

# The Switch Up: An Examination of Changes in Earnings Management after Receiving SEC Comment Letters

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September 2018

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We thank Terrence Blackburne (discussant), Zahn Bozanic, Ted Christensen, Jerome Conley, Patricia Dechow, Andrew Doucet, Rebecca Files, James Hansen, Steven Hawkins, Erin Henry, Sarah McVay (Editor), Brian Monsen, Linda Myers, Ron Shalev (discussant), Tim Seidel, Roy Schmardebeck, and two anonymous reviewers for helpful comments and suggestions. We also thank conference and workshop participants at the 2016 AAA Annual Meeting, the 2016 AAA Financial Accounting and Reporting Section Midyear Meeting, the 2016 Temple Conference on Convergence of Financial and Managerial Accounting, the 2016 Washington Accounting Research Symposium, and the 2015 BYU Accounting Research Symposium, and George Mason University, University of Kentucky, University of Tennessee, Virginia Polytechnic Institute and State University, and the U.S. Securities and Exchange Commission Division of Economic and Risk Analysis. Ling Lei Lisic gratefully acknowledges financial support from the L. Mahlon Harrell Junior Faculty Fellowship at Virginia Polytechnic Institute and State University.

## **The Switch Up: An Examination of Changes in Earnings Management after Receiving SEC Comment Letters**

### **Abstract**

The Securities and Exchange Commission (SEC) has long asserted that earnings management practices result in adverse consequences for investors. To carry out one of the SEC's investor protection roles, the Division of Corporation Finance periodically reviews firms' filings and issues comment letters to monitor and enhance compliance with regulatory disclosure and accounting requirements. We examine whether the SEC's oversight role affects firms' accounting quality in terms of earnings management trade-offs. We expect that increased firm-specific regulatory scrutiny, in the form of a comment letter, will induce management to switch from accrual-based earnings management (AEM), which is a main focus of the SEC, to real activities-based earnings management (REM), which is less likely to be commented on in the SEC's review process. Consistent with our predictions, we find that AEM is lower and REM is higher following the receipt of a comment letter relative to non-comment letter years and a propensity-score matched sample of non-comment letter firms, but we do not find a significant difference in total earnings management (i.e., the sum of AEM and REM), suggesting that the higher REM acts as a substitute for lower AEM activity. We further find that our results are driven by accounting comments relating to estimates and accruals, and not by classification-only comments, which suggests that a comment letter that does not question specific issues associated with estimates and accruals is not a strong enough signal to induce the firm to change earnings management behavior. These results collectively suggest that the comment letter process is effective in constraining AEM but has the unintended consequence of firms switching to REM.

**Keywords:** accruals-based earnings management; comment letter; filing review process; real earnings management; SEC

**JEL Classifications:** M41, M48

## 1. Introduction

The Securities and Exchange Commission (SEC) has long been concerned that poor accounting quality in the form of aggressive earnings management practices results in adverse consequences for investors, including masking “the true consequences of management’s decisions” (Levitt 1998). Recently, the Division of Economic and Risk Analysis has begun developing analytic tools to better identify low quality financial reporting, including the use of “discretionary accounting choices” and “earnings management” behavior, so that it can better focus its regulatory efforts (Lewis 2012). To carry out the SEC’s oversight role, the Division of Corporation Finance periodically reviews firms’ filings and issues comment letters to monitor and enhance compliance with regulatory disclosure and accounting requirements. Specifically, under Section 408 of the Sarbanes-Oxley Act of 2002 (SOX), the SEC is required to review the periodic filings of all registrants at least once every three years. If the SEC reviewers identify a potential deficiency in an accounting treatment or a disclosure that requires clarification, they issue a comment letter to the firm. We examine the influence of firm-specific regulatory oversight, in the form of SEC comment letters, on firms’ earnings management practices.

Firms can manage earnings using two primary methods: accrual-based earnings management (AEM), such as using “cookie jar” reserves, and real activities-based earnings management (REM),<sup>1</sup> such as the opportunistic timing of discretionary expenses. Prior research provides evidence of a cost-benefit trade-off between these two methods. As the cost of one earnings management practice increases, firms shift to other, less costly, forms of earnings management (e.g., Cohen, Dey, and Lys 2008; Zang 2012; Hales, Koka, and Venkataraman

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<sup>1</sup> Roychowdhury (2006, 337) defines REM as “...departures from normal operational practices, motivated by managers’ desire to mislead at least some stakeholders into believing certain financial reporting goals have been met in the normal course of operations.” Note that REM is often referred to as “real activities manipulation.”

2018). Outside of evaluating costs of earnings management, in our setting of firm-specific SEC oversight, managers may switch from AEM to REM because the SEC “does not evaluate the merits of any transaction...” (SEC 2017), and thus is less likely to comment on whether real business transactions appear to mislead investors by distorting financial outcomes (i.e., REM), as long as they are appropriately disclosed.

We expect that the receipt of an SEC comment letter induces firms to reevaluate their earnings management techniques for several reasons. First, comment letters serve as a salient cue that the SEC is monitoring the firm’s accounting policies and disclosures. These letters are a top priority item and are given immediate attention by senior firm management including the Chief Executive Officer and Chief Financial Officer (Johnson 2010). Second, comment letters can identify potential concerns about firms’ accounting choices or about the transparency of the disclosure surrounding those choices, including discretionary estimates and assumptions that managers may have used to manipulate earnings. Finally, SEC comment letters and firm responses are made publicly available on EDGAR following the resolution of the comment letter review. Thus, cumulatively, the direct scrutiny by the SEC, and the public awareness of the SEC’s concerns, may induce management to reevaluate the use of AEM versus REM techniques.

To test whether the receipt of an SEC comment letter is associated with subsequent earnings management, we augment the AEM and REM models in Zang (2012) by including an indicator variable for whether a firm has received a comment letter in the prior two years. To understand whether these differences in AEM and REM offset each other as substitutes or change overall earnings management activities, we also examine total earnings management (i.e., the sum of AEM and REM). We find that AEM is significantly lower and REM is significantly higher after the receipt of an SEC comment letter. These results are consistent with our

hypotheses that, after receiving a comment letter, firms reduce their AEM, due to firm-specific scrutiny, and shift to more REM, which is less likely to be the SEC's focus. We also find that total earnings management is not statistically different from non-comment letter years after the receipt of an SEC comment letter, suggesting that firms are mirroring the expected decrease in AEM with a similar increase in REM. We obtain these results after controlling for factors previously shown to affect AEM and REM behavior and using firm fixed effects, which should control for time-invariant firm characteristics associated with earnings management decisions.

To alleviate concerns that our results are attributable to general time trends, or by selection bias of the SEC in determining which firm-years warrant a comment letter, we utilize a difference-in-differences design on a sample of propensity-score matched comment letter firms and non-comment letter firms. We propensity-score match each comment letter firm with a control firm within the same SEC industry office and year that does not receive a comment letter, using a determinants model based on the selection criteria in SOX Section 408, firm performance, historical earnings management, and historical comment letter receipt. We then compare whether the changes in earnings management, post-comment letter receipt, vary between the comment letter group and the matched non-comment letter group. This difference-in-differences research design results in the same inferences: firms have higher AEM and lower REM after the receipt of a comment letter, relative to the control sample, but total earnings management does not change significantly. To further mitigate concerns over spurious relations, we perform a placebo test by replacing comment letter years with random years from the same set of firms in our sample period. We fail to find any significant association between the pseudo-receipt year and subsequent earnings management.

SEC comment letters can cover a variety of issues, including significant accounting policies, accruals that are subject to high estimation risk, and presentation and classification, among others. The example of an SEC comment letter in Appendix A illustrates the breadth of SEC 10-K reviews. Cassell, Dreher, and Myers (2013) report that 75 percent of comment letters cover at least six different issues, and 25 percent cover at least 16 different issues. We perform cross-sectional analyses to determine whether the extent of comments (i.e., word count) or the type of comments (i.e., accounting vs. non-accounting) has an impact on the switching behavior. We divide the sample of comment letters into letters with above and below median word count (i.e., extent of comments), and letters with and without at least one accounting-related comment (i.e., type of comments). Results suggest that our main results are driven by comment letters that have at least one accounting-related comment. Thus, it appears that comment letters with non-accounting scrutiny are not sufficient to induce management to reevaluate earnings management behavior. An analysis of specific accounting issues further suggests that comments affecting a wide variety of accounts and disclosures related to management's estimates and accruals influence subsequent earnings management. Thus, our results are not limited to only a few specific accounting issues. However, comments related to classification or presentation of financial statement line items, as opposed to comments about the underlying estimates or accruals, have no significant effect on earnings management techniques. This suggests that the mere receipt of a comment letter (absent comments related to accruals or estimates) is not sufficient to induce changes in earnings management behavior.

We perform two additional cross-sectional tests to better understand the mechanisms behind the observed association between receiving a comment letter and the trade-off between AEM and REM. Firms know that the SEC reviews registrants at least once every three years

under SOX Section 408, and they may believe that their reviews can be predicted in three-year cycles. If firms receiving a comment letter in year  $t$  believe that switching from AEM to REM is only necessary to avoid future comment letters and want to wait until their next anticipated three-year cycle review to make changes, we would only observe the changes in earnings management in year  $t+2$  (to avoid a comment letter in year  $t+3$ ). Instead, we observe the change in both years  $t+1$  and  $t+2$ , suggesting that changes in earnings management behavior happen immediately after the resolution of the comment letter. Additionally, some firms get reviewed and receive comment letters more than once in a three-year review cycle. Therefore, we also examine cross-sectional variation in our results based on whether the firm received multiple comment letters in the prior two years. This is important to understand whether one comment letter is sufficient to adjust management's behavior or whether it takes repeated warnings from the SEC to alter their behavior. We find that our inferences remain the same for both repeat-letter firms (i.e., those that receive more than one comment letter in the prior two years) and single-letter firms, suggesting that even a single comment letter is associated with changes in earnings management.

Finally, we examine the impact of AEM and REM on future firm performance in the context of receiving SEC comment letters. We find that the AEM and REM measures used in our study are both negatively associated with future performance, corroborating that these metrics reflect earnings management rather than abnormal performance. Moreover, our results suggest that earnings management following a comment letter is no more (or less) value-destroying than earnings management for reasons unrelated to an SEC comment letter.

The results of our study provide important implications for regulators, board members, and investors monitoring companies' financial reporting quality and contribute to prior literature calling for research on the consequences, in terms of both costs and benefits, of SEC comment

letters (e.g., Cassell et al. 2013; Johnston and Petacchi 2017). Although we find that SEC comment letters have the positive outcome of constraining questionable accrual-based earnings management practices, we also find that companies use REM to substitute for the constrained AEM, and these AEM and REM decisions are costly to future performance.

Most of the extant literature on the benefits of the comment letter process focuses on the impact of *disclosure* changes following the receipt of a comment letter (e.g., Bens, Cheng, and Neamtiu 2016; Bozanic, Dietrich, and Johnson 2017; Brown, Tian, and Tucker 2018). These studies provide evidence that SEC comment letters lead to improved disclosure, greater cross-firm consistency, more transparent information environments, and lower information asymmetry. However, the SEC explicitly states that the purpose of the comment letter process is “to monitor and enhance compliance with the applicable disclosure *and accounting* requirements” (SEC 2017, emphasis added). We help fill the void in the literature by examining the consequences of the comment letter process on the *accounting* practices related to earnings management.<sup>2</sup>

There is a debate in the earnings management literature regarding whether or not existing REM and AEM measures capture opportunistic earnings management (e.g., Allen, Larson, and Sloan 2013; Bowen, Rajgopal, and Venkatachalam 2008; Siriviriyakul 2015; Cohen, Pandit, Wasley, and Zach 2016). We find that our measures of REM and AEM are negatively associated with future performance (consistent with Cohen and Zarowin (2010), Kothari, Mizik, and Roychowdhury (2016), and Christensen, Huffman, and Lewis-Western (2017)), and that the association between comment letter receipt and subsequent earnings management is driven by

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<sup>2</sup> To our knowledge, only one other paper examines how the SEC review process affects accounting practices. In contrast to our study, which examines *firm-specific* comment letters and subsequent changes in AEM and REM, Blackburne (2014) examines how changes in annual budgetary resources in the Division of Corporation Finance affects firms’ reporting quality. Blackburne (2014) finds that increases in industry office-specific budgets is associated with decreases in restatements and discretionary accruals for firms assigned to those industry offices, suggesting that additional SEC oversight results in higher reporting quality.



accounting topics subject to estimates and accruals. Collectively, this suggests that the concerns from prior literature are largely alleviated in our setting. The granular analyses of comment letter topics not only contribute to our understanding of the mechanisms at work behind the relation between SEC comment letters and earnings management, but also extend the broad literature on earnings management.

Our paper proceeds as follows. Section 2 provides institutional background, reviews prior literature, and develops our hypotheses. Section 3 describes our research design. Section 4 describes our sample and presents our empirical results, and Section 5 concludes.

## **2. Background, Related Literature, and Hypothesis Development**

### *2.1. SEC Comment Letters*

The mission of the SEC is to protect investors. Earnings management is not a new area of concern, but it continues to be a primary enforcement and review target of the SEC. Past SEC chairpersons have often criticized earnings management practices, accusing managers of strategically distorting their operating results. Among other impacts, these practices make it difficult for investors to assess firm performance and future prospects. In his influential 1998 “Numbers Game” speech, SEC Chairman Arthur Levitt bemoaned the “erosion of the quality of earnings” caused by “managing” and “manipulating” reported earnings (Levitt 1998). In a 2016 speech, Andrew Ceresney, Director of the Division of Enforcement, summarizes the actions that the SEC has taken to improve detection and enforcement of materially deficient financial reporting (Ceresney 2016):

The good news is that we succeeded...For example, restatement trends are flat over the last five years, and down significantly from last decade...But despite some positive trends, we must continue to be very vigilant against misconduct because significant violations still occur, accounting frauds are still perpetrated, and gatekeepers still fail to comply with their legal and professional obligations.

