SEC Comment Letters and Insider Sales

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ABSTRACT: The Division of Corporation Finance at the Securities and Exchange Commission (SEC) reviews company filings and where appropriate, issues comment letters to elicit better compliance with applicable disclosure requirements and Generally Accepted Accounting Principles. Since 2005, the Division's staff publicly discloses comment letters and companies' responses to those letters no earlier than 45 days (20 business days after January 1, 2012) following the review completion. We provide evidence of increases in insider sales prior to the public disclosure of comment letters relating to revenue recognition. Moreover, pre-disclosure insider sales are more pronounced for firms with financial reporting and valuation concerns. We provide evidence of a delayed negative stock price response to revenue recognition comment letters particularly those where insiders sell and financial reporting and valuation concerns are more acute. Our findings suggest that the time delay in comment letter disclosure can be used by corporate executives to avoid small but significant stock price losses.

KEYWORDS: SEC, Division of Corporation Finance, comment letters, insider trading, revenue recognition, investor inattention, financial disclosure, EDGAR web traffic, return drift, accruals, short interest.

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1. Introduction and Background

The U.S. Securities and Exchange Commission (SEC) is comprised of five major divisions: Corporation Finance, Enforcement, Economic and Risk Analysis, Investment Management, and Trading and Markets.[1] Of these, the Division of Corporation Finance (hereafter, the Division) seeks to ensure that issuers' filings are in compliance with the applicable financial reporting requirements, and historically, it has selectively reviewed issuer filings made under the Securities Act of 1933 and the Securities Exchange Act of 1934. However, as stipulated by the Sarbanes-Oxley Act of 2002, the Division now reviews each issuer's filings at least once every three years. As a result, the Division has significantly increased its resources and headcount over the past ten years to keep pace with its review requirements.

While the Division does not publicly disclose its selection criteria or the specific scope of the reviews, it states that much of its review "involves evaluating the disclosure from a potential investor's perspective and asking questions that an investor might ask when reading the document" (SEC 2013a). The Division completes reviews without issuing comments but when it identifies areas for an issuer to better comply with applicable disclosure requirements and Generally Accepted Accounting Principles (GAAP), it provides a comment letter outlining its questions and concerns. The company will then have 10 days to respond to each concern raised in the letter, and the back and forth between the company and the Division will continue until the company has resolved all of the Division's comments. To increase the transparency of the review process, since May 12, 2005 the SEC has publicly disclosed comment letters and the companies' response letters after the filing review is complete (in the paper we term this date the comment

[1] See Appendix A for the organizational structure of the SEC's five main divisions and over 20 offices.

letter disclosure date or release date). Prior to January 1, 2012, the comment letter correspondence was disclosed “no earlier than 45 days” following the review completion. However, since January 1, 2012, the Division now discloses comment letter correspondence “no earlier than 20 business days” following the review completion (SEC 2013b). When appropriate, the Division of Corporation Finance refers serious violations, misconduct, or fraud noted in the filing review process to the Division of Enforcement.

The Division’s filing review process plays a critical role in supporting the Commission’s main “mission to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation” (SEC 2013c). Due to the difficulty in obtaining comment letters prior to 2005, there has been relatively little research investigating the Division’s review process. Prior research examines the determinants of receiving comment letters (e.g., Ertimur and Nondorf 2006; Ettredge, Johnstone, Stone, and Wang 2011; Robinson, Xue, and Yu 2011; Cassell, Dreher, and Myers 2013) or the benefits of the comment letter review process (Bozanic, Dietrich, and Johnson 2013; Johnston and Petacchi 2013). However, prior studies do not focus on the Division’s practice of delaying the public disclosure of the comment letter correspondence following the review completion nor whether insiders take advantage of this opportunity.

The purpose of the delayed disclosure of comment letter correspondence is to ensure that confidential information discussed in the review process has been properly redacted. However, executives of companies that receive comment letters know both the content of the comment letter correspondence and the potential importance of that information to investors. This knowledge can give insiders an information advantage over other investors. We examine whether insiders take advantage of the SEC’s policy to delay the disclosure of comment letters.

We investigate insiders' trades surrounding the public disclosure of comment letters, and focus on whether insiders opportunistically sell their shares.

Given that comment letters can relate to minor issues that will have little impact on stock prices, we do not anticipate heightened insider selling activity prior to the disclosure of all comment letters. A key component of our research design involves separating important comment letters from trivial ones. Comment letters can essentially pertain to any type of SEC filing (e.g., 10-Ks, 8-Ks, DEF 14As, S-1s, etc.). Our study focuses on comment letters relating to Form 10-K filings. The 10-Ks provide the most extensive annual disclosures and describe how the company applied GAAP during the year. Reviews pertaining to 10-K filings can include the Division's requests to fix material disclosure deficiencies and to further explain or adjust how the company applies critical accounting policies. Not all 10-K comment letters pertain to material issues. For example, many 10-K comment letters ask simple clarifying questions or for more information on relatively minor issues. Therefore, a critical aspect of our research design is to identify 10-K comment letters that insiders are likely to view as critical to understanding the nature of their firm's business and potentially raise red flags for investors.

We identify more important comment letters in three ways. Our first decomposition is based on whether the comment letter addresses a revenue recognition issue. The Division continually mentions revenue recognition as one of the top critical accounting policies addressed in comment letters (see, SEC 2013d). The Analysts' Accounting Observer states: "revenue is the largest, most important number on the income statement—and the most amorphous, with less specific disclosures about is constitution than any other line on the income statement" (Ciesielski 2013). Furthermore, approximately 54 percent of accounting misstatements relate to revenue recognition (e.g., Dechow, Ge, Larson, and Sloan 2011), suggesting that revenue is a line item of particular concern to corporate executives. We find that approximately twenty percent of comment letters relate to revenue recognition issues.

In order for an insider to sell their stock based on comment letter disclosures, the insider must believe that there are internal control and financial reporting issues that could be interpreted negatively by investors once they learn of the comment letter. Our second decomposition identifies firms that have high short positions. Short-sellers tend to be relatively sophisticated investors who disagree with other investors about the valuation of a company. Research evidence suggests that short-sellers use financial reporting and proxy disclosures to identify firms that are mispriced (e.g., Dechow, Hutton, Meulbroek, and Sloan 2001; Karpoff and Lou 2010; Hirshleifer, Teoh, and Yu 2011; Curtis and Fargher 2013). If an insider views comment letter disclosures as increasing the likelihood that other investors will become more concerned or focus on the issues identified by short-sellers, then the insider is likely to face stronger incentives to sell stock prior to the release of comment letter correspondence.

Our third decomposition is based on the magnitude of accruals. Sloan (1996) provides evidence that high accrual firms have lower earnings quality in the sense that their earnings are less sustainable than other firms. In addition, he shows that high accrual firms tend to earn lower future stock returns over the following year. If insiders believe that the comment letter disclosure will influence investors to revise their beliefs about the sustainability of earnings, then the insider will have stronger incentives to sell shares prior to this information being revealed to the market.

We also considered examining whether comment letters that result in restatements had higher pre-disclosure insider sales. However, we found that firms restate *before* the public disclosure of comment letter correspondence. Therefore, insiders are unlikely to have incentives to sell their shares based on information contained in the comment letters that relate to the restatement. In addition, since the Division of Corporation Finance generally requests firms to make changes in reporting in future financial statements (rather than retrospectively), we find that less than half a percent of our comment letter correspondences result in restatements.

Our empirical results are consistent with increases in insider sales around the public disclosure of Revenue Recognition Comment Letter correspondence. In univariate tests, we find abnormal increases in insider sales of approximately 70 percent in the five days prior to the public disclosure of Revenue Recognition Comment Letters. Further tests indicate that abnormal increases in insider sales are approximately 200 percent for firms in the top quintile of short interest and are around 77 percent for firms with in the top quintile of accruals. The results for both short positions and accruals are stronger and continue to hold when we control for firm characteristics in our regression analysis.

We investigate whether investors respond negatively to the information disclosed in Revenue Recognition Comment Letters. Evidence of a negative stock price response suggests that insiders trading prior to the public disclosure of comment letters are able to profit from their trades. We find little evidence of a stock price response on the disclosure date. By trading immediately before the disclosure rather than immediately after the disclosure, insiders avoid a loss on average of only around $6,200. However, we find evidence of a delayed stock price response. Specifically, we find negative cumulative abnormal returns (CARs) of one percent for Revenue Recognition Comment Letters with insider sales, and this increases in magnitude to approximately two percent for firms with high accruals and five percent for firms with high short interest. If this delayed stock price response all occurred on the first day after the public disclosure, then insiders of firms with high short interest would have on average, avoided a loss of over $136,000.

One explanation for the delayed price response is that investors are not paying attention to comment letter disclosures. As we explain in detail later in the paper, it requires effort to identify comment letters relating to a particular firm. We obtain SEC Electronic Data Gathering Analysis and Retrieval (EDGAR) web traffic data and show that comment letter disclosures have few downloads. For example, we find that downloads of comment letters have about one percent of the volume of a typical 10-K. Furthermore when investors do appear to be paying attention (as proxied by greater comment letter downloads), our evidence indicates a swifter negative price adjustment.

Our findings suggest that insiders take advantage of the SEC's practice of delaying the disclosure of comment letter correspondence by timing their trades before the release date. We also document abnormal trading immediately after the release date. Insiders trading after the release date are acting within their fiduciary duty since they are waiting until the information is public. Interestingly, these insiders are still able to profit from their trades because of the delayed stock price response to comment letter information. Our results extend prior research by (i) showing that insiders can identify more material comment letters; and (ii) can effectively time the sale of their equity compensation to avoid a loss (e.g., Keown and Pinkerton 1981; Penman 1982; Lee, Mikkelson, and Partch 1992; Harlow and Howe 1998; Lie 2005; Cheng and Lo 2006; Li and Zhang 2006; Jagolinzer, 2009; Cohen, Malloy, and Pomorski 2012).

Our findings support calls from the investment industry to reduce the disclosure delay of comment letters (e.g., SEC Insight 2004; Bloomberg 2013). Completely eliminating the delay is unlikely given the SEC's administrative burden of insuring all private information has been redacted from the comment letter correspondences. Our results also suggest that the SEC should encourage corporate boards to implement policies to discourage insider trading prior to comment letter disclosure dates since such trading gives the appearance of executive opportunism.

The remainder of this paper is organized as follows. Section 2 describes the Division's filing review process and our main predictions, while Section 3 describes the sample. Section 4 reports the results of our main analyses and Section 5 concludes.

2. The Division of Corporation Finance Review Process and Predictions

In the financial reporting world, the term "comment letter" actually has two distinct meanings. The more well-known use of "comment letter" pertains to letters written by the public to the Financial Accounting Standards Board (FASB) or to the SEC highlighting feedback on proposed accounting and reporting standards. The lesser-known use of "comment letter" relates to the SEC's comment letters where the Division identifies and outlines areas for an issuer to better comply with GAAP and the applicable disclosure requirements. In this study, we will refer to the latter meaning.

The majority of SEC comment letters for U.S. issuers relate to annual and quarterly financial reports (Form 10-Ks, Form 10-Qs—45 percent). The other main types of comment letters pertain to material news disclosures (Form 8-Ks—11 percent), proxy statements (e.g., DEF 14A—5 percent), and registration and prospectus filings (e.g., Form S-1s—21 percent).[2] The remaining comment letters pertain to over 50 of the more miscellaneous yet required

[2] SEC Comment Letter form type percentages were calculated using Audit Analytics SEC Comment Letter Database as of September 2013.

EDGAR filings. We exclusively focus on comment letters that reference a Form 10-K filing. Such letters are likely to reflect the more material reviews where the SEC staff questions and critiques firms' critical financial reporting disclosure and reporting practices. While comment letters related to registration filings could also include similar discussions as those related to 10-Ks, we do not investigate such filings since the firm is likely in the lock-up period at the time of the disclosure of the Division's review. Furthermore, given that the critical accounting policies are only discussed in detail in the 10-Ks (annual reports) and not the 10-Qs (quarterly reports), we choose to focus on the 10-K related comment letters.

U.S. Federal law requires public firms to disclose material information, defined by the U.S. Supreme Court as information presenting "*a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the "total mix" of information made available*." (TSC Indus. V. Northway, Inc., 426 U.S. 438 1976). Judgment is involved when deciding whether an issue discussed in a comment letter is "material." If the SEC views the issue as "material" then it would request the firm restate the 10-K during the comment letter review process. However, in most cases the SEC requests that the firm make disclosure adjustments in their future filings. This suggests that the SEC views most issues discussed in comment letters as not expected to move prices on average (and hence not be material under a legal definition).

Corporate executives however, could have a different perception of the importance of the comment letter correspondence. Even though comment letter disclosures, on average, are not expected to move prices, it is still possible that a subset of comment letter disclosures *will* move prices. Risk-averse insiders owning stock in the company could be concerned with the potential negative wealth impact of a stock price decline, even if such an event has a low probability. They could worry that the comment letter correspondence could signal to investors that the firm has internal control and financial reporting quality issues. They could also worry that the issue discussed in the comment letters will provide new insights to investors about the sustainability of earnings, even though no new financial information is being revealed.[3] Thus the disclosure of comment letters increases uncertainty for insiders and provides incentives to trade.

It is also interesting to note that the Big 4 accounting firms publish annual summaries of the main SEC comment letter issues, often at the industry level (see Deloitte (2013) and PWC (2014)). The stated purpose is to help other client companies avoid receiving a comment letter. Our private conversations with Big 4 audit partners suggests that executives are deeply concerned with investor perceptions of comment letters and will change their reporting practices to reduce the probability of receiving a comment letter from the Division.

Our first prediction is as follows:

P1: Insider sales increase prior to the disclosure of important SEC comment letters.

