Comparing Non-GAAP EPS in Earnings Announcements and Proxy Statements

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Abstract. We compare non-GAAP EPS in firms' annual earnings announcements and proxy statements using hand-collected data from SEC filings. We find that proxies for capital market incentives (contracting incentives) are more highly associated with firms' disclosure of non-GAAP EPS in annual earnings announcements (proxy statements). However, we find systematic differences in the properties of firms' non-GAAP earnings and exclusions depending on whether they disclose non-GAAP EPS in *both* the earnings announcement and the proxy statement. When firms disclose non-GAAP EPS in both documents, we find that non-GAAP EPS is more useful for assessing firm value. Specifically, these firms are more likely to: (1) Exclude nonrecurring items; (2) Exclude less persistent earnings components; and, (3) Provide less aggressive non-GAAP EPS. Our results suggest that non-GAAP EPS is higher in quality for investors when disclosed in both the annual earnings announcement and the proxy statement. We provide the first large-sample evidence consistent with the use of non-GAAP EPS metrics in both financial reporting and compensation contracting.

JEL Codes: G34; M12; M41; M48; M52

Keywords: Non-GAAP EPS; contracting; compensation; valuation; value relevance

1. Introduction

Much of the concern about the widespread disclosure of non-GAAP financial measures by firms in annual earnings announcements is that managers' incentives for providing them are not always clear to investors and regulators. The U.S. Securities and Exchange Commission (SEC) has repeatedly expressed concern about the appropriateness of non-GAAP performance metrics and the potential for investors to be misled by ad hoc adjustments to the standard GAAP earnings number (e.g., Weil 2001, Lahart 2016). While some firms may desire to inform investors, others may attempt to mislead them. Distinguishing between the two types of firms can be difficult ex ante (Black et al. 2018). In addition, compensation contracts frequently focus on non-GAAP financial measures, leading the business press to criticize the practice of excluding expenses to produce a more favorable compensation outcome for executives (Rapoport 2014).

Understanding the relation between non-GAAP earnings in the annual earnings announcement and the proxy statement could provide insights about why firms choose to disclose these metrics. Barth et al. (2012) and Bentley et al. (2018) use similar approaches when comparing managers' and analysts' non-GAAP reporting practices to learn about non-GAAP earnings quality. Comparing non-GAAP information in the annual earnings announcement to non-GAAP information in the proxy statement could shed light on the appropriateness of non-GAAP earnings disclosures and guide regulators, investors, and researchers in identifying high- and low-quality non-GAAP disclosures. This comparison could also help market participants better identify overlap between valuation and contracting uses of accounting information.

We provide the first comparison of the disclosure of non-GAAP earnings metrics in annual earnings announcements to those in proxy statements.[1] With data on non-GAAP EPS disclosures in both annual earnings announcement and proxy statements, we examine two research questions: (1) To what extent does non-GAAP EPS disclosed in the annual earnings announcement differ from non-GAAP EPS disclosed in the proxy statement? and, (2) To what extent does non-GAAP EPS quality differ depending on whether firms disclose non-GAAP EPS in the annual earnings announcement and in the proxy statement?

[1] We use the term "disclosure" to include both non-GAAP EPS disclosure in annual earnings announcement press releases and non-GAAP EPS disclosure in proxy statements.

We hand collect non-GAAP earnings per share (EPS) metrics from both annual earnings announcements and proxy statements of firms covered by Execucomp from 2009 to 2015. We focus on EPS because it is the most widely studied non-GAAP metric in the academic literature and is the performance measure most likely to be emphasized by the firm and the business press. We first examine the likelihood of agreement in non-GAAP EPS measures disclosed in earnings announcements and proxy statements. Approximately 52% of our firm-year observations disclose non-GAAP EPS in either the earnings announcement or the proxy statement, while 11% disclose non-GAAP EPS in both. When firms disclose non-GAAP EPS in both, we compare the non-GAAP EPS numbers from the earnings announcement and proxy and find that they are equal approximately 80% of the time. We find evidence of non-GAAP EPS disclosure in the earnings announcement only (proxy statement only) in 37% (3%) of our sample. This descriptive evidence, which is new to the literature, suggests that firms often disclose non-GAAP EPS in the earnings announcement alone, but when non-GAAP EPS is also disclosed in the proxy statement, it is generally the same metric.

We then compare variables associated with non-GAAP EPS disclosure in earnings announcements and proxy statements, respectively. Because we expect capital market incentives (compensation contracting incentives) to be more highly associated with non-GAAP disclosure in annual earnings announcements (proxy statements), we base our tests around variables that we expect to reflect either capital market incentives or contracting incentives.[2] As expected, we find that variables most likely to be associated with capital market incentives (compensation contracting incentives) have stronger associations with the likelihood of non-GAAP disclosure in earnings announcements (proxy statements).

Our data also allow us to study non-GAAP disclosure using three separate sets of firm-years (i.e., disclosure scenarios): (1) Firm-years with non-GAAP EPS disclosure in both the annual earnings announcement and proxy statement (*BOTH*); (2) Firm-years with non-GAAP EPS disclosure in only the annual earnings announcement (*EA ONLY*); and, (3) Firm-years with non-GAAP EPS disclosure in only

[2] The term "capital market incentives" can refer to both informative and opportunistic motives. In addition, "contracting incentives" can refer to both contracting and governance matters and can be efficient or inefficient/opportunistic.

the proxy statement (*PROXY ONLY*). We find that non-GAAP EPS disclosure in the *BOTH* scenario is consistent with both capital market and contracting incentives, which could imply that non-GAAP EPS in this setting is useful for both valuation and contracting purposes. In addition, we find systematic differences between firms that provide non-GAAP EPS in both the earnings announcement and the proxy statement relative to those that provide these metrics in only one of the two disclosure venues (*EA ONLY* or *PROXY ONLY*).

To provide information on the specific exclusions firms are most likely to make for both compensation contracting and valuation purposes, versus valuation purposes only, we compare the types of exclusions firms make when they report non-GAAP EPS in both the earnings announcement and the proxy statement (*BOTH*) relative to when they report non-GAAP EPS only in the earnings announcement (*EA ONLY*). We find that firms in the *BOTH* scenario are significantly more likely to exclude nonrecurring items, but we do not find a significant difference across these scenarios in their exclusion of recurring items. This evidence suggests that nonrecurring items are more likely to be treated similarly by firms for assessing value and contracting. We also find that firms in the *BOTH* scenario are significantly less likely to exclude investment gains and losses and stock compensation expense, and significantly more likely to exclude amortization expense. Moreover, we find that firms in the *BOTH* scenario are significantly more likely to exclude amounts related to restructuring, acquisition, and legal matters. These results imply that firms in the *BOTH* scenario focus on different non-GAAP performance metrics than firms in the *EA ONLY* scenario. Prior research does not distinguish between these two groups of firms, which both report non-GAAP EPS in earnings announcements.