Ceresney (2016) goes on to report that causes of recent reporting problems, similar to those seen in the past, include “significant pressure to meet earnings and other performance expectations” and “excessive focus on short term performance rather than longer term success.” Similar to Levitt’s speech, Ceresney specifically mentions the role that earnings management continues to play in cases of financial misconduct.<sup>3</sup>

One of the largest divisions of the SEC is the Division of Corporation Finance, which oversees the ongoing reporting obligations of public firms to improve disclosure transparency and ensure compliance with accounting standards. SOX Section 408 mandates that the SEC review every registrant’s periodic filings at least once every three years. The receipt of a comment letter is viewed by firms’ top management as a significant regulatory event, requiring their immediate attention (Johnson 2010; Shumsky 2016). The initial comment letter includes a request for managers to submit a written response within ten business days or to propose an alternative time frame. The SEC staff may issue follow-up comment letters, and the correspondence continues until all issues are resolved. After the completion of the comment letter review, the correspondence is publicly released on the SEC’s EDGAR website.<sup>4</sup>

Appendix A includes an SEC comment letter as an example of the nature and extent of comments issued to firms. Anecdotal evidence suggests that sophisticated investors and analysts utilize the publicly available comment letter correspondence to scrutinize firms’ accounting

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<sup>3</sup> As noted in both Levitt and Ceresney’s speeches, the SEC may specifically target firms that appear to engage in earnings management. We control for this potential selection bias by identifying a control sample matched on lagged earnings management and firm performance and then conducting difference-in-differences analyses, as described in Section 4.2.

<sup>4</sup> In June 2004, the SEC decided to make comment letter correspondence publicly available following each comment letter review, in order to increase the transparency of the process. See the SEC announcement at <https://www.sec.gov/news/press/2004-89.htm>. The comment letter correspondence from the first publicly disclosed reviews began to be released in May 2005.

practices and to identify potential short selling opportunities.<sup>5</sup> The public disclosure of comment letter correspondence after a review is complete has the potential to discipline management's accounting and disclosure practices because investors and other market participants can read the managers' justifications provided in response to the SEC inquiries. In addition, the SEC reviewers may refer cases of suspected earnings management to the Division of Enforcement for further investigation.<sup>6</sup>

Much of the extant literature on the consequences of SEC comment letters focuses on the impact of *disclosure* changes following the receipt of a comment letter. Bens et al. (2016) find that firms that receive comment letters related to fair value disclosures experience a reduction in uncertainty about their fair value estimates after resolving the SEC's comments. Bozanic et al. (2017) examine qualitative disclosure changes following a comment letter review and find evidence of disclosure improvements in line with the stated objectives of the comment letter process. They also find that the disclosure improvements are associated with lower information asymmetry and reduced litigation risk. Brown et al. (2018) examine spillover effects of one firm's comment letter on its industry peers' qualitative disclosure changes related to risk factors. They provide evidence that a firm's disclosures become more consistent with their peers after going through a comment letter review. Finally, Wang (2016) finds that firms that change

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<sup>5</sup> See, for example, popular press articles by Sandler (2013) and Gilbert (2014). In addition, prior research finds that executives may engage in abnormal insider trading during the time period between comment letter receipt and public disclosure (Dechow, Lawrence, and Ryans 2016), and banks charge higher interest spreads and restrict the use of financial covenants following the receipt of a comment letter (Cunningham, Schmardebeck, and Wang 2017).

<sup>6</sup> Even though the filing review process of the Division of Corporation Finance is separate and distinct from the role of the Division of Enforcement, the two divisions coordinate their regulatory efforts. For example, within the Division of Corporation Finance is the Office of Enforcement Liaison, which coordinates the process of referring issues to the Division of Enforcement for consideration of further inquiry and possible investigation. A former Chief Accountant of the SEC's Division of Enforcement, Robert Sack, stated that approximately 50% of leads for formal investigations come from the filing review process (Feroz, Park, and Pastena 1991, Footnote 6).

segment disclosures after receiving an SEC comment letter experience lower analyst forecast errors, less dispersion and reduced optimistic bias.<sup>7</sup>

Cassell et al. (2013, 1902) examine the determinants of receiving a comment letter and call for future research on the benefits of the comment letter process, including whether it leads to “improved subsequent reporting quality.” As the explicit objective of the SEC’s review process is “to monitor and enhance compliance with the applicable disclosure *and accounting* requirements” (SEC 2017, emphasis added), our study complements the extant literature by providing evidence on the impact of the comment letter process on accounting quality in terms of earnings management trade-offs.

## *2.2. Accrual-Based vs. Real Earnings Management*

Firms have strong incentives to manage earnings for various purposes, including to maximize compensation, to meet earnings targets, and to lower cost of debt and equity financing. They can manipulate both accruals and real activities to achieve these goals. Early research focuses on AEM, which involves using discretionary accruals (e.g., Jones 1991; Teoh, Welch, and Wong 1998). However, because those forms of earnings management are more likely to be scrutinized by the SEC, managers may opt for other forms of earnings management that alter the real activities of the business, such as accelerating inventory production or delaying discretionary expenditures. “An interviewed CFO offers an insight into the choice between real and accounting-based earnings management in the current environment: While auditors can second-guess the firm’s accounting policies, they cannot readily challenge real economic actions to meet

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<sup>7</sup> Another study that examines corporate policy changes following the comment letter process is Kubick, Lynch, Mayberry, and Omer (2016). They find evidence that firms reduce their tax avoidance following the receipt of a comment letter related to income tax disclosures.

earnings targets that are taken in the ordinary course of business” (Graham, Harvey, and Rajgopal 2005, 36).

Prior research confirms that managers use REM to avoid missing earnings targets (Roychowdhury 2006) and to avoid underpricing of seasoned equity offerings (Cohen and Zarowin 2010). Ewert and Wagenhofer (2005) show analytically that when accounting standards are tightened (i.e., when accounting flexibility is reduced), firms tend to resort to real earnings management. Cohen et al. (2008) provide empirical support to Ewert and Wagenhofer’s (2005) model by examining trends in AEM and REM pre- and post-SOX. Their study provides evidence that AEM was increasing prior to SOX and then decreased in the post-SOX period. They also observe the opposite trends in REM (i.e., a steady decrease in the pre-SOX period, followed by a subsequent increase). These results suggest that, as SOX imposes stronger regulatory scrutiny on firms, they shift from AEM to REM. Graham et al. (2005, 36) recognize that an alternative explanation for the post-Enron and post-WorldCom era “could simply be that managers are more willing to admit to taking real decisions than to accounting decisions.”

Recent experimental research has provided further evidence on the substitutive relationship between AEM and REM. Hales et al. (2018) find evidence of an increase in REM when AEM is constrained in the setting of executive clawback provisions. In another experimental study, Buchanan, Commerford, and Wang (2018) find evidence that auditor scrutiny leads to a substitution from AEM to REM.

### *2.3. Hypothesis Development*

To form the predictions in our study, we follow prior literature in assuming that accruals and real earnings management are substitutes. Prior literature has examined this substitution effect in terms of relative costs and documents that when costs of AEM are higher, *ceteris*

*paribus*, firms are more likely to engage in REM, and vice versa (Zang 2012). Zang (2012) suggests that the increased litigation risk and increased scrutiny from SOX drives firms to REM because REM does not involve direct violation of any laws or regulations, as long as the outcomes of REM are properly disclosed in the financial statements. This is also reflected in SEC disclosures that explicitly state that the SEC “does not evaluate the merits of any transaction...” (SEC 2017). In our setting, firms may be willing to switch from AEM to REM because accruals and estimates are a primary target of SEC reviewers, whereas REM is less likely to be scrutinized as long as it is properly disclosed.

Firms do not know the exact timing of SEC reviews, and absent the receipt of a comment letter, they do not know whether their disclosure filings were reviewed or not. It is possible that the general threat of the review process alone may constrain AEM, suggesting that no changes will be detected following the actual receipt of a comment letter. However, we expect that AEM will decrease following the receipt of a comment letter because it serves as a salient cue that the firm’s accounting is being monitored by the SEC, as opposed to a general awareness of the possibility of the receipt of a comment letter. In this sense, SEC oversight is analogous to police officers overseeing traffic laws. A driver who consistently exceeds the speed limit may only choose to drive safer and conform to the speed limit laws after receiving a traffic violation, despite knowing that he is always subject to possible enforcement (Redelmeier, Tibshirani, and Evans 2003). Additionally, because the SEC’s comments and the firm’s responses are disclosed on EDGAR following the resolution of the comment letter, managers will become aware that the SEC, as well as investors, will have new information about how the firm uses discretion in making accounting judgments. We expect this additional scrutiny will cause firms to reduce their

AEM behavior following the receipt of a comment letter. We state our first hypothesis in the alternative form as follows:

**H1:** Firms have lower levels of accrual-based earnings management following the receipt of an SEC comment letter.

Because prior research provides evidence that firms switch to more REM when AEM is constrained (e.g., Cohen et al. 2008; Zang 2012), and because the SEC is less likely to scrutinize economic transactions, we also examine whether firms shift to more REM following the receipt of a comment letter. Following H1, we state our second hypothesis in the alternative form as follows:

**H2:** Firms have higher levels of real earnings management following the receipt of an SEC comment letter.

Cassell et al. (2013) call for research that examines changes in financial reporting quality following the receipt of an SEC comment letter. If AEM and REM, following a comment letter, result in lower overall earnings management, this would suggest that SEC comment letters improve the financial reporting quality of the firm. However, if firms substitute constrained AEM with REM, any potential benefit of lower AEM is offset by higher REM. Although we make directional predictions for both AEM and REM, we do not make a similar prediction for total earnings management. Because we predict that firms will simultaneously have lower AEM and higher REM after the receipt of a comment letter, the overall impact on total earnings management will depend on the magnitude of each of the respective changes. If firms are committed to the same level of total earnings management, they may simply offset the lower AEM with higher REM. Therefore, we state our final hypothesis in the null form as follows:

**H3:** The level of total earnings management is not different following the receipt of an SEC comment letter.

### 3. Research Design

We define AEM as earnings management using discretionary accruals. We estimate discretionary accruals using the modified Jones model (Jones 1991; Dechow, Sloan and Sweeney 1995), and we also performance-adjust by controlling for timely loss recognition in the accruals estimation model following Ball and Shivakumar (2006). Here, we expect that higher levels of discretionary accruals represent higher AEM. Our model, which we estimate by industry and year, is as follows:

$$\begin{aligned} Accruals_{it} = & \alpha_1 + \alpha_2(1/A_{it-1}) + \alpha_3((\Delta REV_{it} - \Delta REC_{it})/A_{it-1}) + \alpha_4(PPE_{it}/A_{it-1}) \\ & + \alpha_5(CFO_{it}/A_{it-1}) + \alpha_6 NEG\_CFO_{it} + \alpha_7((NEG\_CFO_{it} * CFO_{it})/A_{it-1}) + \varepsilon_{it} \end{aligned} \quad (1)$$

where *Accruals* is set equal to earnings before extraordinary items and discontinued operations, minus operating cash flows in *t*, scaled by total assets at the end of *t-1* (following Collins and Hribar 1999);  $\Delta REV_{it}$  is the change in net revenues from year *t-1* to *t*;  $\Delta REC_{it}$  is the change in net receivables from year *t-1* to *t*;  $A_{it-1}$  is total assets at the end of *t-1*; *PPE<sub>it</sub>* is set equal to property, plant, and equipment in *t*; *CFO<sub>it</sub>* is set equal to cash flow from operations in *t*; and *NEG\_CFO<sub>it</sub>* is an indicator variable equal to one if *CFO<sub>it</sub>* is less than zero, and zero otherwise. We then set our variable of interest, *AbnormalAccruals*, equal to the value of the estimated residual ( $\varepsilon$ ) from Equation (1) for each firm-year.

We define REM as the composite of two separate measures: abnormal production and abnormal discretionary expenditures. We estimate both of these measures following Roychowdhury (2006), by estimating the following regressions ((2) and (3)) by industry-year:

$$PROD_{it}/A_{it-1} = \alpha_1 + \alpha_2(1/A_{it-1}) + \alpha_3(S_{it}/A_{it-1}) + \alpha_4(\Delta S_{it}/A_{it-1}) + \alpha_5(\Delta S_{it-1}/A_{it-1}) + \varepsilon_{it} \quad (2)$$

where *PROD* is the sum of cost of goods sold in year *t* and the change in inventory from *t-1* to *t*;  $A_{it-1}$  is total assets at the end of *t-1*; *S<sub>it</sub>* is net sales in *t*;  $\Delta S_{it}$  is the change in net sales from *t-1* to *t*;



and  $\Delta S_{it-1}$  is the change in net sales from  $t-2$  to  $t-1$ . For each firm-year, abnormal production is the estimated residual ( $\varepsilon$ ) from Equation (2).

$$DISX_{it}/A_{it-1} = \alpha_1 + \alpha_2(1/A_{it-1}) + \alpha_3(S_{it-1}/A_{it-1}) + \varepsilon_{it} \quad (3)$$

where  $DISX$  is the sum of research and development (R&D), advertising, and selling, general and administrative (SG&A) expenses in  $t$ ;  $A_{it-1}$  is total assets at the end of  $t-1$ ; and  $S_{it-1}$  is net sales in  $t-1$ . For each firm-year, abnormal discretionary expenditures is the estimated residual ( $\varepsilon$ ) from Equation (3). For Equations (1) – (3), we use all available observations in Compustat with sufficient data for all equations and require at least 15 observations per industry-year and use two-digit SIC for industry classification.