A key part of our research design is to identify ex-ante comment letters that are likely to be more important and hence create an incentive for insiders to sell. As mentioned in the introduction, we investigate whether insiders are more likely to sell in the pre-disclosure period when comment letter correspondence involves revenue recognition. Appendix B provides typical examples of both "Revenue Recognition Comment Letter" and "All Other 10-K Comment Letter" correspondence between the respective firms and the Division. The revenue recognition partition, classifying approximately twenty percent (80 percent) of comment letters as more

[3] For example, Salesforce.com revealed in a comment letter that it did not have internal controls in place to provide more details on their sales. Salesforce.com lack of internal controls appears to have been viewed by investors as a negative signal concerning the quality of earnings (see http://www.businessinsider.com/salesforce-doesnt-track-revenues-2014-3). Similarly, Urban Outfitters revealed in a comment letter that it was refusing the request by the SEC to disclose revenue from on-line sales separately from it brick and mortar sales. The refusal raised red flags regarding the sustainability of the brick and mortar sales even though no new information about sales was provided.

important (more trivial), will no doubt misclassify important comment letters as trivial comment letters and vice-versa. However, as the revenue recognition policy across all firms has the most pervasive effects on the financial statements, the staff's investigation into these policies should be effective in providing significant cross-sectional variation in terms of the importance of the letters between the two groups.

We then partition revenue recognition comment letters in two ways: whether the firm has high short interest or whether the firm has high accruals. We predict that insiders will have greater concerns with the impact of comment letter disclosures when their firm has low financial reporting quality or poor internal controls and this information is not fully reflected in prices. A high short position indicates disagreement among investors about the value of the firm and evidence from prior research suggests that short-sellers use financial reporting metrics to identify overpriced securities (e.g., Dechow et al. 2001; Karpoff and Lou 2010; Hirshleifer et al. 2011; Curtis and Fargher 2013). Therefore, a firm with high short positions is likely to have both financial reporting quality issues and be overpriced. This combination is likely to provide stronger incentives for insiders who are worried about the information in a comment letter to trade. The second proxy is the magnitude of accruals. Prior research suggests that high accrual firms have less sustainable earnings and greater future write-offs (e.g., Sloan 1996, Allen, Larson, and Sloan 2013). The stock returns of high accrual firms also tend to underperform in the future. We make the following prediction:

P2: *Increases in insider sales prior to the disclosure of important SEC comment letters are more pronounced for firms with both financial reporting quality and valuation concerns.*

Prior research suggests that insiders are able to time their trades and make positive profits. For example, Cohen et al. (2012) find negative returns of 63 basis points in the 30 days following their proxy for opportunistic insider sales that are defined as those sales where "an obvious discernible pattern in the past timing of trades" cannot be detected. We assume that insiders know when comment letter correspondence is likely to raise more concerns for investors. If this is indeed the case, then we expect investors to respond more negatively to more material comment letters with pre-disclosure insider trading. Our third prediction is as follows:

P3: Investors respond more negatively to the disclosure of important comment letters that have high pre-disclosure insider sales.

Note that whether an executive trades before comment letter correspondence is disclosed will depend on their view of whether such trades are legal; whether such trades are consistent with their fiduciary duty; and whether such trades are likely to lead to "public outrage" or negative press. We expect these concerns to be less acute in the case of comment letter disclosures for two reasons. First, to our knowledge few firms have written policies that penalize executives for trading prior to the release of comment letters. Therefore, insiders (and their legal advisors) could view such trades as permissible. Second, we searched for press releases relating to comment letter disclosures and found virtually none.[4] Therefore, comment letters do not appear to be an area consistently scrutinized by the press. Thus an insider could view the risk of negative press as being low.

We expect most insiders to believe that based on their fiduciary duty, that they should wait until after the comment letters are released to trade. Therefore, when we observe trades before the release, this is likely to indicate an executive who is particularly concerned with a negative valuation consequence to the information in the comment letter correspondence. Consistent with

[4] Our discussions with journalists at The Wall Street Journal (WSJ) in October 2013 confirm that while reporters generally read SEC filings, at the time most were generally unaware of comment letters. Since our discussions with the WSJ media coverage of comment letters in the WSJ is now increasing.

Kyle (1985) we expect that such insiders will be able to exploit their information advantage and earn "positive profits" or avoid a loss.

3. Sample

Exhibit 1 provides a timeline of the 10-K comment letter correspondence process and when we collect key financial variables. Since 2005, the Division has publicly disclosed comment letters and companies' responses to the comment letters. Our sample is taken from Audit Analytics, which records the disclosure date ("*FILE_DIS_DATE*") and transcribes and codes the issues identified in the comment letters. The median review lasts 54 calendar days and is disclosed 45 calendar days pre-2012 (20 business days during 2012) after the review completion.

During the comment letter review period, less than half a percent of firms restate their 10-Ks between the receipt of the initial comment letter and the comment letter correspondence disclosure date. We found that some of the restatements during this period did not relate to the Division's review. Thus, half a percent likely overstates the number of reviews resulting in restatements. Apart from restatements, the outcomes of the comment letter review process are either that (1) the SEC determines that the companies' responses are sufficient; or (2) that the SEC requests changes to companies' future financial statements.

Table 1, Panel A describes the sample of comment letters used in this analysis. We first limit our analysis to comment letters related to a 10-K. Since there are often multiple correspondences in the same series, we identify a "conversation" as the series of comments and responses relating to an initial comment letter (Audit Analytics field "*CL_CON_ID*"). Column

(1) identifies the number of unique conversations in the period from 2006 to 2012, which encompasses 14,770 10-K related comment letters. We further search the issues raised by the SEC to identify revenue recognition related comment letters (Audit Analytics field "*LIST_CL_ISSUE_PHRASE*"). There are 4,785 such letters in the 2006-2012 period.[5] Our analysis requires that we link these comment letters to both the Thomson Reuters Insider transaction database, to Compustat for fundamental variables, using the Central Index Key (CIK) of the comment letter firm, and to CRSP using the CRSP-Compustat link file. Insider sales are from the Thomson Reuters Insider database, and we record daily sales for officers and directors with firms matched by CUSIP.[6]

Insider sales are measured as the daily fraction of shares outstanding sold by insiders measured in basis points, with non-zero values winsorized at the one percent level (*SHARES* from Thomson Reuters insider database divided by *SHROUT* from CRSP scaled as basis points of shares outstanding). We also investigate insiders' buying activities, which are very limited, and repeat all of our main analyses using net sales. All inferences are robust to using insider sales net of buys instead of total insider sales. Finally, we require that the comment letter firms have stock return data available in CRSP for at least 30 days before the comment letter disclosure date. We measure accruals and other financial statement variables from the 10-K for which the comment letters relate. Information on *Working-Capital Accruals* is obtained from Compustat and is calculated as in Sloan (1996) and Allen et al. (2013) as: (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities

[5] All the main inferences of the paper hold for both the pre-2009 and the post-2009 periods.
[6] Insiders are defined as sales by officers and directors from the Thomson Reuters insider database (ROLECODE of: "*CEO*", "*D*", "*O*", "*H*", "*DO*", "*OD*", "*VC*", "*OB*", "*OP*", "*OT*", "*CB*", "*AV*", "*CFO*", "*CI*", "*CO*", "*CT*", "*EVP*", "*OX*", "*P*", "*S*", "*SVP*", or "*VP*").

(DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT).

To control for the expected level of insider sales, we use a methodology similar to Lie (2005), and take five observations of the same firm with a disclosure date randomly chosen from between six and three months prior to the comment letter disclosure date and between three and six months after the comment letter disclosure date. We refer to these five observations per firm as “control period observations”. The requirement for merging both the comment letter and insider sale data, with available control period observations, to Compustat and CRSP results in a sample described in Column (2) of 9,339 total 10-K comment letters and 1,910 Revenue Recognition Comment Letters.

Figure 1 provides the distribution of the actual number of days between the expected and actual comment disclosure date. What is observable in Figure 1 is that although many comment letters are disclosed on the expected date, there are a meaningful fraction that are disclosed by the SEC either both before or after the expected date (72% of 10-K comment letters are disclosed within five business days of the expected date). If insiders for example, trade before the anticipated date, but the actual disclosure by the SEC is 30 days late, then examining the trades around such a delayed disclosure date is less meaningful than for a letter that is disclosed closer to its expected disclosure date. Hence, we focus our analyses on the disclosures that are within five business days of the anticipated date (observations within the dotted band). Restricting the sample to those observations disclosed within five business days of the expected date results in a final sample in Column (3) of 6,728 total 10-K comment letters and 1,299 Revenue Recognition Comment Letters. Note that the number of observations for 2006 declines significantly when we restrict the sample to within five business days of the expected date. When the SEC decided to make comment letters public in 2005, they released a large number of old comment letter correspondence in 2006. Inferences are similar, although slightly weaker, when we use the full sample highlighted in Figure 1. Inferences are also similar when we use observations disclosed within one day of the expected date.[7]

Table 1, Panel B provides the distribution of comment letters across the 49 Fama-French industry groupings. The first column, *%Compustat*, presents the industry composition of all Compustat firm-years from 2006 to 2012 and *%Comment Letters*, presents the industry composition of our full comment letter sample. Comparing these two columns highlights that industry composition of Compustat and comment letter firms are fairly similar. It does appear that Insurance and Textile firms receive a relatively greater percentage of comment letters, and Banking, Personal Services, Precious Metals, and Computer Software firms receive a relatively lower percentage of comment letters than suggested by the overall Compustat industry compositions. The third column, *% Revenue Recognition*, presents the percent of comment letters in each industry group that are revenue recognition related. Computer Software firms have the highest proportion of Revenue Recognition Comment Letters (47.4 percent), followed by Agriculture firms (41.7 percent), Computer Hardware firms (36.0 percent), Personal Services firms (32.8 percent), and Retail firms (31.6 percent). However, given that the majority of industries received a significant number of Revenue Recognition Comment Letters, no one particular industry accounts for more than 20 percent of all Revenue Recognition Comment Letters.

[7] When we look at only comment letters disclosed after the expected date, the increased insider sales becomes marginally significant ($p < 0.10$) and abnormal sales appear to move into the -10 to -6 day window, as we might expect with late disclosures. When we look at comment letters disclosed prior to the expected date, again the increase in insider sales becomes marginally significant ($p < 0.10$) but the magnitudes are similar to the main analyses. When we look at on-time observations, we also see results similar to our main findings, although the results are again statistically weaker ($p < 0.10$) which is likely a result of the smaller sample size.

4. Empirical Results

4.1 Descriptive Statistics

Table 2 provides descriptive statistics for all comment letter firms and separately presents the descriptive statistics for Revenue Recognition Comment Letter firms and All Other 10-K Comment Letter firms. We measure insider sales as the daily percent of shares outstanding sold by insiders (reported in basis points). The mean daily insider sales for the All 10-K Related Comment Letter sample 30 days before and after the comment disclosure date, is 0.1390 basis points, whereas the mean daily insider sales for the Revenue Recognition Comment Letter firms and All Other 10-K Comment Letter are 0.1497 and 0.1364, respectively. For descriptive purposes we also report the mean (median) dollar amount of daily insider sales which is $36,142 ($0) and $38,991 ($0) for Revenue Recognition Comment Letter and All Other 10-K Comment Letter firms, respectively. Over the 61 day window from 30 days prior to 30 days after the comment letter disclosure date, this corresponds to approximately $2.2 and $2.4 million of total insider sales for Revenue Recognition Comment Letter and All Other 10-K Comment Letter firms, respectively. Firms receiving 10-K comment letters have mean (median) assets of $10.6 billion ($1.1 billion); revenues of $4.3 billion ($0.6 billion); market capitalizations of $5.3 billion ($0.8 billion), book-to-market ratios of 0.67 (0.53), earnings-to-price ratios of -0.06 (0.04); 30 day CAR leading up to the comment letter disclosure of 0.002 (-0.006); short interest of 4.63 percent (3.04 percent); and working-capital accruals of 0.0023 (0.0015).

Relative to the full Compustat population during our sample period, we find in untabulated results that comment letter firms have a slightly smaller mean asset value than the Compustat mean of $13.5 billion but have a larger median asset value than the Compustat median of $0.6 billion. Moreover, comment letter firms have slightly higher revenues and market capitalizations than the Compustat means (medians) of $3.9 billion ($0.3 billion) and $4.4 billion ($0.4 billion), respectively. Furthermore, comment letter firms have lower book-to-market ratios than the Compustat mean (median) of 0.72 (0.56) and higher short interest than the Compustat mean (median) of 4.08 percent (2.40 percent). Comment letter firms have a higher mean level of working-capital accruals than the Compustat mean of -0.0469, but equivalent median values of 0.0015. These descriptive statistics highlight that the attributes of comment letter firms closely align those of the Compustat population. This is consistent with the Division's mandate to review all companies' filings every three years and the notion that the comment letters are not overly biased towards specific types of firms. While the mean total assets are smaller for Revenue Recognition Comment Letter firms ($8.1 billion) than for All Other 10-K Comment Letter Firms ($11.2 billion), the two groupings appear fairly balanced across most other characteristics. Of the total 6,728 10-K related comment letters in our sample, 1,299 (19.3 percent) represent Revenue Recognition Comment Letters and 5,429 (80.7 percent) represent All Other 10-K Comment Letters.

