm characteristics to processing time. During

busy periods, the SEC may initiate the filing review process (begin reviewing the filing

but take longer to issue the send the initial comment letter), or they may postpone

reviewing the filing and issuing a comment letter. We are unable to observe the date on

which the SEC begins filings reviews, so we cannot fully disentangle these two

explanations of increased processing time. However, legislative guidance and the results

in Table 8 suggest that the SEC perhaps spends more time on filing reviews of complex

firms (such as those with high volatility and sales growth). Additionally, our proxy for

the scope of filing review procedures (*NumTopics)* is positively associated with

processing time (coefficient = 0.423, *p*-value = 0.035), suggesting that review complexity

increases processing time. Based on these results, we find it likely that the SEC initiates

review procedures timely, but the ultimate completion of the comment letter process is

delayed by high levels of workload compression.

Interestingly, the coefficients on both *Big4* and *2ndTier* are positive and

significant in Table 8. These coefficients suggest that the SEC places a lower priority on

firms with high-quality auditors, which implies that the presence of other monitors may serve as a substitute for regulatory oversight in our setting. Larger firms experience shorter processing time (*LogMV* coefficient = -8.887, *p*-value < 0.000), which is consistent with the SEC prioritizing timely reviews of firms with a material impact on the economy. The coefficients on *Loss*, *AltZ*, and *NumRounds* are also negative and significant. Negative coefficients may arise for two reasons: (1) The length of the comment letter process is reduced; or (2) on average, comment letter processing time remains unchanged, but the SEC prioritizes certain firms, compressing the review process. Given the capital market pressures faced by financially distressed firms to manipulate reported numbers and disclosures, we find it plausible that the SEC prioritizes reviewing distressed firms. We find it less likely that ADOs reduce the length of the overall review process for such firms. Similar reasoning extends to firms with complex issues, which we capture with the proxy *NumTopics.*

Next, we explore the extent to which firm characteristics mitigate the association between comment letter timeliness and ADO resource constraints. The coefficient on the interaction between *FYR12* and size is negative and significant (*FYR12×logMV* coefficient = -4.795, *p*-value = 0.003). It is unlikely that the SEC spends less time reviewing larger firms because size is a measure of operational complexity; given that large firms are more complex and have a material economic impact, it is more plausible that such firms are prioritized relative to small firms in the filing review process. Firms with high sales growth also experience incrementally shorter comment letter processing time when busy, (*FYR12×SalesGrowth* coefficient = -4.951, *p*-value = 0.033). Finally,

financially distressed firms experience longer processing times relative to their more financially stable peers ($FYR12{\times}AltZ$ coefficient = 2.040, $p$-value = 0.036).

[Insert Table 8 here]

Overall, the results in Table 8 suggest that SEC busyness delays the timeliness with which ADOs complete filing reviews and issue initial comments. Comment letters provide incremental information that influences the assessment of firm value. Thus, delays in the comment letter process may reduce the overall transparency and quality of the firm's information environment. Regulators concerned with enhancing the quality of information available to market participants may consider the extent of resources allocated to the SEC to allow ADOs to execute their compliance activities in a timelier manner.

## 8. Conclusion

Compliance plays an important role in the financial reporting oversight of the SEC. ADOs, organized by industry, review registrants' filings to ensure compliance with securities laws. If an ADO identifies a departure from GAAP or disclosure regulations, they will issue a comment letter seeking clarification or requesting additional information. However, the workload for filing reviews is seasonally compressed because over 70 percent of registrants have a December fiscal year-end. In this paper, we examine how seasonal workload compression impacts the SEC's compliance function, with a specific focus on comment letter issuance, severity, and timeliness.

Using a bivariate probit model to address the partial observability of the SEC's compliance activities, we find that ADOs are less likely to issue a 10-K comment letter when busy, holding constant the probability of filing review. We also find that comment

letters are more likely to result in a financial statement restatement and identify issues pertaining to revenue recognition, conditional on ADO busyness. Consistent with the SEC allocating its limited resources to identifying serious instances of noncompliance, we find no evidence to suggest that ADOs systematically overlook material issues during periods of workload compression. Finally, we report that the timeliness of the comment letter process is reduced during busy periods; however, ADOs seem to prioritize large firms.