To construct our composite measure of REM, we transform abnormal discretionary expenditures by multiplying it by negative one, so that higher values of both real earnings management variables (i.e., abnormal production and abnormal discretionary expenditures) represent income-increasing earnings management (e.g., Cohen and Zarowin 2010; Zang 2012; Chan, Chen, Chen, and Yu 2015). We then set our composite REM variable,  $REMCombined$ , equal to the sum of the two variables. Finally, to construct our measure of total earnings management ( $TotalEM$ ), we add  $AbnormalAccruals$  and  $REMCombined$ , following prior literature (e.g., Cohen and Zarowin 2010; Badertscher 2011; Chan et al. 2015).

We then examine whether AEM ( $AbnormalAccruals$ ), REM ( $REMCombined$ ), and total earnings management ( $TotalEM$ ) are associated with our variable of interest,  $CommentLetter$ , after controlling for other factors that affect AEM and REM practices, as identified in Zang (2012).  $CommentLetter$  is set equal to one for observations where the firm received an SEC comment letter in  $t-1$  or  $t-2$  and set equal to zero for all other firm-years in our sample. Zang (2012) notes that decisions about REM tend to be made *during* the year and that decisions about

AEM can be made after the year end, during the preparation of the annual financial statements. Therefore, we follow Zang (2012) and estimate the model with *REMCombined* as the dependent variable first and then estimate the model with *AbnormalAccruals* as the dependent variable second, including predicted and unpredicted amounts of *REMCombined* as additional controls. This design takes into account the sequential nature of the two forms of earnings management, following Zang (2012). Additionally, it is important to note that both *REMCombined* and *AbnormalAccruals* are annual measures, and because a comment letter can be received at any time during the year, we begin the measurement of the levels of earnings management in the first full fiscal year after the receipt of the letter to assure that managers know they are being monitored and have time to adjust their earnings management behavior. Specifically, we expect firms to increase their REM, during the year, in anticipation of being constrained on AEM at year end. The models are as follows:

$$\begin{aligned}
 REMCombined_{it} = & \delta_0 + \delta_1 CommentLetter_{it-1, t-2} + \delta_2 MarketShare_{it-1} + \delta_3 ZScore_{it-1} + \delta_4 Inst_{it-1} \\
 & + \delta_5 MTR_{it} + \delta_6 Big4_{it} + \delta_7 AuditTenure_{it} + \delta_8 NOA_{it-1} + \delta_9 Cycle_{it-1} \\
 & + \delta_{10} ROA_{it} + \delta_{11} Assets_{it} + \delta_{12} MtoB_{it} + \delta_{13} Earn_{it} + \delta_{14} HabitualBeater_{it} \\
 & + \delta_{15} StockIssuance_{it+1} + \delta_{16} AnalystFollowing_{it} + \delta_{17} MtoB_{it-1} \\
 & + \delta_{18} Shares_{it} + \delta_i Firm FE + \varepsilon_{it}
 \end{aligned} \tag{4}$$

$$\begin{aligned}
 AbnormalAccruals_{it} = & \delta_0 + \delta_1 CommentLetter_{it-1, t-2} + \delta_2 MarketShare_{it-1} + \delta_3 ZScore_{it-1} + \delta_4 Inst_{it-1} \\
 & + \delta_5 MTR_{it} + \delta_6 Big4_{it} + \delta_7 AuditTenure_{it} + \delta_8 NOA_{it-1} + \delta_9 Cycle_{it-1} \\
 & + \delta_{10} ROA_{it} + \delta_{11} Assets_{it} + \delta_{12} MtoB_{it} + \delta_{13} HabitualBeater_{it} \\
 & + \delta_{14} StockIssuance_{it+1} + \delta_{15} AnalystFollowing_{it} + \delta_{16} MtoB_{it-1} \\
 & + \delta_{17} Shares_{it} + \delta_{18} Pred\_REMCombined_{it} + \delta_{19} Unpred\_REMCombined_{it} \\
 & + \delta_i Firm FE + \varepsilon_{it}
 \end{aligned} \tag{5}$$

$$\begin{aligned}
TotalEM_{it} = & \delta_0 + \delta_1 CommentLetter_{it-1, t-2} + \delta_2 MarketShare_{it-1} + \delta_3 ZScore_{it-1} + \delta_4 Inst_{it-1} \\
& + \delta_5 MTR_{it} + \delta_6 Big4_{it} + \delta_7 AuditTenure_{it} + \delta_8 NOA_{it-1} + \delta_9 Cycle_{it-1} \\
& + \delta_{10} ROA_{it} + \delta_{11} Assets_{it} + \delta_{12} MtoB_{it} + \delta_{13} Earn_{it} + \delta_{14} HabitualBeater_{it} \\
& + \delta_{15} StockIssuance_{it+1} + \delta_{16} AnalystFollowing_{it} + \delta_{17} MtoB_{it-1} \\
& + \delta_{18} Shares_{it} + \delta_i Firm FE + \varepsilon_{it}
\end{aligned} \tag{6}$$

Following H1 and H2, we expect that *CommentLetter* will be negatively associated with *AbnormalAccruals* (AEM) and positively associated with *REMCombined* (REM). Following H3, we expect that *CommentLetter* will not be associated with *TotalEM* (total earnings management). We estimate Equations (4) – (6) using ordinary least squares regression with robust standard errors and firm fixed effects to control for unobserved time-invariant firm characteristics.

We choose control variables following Zang (2012). In both models, we control for the firm's market share at the beginning of the year based on the proportion of the industry's total sales (*MarketShare<sub>t-1</sub>*), the firm's financial health proxied for using a modified version of Altman's Z-score at the beginning of the year (*ZScore<sub>t-1</sub>*) (Altman 1968, 2000), the level of institutional ownership at the beginning of the year (*Inst<sub>t-1</sub>*), and the firm's marginal tax rate for year *t* (*MTR<sub>t</sub>*).<sup>8</sup> We also control for auditor scrutiny, proxied for using large audit firms (*Big4<sub>t</sub>*) and auditor tenure (*AuditTenure<sub>t</sub>*), the extent to which earnings have previously been manipulated, proxied for by net operating assets at the beginning of the year (*NOA<sub>t-1</sub>*), or the extent to which earnings can be manipulated as proxied for using the length of the operating cycle (*Cycle<sub>t-1</sub>*), firm performance leading up to the fourth quarter using return on assets (*ROA<sub>t</sub>*), the relative size of the firm in the industry based on assets (*Assets<sub>t</sub>*), the firm's potential growth rate (*MtoB<sub>t</sub>*), and pre-managed earnings (*Earn<sub>t</sub>*).

<sup>8</sup> We obtain the post-financing MTR measure (see Graham and Mills (2008)) from John Graham's website, <https://faculty.fuqua.duke.edu/~jgraham/taxform.html>. Following John Graham's instruction, we replace missing values from John Graham's website with simulated MTRs using the estimation results from Table 4, Panel A, Model C in Graham and Mills (2008).

The Zang (2012) model is only estimated for firm-years suspected of meeting or just beating an earnings benchmark. Because many earnings benchmarks are unobservable (e.g., compensation contracts, debt covenants, etc.) and because we want to be able to generalize results to a broad sample of firms receiving SEC comment letters, we estimate our model for all available firm-years. However, we recognize that some firms may have different incentives to manage earnings. As such, we use the determinants of suspect firms from Zang (2012) as additional control variables that should be associated with firms with increased incentives to meet or just beat earnings benchmarks: the number of times of beating/meeting prior analysts' forecast consensus (*HabitualBeater<sub>t</sub>*); whether the firm is pressured to raise equity, proxied by future stock issuances (*StockIssuance<sub>t+1</sub>*); pressures from analysts (*AnalystFollowing*); growth in the prior year (*MtoB<sub>t-1</sub>*); and the number of shares outstanding (*Shares*).

Following Zang (2012), the AEM model excludes *Earn* and includes the predicted and unpredicted levels of *REMCombined* (estimated from Equation (4)). The inclusion of these last two variables suggests the sequential nature of firms' decisions to manage real activities first followed by accruals manipulation second.<sup>9</sup>

To ensure that results from this estimation are not attributable to general time trends in earnings management, and to address selection issues related to which firms are more likely to receive a comment letter, we also utilize a difference-in-differences propensity-score matched sample design, as discussed further in Section 4.2. We also perform a placebo test where we randomly select comment letter pseudo-receipt dates, as discussed further in Section 4.3.1.

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<sup>9</sup> Zang (2012) also includes an indicator for the post-SOX period as a proxy for regulatory scrutiny. Because our sample period is only post-SOX, we do not include this variable in our models. Further, because we do not estimate a two-stage model (we include all of the controls from stage 1 in our stage 2 equivalent), we do not include the *IMR* measure from Zang (2012).

To deepen our understanding of the mechanisms behind the association between *Comment Letter* and AEM, REM, and total earnings management, we perform a number of cross-sectional tests related to the intensity of accounting scrutiny, the timing of the comment letter, and the consideration of firms that receive multiple comment letters in the measurement window. These cross-sectional tests are discussed in detail in Section 4.3.2.

## 4. Sample and Empirical Results

### 4.1. Sample Selection

Our sample starts with all Compustat firm-years with fiscal years 2007 through 2016. We begin with 2007 because the SEC did not begin publicly releasing comment letters until 2005, and thus 2007 is the first year where we can measure the receipt of a comment letter in  $t-2$ . Because Equations (4) – (6) include lag and lead values, we remove observations missing Compustat data for  $t-1$  or  $t+1$ . Following prior literature on comment letters, we remove observations where total assets are less than one million dollars (e.g., Cassell et al. (2013)). We remove financial institutions and regulated industries (SIC 6000-6999 and 4400-4999, respectively) following prior literature on earnings management (e.g., Roychowdhury 2006; Cohen et al. 2008; Zang 2012). We then merge our preliminary sample with Audit Analytics' opinions database. We identify fiscal years in which the firm received a comment letter using the initial SEC comment letter date from the Audit Analytics comment letter conversations database ("first\_letter\_date"). Consistent with prior literature and the SOX Section 408 mandate, we only consider the receipt of comment letters related to Form 10-K or 10-Q.<sup>10</sup>

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<sup>10</sup> All data are collected from WRDS in May 2018. We obtain historical CIKs, which we use to join Compustat to Audit Analytics, from the GVKEY-CIK Linking Table available in WRDS SEC Analytics Suite. It is important to match with the Audit Analytics opinions database prior to merging with the Audit Analytics comment letter database to ensure that there is a matching 10-K firm-year in Audit Analytics. Otherwise, certain Compustat firm-years may be misclassified as "no letter" firm-years solely because there is no suitable matching criteria between Audit Analytics and Compustat.

When estimating the results of Equations (4) – (6), we lose additional observations lacking sufficient data to estimate the equations. The composition of our sample is described in Panel A of Table 1. Of the final sample of 24,410 firm-years used in Equations (4) – (6), 57 percent (13,981 firm-years) receive a comment letter in either  $t-1$  or  $t-2$ . Panel B of Table 1 shows the breakdown of our final sample by year, along with the number of observations that receive a comment letter in either  $t-1$  or  $t-2$ .

Table 2, Panel A, provides descriptive statistics for the 24,410 observations used to estimate Equations (4) – (6). Table 3 provides pairwise correlations. The correlations provide univariate evidence that the receipt of an SEC comment letter is associated with lower AEM and higher REM and not significantly associated with total earnings management. We find that the correlation coefficients between the control variables and our independent variable of interest, *CommentLetter*, are all less than 0.25. We also find, untabulated, that the variance inflation factors (when estimated without firm fixed effects) are all less than 5, with a mean of 1.6 for all three models, suggesting that multicollinearity is not a significant issue (O'Brien 2007).

#### 4.2. Empirical Results

Tables 4 and 5 present our primary results. In the REM regression in Column (1) of Table 4 (i.e., Equation (4)), we find a positive and significant coefficient on *CommentLetter* ( $p < 0.05$ ), and in the AEM regression in Column (2) (i.e., Equation (5)), we find a negative and significant coefficient on *CommentLetter* ( $p < 0.05$ ). This suggests that AEM (REM) is lower (higher) after receiving a comment letter, consistent with *H1* and *H2*. We note that the coefficient on unexpected REM (*Unpred\_REMCombined*) in the AEM regression in Column (2) is significantly negative ( $p < 0.01$ ), corroborating the substitution effect between REM and AEM.<sup>11</sup> In the total

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<sup>11</sup> Untabulated, when we add an interaction term of *Unpred\_REMCombined* and *CommentLetter* to the AEM model, we find an insignificant coefficient on the interaction ( $-0.041, p = 0.264$ ). This result suggests that the substitution

earnings management regression in Column (3) (i.e., Equation (6)), we find an insignificant coefficient on *CommentLetter*. This suggests that firms do not change their total earnings management after receiving a comment letter. As such, we fail to reject *H3*. Overall, our results suggest that the receipt of a comment letter serves as a salient cue to indicate heightened regulatory scrutiny for AEM. As a result of planned reductions in AEM following the receipt of a comment letter, firms switch to REM. However, firms have neither higher nor lower total earnings management following the receipt of a comment letter.<sup>12</sup>

To ensure that our results are not attributable to general time trends in earnings management, and to address selection issues related to which firms are more likely to receive a comment letter, we also perform difference-in-differences analyses. Specifically, we first identify all firms that receive a comment letter in a given year *t*. We then propensity-score match each of these firms to a firm in the same SEC industry office doing the review and in the same fiscal year that does not receive a comment letter in year *t*. We propensity-score match using (1) the criteria specifically mentioned in SOX Section 408 (lagged market capitalization, restatements, material weaknesses, and return volatility) because these are used by the SEC when scheduling reviews, (2) lagged firm performance and other firm characteristics identified by

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effect between REM and AEM is not stronger or weaker after getting a comment letter than the substitution effect unrelated to a comment letter.