We next perform tests designed to examine non-GAAP reporting quality, which we define as usefulness for valuation and lack of opportunism, across the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios. First, we examine the persistence of non-GAAP exclusions (i.e., the exclusions' association with future operating performance). From a valuation perspective, exclusions that are more positively related to future operating performance (i.e., expenses that persist across reporting periods) are considered inappropriate because they are less likely to be one-time items. We find that non-GAAP exclusions in both

the *EA ONLY* and *PROXY ONLY* scenarios are more persistent (i.e., are of lower quality) than non-GAAP exclusions in the *BOTH* scenario, which suggests that when non-GAAP EPS reflects both valuation and contracting incentives, the resulting exclusions are of higher quality. Second, we examine differences across the scenarios in the aggressiveness of non-GAAP EPS disclosure and find that non-GAAP EPS disclosure is least aggressive in the *BOTH* scenario. Third, we examine equity investors' response to non-GAAP earnings news in each scenario. The association between announcement-date returns and non-GAAP EPS news is positive in all three scenarios, and we find some evidence that investors respond more to non-GAAP EPS news in the *BOTH* scenario relative to the *EA ONLY* scenario.

Overall, our evidence implies that the usefulness of non-GAAP EPS for assessing firm value differs depending on whether it is disclosed in the earnings announcement, the proxy statement, or both. When non-GAAP EPS is intended to help assess value and is also related to compensation incentives, non-GAAP EPS is most useful for investors. Comparisons of firms that disclose non-GAAP EPS in both the earnings announcement and the proxy statement, as opposed to only the earnings announcement, can provide market participants a meaningful signal of non-GAAP reporting quality. Our evidence also suggests that while the same accounting information can be useful for both valuation and contracting, these two objectives do not overlap completely. Firms often make separate decisions regarding what to report to investors for valuation compared to how boards evaluate manager performance for compensation.

We provide the first descriptive evidence comparing the disclosure of non-GAAP performance measures in firms' earnings announcements and proxy statements. Unlike prior studies that examine only non-GAAP measures reported in earnings announcements or disclosed in proxy statements, we provide evidence using data collected from both sources. We complement Bentley et al.'s (2018) evidence that analysts' corroboration of managers' non-GAAP EPS is a signal of higher-quality disclosure. We find that firms' disclosure of non-GAAP metrics in proxy statements is another signal of the appropriateness of non-GAAP metrics disclosed to investors in earnings announcements. This type of signal may help boards, managers, investors, regulators, and other market participants distinguish firms using non-GAAP information in earnings announcements to inform from those attempting to overstate operating

performance. We also contribute to the academic literatures on voluntary disclosure and performance evaluation. While the theoretical literature on performance measurement generally assumes differences between the information relevant for valuation and contracting (e.g., Paul 1992, Lambert 2001, Christensen et al. 2005), we find overlap between managers' and boards' actions and identify specific types of exclusions upon which managers and boards appear to agree. Our results are consistent with a link between voluntary disclosure decisions and the compensation contracting process (e.g., Hemmer and Labro 2008) and suggest that the goals of effective disclosure and efficient contracting may overlap (albeit incompletely) more than prior academic research has assumed.

2. Background and Motivation

2.1. Non-GAAP Disclosure in Earnings Announcements and Proxy Statements

Disclosure of non-GAAP financial measures in earnings announcements is completely voluntary. The SEC defines non-GAAP financial measures as those that exclude amounts that are included in directly comparable GAAP measures or those that include amounts that are excluded from directly comparable GAAP measures. If firms choose to disclose a non-GAAP financial measure, these disclosures are governed by Regulation G, which requires a reconciliation between the most directly comparable GAAP financial measure and the non-GAAP financial measure.[3]

Prior research on non-GAAP disclosure in earnings announcements has focused almost exclusively on non-GAAP EPS. This research suggests that some firms disclose non-GAAP earnings to: (1) Meet strategic earnings benchmarks (Black and Christensen 2009, Doyle et al. 2013); and, (2) Mislead unsophisticated investors (Bhattacharya et al. 2007). Indeed, SEC regulations on non-GAAP reporting are generally designed with these firms in mind. However, most firms claim that the primary reason they disclose non-GAAP metrics in earnings announcements is to provide investors with a superior measure of core or recurring performance. Prior research suggests that investors respond more to both analysts' street earnings and firms' non-GAAP earnings than to GAAP earnings (Bradshaw and Sloan 2002, Bhattacharya

[3] https://www.sec.gov/rules/final/33-8176.htm.

et al. 2003), consistent with firms' claimed motives for non-GAAP earnings disclosure. Moreover, prior research suggests that analysts (e.g., Bentley et al. 2018) and governance characteristics (e.g., Frankel et al. 2011) are associated with the quality of non-GAAP earnings information. Recent research suggests that firms, on average, disclose non-GAAP earnings to inform rather than mislead investors (Black et al. 2018, Black et al. 2020, Chen et al. 2020).

In proxy statements, if the board calculates a financial target for compensation on a non-GAAP basis, the firm is required to disclose how it calculates the target with reference to its audited financial statements.[4] While disclosure of actual (i.e., realized) performance relative to a target is not specifically required, SEC guidance specifies that firms should disclose material information about: (1) What specific items of corporate performance are taken into account in setting compensation policies and making compensation decisions; and, (2) How specific forms of compensation are structured and implemented, including whether discretion can be or has been exercised to reduce or increase the size of any award or payout.[5] A firm explaining the level of pay to investors will likely disclose actual performance, including the non-GAAP financial measure if one is used in compensation contracting.[6] Disclosures of realized non-GAAP financial measures in the proxy statement are subject to Regulation G, the same as if these metrics were disclosed in the earnings announcement, according to a recent SEC clarification.[7] While regulation suggests that the disclosure of non-GAAP EPS may be consistent with non-GAAP use for compensation contracting, prior research finds that compliance with disclosure requirements for compensation is incomplete (Robinson et al. 2011) though potentially useful for investors (Ferri et al. 2018). Therefore, the extent to which non-GAAP EPS disclosure in the proxy statement is consistent with non-GAAP EPS use for compensation is unclear. We provide descriptive evidence on this point.

