SEC Comment Letters on Firms' Use of Non-GAAP Measures: The Determinants and Firms' Responses

Koren M. Jo
School of Accounting and Finance
Hong Kong Polytechnic University
koren.jo@polyu.edu.hk

Shuo Yang*
School of Accounting and Finance
Hong Kong Polytechnic University
shuo.s.yang@polyu.edu.hk

Accepted by *Accounting Horizons*

November 2019

We are grateful for the helpful comments from C.S. Agnes Cheng, Theodore Christensen, Enrique Gomez, Frank Heflin, Jeffrey Ng, Jasmine Wang. We also appreciate guidance received from Linda A. Myers (editor) and two anonymous reviewers. All errors are ours.

SEC Comment Letters on Firms' Use of Non-GAAP Measures:

The Determinants and Firms' Responses

ABSTRACT

This paper explores Securities and Exchange Commission comment letters that address firms' use of non-Generally Accepted Accounting Principles (GAAP) measures in 10-Ks, 10-Qs, and earnings releases. We investigate the determinants of firms' receiving non-GAAP comments and the revisions to non-GAAP reporting undertaken by these recipients. Firms that experience poor GAAP performance and emphasize non-GAAP measures are more likely to receive non-GAAP comments. Recipients of non-GAAP comments are more likely than other reviewed firms to abandon non-GAAP measures in future filings. When recipients of non-GAAP comments continue to report non-GAAP measures, they provide more justifications for the use and reduce the prominence of these measures. However, higher non-GAAP earnings and GAAP earnings differentials do not appear to attract non-GAAP comments. In addition, the amount of non-GAAP exclusions does not decrease after the receipt of non-GAAP comments. Overall, our findings suggest that non-GAAP comments are effective in deemphasizing non-GAAP measures.

Keywords: Comment Letter, Non-GAAP, Earnings Release

JEL: M41, M48

I. INTRODUCTION

This paper studies comment letters issued by the U.S. Securities and Exchange Commission (SEC) that address the use of financial measures not prepared under U.S. Generally Accepted Accounting Principles (i.e., non-GAAP measures) in firms' filings. The SEC periodically reviews firms' mandatory filings and may urge firms that use non-GAAP measures to mask poor GAAP performance to revise their non-GAAP reporting in post-comment letter filings. Firms respond to these questions until the SEC concludes the process. This paper explores the firm characteristics associated with the receipt of non-GAAP comments and whether recipients of these comments subsequently revise their non-GAAP reporting.

Capital market participants increasingly rely on non-GAAP measures, and non-GAAP earnings have displaced GAAP earnings as a primary determinant of stock prices (Bradshaw and Sloan 2002). Firms' use of non-GAAP measures is currently at a historical high (Black, Christensen, Ciesielski, and Whipple 2018a), spurring the SEC to update its Compliance and Disclosure Interpretations (C&DIs) on non-GAAP reporting in May 2016, October 2017, and again in April 2018.[1] The SEC has warned firms that non-GAAP measures are only a supplement to, not a substitute for, GAAP measures; the main regulatory requirement is that firms must reconcile their non-GAAP measures with the most directly comparable GAAP measures and present GAAP measures with equal or greater prominence.[2] In line with concerns raised by the SEC's former chairwoman, Mary Jo White—that non-GAAP measures may be "a source of confusion" (U.S. Chamber of Commerce 2016), an increasing number of comment letters

[1] C&DIs were first issued in January 2010. Of the recent updates, that in May 2016 was the most extensive. This update added four questions under "General," seven questions under "Item 10(e) of Regulation S-K," and one question under "EBIT and EBITDA." The two later updates together added four questions under "Business Combination Transactions" (SEC 2018).

[2] For example, if a firm places non-GAAP earnings per share (EPS) in the headline of an earnings release, GAAP EPS must also be present in the headline and must be mentioned before non-GAAP EPS.

address firms' use of non-GAAP measures (Wall Street Journal 2016a, 2016b). As a result, non-GAAP comments were the most common area of concern in 2017 (Audit Analytics 2017). However, it is unclear whether comment letters target non-GAAP measures that are most likely to be "a source of confusion" for investors, and whether these letters elicit changes in non-GAAP reporting.

We first investigate the determinants of a firm's receipt of a non-GAAP comment. Firms might use non-GAAP measures either benignly, i.e., to convey permanent news by excluding nonrecurring items (often expenses such as restructuring charges), or opportunistically, i.e., to provide more favorable performance measures that mask poor GAAP results. We predict that opportunistic use of non-GAAP measures is more likely to attract non-GAAP comments. Second, we examine firms' revisions to their non-GAAP reporting after receiving non-GAAP comments. If a firm believes that the cost of defending and revising non-GAAP measures exceeds the benefits of using them, it may stop using them. If a firm chooses to continue using non-GAAP measures, we expect that it will provide more justifications for using these measures while making them less prominent, as desired by the SEC. Moreover, if the targeted firm excessively excluded expense items when creating non-GAAP measures, the magnitude of these exclusions should decrease.

To test these hypotheses, we construct two samples of firm-quarters with non-GAAP measures reviewed by the SEC from 2004 through 2016: (1) a 10K-10Q sample, consisting of 5,958 10-Ks or 10-Qs that received comment letters, of which 1,615 contained non-GAAP comments and 4,343 did not, and (2) an earnings release sample, consisting of 604 earnings releases that received non-GAAP comments and 674 control earnings releases that did not. We use the letter receipt date to define the pre and post periods, and a difference-in-differences

(DID) methodology to test for changes to non-GAAP reporting made by recipients of non-GAAP comments.

We find that firms with poorer GAAP performance are more likely to receive non-GAAP comments. Firms that emphasize non-GAAP measures, either by placing non-GAAP earnings near the earnings release headline or showing a full non-GAAP income statement with non-GAAP measures as line items, are also more likely to receive non-GAAP comments. However, we do not find that larger dollar amount of excluded expenses and losses from GAAP earnings attracts non-GAAP comments. We also do not find situations most likely to change investors' perceptions of financial results, such as reporting GAAP losses (decreases) as non-GAAP earnings (increases), to be associated with the receipt of non-GAAP comments.

We find that non-GAAP comment recipients are more likely than firms receiving comments unrelated to non-GAAP reporting to abandon non-GAAP measures in post-letter filings. Within firms that continue using non-GAAP measures, DID tests suggest that commented firms significantly increase the level of textual details surrounding their non-GAAP metrics, as measured by the frequent use of the phrase "non-GAAP." Commented firms also distance non-GAAP earnings from the earnings release headlines and remove their non-GAAP income statements. However, the dollar amount of non-GAAP exclusions does not change significantly. Together, the results suggest that although non-GAAP comment recipients either abandon or deemphasize non-GAAP measures, they do not significantly change the calculation of non-GAAP earnings.

Our study contributes to two streams of research. The first investigates the effect of "one-size-fits-all" regulatory interventions on non-GAAP measures, such as the SEC's cautionary advice regarding the use of non-GAAP earnings in 2001 and the introduction of Reg G in 2003 (SEC 2001, 2003). Prior studies find that these regulations discouraged the use of non-GAAP earnings, reduced the emphasis on non-GAAP measures, and enhanced the quality of non-GAAP earnings exclusions (Bowen, Davis, and Matsumoto 2005; Marques 2006; Kolev, Marquardt, and McVay 2008). The regulations' effects appear to have been short-lived, however, given the recent resurgence of non-GAAP measures. Our paper complements these studies by examining non-GAAP comment letters, which are customized interventions for individual firms. Because non-GAAP measures can be used for both benign and opportunistic purposes, the SEC and other interested parties can identify firms using opportunistic non-GAAP measures without interfering with firms using benign non-GAAP measures.

The second stream of research explores the effects of comment letters on firms' disclosures and corporate decisions. Upon receiving comment letters, firms enhance the quality of their disclosures and consequently improve the information environment (Bens, Cheng, and Neamtiu 2016; Bozanic, Dietrich, and Johnson 2017; Johnston and Petacchi 2017). Comment letters also curb firms' tax avoidance activities (Kubick, Lynch, Mayberry, and Omer 2016) and affect firms' initial public offering (IPO) pricing (Li and Liu 2017). In contrast to this prior research, our paper examines a specific type of comments directed at financial result disclosures.[3]

[3] To the best of our knowledge, the only paper to date that also examines comment letters on non-GAAP measures is Gomez, Heflin, and Wang (2018). Our paper differs from research by Gomez et al. (2018) in two major ways. First, we examine comment letters on 10-Ks, 10-Qs, and earnings releases, whereas Gomez et al. (2018) mostly focus on earnings releases containing non-GAAP income statements. We hand-collect non-GAAP earnings and textual characteristics from earnings releases whereas Gomez et al. (2018) largely rely on I/B/E/S for non-GAAP reporting. Second, we study the determinants of and firms' responses to receiving non-GAAP comments, whereas Gomez et al. (2018) explore the market-based consequences of receiving non-GAAP comments.

Our findings can be of interest to firms that report non-GAAP measures as alternative financial performance metrics. Given that addressing concerns raised by comment letters can be costly, management will benefit from conforming closely to the SEC's rules on non-GAAP reporting and paying attention to examples in C&DIs that are continuously updated. Specifically, non-GAAP disclosures should be clearly identified as secondary to the corresponding GAAP measures. Our findings could also be informative to regulators in identifying firms that devise non-GAAP measures to mitigate poor financial results.

The remainder of the paper is organized as follows. Section 2 introduces the institutional background of the SEC's review process and develops our hypotheses. Section 3 details our research design and sample selection, and Section 4 presents the main results. Section 5 concludes.

II. INSTITUTIONAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

Institutional background

As dictated by the Sarbanes-Oxley Act of 2002, the SEC reviews individual public issuers' mandatory filings at least once every three years. The SEC examines a firm's filings and issues a letter that references filings with disclosure deficiencies, and provides specific comments. The firm answers the comments in a response letter to the SEC, and this conversation continues until the SEC issues a "no further comment" letter. The conversation between the SEC and the firm is released to the public only after the completion of the review process. Since January 1, 2012, these conversations have been released on the SEC's Electronic Data Gathering, Analysis, and Retrieval system (EDGAR) no earlier than 20 calendar days after the completion of the review.[4] The letters from the SEC are filed under "UPLOAD," and the response letters from the firm are filed under "CORRESP." The letters within a conversation are not filed on EDGAR in a single concentrated block. Instead, the filings are ordered according to the filing date (loosely, the letter issuance date) rather than the release date. As a result, the letters are scattered on EDGAR and costly for investors to piece together (Ryans 2019). The only way that outsiders can learn of the existence of a review is when comment letters are released on EDGAR.[5] Importantly, the SEC can review a firm's filings without issuing a comment letter.

Procedure-wise, a review process that generates comments on non-GAAP measures is no different from any other review process, except that only firms using and discussing non-GAAP measures in their filings can receive non-GAAP comments. Because non-GAAP measures are primarily used as financial performance metrics, non-GAAP comments are usually directed at filings such as earnings releases (filed as 8-Ks), 10-Qs, and 10-Ks. In terms of a timeline, a firm first announces its quarterly earnings and files its earnings press release containing brief financial metrics as an 8-K, and subsequently files a 10-Q (for a non-fourth quarter) or a 10-K (for a fourth quarter) containing formal financial statements. Next, the SEC reviews and comments on the 8-K, 10-Q, 10-K, or both, and finally all of the comment letters are released together after the review is complete.[6]

[4] The release date was "no earlier than 45 calendar days after the completion of the review" between May 12, 2005 and 2011.

[5] In Audit Analytics, LDATE_EXT_DATETEXT_MNL is the date that appears on the letter and FILE_DATE is the filing date on EDGAR. Although in 90 percent of the letters, LDATE_EXT_DATETEXT_MNL and FILE_DATE are within two days of each other, FILE_DATE is occasionally before LDATE_EXT_DATETEXT_MNL for an unknown reason. We use LDATE_EXT_DATETEXT_MNL as the letter receipt date in this paper. The release date of a conversation is FILE_DIS_DATE, and all of the letters within the same conversation have the same FILE_DIS_DATE.

[6] Some small, less visible firms might not make earnings releases, so the filing of 10-Qs and 10-Ks will also be these firms' earnings announcements.

Hypothesis development

Determinants of receiving non-GAAP comments

Firms can use non-GAAP measures either to help or to mislead investors. By excluding nonrecurring items (e.g., restructuring charges), managers claim that non-GAAP measures "give management and investors a better understanding of the underlying operational results and trends" (ABM Industries 2016), and some studies support this "permanent news view" of non-GAAP measures (e.g., Lougee and Marquardt 2004; Black et al. 2018a). However, the "permanent news view" is challenged by other findings. For example, managers predominantly exclude expenses and losses, rather than gains, from non-GAAP measures (Bradshaw and Sloan 2002; Curtis, McVay, and Whipple 2013), and some of these exclusions are neither transitory nor unimportant (Doyle, Lundholm, and Soliman 2003). The "impression management view" of non-GAAP measures posits that managers opportunistically construct and emphasize these measures to present more favorable financial results than what GAAP measures suggest. By reviewing individual firms, the SEC can potentially disentangle non-GAAP measures that are prepared to convey permanent news from those that intend to mask poor GAAP results.

Given their asymmetrical incentives to avoid reporting bad news, managers tend to inflate disappointing GAAP results via accruals or real activities (Burgstahler and Dichev 1997; Roychowdhury 2006). When unable to engage in accruals management or real earnings management, managers resort to reporting non-GAAP earnings (Black, Christensen, Ciesielski, and Whipple 2018b). Therefore, the incentives behind reporting non-GAAP measures are more likely to be strategic when GAAP measures are poor.

According to the SEC's former chief accountant, James Schnurr, the agency is most concerned about two aspects of non-GAAP measures—the extent and nature of non-GAAP exclusions and the prominence of non-GAAP measures (SEC 2016). Both aspects speak to the incentives behind the use of non-GAAP measures. If non-GAAP measures exclude a larger dollar amount of expenses or recurring expenses (e.g., stock option expenses), they will appear more favorable than GAAP measures. A more prominent presentation of non-GAAP measures allows managers to emphasize their own narrative rather than GAAP results, and managers tend to highlight the most favorable measures (Bowen et al. 2005). We posit that the strategic use of non-GAAP measures (including poor GAAP performance, higher non-GAAP exclusions, and prominent presentation of non-GAAP measures) may attract the SEC's attention. Therefore, our first alternative hypothesis is:

H1: Incentives to use non-GAAP measures strategically are positively associated with the likelihood of receiving non-GAAP comments.

Revised non-GAAP reporting

Following regulatory intervention, firms with compliance costs that exceed compliance benefits may adopt new practices to avoid being regulated (Engel, Hayes, and Wang 2007). In the current context, receiving a non-GAAP comment might deter firms from using non-GAAP measures. Marques (2006) finds that after the SEC issued cautionary advice in 2001, firms' use of non-earnings non-GAAP measures declined, and that the use of non-GAAP earnings declined after the introduction of Reg G. Heflin and Hsu (2008) find that Reg G discouraged the use of non-GAAP earnings by firms trying to improve investor impressions of financial performance and also by firms seeking to convey permanent earnings. Similarly, we expect that firms receiving non-GAAP comments from the SEC might preempt the future receipt of similar comments by abandoning non-GAAP measures.

We also posit that firms that continue to disclose non-GAAP measures will try to comply with the comments and adhere more closely to regulations (e.g., Reg G and item 10 of Reg S-K) in future filings. For example, a firm that excludes recurring items should disclose how its management uses non-GAAP measures, the economic substance behind these measures, the material limitations of these measures, how its managers compensate for these limitations, and the usefulness of its non-GAAP measures (SEC 2003). Bozanic et al. (2017) show that following the receipt of a 10-K comment letter, firms enhance their 10-K disclosures (as measured by textual characteristics such as length, readability, and tone). Conditional on the continued use of non-GAAP measures, we expect firms to provide more textual justifications for their non-GAAP measures. Reg S-K demands that firms present GAAP measures with prominence equal to or greater than the corresponding non-GAAP measures, and following this requirement more closely will reduce the prominence of non-GAAP measures. Firms may also deemphasize non-GAAP measures to make them less conspicuous to the SEC. Finally, we predict that firms will be more conservative in making non-GAAP exclusions. This leads to our additional alternative hypotheses:

H2a: Firms that receive non-GAAP comments are more likely than other reviewed firms to discontinue using non-GAAP measures.

H2b: Conditional on the continued use of non-GAAP measures, firms that receive non-GAAP comments will

i. provide more justifications for using non-GAAP measures;

ii. *decrease the prominence of non-GAAP measures; and*

iii. *reduce the dollar amount of non-GAAP exclusions.*

III. RESEARCH DESIGN AND SAMPLE SELECTION

Research design

Determinants of receiving non-GAAP comments

To test H1, we estimate the logit model in equation (1). This model addresses determinants of the likelihood of receiving non-GAAP comments:

$$NGComm = \beta_0 + \beta_1 Incentives + Controls + IndustryFEs + YearFEs + \varepsilon. \quad (1)$$

NGComm is an indicator variable that equals 1 for reviewed firm-quarters that receive non-GAAP comments and 0 for reviewed firm-quarters that receive comments unrelated to non-GAAP measures. We use a variety of proxies for *Incentives* to measure firms' strategic incentives to use non-GAAP measures to give the impression of better financial results. Our first two proxies are the indicator variables *GLoss* and *GDecrease*, which represent GAAP losses and GAAP earnings decreases, because managers are more likely to use non-GAAP measures strategically when GAAP measures underperform (Lougee and Marquardt 2004). Our third proxy is *NGExcl* (non-GAAP exclusions), which is calculated as non-GAAP EPS minus GAAP EPS, scaled by quarter-end stock price. A positive, higher value of *NGExcl* indicates more aggressive exclusions of expenses from GAAP earnings. Our fourth proxy is *NGHighlight*, which equals 1 if non-GAAP earnings are presented in a prominent position in an earnings release (including the headline, sub-headline, bullet point, or table preceding or inside of the leading paragraph), and 0 otherwise. Our last proxy is *NGIncomeStat*, which indicates the use of a full non-GAAP income statement. *NGIncomeStat* suggests that a firm not only has many non-GAAP measures, but also presents them in a format usually reserved for an official GAAP income statement. *NGExcl*, *NGHightlight*, and *NGIncomeStat* directly reflect the two aspects of non-GAAP measures emphasized by the SEC's former chief accountant—exclusions and prominence. We also create three indicators that can be used in place of *NGExcl* to more explicitly measure the embellishment of financial results. *NGEnhance* is equal to 1 if non-GAAP EPS exceeds GAAP EPS, and 0 otherwise. *NGTurnPositive* is equal to 1 if firms report GAAP losses but non-GAAP earnings (i.e., flip losses into earnings), and 0 otherwise. *NGTurnIncrease* equals to 1 if firms report a decrease in GAAP earnings, but an increase in non-GAAP earnings (i.e., flip decreased earnings into increased earnings), and 0 otherwise. We expect β_1 to be positive.