Our findings suggest that allocating additional resources to ADOs would likely (1) broaden the scope of comment letters when busy and (2) shorten comment letter processing time when busy. To help assess the costs/benefits of additional resources to ADOs, future research could study the usefulness of broader scope comment letters and optimal comment letter processing time.

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## Appendix: Variable Definitions

| | | |
|---|---|---|
| *AltZ* | = | the descending decile rank of the firm's financial health. Altman's (1968) z-score is equal to 3.3×(earnings before interest and tax, (PI+XINT)/total assets (AT) + 1.0×(sales (REVT)/ total assets) + 1.4×(retained earnings (RE)/total assets) + 1.2×(net working capital (ACT-LCT)/total assets) + 0.6×(market value of equity (CSHO×PRCC_F)/ book value of liabilities (LT). Thus, firms having the poorest financial health are assigned a value of 10, and firms with the best financial health are assigned a value of zero (Compustat). |
| *Beta* | = | mean value of the systematic risk calculated using daily stock returns over the fiscal year of the year-end decile-ranked beta portfolio for which the firm is assigned (CRSP: BETAAV). |
| *Big4* | = | an indicator variable equal to one if the firm is audited by a Big 4 audit firm (Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers) and zero otherwise (Compustat: AU). |
| *Comment* | = | an indicator variable equal to one if the firm received a comment letter on its 10-K filing for fiscal year t and zero otherwise (Audit Analytics). |
| *DaysToProcess* | = | the number of days between a firm's 10-K filing date and the date of the initial comment letter from the SEC (Audit Analytics). |
| *ExtFin* | = | the sum of equity financing and debt financing scaled by total assets in t+1. Equity financing equals the sales of common and preferred stock (SSTK) minus the purchases of common and preferred stock (PRSTKC) minus dividends (DV). Debt financing equals long-term debt issued (DLTIS) minus long-term debt reduction (DLTR) minus the change in current debt (DLCCH) (Compustat). |
| *FirmAge* | = | the total number of years for which assets (AT) are reported on Compustat. |
| *FYR12* | = | an indicator variable equal to one for firms with a fiscal year-end in December and zero otherwise (Compustat). |
| *HighPE* | = | an indicator variable equal to one if the price (PRCC_F) earnings (IBC) ratio is in the highest quintile and zero otherwise (Compustat). |
| *Large* | = | an indicator variable equal to one if the public float is $700 million or more and zero otherwise (Audit Analytics). |
| *Lev* | = | total liabilities (LT) divided by total assets (AT) (Compustat). |
| *logMV* | = | the natural logarithm of the market value of equity in millions (Compustat: CSHO×PRCC_F). |
| *Loss* | = | an indicator variable equal to one if earnings before extraordinary items (IB) is negative and zero otherwise (Compustat). |
| *M&A* | = | an indicator variable equal to one if pre-tax acquisitions or mergers (AQP) are nonzero and zero otherwise (Compustat). |
| *nonSECInitiated_Rest* | = | an indicator variable equal to one if a financial statement restatement was not initiated by a comment letter and zero otherwise (Audit Analytics, hand-collected). |

| | | |
|---|---|---|
| *NumRounds* | = | to the number of letters sent from the SEC during the comment letter process (Audit Analytics). |
| *NumTopics* | = | the number of issue codes (i.e., topics) identified in the first comment letter (Audit Analytics). |
| *Revenue_Comment* | = | an indicator variable equal to one if the firm's comment letter identifies a revenue recognition-related issue [Audit Analytics topic 212, "Revenue recognition (including deferred revenue) issues"] and zero otherwise (Audit Analytics). |
| *Rest_Announced* | = | an indicator variable equal to one for firms that announced a 10-K restatement in year t and zero otherwise (Audit Analytics). |
| *Restructure* | = | an indicator variable equal to one if pre-tax restructuring costs (RCP) are nonzero and zero otherwise (Compustat). |
| *SalesGrowth* | = | the percentage change in annual sales (REVT) from t-1 to t (Compustat). |
| *SECInitiated_ Rest* | = | an indicator variable equal to one if a financial statement restatement was initiated by a comment letter and zero otherwise (Audit Analytics, hand-collected). |
| *2ndTier* | = | an indicator variable equal to one if the firm is audited by a national audit firm (BDO Seidman, Crowe Horwath, Grant Thornton, or McGladrey & Pullen) and zero otherwise (Compustat: AU). |
| *Segments* | = | the number of business segments (Compustat Segment File). |
| *Small* | = | an indicator variable equal to one if the public float is less than $75 million and zero otherwise (Audit Analytics). |
| *Volatility* | = | the volatility of abnormal monthly stock returns (monthly return minus the value weighted return). Return volatility is calculated over the 36-month period ending in the last month of the fiscal year (CRSP). |