4.2 Comment Letter Disclosures and Insider Trading

Table 3 presents the insider sales for Revenue Recognition Comment Letters in Panel A and All Other 10-K Comment Letters in Panel B. Following the timeline presented in Exhibit 1, we report insider sales for the: (i) *correspondence period*; (ii) *pre-disclosure period*; and (iii) *post-disclosure period*. *P1* predicts that insiders will sell shares prior to the disclosure of material comment letter information. The results for the *correspondence period* indicate that insiders do not have abnormal level of sales following the release of the first comment letter or during the correspondence period. Note that during the *correspondence period* investors are unaware of the review and so there is no particular reason for the insider to trade based on an immediate fear of a negative stock price reaction to the information in comment letter correspondence. However, the fact that insiders are selling at normal levels suggests that their legal councils are not advising them to refrain from trading. The findings for the *correspondence period* contrast with the results documented in the *pre-disclosure period*. Specifically, we find significant abnormal sales during days -5 to -1 of 0.121, representing abnormal increases in insider sales of 69.7 percent. Sales are also marginally significant in days -10 to -6 and represent abnormal increases in insider sales of 19.8 percent. Our results are similar when we reclassifying event day *t-1* as day zero to account for possible release delays. The abnormal sales in the *pre-disclosure period* are consistent with insiders being concerned with the market's reaction to the comment letter correspondence and as a consequence selling their holdings to reduce the probability of incurring a loss.

To get an idea of the economic magnitude of the abnormal sales note that from Table 2, the mean market value of these firms is $4.6 billion. Therefore during the ten days prior to disclosure, cumulative insider sales are approximately $1.5 billion (((0.0000204 x $4.6 billion x 5 days/10,000) + (0.0000294 x $4.6 billion x 5 days)) x 1,299 firms), with the mean firm having insider sales of approximately $1.1 million ($1.5 billion / 1,299 firms). Moreover, the dollar magnitude of *abnormal* insider sales for the mean firm is approximately $356,500 ((0.0000034 x $4.6 billion x 5 days) + (0.0000121 x $4.6 billion x 5 days)). This reflects total abnormal insider sales of approximately $463 million ($356,500 x 1,299 firms).

Table 3 Panel A also reports *Post-Disclosure* insider sales. Trading after day 0 is consistent with insiders complying with their fiduciary duty by waiting to trade after the disclosure of potentially material non-public information. We observe abnormal insider trading after the comment letter disclosure date during days 0 to +5 of 0.048, and days +6 to +10 of 0.153. These reflect increases over normal insider sales of 30.4 percent and 108.4 percent respectively. These results suggest that many executives do wait until after the release to trade.

Panel B repeats the analysis in Panel A but focuses on All Other 10-K Comment Letters. Note that in this table we do not expect abnormal trading because this sample consists of a greater proportion of comment letters addressing more trivial disclosure issues. We find no evidence of significant increases in insider sales during the correspondence period or between days -30 to +30 surrounding the comment letter disclosure. This evidence is consistent with our expectation that insiders will only unload shares prior to the public disclosure of more important comment letters. Moreover, Tables 3 provides evidence suggesting that our revenue recognition partition is successful in identifying more important comment letters.

In untabulated tests we investigate whether comment letter disclosures abnormally overlap with earnings announcements. Insiders have black-out periods before earnings announcements and have heightened sales following earnings announcements. We find that timing of comment letter disclosures is random relative to earnings announcements. There are no abnormal levels of earnings announcements during days -30 to +30 period and the median earnings announcement is -45 days prior to the comment letter disclosure. Therefore our findings are not driven by post earnings announcement insider sales.

P2 predicts that insider selling will be more pronounced in the presence of high short interest and high accruals as such measures reflect both potential financial reporting quality and mispricing concerns. Panel A of Table 4 presents results for Revenue Recognition Comment Letters for firms in the highest quintile of short interest. Consistent with *P2*, we find stronger evidence of *pre-disclosure* abnormal trading in Panel A for firms in the highest quintile of short interest. Abnormal sales are positive and significant during days -10 to -6 and days -5 to -1. These represent abnormal increases in insider sales of 107.4 percent and 200.5 percent respectively.[8] The magnitude of abnormal trading reported in Panel A of Table 4 also appears to be of economic significance. During the ten days prior to disclosure, cumulative insider sales are approximately $240 million (((0.0000427 x $1.6 billion x 5 days) + (0.0000595 x $1.6 billion x 5 days)) x 293 firms), with the mean firm selling approximately $818,000 ($240 million / 293 firms). Moreover, for the mean firm, abnormal insider trading is approximately $495,000 more than expected ((0.0000221 x $1.6 billion x 5 days) + (0.0000397 x $1.6 billion x 5 days)). This reflects total abnormal insider sales of approximately $145 million ($495,000 x 293 firms).

In the *post-disclosure* period reported in Panel A, we find no evidence of abnormal trading during days 0 to +5 but evidence consistent with abnormal trading from days +6 through to +30. Thus, when there are significant short sellers present in the stock, insiders appear particularly eager to unload their shares prior to the disclosure as well as in the 30 days after the disclosure, perhaps because they fear short-sellers will highlight concerns raised in the comment letter correspondence.

Panel B of Table 4 presents the abnormal insider sales for Revenue Recognition Comment Letter firms in the highest quintile of working-capital accruals. We find positive and significant ($p < 0.10$) abnormal insider sales of 76.5 percent in days -5 to -1. This is slightly more pronounced than the 69.7 percent increase for all Revenue Recognition Comment Letter firms in

[8] We measure short interest as of the disclosure date. One question is whether short-sellers observe the insider trading and then "piggy-back" on the insider and short-sell the stock. We find that short positions are relatively constant for a particular firm and do not fluctuate greatly over the comment letter period, suggesting that short-sellers are not merely engaging in a strategy of following the trading patterns of insiders. In addition, in untabulated results we measure short interest as of ten business days prior to the disclosure date (i.e, before the insiders engage in abnormal trading) and find similar inferences.

Panel A of Table 3. However, these insider sales are much less pronounced than the 200.5 percent increase in abnormal insider sales for in the highest quintile of short interest in Panel A of Table 4. Consistent with Table 3, in both Panels A and B of Table 4 we find insignificant abnormal sales during the *correspondence period*.

It is interesting to note that insiders in high accrual firms appear to be more likely than insiders of high short interest firms to wait until after the comment letter disclosure date to trade. There is evidence of significant and positive abnormal trading from days 0 to +20 of up to 228.5 percent. Note that the average time between the disclosure of the 10-K (where we measure working-capital accruals) and the disclosure of the comment letter is approximately nine months—see Exhibit 1. Therefore, the information revealed by working-capital accruals about earnings quality is quite dated. In contrast, short interest is measured at the comment letter disclosure date and so is a more timely metric of financial reporting quality and valuation concerns. Therefore it is not overly surprising that pre-disclosure sales are more pronounced for the high short interest sample.[9]

In untabulated tests we investigate which insiders are abnormally trading prior to the disclosure of Revenue Recognition Comment Letters. We re-run our analyses in Tables 3 and 4 separately for CEO, CFO, officers (excluding the CEO and the CFO) and directors (excluding officers). We find evidence of abnormal pre-disclosure insider sales across all four classes of insiders.

Figure 2 plots insider sales presented in Table 3 and 4. Panel A reveals abnormal trading for all Revenue Recognition Comment Letter firms, while Panel B reveals very little abnormal

[9] In untabulated results we investigate whether short sellers are targeting comment letter firms with high working-capital accruals but find that there is not a significant overlap between the two metrics. This suggests that the accrual information is untimely or that the short-sellers are not using accruals to identify potentially overvalued comment letter firms.

trading for All Other 10-K Comment Letter Firms. Panel C of Figure 2 plots insider sales for Revenue Recognition Comment Letter firms in the top quintile of short interest, presented in Panel A of Table 4. The figure clearly indicates abnormal trading both before and after the comment letter release date. Panel D plots insider sales for Revenue Recognition Comment Letter firms in the top quintile of working-capital accruals presented in Panel B of Table 4. The abnormal insider trading is clearly evident both before and after the disclosure date, with a large spike in trading approximately five days after the release of the comment letter.

Panels A and B of Figure 3 plot the cumulative daily insider trading of high short interest and high working-capital accrual firms, respectively, during the 30 days prior to and 30 days following the comment letter disclosure date relative to control observations for Revenue Recognition Comment Letters. Panel A highlights insider sales for firms with Revenue Recognition Comment Letters and high short interest are fairly consistent with normal levels until approximately ten days prior to the comment letter disclosure. At this point, comment letter insider sales begin to significantly diverge from control period observations with approximately 44 percent greater cumulative insider sales in the 30-day window up to the disclosure date. The spread between comment letter insider trades and control observations continues to slowly increase in the 30 days following the comment letter disclosure but much of the spread forms in the 10 days prior to the comment letter disclosure. Panel B illustrates that for firms with high working-capital accruals, insider sales also begin to diverge noticeably from control period insider sales beginning 10 days prior to disclosure, with approximately 26 percent greater cumulative insider sales in the 30-day window up to the disclosure date.

Overall, the findings in Tables 3 and 4 and Figures 2 and 3 provide evidence consistent with our predictions that insiders opportunistically sell their shares prior to the SEC's public disclosure of comments letters pertaining to revenue recognition, and that this practice is more pronounced for firms with both financial reporting and valuation concerns.

Tables 5 and 6 provide regression analysis that control for other determinants of pre-disclosure insider sales. Table 5 focuses on the interaction between Revenue Recognition Comment Letter firms and firms with high short interest. In Columns (1) to (3) of Table 5, the dependent variable is the mean daily insider sales (in basis points of market capitalization) from disclosure day -5 to -1 and in Column (4) the dependent variable is similar except that it is measured from disclosure day -10 to -1. The significant coefficient on the *Revenue Recognition* indicator variable of 0.1325 in Column (1) suggests that insider sales, as a percentage of shares outstanding, is 0.1325 basis points higher in the five trading days prior to the comment letter disclosure date for Revenue Recognition Comment Letters than for All Other 10-K Comment Letters. This finding is consistent with the inference from Tables 3 and 4 that our revenue recognition partition is successful in identifying more important comment letters. We control for *Normal Insider Sales* using the mean daily insider sales for the control period observations. *Normal Insider Sales* has a coefficient of 0.6994 and is significant, while the coefficient on *Log Total Assets* is insignificant. The coefficients on *Earnings to Price* and *Book to Market* are 0.0267 and -0.0159, respectively, and significant, suggesting that pre-disclosure insider sales are more pronounced for higher earnings to price and lower book to market firms. Moreover, *CAR -30 to -1* is positive (0.4940) and significant, consistent with the general observation that insiders sell more after a prior price increase. A standard deviation increase in *Earnings to Price* or *CAR -30 to -1* corresponds to increases in insider sales, as a percentage of shares outstanding in basis points, of 0.051 or 0.082, respectively, while a standard deviation increase in *Book to Market*, corresponds to a decrease of -0.046.

Column (2) includes the *High Short Interest* indicator variable and yields similar inferences for all other variables as in Column (1). The coefficient of 0.1063 on *High Short Interest* is positive and significant, suggesting that firms in the top quintile of short interest have higher insider sales. In Column (3) we add an interaction term between the *Revenue Recognition* indicator variable and the *High Short Interest* indicator variable. The coefficients on the *Revenue Recognition* and *High Short Interest* variables remain significant but decline to 0.0720 and 0.0515, respectively, while the interaction term between the two variables is 0.2632 and significant. This confirms Table 3's result that pre-disclosure insider sales are most pronounced for firms receiving Revenue Recognition Comment Letters that also have high short interest. Inferences in Column (4) are generally similar to those in Column (3) when the dependent variable is insider sales as a percentage of shares outstanding for days -10 to -1.

Table 6 provides a similar analysis to Table 5 but replaces short interest with working-capital accruals. The coefficient of 0.0973 on *High Working-Capital Accruals* in Column (1) is positive and significant, suggesting that firms in the top quintile of working-capital accruals have higher insider sales. In Columns (2) and (3) we add interaction terms between the *Revenue Recognition* indicator variable and the *High Working-Capital Accruals* indicator variable. The coefficient on the *Revenue Recognition* and *High Working-Capital Accruals* in Column (2) is 0.1456 and insignificant using insider sales from days -5 to -1 as the dependent variable, while the interaction term between these two variables in Column (3), using insider sales from days -10 to -1 as the dependent variable, is 0.1322 and significant ($p < 0.10$). Thus using a longer pre-disclosure window improves the power of the test. These findings provide some support that pre-disclosure insider sales are more pronounced for firms receiving Revenue Recognition Comment Letters that also have high accruals. Together, these findings suggest that revenue recognition, short interest, and accruals appear to be important firm attributes in explaining pre-disclosure insider sales.

4.3 Investor Response to the Disclosure of Comment Letters

We next provide tests of *P3* that predicts a negative stock price response to the release of more important comment letters with high pre-disclosure insider trading. Section 4.3.1 provides an analysis of future returns and Section 4.3.2 provides an analysis of comment letter downloads.

4.3.1 Disclosure of Comment Letters and Future Stock Returns

Figure 4 provides plots of the stock price response following the disclosure of comment letter disclosures for Revenue Recognition Comment Letters. Panel A plots the cumulative abnormal returns for comment letters with no pre-disclosure insider sales versus those with pre-disclosure sales. We calculate CAR as the cumulative daily stock returns less the market return.[10] There is little stock price response on day +1 for firms with insider sales and there is not much of a stock price response until approximately day +20. However, over the 50 days following comment letter disclosures, the returns for firms with insider sales underperform those with no insider sales by approximately one percent. Specifically, the 50-day returns for firms with no insider sales are roughly flat and the 50-day returns for firms with insider sales are approximately negative one percent.[11]

Panel B of Figure 4 further decomposes the sample of Revenue Recognition Comment Letters with pre-disclosure insider sales into those with high short interest (quintile 5) versus the

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[10] Inferences are similar when calculating CAR as the cumulative daily stock return less the appropriate CRSP capitalization portfolio return using the prior fiscal year-end portfolio assignment.