Controls denote control variables that may affect the likelihood of firms' receiving non-GAAP comments. To measure the extent of non-GAAP discussions for a given filing, we include *NGPerc*, which is the number of times "non-GAAP" appears in a filing divided by the filing's word count. We follow Cassell, Dreher, and Myers (2013) for the other control variables, including *MaterialWeak*, *Restate*, *Volatility*, *LnMarketCap*, *CompanyAge*, *Leverage*, *SalesGrowth*, *BM*, *NegEquity*, *BusSegments*, *GeoSegments*, *M&A*, *Restructuring*, *ExtFinancing*, *Litigation*, *Big4*, *Second-Tier*, *AudTenure*, *AudResigned*, and *AudDismissed*. Appendix provides detailed variable definitions. We include year fixed effects and two-digit Standard Industrial Classification (SIC) code industry fixed effects, and we cluster standard errors at the firm level.

Revised non-GAAP reporting

To test H2a, we use the first filing after a firm receives a comment letter (i.e., *Post* = 1) to examine whether the firm continues to report non-GAAP measures. The logit model is as follows:

$$NGStop = \alpha_0 + \alpha_1 NGComm + \alpha_2 NGPerc\_Lag + Controls + IndustryFEs + YearFEs + \varepsilon. \quad (2)$$

NGStop is equal to 1 if the filing in the post period no longer reports non-GAAP measures. For 10-Ks or 10-Qs, we set *NGStop* to 1 if the filings do not contain the phrase "non-GAAP," and for earnings releases, we manually verify whether they still contain non-GAAP measures. *NGComm* is equal to 1 if the firm's reviewed filing in the pre period receives a non-GAAP comment, and 0 otherwise. Non-GAAP reporting, like any disclosure policy, can be sticky, and firms that use non-GAAP measures extensively in the pre period are unlikely to give them up. We include *NGPerc_Lag*, which is *NGPerc* (number of times "non-GAAP" appears in a filing divided by the filing's word count) for the reviewed filing in the pre period. *Controls* are the same as in model (1), with the addition of *GLoss* and *GDecrease* as control variables for performance. We expect α_1 to be positive.

To test H2b, we estimate model (3) to examine changes in the characteristics of non-GAAP reporting, conditional on firms' continued use of non-GAAP measures. The sample includes reviewed firms that receive non-GAAP comments (treatment group, or *NGComm* = 1) and reviewed firms that do not receive non-GAAP comments (control group, or *NGComm* = 0) as well as the first filings that are filed after the letter receipt date (post period, or *Post* = 1) for the treatment and control groups. We estimate an ordinary least squares (OLS) model when the dependent variable is continuous and a logit model when the dependent variable is an indicator. The DID equation is as follows:

$$NGReport = \delta_0 + \delta_1 NGComm \times Post + \delta_2 NGComm + \delta_3 Post + Controls$$
$$+IndustryFEs + YearFEs + \varepsilon. \tag{3}$$

NGReport represents one of the three aspects of non-GAAP reporting—justifications for using non-GAAP measures, proxied by *NGPerc*; the prominence of non-GAAP measures, proxied by *NGHighlight* and *NGIncomeStat*; and non-GAAP exclusions, proxied by *NGExcl*. When firms enhance their discussion of non-GAAP measures, the phrase "non-GAAP" will appear more frequently relative to the length of the filing, resulting in a higher *NGPerc* value. We expect firms to demote non-GAAP earnings after receiving *NGComm*, which leads to a decrease in *NGHighlight*. We expect *NGIncomeStat* to decrease, either because the SEC has directly challenged the format or because management has witnessed other firms' non-GAAP income statements receiving comments. Finally, we expect *NGExcl* to decrease. *Controls* are the same variables as in model (1), with the addition of *GLoss* and *GDecrease.* We expect δ_1 to be positive when the dependent variable is *NGPerc* and negative when the dependent variable is *NGHighlight*, *NGIncomeStat*, or *NGExcl*.[7]

Sample selection

[7] With a DID design, the treatment and control groups' dependent variables are generally evaluated prior to the treatment effect for the parallel trends. We do not check the parallel trend assumption due to the large volume of hand-collected data needed, and therefore leave it to future research to examine whether recipients of non-GAAP comments indeed reduce their non-GAAP exclusions and deemphasize their non-GAAP measures even before they receive non-GAAP comments.

Non-GAAP comment letters in Audit Analytics

We retrieve comment letters from Audit Analytics from the beginning of 2004 through July 2016, and use the topic key 813 (i.e., non-GAAP measures) to identify non-GAAP comment letters.[8] Notably, Audit Analytics does not link the comments with the filings that receive them. When multiple filings are reviewed in a single letter that contains non-GAAP comments, it is unclear which filing has prompted the non-GAAP comments.[9]

10K-10Q sample

Because the SEC predominantly comments on 10-Ks and 10-Qs (Dechow, Lawrence, and Ryans 2016), we first construct a 10K-10Q sample with 10-Ks and 10-Qs referenced by non-GAAP comment letters (letters with the topic key 813), and use 10-Ks and 10-Qs referenced by other comment letters (letters without the topic key 813) as a control group. Because only firms that use non-GAAP measures can receive non-GAAP comments, we need to restrict the sample to non-GAAP users. We assume that a filing discusses at least one non-GAAP measure if it includes the phrase "non-GAAP." We start with 10-Ks and 10-Qs that contain the phrase "non-GAAP" and are referenced in comment letters in the overlapping universe of Audit Analytics and COMPUSTAT. The sample includes 5,958 reviewed firm-quarters, of which 1,615 have received a non-GAAP comment (*NGComm* = 1).

We define the first 10-K or 10-Q filed after the letter receipt date (LDATE_EXT_DATETEXT_MNL) as the post period (*Post* = 1). When a single comment letter

[8] Audit Analytics has 14 other keys related to non-GAAP measures (688, 734, 762, 888, 889, 890, 891, 1728, 1729, 1730, 2273, 2630, 2732, and 3465) but these are used in conjunction with 813, making key 813 alone sufficient.
[9] For example, Core Laboratories received a comment letter on July 11, 2011 that referenced one 10-K and one 8-K. The letter included 14 comments on the 10-K that were unrelated to non-GAAP measures and one comment on one non-GAAP measure in the earnings release attached to the 8-K. Manual inspection is required to identify the filing targeted by the non-GAAP comment.

references multiple quarters, these treatment firm-quarters are assigned the same post period quarter. We find 4,428 firm-quarters in the post period, of which 3,524 continue to use non-GAAP measures (i.e., the filings still contain "non-GAAP"). The DID sample consisting of only non-GAAP users, therefore, includes 9,482 (5,958+3,524) unique firm-quarters.

Our 10K-10Q sample has several limitations. First, if a 10-K or 10-Q is referenced in a non-GAAP comment letter, it does not necessarily receive a non-GAAP comment if the letter also references other filings. An intensive manual check is needed to reestablish the link between filings and non-GAAP comments.[10] Second, we cannot be certain that a 10-K or 10-Q reports non-GAAP measures. Relying on the phrase "non-GAAP" to identify non-GAAP users may introduce both false positives and false negatives. Third, most of our variables related to non-GAAP measures require extensive hand-collection, which is impractical for the 10K-10Q sample.

Earnings release sample

We also construct a hand-collected sample of earnings releases whose non-GAAP measures have verifiably received comments from the SEC. Earnings announcements occur before the filing of 10-Ks or 10-Qs, and non-GAAP measures in earnings releases impact stock prices (Bradshaw and Sloan 2002). Therefore, studying non-GAAP comment letters that target

[10] Empirically, the issue is not overly problematic if the 10-K or 10-Q and other filings referenced in the same letter represent the same firm-quarter because most of the variables used in our analyses are at the firm-quarter level and not the filing-level. For example, if a 10-Q and an earnings release for the same quarter are referenced in a non-GAAP comment letter and only the earnings release receives non-GAAP comments, then the 10-Q still identifies the correct firm-quarter.

earnings releases is particularly relevant. Following prior literature, we focus on non-GAAP earnings and do not examine other non-GAAP measures.

We start with non-GAAP comment letters that reference at least one 8-K filing in the overlapping universe between Audit Analytics and COMPUSTAT.[11] We manually read the letters and the 8-Ks to ensure that: (1) the 8-Ks are earnings releases; (2) non-GAAP earnings are present in those earnings releases; and (3) non-GAAP comments relate to non-GAAP earnings.[12]

We further require that the treatment firm-quarters (earnings releases) receiving non-GAAP comments have control firm-quarters (earnings releases). A matched control group based on size and industry is essential because these are important determinants of the SEC's review choices (Cassell et al. 2013). Moreover, there is also an empirical reason for selecting a control group. Because many test variables in the earnings release sample are manually coded, it is infeasible to read all of the reviewed earnings releases that do not receive non-GAAP comments; a control group helps to narrow the scope. To find control firm-quarters, we first gather a pool of potential control firm-quarters whose 10-Ks or 10-Qs receive comments but whose earnings releases do not. We assume that if a firm's 10-Q or 10-K is reviewed, that quarter's earnings release is also reviewed.[13] We then match the treatment firm-quarters to the potential pool of

[11] We do not restrict our tests to the first letter in each conversation because we note that in follow-up letters, the SEC sometimes comments on earnings releases that are not initially referenced. Moreover, we correct six mistakes in Audit Analytics: for the following CL_LETTER_FTPFILEKEY ("edgar/data/7536/0000000000-07-052941.txt," "edgar/data/96943/0000000000-13-066428.txt," "edgar/data/796343/0000000000-06-022693.txt," "edgar/data/1058290/0000000000-06-036803.txt," "edgar/data/1031283/0000000000-06-017629.txt," and "edgar/data/1031283/0000000000-06-021842.txt."), the database attaches incorrect links to 8-K filings other than those referenced in the comment letters.

[12] Sometimes the SEC makes blanket comments that apply to all of the non-GAAP measures, including non-GAAP earnings, and sometimes the SEC makes specific comments on non-GAAP earnings. Both types of letters are present in the sample. We exclude non-GAAP comment letters that only target non-earnings non-GAAP measures.