[4] https://www.law.cornell.edu/cfr/text/17/229.402 Section 402b, Instruction 5.
[5] https://www.law.cornell.edu/cfr/text/17/229.402 Section 402b(2)(vi) and (vii).
[6] To the extent that firms use non-GAAP financial measures in compensation but do not disclose the realizations of those measures, the disclosure of non-GAAP measures in the proxy statement will have measurement error relative to the use of non-GAAP measures in compensation contracting. We expect that this would make it more difficult for us to find systematic differences between firms that do or do not disclose non-GAAP EPS in the proxy statement. We discuss this issue more fully in Section 3.1.
[7] https://www.sec.gov/divisions/corpfin/guidance/nongaapinterp.htm: Section 108. Compensation Discussion and Analysis/Proxy Statement.

Prior research on compensation contracting examines the implicit weights placed on accounting and stock-market-based performance measures in an effort to explore pay-for-performance (e.g., Jensen and Murphy 1990, Dikolli 2001, Bushman et al. 2006, Albuquerque 2009, Banker et al. 2009). Prior studies examine whether the pay-for-performance relation and the selection of performance measures are more consistent with efficient contracting (e.g., Lambert and Larcker 1987, Morgan and Poulsen 2001, Curtis et al. 2018, Bloomfield et al. 2020, Kyung et al. 2020) or opportunistic managerial power (e.g., Watts and Zimmerman 1986, Bebchuk et al. 2002, Garvey and Milbourn 2006, Guest et al. 2020). A few papers have examined specific income components and how these components relate to pay or performance measures that determine pay (Dechow et al. 1994, Gaver and Gaver 1998, Potepa 2020). The consensus from prior accounting research is that firms often shield managers from negative short-term consequences of nonrecurring, income-reducing income items. At times, this shielding can improve contracting efficiency (e.g., Dechow et al. 1994; Bloomfield et al. 2020), while at other times, firms use this discretion to increase manager pay (Gaver and Gaver 1998). More contemporary research suggests that this relation has changed in recent years, with firms considering the ability of income items to predict future income when selecting performance metrics that determine pay (Potepa 2020).

2.2. Accounting Information Useful for Valuation and Compensation Contracting

The potential disclosure of non-GAAP EPS in the earnings announcement and in the proxy statement raises questions about how a firm's disclosures to investors for assessing value differ from the firm's internal compensation metrics. Gjesdal (1981) and Paul (1992) demonstrate analytically that valuing firms and evaluating managers are distinct activities so that information useful for valuation differs from information useful for contracting (see Lambert 2001, 2010 for discussion). Despite the theoretical null result of no association between these uses of accounting information, Bushman et al. (2006) find that the weights placed on earnings for valuation purposes and for cash compensation purposes are positively related. Building on their evidence, Banker et al. (2009) find that the weight on earnings in compensation decisions is positively related to the value relevance of earnings, so that earnings appear to be more useful in compensation when earnings are also more value relevant. Moreover, Potepa (2020) finds that income

components that better predict future earnings are more likely to be included in performance measures that determine pay.

Both Bushman et al. (2006) and Banker et al. (2009) infer the use of accounting information in compensation contracts by how earnings correlate with compensation and use stock prices or returns to infer the use of accounting information for valuation. To the extent that non-GAAP EPS disclosure in the proxy statement is consistent with its use in compensation contracting, non-GAAP EPS disclosures in earnings announcements and proxy statements allow for a more explicit comparison of the accounting information useful for valuation and contracting because voluntary adjustments to GAAP earnings reveal what the firm considers to be relevant (or irrelevant). Rather than inferring usefulness for contracting from regressions of executive pay on accounting numbers, we hand collect non-GAAP EPS explicitly disclosed in proxy statements. Comparing non-GAAP EPS disclosed in earnings announcements and proxy statements for the same firm at the same point in time, and examining properties of these numbers, can potentially identify the information useful for valuation and compensation contracting.

3. Data Collection, Sample Selection, and Descriptive Statistics

3.1. Data Collection

Our sample consists of S&P 1500 firms covered by Execucomp from 2009 to 2015. We collect annual non-GAAP EPS used by boards for compensation contracting and disclosed in proxy statements and/or disclosed by managers in earnings announcements.[8] We focus on non-GAAP EPS for several reasons. First, prior research on non-GAAP reporting focuses almost exclusively on EPS from firms' earnings announcements. Second, limiting our study to a single metric helps train our hand collectors and improve accuracy. Third, we focus on EPS in both documents, as opposed to choosing a different basis for the proxy statement, because we wish to compare non-GAAP disclosures between the two documents.

[8] We focus on annual disclosures because the proxy statement presents accounting information at the annual, rather than quarterly, level.

While we focus exclusively on EPS, firms could disclose a variety of non-GAAP financial measures other than EPS in the proxy statement (Curtis et al. 2018). As a result, we likely understate the disclosure of non-GAAP metrics in compensation contracts. However, we view this trade off to be worthwhile because our hand collection gives us a greater ability to directly compare non-GAAP EPS between earnings announcements and proxy statements. If one assumes that firms disclosing non-GAAP EPS in proxy statements are identical to firms disclosing other non-GAAP metrics, then underrepresentation will bias against our finding differences between firms that disclose non-GAAP EPS in the proxy statement and those that do not. However, disclosing non-GAAP EPS to investors in the earnings announcement while disclosing a different non-GAAP measure in the proxy statement (e.g., adjusted EBITDA) still represents potentially different accounting information deemed useful for valuation and contracting. Our exclusive focus on non-GAAP EPS allows us to preserve and study these differences.

To collect our data, we programmatically search for key words associated with non-GAAP metrics in both the proxy statement (Form DEF 14A) and the annual earnings announcement (Form 8-K) from the SEC's EDGAR repository. We extract sentences containing non-GAAP keywords[9] and earnings-related words[10] and collect non-GAAP EPS from each source. Using the Amazon Mechanical Turk (MTurk) platform to expedite the hand-collection process (Brockbank 2017), we recruit workers using a qualification test and hire qualified workers to read through each extracted sentence and record any annual non-GAAP diluted EPS number that may appear in the extracted sentence. For proxy statements, we collect actual non-GAAP diluted EPS, rather than earnings targets, to better enable comparisons between actual non-GAAP EPS potentially used by the board for compensation contracting and actual non-GAAP EPS reported in the

[9] We search for the following non-GAAP keywords: adjustments, adjustment, adjusting, adjusted, adjusts, adjust, exclusions, exclusion, excluding, excluded, excludes, exclude, non-gaap, non gaap, nongaap, pro-forma, pro forma, and proforma.