**Figure 1**    Sample selection

| | |
|---|---:|
| Compustat firm-years beween 2005 through 2013 (with nonmissing industry classification and filing report date) | 58,490 |
| Less firm-years without an audit opinion in Audit Analytics | 54,006 |
| Less firm-years with missing control variables in Compustat, CRSP, or Audit Analytics | 26,620 |
| | |
| Number of firm-years with comment letters | 7,386 |

TABLE 1
Frequency of firms' 10-K report dates by ADO office

| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Total | Comment Letters | %10-Ks filed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADO 1: Healthcare and Insurance | 8 | 16 | 81 | 19 | 20 | 185 | 21 | 8 | 83 | 7 | 6 | 2,755 | 3,209 | 987 | 31% |
| ADO 2: Consumer Products | 280 | 43 | 44 | 39 | 3 | 70 | 30 | 35 | 149 | 26 | 1 | 1,305 | 2,025 | 652 | 32% |
| ADO 3: Info Technologies and Services | 110 | 23 | 264 | 70 | 37 | 307 | 50 | 28 | 216 | 59 | 52 | 2,260 | 3,476 | 802 | 23% |
| ADO 4: Natural Resources | 3 | 0 | 49 | 2 | 24 | 102 | 10 | 11 | 76 | 24 | 15 | 1,454 | 1,770 | 590 | 33% |
| ADO 5: Transportation and Leisure | 21 | 15 | 164 | 41 | 64 | 110 | 42 | 55 | 188 | 64 | 19 | 2,164 | 2,947 | 822 | 28% |
| ADO 6: Manufacturing and Construction | 91 | 14 | 115 | 29 | 66 | 189 | 47 | 71 | 177 | 82 | 55 | 1,929 | 2,865 | 927 | 32% |
| ADO 7: Financial Services | 0 | 1 | 34 | 6 | 0 | 55 | 4 | 0 | 50 | 9 | 19 | 622 | 800 | 205 | 26% |
| ADO 8: Real Estate and Commodities | 8 | 0 | 26 | 11 | 0 | 21 | 9 | 5 | 61 | 17 | 7 | 1,444 | 1,609 | 613 | 38% |
| ADO 9: Beverages, Apparel, and Mining | 318 | 17 | 56 | 24 | 10 | 96 | 23 | 6 | 65 | 28 | 11 | 813 | 1,467 | 434 | 30% |
| ADO 10: Electronics and Machinery | 63 | 35 | 381 | 48 | 42 | 402 | 35 | 51 | 362 | 129 | 22 | 2,545 | 4,115 | 820 | 20% |
| ADO 11: Telecommunications | 26 | 43 | 140 | 23 | 24 | 160 | 23 | 35 | 93 | 32 | 6 | 1,732 | 2,337 | 534 | 23% |
| Total | 928 | 207 | 1,354 | 312 | 290 | 1,697 | 294 | 305 | 1,520 | 477 | 213 | 19,023 | 26,620 | 7,386 | 28% |

The designation of industry to assistant director office is based on 4-digit SIC (available on the SEC website: http://www.sec.gov/corpfin/Article/filing-review-process---corp-fin.html#.U4OBPZRdVFo). The sample consists of 26,620 Compustat firm-years between 2005 and 2013 with nonmissing control variables.