[13] We thank an anonymous reviewer for suggesting the control group selection. Ideally, the control sample should be the earnings releases that report non-GAAP measures but receive comments unrelated to them. However, such earnings releases are extremely rare. That is, if an earnings release reports non-GAAP measures and also receives

control firm-quarters matching on four-digit SIC code industry and size (within 90 percent and 110 percent of the treatment firms' market capitalization). If no match is found, we relax the industry definition to a three-digit, two-digit, or one-digit SIC code, sequentially. If there is still no match, we drop the industry matching criterion and match only on the basis of size. Finally, we relax the size matching criterion to 50 percent and 150 percent. We remove 11 treatment firm-quarters that cannot be matched to other reviewed firm-quarters even by the least restrictive criteria. After discarding the matched earnings releases without non-GAAP earnings, we have 604 treatment firm-quarters and 674 control firm-quarters.[14]

To identify firm-quarters after the receipt of a non-GAAP comment (*Post* = 1), we retrieve the first earnings releases announced after the letter receipt date (LDATE_EXT_DATETEXT_MNL) for both the treatment and control groups. The control group takes the treatment group's letter receipt date as a pseudo date. We find 510 (628) firm-quarters in the post period for the treatment (control) group, of which 433 (542) continue to report non-GAAP earnings. Consequently, the DID sample containing non-GAAP earnings

comments, the comments almost always include non-GAAP comments. An earnings release that receives comments unrelated to non-GAAP measures usually does not report non-GAAP measures in the first place. In prior versions of this paper, we used earnings releases that contain non-GAAP earnings but do not receive comments (i.e., without the condition of being reviewed) as a control group; the results are qualitatively similar.

[14] We keep all control firm-quarters that satisfy our matching criteria (i.e., size and industry) without requiring one-to-one correspondence between treatment and control firm-quarters, resulting in a higher number of control firm-quarters than that of treatment firm-quarters.

includes 2,253 (604+674+433+542) unique firm-quarters.[15] We collect non-GAAP EPS and GAAP EPS from the earnings releases.[16]

IV. EMPIRICAL RESULTS

Descriptive statistics

We present descriptive statistics on SEC comment letters for the overlapping universe between Audit Analytics and COMPUSTAT. As shown in Table 1, there are 47,133 letters from the beginning of 2004 through July 2016, of which 4,496 (or 10 percent) are non-GAAP comment letters. We categorize the letters according to the filing types referenced—10-Ks and/or 10-Qs plus 8-Ks; 10-Ks and/or 10-Qs, but not 8-Ks; 8-Ks, but neither 10-Ks nor 10-Qs; and other filings. Non-GAAP comment letters are most common when the review process addresses 10-Ks and/or 10-Qs as well as 8-Ks: 63 percent of these reviews generate non-GAAP comments, although this type of review is infrequent (1,661 of 47,133 letters, or 3.5 percent). Far more letters reference 10-Ks and/or 10-Qs without 8-Ks, of which 11 percent contain non-GAAP comments. The much lower percentage in column [i] than in column [f] suggests that 8-Ks, which include earnings releases, are a major target of non-GAAP comments. However, column [l] indicates that non-GAAP comments are rare when the review references 8-Ks, but not 10-Ks

[15] To utilize as many observations as possible, we do not require the sample to be a balanced panel. Multiple firm-quarters in the pre period can be linked to the same firm-quarter in the post period, if these firm-quarters are commented on in the same letter; a firm-quarter in the pre period may not have a corresponding firm-quarter in the post period or vice versa due to missing values. To alleviate concerns about an unbalanced panel, we also create a balanced panel where we force one firm-quarter in the pre period to be linked to one firm-quarter in the post period and neither can have missing values. If multiple firm-quarters in the pre period are linked to the same firm-quarter in the post period, we only retain the latest firm-quarter in the pre period. Using the balanced 10K-10Q sample with 6,392 observations (875 treatment firms*2+2,591 control firms*2) and the balanced earnings release sample with 1,860 observations (432 treatment firms*2+498 control firms*2), we repeat the DID tests in Table 4 and find very similar inferences.

[16] GAAP EPS is the measure which non-GAAP EPS is reconciled to and can be either bottom-line EPS (EPSFIQ) or EPS from continuing operations (EPSFXQ). Using EPSFIQ or EPSFXQ universally as GAAP EPS does not change the inferences.

or 10-Qs. The last three columns show that 1,300 non-GAAP comment letters comment on filings other than 10-Ks, 10-Qs, or 8-Ks. Most of these filings are S-1s (IPO prospectuses), 20-Fs, or 6-Fs (which are equivalent to 10-Ks and 8-Ks for foreign registrants).

[Insert Table 1]

To obtain an in-depth understanding of the SEC's comments on firms' non-GAAP measures, we manually code non-GAAP comments for our earnings release sample and present the most common categories in Table 2.[17] One letter can have multiple comment categories. We provide sample comments in the last column to explain our classifications. The most common type of comment concerns firms' use of non-GAAP income statements; 312 of the 573 non-GAAP comment letters contain this comment. The SEC believes that this format unduly elevates the status of non-GAAP measures to that of GAAP. The second most common type of comment concerns non-GAAP exclusions, followed by comments that firms present non-GAAP measures more prominently than GAAP measures.

[Insert Table 2]

Table 3 presents descriptive statistics for the 10K-10Q and earnings release samples and compares the mean and median values for the treatment group (*NGComm* = 1) with those for the control group (*NGComm* = 0). The variables starting with "NG" (except *NGPerc*) are hand-

[17] We choose to manually code non-GAAP comments instead of relying on the topic keys in Audit Analytics for two reasons. First, the topic keys in Audit Analytics are too broad and are not informative about the details of the comments. Second, we are unclear how Audit Analytics applies the topic keys. For example, key 1728 is "Regulation S-K, Item 10(e)(1)(i)(A). Present the most directly comparable GAAP measure, with equal or greater prominence." According to our reading, 312 letters challenge the use of non-GAAP income statements on the ground that the format gives non-GAAP measures undue prominence. However, only 12 of these 312 letters have key 1728. We find that key 813 is often the only topic key Audit Analytics assigns to non-GAAP comment letters. Although the self-coded categories largely depend on our judgment, we believe that at least some of the comments can be reasonably classified. We omit less frequent comments.

collected and only available for the earnings release sample. Surprisingly, *NGExcl* has a significantly lower mean for the treatment group than for the control group. *NGEnhance*, *NGTurnPositive*, *NGTurnIncrease*, and *NGHighlight* are statistically similar between the treatment and control groups. Whereas half of the treatment firms have *NGIncomeStat*, only 13.4 percent of the control firms use this format (a significant difference at the 1 percent level). For the 10K-10Q sample, *GLoss* and *GDecrease* are significantly higher for the treatment group than for the control group, but for the earnings release sample, neither *GLoss* nor *GDecrease* is significantly higher for the treatment group than for the control group. For both samples, *NGPerc* is significantly higher among the treatment firms than the control firms, but *Big4* (*Second-Tier*) is significantly lower (higher) for the treatment group than the control group. *BM*, *SalesGrowth*, *LnMarketCap*, and *CompanyAge* suggest that the treatment group is faster growing, smaller, and younger than the control group. Finally, *NGStop* is significantly higher for the treatment group than the control group.

[Insert Table 3]

Regression results for the determinants of receiving non-GAAP comments

Table 4 reports the results from estimating Equation (1) to test for determinants of receiving non-GAAP comments for the 10K-10Q and earnings release samples, and presents marginal effects at the means as coefficients. Column (1) reports the results for the 10K-10Q sample. *GDecrease* is significantly positive at the 5 percent level and *NGPerc* is significantly positive at the 1 percent level, whereas none of the other variables are significant. This result partially supports our hypothesis that firms with diminishing GAAP performance are more likely to attract the SEC's attention. Filings mentioning "non-GAAP" frequently are also more likely to receive non-GAAP comments. Columns (2) through (5) report the results for the earnings release sample. We test *NGExcl* in columns (2) and (3) and replace it with *NGEnhance*, *NGTurnPositive*, and *NGTurnIncrease* in columns (4) and (5). As expected, *GLoss* and *NGHightlight* are significantly positive at the 5 percent level in column (2). The coefficients suggest that for the average firm, reporting GAAP losses increases its likelihood of receiving a non-GAAP comment by 10.8 percent and highlighting non-GAAP earnings increases the likelihood of receiving a non-GAAP comment by 7.8 percent. The coefficient on *NGExcl*, however, is significantly negative using a two-tailed test, which is contrary to our prediction. When *NGIncomeStat* is added to the regression in column (3), it is the only significant test variable. It indicates that providing a non-GAAP income statement increases the likelihood of receiving a non-GAAP comment by 51 percent. In column (4), none of the three indicators for impression management are significant. *NGHighlight* is significantly positive at the 5 percent level, but it loses significance once *NGIncomeStat* is included in column (5). Among the control variables, *Big4* reduces the likelihood of receiving non-GAAP comments (when *NGIncomeStat* is not in the model) and *Litigation* increases the likelihood.

[Insert Table 4]

Overall, these findings partially support H1—that incentives to use non-GAAP measures strategically are positively associated with the likelihood of receiving non-GAAP comments. The variables pertaining to non-GAAP exclusions are not positively related to the likelihood of receiving non-GAAP comments, but the variables pertaining to non-GAAP prominence are, with *NGIncomeStat* dominating *NGHighlight* when included in the same model.[18]

Regression results for revised non-GAAP reporting

Table 5 presents the results from estimating Equation (2) to test whether firms continue to use non-GAAP measures after receiving non-GAAP comments. In the 10K-10Q sample in column (1), the coefficient on *NGComm* is significantly positive at the 10 percent level. This coefficient implies that for the average firm, receiving a non-GAAP comment increases the likelihood of abandoning non-GAAP measures by 2.2 percent in the post-letter period, which is a non-trivial effect given that the unconditional mean of *NGStop* is 20 percent. In the earnings release sample in column (2), the coefficient on *NGComm* is significantly positive at the 5 percent level. It implies a 1.8 percent higher likelihood of abandoning non-GAAP measures in the post-letter period, whereas the unconditional mean of *NGStop* is 8 percent. The results are consistent with H2a—that non-GAAP comments discourage some firms from using non-GAAP measures. As expected, *NGPerc_Lag* is significantly negative, *M&A* and *Restructuring* (whose charges are common non-GAAP exclusions) are significantly negative, and *MaterialWeak* is significantly positive.