[10] We search for the following earnings-related keywords: e.p.s., eps, earnings, earning, earned, income, losses, loss, lost, ebitda, e.b.i.t.d.a., ebita, e.b.i.t.a., ebit, and e.b.i.t. Our list of earnings words is overly inclusive to minimize the loss of potentially useful sentences that are presented to MTurk workers. We instructed MTurk workers to consider only non-GAAP EPS metrics, and not, for example, EBITDA or non-GAAP earnings that are not presented on a per-share basis.

earnings announcement. Appendix A provides a copy of our data collection instructions and our qualification test.[11]

We create the variables *NG EA* and *NG PROXY* as indicators set to 1 when any MTurk worker identifies at least one annual non-GAAP EPS number in the earnings announcement or proxy statement, respectively, and set to 0 otherwise. To examine the accuracy of our variables, we randomly sample 30 firm-year observations from each of four subsamples: (1) *NG EA* = 1; (2) *NG EA* = 0; (3) *NG PROXY* = 1; and (4) *NG PROXY* = 0. We manually classify the observations by reading the SEC filings and comparing *NG EA* and *NG PROXY* to our hand classification. Table 1 presents accuracy statistics. Panel A provides our accuracy for earnings announcements. When *NG EA* = 1 (0), we are correct 100% (76.7%) of the time that the firm did (did not) report an annual non-GAAP EPS number in the earnings announcement. For the 30 observations that we correctly identify as reporting an annual non-GAAP EPS number, we find that the set of numbers identified by the MTurk workers contains the correct number in 90% of the observations. Because there are potentially multiple non-GAAP EPS numbers recorded by MTurk workers for a given firm-year, we examine accuracy based on how many non-GAAP EPS numbers the MTurk workers identify. We are 90.5% accurate when the workers identify only a single number across the set of sentences they read, which means that this single number is 90.5% accurate. As workers identify multiple numbers, the likelihood that the set of numbers contains the true number is similar, but there may be more incorrect numbers recorded by MTurk workers.

Panel B presents our accuracy for proxy statements. When *NG PROXY* = 1 (0), we are correct 86.7% (93.3%) of the time that the firm did (did not) report an annual non-GAAP EPS number in the proxy

[11] 92 MTurk workers on the MTurk platform read a total of approximately 207,000 sentences, with approximately 126,000 (81,000) from earnings announcements (proxy statements). Each sentence was read by two workers, but the set of sentences extracted from a given earnings announcement or proxy statement could be read by several different workers. The mean (median) MTurk worker read 4,509 (2,379) sentences. The agreement rate between pairs of workers reading the same sentence is 95.7 percent (98.1 percent) for sentences from the earnings announcement (proxy statement). Conditional on both workers recording a non-GAAP EPS metric, the workers record the same metric at a rate of 93.8 percent (94.6 percent) for sentences from the earnings announcement (proxy statement). We do not collect information on how non-GAAP EPS is used the proxy statement, including which type of pay it determines (e.g., cash vs. equity) nor how much weight is assigned to non-GAAP EPS. Our interest is only in whether the firm voluntarily creates and discloses non-GAAP EPS. Because many workers independently read sentences from the same earnings announcement or proxy statement, we aggregate workers' collective responses into firm-year variables.

statement. For the 26 observations that we correctly identify as reporting an annual non-GAAP EPS number, we find that the set of numbers identified by the MTurk workers contains the correct number for 73.1% of the observations. We are 81.0% accurate when the coders identify only a single number, but only 40.0% accurate when coders identify more than one number. Overall, Table 1 suggests that our data collection accuracy is reasonably high when MTurk workers collectively identify no more than one distinct non-GAAP EPS number in either the earnings announcement or proxy statement.

3.2. Sample Selection

Table 2 summarizes our sample selection process. Our sample includes all firms covered by Execucomp between 2009 and 2015, which corresponds approximately to the S&P 1500. If a firm appears in Execucomp for only part of that sample period, we attempt to collect data for that firm for all years from 2009 to 2015. For our firm years, we require a valid 8-K filing containing an earnings announcement and a DEF-14A filing containing a proxy statement. We eliminate REITs because they have an industry-specific performance measure that does not fit the set of instructions that we provided to MTurk workers. Our Full Sample is comprised of 9,511 firm-years.

Our tests related to the quality of non-GAAP EPS require a single non-GAAP EPS number from each document. We therefore limit the sample for our usefulness tests to firm-years with only a single unique EPS number identified by MTurkers in the earnings announcement or in the proxy statement, which is generally when this number is more accurate (Table 1). To further minimize errors, we re-perform hand collection of non-GAAP EPS from the earnings announcement and proxy statement for all observations where MTurkers identified a single non-GAAP EPS number in both documents but the numbers differ.[12] Correcting errors from this hand collection leads to the exclusion of 13 firm-year observations where the firm does not report non-GAAP EPS in the earnings announcement. Our NONGAAP Sample is comprised of 2,922 firm-years that have no more than one non-GAAP EPS number in the earnings announcement or in the proxy statement.

[12] We expect errors in the identified non-GAAP EPS numbers to occur most frequently when MTurkers identify non-GAAP EPS numbers that differ between the earnings announcement and the proxy. When MTurkers identify the same non-GAAP EPS number between the two documents, different MTurkers would have to make the same error in both documents in order for the identified number to be incorrect.

3.3. Descriptive Statistics

Figure 1, Panel A, presents the overlap between non-GAAP EPS in the earnings announcement and the proxy statement for our Full Sample of 9,511 firm years. Approximately 52 percent of observations contain non-GAAP EPS in either the earnings announcement or the proxy statement. Non-GAAP EPS is more commonly disclosed in earnings announcements (49%) than in proxy statements (15%). Untabulated analyses reveal that the use of non-GAAP EPS in proxy statements increases from 9% of the sample in 2009 to 20% in 2015, which indicates that the use of non-GAAP metrics in compensation became more common. Figure 1, Panel B, provides statistics on the extent to which non-GAAP EPS matches between the earnings announcement and the proxy statement. For the Full Sample, where MTurkers potentially identified multiple non-GAAP EPS numbers, at least one of the numbers matches between the earnings announcement and proxy statement in 69% of firm-years. For the NONGAAP Sample, where we have a unique, generally more accurate (see Table 1) non-GAAP EPS number, the number matches between the earnings announcement and the proxy statement in 79 percent of firm-years.