<sup>12</sup> These results are robust to a number of alternative specifications, including:

- 1) Re-estimating *AbnormalAccruals* and *REMCombined* using standardized values.
- 2) Including indicator variables for the presence of restatement announcements and merger or acquisition activity in year *t*, and controlling for sales growth. While not included in the Zang (2012) model, these have been found to be associated with our measures of earnings management and also with the receipt of a comment letter (Cassell et al. 2013).
- 3) Removing the determinants from Zang (2012) expected to be associated with heightened pressure to meet earnings benchmarks (i.e., the determinants from the Zang (2012) first-stage model).
- 4) Using either the completion of review letter date (i.e., when managers learn the final outcome of the comment letter review) or the public dissemination date of the comment letter instead of the date of the initial comment letter.
- 5) Using a comment letter in *t* or *t-1*, as opposed to *t-1* or *t-2*, since the SEC strives to complete reviews shortly after the 10-K is filed.
- 6) Classifying *CommentLetter* using only 10-K comment letter reviews.

papers examining the determinants of the receipt of a comment letter (Cassell et al. 2013; Cheng, Gao, Lawrence, and Smith 2014; Johnston and Petacchi 2017), (3) AEM and REM from the prior two years, because prior earnings management may trigger an SEC review and because we want to maintain a parallel trends assumption for earnings management leading up to our match period, (4) comment letter receipt for the prior two years, which is taken into consideration by the SEC staff in scheduling reviews, and (5) two-digit SIC industry fixed effects and year fixed effects, to capture within-industry and within-year variations in the volume of comment letter reviews. The model is as follows:

$$\begin{aligned}
 Letter_{it} = & \gamma_0 + \gamma_1 MarketCap_{it-1} + \gamma_2 Restatement_{it-1} + \gamma_3 MaterialWeakness_{it-1} \\
 & + \gamma_4 HighVolatility_{it-1} + \gamma_5 Loss_{it-1} + \gamma_6 ZScore_{it-1} + \gamma_7 Age_{it-1} \\
 & + \gamma_8 AbnormalAccruals_{it-1} + \gamma_9 AbnormalAccruals_{it-2} + \gamma_{10} REMCombined_{it-1} \\
 & + \gamma_{11} REMCombined_{it-1} + \gamma_{12} Letter_{it-1} + \gamma_{13} Letter_{it-2} + \gamma_3 Industry FE \\
 & + \gamma_k Year FE + \varepsilon_{it}
 \end{aligned} \tag{7}$$

where *Letter* is set equal to one if the firm receives a comment letter in year *t*, and zero otherwise. All other variables are defined in Appendix B.

We estimate the model using logistic regression and robust standard errors for all available firm-years in Compustat and Audit Analytics between 2007 and 2016 with available data for Equation (7) and also with data necessary to estimate Equations (4) – (6) for years *t-1* and *t+1* (to ensure at least one pre- and post-observation for treatment and control firms), resulting in a smaller sample than Table 4. Estimation results for Equation (7) are reported in Table 5, Panel A.<sup>13</sup>

<sup>13</sup> Note that lagged AEM and lagged REM are insignificant in the estimation of Equation (7), suggesting that, historically, despite publicly announced concerns about monitoring earnings management, lagged earnings management is not associated with the receipt of a comment letter. As described in Lewis (2012), the analytic models being developed by the SEC will not be fully integrated until “staff become more comfortable using models.” We believe that the findings of our paper will be informative to the SEC currently, and as they adopt new policies aimed at curbing earnings management. Per our discussions with SEC staff, these analytical models are still being developed and gradually implemented.



Because the use of industry and year fixed effects does not guarantee a match in the same SEC industry office and same fiscal year, we hard-match each treatment observation ( $Letter = 1$ ) to a control observation ( $Letter = 0$ ) in the same SEC industry office and in the same year using a one-to-one match without replacement and the closest probability score from Equation (7).<sup>14</sup> The difference in means for the covariates between the treatment group and the matched control sample are all insignificant (p-values > 0.10), suggesting that the matching process is effective for matching the covariates from Equation (7).<sup>15</sup> See Table 5, Panel B for the covariate descriptive statistics.

Figure 1 illustrates the parallel trends in AEM and REM between treatment and control firms relative to the  $Letter_t$  match year. We note that the level of AEM and REM is comparable between treatment and control groups in  $t-2$  and  $t-1$ , but divergence between comment letter and non-comment letter firms begins in year  $t$ , at which point comment letter firms demonstrate higher REM and lower AEM compared to the control group.<sup>16</sup>

We save up to two years pre-comment letter and up to two years post-comment letter for both the treatment firms and the control firms so we can compare the changes pre- and post-comment letter receipt between the comment letter firms and non-comment letter firms. We then modify Equations (4) – (6) to estimate the following difference-in-differences models:

$$REMCombined_{it} = \beta_0 + \beta_1 CL_i + \beta_2 Post_{it} + \beta_3 CL * Post_{it} + \beta_x Controls + \varepsilon_{it} \quad (8)$$

<sup>14</sup> We thank an anonymous reviewer for identifying this issue and recommending a hard-match procedure. The SEC's filing review process within the Division of Corporation Finance is organized into 11 industry-based offices where the responsibility to monitor firms within a given SIC code is assigned to a specific industry office. For example, the industry office called "AD Office 3 – Information Technologies and Services" is currently assigned SIC codes 3570-3579, 5045, and 7370-7377. We hard match on SEC industry offices to be consistent institutionally with how the reviewers' comment decisions are made and with prior research (e.g., Cassell et al. 2013).

<sup>15</sup> Untabulated, we also compare covariate balancing for the industry and year composition of the sample, noting that the differences are statistically insignificant between groups.

<sup>16</sup> Untabulated, we examine the parallel trends assumption empirically as well. We calculate the change in *AbnormalAccruals* and *REMCombined* from  $t-2$  to  $t-1$  and compare the means between treatment and control groups, noting no statistical difference ( $p = 0.688$  and  $0.481$ , respectively).

$$AbnormalAccruals_{it} = \beta_0 + \beta_1 CL_i + \beta_2 Post_{it} + \beta_3 CL*Post_{it} + \beta_x Controls + \varepsilon_{it} \quad (9)$$

$$TotalEM_{it} = \beta_0 + \beta_1 CL_i + \beta_2 Post_{it} + \beta_3 CL*Post_{it} + \beta_x Controls + \varepsilon_{it} \quad (10)$$

Control variables are the same as those in Equations (4) – (6), respectively. We estimate Equations (8) – (10) using ordinary least squares regression with robust standard errors and firm fixed effects. *CL* is set equal to one for the treatment firms (i.e., firms that receive a comment letter) and zero for the propensity-score matched firms. For both the comment letter treatment firms and the matched control firms, we set *Post* equal to one in the two years following the receipt of a comment letter, and zero otherwise. The interaction of *CL* and *Post* allows us to determine whether the changes in AEM, REM, and total earnings management, following the receipt of a comment letter, are different between the comment letter firms and the propensity-score matched control firms that do not receive a comment letter. Our difference-in-differences sample size is larger than the main sample used in Table 4 because each comment letter firm-year is matched to a non-comment letter firm-year such that there could be overlap in observations when selecting the five-year windows ( $t-2$  through  $t+2$ ).

Table 5, Panel C presents our results using the difference-in-differences design. Consistent with the results in Table 4, we find a positive and significant coefficient on *CL\*Post* ( $p < 0.05$ ) in the REM regression in Column (1). This suggests that comment letter firms increase their REM in the two years after receiving a comment letter, relative to the propensity-score matched control sample of no comment letter firms, consistent with *H2*. We find a negative and significant coefficient on *CL\*Post* ( $p < 0.01$ ) in the AEM regression in Column (2). This suggests that comment letter firms decrease their AEM after receiving a comment letter, relative to the propensity-score matched control sample, consistent with *H1*. We find an insignificant coefficient on *CL\*Post* in the total earnings management regression in Column (3). Thus, we fail

to observe a significant change in total earnings management after receiving a comment letter, relative to the propensity-score matched control sample, which means that we fail to reject *H3*. These results from the difference-in-differences design suggest that even if the comment letter firms in our sample were following general AEM and REM trends in the post-SOX years (i.e., lower AEM and higher REM), the earnings management changes we observe in the two years following the receipt of a comment letter are significantly larger than those experienced by the propensity-score matched control firms.

#### 4.3 Additional Analyses

##### 4.3.1 Placebo Test

To provide further evidence that our results are not spurious or driven by general time trends in AEM and REM behavior, we take the sample of firms in Table 4 and randomly reassign *CommentLetter* = 1 firm-years. We re-estimate Equations (4) – (6) by replacing *CommentLetter* with *CommentLetter\_Placebo*, set equal to one if the firm received a randomly assigned comment letter in *t-1* or *t-2*, and zero otherwise. In untabulated results, we find that the coefficient on *CommentLetter\_Placebo* is statistically insignificant (p-value > 0.10) in all estimations, providing additional comfort that our results are not spurious nor driven by general time trends.

##### 4.3.2 Cross-Sectional Tests

To better understand the mechanisms underlying the association between *CommentLetter* and AEM, REM, and total earnings management from Table 4, we perform a number of cross-sectional tests examining the extent and types of comments (Table 6) and the timing of the comment letter receipt (Table 7).

#### 4.3.2.1 Extent of Comments

SEC comment letters can vary greatly in the extent of comments identified by the SEC. We expect that companies will perceive that potential AEM scrutiny is higher when the SEC comments are more extensive. We proxy for the extent of comments (SEC scrutiny) using the number of words in the comment letter, because more words represent a greater quantity or complexity of issues identified by the SEC.<sup>17</sup> We re-estimate Equations (4) – (6) after dividing *CommentLetter* into two mutually exclusive variables: *CommentLetter\_HighWordcount* and *CommentLetter\_LowWordcount* based on the sample median of the word count in the SEC's initial comment letter, determined using data from WRDS SEC Analytics Suite. As reported in Table 6, Panel A, we find inconclusive results based on word count. Specifically, relative to non-comment letter firm-years, high word count letters are associated with higher REM, lower AEM, and higher total earnings management. While low word count letters are also associated with lower AEM, there is no significant difference in REM or total earnings management, suggesting that the mechanism behind our results is not clearly driven by the separation of the extent of comments in general.

#### 4.3.2.2 Types of Comments

Because the SEC only comments on issues they find problematic, firms have no other option but to respond to these observable cues (i.e., the type of comments they receive). Comments related to accounting estimates and accruals are likely viewed by managers as more scrutiny on their earnings management decisions. Therefore, to determine whether firms respond differently depending on the type of comments received, we re-estimate Equations (4) – (6) after

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<sup>17</sup> Note that while Audit Analytics reports whether or not specific issues were raised in a letter, their database does not capture the total number of comments. For example, if there are multiple comments related to revenue, these will appear as one issue number in Audit Analytics' dataset. Thus, words are a stronger proxy for the total number of comments than the number of issues identified by Audit Analytics.

dividing *CommentLetter* into two mutually exclusive comment letter types: (1) those with at least one accounting comment (*CommentLetter\_Acctg*), and (2) those with no accounting comments (*CommentLetter\_NoAcctg*).<sup>18</sup> As reported in Table 6, Panel B, we find that the results reported in Table 4 are driven by comment letters where managers perceive a high level of scrutiny on their accounting practices, as evidenced by significant coefficients in Columns (1) and (2) for *CommentLetter\_Acctg* ( $p < 0.01$ ) and insignificant coefficients for *CommentLetter\_NoAcctg* ( $p > 0.10$ ). The association between either type of comment letter and total earnings management continues to be insignificant in Column (3) ( $p > 0.10$ ).

Dechow et al. (2013) find that insider trading activity immediately prior to the release of SEC comment letters is only statistically significant when the letters include topics related to revenue recognition, pension liabilities, and inventory. Therefore, we examine whether the effect of accounting comments are limited to a few specific types of comments or a wider set of comments. We consider a variety of types of accounting comments classified by Audit Analytics (topic *X*) that are expected to have a stronger signal that the SEC is reviewing the firm's estimates and accruals: (1) accounts receivable and revenue, (2) inventory and cost of goods sold, (3) accruals and contingent liabilities, (4) expenses, (5) PPE and capitalization of expenditures, and (6) fair value estimates. We also consider types of accounting comments that are *not* expected to have a strong signal that the SEC is reviewing the firm's estimates and accruals. Here, we identify letters that comment on the classification of accounts and disclosures in the financial statements (e.g., debt versus equity classification; cash versus investment classification; presentation of the balance sheet, income statement, or cash flow statement,

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<sup>18</sup> Audit Analytics (AA) provides classifications for approximately 2,500 comment topics. We identify accounting comment letters as those where there is at least one comment topic coded in AA's dataset related to an accounting rule or accounting disclosure issues (ISS\_ACCRL\_DISC\_KEYS).

segment reporting, etc.) but do *not* comment on topics (1) – (6) above. We then re-estimate Equations (4) – (6) after dividing *CommentLetter* into those with and without at least one comment related to topic X.<sup>19</sup>

For brevity, results on the main variable of interest (*CommentLetter\_Acctg\_TopicX*) for each of the seven separate estimations of Equations (4) – (6) are reported as separate rows in Table 6, Panel C. We find that each of the accounting topic categories (1) – (6) is associated with higher REM, lower AEM, and no difference in total earnings management. We also find that comment letters questioning classification issues are *not* significantly associated with REM, AEM, or total earnings management ( $p > 0.10$ ). Collectively, this suggests that companies change earnings management techniques in response to a variety of topics where the SEC could reasonably be reviewing the firm's estimates or accruals. In contrast, letters that only focus on the classification or presentation of financial statement disclosures but not the underlying estimates or accruals do not lead to significant changes in earnings management.