[Insert Table 5]

Table 6 presents the regression results for the DID in non-GAAP reporting characteristics for firms that continue to use non-GAAP measures after receiving non-GAAP comments (Equation (3)). In columns (1) and (2), the coefficients on *NGComm*×*Post* are significantly

---

[18] The insignificant results for the other test variables from columns (2) through (5) are not caused by multicollinearity, because variance inflation factors (VIFs) for these variables are all below 3. We also added these variables individually to the model; *NGExcl* loads significantly negatively, and *NGHighlight* and *NGIncomeStat* load significantly positively.

positive when the dependent variable is *NGPerc* for both the 10K-10Q and earnings release samples. This result suggests that firms expand their discussions on non-GAAP measures to justify their usage. The positive coefficients on *GDecrease* in column (1) and *GLoss* in column (2) reveal that firms with lackluster GAAP performance are more likely to discuss non-GAAP measures. *Litigation* and *SalesGrowth* are positively related to *NGPerc*, suggesting that faster-growing and high litigation risk firms discuss non-GAAP measures more frequently. In columns (3) and (4), the coefficients on *NGComm×Post* are significantly negative for *NGHighlight* and *NGIncomeStat*, supporting our prediction that firms reduce the prominence of non-GAAP measures after receiving non-GAAP comments. *GLoss* is negatively related to *NGHighlight*, possibly because loss firms do not want to emphasize their earnings metrics either in GAAP or non-GAAP form. *Big4* and *Second-Tier* are negatively related to *NGHighlight*, although only the coefficient on *Second-Tier* is significant. The only control variable that is significantly related to *NGIncomeStat* is *Restructuring*. In column (5), the coefficient on *NGComm×Post* is insignificant, so we find no evidence that firms receiving non-GAAP comments subsequently adjust the dollar amount of non-GAAP exclusions.[19]

[Insert Table 6]

Overall, Table 6 demonstrates that the SEC succeeds in urging firms to reduce the prominence of non-GAAP measures. Although we find that the dollar value of non-GAAP exclusions is unrelated to non-GAAP comments either as a determinant or as a consequence, it is

[19] Another possible reason for this insignificant result is that only firms that receive specific comments on non-GAAP exclusions are sufficiently motivated to change the dollar amount of non-GAAP exclusions. In an unreported analysis, we examine only firms whose non-GAAP exclusions are commented on as the treatment group, and still find no significant DID in the dollar amount of non-GAAP exclusions.

possible that the composition of non-GAAP exclusions attracts non-GAAP comments or changes after the comments. We leave it to future research to examine this possibility.

V. CONCLUSION

Whether firms report non-GAAP measures to convey permanent news or to manage investors' impressions of financial performance needs to be assessed at the individual firm-year level, and comment letters, as a customized regulatory output, can help in this assessment. We find that the SEC targets firms with poor GAAP performance and prominent presentation of non-GAAP measures. Non-GAAP comments from the SEC spur firms to either discontinue the use or reduce the prominence of non-GAAP measures.

The most frequently issued non-GAAP comments pertain to the presentation of a non-GAAP income statement, which is a formatting issue. Although the presentation of non-GAAP earnings may influence investors' perceptions of financial results, it is arguably the actual amount of non-GAAP earnings that should matter most from a valuation standpoint. Because investors prefer non-GAAP earnings (Bradshaw, Christensen, Gee, and Whipple 2017), managers are motivated to preserve control over the calculation of non-GAAP earnings.[20][21] The SEC raises questions on non-GAAP exclusions frequently, but we find no evidence that managers adjust the dollar amount of non-GAAP exclusions.

---

[20] We find that conversations between the SEC and non-GAAP comment letter recipients are more difficult to conclude than conversations without non-GAAP comments, indicating the resistance from the recipients. Specifically, the former conversations involve more rounds of discussion, and the comment letters and response letters tend to be longer (all at the 1 percent significance level). Within non-GAAP comment letter conversations, those involving comments on non-GAAP exclusions are particularly difficult to bring to a close, compared with conversations involving other non-GAAP comments. These results are available from the authors upon request.

[21] Moreover, managers may have personal financial incentives to resist the SEC's intervention in the calculation of non-GAAP earnings. For example, Guest, Kothari, and Pozen (2020) find that large positive differences between non-GAAP and GAAP earnings are associated with excessive CEO compensation, suggesting that non-GAAP earnings affect board of directors' assessment of executives.

REFERENCES

ABM Industries. 2016. *ABM Industries Announces Results for First Quarter Fiscal 2016*. Available at: https://www.sec.gov/Archives/edgar/data/771497/000157104916012752/t1600645_ex99-1.htm

Audit Analytics. 2017. *A Look at Top SEC Comment Letter Issues in 2017*. Available at: http://www.auditanalytics.com/blog/a-look-at-top-sec-comment-letter-issues-in-2017/

Bens, D. A., M. Cheng, and M. Neamtiu. 2016. The Impact of SEC Disclosure Monitoring on the Uncertainty of Fair Value Estimates. *The Accounting Review* 91 (2): 349-375.

Black, D. E., T. E. Christensen, J. T. Ciesielski, and B. C. Whipple. 2018a. *Non-GAAP Earnings: A Consistency and Comparability Crisis.* Working paper, University of Nebraska at Lincoln, University of Georgia, R.G. Associates, and University of Georgia.

Black, D. E., T. E. Christensen, J. T. Ciesielski, and B. C. Whipple. 2018b. Non-GAAP Reporting: Evidence from Academia and Current Practice. *Journal of Business Finance and Accounting* 45: 259-294.

Bowen, R. M., A. K. Davis, and D. A. Matsumoto. 2005. Emphasis on Pro Forma versus GAAP Earnings in Quarterly Press Releases: Determinants, SEC Intervention, and Market Reactions. *The Accounting Review* 80 (4): 1011-1038.

Bozanic, Z., J., R. Dietrich, and B. A. Johnson. 2017. SEC Comment Letters and Firm Disclosure. *Journal of Accounting and Public Policy* 36 (5): 337-357.

Bradshaw, M. T., and R. G. Sloan. 2002. GAAP versus the Street: An Empirical Assessment of Two Alternative Definitions of Earnings. Journal of Accounting *Research* 40 (1): 41-66.

Bradshaw, M. T., T. E. Christensen, K. H. Gee, and B. C. Whipple. 2017. Analysts' GAAP Earnings Forecasts and their Implications for Accounting Research. *Journal of Accounting and Economics* 66 (1): 46-66.

Burgstahler, D., and I. Dichev. 1997. Earnings Management to Avoid Earnings Decreases and Losses. *Journal of Accounting and Economics* 24 (1): 99-126.

Cassell, C. A., L. M. Dreher, and L. A. Myers. 2013. Reviewing the SEC's Review Process: 10-K Comment Letters and the Cost of Remediation. *The Accounting Review* 88 (6): 1875-1908.

Curtis, A. B., S. E. McVay, and B. C. Whipple. 2013. The Disclosure of Non-GAAP Earnings Information in the Presence of Transitory Gains. *The Accounting Review* 89 (3): 933-958.

Dechow, P. M., A. Lawrence, and J. P. Ryans. 2016. SEC Comment Letters and Insider Sales. *The Accounting Review* 91 (2): 401-439.

Doyle, J. T., R. J. Lundholm, and M. T. Soliman. 2003. The Predictive Value of Expenses Excluded from Pro Forma Earnings. *Review of Accounting Studies* 8 (2-3): 145-174.

Engel, E., R. M. Hayes, and X. Wang. 2007. The Sarbanes–Oxley Act and Firms' Going-Private Decisions. *Journal of Accounting and Economics* 44 (1-2): 116-145.

Gomez, E., F. Heflin, and J. Wang. 2018. *Information Environment Consequences of SEC Non-GAAP Comment Letters.* Working paper, University of Georgia.

Guest, N. M., S.P. Kothari, and R. Pozen. 2020. Why Do Large Positive Non-GAAP Earnings Adjustments Predict Abnormally High CEO Pay? Working paper, Cornell University and Massachusetts Institute of Technology. Available at http://dx.doi.org/10.2139/ssrn.3030953

Heflin, F., and C. Hsu. 2008. The Impact of the SEC's Regulation of Non-GAAP Disclosures. *Journal of Accounting and Economics* 46 (2): 349-365.

Johnston, R., and R. Petacchi. 2017. Regulatory Oversight of Financial Reporting: Securities and Exchange Commission Comment Letters. *Contemporary Accounting Research* 34 (2): 1128-1155.

Kolev, K., C. A. Marquardt, and S. E. McVay. 2008. SEC Scrutiny and the Evolution of Non-GAAP Reporting. *The Accounting Review* 83 (1): 157-184.

Kubick, T. R., D. Lynch, M. A. Mayberry, and T. C. Omer. 2016. The Effects of Regulatory Scrutiny on Tax Avoidance: An Examination of SEC Comment Letters. *Accounting Review* 91 (6): 1751-1780.

Li, B., and Z. Liu. 2017. The Oversight Role of Regulators: Evidence from SEC Comment Letters in the IPO Process. *Review of Accounting Studies* 22 (3): 1229-1260.