[11] The lack of immediate pricing of comment letters could explain why to our knowledge, no Federal class action lawsuits have been filed based on insider trading in advance of comment letter disclosures. For firms incorporated in Delaware, a shareholder may bring a *Brophy* claim, which gives shareholders standing to sue in the Delaware courts if insiders abuse their duty of loyalty to refrain from using confidential corporate information for personal gain. To our knowledge, no such lawsuits have been filed.

remaining firms (quintiles 1 to 4). The plot again shows little investor response until day +20 and then we observe that by day +50, firms with high short interest have negative cumulative abnormal returns of almost five percent following the disclosure of comment letters. This evidence suggests that insiders who traded prior to comment letter disclosures were on average able to profit from their decision to sell over the next month or so. Panel C of Figure 4 partitions the returns for the sample of Revenue Recognition Comment Letters with pre-disclosure insider sales by high working-capital accruals (quintile 5) versus the remaining firms (quintiles 1 to 4). The plot again indicates little investor response until day +20 and then firms with high working-capital accruals have negative cumulative abnormal returns of approximately two percent following the disclosure of comment letters.

These results suggest that insiders that sell prior to the release of more important comment letters are able to profit from their trades. However, there appears to be a delayed stock price response. For example, insiders of firms with high short interest who sell in the pre-disclosure period on average only save around $6,200 per firm versus trading on the first day after the public disclosure. However, assuming that the 50-day price drift was priced efficiently on day one, insiders would save on average, over $136,000 per firm.[12]

Note in Table 3 and 4 we find abnormal trading both before and after the release of comment letter correspondence. One possibility for the delayed stock price response is that investors are responding to the insider trades reported on Form 4 filings (that are made public within approximately two business days) rather than the comment letter releases. However, this is unlikely to be a complete explanation for the stock price drift that we document since the

[12] The $6,200 savings estimate of trading in the pre-disclosure period instead of on the first day after the public disclosure is calculated as: mean pre-disclosure insider sales per firm from day -10 to day -1 ($3.1 Million) * day +1 CAR (-20 basis points). The $136,000 savings estimate assuming the 50-day price drift was priced efficiently on day one is calculated as: mean pre-disclosure insider sales per firm from day -10 to day -1 ($3.1 Million)*50 day price drift (-440 basis points).

magnitude of the drift on abnormal insider trading reported by Cohen et al. (2012) is only around 63 basis points over the following 30 days, where as we are documenting negative returns of between one and five percent. We investigate the stock return drift in more detail in the next section.

4.3.2 Downloads of SEC Comment Letters

Prior research has documented that investors do not always respond in a timely manner to accounting information. The post earnings announcement drift is perhaps the best example of such a phenomenon. DellaVigna and Pollet (2009) show that Friday earnings announcements have a 15 percent lower immediate response and a 70 percent higher delayed response than other days. They suggest that this result is due to investor inattention and is important for explaining the post earnings announcement drift. If investors suffer from inattention with respect to earnings announcement that occur on Friday, then is it possible that the delayed stock price reaction to comment letter correspondence is due to investor inattention?

There are several reasons to believe that it may take time for the information in comment letters to be reflected in prices. First, identifying comment letter correspondence disclosures in a timely manner requires effort and organization. To find comment letter correspondence, without subscribing to a private data provider, one has to go to the SEC's EDGAR system and search for "*UPLOAD*" files to find SEC issued comment letters and "*CORRESP*" files to find company responses to the letters, or identify such filings in the daily EDGAR index files. However, once at each company's page, EDGAR lists "*UPLOAD*" and "*CORRESP*" files according to their filing date, and an investor needs to examine the header of the raw text file to identify the disclosure date. Hence, without an appreciation of the idiosyncrasies inherent in the comment letter disclosure process, it is difficult to assess the timeliness of such disclosures. Moreover, the majority of firms appear to omit the inclusion of forms "*UPLOAD*" and "*CORRESP*" on their investor relation websites. Our review of S&P 500 firms' investor relations websites (as of May 2014) identified that only 31 percent of S&P 500 firms provide direct disclosure of comment letter correspondence. As the "SEC Filings" section on a firm's website is intended to be a mirror image of the EDGAR database, the fact that comment letters are not disclosed by the vast majority of firms suggests that firms do not want investors to see such information. Moreover, of those firms that disclosed this information many of them did not have the proper "*UPLOAD*" and "*CORRESP*" form types assigned to the filings. The comment letter files in these circumstances were only returned when "comment" was used as the form type. Taken together, the opaqueness of comment letter disclosures reduces the likelihood that market participants (including analysts and the press) will read comment letters and subsequently detect insider trading.

Second, the average news coverage on comment letter disclosure dates is virtually non-existent relative to news around other events such as earnings announcements. Hence, if investors are unaware of the comment letter disclosures, then it is unlikely that they will hear about them in the media. Third, receiving a comment letter is a relatively rare and unpredictable event. Firms are typically reviewed every three years and only receive comment letters when there is an issue of concern. Thus, investors have to continually check company filings to determine whether the SEC has disclosed any material comment letters since unlike earnings announcements, the date is not predictable.

To provide some insights into whether investor inattention is a potential explanation for the price drift, we obtain EDGAR web traffic data from the SEC for our firms through a Freedom of Information Act (FOIA) request. Figure 5 presents the mean EDGAR requests for

Form 10-Ks and comment letters related to those 10-Ks for the 50 days following their respective disclosure dates. The figure provides striking evidence that investors are active consumers of Form 10-Ks but they do not appear to be active consumers of comment letters. The mean of EDGAR requests for the day following the 10-K disclosure is almost 30, which quickly reduces to approximately 7 downloads by day +10. The requests then stay relatively constant. In contrast, the mean EDGAR request for comment letters for the day following the disclosure is 0.3 downloads and tapers off to close to 0 downloads by day +5. Thus Figure 5 indicates that the web traffic requesting SEC comment letters on the disclosure day is approximately 1.1 percent of the web traffic requesting the respective 10-Ks. Even if we cumulate requests for 50 days, comment letters are requested at a rate of only 1.7 percent of 10-Ks. Thus, it appears that investors are reading the 10-Ks but are not reading the SEC's concerns noted in comment letters related to those 10-Ks.[13]

Figure 6 partitions the CARs for Revenue Recognition Comment Letter firms based on the above- and below-median EDGAR requests for comment letters. For firms with above median requests, there is a negative price drop in the first 15 days following the public disclosure of almost two percent. The CARs for this sub-group level out to approximately negative one percent by day +50. In contrast, there is no evidence of a negative price drop for comment letters with below-median EDGAR requests, suggesting either that these comment letters contain no material information or that investors are unaware of the information that they contain.

We also investigated whether short-sellers are highlighting information in comment

[13] Note that EDGAR requests for 10-Ks underestimate actual 10-K usage from other public websites, such as the company's investor relations website, Morningstar, Yahoo Finance, and Google Finance. These sources generally do not provide access to comment letters. Certain other paid-subscription data providers such as FactSet, Bloomberg, and Morningstar Document Research, do make both 10-Ks and comment letters available. However, there is no feasible way for us to determine the demand for comment letters and 10-Ks from these alternative sources.

letters after their release in order to increase investor attention.[14] Using a sample of short sellers identified by Ljungqvist and Qian (2014) we found that several of these funds mentioned SEC investigations and comment letters in their analysis. We found two firms in the comment letter sample that had written reports. At the time that these reports were released these stocks declined by five and ten percent, respectively. Note that both short-seller reports were revealed with a significant lag relative to the comment letter disclosure date.

Overall, these findings suggest that investor inattention could play a role in explaining the drift in returns.

4.4 Additional Analysis

4.4.1. Do Firms Disclose SEC Comment Letters Early?

The comment letter correspondence between the SEC and firms is confidential and the public is not privy to any of the details pertaining to the comment letter review or even the existence of the review until the SEC's public disclosure unless the firm decides to voluntarily disclose such information. If firms issue press disclosures (Form 8-Ks) that effectively summarize the key issues in the comment letters prior to the public disclosure of the comment letter correspondence, then going forward, any insider trading that we observe would not be a consequence of them trading on their private information about the SEC's review process.

In untabulated tests, we identify all Revenue Recognition Comment Letter firms with insider sales in the five days prior to the public disclosure of the comment letter correspondence. We rank insider sales from largest to smallest and examine the comment letters with insider sales

[14] In addition, short-oriented research firms admit to using comment letters to support their valuation concerns (see Bloomberg's *Muddy Waters Secret China Weapon is On SEC Website* article, Bloomberg 2013); or frequently cite SEC comment letters in their reports to support their recommendations (e.g., Citron Research, Prescience Point Research Group, Glaucus Research Group).

accounting for 90 percent of the total. We then check whether the insider's firm issued an 8-K relating to the comment letter correspondence between the dates of the filing review completion and the public disclosure of the correspondence. We found that none of the firms disclosed an 8-K previewing the comment letter correspondence. This finding suggests that the details of comment letters are not disclosed before insiders engage in significant pre-disclosure insider trading.

Another issue of concern is that accelerated filers (market value of $75 million to $700 million) or large accelerated filers (market value over $700 million) are required to disclose in Section 1B of the 10-K any unresolved SEC staff comments. Note that the requirement states that the unresolved SEC comments must be outstanding for at least 180 days as of the fiscal year-end date. This limits the number of reported Section 1B disclosures since we find that the average length of the review process is 54 calendar days. In unreported tests we found that there were only two Revenue Recognition Comment Letter firms with insiders selling shares that were required to make such disclosures. However, upon reviewing their 10-Ks we found that both firms failed to make the appropriate Section 1B disclosures. Hence, these firms not only violated SEC's disclosure requirements, but their insiders appeared to trade on non-public information concerning the comment letter review findings.

A final issue of concern is that one outcome of the SEC review process is that firms are required to retrospectively restate their financial statements. When firms are required to restate they will likely do so before the review is disclosed since such restatements must satisfy the SEC. Note that even when firms provide a restatement they are not required to provide the details of the comment letter disclosures. We found only four Revenue Recognition Comment Letter firms restate their 10-Ks during the review period (according to Audit Analytics' classification of a restatement).[15] Three of these did not disclose any details concerning the SEC review and the remaining two restatements were related to issues not discussed in the comment letters. Our results are unchanged when we exclude these firms from our analysis. Moreover, we found that 10 percent of firms issued adjusted 10-Ks (10-K/As) between the receipt of the initial comment letter and the comment letter disclosure date.[16] Just in case the 10-K/A was a result of the comment letter review and the information discussed in the review was indirectly revealed through the 10-K/A, we re-run our analyses excluding such firms. Again all our main findings are unchanged when we exclude these firms from our analysis.

4.4.2. Matched Peer Sample

In our main analysis we determine abnormal insider sales using the firm as its own control. However, using the firm as its own control matches different periods and may not effectively control for macroeconomic and financial reporting events that could influence insider sales. We therefore provide an alternative measure of abnormal insider sales by using the insider sales of the comment letter firm's five closest peers matched by Fama-French industry groups, fiscal year-end date, and closest market capitalization within a -50 to +100 percent range. We find that all main inferences are robust to the use of peer controls.

5. Conclusion

The SEC's Division of Corporation Finance reviews company filings and where appropriate, issues comment letters to elicit better compliance with applicable financial reporting standards. The SEC delays the release of comment letter correspondence for approximately 20

[15] Audit Analytics defines a restatement as "a revision of previously filed financial statements as a result of an error, fraud or GAAP/foreign principle misapplication".
[16] To put the percentages of 10-K/As in perspective, 17.5 percent of Compustat firm-years from 2006-2012 release 10-K/As. Hence, the incidence of 10-K/As in comment letter firms does not appear to significantly more pronounced relative to the whole Compustat population.

business days to insure that they have time to redact any information that should not be in the public domain (names of individuals and other supporting internal information, etc.). The delay, though unavoidable, affords companies a significant amount of time after the completion of the Division's review to sit on private information concerning the review findings.

This study provides empirical evidence suggesting that corporate insiders take advantage of this opportunity and unload shares prior to the public disclosure of SEC comment letter correspondence. We highlight increases in insider sales prior to the public disclosure of comment letters relating to revenue recognition and pre-disclosure insider sales are more pronounced for firms with financial reporting and valuation concerns.

We use two proxies to identify firms that have financial reporting quality and valuation issues. The first is firms with high short interest and the second is firms with high accruals. We find strong evidence of high pre-disclosure insider sales for firms with high short interest. We document that in such firms, insiders have about three times the volume of trades that would be expected on a typical day during the five-day window before comment letters are released. In addition, we find that these firms earn negative returns of approximately five percent over the 50 day window after the release of comment letter correspondence. For high accrual firms, we find that abnormal sales are approximately 70 percent greater than a typical day in the five-day window before comment letters are released. We find that high accrual firms earn negative returns of approximately two percent over the 50 day window after the release of comment letter correspondence. Thus, our evidence suggests that insiders appear to be able profit from trading on information contained in more material comment letters.

We suggest that investor inattention could be one reason for the observed drift in stock returns. Specifically, we argue that identifying comment letters in a timely manner requires either subscribing to a data provider or constant checking of the SEC's EDGAR website. We investigate download activity on the SEC's EDGAR data retrieval system and show that stock prices respond more quickly when comment letters have greater downloading activity. However, generally comment letters have very few downloads at the time of their disclosure.

One may ask why insiders are willing to take the risk of trading before the release of comment letters. The first thing to note is that many insiders do appear to wait until after the comment letter release date to trade, and so do fulfill their fiduciary and ethical duties. However, the lack of an immediate negative stock price response to the release of the comment letter correspondence would make it difficult for class-action lawyers to sue the insider. In addition, since receiving a comment letter is a relatively rare event for many firms, corporations are unlikely to have specific policies prohibiting insiders from trading before comment letters are released. Therefore, insiders seeking the advice of their lawyers could be informed that regulators and class-action lawyers are unlikely to take legal action against them if they trade prior to the release of comment letters.

Our results suggest that the current practice of delaying the real-time disclosure of SEC comment letter correspondence is problematic and support concerns from the investment industry that the disclosure delay appears to best serve the interests of corporate insiders. Moreover, the results suggest that the SEC should encourage corporate boards to implement insider sale black-out periods during the comment letter review process.