Table 3 presents descriptive statistics for the two samples we use in our analyses. The number of observations for each variable corresponds to the data available for each of the analyses that follow. All variables are defined in Appendix B. For the Full Sample (Table 3, Panel A), 48% of our firm-year observations miss GAAP earnings expectations (*NEG GAAP SURPRISE*), while 73% of our observations are followed by analysts on a non-GAAP basis (*ANALYST NONGAAP*). 91% of our observations are from firms with CEOs promoted internally (*INTERNAL*), while 52% are from firms with CEO-Chair duality (*CEO CHAIR*). CEOs are well-paid in our sample (*COMPENSATION* with mean total compensation of exp(8.37) – 1 = $4.3 million) and come from sizable firms (*SIZE* with mean market capitalization of exp(7.89) = $2.7 billion). For the NONGAAP Sample (Table 3, Panel B), non-GAAP EPS when rescaled is approximately six percent of total assets (*NONGAAP EARN*). Non-GAAP exclusions are approximately negative two percent of total assets (*NONGAAP EXCL*), indicating that expenses are excluded from non-GAAP EPS, resulting in non-GAAP EPS that exceed GAAP EPS, on average.

4. Analyses

4.1. Factors Associated with Non-GAAP EPS Disclosure in Earnings Announcements and Proxy Statements

We first examine factors associated with non-GAAP EPS disclosure in earnings announcements and proxy statements separately. The purpose of this test is to provide evidence on the extent to which non-GAAP EPS disclosure in earnings announcements and proxy statements, respectively, is related to capital market incentives versus contracting incentives. While we expect that non-GAAP EPS measures found in proxy statements are used in compensation and inform the board of directors about manager actions, while non-GAAP EPS measures disclosed in earnings announcements are designed to influence capital market participants' investment decisions, these are ultimately empirical questions. We use this perspective to guide our descriptive analyses.

We proceed by identifying a set of variables that could be related to non-GAAP EPS disclosure in earnings announcements and proxy statements. We classify the variables based on whether we expect them to primarily represent capital market or contracting incentives, respectively. As noted previously, we define the term "capital market incentives" to be factors that are primarily related to the disclosure of information to investors. We define "contracting incentives" to be factors that are primarily related to motivating, assessing, and compensating managerial effort. We test how non-GAAP EPS disclosure in earnings announcements and proxy statements is associated with capital market and contracting incentives and examine the existence of differences across disclosure venues.

The variables we use as proxies for capital market incentives are *NEG GAAP SURPRISE*, *ANALYST NONGAAP* and *NG* EA_{t-1}. *NEG GAAP SURPRISE* is an indicator for whether the firm's GAAP EPS misses the consensus GAAP forecast from I/B/E/S and proxies for incentives to report a different performance measure when realized GAAP earnings fall short of market expectations for GAAP earnings. *ANALYST NONGAAP* is an indicator for whether the I/B/E/S consensus street actual is reported on an adjusted (non-GAAP) basis, which indicates that the majority of analysts following the firm forecast a non-GAAP metric and proxies for the attention market participants focus on non-GAAP EPS. *NG* EA_{t-1} is an indicator for whether the firm disclosed non-GAAP EPS in the earnings announcement in the prior year

and proxies for market expectations of continued non-GAAP EPS disclosure. We expect these variables to primarily reflect incentives related to providing information to investors. Prior academic research on non-GAAP EPS disclosure in earnings announcements has examined meet-beat behavior, which relates to *NEG GAAP SURPRISE*, differences between analysts' and managers' information, which relate to *ANALYST NONGAAP*, and includes disclosure choice in previous periods as a control, which is $NG\ EA_{t-1}$.

The variables we use as proxies for contracting incentives are *INTERNAL*, *CEO CHAIR*, *TENURE*, *COMPENSATION*, *DELTA*, *VEGA*, and $NG\ PROXY_{t-1}$. Each of the variables *INTERNAL*, *CEO CHAIR*, and *TENURE* represent the degree of control CEOs have over operations or disclosure activities. Similar to Curtis et al. (2018), we reason that greater control over operations and disclosure could imply less need to use non-GAAP EPS in contracting because there are fewer items for which the CEO is not responsible (and, thus, fewer items that should be removed from GAAP earnings for CEO performance measurement). *INTERNAL* is an indicator for whether the CEO was promoted from within the firm, with internally-promoted CEOs more likely to have more knowledge and ability to control firm operations and disclosure processes and outputs (and less need to be compensated using non-GAAP measures). *CEO CHAIR* is an indicator for whether the firm's CEO is also the chairperson of the Board of Directors. Because the role of board chairman affords the CEO additional control over operations and disclosure, we reason that CEO/chair duality may result in less need to adjust GAAP earnings for transactions and events beyond the CEO's control. *TENURE* measures the number of years the CEO has held that position. We reason that CEOs with greater tenure are more familiar with the firm's operational and disclosure processes and more able to control inputs and outputs to these processes (with less need to adjust GAAP-based performance measures for items beyond the CEO's control). As a counterpoint to the intuition offered here and in Curtis et al. (2018), greater control over disclosure activities could represent a governance problem (i.e., managerial entrenchment as in Bebchuk et al. 2002, Bebchuk and Fried 2003, 2005, Bebchuk et al. 2009, and Bebchuk and Weisbach 2010, among others), which could increase the use of non-GAAP EPS in contracting to enable the CEO to extract private economic rents.

COMPENSATION allows us to assess directly how the CEO's total compensation is related to non-GAAP disclosure, given the positive relation found in concurrent research (Guest et al. 2020). *DELTA* and *VEGA* reflect CEO wealth sensitivity to stock price and stock return volatility and serve as additional proxies for manager incentives (Core and Guay 2002, Coles et al. 2006, Coles et al. 2013). As firms trade off sensitivity and precision of performance measures in contracting (Scott 2015), CEOs with high sensitivity to stock price and volatility (i.e., large *DELTA* and *VEGA*) may be more sensitive to performance measures that are more associated with the information that investors use for valuation. On one hand, this high sensitivity to market-based measures could be positively associated with non-GAAP EPS in the proxy statement because prior research finds that the market responds more to non-GAAP measures than to GAAP measures (Bradshaw and Sloan 2002; Bhattacharya et al. (2003). On the other hand, if CEOs are highly sensitive to market-based measures of performance, they may be uniformly less sensitive to accounting-based measures of performance, regardless of the accounting system under which accounting-based performance measures are derived (i.e., non-GAAP or GAAP). *NG PROXY*$_{t-1}$ is an indicator for whether the firm disclosed non-GAAP EPS in the proxy statement in the prior year and proxies for the continued use of non-GAAP EPS in compensation contracting. We expect these variables to primarily reflect incentives related to motivating, assessing, and compensating managers.