TABLE 2
**Panel A:** Descriptive statistics

| | N | Mean | Median | Std.Dev. | 25% | 75% | Min | Max |
|---|---|---|---|---|---|---|---|---|
| *Comment* | 26,620 | 0.277 | 0.000 | 0.448 | 0.000 | 1.000 | 0.000 | 1.000 |
| *FYR12* | 26,620 | 0.715 | 1.000 | 0.452 | 0.000 | 1.000 | 0.000 | 1.000 |
| *Rest_Announced* | 26,620 | 0.092 | 0.000 | 0.290 | 0.000 | 0.000 | 0.000 | 1.000 |
| *Volatility* | 26,620 | 0.126 | 0.108 | 0.077 | 0.074 | 0.156 | 0.026 | 0.462 |
| *HighPE* | 26,620 | 0.100 | 0.000 | 0.300 | 0.000 | 0.000 | 0.000 | 1.000 |
| *Large* | 26,620 | 0.380 | 0.000 | 0.485 | 0.000 | 1.000 | 0.000 | 1.000 |
| *Small* | 26,620 | 0.112 | 0.000 | 0.315 | 0.000 | 0.000 | 0.000 | 1.000 |
| *logMV* | 26,620 | 6.261 | 6.255 | 2.044 | 4.866 | 7.629 | 1.754 | 11.229 |
| *FirmAge* | 26,620 | 17.793 | 15.000 | 11.435 | 8.000 | 25.000 | 2.000 | 42.000 |
| *Loss* | 26,620 | 0.310 | 0.000 | 0.462 | 0.000 | 1.000 | 0.000 | 1.000 |
| *AltZ* | 26,620 | 4.500 | 4.500 | 2.872 | 2.000 | 7.000 | 0.000 | 9.000 |
| *ExtFin* | 26,620 | 0.016 | -0.006 | 0.172 | -0.053 | 0.036 | -0.435 | 0.845 |
| *SalesGrowth* | 26,620 | 0.156 | 0.078 | 0.470 | -0.029 | 0.219 | -0.724 | 3.083 |
| *Segments* | 26,620 | 2.355 | 1.000 | 1.709 | 1.000 | 3.000 | 1.000 | 11.000 |
| *M&A* | 26,620 | 0.024 | 0.000 | 0.153 | 0.000 | 0.000 | 0.000 | 1.000 |
| *Restructure* | 26,620 | 0.014 | 0.000 | 0.117 | 0.000 | 0.000 | 0.000 | 1.000 |
| *Big4* | 26,620 | 0.739 | 1.000 | 0.439 | 0.000 | 1.000 | 0.000 | 1.000 |
| *2ndTier* | 26,620 | 0.116 | 0.000 | 0.321 | 0.000 | 0.000 | 0.000 | 1.000 |
| *Lev* | 26,620 | 1.113 | 0.145 | 21.657 | 0.004 | 0.494 | 0.000 | 2264.440 |
| *Beta* | 26,620 | 0.980 | 0.764 | 0.680 | 0.353 | 1.587 | 0.000 | 1.867 |
| | | | | | | | | |
| *SECInitiated_Rest* | 7,386 | 0.041 | 0.000 | 0.198 | 0.000 | 0.000 | 0.000 | 1.000 |
| *Revenue_Comment* | 7,386 | 0.206 | 0.000 | 0.404 | 0.000 | 0.000 | 0.000 | 1.000 |
| *DaysToProcess* | 7,386 | 152.087 | 140.500 | 85.695 | 79.000 | 224.000 | 9.000 | 309.000 |

**Panel B:** Pearson correlation matrix

| | Comment | Rest_ Announced | Volatility | HighPE | Large | Small | FYR12 | logMV | Firm Age |
|---|---|---|---|---|---|---|---|---|---|
| RestAnnounced | 0.008 | | | | | | | | |
| Volatility | -0.024*** | 0.009 | | | | | | | |
| HighPE | -0.054*** | 0.009 | -0.049*** | | | | | | |
| Large | 0.159*** | -0.036*** | -0.270*** | -0.266*** | | | | | |
| Small | -0.065*** | -0.011 | 0.203*** | 0.081*** | -0.278*** | | | | |
| FYR12 | 0.024*** | -0.017*** | 0.001 | -0.076*** | 0.059*** | -0.076*** | | | |
| logMV | 0.135*** | -0.034*** | -0.355*** | -0.236*** | 0.723*** | -0.487*** | 0.090*** | | |
| Firm Age | 0.084*** | -0.016*** | -0.181*** | 0.042*** | 0.251*** | -0.001 | -0.163*** | 0.192*** | |
| Loss | -0.049*** | 0.040*** | 0.317*** | -0.332*** | -0.297*** | 0.179*** | 0.020*** | -0.406*** | -0.185*** |
| AltZ | 0.036*** | 0.031*** | 0.162*** | -0.228*** | -0.054*** | 0.105*** | 0.159*** | -0.183*** | -0.036*** |
| ExtFin | -0.001 | -0.018*** | 0.015*** | -0.001 | -0.017*** | 0.009 | 0.003 | -0.018*** | -0.012* |
| Sales Growth | -0.004 | 0.000 | 0.007 | -0.005 | -0.008 | -0.002 | 0.006 | -0.007 | -0.006 |
| Segments | 0.071*** | 0.000 | -0.149*** | -0.076*** | 0.268*** | -0.112*** | 0.024*** | 0.312*** | 0.301*** |
| M&A | 0.013** | -0.006 | -0.022*** | -0.013** | 0.026*** | -0.008 | 0.003 | 0.030*** | 0.017*** |
| Restructure | 0.009 | 0.008 | -0.004 | -0.019*** | 0.012* | -0.027*** | -0.016*** | 0.031*** | -0.003 |
| Big4 | 0.062*** | -0.009 | -0.169*** | -0.198*** | 0.393*** | -0.408*** | 0.102*** | 0.518*** | 0.033*** |
| 2ndTier | -0.022*** | 0.002 | 0.041*** | 0.109*** | -0.212*** | 0.129*** | -0.063*** | -0.224*** | 0.005 |
| Lev | 0.014** | -0.003 | 0.054*** | -0.019*** | -0.018*** | 0.012** | 0.020*** | -0.033*** | 0.000 |
| Beta | 0.031*** | 0.001 | 0.097*** | -0.113*** | 0.123*** | -0.194*** | 0.036*** | 0.175*** | -0.024*** |