Lougee, Barbara A., and Carol A. Marquardt, 2004. "Earnings Informativeness and Strategic Disclosure: An Empirical Examination of 'Pro Forma' Earnings." The Accounting Review 79(3): 769-795.

Marques, A., 2006. SEC Interventions and the Frequency and Usefulness of Non-GAAP Financial Measures. *Review of Accounting Studies* 11 (4): 549-574.

Roychowdhury, S. 2006. Earnings Management through Real Activities Manipulation. *Journal of Accounting and Economics* 42 (3): 335-370.

Ryans, J. 2019. *Textual Classification of SEC Comment Letters*. *Review of Accounting Studies*, forthcoming.

Securities and Exchange Commission (SEC). 2001. *Cautionary Advice Regarding the Use of 'Pro Forma' Financial Information in Earnings Releases*. Available at: https://www.sec.gov/rules/other/33-8039.htm

Securities and Exchange Commission (SEC). 2003. *Final Rule: Conditions for Use of Non-GAAP Financial Measures*. Available at: https://www.sec.gov/rules/final/33-8176.htm

Securities and Exchange Commission (SEC). 2016. *Remarks before the 12th Annual Life Sciences Accounting and Reporting Congress*. Available at: https://www.sec.gov/news/speech/schnurr-remarks-12th-life-sciences-accounting-congress.html

Securities and Exchange Commission (SEC). 2018. *Non-GAAP Financial Measures.* Available at: https://www.sec.gov/divisions/corpfin/guidance/nongaapinterp.htm

U.S. Chamber of Commerce. 2016. *2016 Capital Markets Summit—Conversation with SEC Chair White.* Available at: http://videos.uschamber.com/detail/videos/capital-markets-summits/video/4805706279001/2016-capital-markets-summit---conversation-with-sec-chair-white?autoStart=true Last accessed on March 28, 2016.

Wall Street Journal. 2016a. *SEC Probes Whether Companies Are Misusing Adjusted Earnings Metrics.* (October 27). Available at: https://www.wsj.com/articles/sec-probes-whether-companies-are-misusing-adjusted-earnings-metrics-1477577108

Wall Street Journal. 2016b. *Accounting Choices Blur Profit Picture*. (June 2). Available at: https://www.wsj.com/articles/accounting-choices-blur-profit-picture-1467086625

APPENDIX
Variable Definitions

Variable name	Definition
NGComm	Indicator variable that equals 1 if a 10-K or 10-Q is reviewed in a comment letter that contains non-GAAP comments (for the 10K-10Q sample), or an earnings release receives non-GAAP comments (for the earnings release sample)
Post	Indicator variable that equals 1 for filings that are filed after the receipt of comment letters
GLoss	Indicator variable that equals 1 if GAAP EPS is negative. For the 10K-10Q sample, GAAP EPS is EPSFIQ; for the earnings release sample, GAAP EPS is the metric to which non-GAAP EPS is reconciled in the earnings releases
GDecrease	Indicator variable that equals 1 if GAAP EPS is lower than GAAP EPS for the same quarter a year ago
NGExcl	Non-GAAP exclusions defined as non-GAAP EPS minus GAAP EPS divided by the stock price at the fiscal quarter end (earnings release sample only)
NGEnhance	Indicator variable that equals 1 if non-GAAP EPS is larger than GAAP EPS (earnings release sample only)
NGTurnPositive	Indicator variable that equals 1 if GAAP EPS is negative but non-GAAP EPS is positive (earnings release sample only)
NGTurnIncrease	Indicator variable that equals 1 if GAAP EPS decreases but non-GAAP EPS increases compared to the same quarter a year ago (earnings release sample only)
NGHighlight	Indicator variable that equals 1 if non-GAAP EPS is mentioned in the headline, sub-headline, bullet points, or tables before or inside the first paragraph (earnings release sample only)
NGStop	Indicator variable that equals 1 if a filing stops reporting non-GAAP measures; for the 10K-10Q sample, *NGStop* is set to 1 if the filing does not contain the phrase "non-GAAP;" for the earnings release sample, *NGStop* is set to 1 if the earnings release is manually verified to not include any non-GAAP measure
NGPerc	Number of times the phrase "non-GAAP" is mentioned in a filing divided by the total word count of the filing, multiplied by 1,000
NGIncomeStat	Indicator variable that equals 1 if an earnings release contains a stand-alone non-GAAP income statement or a column of non-GAAP income statement information inside the GAAP income statement (earnings release sample only)
MaterialWeak	Indicator variable that equals 1 if a firm-quarter experienced a material weakness as defined under SOX Sections 302 or 404 in the past 12 months
Restate	Indicator variable that equals 1 if a firm-quarter filed a restatement in the past 12 months
Volatility	Stock return volatility, calculated as the standard deviation of monthly stock returns in the past 12 months for a firm-quarter
LnMarketCap	Logarithm of the market value of equity as of a quarter end
CompanyAge	Number of years a firm has existed in CRSP as of a quarter end
Leverage	Short-term and long-term debt divided by total assets (DLTTQ+DLCQ)/ATQ
SalesGrowth	Current quarter's sales minus sales of the same quarter a year ago, divided by the latter
BM	Book-to-market ratio, calculated as the book value of equity to the market value of equity, SEQQ/(PRCCQ*CSHOQ); it is set to zero if SEQQ is negative
NegEquity	Indicator variable that equals 1 if SEQQ is negative
BusSegments	Number of business segments as of the latest fiscal year end for a firm-quarter
GeoSegments	Number of geographic segments as of the latest fiscal year end for a firm-quarter
M&A	Indicator that equals 1 if a firm has mergers and acquisition activities as of a quarter end, as defined by non-zero and non-missing AQPY in COMPUSTAT
Restructuring	Indicator that equals 1 if a firm has restructuring activities as of a quarter end, as defined by non-zero and non-missing RCPY in COMPUSTAT

ExtFinancing	External financing as of a quarter end, defined as the sum of equity and debt financing divided by total assets; equity financing is the sales of common and preferred stocks minus the purchases of common and preferred stocks minus dividends, and debt financing is the long-term debt issued minus long-term debt reduction minus the change in current debt ((SSTKY-PRSTKCY-DVY)+(DLTISY-DLTRY-DLCCHY))/ATQ
Litigation	Indicator variable that equals 1 if a firm belongs to a high litigation risk industry, i.e., the four-digit SIC code ranges from 2833–2836, 3570–3577, 3600–3674, 5200–5961, or 7370–7374
Big4	Indicator variable that equals 1 if a firm is audited by one of the Big Four accounting firms, i.e., Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers
Second-Tier	Indicator variable that equals 1 if a firm is audited by one of the second-tier accounting firms, i.e., BDO Seidman, Crowe Horwath, Grant Thornton, or McGladrey & Pullen
AudTenure	Number of years the current auditor has audited a firm, adjusting for the time between the fiscal quarter end and the fiscal year end; for example, if an auditor has audited a firm for two consecutive years as of the end of 2016, then AudTenure is 1.25 for the first fiscal quarter of 2016
AudResigned	Indicator variable that equals 1 if an auditor resigned in the past 12 months for a firm-quarter
AudDismissed	Indicator variable that equals 1 if an auditor was dismissed in the past 12 months for a firm-quarter

TABLE 1

Non-GAAP Letters and Referenced Filings in Audit Analytics/COMPUSTAT

Year	All letters			Reference 10K-10Q and 8-K			Reference 10K-10Q without 8-K			Reference 8-K without 10K-10Q			Reference neither 8-K nor 10K-10Q		
	Total [a]	Non-GAAP [b]	[c]=[b]/[a]	Total [d]	Non-GAAP [e]	[f]=[e]/[d]	Total [g]	Non-GAAP [h]	[i]=[h]/[g]	Total [j]	Non-GAAP [k]	[l]=[k]/[j]	Total [m]	Non-GAAP [n]	[o]=[n]/[m]
2004	374	48	*13%*	13	*7*	*54%*	49	*11*	*22%*	90	*0*	*0%*	222	*30*	*14%*
2005	3,851	363	*9%*	123	*69*	*56%*	1,637	*155*	*9%*	390	*4*	*1%*	1,701	*135*	*8%*
2006	4,705	550	*12%*	235	*167*	*71%*	1,799	*214*	*12%*	446	*10*	*2%*	2,225	*159*	*7%*
2007	4,411	415	*9%*	127	*84*	*66%*	1,705	*196*	*11%*	333	*7*	*2%*	2,246	*128*	*6%*
2008	4,218	312	*7%*	109	*72*	*66%*	2,086	*174*	*8%*	256	*1*	*0%*	1,767	*65*	*4%*
2009	4,867	491	*10%*	188	*114*	*61%*	2,342	*293*	*13%*	311	*7*	*2%*	2,026	*77*	*4%*
2010	4,793	338	*7%*	153	*74*	*48%*	2,119	*154*	*7%*	201	*1*	*0%*	2,320	*109*	*5%*
2011	4,253	367	*9%*	164	*75*	*46%*	1,735	*155*	*9%*	229	*4*	*2%*	2,125	*133*	*6%*
2012	3,828	433	*11%*	173	*108*	*62%*	1,675	*218*	*13%*	212	*4*	*2%*	1,768	*103*	*6%*
2013	3,957	399	*10%*	111	*63*	*57%*	1,607	*194*	*12%*	195	*3*	*2%*	2,044	*139*	*7%*
2014	3,338	312	*9%*	87	*51*	*59%*	1,288	*138*	*11%*	130	*3*	*2%*	1,833	*120*	*7%*
2015	3,134	275	*9%*	83	*70*	*84%*	1,103	*132*	*12%*	29	*2*	*7%*	1,919	*71*	*4%*
2016	1,404	193	*14%*	95	*88*	*93%*	404	*69*	*17%*	16	*5*	*31%*	889	*31*	*3%*
Total	**47,133**	**4,496**	***10%***	**1,661**	***1,042***	***63%***	**19,549**	***2,103***	***11%***	**2,838**	***51***	***2%***	**23,085**	***1,300***	***6%***

Table 1 presents statistics on comment letters ("UPLOAD" filing) that contain comments on non-GAAP measures (non-GAAP letters) for the overlapping universe of Audit Analytics (AA) and COMPUSTAT from 2004 through July 2016. Non-GAAP letters are identified by the topic key 813 in AA. Only the initial comment letter in a review process is counted. A comment letter can reference multiple filings. Table 1 divides letters into four groups based on the types of filings referenced: (1) 10-Ks and/or 10-Qs plus 8-Ks; (2) 10-Ks and/or 10-Qs without 8-Ks; (3) 8-Ks without 10-Ks or 10-Qs; and (4) other filings that are not 10-Ks, 10-Qs, or 8-Ks. The other filings are mostly S-1s (IPO prospectuses), 20-Fs (which are equivalent to 10-Ks for foreign registrants), and 6-Fs (which are equivalent to 8-Ks for foreign registrants).