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———. 2013d. Summary by the Division of Corporation Finance of Significant Issues Addressed in the Review of the Periodic Reports of the Fortune 500 Companies. Available at: http://www.sec.gov/divisions/corpfin/fortune500rep.htm

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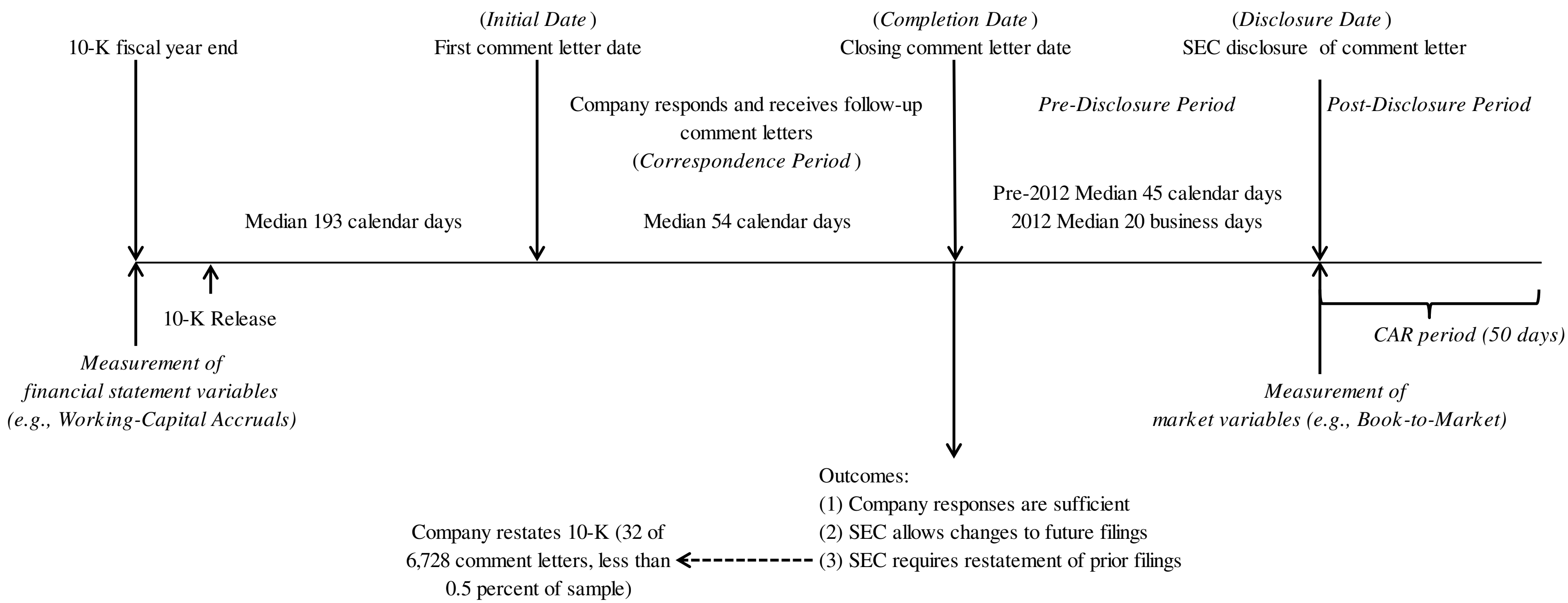
Sloan, R. 1996. Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review* 71 (3): 289-315.

TSC Indus. V. Northway, Inc., 1976 426 U.S. 438.

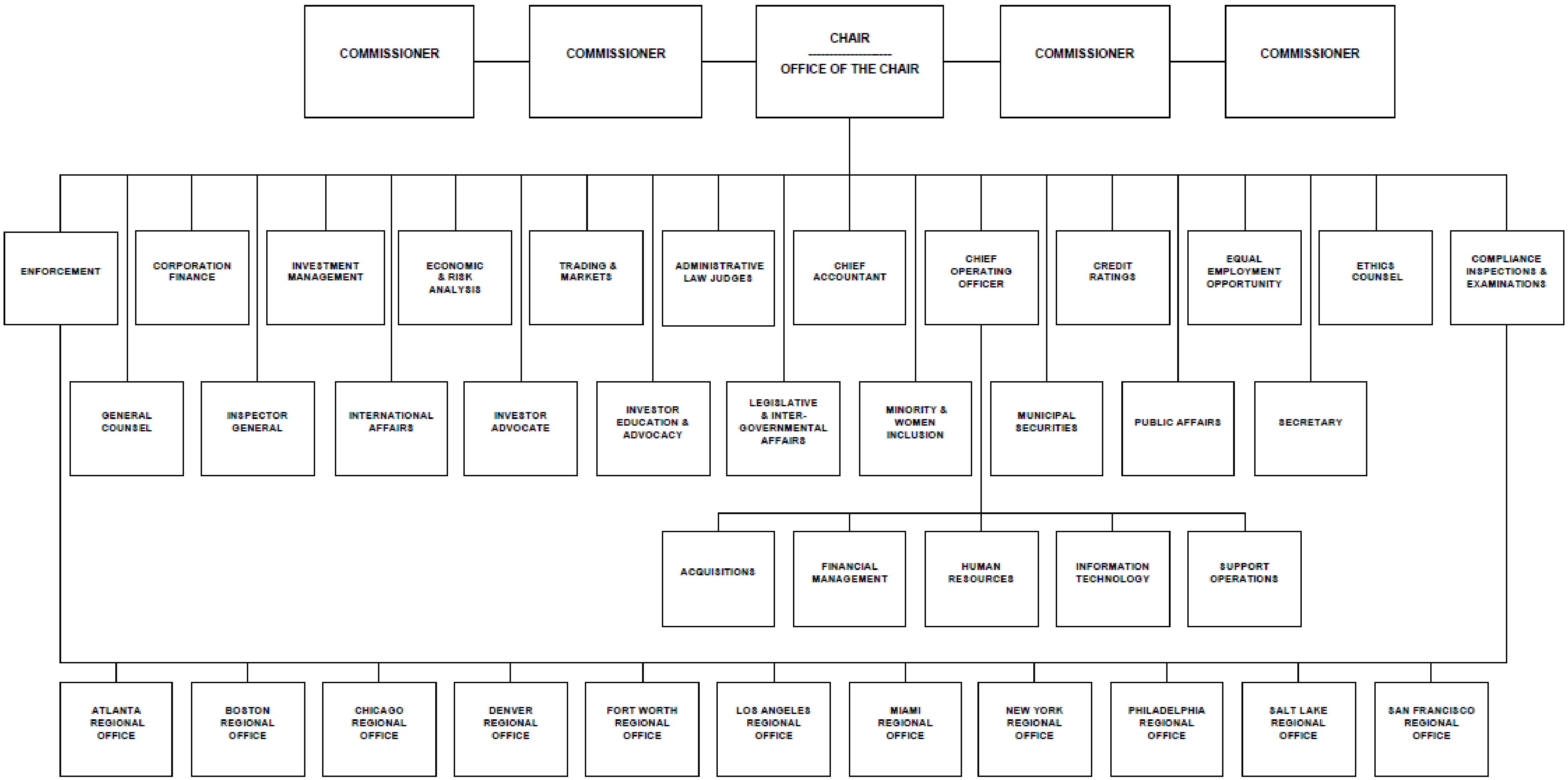
EXHIBIT 1

SEC Comment Letter Timeline



APPENDIX A

SEC Organizational Chart (Source: http://www.sec.gov/images/secorg.pdf)



APPENDIX B

Panel 1: Sample Revenue Recognition Comment Letter

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

DIVISION OF
CORPORATION FINANCE

August 29, 2011

Via E-Mail

Mr. C. Bradford Richmond
Chief Financial Officer
Darden Restaurants, Inc.
1000 Darden Center Drive
Orlando, Florida 32837

Re: Darden Restaurants, Inc.
Form 10-K for the year ended May 29, 2011
Filed July 22, 2011
File No. 001-13666

Dear Mr. Richmond:

We have reviewed your filing and have the following comments. 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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended May 29, 2011
Exhibit 13
Unearned Revenues, page 30

1. We note that you recognize breakage for unused gift card amounts in proportion to actual gift card redemptions. We also note that during fiscal 2010 you changed your estimate of gift card breakage and adjusted unearned revenue with a corresponding reduction in gift card breakage of $20.4 million as a result of a significantly higher trend in gift card redemption. In light of such current consumer redemption behavior, the increase in gift card sales and that unearned revenue represented $200 and $172.7 million of your balance sheet at May 31, 2011 and 2010, respectively, please tell us and expand your unearned revenue policy footnote to disclose the estimate value or percentage of gift card sales that you recognize as breakage for each period presented and the period over which breakage is recognized. Furthermore, as part of your response please describe for us your

methodology for being able to reasonably and objectively determine the amount of gift card breakage in addition to the estimated time period of actual gift card redemption. We may have further comment upon receipt of your response.

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 connection with responding to our comments, please provide, in writing, a 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.

You may contact Effie Simpson at (202) 551-3346, or in her absence, Jean Yu at (202) 551-3305 if you have questions regarding comments on the financial statements and related matters. Please contact the undersigned with any other questions at (202) 551-3750.

Sincerely,

/s/ Linda Cvrkel

Linda Cvrkel
Branch Chief

APPENDIX B

Panel 2: Sample All Other 10-K Comment Letter

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

DIVISION OF
CORPORATION FINANCE

April 6, 2011

Via E-mail
Martin M. Ellen
Executive Vice President and Chief Financial Officer
Dr Pepper Snapple Group, Inc.
5301 Legacy Drive,
Plano, TX 75024

Re: Dr Pepper Snapple Group, Inc.
Form 10-K
Filed February 22, 2011
File No. 001-33829

Dear Mr. Ellen:

We have reviewed your filing and have the following comment. 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 amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to this comment, we may have additional comments.

General

We note the disclosure on page six that on February 26, 2010 you completed the licensing of certain brands to PepsiCo and the disclosure on page seven that on October 4, 2010 you completed the licensing of certain brands to Coca-Cola. We note that these licensing agreements have not been filed as exhibits. Please confirm that you will file these exhibits with your next periodic report or explain why you believe these exhibits are not material.

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.

Martin M. Ellen
Dr Pepper Snapple Group, Inc.
April 6, 2011
Page 2

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.

Please contact Damon Colbert at (202) 551-3581 or Pamela Howell at (202) 551-3357 with any questions.

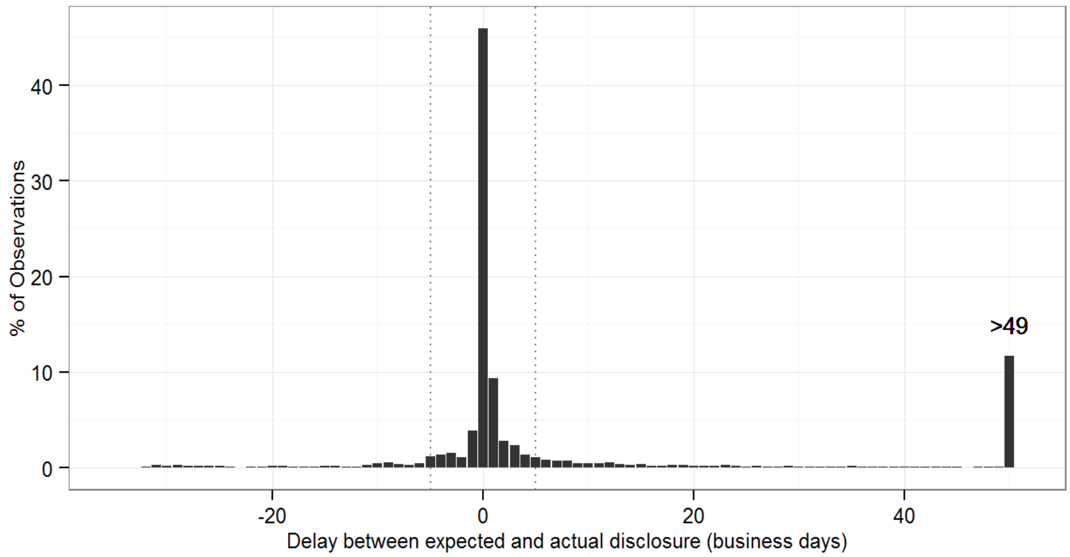
Sincerely,

/s/ Pamela Howell
for

John Reynolds
Assistant Director

FIGURE 1

Distribution of the Number of Days between the Expected and Actual Comment Letter Disclosure Date (2006-2012)

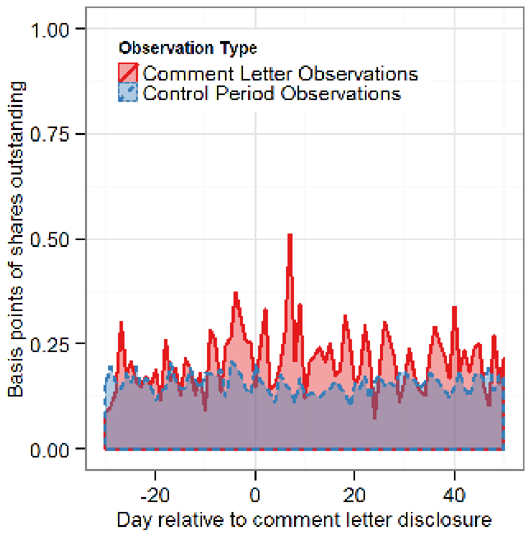


This figure provides the distribution of the number of business days between the expected comment letter disclosure date (based on the SEC's published policy) and the actual disclosure date of the comment letter correspondence. Prior to January 1, 2012, the comment letter correspondence was disclosed "no earlier than 45 days"; following review completion, and subsequent to January 1, 2012 the comment letter correspondence is disclosed "no earlier than 20 business days". Letters disclosed with a delay of 50 or greater are aggregated into the >49 day bin. The dotted vertical lines at days +5 and -5 demarcate the comment letters we keep for our main sample, representing 72% of the 10-K comment letters. The significant number of observations disclosed more than 49 days after the expected date primarily relates to a backlog of comment letters that were released (with a significant delay) when the SEC first started disclosing comment letters.