| | Loss | AltZ | ExtFin | Sales Growth | Segments | M&A | Restructure | Big4 | 2ndTier | Lev |
|---|---|---|---|---|---|---|---|---|---|---|
| Rest_Announced | | | | | | | | | | |
| Volatility | | | | | | | | | | |
| HighPE | | | | | | | | | | |
| Large | | | | | | | | | | |
| Small | | | | | | | | | | |
| FYR12 | | | | | | | | | | |
| logMV | | | | | | | | | | |
| Firm Age | | | | | | | | | | |
| Loss | | | | | | | | | | |
| AltZ | 0.378*** | | | | | | | | | |
| ExtFin | 0.008 | 0.010* | | | | | | | | |
| Sales Growth | 0.000 | 0.010 | 0.003 | | | | | | | |
| Segments | -0.163*** | 0.066*** | 0.000 | -0.006 | | | | | | |
| M&A | -0.013** | -0.001 | 0.006 | 0.000 | 0.025*** | | | | | |
| Restructure | 0.002 | 0.024*** | 0.001 | -0.001 | 0.004 | 0.004 | | | | |
| Big4 | -0.146*** | 0.008 | -0.005 | -0.012** | 0.148*** | 0.013** | 0.039*** | | | |
| 2ndTier | 0.056*** | -0.026*** | 0.003 | -0.003 | -0.072*** | 0.005 | -0.014** | -0.611*** | | |
| Lev | 0.036*** | 0.056*** | -0.001 | 0.000 | 0.006 | -0.003 | -0.003 | 0.004 | -0.006 | |
| Beta | 0.004 | -0.010 | -0.005 | 0.006 | 0.037*** | 0.015** | 0.034*** | 0.165*** | -0.061*** | -0.014** |

The sample consists of 26,620 firm-years with data between 2005 and 2013. */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). All continuous variables are winsorized at the 1% and 99% level. See Appendix for variable definitions.

TABLE 3
**Panel A:** Univariate analysis by whether the firm received a comment letter

| | Comment = 0 (obs. = 19,234) | | Comment = 1 (obs. = 7,386) | | | |
|---|---|---|---|---|---|---|
| | Mean | Median | Mean | | Median | |
| FYR12 | 0.708 | 1.000 | 0.732 | *** | 1.000 | *** |
| Rest_Announced | 0.085 | 0.000 | 0.111 | *** | 0.000 | *** |
| Volatility | 0.127 | 0.109 | 0.123 | *** | 0.104 | *** |
| HighPE | 0.095 | 0.000 | 0.112 | *** | 0.000 | *** |
| Large | 0.333 | 0.000 | 0.504 | *** | 1.000 | *** |
| Small | 0.124 | 0.000 | 0.078 | *** | 0.000 | *** |
| logMV | 6.088 | 6.043 | 6.710 | *** | 6.817 | *** |
| FirmAge | 17.203 | 14.000 | 19.330 | *** | 16.000 | *** |
| Loss | 0.324 | 0.000 | 0.274 | *** | 0.000 | *** |
| AltZ | 4.436 | 4.000 | 4.666 | *** | 5.000 | *** |
| ExtFin | 0.017 | -0.005 | 0.012 | ** | -0.009 | ** |
| SalesGrowth | 0.158 | 0.081 | 0.153 | | 0.073 | * |
| Segments | 2.280 | 1.000 | 2.550 | *** | 2.000 | *** |
| M&A | 0.023 | 0.000 | 0.027 | ** | 0.000 | ** |
| Restructure | 0.013 | 0.000 | 0.016 | | 0.000 | |
| Big4 | 0.722 | 1.000 | 0.783 | *** | 1.000 | *** |
| 2ndTier | 0.121 | 0.000 | 0.105 | *** | 0.000 | *** |
| Lev | 0.931 | 0.124 | 1.588 | ** | 0.199 | *** |
| Beta | 0.967 | 0.764 | 1.014 | *** | 0.764 | *** |