We include additional factors which could reflect either or both capital market and contracting incentives and which we cannot classify one way or the other. These variables are: *INTANGIBLES*, the ratio of intangible assets to total assets and a proxy for the likelihood that current GAAP accounting is well-suited to the firm's underlying earnings generating process; *LITIGATION*, a measure of the likelihood of scrutiny of a firm's non-GAAP disclosure in either the earnings announcement or proxy statement (Kim and Skinner 2012); *LOSS*, an indicator for whether the firm has a GAAP loss and a proxy for the likelihood that current GAAP accounting is well-suited to the firm's underlying earnings generating process and for incentives to present a profitable number on a non-GAAP basis; *STDROA*, the volatility of GAAP earnings and a proxy for the volatility of earnings which can be reduced via non-GAAP reporting; *TRANS ITEM*, an indicator for whether Compustat identifies transitory items in GAAP net income and a proxy for the

likelihood that current GAAP accounting is well-suited to the firm's underlying earnings generating process and for incentives to present a persistent earnings number via non-GAAP disclosure; *SIZE*, firm market value of equity and a proxy for different earnings generating processes for small and large firms and the increased disclosure scrutiny of large firms; and *BM*, the firm's book-to-market ratio and a proxy for the possibility that growth firms have a greater incentive and need to provide and use non-GAAP measures of performance.

We test which factors are associated with non-GAAP EPS disclosure in earnings announcements (*NG EA*) and proxy statements (*NG PROXY*) by estimating the following probit model, separately for *NG EA* and *NG PROXY*:

$$\begin{aligned} NG\ EA_{it}\ or\ NG\ PROXY_{it} = \quad & \beta_0 + \beta_1 NON\ GAAP\ SURPRISE_{it} + \beta_2 ANALYST\ NONGAAP_{it} + \\ & \beta_3 NG\ EA_{it-1} + \beta_4 INTERNAL_{it} + \beta_5 CEO\ CHAIR_{it} + \\ & \beta_6 TENURE_{it} + \beta_7 COMPENSATION_{it} + \beta_8 DELTA_{it} + \\ & \beta_9 VEGA_{it} + \beta_{10} NG\ PROXY_{it-1} + \beta_{11} INTANGIBLES_{it} + \\ & \beta_{12} LITIGATION_{it} + \beta_{13} LOSS_{it} + \beta_{14} STDROA_{it} + \\ & \beta_{15} TRANS\ ITEM_{it} + \beta_{16} SIZE_{it} + \beta_{17} BM_{it} + \varepsilon_{it} \end{aligned} \quad (1)$$

We conduct this analysis using our Full Sample. To test for differences in coefficients depending on whether *NG EA* or *NG PROXY* is the dependent variable, we estimate the two models within a Seemingly Unrelated Estimation System and test across the two models. When estimating Equation 1 and all equations that follow, we cluster standard errors by firm unless noted otherwise.[13]

Table 4 presents the results of estimating Equation 1. For proxies for capital market incentives, we find that *NG EA* (column 1) and *NG PROXY* (column 2) are significantly more likely when analysts follow the firm on a non-GAAP basis (*ANALYST NONGAAP*), with a more positive relation for *NG EA* than for *NG PROXY*. We also find that *NG EA* and *NG PROXY* are significantly more likely when the firm disclosed non-GAAP EPS in the earnings announcement in the previous year (*NG EA*$_{t-1}$), with a more positive relation for *NG EA* than for *NG PROXY*. The significantly more positive associations of both *ANALYST NONGAAP*

[13] We do not cluster by time (Gow et al. 2010) because we have, at most, six years of available annual data for each firm, which is an insufficient number of clusters to cluster by time.

and *NG EA*$_{t-1}$ with *NG EA* relative to *NG PROXY* are consistent with capital market incentives being more strongly related to non-GAAP EPS disclosure in earnings announcements than in proxy statements.

Considering our proxies for contracting incentives, we find that *NG PROXY* is significantly less likely when firms promote the CEO internally (*INTERNAL*), which is consistent with reduced need for adjustments to GAAP earnings when fewer operational outcomes are outside of the CEO's control (Curtis et al. 2018). However, we do not find a significant difference across columns 1 and 2 in the associations of both *NG EA* and *NG PROXY* with *INTERNAL*. We do not find evidence that CEO power over the board (*CEO CHAIR*) or executive tenure (*TENURE*) have any association with *NG EA* or *NG PROXY*, but the cross-column difference in the coefficients on *TENURE* is significant at the 0.10 level in the expected direction. While we do not find an association between total compensation (*COMPENSATION*) or equity incentives (*DELTA*) and non-GAAP EPS disclosure in either the earnings announcement or the proxy statement, we find some evidence that risk-taking incentives (*VEGA*) are positively associated with *NG PROXY* (but not with *NG EA*), and the difference across columns is significant at the 0.11 level. This evidence may indicate that CEOs' risk-taking activities are better captured by non-GAAP measures relative to GAAP measures. An additional possibility is that the modest positive association of *VEGA* with *NG PROXY* could reflect firms shielding CEOs from some outcomes when the firms are trying to incentivize CEOs to take risks. Finally, we find that *NG EA* and *NG PROXY* are significantly more likely when the firm disclosed non-GAAP EPS in the proxy statement in the previous year (*NG PROXY*$_{t-1}$) with a more positive association for *NG PROXY*. This significantly more positive association for *NG PROXY* in column 2 provides modest evidence that contracting factors better explain non-GAAP EPS disclosure in proxy statements than in earnings announcements.