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<sup>19</sup> *Accts Rec and Revenue* has a sample mean of 0.220 and uses Audit Analytics (AA) Topic #176 (accounts receivable and allowance for doubtful accounts), #212 (revenue recognition, including deferred revenue), and #816 (percentage of completion accounting). *Inventory and COGS* has a sample mean of 0.113 and uses AA Topic #202 (inventory and cost of sales, including items associated with valuation and overhead allocations). *Accruals and Cont. Liab* has a sample mean of 0.185 and uses AA Topic #203 (SFAS 5 commitments and contingencies) and #205 (liabilities, payables, and accrual estimates). *Expenses* has a sample mean of 0.172 and uses AA Topic #187 and 189 (stock-based compensation, deferred compensation, or executive compensation), #192 (payroll, selling, general and administrative expenses), #206 (pensions and post retirement plan expenses), and #1016 (research and development expenses). *PPE and Capital Expend.* has a sample mean of 0.194 and uses AA Topic #180 (capitalization of expenditures into inventory, fixed assets, and intangible assets), #207 (property, plant and equipment, including issues associated with lower of cost or market), and #208 (valuation of intangible assets, including goodwill). *Fair Value Estimates* has a sample mean of 0.242 and uses AA Topic #935 (fair value measurement and estimates, including VSOE issues). *Classification* has a sample mean of 0.261 and uses AA Topic #179 (balance sheet classification of assets), #181 (cash flow statement classification), #185 and #186 (debt, warrants, and equity classification issues), #191 (EPS and income statement classification issues), #278 (segment reporting disclosure issues) and #931 (classification of investments and cash and cash equivalents); *Classification* in the regression is set equal to 0 if any of the other accounting topics above are present (i.e., we remove those with other non-classification comments that are expected to be associated with AEM and REM).

#### 4.3.2.3 Timing of Comment Letter Receipt

Because Section 408 of the Sarbanes-Oxley Act only requires the SEC to review firms at least once every three years, some firms may believe that their next periodic filing review will occur three years from the fiscal year in which they received the comments. A comment letter received in year  $t$  relates to the  $t-1$  10-K and related filings. Therefore, the next 10-K filing subject to review, if based on the minimum review requirements, would be  $t+2$  (three years from  $t-1$ ). If a firm's response to an SEC comment letter is solely to avoid a future comment letter, we expect to observe no changes to earnings management in  $t+1$  ( $CommentLetter_{t-1}$ ) and expect our main findings to be driven by changes in  $t+2$  ( $CommentLetter_{t-2}$ ). However, if companies recognize that the public disclosure of the comment letter brings awareness to these issues immediately, from both the SEC and investors, we expect changes to begin immediately, in  $t+1$  ( $CommentLetter_{t-1}$ ). To determine whether the firms' awareness of increased scrutiny from the SEC is limited to  $t+1$  or  $t+2$ , we re-estimate Equations (4) – (6), after dividing  $CommentLetter$  into two variables representing  $t-1$  and  $t-2$ . Here,  $CommentLetter_{t-1(t-2)}$  is set equal to one when the firm receives a comment letter in  $t-1$  ( $t-2$ ), and zero otherwise.<sup>20</sup> As reported in Table 7, Panel A, we find that the results from Table 4 hold for comment letters from either year, suggesting that firms are not waiting until the next anticipated review to make changes. In other words, comment letters have an immediate impact in  $t+1$ , and the impact persists through at least  $t+2$ .

#### 4.3.2.4 Repeat-Letter Firms vs. Single-Letter Firms

As discussed previously, the SEC reviews some firms more frequently than the mandatory once-every-three-years requirement. To determine whether one comment letter is a

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<sup>20</sup> If the firm received a comment letter in both  $t-1$  and  $t-2$ , both  $CommentLetter_{t-1}$  and  $CommentLetter_{t-2}$  are set equal to one.

strong enough signal to change earnings management behavior, or whether more than one comment letter is necessary, we divide *CommentLetter* from Equations (4) – (6) into two mutually exclusive variables based on whether they have received one or more than one comment letter (*CommentLetter\_Single*, *CommentLetter\_Repeat*). As reported in Table 7, Panel B, the results in Table 4 hold for both single and repeat comment letter firms, suggesting that a single comment letter is a sufficient signal to encourage changes in earnings management.

#### 4.3.3 *The Impact of Earnings Management on Future Performance*

Prior literature finds that earnings management behavior, either AEM or REM, leads to lower future performance (e.g., Cohen and Zarowin 2010; Kothari et al. 2016; Christensen et al. 2017) and that executives recognize this potential value destruction but still engage in it because of the short-termism of analysts and investors (Graham et al. 2005). Because we find that earnings management behavior changes after the receipt of a comment letter, it is important to establish that our proxies for earnings management are in fact negatively associated with future performance (i.e., they capture opportunistic earnings management). Another important question is whether earnings management following an SEC comment letter is more or less value destroying than non-comment letter earnings management. To examine this, we use an industry-adjusted measure of future performance ( $AdjROA_{t+1}$ ) and the control variables from Gunny (2010) ( $AdjROA_t$ ,  $Size_t$ ,  $MtoB_t$ ,  $Return_t$ ,  $Z-Score_{t-1}$ ), and interact our measures of AEM and REM with the prior receipt of a comment letter to capture the earnings management behavior that follows a comment letter. Consistent with our previous models, we also include firm fixed effects to control for time-invariant company characteristics associated with firm performance. The model is as follows and all variables are as defined in Table 8:



$$\begin{aligned}
AdjROA_{it+1} = & \delta_0 + \delta_1 AbnormalAccruals_{it} + \delta_2 REMCombined_{it} + \delta_3 CommentLetter_{it-1,t-2} \\
& + \delta_4 AbnormalAccruals_{it} * CommentLetter_{it-1,t-2} \\
& + \delta_5 REMCombined_{it} * CommentLetter_{it-1,t-2} + \delta_6 AdjROA_{it} + \delta_7 Size_{it} + \delta_8 MtoB_{it} \\
& + \delta_9 Return_{it} + \delta_{10} Z-Score_{it-1} + \delta_i Firm FE + \varepsilon_{it}
\end{aligned} \tag{11}$$

As reported in Table 8, we estimate Equation (11) in two steps: first, we examine the association between our measures of AEM and REM and future performance without the comment letter interactions (Column 1); second, we examine whether the association between AEM, REM, and future performance varies with the prior receipt of a comment letter, which includes the interactions (Column 2). In Column (1), we find negative and significant ( $p < 0.01$ ) coefficients on AEM and REM, suggesting that our AEM and REM measures are in fact associated with lower future performance, corroborating that these earnings management metrics reflect earnings management rather than abnormal performance. In Column (2) we find that the interaction terms are not significant, suggesting that we fail to find evidence that earnings management behavior is more or less value destroying following an SEC comment letter than earnings management for reasons unrelated to an SEC comment letter.

## 5. Conclusion

The SEC has long been concerned about issues relating to firms' accounting quality, particularly earnings management practices, which mask the true nature of economic transactions and result in adverse consequences for investors. We examine the influence of SEC monitoring on firms' earnings management practices. Prior literature examines the trade-off between REM and AEM as a function of the cost of each form of earnings management (e.g., Cohen et al. 2008; Zang 2012). Our setting is unique in that the SEC's review scope includes the quality of accruals and estimates (i.e., possible AEM) but is unlikely to comment on real economic transactions (i.e., possible REM). Therefore, our setting presents a direct opportunity for earnings management

switching behavior. We also consider the level of total amount of earnings management (i.e., the sum of AEM and REM) following a comment letter.

We find that increased scrutiny from the SEC, in the form of the issuance of a comment letter, is associated with lower future AEM. We find evidence that managers instead switch to higher use of REM, likely because the SEC does not evaluate the merits of real business activities; instead they focus their efforts on ensuring that the underlying transactions are appropriately accounted for and clearly disclosed. The higher REM acts as a substitute for lower AEM, because we find that total earnings management neither increases nor decreases following the receipt of a comment letter. We obtain these results after controlling for the relative costs of AEM and REM identified in Zang (2012) and including firm fixed effects, as well as employing a difference-in-differences model.

To provide context to the mechanisms for the association between the receipt of a comment letter and AEM and REM, we perform a number of cross-sectional tests. We find that the trade-off between AEM and REM is driven by comment letters questioning accounting issues and specific topics associated with estimates and accruals. In contrast, we find that comment letters with only classification and presentation issues are not sufficient to induce firms to change their earnings management practices. Contrary to management waiting until the next anticipated 10-K review cycle to make changes, comment letters impact earnings management behavior immediately, beginning in the year after receipt, and the impact extends at least into the subsequent year. Our results suggest that even a single comment letter is sufficient in adjusting earnings management behavior, as opposed to repeated warnings from the SEC. Across several different cross-sectional analyses, we again find very little evidence that total earnings

management is higher or lower following the receipt of a comment letter, suggesting that the REM and AEM relationship is substitutive.

In sum, while we find robust evidence of SEC comment letters resulting in lower AEM, we fail to find evidence that SEC comment letters are effective in constraining total earnings management, because any potential benefits of lower AEM are offset by the unintended consequence of higher REM. The results of our study are informative to SEC regulators to have a more complete picture of the costs and benefits of the comment letter process and how specific types of regulatory scrutiny affect earnings management trade-offs. However, since the SEC may view real activities management as beyond the scope of its responsibility, our paper should also inform board members and investors of a setting with an increased risk for higher REM when companies are constrained by lower AEM.

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**Figure 1**  
**AEM and REM Levels over Time for Comment Letter vs. Non-Comment Letter Firms**

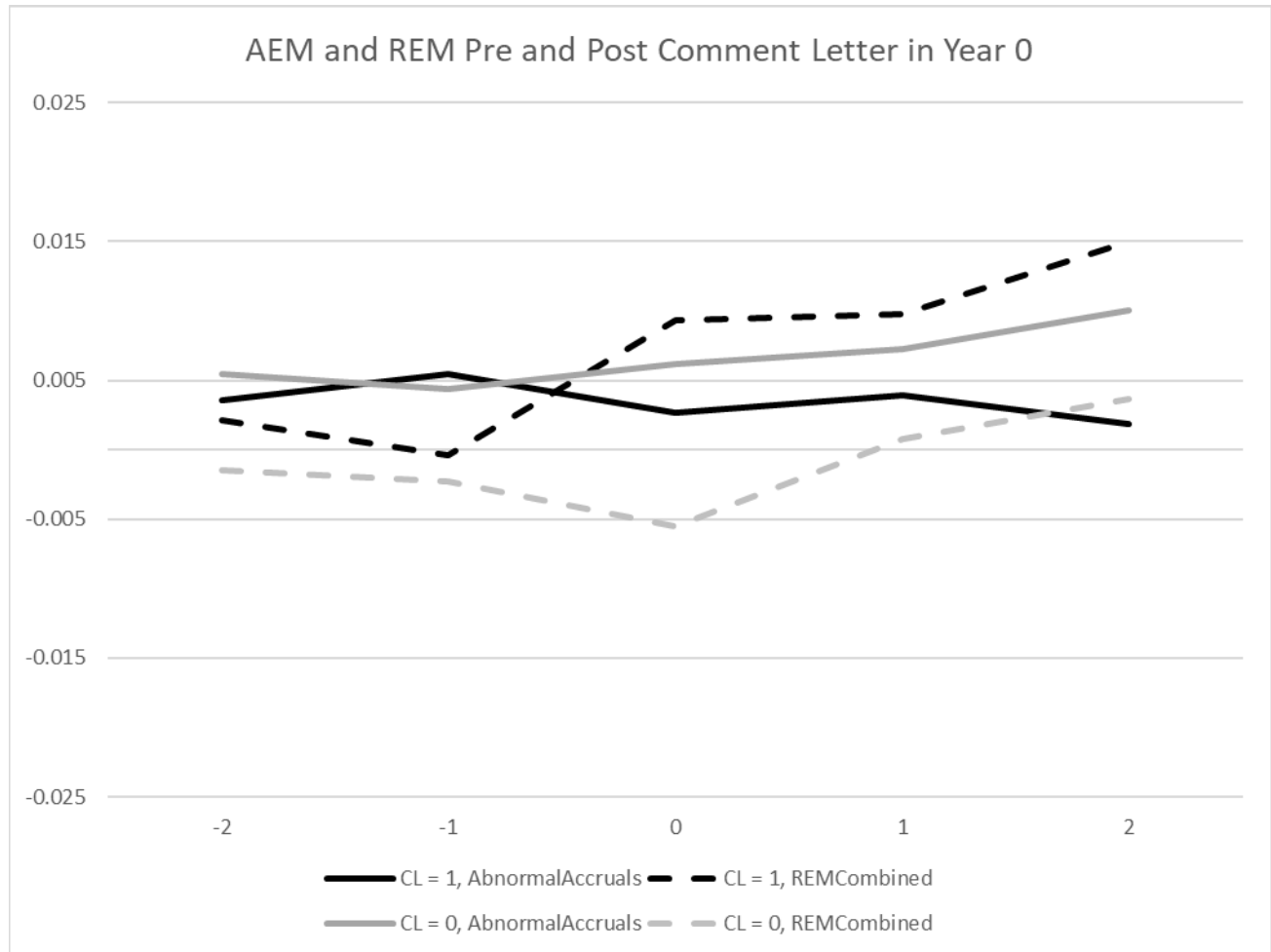


Figure 1 graphically depicts *AbnormalAccruals* and *REMCombined* for the sample of firm-years in the difference-in-differences analysis where  $CL = 1$  for treatment firms receiving a comment letter in year  $t = 0$  and  $CL = 0$  for a propensity-score-matched firm without a comment letter constrained to the same year  $t = 0$ .



**Table 1**  
**Sample Composition**

***Panel A – Sample Selection***

Compustat firm-years between 2007-2016	92,663
Less: firm-years where $t-1$ or $t+1$ are missing	(31,420)
Less: firm-years where assets or lagged assets are less than \$1 million	(2,863)
Less: financial institutions (SIC 6000-6999) and regulated industries (SIC 4400-4999)	(17,076)
Less: firm-years without matching Audit Analytics identifiers	(7,054)
Less: firm-years with missing data for Equations (4) – (6)	<u>(7,527)</u>
Final sample	24,410

***Panel B – Firms that Receive a Comment Letter in  $t-1$  or  $t-2$ , by Year***

Year	Total Observations	Observations where <i>CommentLetter</i> = 1	%
2007	2,700	1,423	53
2008	2,683	1,456	54
2009	2,631	1,586	60
2010	2,519	1,785	71
2011	2,413	1,788	74
2012	2,364	1,502	64
2013	2,359	1,273	54
2014	2,340	1,227	52
2015	2,337	1,071	46
2016	2,064	870	42
Total	24,410	13,981	57

This table presents the number of observations by year and the number of observations where *CommentLetter* = 1. See Appendix B for variable definitions.