**Panel B:** Univariate analysis of December fiscal year-end by whether the firm received a comment letter and size decile

| | CommentLetter = 0 | | CommentLetter = 1 | | | |
|---|---|---|---|---|---|---|
| | Mean | Median | Mean | | Median | |
| FYR12 (Q5, Largest quintile of logMV) | 0.734 | 1.000 | 0.764 | ** | 1.000 | ** |
| FYR12 (Q4) | 0.755 | 1.000 | 0.764 | | 1.000 | |
| FYR12 (Q3) | 0.742 | 1.000 | 0.741 | | 1.000 | |
| FYR12 (Q2) | 0.696 | 1.000 | 0.707 | | 1.000 | |
| FYR12 (Q1, Smallest quintile of logMV) | 0.632 | 1.000 | 0.628 | | 1.000 | |

The sample consists of 26,620 firm-years between 2005 and 2013 (7,386 of which received a comment letter from the SEC). */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). All continuous variables are winsorized at the 1% and 99% percentiles. See Appendix for variable definitions.

TABLE 4
**Bivariate probit model with partial observability on whether the firm receives a comment letter on SEC busyness**

| | Pred. | Prob(Review) | | P(Comment Letter \| Review) | |
|---|---|---|---|---|---|
| | | Coeff. | *p*-value | Coeff. | *p*-value |
| Constant | ? | -1.151 *** | (0.000) | 0.592 | (0.194) |
| *Rest_Announced* | + | 0.121 *** | (0.000) | | |
| *Volatility* | + | 0.144 * | (0.094) | | |
| *HighPE* | + | -0.005 | (0.834) | | |
| *Large* | + | 0.180 *** | (0.000) | | |
| *Small* | - | 0.028 | (0.491) | | |
| *FYR12* | - | | | -0.128 *** | (0.010) |
| *logMV* | + | | | 0.374 *** | (0.000) |
| *FirmAge* | + | | | 0.007 ** | (0.017) |
| *Loss* | + | | | -0.025 | (0.694) |
| *AltZ* | + | | | 0.047 *** | (0.000) |
| *ExtFin* | ? | | | -0.008 | (0.301) |
| *SalesGrowth* | + | | | 0.003 | (0.443) |
| *Segments* | + | | | 0.041 ** | (0.032) |
| *M&A* | + | | | 0.218 * | (0.095) |
| *Restructure* | + | | | 0.554 * | (0.091) |
| *Big4* | - | | | -0.435 *** | (0.000) |
| *2ndTier* | - | | | -0.163 * | (0.073) |
| *Leverage* | + | | | -0.001 | (0.184) |
| *Beta* | + | | | 0.066 | (0.114) |
| Industry Fixed Effects | | | Yes | | |
| Year Fixed Effects | | | Yes | | |
| No. of Firm-Years (Comment Letters) | | | 26,620 (7,386) | | |
| Wald Chi-Square (df) | | | 929 (55) | | |
| Log likelihood | | | -14845 | | |
| Area under the ROC curve | | | | | |

 The sample consists of 26,620 firm-years between 2005 and 2013 (7,384 of which received a comment letter from the SEC). The sample consists of 26,620 firm-years between 2005 and 2013 (7,386 of which received a comment letter from the SEC). */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). *p*-values are in parentheses. All continuous variables are winsorized at the 1% and 99% percentiles. See Appendix for variable definitions.