TABLE 2

Detailed Non-GAAP Comments on Earnings Releases

Manually coded comment category	No. of letters	Sample comments
Non-GAAP measures are presented in an income statement format	312	"Please be advised we do not consider the presentation of full non-GAAP income statements for purposes of reconciling non-GAAP measures to the most directly comparable GAAP measure to be appropriate."
Items excluded from GAAP measures are doubtful	188	"A non-GAAP measure that does not reflect these expenses for a company that uses share-based compensation as a significant component of overall compensation would not be comparable to that same measure calculated for a company that uses such compensation to a lesser degree."
Non-GAAP measures are given more prominence than GAAP measures (other than through a non-GAAP income statement)	125	"We note that Core (Non-GAAP) Diluted Earnings per Share precedes the most directly comparable GAAP measure in the headlines to the earnings release."
Unclear why non-GAAP measures are useful	81	"Please revise future filings to explain why management believes this measure provides useful information to investors regarding the Company's results of operations and to the extent material, disclose the additional purposes if any that the Company's management uses this non-GAAP financial measure."
Lack of (or inappropriate) reconciliation between non-GAAP and GAAP measures	74	"Please revise your reconciliations of adjusted net income and adjusted diluted earnings per share to reconcile each measure to the most directly comparable GAAP measure, which we believe are net income and earnings per share."
Generic comments	61	"Please tell us how your presentation of the non-GAAP measures Net Earnings before Special Items and Basic and Diluted Earnings Per Share before Special Items meets the requirements of Item 10(e)(1)(i) of Regulation S-K."

Table 2 reports the number of non-GAAP comment letters in the earnings release sample within each self-constructed comment category. We provide sample comments in the last column for each comment category. Comment categories are not mutually exclusive, because one letter can include comments in multiple categories.

TABLE 3

Descriptive Statistics

Samples	10K-10Q						Earnings releases					
Variable	*NGComm* = 1			*NGComm* = 0			*NGComm* = 1			*NGComm* = 0		
	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
NGExcl							604	0.009***	0.004	674	0.016	0.004
NGEnhance							604	0.826	1.000	674	0.843	1.000
NGTurnPositive							604	0.147	0.000	674	0.134	0.000
NGTurnIncrease							604	0.182	0.000	674	0.163	0.000
NGHighlight							604	0.490	0.000	674	0.490	0.000
NGIncomeStat							604	0.500***	0.500***	674	0.134	0.000
NGPerc	1615	0.130***	0.064***	4343	0.104	0.052	604	4.802***	3.840***	674	3.989	2.409
GLoss	1615	0.277**	0.000**	4343	0.250	0.000	604	0.268	0.000	674	0.245	0.000
GDecrease	1615	0.472**	0.000**	4343	0.435	0.000	604	0.457*	0.000*	674	0.504	1.000
M&A	1615	0.240	0.000	4343	0.242	0.000	604	0.283	0.000	674	0.291	0.000
Restructuring	1615	0.272	0.000	4343	0.285	0.000	604	0.455	0.000	674	0.496	0.000
ExtFinancing	1615	0.016**	0.000***	4343	0.008	-0.006	604	0.001	-0.001	674	0.002	-0.003
Big4	1615	0.836**	1.000**	4343	0.857	1.000	604	0.853***	1.000***	674	0.914	1.000
Second-Tier	1615	0.093*	0.000*	4343	0.078	0.000	604	0.101**	0.000**	674	0.062	0.000
AudTenure	1615	10.313	7.000*	4343	10.460	8.000	604	11.096	9.000	674	10.997	8.375
AudDismissed	1615	0.041	0.000	4343	0.040	0.000	604	0.038	0.000	674	0.050	0.000
AudResigned	1615	0.007	0.000	4343	0.008	0.000	604	0.007	0.000	674	0.009	0.000
Restate	1615	0.107	0.000	4343	0.096	0.000	604	0.089	0.000	674	0.107	0.000
MaterialWeak	1615	0.071	0.000	4343	0.067	0.000	604	0.106	0.000	674	0.091	0.000
Litigation	1615	0.196	0.000	4343	0.185	0.000	604	0.560***	1.000***	674	0.423	0.000
BusSegments	1615	2.285	1.000	4343	2.346	1.000	604	2.088***	1.000***	674	2.479	2.000
GeoSegments	1615	2.387	1.000	4343	2.385	1.000	604	3.459	3.000	674	3.484	3.000
Leverage	1615	0.284***	0.266***	4343	0.263	0.231	604	0.172***	0.135***	674	0.212	0.182
BM	1615	0.639**	0.519***	4343	0.676	0.546	604	0.493*	0.398	674	0.529	0.417
NegEquity	1615	0.035	0.000	4343	0.028	0.000	604	0.020	0.000	674	0.021	0.000
SalesGrowth	1615	0.203**	0.077***	4343	0.155	0.059	604	0.162	0.096*	674	0.137	0.077
LnMarketCap	1615	7.359**	7.367**	4343	7.469	7.499	604	7.298**	7.174**	674	7.484	7.440
CompanyAge	1615	18.783**	13.167***	4343	19.985	14.250	604	17.697**	12.250	674	19.738	13.375
Volatility	1615	0.095	0.077	4343	0.094	0.075	604	0.099	0.088	674	0.098	0.087
NGStop	1156	0.228**	0.000**	3272	0.196	0.000	510	0.110***	0.000***	628	0.062	0.000

Table 3 reports descriptive statistics for the variables at the firm-quarter level. Continuous variables are winsorized at the 1 percent and 99 percent tails. Two-sample t tests and Wilcoxon tests are conducted on the mean and median between the treatment and control groups. ***, **, and * indicate two-tailed statistical significance at the 1 percent, 5 percent, and 10 percent levels, respectively. Variables are defined in Appendix.

TABLE 4

Determinants of Receiving Non-GAAP Comments (H1)

	(1)	(2)	(3)	(4)	(5)
Samples:	10K-10Q	Earnings Releases			
Dependent var:	NGComm	NGComm			
GLoss	**0.016**	**0.108****	**0.055**	**0.060**	**0.035**
	[0.941]	**[2.399]**	**[1.100]**	**[1.038]**	**[0.536]**
GDecrease	**0.031****	**-0.031**	**-0.026**	**-0.051**	**-0.044**
	[2.410]	**[-0.936]**	**[-0.715]**	**[-1.319]**	**[-1.017]**
NGExcl		**-1.173****	**-0.817**		
		[-2.431]	**[-1.635]**		
NGEnhance				**-0.072**	**-0.053**
				[-1.474]	**[-1.037]**
NGTurnPositive				**0.037**	**0.004**
				[0.562]	**[0.051]**
NGTurnIncrease				**0.058**	**0.051**
				[1.165]	**[0.989]**
NGHightlight		**0.078****	**0.060**	**0.076****	**0.059**
		[2.254]	**[1.559]**	**[2.190]**	**[1.539]**
NGIncomeStat			**0.514*****		**0.516*****
			[12.227]		**[12.177]**
NGPerc	**0.183*****	**0.001**	**-0.002**	**0.001**	**-0.002**
	[4.378]	**[0.251]**	**[-0.384]**	**[0.229]**	**[-0.382]**
M&A	0.016	0.035	0.031	0.032	0.029
	[0.951]	[0.883]	[0.698]	[0.808]	[0.652]
Restructuring	-0.020	-0.039	-0.072*	-0.045	-0.076**
	[-1.207]	[-1.152]	[-1.926]	[-1.318]	[-2.032]
ExtFinancing	0.038	-0.133	-0.118	-0.120	-0.113
	[0.718]	[-0.775]	[-0.593]	[-0.701]	[-0.571]
Big4	-0.045	-0.176*	-0.165	-0.173*	-0.164
	[-1.383]	[-1.819]	[-1.620]	[-1.799]	[-1.603]
Second-Tier	-0.007	0.011	0.011	0.006	0.010
	[-0.186]	[0.098]	[0.097]	[0.058]	[0.088]
AudTenure	-0.000	0.004*	0.004	0.004	0.004
	[-0.172]	[1.802]	[1.569]	[1.615]	[1.440]
AudDismissed	-0.017	-0.095	-0.134	-0.095	-0.132
	[-0.546]	[-1.204]	[-1.456]	[-1.210]	[-1.422]
AudResigned	-0.078	-0.111	-0.027	-0.103	-0.020
	[-0.943]	[-0.587]	[-0.143]	[-0.540]	[-0.111]
Restate	0.027	-0.067	-0.082	-0.064	-0.080
	[1.149]	[-1.187]	[-1.302]	[-1.124]	[-1.281]
MaterialWeak	-0.015	0.013	0.011	0.015	0.010
	[-0.519]	[0.225]	[0.183]	[0.259]	[0.172]
Litigation	-0.051	0.145**	0.146**	0.160**	0.154**
	[-1.425]	[2.329]	[2.136]	[2.557]	[2.259]
BusSegments	-0.003	-0.031***	-0.027**	-0.032***	-0.027**
	[-0.646]	[-2.978]	[-2.216]	[-3.045]	[-2.232]
GeoSegments	-0.004	-0.008	-0.008	-0.009	-0.009
	[-1.034]	[-1.434]	[-1.202]	[-1.570]	[-1.273]
Leverage	0.011	-0.044	0.000	-0.070	-0.020
	[0.311]	[-0.428]	[0.000]	[-0.686]	[-0.174]
BM	-0.000	0.088	0.053	0.072	0.042
	[-0.005]	[1.543]	[0.865]	[1.289]	[0.706]
NegEquity	0.057	0.121	0.148	0.129	0.153
	[1.358]	[0.966]	[1.121]	[1.042]	[1.166]
SalesGrowth	0.012	0.030	-0.005	0.027	-0.007
	[0.823]	[0.590]	[-0.106]	[0.525]	[-0.136]
LnMarketCap	0.002	0.014	0.004	0.015	0.005
	[0.447]	[0.948]	[0.263]	[0.971]	[0.307]
CompanyAge	-0.000	0.001	0.000	0.001	0.001
	[-0.398]	[0.626]	[0.337]	[0.718]	[0.378]
Volatility	0.152	-0.043	-0.129	0.006	-0.098
	[1.025]	[-0.112]	[-0.323]	[0.014]	[-0.247]
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
No. of Obs	5958	1278	1278	1278	1278