For proxies that could reflect either capital market or contracting incentives, we find that *NG EA* and *NG PROXY* are significantly positively associated (but not differentially associated) with the presence of more intangible assets (*INTANGIBLES*), which suggests that amortization of intangibles is likely to be excluded in calculating non-GAAP EPS used for valuation and contracting, or that GAAP earnings are a less value- or contracting-relevant performance measure for firms with many intangible assets. We find that

NG EA and *NG PROXY* are significantly negatively associated (but not differentially associated) with a measure of litigation risk (*LITIGATION*) and the presence of a GAAP loss (*LOSS*). We find that *NG EA* is significantly positively associated with *STDROA*, which implies that higher volatility of GAAP earnings is associated with a higher likelihood of disclosing non-GAAP EPS in the earnings announcement. The association between *NG EA* and *STDROA* is significantly more positive than the insignificant association between *NG PROXY* and *STDROA*, which is consistent with non-GAAP EPS being provided to investors for valuation when GAAP earnings are more volatile. We find that *NG EA* is significantly positively associated with the presence of transitory items (*TRANS ITEM*). This association is significantly more positive than the insignificant association between *NG PROXY* and *TRANS ITEM*. We also find that *NG PROXY* is positively associated with firm size (*SIZE*). Finally, we find that the association between *NG PROXY* and the firm's book-to-market ratio (*BM*) is significantly more positive than that between *BM* and *NG EA*, possibly consistent with firms shielding executives from some outcomes in an effort to reward riskier growth when the market perceives lower growth opportunities.

Overall, the results in Table 4 provide some evidence consistent with non-GAAP EPS reflecting different purposes when disclosed in the earnings announcement versus in the proxy statement: (1) *NG EA* has a stronger association than *NG PROXY* with variables that reflect capital market incentives (*ANALYST NONGAAP* and $NG\ EA_{t-1}$); and, (2) *NG PROXY* has a stronger significant association with one variable that reflects contracting incentives ($NG\ PROXY_{t-1}$). *NG EA* and *NG PROXY* have significantly different associations with *STDROA*, *TRANS ITEM*, and *BM*, but it is difficult to interpret these differences as consistent with primarily capital market or contracting incentives.

4.2. Determinants of Overlapping and Non-overlapping Non-GAAP EPS Disclosure

Figure 1 indicates nontrivial overlap in non-GAAP EPS disclosure between the earnings announcement and the proxy statement for the same firm. 11% of firm-year observations disclose non-GAAP EPS in both the earnings announcement and proxy statement, which represents 23% of observations where *NG EA* = 1 and 77% of observations where *NG PROXY* = 1. Overlap can make it difficult to identify the extent to which *NG EA* and *NG PROXY* represent capital market and contracting incentives because

overlap could reflect a mixture of capital market and contracting incentives. Non-overlapping disclosure (i.e., where firms provide non-GAAP EPS only in the earnings announcement or only in the proxy statement) may better identify disclosure that is attributable to capital market or contracting incentives because we can observe the firm making different decisions in different contexts. Under a revealed preference assumption, non-overlapping choices more clearly indicate the incentives underlying non-GAAP disclosure or use. For example, when firms disclose non-GAAP EPS in the proxy statement but do not disclose non-GAAP EPS to investors in the earnings announcement, the decision to disclose non-GAAP EPS should be related primarily to contracting incentives.

To better understand the overlap and lack of overlap in non-GAAP EPS disclosure between earnings announcements and proxy statements, we sort observations into four scenarios based on whether or not the firm provides non-GAAP EPS in neither filing (*NEITHER*), in only one of the filings (*EA ONLY* or *PROXY ONLY*), or in both filings (*BOTH*). Table 5, Panel A presents the means of the variables from Equation 1 by scenario and the results of two-sample t-tests comparing the four scenarios to each other. Two of three (five of seven) capital market incentive (contracting incentive) variables have significantly larger means in the *EA ONLY* (*PROXY ONLY*) scenario than in the *PROXY ONLY* (*EA ONLY*) scenario.

Next, we estimate the following multinomial logit model to examine multivariate associations of variables with the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios relative to the *NEITHER* scenario:

$$\Pr(\text{Scenario}_{it} = \text{j}|x_{it}) = \frac{\exp\,(x'_{it}\beta_j)}{\sum_{j=1}^{4}\exp\,(x'_{it}\beta_j)} \tag{2}$$

where *j* represents the four possible scenarios (i.e., 1 = *NEITHER*, 2 = *BOTH*, 3 = *EA ONLY*, and 4 = *PROXY ONLY*) for firm *i* in year *t*, and x represents all the explanatory variables from Equation 1. We conduct this analysis using our Full Sample. To compare determinants across the different scenarios, we change the reference scenario (e.g., making *BOTH* or *EA ONLY* the reference scenario) and re-estimate the model. We report coefficient estimates using *NEITHER* as the reference scenario and note significant differences across scenarios.

Table 5, Panel B presents the results of estimating Equation 2. For proxies predicted to be associated with capital market incentives, we find that analysts following the firm on a non-GAAP basis (*ANALYST*

NONGAAP) is most positively associated with the *BOTH* scenario, significantly less positively associated with the *EA ONLY* scenario, and even significantly less positively associated with the *PROXY ONLY* scenario. We find that the disclosure of non-GAAP EPS in the earnings announcement in the previous year (*NG* EA_{t-1}) is significantly more positively associated with *BOTH* and *EA ONLY* than with *PROXY ONLY*. These differences in associations across the scenarios are consistent with non-GAAP EPS disclosure in the *EA ONLY* (*PROXY ONLY*) setting being more (less) related to capital market incentives.

For proxies predicted to be associated with contracting incentives, we find that the promotion of the CEO internally (*INTERNAL*) is significantly more negative for *PROXY ONLY* than it is for *EA ONLY*, which is consistent with reduced need for adjustments to GAAP earnings in contracting when fewer operational outcomes are outside of the CEO's control (Curtis et al. 2018). We find that *CEO CHAIR, TENURE, COMPENSATION*, and *DELTA* are not associated with *BOTH, EA ONLY*, and *PROXY ONLY* relative to the *NEITHER* scenario. We find that *VEGA* is positively associated with *PROXY ONLY* relative to *NEITHER*, and we note that the association of *VEGA* with *PROXY ONLY* relative to that between *VEGA* and *EA ONLY* is significantly positive. The relative strength of the association of *VEGA* with *NG PROXY*, consistent with Table 4, may indicate that CEOs' risk-taking activities are better captured by non-GAAP measures relative to GAAP measures. This evidence could also reflect firms shielding executives from some outcomes when the firm is trying to incentivize the executives to take risks. Finally, we find that the disclosure of non-GAAP EPS in the proxy statement in the previous year (*NG* $PROXY_{t-1}$) is significantly more positively associated with *BOTH* and *PROXY ONLY* relative to *EA ONLY*. The differences in associations between the *EA ONLY* and *PROXY ONLY* scenarios for *INTERNAL* and *NG* $PROXY_{t-1}$, and the modest evidence of differences relative to *VEGA*, are consistent with non-GAAP EPS disclosure in the *PROXY ONLY* (*EA ONLY*) setting being more (less) related to contracting incentives.