TABLE 5

**Logistic regression of whether the firm-year has an SEC-initiated restatement on SEC busyness, conditional on receiving a comment letter**

| | Pred. | SECInitiated_Rest | | |
|---|:---:|---:|:---:|:---:|
| | | Coefficient | | *p*-value |
| Constant | ? | -2.155 | *** | (<0.0001) |
| *FYR12* | + | 0.230 | ** | (0.023) |
| *Rest_Announced* | + | 0.733 | *** | (<0.0001) |
| *Volatility* | + | 0.364 | | (0.634) |
| *HighPE* | + | -0.406 | ** | (0.037) |
| *logMV* | - | -0.163 | *** | (0.001) |
| *FirmAge* | ? | -0.011 | * | (0.074) |
| *Loss* | + | -0.059 | | (0.730) |
| *AltZ* | + | 0.031 | | (0.241) |
| *ExtFin* | - | 0.001 | | (0.835) |
| *SalesGrowth* | + | -0.009 | | (0.167) |
| *Segments* | + | 0.056 | * | (0.065) |
| *M&A* | + | -0.340 | | (0.466) |
| *Restructure* | + | -0.173 | | (0.730) |
| *Big4* | - | -0.436 | ** | (0.023) |
| *2ndTier* | - | -0.610 | ** | (0.011) |
| *Lev* | + | -0.001 | | (0.583) |
| *Beta* | + | -0.006 | | (0.950) |
| Year & Industry Fixed Effects | | Yes | | |
| No. of Firm-Years | | 7,386 | | |
| SEC-initiated restatements | | 303 | | |
| Pseudo $R^2$ | | 0.0530 | | |

The sample consists of 7,386 firm-years with data between 2005 and 2013 that received a comment letter from the SEC. The standard errors are clustered by firm and year. */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). *p*-values are in parentheses. All continuous variables are winsorized at the 1% and 99% level. See Appendix for variable definitions.

TABLE 6

**Logistic regression of whether the firm-year has a comment letter that mentions revenue recognition on SEC busyness, conditional on receiving a comment letter**

|  | Revenue_Comment | | |
|---|---|---|---|
|  | Coefficient | | $p$-value |
| Constant | -0.920 | *** | (0.000) |
| *FYR12* | 0.116 | ** | (0.044) |
| *Rest_Announced* | 0.114 | | (0.278) |
| *Volatility* | 0.636 | * | (0.087) |
| *HighPE* | -0.031 | | (0.734) |
| *logMV* | -0.046 | ** | (0.047) |
| *FirmAge* | -0.005 | * | (0.096) |
| *Loss* | 0.414 | *** | (<0.0001) |
| *AltZ* | -0.070 | *** | (<0.0001) |
| *ExtFin* | 0.002 | | (0.529) |
| *SalesGrowth* | -0.001 | | (0.888) |
| *Segments* | -0.009 | | (0.649) |
| *M&A* | 0.116 | | (0.531) |
| *Restructure* | -0.111 | | (0.624) |
| *Big4* | -0.047 | | (0.668) |
| *2ndTier* | 0.000 | | (0.999) |
| *Lev* | -0.079 | *** | (0.009) |
| *Beta* | 0.058 | | (0.216) |
| Year & Industry Fixed Effects | Yes | | |
| No. of Firm-Years | 7,386 | | |
| Revenue Issues | 1,518 | | |
| Pseudo $R^2$ | 0.0160 | | |

The sample consists of 7,386 firm-years with data between 2005 and 2013 that received a comment letter containing an issue related to revenue recognition from the SEC. The standard errors are clustered by firm and year. */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). *p*-values are in parentheses. All continuous variables are winsorized at the 1% and 99% level. See Appendix for variable definitions.

TABLE 7

**Logistic regression of whether the firm-year has a non–SEC-initiated restatement on SEC busyness for a sample of firms with a greater than 70 percent chance of having their financial statements reviewed by the SEC**