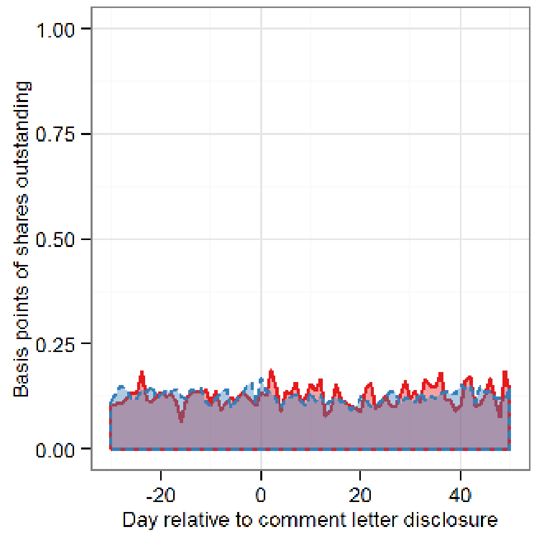
FIGURE 2

Mean Daily Insider Sales Relative to Comment Letter Disclosure Date
(2006-2012)

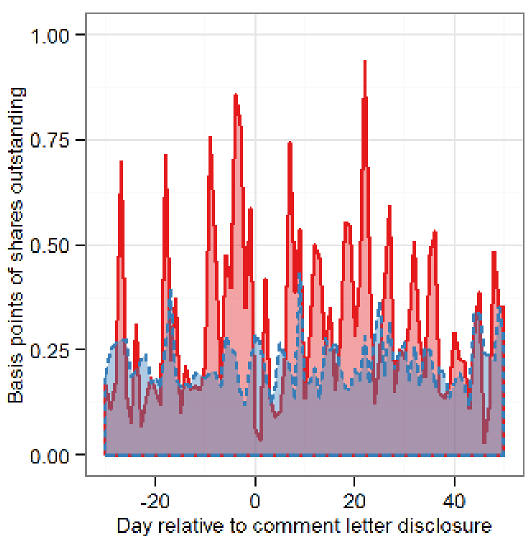
Panel A: Revenue Recognition Comment Letters
(n=1,299)



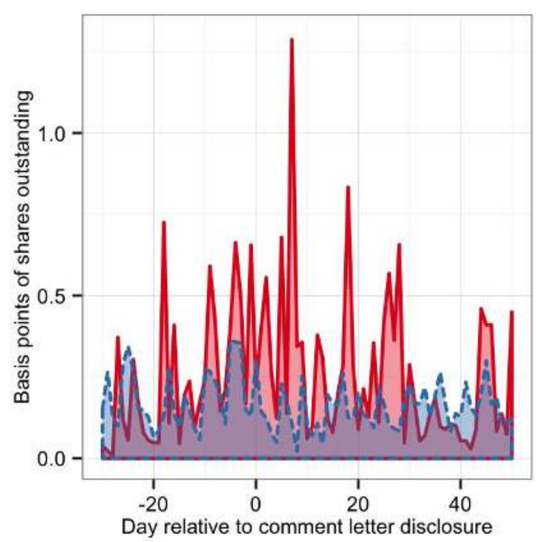
Panel B: All Other 10-K Comment Letters
(n=5,429)



Panel C: Revenue Recognition and High Short Interest Comment Letters (n=293)



Panel D: Revenue Recognition and High Working-Capital Accruals Comment Letters (n=255)

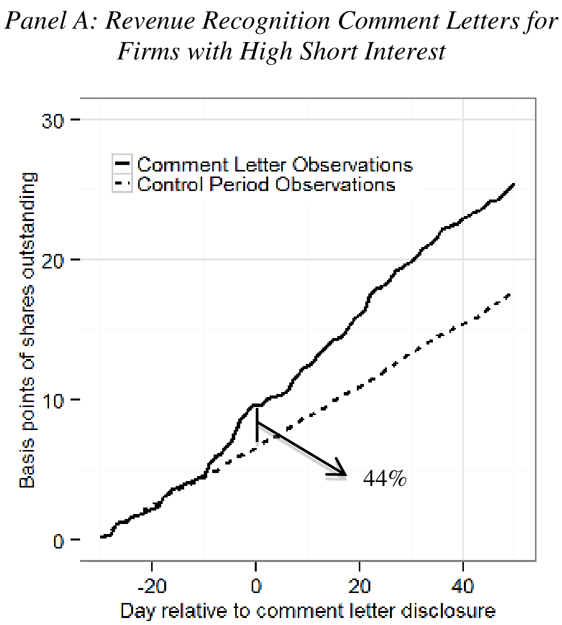


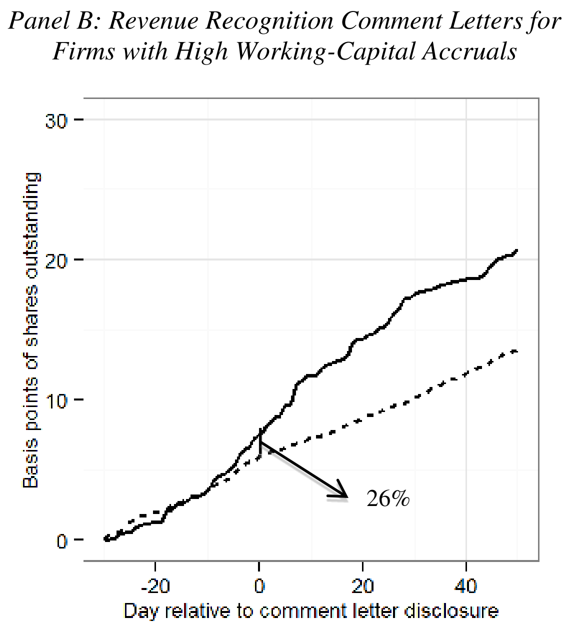
This figure presents the mean daily insider sales relative to the comment disclosure date. Panel A illustrates that for firms with Revenue Recognition Comment Letters, insider sales are more pronounced around the disclosure of the comment letters, including increased insider sales in the five days before the comment letter disclosure. Panel B illustrates that for All Other 10-K Comment Letters, there is no discernible increase in insider sales around the comment letter disclosure. Panel C illustrates that for firms with Revenue Recognition Comment Letters combined with high short-interest (top quintile), insider sales are even more pronounced around the disclosure of the comment letters, including increased insider sales in the five days before the comment letter disclosure. Panel D illustrates that for firms with Revenue Recognition Comment Letters combined with high working-capital accruals (top quintile), insider sales are higher than control period insider sales, in periods both before and after comment letter disclosure. Insider sales are measured as basis points of shares outstanding sold by insiders each day, with non-zero values winsorized at the 1%

level (*SHARES* from Thomson Reuters insider database divided by *SHROUT* from CRSP scaled as basis points of shares outstanding). Working-Capital Accruals is calculated as the change in working capital normalized by average total assets with all variables from Compustat (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities (DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT). Control period observations are comprised of 5 observations from the same firm with event dates selected randomly from the available trading days between 3 to 6 months before and after the comment letter disclosure date.

FIGURE 3

Cumulative Daily Insider Sales
(2006-2012)



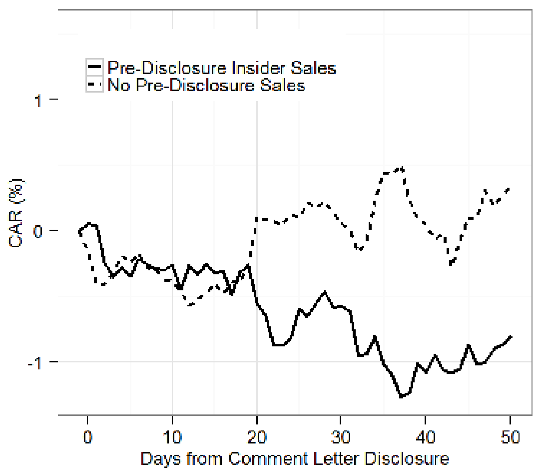


This panel presents the cumulative difference in daily insider sales from 30 days prior to 30 days following the comment disclosure date for Revenue Recognition Comment Letters in the presence of high short interest (top quintile) in Panel A and for firms with high working-capital accruals (top quintile) in Panel B. Panel A shows that for firms with Revenue Recognition Comment Letters and high short interest, insider sales begin to diverge noticeably from control period insider sales beginning 10 days prior to disclosure, with approximately 44% greater cumulative insider sales by the disclosure date. Panel B shows that for firms with Revenue Recognition Comment Letters and high working-capital accruals, insider sales also begin to diverge noticeably from control period insider sales beginning 10 days prior to disclosure, with approximately 26% greater cumulative insider sales by the disclosure date. The high short interest sample comprises 293 Revenue Recognition observations and the high working-capital accrual sample comprises 255 observations. Control period observations are comprised of 5 observations from the same firm with event dates selected randomly from the available trading days between 3 to 6 months before and after the comment letter disclosure date.

FIGURE 4

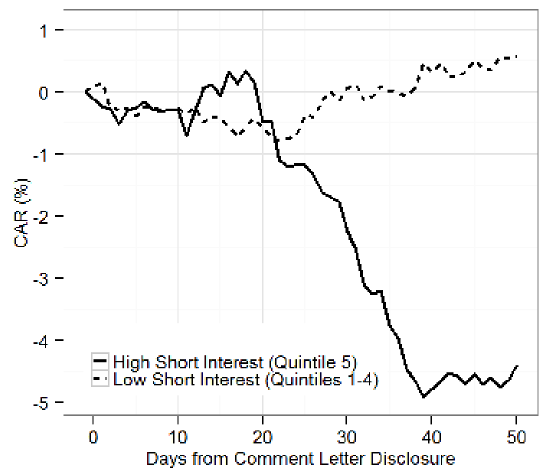
Cumulative Abnormal Returns Relative to Comment Letter Disclosure Date (2006-2012)

Panel A: CAR for Revenue Recognition Comment Letters Partitioned by Pre-Disclosure Insider Sales

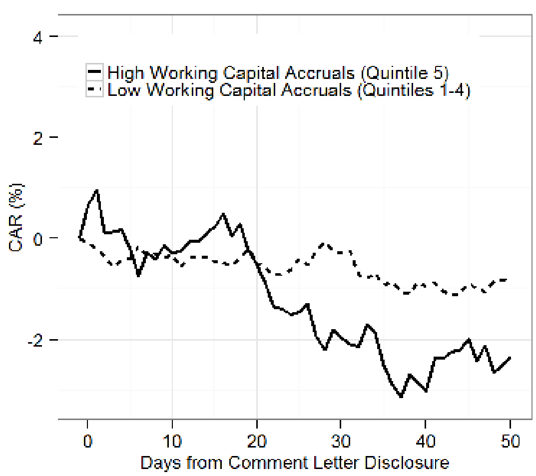


Pre-Disclosure Sales n=423
No Pre-Disclosure Sales n=876

Panel B: CAR for Revenue Recognition Comment Letters with Pre-Disclosure Insider Sales Partitioned by High Short Interest



Panel C: CAR for Revenue Recognition Comment Letters with Pre-Disclosure Insider Sales Partitioned by High Working-Capital Accruals

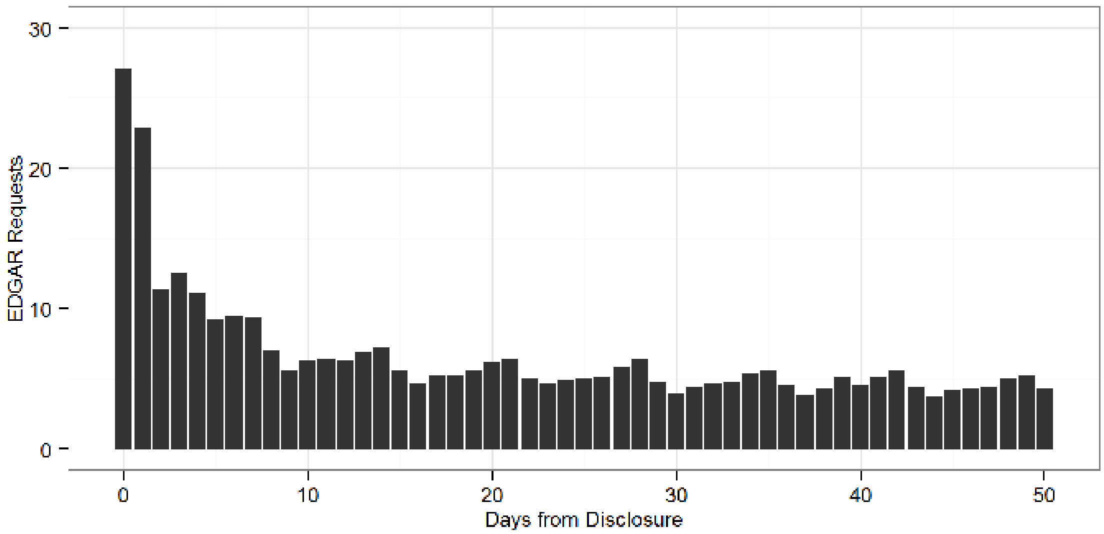


This figure presents cumulative abnormal returns for comment letter firms following the comment letter disclosure date. Panel A shows cumulative abnormal returns for Revenue Recognition Comment Letter firms partitioned on pre-disclosure insider sales. Panel B shows cumulative abnormal returns for Revenue Recognition Comment Letter firms with pre-disclosure sales partitioned on high short interest (top quintile). Panel C shows cumulative abnormal returns for Revenue Recognition Comment Letter Firms with pre-disclosure insider sales partitioned on high working-capital accruals (top quintile). Working-Capital Accruals is calculated as the change in working capital normalized by average total assets with all variables from Compustat (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities (DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT). Panel A shows that Revenue Recognition Comment Letter firms with pre-disclosure insider sales have a negative CARs in the 50 days following the comment letter disclosure of -80 basis points, whereas Revenue Recognition Comment Letter firms without pre-disclosure insider sales do not experience negative returns in the 50 days following the comment letter disclosure. Panel B highlights that revenue recognition firms with insider sales and high short interest (top quintile) have negative CARs in the 50 days following comment letter disclosure of -440 basis points, whereas revenue recognition firms with insider sales and low short interest (quintiles 1-4) do not experience negative returns in the 50 days following the comment letter disclosure. Panel C highlights that revenue recognition firms with insider sales and high working-capital accruals (top quintile) have negative CARs in the 50 days following comment letter disclosure of 209 basis points. CAR is calculated as the daily total return less the CRSP capitalization weighted market portfolio return.