**Table 2**  
**Descriptive Statistics**

<b>Variable</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Q1</b>	<b>Median</b>	<b>Q3</b>
<i>CommentLetter<sub>t-1</sub> or t-2</i>	0.573	0.495	0.000	1.000	1.000
<i>AbnormalAccruals<sub>t</sub></i>	0.002	0.135	-0.037	0.008	0.052
<i>REMCombined<sub>t</sub></i>	-0.003	0.498	-0.198	0.041	0.267
<i>TotalEM<sub>t</sub></i>	-0.001	0.529	-0.211	0.042	0.277
<i>MarketShare<sub>t-1</sub></i>	0.009	0.026	0.000	0.001	0.005
<i>ZScore<sub>t-1</sub></i>	3.462	7.823	1.467	3.028	5.211
<i>Inst<sub>t-1</sub></i>	0.474	0.373	0.025	0.514	0.833
<i>MTR<sub>t</sub></i>	0.143	0.143	0.017	0.051	0.320
<i>Big4<sub>t</sub></i>	0.652	0.476	0.000	1.000	1.000
<i>AuditTenure<sub>t</sub></i>	0.617	0.486	0.000	1.000	1.000
<i>NOA<sub>t-1</sub></i>	0.466	0.499	0.000	0.000	1.000
<i>Cycle<sub>t-1</sub></i>	134.924	119.266	66.343	108.244	164.954
<i>ROA<sub>t</sub></i>	-0.069	0.312	-0.083	0.030	0.078
<i>Assets<sub>t</sub></i>	0.374	2.171	-1.153	0.389	1.884
<i>MtoB<sub>t</sub></i>	2.945	5.943	1.088	1.960	3.580
<i>Earn<sub>t</sub></i>	-0.070	0.575	-0.307	-0.052	0.197
<i>HabitualBeater<sub>t</sub></i>	0.518	0.850	0.000	0.000	1.000
<i>StockIssuance<sub>t+1</sub></i>	0.756	0.429	1.000	1.000	1.000
<i>AnalystFollowing<sub>t</sub></i>	1.527	1.025	0.693	1.609	2.398
<i>MtoB<sub>t-1</sub></i>	3.078	5.925	1.153	2.055	3.711
<i>Shares<sub>t</sub></i>	3.732	1.282	2.907	3.685	4.493
<i>Pred_REMCombined</i>	-0.003	0.478	-0.204	0.039	0.257
<i>Unexp_REMCombined</i>	0.000	0.140	-0.034	0.000	0.037

*N = 24,410*

This table presents the descriptive statistics for the sample used in Tables 3 and 4. See Appendix B for variable definitions.

**Table 3**  
**Pearson Correlation Matrix**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1 <i>CommentLetter<sub>t-1 or t-2</sub></i>	1.00																					
2 <i>AbnormalAccruals<sub>t</sub></i>	<b>-0.01</b>	1.00																				
3 <i>REMCombined<sub>t</sub></i>	<b>0.01</b>	<b>0.06</b>	1.00																			
4 <i>TotalEM<sub>t</sub></i>	0.01	<b>0.32</b>	<b>0.96</b>	1.00																		
5 <i>MarketShare<sub>t-1</sub></i>	<b>0.12</b>	<b>0.02</b>	<b>0.05</b>	<b>0.05</b>	1.00																	
6 <i>ZScore<sub>t-1</sub></i>	<b>0.01</b>	<b>0.08</b>	<b>0.01</b>	<b>0.03</b>	0.01	1.00																
7 <i>Inst<sub>t-1</sub></i>	<b>0.16</b>	<b>0.00</b>	0.00	0.01	<b>0.18</b>	<b>0.19</b>	1.00															
8 <i>MTR<sub>t</sub></i>	<b>0.05</b>	<b>0.12</b>	<b>0.03</b>	<b>0.05</b>	<b>0.11</b>	<b>0.12</b>	<b>0.02</b>	1.00														
9 <i>Big4<sub>t</sub></i>	<b>0.15</b>	<b>-0.03</b>	0.00	-0.01	<b>0.23</b>	<b>0.10</b>	<b>0.50</b>	<b>0.07</b>	1.00													
10 <i>AuditTenure<sub>t</sub></i>	<b>0.16</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>	<b>0.15</b>	-0.01	<b>0.23</b>	<b>0.06</b>	<b>0.30</b>	1.00												
11 <i>NOA<sub>t-1</sub></i>	<b>0.06</b>	<b>-0.10</b>	<b>0.09</b>	<b>0.06</b>	-0.01	<b>-0.06</b>	<b>0.05</b>	<b>-0.02</b>	<b>0.07</b>	<b>0.02</b>	1.00											
12 <i>Cycle<sub>t-1</sub></i>	<b>-0.03</b>	0.00	<b>-0.07</b>	<b>-0.07</b>	<b>-0.13</b>	<b>-0.02</b>	<b>-0.09</b>	<b>-0.05</b>	<b>-0.13</b>	<b>-0.03</b>	<b>0.23</b>	1.00										
13 <i>ROA<sub>t</sub></i>	<b>0.12</b>	<b>0.27</b>	<b>0.08</b>	<b>0.15</b>	<b>0.14</b>	<b>0.36</b>	<b>0.33</b>	<b>0.26</b>	<b>0.24</b>	<b>0.13</b>	<b>-0.10</b>	<b>-0.15</b>	1.00									
14 <i>Assets<sub>t</sub></i>	<b>0.23</b>	0.00	<b>0.10</b>	<b>0.09</b>	<b>0.40</b>	<b>0.14</b>	<b>0.58</b>	<b>0.14</b>	<b>0.64</b>	<b>0.25</b>	<b>0.19</b>	<b>-0.10</b>	<b>0.41</b>	1.00								
15 <i>MtoB<sub>t</sub></i>	0.00	<b>0.03</b>	<b>-0.09</b>	<b>-0.08</b>	<b>0.02</b>	<b>0.11</b>	<b>0.06</b>	0.00	<b>0.06</b>	0.00	<b>-0.04</b>	<b>-0.02</b>	0.00	<b>0.05</b>	1.00							
16 <i>Earn<sub>t</sub></i>	<b>0.07</b>	<b>-0.03</b>	<b>-0.80</b>	<b>-0.77</b>	<b>0.03</b>	<b>0.17</b>	<b>0.18</b>	<b>0.10</b>	<b>0.15</b>	<b>0.04</b>	<b>-0.12</b>	<b>-0.02</b>	<b>0.39</b>	<b>0.15</b>	<b>0.07</b>	1.00						
17 <i>HabitualBeater<sub>t</sub></i>	<b>0.04</b>	<b>0.01</b>	<b>-0.06</b>	<b>-0.05</b>	<b>0.06</b>	<b>0.11</b>	<b>0.24</b>	<b>0.04</b>	<b>0.18</b>	<b>0.06</b>	<b>0.07</b>	<b>-0.06</b>	<b>0.13</b>	<b>0.22</b>	<b>0.06</b>	<b>0.12</b>	1.00					
18 <i>StockIssuance<sub>t+1</sub></i>	<b>0.04</b>	<b>-0.01</b>	<b>-0.10</b>	<b>-0.10</b>	<b>0.02</b>	<b>0.05</b>	<b>0.20</b>	0.01	<b>0.19</b>	<b>0.03</b>	<b>0.06</b>	0.00	-0.01	<b>0.19</b>	<b>0.11</b>	<b>0.08</b>	<b>0.17</b>	1.00				
19 <i>AnalystFollowing<sub>t</sub></i>	<b>0.20</b>	-0.01	<b>-0.05</b>	<b>-0.05</b>	<b>0.34</b>	<b>0.19</b>	<b>0.61</b>	<b>0.10</b>	<b>0.61</b>	<b>0.22</b>	<b>0.13</b>	<b>-0.12</b>	<b>0.29</b>	<b>0.78</b>	<b>0.13</b>	<b>0.21</b>	<b>0.33</b>	<b>0.29</b>	1.00			
20 <i>MtoB<sub>t-1</sub></i>	0.00	<b>0.02</b>	<b>-0.11</b>	<b>-0.10</b>	0.01	<b>0.20</b>	<b>0.04</b>	0.00	<b>0.04</b>	<b>-0.01</b>	<b>-0.04</b>	<b>-0.02</b>	<b>-0.01</b>	<b>0.03</b>	<b>0.36</b>	<b>0.07</b>	<b>0.07</b>	<b>0.09</b>	<b>0.12</b>	1.00		
21 <i>Shares<sub>t</sub></i>	<b>0.18</b>	<b>-0.07</b>	<b>-0.02</b>	<b>-0.04</b>	<b>0.39</b>	<b>-0.04</b>	<b>0.28</b>	<b>0.02</b>	<b>0.44</b>	<b>0.19</b>	<b>0.21</b>	<b>-0.05</b>	<b>0.02</b>	<b>0.65</b>	<b>0.10</b>	<b>0.04</b>	<b>0.23</b>	<b>0.17</b>	<b>0.63</b>	<b>0.10</b>	1.00	

This table presents the Pearson correlations for all variables used in Table 4. Bold values represent correlations that are statistically different from zero at the 10 percent level. See Appendix B for variable definitions.

**Table 4**  
**Receipt of a Comment Letter and Earnings Management: OLS**

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>Intercept</i>	0.025 (0.218)	0.037** (0.028)	0.055 (0.170)
<i>CommentLetter<sub>t-1</sub> or <sub>t-2</sub></i>	0.006** (0.021)	-0.004** (0.011)	0.002 (0.527)
<i>MarketShare<sub>t-1</sub></i>	0.290** (0.015)	-0.111 (0.139)	0.225* (0.054)
<i>ZScore<sub>t-1</sub></i>	0.004*** (0.000)	-0.002*** (0.000)	0.002* (0.057)
<i>Inst<sub>t-1</sub></i>	0.003 (0.400)	0.000 (0.458)	0.008 (0.281)
<i>MTR<sub>t</sub></i>	0.044*** (0.000)	0.077*** (0.000)	0.122*** (0.000)
<i>Big4<sub>t</sub></i>	-0.007 (0.270)	-0.014* (0.035)	-0.018 (0.237)
<i>AuditTenure<sub>t</sub></i>	-0.002 (0.357)	0.000 (0.447)	0.000 (0.992)
<i>NOA<sub>t-1</sub></i>	0.024*** (0.000)	-0.030*** (0.000)	-0.004 (0.472)
<i>Cycle<sub>t-1</sub></i>	0.000 (0.473)	0.000* (0.048)	0.000 (0.375)
<i>ROA<sub>t</sub></i>	0.299*** (0.000)	0.164*** (0.000)	0.500*** (0.000)
<i>Assets<sub>t</sub></i>	0.018*** (0.001)	-0.010*** (0.001)	0.004 (0.506)
<i>MtoB<sub>t</sub></i>	0.000 (0.393)	0.000* (0.058)	0.000 (0.516)
<i>Earn<sub>t</sub></i>	-0.718*** (0.000)		-0.760*** (0.000)
<i>HabitualBeater<sub>t</sub></i>	-0.005*** (0.000)	0.002** (0.011)	-0.003** (0.022)
<i>StockIssuance<sub>t+1</sub></i>	-0.013*** (0.002)	0.006** (0.030)	-0.010* (0.054)
<i>AnalystFollowing<sub>t</sub></i>	-0.016*** (0.000)	0.003 (0.127)	-0.013*** (0.009)
<i>MtoB<sub>t-1</sub></i>	-0.001** (0.014)	0.000* (0.060)	-0.001 (0.162)
<i>Shares<sub>t</sub></i>	-0.015* (0.034)	-0.002 (0.348)	-0.015 (0.116)
<i>Pred_REMCombined<sub>t</sub></i>		0.055*** (0.000)	
<i>Unpred_REMCombined<sub>t</sub></i>		-0.110*** (0.000)	
N	24,410	24,410	24,410
Firm Fixed Effects	Included	Included	Included
R-squared	0.669	0.104	0.613

This table presents the ordinary least squares (OLS) regression results of Equations (4) – (6), i.e., the association between the receipt of a comment letter and REM (Column (1)), AEM (Column (2)), and total earnings management (Column (3)). \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors. See Appendix B for variable definitions.

**Table 5**  
**Receipt of a Comment Letter and Earnings Management: Difference-in-Differences**

*Panel A: Propensity-Score Matching Model (first stage)*

	<i>Letter<sub>t</sub></i>
Intercept	-1.727*** (0.000)
<i>MarketCap<sub>t-1</sub></i>	0.317*** (0.000)
<i>Restatement<sub>t-1</sub></i>	0.068 (0.343)
<i>MaterialWeakness<sub>t-1</sub></i>	0.171** (0.046)
<i>HighVolatility<sub>t-1</sub></i>	0.106** (0.040)
<i>Loss<sub>t-1</sub></i>	-0.021 (0.682)
<i>ZScore<sub>t-1</sub></i>	-0.002 (0.530)
<i>Age<sub>t-1</sub></i>	0.001 (0.371)
<i>AbnormalAccruals<sub>t-1</sub></i>	-0.082 (0.664)
<i>AbnormalAccruals<sub>t-2</sub></i>	-0.199 (0.261)
<i>REMCombined<sub>t-1</sub></i>	0.014 (0.846)
<i>REMCombined<sub>t-2</sub></i>	-0.012 (0.865)
<i>Letter<sub>t-1</sub></i>	-0.783*** (0.000)
<i>Letter<sub>t-2</sub></i>	0.238*** (0.000)
N	13,946
Year and Industry	Included
Area Under ROC Curve	0.706

This panel presents the logistic regression results of Equation (7) used for propensity score matching comment letter firms and no-comment letter firms. The dependent variable, *Letter*, is set equal to one if the firm receives a comment letter in year *t*, and zero otherwise. The sample includes all available firm-years in Compustat and Audit Analytics between 2005 and 2016. \*, \*\*, \*\*\* indicate two-tailed significance at the 10%, 5%, and 1% levels, respectively, using robust standard errors. See Appendix B for variable definitions.