| | nonSECInitiated_Rest | | |
| --- | --- | --- | --- |
| | Coefficient | | *p*-value |
| Constant | -2.684 | *** | (<0.0001) |
| FYR12 | -0.100 | | (0.333) |
| Rest_Announced | 0.588 | *** | (<0.0001) |
| Volatility | -0.263 | | (0.674) |
| HighPE | -0.090 | | (0.524) |
| logMV | -0.071 | ** | (0.022) |
| FirmAge | 0.007 | * | (0.066) |
| Loss | 0.270 | ** | (0.028) |
| AltZ | 0.002 | | (0.925) |
| ExtFin | 0.050 | *** | (<0.0001) |
| SalesGrowth | -0.007 | | (0.355) |
| Segments | 0.069 | *** | (0.008) |
| M&A | 0.027 | | (0.913) |
| Restructure | -0.305 | | (0.406) |
| Big4 | 0.617 | *** | (0.001) |
| 2ndTier | 0.191 | | (0.383) |
| Lev | -0.013 | | (0.161) |
| Beta | 0.087 | | (0.205) |
| Year & Industry Fixed Effects | | Yes | |
| No. of Firm-Years | | 16,249 | |
| nonSEC initiated restatements | | 1,537 | |
| Pseudo $R^2$ | | 0.0512 | |

The sample consists of 16,249 firm-years with data between 2005 and 2013 that have a greater than 70% chance of being reviewed by the SEC (using equation (1a)). The standard errors are clustered by firm and year. */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). *p*-values are in parentheses. All continuous variables are winsorized at the 1% and 99% level. See Appendix for variable definitions.

TABLE 8

**OLS regression of SEC comment letter processing time (number of days between a firm's 10-K filing date and the date of the initial comment letter from the SEC) on busyness and interactions**

|  | *DaysToProcess* | | |
|---|---|---|---|
|  | Coeff. | | *p*-value |
| Constant | 196.997 | *** | (<0.0001) |
| *FYR12* | 46.883 | *** | (0.001) |
| *Rest_Announced* | -4.397 | | (0.496) |
| *Volatility* | 59.879 | ** | (0.022) |
| *HighPE* | -6.406 | | (0.228) |
| *logMV* | -8.887 | *** | (<0.0001) |
| *FirmAge* | -0.213 | | (0.209) |
| *Loss* | -10.860 | * | (0.051) |
| *AltZ* | -2.101 | *** | (0.015) |
| *ExtFin* | 1.683 | | (0.670) |
| *SalesGrowth* | 5.043 | ** | (0.030) |
| *Segments* | 0.775 | | (0.512) |
| *M&A* | 4.211 | | (0.713) |
| *Restructure* | -23.168 | ** | (0.028) |
| *Big4* | 29.119 | *** | (<0.0001) |
| *2ndTier* | 26.588 | *** | (0.000) |
| *Lev* | 0.193 | | (0.900) |
| *Beta* | 4.017 | | (0.156) |
| *NumRounds* | -2.893 | *** | (0.001) |
| *NumTopics* | 0.423 | ** | (0.035) |
| *FYR12×Rest_Announced* | -6.896 | | (0.367) |
| *FYR12×Volatility* | -36.958 | | (0.207) |
| *FYR12×HighPE* | 3.814 | | (0.552) |
| *FYR12×logMV* | -4.795 | *** | (0.003) |
| *FYR12×FirmAge* | -0.225 | | (0.257) |
| *FYR12×Loss* | 7.054 | | (0.263) |
| *FYR12×AltZ* | 2.040 | ** | (0.036) |
| *FYR12×ExtFin* | -1.174 | | (0.767) |
| *FYR12×SalesGrowth* | -4.951 | ** | (0.033) |
| *FYR12×Segments* | -1.230 | | (0.362) |
| *FYR12×M&A* | -1.950 | | (0.880) |

| | | |
|---|---|---|
| *FYR12×Restructure* | 27.358 * | (0.065) |
| *FYR12×Big4* | -8.755 | (0.255) |
| *FYR12×2ndTier* | -13.341 | (0.123) |
| *FYR12×Lev* | -0.158 | (0.918) |
| *FYR12×Beta* | 4.852 | (0.143) |
| *FYR12×NumRounds* | -0.126 | (0.899) |
| *FYR12×NumTopics* | -0.235 | (0.325) |
| Year & Industry Fixed Effects | Yes | |
| No. of Firm-Years | 7,386 | |
| $R^2$ | 0.0938 | |

The sample consists of 7,386 firm-years with data between 2005 and 2013 that received a comment letter from the SEC. The standard errors are clustered by firm and year. */**/*** represent statistical significance at 10%/5%/1% levels (two-tailed). *p*-values are in parentheses. All continuous variables are winsorized at the 1% and 99% level. See Appendix for variable definitions.