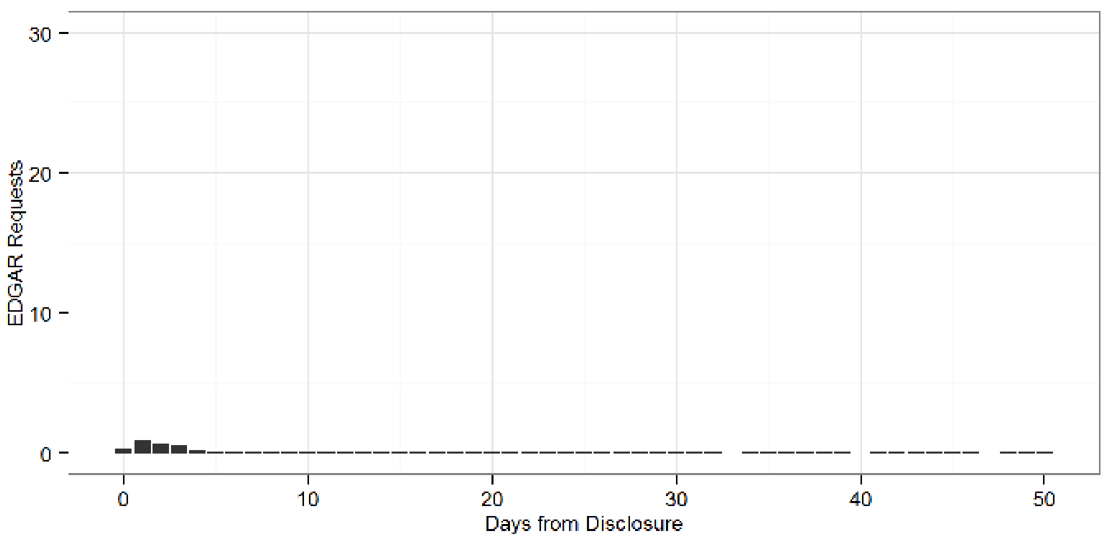
FIGURE 5

EDGAR Requests for Form 10-Ks and Comment Letters Relative to Disclosure Date (2006-2012)

Panel A: Mean EDGAR Requests for Form 10-Ks



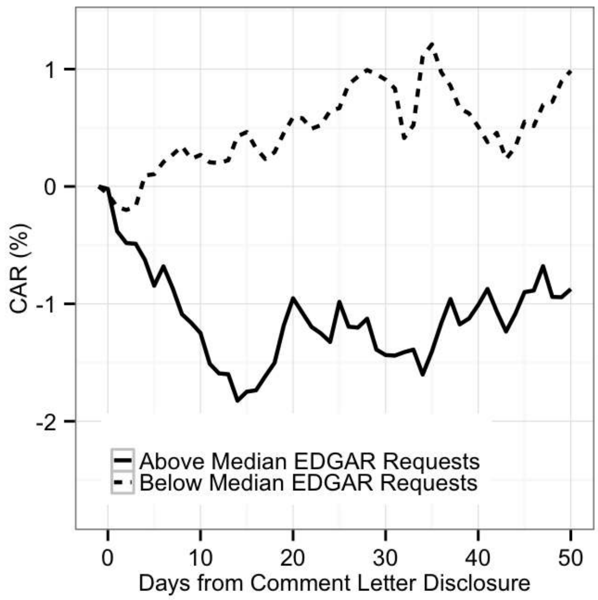
Panel B: Mean EDGAR Requests for Form UPLOADs



This figure illustrates the distribution of the mean daily EDGAR requests for the Form 10-Ks and comment letters (Form UPLOAD) for firms in our sample. The maximum number of EDGAR requests is a mean of 26.5 on the day of disclosure for 10-K filings, and 0.89 one day after disclosure for comment letter (Form UPLOAD) filings. Web traffic requesting SEC comment letters on the disclosure day and cumulatively over the 50 days following the comment letter disclosure is approximately 1.1 percent and 1.7 percent, respectively, of the web traffic requesting the 10-Ks following 10-K disclosures.

FIGURE 6

Cumulative Abnormal Returns for Revenue Recognition Comment Letter Firms
Partitioned by Median EDGAR Requests
(2006-2012)



This figure presents cumulative abnormal returns for Revenue Recognition Comment Letter firms following the comment letter disclosure date, partitioned by the median level of EDGAR "*UPLOAD*" file requests in the three days following the comment level disclosure. It highlights that there is a quick negative price drop in the first 15 days following the public disclosure of almost -200 basis points for comment letters with above-median EDGAR requests. The CARs for this sub-group level out at approximately -100 basis points by day +50. However, there is no evidence of a negative price drop for comment letters with below-median EDGAR requests, suggesting that these comment letters may not be sufficiently priced.

TABLE 1

Panel A: Comment Letter Sample Distribution

	1) Unique 10-K comment letter conversations		2) Subset of 1 with Thomson Reuters Insiders, CRSP, Compustat, and control period data		3) Subset of 2 with comment letter disclosure date within five business days of expected date.	
	All 10-K Related	Revenue Recognition	All 10-K Related	Revenue Recognition	All 10-K Related	Revenue Recognition
2006	2,045	1,173	1,275	382	57	16
2007	1,347	771	999	286	768	229
2008	1,671	635	1,187	260	1,014	233
2009	2,299	561	1,505	250	1,382	233
2010	2,666	529	1,603	233	1,428	207
2011	2,388	522	1,363	242	1,062	191
2012	2,354	594	1,407	257	1,017	190
Total	14,770	4,785	9,339	1,910	6,728	1,299

This table shows the sample formation and the disclosure-year distribution of comment letter conversations pertaining to Form 10-K filings. Comment letter conversations are a related series of SEC Division of Corporation Finance comment letters (Form "*UPLOAD*"s) and company response letters (Form "*CORRESP*"s). Subset 1 includes all unique conversations in Audit Analytics Comment Letter database for the years selected, with any duplicate conversations eliminated. Subset 2 includes all those conversations from Subset 1 that can be matched to both the Thomson Reuters Insiders database and the Compustat Fundamentals Annual database. Subset 3 is the final comment letter sample used in this analysis, where comment letters in Subset 2 are disclosed within five business days of the expected date. Prior to January 1, 2012, the expected disclosure date is the business day on or following 45 calendar days following review completion, and subsequent to January 1, 2012 the expected disclosure date is 20 business days following review completion. We note that the small sample size for 2006 is related to the backlog of comment letters being disclosed for the first time, which resulted in most comment letters not being disclosed within five days of the expected date.

TABLE 1

Panel B: Comment Letter Industry Distribution

	% Compu-stat	% Comment Letters	% Revenue Recognition within each Industry		% Compu-stat	% Comment Letters	% Revenue Recognition within each Industry
Agriculture	0.4	0.2	41.7	Machinery	2.5	2.8	18.2
Aircraft	0.4	0.6	22.5	Measuring and Control Equip	1.6	1.9	20.9
Apparel	0.9	1.2	11.9	Medical Equipment	3.0	2.9	29.5
Automobiles and Trucks	1.4	1.3	12.5	Mining	1.0	1.2	19.0
Banking	11.0	7.3	5.1	Other	5.0	4.1	6.5
Beer & Liquor	0.3	0.3	0.0	Personal Services	7.6	6.6	32.8
Business Services	4.5	4.9	19.1	Petroleum and Natural Gas	1.2	0.2	15.4
Business Supplies	0.8	1.0	4.4	Pharmaceutical Products	0.5	0.5	24.2
Candy & Soda	0.3	0.3	17.4	Precious Metals	1.2	0.7	16.7
Chemicals	2.0	2.3	15.9	Printing and Publishing	0.6	0.5	18.8
Coal	0.3	0.3	8.7	Real Estate	1.4	1.1	17.8
Communication	3.4	2.5	10.1	Recreation	3.7	4.8	21.5
Computer Hardware	1.5	2.2	36.0	Restaurants, Hotels, Motels	0.5	0.5	8.3
Computer Software	8.4	7.8	47.4	Retail	0.2	0.3	31.6
Construction	0.9	1.2	22.8	Rubber and Plastic Products	0.2	0.3	0.0
Construction Materials	1.3	1.6	14.2	Shipbuilding, Railroad Equip	1.2	1.2	11.1
Consumer Goods	1.1	1.3	21.2	Shipping Containers	0.2	0.2	0.0
Defense	0.2	0.3	23.5	Steel Works Etc.	0.1	0.1	0.0
Electrical Equipment	1.5	1.4	29.3	Textiles	1.7	8.2	8.9
Electronic Equipment	5.6	5.6	27.9	Tobacco Products	2.8	2.2	19.2
Entertainment	1.4	0.9	13.1	Trading	4.0	3.1	4.8
Fabricated Products	0.1	0.2	18.2	Transportation	2.8	2.8	23.1
Food Products	1.4	1.3	13.3	Utilities	2.5	2.8	18.2
Healthcare	1.4	1.6	19.0	Wholesale	1.6	1.9	20.9
Insurance	2.7	4.7	7.0				

This table illustrates the distribution of firms, comment letters, and revenue recognition comment letters by Fama-French 49-industry group. % Compustat is the percentage of firm-years in each group in Compustat for the years 2006-2012. % Comment Letters is the percentage of comment letters in each group in our sample (n = 6,728). % Revenue Recognition indicates the percentage of comment letters in the industry group that are coded as revenue recognition-related (the overall sample distribution of revenue recognition letters is 19.3%).

TABLE 2

Descriptive Statistics at the Comment Letter Level
(2006-2012)

	All 10-K Related Comment Letter Firms (n = 6,728 Unique Firms = 3,663)		All Revenue Recognition Comment Letter Firms (n = 1,299 Unique Firms = 1,095)		All Other 10-K Comment Letter Firms (n = 5,429 Unique Firms = 3,273)	
	Mean	Median	Mean	Median	Mean	Median
Insider sales, daily (basis points of shares outstanding)	0.1390	0	0.1497	0	0.1364	0
Insider sales, daily ($)	38,441	0	36,142	0	38,991	0
Total assets ($MM)	10,603	1,087	8,087	502	11,205	1,300
Revenues ($MM)	4,272	628	3,360	404	4,491	691
Market capitalization ($MM)	5,264	824	4,579	634	5,427	885
Book-to-market ratio	0.6743	0.5293	0.5541	0.4275	0.7031	0.5520
Earnings-to-price ratio	-0.0615	0.0426	-0.0614	0.0301	-0.0615	0.0453
CAR -30 to -1	0.0023	-0.0054	0.0021	-0.0039	0.0023	-0.0059
Short interest (% shares outstanding)	4.63	3.04	5.13	3.32	4.51	2.96
Working-Capital Accruals	0.0023	0.0015	0.0035	0.0033	0.0020	0.0008

This table presents the descriptive statistics, at the comment letter level, of the all 10-K comment letter firms in our sample, as well as the subsets of Revenue Recognition Comment Letter firms and All Other 10-K Comment Letter Firms, for the fiscal year prior to the comment letter disclosure date. *Insider sales* (% shares outstanding) is calculated as the daily shares sold, from Thomson Reuters' Insider database (*SHARES* where TRANCODE is "S"), by insiders, divided by the number of shares outstanding in CRSP (*SHROUT*) scaled as basis points of shares outstanding. Insiders are defined as sales by officers and directors from the Thomson Reuters insider database (ROLECODE of: "*CEO*", "*D*", "*O*", "*H*", "*DO*", "*OD*", "*VC*", "*OB*", "*OP*", "*OT*", "*CB*", "*AV*", "*CFO*", "*CI*", "*CO*", "*CT*", "*EVP*", "*OX*", "*P*", "*S*", "*SVP*", or "*VP*"). *Insider sales* ($) is calculated as the daily shares sold in dollars by insiders. *Total assets* is the prior fiscal year-end total asset value from Compustat (*AT*). *Total revenues* is the prior fiscal year revenues from Compustat (*SALE*). *Market capitalization* is the prior fiscal year-end market capitalization from Compustat (*CSHO* * *PRCC_F*). *Book-to-market* is the ratio at the comment letter disclosure date (Compustat *SEQ* / (CRSP *PRC* * CRSP *SHROUT / 1000*)). *Earnings to price ratio* is prior fiscal year end operating earnings divided by the market capitalization at the comment letter disclosure date ((Compustat *IB*) / (CRSP *PRC* * CRSP *SHROUT / 1000*)). *CAR -30 to -1* is calculated as the daily total return less the CRSP capitalization weighted market return, for the 30 days prior to the comment letter disclosure date. *Short interest*, as a percentage of shares outstanding, is calculated as the number of shares sold, at the last available measurement prior to the comment letter disclosure date, from Compustat short interest database, divided by shares outstanding from CRSP (*SHORT*/(*SHROUT**1000)*100%). *Working-Capital Accruals* is calculated as the change in working capital normalized by average total assets with all variables from Compustat (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities (DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT).