**Table 5, Continued**  
**Receipt of a Comment Letter and Earnings Management: Difference-in-Differences**

**Panel B: Covariate Balance between the Matched Pairs**

Variable	Letter = 1	Letter = 0	Difference	p-value
<i>MarketCap<sub>t-1</sub></i>	6.631	6.686	0.055	0.213
<i>Restatement<sub>t-1</sub></i>	0.072	0.075	0.003	0.654
<i>MaterialWeakness<sub>t-1</sub></i>	0.054	0.056	0.001	0.838
<i>HighVolatility<sub>t-1</sub></i>	0.233	0.236	0.003	0.762
<i>Loss<sub>t-1</sub></i>	0.276	0.274	-0.002	0.814
<i>ZScore<sub>t-1</sub></i>	4.096	3.983	-0.113	0.388
<i>Age<sub>t-1</sub></i>	24.413	24.643	0.230	0.534
<i>AbnormalAccruals<sub>t-1</sub></i>	0.003	0.004	0.000	0.899
<i>AbnormalAccruals<sub>t-2</sub></i>	0.002	0.004	0.002	0.435
<i>REMCombined<sub>t-1</sub></i>	-0.002	0.000	0.002	0.856
<i>REMCombined<sub>t-2</sub></i>	-0.001	0.002	0.004	0.734
<i>Letter<sub>t-1</sub></i>	0.375	0.370	-0.005	0.629
<i>Letter<sub>t-2</sub></i>	0.429	0.424	-0.005	0.671

This panel presents the results of the tests of the difference in means between the matched sample of treatment (*Letter* = 1) and control (*Letter* = 0) firm-years based on the estimation of Panel A above. All variables are defined in Appendix B. There are 3,673 treatment and control firm-year *t* observations.

**Panel C: Difference-in-Differences Analyses (second stage)**

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>CL</i>	-0.001 (0.400)	0.003** (0.025)	0.001 (0.499)
<i>Post</i>	-0.003* (0.085)	0.005*** (0.000)	0.003 (0.133)
<i>CL*Post</i>	0.005** (0.023)	-0.004*** (0.008)	0.001 (0.578)
N	26,963	26,963	26,963
Control Variables	Included, Eq (4)	Included, Eq (5)	Included, Eq (6)
Firm Fixed Effects	Included	Included	Included
R-squared	0.795	0.204	0.755

This panel presents the OLS regression results of Equations (8), (9), and (10) in Columns (1), (2), and (3), respectively, using the difference-in-differences research design where each comment letter firm (*Letter* = 1 in Panels A and B above) is propensity-score matched with a no comment letter firm (*Letter* = 0 in Panels A and B above) in the same year and SEC industry office, and firm years *t-2*, *t-1*, *t+1*, and *t+2* are included in the model for both treatment and control groups. We set *CL* equal to one for all firm-years from the treatment group and *CL* equal to zero for all firm-years from the control group. *Post* is set equal to one for both the comment letter treatment firms and the matched control firms in the two years following the receipt of a comment letter, and zero otherwise. Control variables are suppressed for brevity. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors.

**Table 6**  
**Cross-Sectional Analyses: Extent and Types of Comments**

**Panel A: Comment Letter Word Count**

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>CommentLetter_HighWordcount</i>	0.010*** (0.001)	-0.005** (0.023)	0.007* (0.071)
<i>CommentLetter_LowWordcount</i>	0.004 (0.137)	-0.004** (0.021)	-0.001 (0.882)
N	24,410	24,410	24,410
Control Variables	Included, Equation (4)	Included, Equation (5)	Included, Equation (6)
Firm Fixed Effects	Included	Included	Included
R-squared	0.669	0.104	0.613

This panel presents the OLS regression results of the equations described in Section 4.3.2.1.

*CommentLetter\_HighWordcount* (*CommentLetter\_LowWordcount*) is set equal to one when the firm receives a comment letter in *t-1* and *t-2* with more (less) than the sample median number of words in the SEC's initial comment letter, and zero otherwise. The comparison group are observations that did not receive a comment letter in *t-1* or *t-2*. See Appendix B for all other variable definitions. Results for control variables are suppressed for brevity. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors.

**Panel B: Types of Comment Letters**

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>CommentLetter_Acctg</i>	0.007*** (0.009)	-0.005*** (0.005)	0.002 (0.490)
<i>CommentLetter_NoAcctg</i>	0.003 (0.283)	-0.001 (0.337)	0.002 (0.890)
N	24,410	24,410	24,410
Control Variables	Included, Equation (4)	Included, Equation (5)	Included, Equation (6)
Firm Fixed Effects	Included	Included	Included
R-squared	0.669	0.104	0.613

This panel presents the OLS regression results of the equations described in Section 4.3.2.2. *CommentLetter\_Acctg* (*CommentLetter\_NoAcctg*) is set equal to one when the firm receives a comment letter in *t-1* or *t-2* with at least one accounting (no accounting) comments, and zero otherwise. The comparison group are observations that did not receive a comment letter in *t-1* or *t-2*. See Appendix B for all other variable definitions. Results for control variables are suppressed for brevity. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors.



**Table 6, Continued**  
**Cross-Sectional Analyses: Extent and Types of Comments**

**Panel C: Types of Accounting Comments**

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>CommentLetter_Acctg</i> <i>_Accts Rec and Revenue</i>	0.005** (0.040)	-0.004** (0.051)	0.002 (0.691)
<i>CommentLetter_Acctg</i> <i>_Inventory and COGS</i>	0.007** (0.020)	-0.005** (0.031)	0.004 (0.374)
<i>CommentLetter_Acctg</i> <i>_Accruals and Cont. Liab.</i>	0.005* (0.073)	-0.005** (0.024)	0.002 (0.675)
<i>CommentLetter_Acctg</i> <i>_Expenses</i>	0.005* (0.069)	-0.006*** (0.006)	-0.001 (0.825)
<i>CommentLetter_Acctg</i> <i>_PPE and Capital Expend.</i>	0.010*** (0.001)	-0.004*** (0.028)	0.005 (0.203)
<i>CommentLetter_Acctg</i> <i>_Fair Value Estimates</i>	0.009*** (0.005)	-0.005*** (0.007)	0.004 (0.328)
<i>CommentLetter_Acctg</i> <i>_Classification</i>	0.000 (0.930)	-0.001 (0.706)	0.000 (0.955)

This panel presents the OLS regression results of the equations described in Section 4.3.2.2. *CommentLetter\_Acctg\_TopicX* is set equal to one when the firm receives a comment letter in *t-1* or *t-2* with at least one comment related to accounting topic *X*, and zero otherwise. The comparison group are observations that did not receive a comment letter in *t-1* or *t-2*. All other variables have been suppressed. Each row represents a separate estimation of the equation for each accounting issue *X*. See Section 4.3.2.2 for more information about each topic *X*. The sample size and Adjusted R-squared in each estimation is the same as those reported in Panel B above. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors.

**Table 7**  
**Cross-Sectional Analyses: Timing of Comment Letters**

***Panel A: Timing of Comment Letter Receipt***

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>CommentLetter<sub>t-1</sub></i>	0.007** (0.013)	-0.004** (0.027)	0.004 (0.297)
<i>CommentLetter<sub>t-2</sub></i>	0.005* (0.067)	-0.005** (0.014)	0.000 (0.959)
N	24,410	24,410	24,410
Control Variables	Included, Equation (4)	Included, Equation (5)	Included, Equation (6)
Firm Fixed Effects	Included	Included	Included
R-squared	0.669	0.104	0.613

This panel presents the OLS regression results of the equations described in 4.3.2.3. *CommentLetter<sub>t-1(t-2)</sub>* is set equal to one when the firm receives a comment letter in *t-1* (*t-2*), and zero otherwise. See Appendix B for all other variable definitions. The comparison group is comprised of observations that did not receive a comment letter in *t-1* or *t-2*. Results for control variables are suppressed for brevity. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors.

***Panel B: Repeat-Letter Firms and Single-Letter Firms***

	Column (1) <i>REMCombined</i>	Column (2) <i>AbnormalAccruals</i>	Column (3) <i>TotalEM</i>
<i>CommentLetter_Repeat</i>	0.009*** (0.006)	-0.003* (0.095)	0.007* (0.075)
<i>CommentLetter_Single</i>	0.006** (0.033)	-0.004** (0.010)	0.001 (0.686)
N	24,410	24,410	24,410
Control Variables	Included, Equation (4)	Included, Equation (5)	Included, Equation (6)
Firm Fixed Effects	Included	Included	Included
R-squared	0.669	0.104	0.613

This panel presents the OLS regression results of the equations described in Section 4.3.2.4. *CommentLetter\_Repeat* (*CommentLetter\_Single*) is set equal to one when the firm receives more than one (only one) comment letter in *t-1* and *t-2*, and zero otherwise. See Appendix B for all other variable definitions. The comparison group are observations that did not receive a comment letter in *t-1* or *t-2*. Results for control variables are suppressed for brevity. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors.

**Table 8**  
**Earnings Management and Future Performance**

	Column (1) <i>AdjROA<sub>t+1</sub></i>	Column (2) <i>AdjROA<sub>t+1</sub></i>
<i>Intercept</i>	-0.153*** (0.000)	-0.153*** (0.000)
<i>AbnormalAccruals<sub>t</sub></i>	-0.194*** (0.000)	-0.200*** (0.000)
<i>REMCombined<sub>t</sub></i>	-0.026*** (0.001)	-0.028*** (0.001)
<i>CommentLetter<sub>t-1 or t-2</sub></i>		0.002 (0.500)
<i>AbnormalAccruals*CommentLetter</i>		0.013 (0.698)
<i>REMCombined*CommentLetter</i>		0.004 (0.499)
<i>AdjROA<sub>t</sub></i>	0.270*** (0.000)	0.270*** (0.000)
<i>Size<sub>t</sub></i>	0.022*** (0.000)	0.022*** (0.000)
<i>MtoB<sub>t</sub></i>	0.001* (0.078)	0.001* (0.078)
<i>Return<sub>t</sub></i>	0.021*** (0.000)	0.021*** (0.000)
<i>Z-Score<sub>t-1</sub></i>	-0.000 (0.563)	-0.000 (0.570)
N	21,683	21,683
Firm Fixed Effects	Included	Included
R-squared	0.077	0.077

This table presents the ordinary least squares (OLS) regression results of Equation (11), i.e., the association between the receipt of a comment letter, REM, AEM, and future performance. \*, \*\*, \*\*\* indicate one-tailed (two-tailed) significance when a prediction is (is not) made at the 10%, 5%, and 1% levels, respectively, using robust standard errors. *ROA* equals income before extraordinary items divided by lagged total assets; *AdjROA* equals the difference between firm-specific *ROA* and the median *ROA* for the same year and industry; *Size* equals the natural logarithm of total assets; *Return* equals the size adjusted abnormal returns computed as the monthly buy and hold raw return minus the monthly buy and hold return on a size matched decile portfolio of firms compounded over 12 months of fiscal year; and all other variables are as defined in Appendix B.

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## Appendix A SEC Comment Letter Example

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

January 5, 2012

Via E-mail  
D. Craig Kesler  
Chief Financial Officer  
Eagle Materials Inc.  
3811 Turtle Creek Boulevard  
Suite 1100  
Dallas, Texas 75219

**Re: Eagle Materials Inc.  
Form 10-K for Fiscal Year Ended March 31, 2011  
Filed May 26, 2011  
Form 10-Q for Fiscal Quarter Ended September 30, 2011  
Filed November 4, 2011  
File No. 1-12984**

Dear Mr. Kesler:

We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended March 31, 2011

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 22  
Results of Operations, page 22

1. We note that you have presented consolidated revenues and operating costs based on the sum of revenues and operating costs presented for reportable segment purposes, which are non-GAAP measures. In future filings, please present revenues and operating costs determined using US GAAP prior to the non-GAAP measures presentation. Please also provide a discussion and analysis of the US GAAP amounts before providing a discussion and analysis of the non-GAAP measures. Please refer to Item 10(e)(1)(i)(a) of Regulation S-K for guidance. Finally, please provide a reconciliation of the non-GAAP measures from the most

Mr. Kesler  
Eagle Materials Inc.  
January 5, 2012  
Page 2

comparable US GAAP measure and provide an explanation as to why the non-GAAP measures provide investors with useful information. Please refer to Item 10(e)(1)(i)(b) and (c) of Regulation S-K for guidance.

2. In future filings, please quantify the extent to which increases/decreases in volume, prices and/or the introduction of new products attributed to the increase or decrease in revenues and operating earnings at the consolidated level and the reportable segment level. Please refer to Item 303(A)(3)(iii) of Regulation S-X. In addition, please quantify the impact of other factors you identified that contributed to fluctuations, as appropriate. For example, you attribute the increase in operating costs to an increase in sales volume for cement and increased raw material costs for paperboard without quantifying either factor.
3. We note your disclosure within the Business section that utilization of your gypsum wallboard manufacturing facilities was at 50% for fiscal year 2011. We further note that utilization was at 50% for fiscal year 2010, down from 60% utilization for fiscal year 2009, 80% for fiscal year 2008, and 91% for fiscal year 2007. In future filings, please disclose the impact fixed costs associated with these facilities are having on your operating results. Refer to Item 303(a)(3)(ii) of Regulation S-K. Please also confirm that you have not incurred any material restructuring costs during any period presented associated with the reduction in utilization rates or other activities to reduce costs in response to the decline in operating results.
4. We note your disclosure on page 14 that your products are commodities. We further note that changes in volume of products sold have materially impacted revenues. Please expand upon this disclosure to provide a discussion and analysis of your market share for each of your significant products for each period presented in future filings. This disclosure will provide investors with a better understanding of the underlying reasons for increases/decreases in volume of products sold. Please refer to Item 303(a)(3) of Regulation S-K and Section 501.12 of the Financial Reporting Codification.
5. In future filings, please ensure your discussion and analysis of your operating results provide investors with a full understanding of all material factors impacting income/(loss) from continuing operations. For example, we note that operating earnings as a percentage of revenues for the cement reportable segment declined from 25.4% to 20.2%. However, you did not provide investors with an explanation as to why. Please refer to Item 303(a)(3) of Regulation S-K and Section 501.12 of the Financial Reporting Codification for guidance.