Area under the ROC curve	66.1%	74.0%	81.2%	73.7%	81.2%

Table 4 reports logit models of the probability of receiving non-GAAP comments (Equation 1) for the 10K-10Q and earnings release samples. The coefficients are marginal effects at the means, and z-statistics based on robust standard errors clustered by firm identifier are reported underneath the coefficients. ***, **, and * indicate two-tailed statistical significance at the 1 percent, 5 percent, and 10 percent levels, respectively. Variables are defined in Appendix.

TABLE 5

Revised Non-GAAP Reporting—Discontinued Use of Non-GAAP Measures (H2a)

	(1)	(2)
Samples:	10K-10Q	Earnings Releases
Dependent var:	NGStop	NGStop
NGComm	**0.022***	**0.018****
	[1.937]	**[2.090]**
NGPerc_Lag	-0.545***	-0.008***
	[-6.173]	[-5.108]
GLoss	-0.003	-0.007
	[-0.171]	[-0.613]
GDecrease	0.005	-0.015*
	[0.465]	[-1.718]
M&A	-0.036**	-0.030**
	[-2.180]	[-2.303]
Restructuring	-0.034**	-0.029***
	[-2.180]	[-2.732]
ExtFinancing	-0.097	-0.059
	[-1.533]	[-1.131]
Big4	-0.014	-0.012
	[-0.528]	[-0.580]
Second-Tier	0.037	0.014
	[1.232]	[0.713]
AudTenure	0.000	-0.000
	[0.272]	[-0.310]
AudDismissed	-0.012	-0.011
	[-0.405]	[-0.413]
AudResigned	-0.057	0.000
	[-0.943]	[0.000]
Restate	-0.019	0.012
	[-0.970]	[0.917]
MaterialWeak	0.038*	0.036***
	[1.770]	[2.897]
Litigation	0.055*	-0.008
	[1.707]	[-0.830]
BusSegments	-0.007	-0.007**
	[-1.542]	[-2.110]
GeoSegments	0.004	-0.002
	[1.342]	[-0.914]
Leverage	-0.037	-0.143***
	[-0.915]	[-3.871]
BM	-0.002	-0.017
	[-0.159]	[-1.531]
NegEquity	-0.044	0.006
	[-1.161]	[0.172]
SalesGrowth	0.007	-0.023
	[0.429]	[-1.401]
LnMarketCap	-0.014**	-0.005
	[-2.517]	[-1.243]
CompanyAge	-0.001*	0.000
	[-1.718]	[1.422]
Volatility	-0.082	0.159*
	[-0.660]	[1.748]
Year FE	Yes	Yes
Industry FE	Yes	Yes
No. of Obs	4428	1138
Area under the ROC curve	75.6%	84.1%

Table 5 reports logit models of stopping the use of non-GAAP measures (Equation 2) for the 10K-10Q and earnings release samples in the post period. The coefficients are marginal effects at the means, and z-statistics based on robust standard errors clustered by firm identifier are reported underneath the coefficients. ***, **, and * indicate two-tailed statistical significance at the 1 percent, 5 percent, and 10 percent levels, respectively. Variables are defined in Appendix.

TABLE 6

Revised Non-GAAP Reporting—Continued Use of Non-GAAP Measures (H2b)

	(1)	(2)	(3)	(4)	(5)
Samples:	10K-10Q	Earnings Releases			
Dependent vars:	NGPerc	NGPerc	NGHighlight	NGIncomeStat	NGExcl
NGComm×Post	**0.036***	**1.141***	**-0.127***	**-0.366***	**0.005**
	[3.340]	**[5.867]**	**[-3.380]**	**[-10.497]**	**[1.450]**
NGComm	0.025***	-0.116	0.074**	0.271***	-0.006***
	[3.967]	[-0.600]	[2.159]	[11.789]	[-2.682]
Post	0.064***	0.403***	0.018	-0.018	0.001
	[12.503]	[3.249]	[0.680]	[-0.942]	[0.302]
GLoss	-0.007	0.730***	-0.105***	0.031	0.035***
	[-0.937]	[2.994]	[-2.906]	[1.421]	[11.988]
GDecrease	0.009*	-0.038	0.003	-0.003	0.008***
	[1.680]	[-0.222]	[0.103]	[-0.147]	[5.978]
M&A	0.009	0.415*	0.038	0.014	0.003
	[0.879]	[1.706]	[1.076]	[0.579]	[1.194]
Restructuring	0.000	0.173	0.023	0.043**	0.003
	[0.023]	[0.700]	[0.694]	[2.099]	[1.432]
ExtFinancing	-0.011	0.967	-0.032	-0.021	-0.022*
	[-0.459]	[0.946]	[-0.214]	[-0.218]	[-1.928]
Big4	0.015	1.790***	-0.117	-0.004	-0.004
	[1.172]	[3.363]	[-1.399]	[-0.090]	[-0.514]
Second-Tier	-0.007	1.292**	-0.286***	-0.019	-0.004
	[-0.466]	[1.990]	[-2.927]	[-0.363]	[-0.556]
AudTenure	0.000	0.011	-0.000	-0.001	0.000**
	[0.646]	[0.728]	[-0.148]	[-0.449]	[2.247]
AudDismissed	0.007	0.674	0.035	0.032	0.001
	[0.525]	[1.330]	[0.455]	[0.885]	[0.221]
AudResigned	-0.017	1.007	0.060	-0.009	0.028
	[-0.909]	[1.414]	[0.287]	[-0.101]	[0.981]
Restate	-0.009	-0.270	-0.037	-0.008	-0.004
	[-1.010]	[-1.023]	[-0.772]	[-0.251]	[-1.483]
MaterialWeak	0.009	0.527	0.055	-0.004	0.000
	[0.801]	[1.557]	[0.982]	[-0.121]	[0.123]
Litigation	0.072**	2.740***	-0.031	0.036	-0.004
	[2.354]	[5.369]	[-0.483]	[0.905]	[-0.715]
BusSegments	-0.007***	-0.167**	0.022**	-0.002	0.000
	[-3.054]	[-2.068]	[2.052]	[-0.252]	[0.380]
GeoSegments	0.002	-0.014	0.007	-0.001	0.001**
	[0.794]	[-0.279]	[1.074]	[-0.218]	[2.364]
Leverage	-0.044***	-3.329***	0.227**	-0.063	0.016***
	[-2.600]	[-4.643]	[2.352]	[-0.896]	[2.586]
BM	-0.007	-0.740**	-0.041	0.050	0.022***
	[-0.993]	[-2.341]	[-0.838]	[1.482]	[3.668]
NegEquity	0.013	0.151	-0.117	-0.056	0.022*
	[0.534]	[0.299]	[-1.065]	[-0.643]	[1.800]
SalesGrowth	0.009*	0.556**	-0.019	0.036	0.000
	[1.659]	[2.161]	[-0.407]	[1.551]	[0.012]
LnMarketCap	-0.004	0.194*	0.005	0.010	-0.000
	[-1.183]	[1.835]	[0.311]	[1.083]	[-0.373]
CompanyAge	0.001	-0.021***	-0.001	0.001	-0.000
	[1.528]	[-3.000]	[-0.481]	[1.246]	[-0.954]
Volatility	-0.082	8.314***	-0.310	0.293	0.044*
	[-1.425]	[3.838]	[-0.855]	[1.376]	[1.778]
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
No. of Obs	9,482	2,253	2,253	2,253	2,253
Area under the ROC curve /Adj. R^2	14.9%	40.8%	74.3%	85.3%	24.5%

Table 6 reports the DID in firms' non-GAAP reporting characteristics, conditional on the continued use of non-GAAP measures (Equation 3). A logit model is used when the dependent variable is *NGHightlight* or *NGIncomeStat*, and an OLS model is used when the dependent variable is *NGPerc* or *NGExcl*. The coefficients in columns (3) and (4) are marginal effects at the means. z-statistics (t-statistics) based on robust standard errors clustered by firm identifier are reported under the coefficients for the logit (OLS) regressions. ***, **, * indicate two-tailed statistical significance at the 1 percent, 5 percent and 10 percent levels, respectively. Variables are defined in Appendix.