TABLE 3

Average Insider Sales (Scaled by Shares Outstanding) Per Day during the Comment Letter Review (2006-2012)

	Comment letter insider sales	Control period insider sales	Difference	% Diff.	t-stat	p-value
Panel A: Revenue Recognition Comment Letters (n=1,299)						
Correspondence Period Insider Sales						
Insider sales initial comment letter 0 to +5	0.184	0.156	0.027	17.4	1.21	0.114
Insider sales initial to completion date	0.157	0.168	-0.011	-6.5	-0.675	0.500
Pre-Disclosure Insider Sales						
Insider sales during days -30 to -21	0.165	0.167	(0.002)	(1.3)	(0.105)	0.542
Insider sales during days -20 to -11	0.176	0.156	0.020	12.9	0.960	0.168
Insider sales during days -10 to -6	0.204	0.170	0.034	19.8	1.099	0.136
Insider sales during days -5 to -1	**0.294**	**0.173**	**0.121**	**69.7**	**2.886**	**0.002**
Post-Disclosure Insider Sales						
Insider sales during days 0 to +5	0.204	0.156	0.048	30.4	1.510	0.065
Insider sales during days +6 to +10	0.293	0.141	0.153	108.4	3.460	0.000
Insider sales during days +11 to +20	0.221	0.137	0.084	61.0	3.422	0.000
Insider sales during days +21 to +30	0.202	0.160	0.042	26.1	1.790	0.037
Panel B: All Other 10-K Comment Letters (n=5,249)						
Correspondence Period Insider Sales						
Insider sales initial comment letter 0 to +5	0.138	0.131	0.007	5.0	0.520	0.603
Insider sales initial to completion date	0.126	0.125	0.001	0.6	0.084	0.933
Pre-Disclosure Insider Sales						
Insider sales during days -30 to -21	0.125	0.133	(0.009)	(6.4)	(0.942)	0.827
Insider sales during days -20 to -11	0.124	0.134	(0.010)	(7.3)	(1.052)	0.854
Insider sales during days -10 to -6	0.115	0.120	(0.006)	(4.6)	(0.466)	0.679
Insider sales during days -5 to -1	0.120	0.133	(0.012)	(9.3)	(1.092)	0.862
Post-Disclosure Insider Sales						
Insider sales during days 0 to +5	0.138	0.131	0.007	5.0	0.520	0.302
Insider sales during days +6 to +10	0.136	0.122	0.014	11.7	1.089	0.138
Insider sales during days +11 to +20	0.116	0.114	0.002	1.7	0.246	0.403
Insider sales during days +21 to +30	0.126	0.119	0.006	5.2	0.671	0.251

This table presents differences in insider sales between comment letter firms and control period observations for Revenue Recognition Comment Letters in Panel A and All Other Comment Letters in Panel B during the comment letter review. Insider sales are measured as the daily basis points of shares outstanding sold by insiders, with non-zero values winsorized at the 1% level (*SHARES* from Thomson Reuters insider database divided by *SHROUT* from CRSP). The t-tests reflect differences in mean daily insider sales, between comment letter firms and control period observations. Revenue Recognition Comment Letter firms have significantly greater sales in the -5 to -1 day period prior to the comment letter disclosure date than in control periods. Specifically, in Panel A, Revenue Recognition Comment Letter firms' insiders in the full sample sell 69.7 percent more stock in the five days prior to disclosure than the control period insider sales. In Panel B, All Other 10-K Comment Letters, there are no significant increases in insider sales in any period, at the 10% level. The t-tests are one-sided surrounding the first comment letter and disclosure dates, as we hypothesize that comment letter firm insiders will sell more stock than control firms prior to the comment letter disclosure. However, t-tests are two-sided for the correspondence period as it is possible that insiders may decrease their sales during the correspondence period because they wait until the review completion date to trade. Control period observations are comprised of 5 observations from the same firm with event dates selected randomly from 3 to 6 months before and after the comment letter disclosure.

TABLE 4

Average Insider Sales (Scaled by Shares Outstanding) Per Day during the Comment Letter Review Revenue Recognition Comment Letters: High Short Interest and High Working-Capital Accruals (2006-2012)

	Comment letter insider sales	Control period insider sales	Difference	% Diff.	t-stat	p-value
Panel A: High Short Interest Sample (n=293)						
Correspondence Period Insider Sales						
Insider sales initial comment letter 0 to +5	0.140	0.219	-0.078	-35.8	-1.81	0.965
Insider sales initial to completion date	0.220	0.206	0.014	6.6	0.371	0.711
Pre-Disclosure Insider Sales						
Insider sales during days -30 to -21	0.207	0.229	(0.022)	(9.7)	(0.453)	0.675
Insider sales during days -20 to -11	0.238	0.207	0.031	15.0	0.607	0.272
Insider sales during days -10 to -6	**0.427**	**0.206**	**0.221**	**107.4**	**2.383**	**0.009**
Insider sales during days -5 to -1	**0.595**	**0.198**	**0.397**	**200.5**	**2.905**	**0.002**
Post-Disclosure Insider Sales						
Insider sales during days 0 to +5	0.141	0.219	(0.078)	(35.7)	(1.399)	0.919
Insider sales during days +6 to +10	0.407	0.236	0.171	72.2	1.618	0.053
Insider sales during days +11 to +20	0.366	0.204	0.162	79.6	2.387	0.009
Insider sales during days +21 to +30	0.379	0.251	0.128	50.9	1.853	0.032
Number of observations	293					
Panel B: High Working-Capital Accruals (n=255)						
Correspondence Period Insider Sales						
Insider sales initial comment letter 0 to +5	0.232	0.154	0.078	50.3	1.184	0.118
Insider sales initial to completion date	0.167	0.191	-0.024	-12.5	-0.574	0.566
Pre-Disclosure Insider Sales						
Insider sales during days -30 to -21	0.123	0.197	-0.075	-37.8	-1.611	0.946
Insider sales during days -20 to -11	0.208	0.129	0.079	61.4	1.419	0.078
Insider sales during days -10 to -6	0.322	0.216	0.106	49.3	1.058	0.145
Insider sales during days -5 to -1	**0.478**	**0.271**	**0.207**	**76.5**	**1.502**	**0.067**
Post-Disclosure Insider Sales						
Insider sales during days 0 to +5	0.374	0.154	0.219	142.0	2.008	0.022
Insider sales during days +6 to +10	0.437	0.133	0.304	228.5	2.124	0.017
Insider sales during days +11 to +20	0.267	0.147	0.120	82.0	1.750	0.040
Insider sales during days +21 to +30	0.315	0.143	0.172	120.3	2.368	0.009
Number of observations	255					

This table presents differences in insider sales between comment letter firms and control period observations for two sub-samples of Revenue Recognition Comment Letters during the comment letter review. Panel A illustrates that for firms in the highest quintile of short interest prior to the comment letter disclosure, insiders have 200.5% greater sales in the -5 to -1 day period prior to the comment letter disclosure date than in control periods. Panel B illustrates that for revenue recognition firms in the highest quintile of working-capital accruals in 10-K period, insiders have 76.5% greater sales in the -5 to -1 day period prior to the comment letter disclosure date than in control periods. Insider sales are measured as the daily basis points of shares outstanding sold by insiders, with non-zero values winsorized at the 1% level (*SHARES* from Thomson Reuters insider database divided by *SHROUT* from

CRSP). Working-Capital Accruals is calculated as the change in working capital normalized by average total assets with all variables from Compustat (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities (DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT). The t-tests reflect differences in mean daily insider sales, as a percentage of shares outstanding, between comment letter firms and control period observations. The t-tests are one-sided surrounding the first comment letter and disclosure dates, as we hypothesize that comment letter firm insiders will sell more stock than control firms prior to the comment letter disclosure. However, t-tests are two-sided for the correspondence period as it is possible that insiders may decrease their sales during the correspondence period because they wait until the review completion date to trade. Control period observations are comprised of 5 observations from the same firm with event dates selected randomly from 3 to 6 months before and after the comment letter disclosure.

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TABLE 5

Regression of Pre-Disclosure Insider Sales on Comment Letter Type and Top Quintile of Short Interest (Standard Errors Reported in Parentheses, 2006-2012)

	Dependent variable:			
	Insider Sales (Basis Points of Shares Outstanding)			
	-5 to -1 Days (1)	-5 to -1 Days (2)	-5 to -1 Days (3)	-10 to -1 Days (4)
Revenue Recognition	0.1325***	0.1299***	0.0720*	0.045
	(0.0383)	(0.0383)	(0.0432)	(0.0286)
High Short Interest		0.1063***	0.0515	0.0349
		(0.0372)	(0.0417)	(0.0277)
Revenue Recognition * High Short Interest			0.2632***	0.2311***
			(0.0912)	(0.0605)
Control Variables:				
Normal Insider Sales	0.6994***	0.6928***	0.6912***	0.6854***
	(0.0350)	(0.0351)	(0.0351)	(0.0232)
Earnings to Price	0.0267**	0.0255**	0.0254**	0.0145*
	(0.0124)	(0.0124)	(0.0124)	(0.0082)
Book to Market	-0.0159*	-0.0151*	-0.0149*	-0.0087
	(0.0083)	(0.0083)	(0.0083)	(0.0055)
Log Total Assets	-0.0084	-0.0085	-0.0088	-0.0023
	(0.0074)	(0.0074)	(0.0073)	(0.0049)
Prior 30-day CAR	0.4940***	0.4943***	0.4939***	0.2943***
	(0.0901)	(0.0901)	(0.0900)	(0.0640)
Intercept	0.1018*	0.0816	0.0943*	0.0436
	(0.0564)	(0.0568)	(0.0570)	(0.0378)
Observations	6,728	6,728	6,728	6,728
Adjusted R^2	0.066	0.067	0.068	0.129

This table presents OLS regression results for insider sales in the periods from -5 days to -1 day before the comment letter disclosure date, and from -10 days to -1 day before the disclosure date. The dependent variable is *Insider Sales* measured as the daily basis points of shares outstanding sold by insiders, with non-zero values winsorized at the 1% level (*SHARES* from Thomson Reuters insider database divided by *SHROUT* from CRSP scaled as basis points of shares outstanding). The independent variables of interest are *High Short Interest* (is an indicator equaling "1" if in the top quintile of short interest immediately prior to the comment letter disclosure), Revenue Recognition (is an indicator equaling "1" if a Revenue Recognition Comment Letter), and the interaction between these two variables. *Working-Capital Accruals* is calculated as the change in working capital normalized by average total assets with all variables from Compustat (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities (DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT). Control variables are the *Normal Insider Sales* (mean daily sales for the comment letter's control period observations), *Earnings to Price* ratio, *Book to Market* ratio, *Log Total Assets*, and *Prior 30-day CAR*. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively, using two-tailed tests. Standard errors are reported in parentheses below the coefficients.

TABLE 6

Regression of Pre-Disclosure Insider Sales on Comment Letter Type and Top Quintile of Working-Capital Accruals (Standard Errors Reported in Parentheses, 2006-2012)

	Dependent variable:		
	Insider Sales (Basis Points of Shares Outstanding)		
	-5 to -1 Days (1)	-5 to -1 Days (2)	-10 to -1 Days (3)
Revenue Recognition	0.1481***	0.1172**	0.0769**
	(0.0450)	(0.0506)	(0.0329)
High Working-Capital Accruals	0.0973**	0.0618	0.0400
	(0.0475)	(0.0545)	(0.0354)
Revenue Recognition * High Working-Capital Accruals		0.1456	0.1322*
		(0.1095)	(0.0711)
Control Variables:			
Normal Insider Sales	0.7602***	0.7599***	0.7274***
	(0.0415)	(0.0415)	(0.0270)
Earnings to Price	0.0396**	0.0397**	0.0217*
	(0.0195)	(0.0195)	(0.0127)
Book to Market	-0.0212*	-0.0213*	(0.0119)
	(0.0115)	(0.0115)	(0.0075)
Log Total Assets	(0.0074)	(0.0079)	(0.0015)
	(0.0097)	(0.0097)	(0.0063)
Prior 30-day CAR	0.5599***	0.5642***	0.3193***
	(0.1095)	(0.1096)	(0.0761)
Intercept	0.0696	0.0800	0.0347
	(0.0736)	(0.0740)	(0.0481)
Observations	5,210	5,210	5,210
Adjusted R^2	0.072	0.072	0.133

This table presents OLS regression results for insider sales in the periods from -5 days to -1 day before the comment letter disclosure date, and from -10 days to -1 day before the disclosure date. The dependent variable is *Insider Sales* measured as the daily basis points of shares outstanding sold by insiders, with non-zero values winsorized at the 1% level (*SHARES* from Thomson Reuters insider database divided by *SHROUT* from CRSP scaled as basis points of shares outstanding). The independent variables of interest are *High Working-Capital Accruals* (is an indicator equaling "1" if in top quintile of working-capital accruals for the year of the 10-K relating to the comment letter), Revenue Recognition (is an indicator equaling "1" if a Revenue Recognition Comment Letter), and the interaction between these two variables. *Working-Capital Accruals* is calculated as the change in working capital normalized by average total assets with all variables from Compustat (((ΔCurrent Assets (ACT) - ΔCash and Short-Term Investments (CHE)) – (ΔCurrent Liabilities (LCT) - ΔDebt in Current Liabilities (DLC) - ΔTaxes Payable (TXP)))/Average Total Assets (AT). Control variables are the *Normal Insider Sales* (mean daily sales for the comment letter's control period observations), *Earnings to Price* ratio, *Book to Market* ratio*, Log Total Assets*, and *Prior 30-day CAR*. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively, using two-tailed tests. Standard errors are reported in parentheses below the coefficients.