Critical Accounting Policies, page 28  
Impairment of Long-Lived Assets, page 28

6. We note that you temporarily idled your Bernalillo, New Mexico gypsum wallboard manufacturing facility during December 2009. In future filings, please disclose the carrying value of this facility and the equipment located at this facility. This disclosure will allow investors to understand the amount of property, plant and equipment that is at risk for future impairment. Given the significant decline in your operating results beginning with fiscal



year 2008 through the current periods as compared to fiscal year 2007, it would appear as though you should be explaining to investors how you determined that your tangible and intangible assets are realizable and that you do not foresee recognizing a material write-down or impairment charge in the future. Item 303 of Regulation S-K requires MD&A disclosure of material uncertainties unless management has concluded that the uncertainty is not reasonably likely to materially impact future operating results. Potential asset write-offs are, inherently, uncertainties over the recoverability of recorded assets and require disclosure prior to the period of the impairment charge. See the guidance in Sections 501.02 and 501.12.b.3 of the Financial Reporting Codification, as well as in SAB 5:P.4. Also, Section 216 of the Financial Reporting Codification states that "registrants have an obligation to forewarn public investors of the deteriorating conditions which, unless reversed, may result in a subsequent write-off. This includes an obligation to provide information regarding the magnitude of exposure to loss." Please provide us with the disclosures you would have included in your March 31, 2011 Form 10-K in response to this comment.

Goodwill, page 29

7. We note that 88% of total goodwill has been allocated to the gypsum wallboard operating segment. We further note that this operating segment has reported close to breakeven operating earnings for each of the three fiscal years ended March 31, 2011, with an operating loss reported for the six-months ended September 30, 2011. As such, please revise your disclosures for the testing of the gypsum wallboard operating segment's goodwill for impairment to address the following:
- Define the reporting unit level at which you test goodwill for impairment.
  - The percentage by which fair value exceeds carrying value as of the most-recent step-one test for each reporting unit with a fair value that does not substantially exceed the carrying value.
  - The amount of goodwill allocated to the corresponding reporting unit.
  - A description of the assumptions that drive the estimated fair value. Please ensure that your description of the key assumptions is specific to the reporting unit(s) with a fair value that does not substantially exceed the carrying value.
  - A discussion of any uncertainties associated with the key assumptions used to estimate the reporting unit's fair value. For example, to the extent that you have included assumptions in your fair value model that deviate from your historical results, please include a discussion of these assumptions.
  - A discussion of any potential events, trends and/or circumstances that could have a negative effect on estimated fair value.
  - Any other material and useful information you gather and analyze regarding the risks of recoverability of goodwill.

If you have determined that estimated fair values substantially exceed carrying values for some or all of your reporting units, please disclose that determination. Refer to Item 303 of Regulation S-K and Sections 216 and 501.14 of the Financial Reporting Codification for guidance. Please provide us with the disclosures you would have included in your March 31, 2011 Form 10-K in response to this comment.

Mr. Kesler  
Eagle Materials Inc.  
January 5, 2012  
Page 4

Liquidity and Capital Resources, page 30

8. We note your disclosure that you have \$288.8 million of borrowings available under your Credit Facility as of March 31, 2011. Please expand this disclosure to clarify if this amount is available without violating any of your covenants.

Contractual and Other Obligations, page 33

9. In future filings, please revise your table of contractual obligations to include interest payments on your long-term debt/notes payable to increase transparency of cash flows. When estimating variable interest payments, you may use your judgment to determine whether or not to include estimates of future variable rate interest payments in the table or in a footnote to the table. Regardless of whether you decide to include variable rate estimated interest payments in the table or in a footnote, you should provide appropriate disclosure with respect to your assumptions.

Consolidated Statements of Earnings, page 36

10. Please provide us with an explanation as to how you determined that your consolidated statements of earnings are presented in accordance with the guidance in ASC 225-10-S99-2. Specifically, it is unclear (a) how you determined it is appropriate to include a portion of selling, general and administrative expenses within cost of goods sold rather than as a separate line item under gross profit; (b) why corporate general and administrative expense is not included within operating earnings as an operating expense; and (c) why a net gain on purchase of long-term debt is considered a selling, general and administrative expense rather than non-operating income. Please advise.

(H) Commitments and Contingencies, page 53

11. We note your statement regarding litigation: "we believe that all of the pending litigation proceedings in which the Company or any subsidiary are currently involved are likely to be resolved without having a material adverse effect on our consolidated financial condition or operations." The language you use to describe these loss contingencies is not contemplated by ASC 450-20. Please revise your disclosure in future filings to clarify whether you believe it is probable, reasonably possible or remote that losses could be material to your financial condition, operations and cash flows. Please note that a statement that a contingency is not expected to be material does not satisfy the requirements of ASC 450-20-50, if there is at least a reasonable possibility that a loss exceeding amounts already recognized may have been incurred and the amount of that additional loss would be material to a decision to buy or sell your securities. Please also revise your disclosure in future filings to address the materiality of your litigation to your cash flows in addition to your financial position and operations. Please refer to ASC 450-20-50-1 – 50-5 for guidance. Please provide us with the disclosures that you would have included in your most recent periodic report in response to this comment.

Mr. Kesler  
Eagle Materials Inc.  
January 5, 2012  
Page 5

12. Please confirm to us that you believe it is remote that the Notice of Violation and Finding of Violation received by Nevada Cement Company will have a material impact to your financial condition, results of operations, and cash flows. Otherwise, please provide specific disclosure for this loss contingency in accordance with ASC 450-20-50-1 – 50-5 in future filings. In this regard, please provide us with the disclosures that you would have included in your most recent periodic report in response to this comment.
13. In future filings, please assess the materiality of the indemnification agreements to your cash flows in addition to your financial position and results of operations.

(M) Quarterly Results (unaudited), page 62

14. We note that an extended plant shutdown for maintenance and inventory control at your Illinois cement facility increased fourth quarter of fiscal year 2011 operating costs by \$5 million. In future filings, please ensure that you provide investors with disclosures for all material fourth quarter events and transactions either in the footnote disclosure or within MD&A. Please refer to Item 302(a)(3) of Regulation S-K for guidance.

Form 10-Q for Fiscal Quarter Ended September 30, 2011

(N) Segment Information, page 12

15. We note your statement on page 15 that your annual test of impairment on goodwill is during the fourth quarter. We also note that this same disclosure was made in your Form 10-Q for the quarter ended June 30, 2011. However on page 24, you note that your annual testing of impairment on goodwill is during the first quarter, which agrees with your accounting policy in your fiscal year 2011 Form 10-K. In future filings, please ensure you are providing investors with consistent disclosures. In the event that you have changed your testing date of goodwill for impairment from the first quarter to the fourth quarter, please note that this would be considered a change in accounting principle in accordance with ASC 250-10-45-1 – 45-16 and you should have provided the disclosures required by ASC 250-10-50-1. Please advise.
16. We note your statement that you began testing goodwill for impairment related to the gypsum wallboard operating segment on a quarterly basis due to the weakness in earnings over the last year and the first six months of fiscal year 2012. In future filings, please clarify your disclosures to note that the weakness in the gypsum wallboard operating segment began during fiscal year 2008 rather than during fiscal year 2011. Further, please provide investors with a more detailed explanation as to how you determined interim impairment testing for the gypsum wallboard's goodwill and other assets was triggered during fiscal year 2012 rather than in prior periods in light of the significant decline that has been occurring since fiscal year 2008.



Mr. Kesler  
Eagle Materials Inc.  
January 5, 2012  
Page 6

Item 2. Management's Discussion and Analysis of Results of Operations and Financial Condition, page 17  
Results of Operations, page 18

17. We note that during the second quarter of fiscal year 2012 you reversed a \$3 million accrual that was originally recognized in a prior period. In future filings, please provide investors with a comprehensive explanation as to the nature of the accrual and why it was appropriate to reverse the accrual, positively impacting operating results, during the six-months ended September 30, 2011. Please provide us with the disclosure you intend to include in future filings.

Liquidity and Capital Resources, page 23

18. We note that accounts and notes receivable increased by 47% from March 31, 2011 to September 30, 2011. In future filings, please provide investors with a discussion and analysis of the composition of accounts and notes receivable for each period presented (i.e., the portion that is no longer considered current) along with an explanation for the significant increase. Please also consider including the measure used by management to monitor accounts and notes receivable, such as a days sales outstanding. Please also include an analysis of changes in the measure used by management. Please provide us with the disclosures you would have included in your second quarter of fiscal year 2012 Form 10-Q in response to this comment.

19. In future filings, please provide investors with a discussion and analysis of the realizability of inventories, since it is 56.1% of total current assets. As part of your analysis, please provide the measure management uses to monitor inventories, such as a turnover ratio.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Mr. Kesler  
Eagle Materials Inc.  
January 5, 2012  
Page 7

You may contact Tracey Smith, Staff Accountant, at (202) 551-3736, or in her absence, Al Pavot, Staff Accountant, at (202) 551-3738, or me at (202) 551-3355, if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien  
Accounting Branch Chief

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## Appendix B Variable Definitions

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<i>AbnormalAccruals</i>	= the residual from Equation (1);
<i>AbnormalDisx</i>	= the residual from Equation (3);
<i>AbnormalProduction</i>	= the residual from Equation (2);
<i>Age</i>	= number of years the firm is listed on Compustat;
<i>AnalystFollowing</i>	= the log of one plus the number of analysts following the firm;
<i>Assets</i>	= the industry-adjusted log value of total assets;
<i>AuditTenure</i>	= an indicator variable equal to one if the number of years the auditor has audited the client is above the sample median of six years, and zero otherwise;
<i>Big4</i>	= an indicator variable equal to one if the firm's auditor is one of the Big 4, and zero otherwise;
<i>CL</i>	= an indicator variable in the difference-in-differences model set equal to one for comment letter (treatment) firms, and zero for non-comment letter (control) firms;
<i>CommentLetter</i>	= an indicator variable set equal to one if the firm received a comment letter in either of the prior two years ( $t-1$ or $t-2$ ), and zero otherwise;
<i>Cycle</i>	= the days receivable plus the days inventory less the days payable at the beginning of year $t$ ;
<i>Earn</i>	= the earnings before extraordinary items minus discretionary accruals and production costs, plus discretionary expenditures;
<i>HabitualBeater</i>	= the number of times of beating/meeting analysts' forecast consensus in the past four quarters;
<i>HighVolatility</i>	= an indicator variable set equal to one if the firm's abnormal monthly stock return volatility in $t-1$ is in the highest quartile, and zero otherwise;
<i>Letter</i>	= an indicator variable in the propensity score matching model set equal to one if the firm received a comment letter in year $t$ , and zero otherwise.
<i>Loss</i>	= an indicator variable set equal to one if the firm's net income in year $t-1$ is less than zero;

<i>Inst</i>	= the percentage of institutional ownership at the beginning of year $t$ ;
<i>MarketCap</i>	= the natural log of market capitalization at the beginning of year $t$ ;
<i>MarketShare</i>	= firm sales divided by total sales of its industry at the beginning of year $t$ , where industry is defined based on two-digit SIC codes;
<i>MaterialWeakness</i>	= an indicator variable set equal to one if the firm discloses a material weakness in $t-1$ , and zero otherwise;
<i>MtoB</i>	= the market-to-book ratio;
<i>MTR</i>	= the marginal tax rate, developed and provided by Professor John Graham ( <a href="https://faculty.fuqua.duke.edu/~jgraham/taxform.html">https://faculty.fuqua.duke.edu/~jgraham/taxform.html</a> );
<i>NOA</i>	= an indicator variable equal to one if the net operating assets (i.e., shareholders' equity less cash and marketable securities and plus total debt) at the beginning of year $t$ divided by lagged sales is above the median of the corresponding industry-year, and zero otherwise;
<i>Post</i>	= an indicator variable in the difference-in-differences model set equal to one in the two years following a comment letter receipt, for both comment letter firms and matched no-comment letter firms, and zero otherwise;
<i>Pred_REMCombined</i>	= the fitted value from estimating Equation (4);
<i>REMCombined</i>	= the sum of <i>AbnormalProduction</i> and <i>AbnormalDisx</i> * -1;
<i>Restatement</i>	= an indicator variable set equal to one if the firm discloses a restatement in $t-1$ , and zero otherwise;
<i>ROA</i>	= the return on assets, computed using net income for the rolling four quarters ending with the third quarter of year $t$ ;
<i>Shares</i>	= the log of the number of shares outstanding;
<i>StockIssuance</i>	= an indicator variable equal to one if the firm issues equity in the next fiscal year, and zero otherwise;
<i>TotalEM</i>	= the sum of <i>AbnormalAccruals</i> and <i>REMCombined</i> ;
<i>Unpred_REMCombined</i>	= the residual from estimating Equation (4);
<i>ZScore</i>	= $0.3 (\text{Net Income}/\text{Assets}) + 1.0 (\text{Sales}/\text{Assets}) + 1.4 (\text{Retained Earnings}/\text{Assets}) + 1.2 (\text{Working Capital}/\text{Assets}) + 0.6 ((\text{Stock Price} * \text{Shares Outstanding})/(\text{Total Liabilities}))$ .