Overall, the results in Table 5 provide evidence consistent with non-GAAP EPS reflecting different purposes when disclosed in the earnings announcement versus in the proxy statement. This evidence provides more clarity than that in Table 4 because we can separately examine the *BOTH, EA ONLY*, and *PROXY ONLY* scenarios. Prior research on non-GAAP EPS has not identified or distinguished between

these scenarios, and Table 5 indicates that non-GAAP EPS disclosures for these scenarios have systematically different determinants. Specifically, the *EA ONLY* scenario is more strongly (less strongly) related to capital market (contracting) incentives than is the *PROXY ONLY* scenario. Our results are consistent with non-GAAP EPS disclosure in the earnings announcement (proxy statement) indicating its use, or intended use, for valuation (compensation contracting).

The results in Table 5 also imply that the *BOTH* scenario reflects a combination of capital market and contracting incentives rather than only capital market incentives or only contracting incentives. We cannot tell whether the *BOTH* scenario represents coordination between different parties within the firm, influence from one decision maker within the firm over another, or cases when capital market and contracting incentives align by happenstance. Our objective is merely to explore whether the different scenarios exist and to provide descriptive evidence of their differences.

4.3. Excluded Items

To better understand how excluded items differ between the different reporting scenarios, we utilize annual exclusion-level data based on non-GAAP measures disclosed in annual earnings announcements (Ciesielski and Henry 2017, Black et al. 2018, Black et al. 2020).[14] These data are only available for S&P 500 firms that disclose non-GAAP earnings in the annual earnings announcement. Thus, we use the data to compare only the *BOTH* and the *EA ONLY* scenarios from our Full Sample. We construct indicator variables for each of the exclusion types, where each indicator equals one when the earnings announcement contains exclusions of a particular type and equals zero otherwise. The categories of recurring item exclusions are: *INVESTMENT*, *AMORTIZATION*, *STOCK COMPENSATION*, *PENSION*, *INTEREST EXPENSE*, and *CURRENCY*. We create an indicator, *RECURRING*, which is equal to 1 if any recurring item is excluded. The categories of nonrecurring item exclusions are: *RESTRUCTURING*, *TAX RELATED*, *ACQUISITION*, *IMPAIRMENT*, *LEGAL*, *DIVESTITURE*, and *DEBT EXTINGUISHMENT*, and we create an indicator, *NONRECURRING*, which is equal to 1 if any nonrecurring item is excluded. Finally, *UNCOMMON* represents other exclusion categories not covered by the remaining types.

[14] We thank Jack Ciesielski for allowing us to use this data which was collected by CPAs under his employ.

We use the exclusions data to test whether an item is more likely to be excluded in both the earnings announcement and the proxy statement (*BOTH*) as opposed to only in the earnings announcement (*EA ONLY*).[15] Table 6 presents the results of tests of differences in exclusion types. We perform univariate tests because we are not trying to investigate associations of exclusion types incremental to other exclusions, but rather to explore which exclusion types differ significantly across the *BOTH* and *EA ONLY* scenarios. We find that firms in the *BOTH* scenario are significantly more likely to exclude nonrecurring and uncommon items, and the difference in exclusion of recurring items is not significant. This evidence suggests that nonrecurring and uncommon items are more likely to be treated similarly by firms for assessing value and contracting. We also find that firms in the *BOTH* scenario are significantly less likely to exclude investment gains and losses and stock compensation expense and significantly more likely to exclude amortization expense. For specific types of nonrecurring items, we find that firms in the *BOTH* scenario are significantly more likely to exclude amounts related to restructuring, acquisition, and legal matters. For items without significant differences, (e.g., *PENSION*, *IMPAIRMENT*), our results imply that there is no systematically different non-GAAP EPS treatment of these items across the *BOTH* and *EA ONLY* scenarios.

Overall, the results in Table 6 imply that firms in the *BOTH* scenario (which disclose non-GAAP EPS in both the earnings announcement and in the proxy statement), engage in different non-GAAP reporting practices than firms in the *EA ONLY* scenario (which disclose non-GAAP EPS in only the earnings announcement). Prior research, which primarily examines non-GAAP disclosure in earnings announcements, neither identifies nor distinguishes between these two groups of firms. Our results imply that the presence of non-GAAP EPS in the proxy statement, in addition to the earnings announcement, is associated with significantly different non-GAAP reporting practices.

[15] Non-GAAP EPS can differ between the earnings announcement and the proxy statement for some observations in the *BOTH* scenario (see Figure 1, Panel B). This could impair our ability to determine the specific items that the firm deems useful for contracting. In untabulated tests, we restrict the firms in the *BOTH* scenario in Table 6 to those where non-GAAP EPS is the same between the earnings announcement and proxy statement (N = 328 instead of 452). Our inferences are identical to those without this restriction (i.e., the results presented in Table 6).

4.4. Persistence of Exclusions

The results in Tables 4-6 suggest that non-GAAP EPS disclosure differs significantly between the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios. We next examine differences in the properties of the resulting non-GAAP earnings and exclusion values depending on the scenario to which a firm-year observation belongs. We examine the relations between future operating performance and both non-GAAP earnings and exclusions by estimating the following equation using OLS, separately for the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios:

$$PERF_{it+1} = \beta_0 + \beta_1 NONGAAP\ EARN_{it} + \beta_2 NONGAAP\ EXCL_{it} + \varepsilon_{it} \quad (3)$$

where $PERF_{it+1}$ is equal to either CFO_{it+1} or $OPEARN_{it+1}$, scaled by total assets. *NONGAAP EARN* is non-GAAP EPS, from the earnings announcement in the *BOTH* and *EA ONLY* scenarios and from the proxy statement in the *PROXY ONLY* scenario, multiplied by the number of diluted shares outstanding and scaled by total assets.[16] We estimate Equation 3 using our NONGAAP Sample, which has our most accurate data on non-GAAP EPS numbers. *NONGAAP EXCL* is exclusions scaled by total assets. We calculate exclusions (*NONGAAP EXCL*) as GAAP Net Income less *NONGAAP EARN*, reflecting the identity GAAP Earnings = Non-GAAP Earnings + Excluded Items. We view excluded items that are persistent (i.e., positively related to future operating earnings and cash flows) to be lower in quality because they are related to future operating performance. The academic non-GAAP reporting literature and regulators have long held the assumption that the exclusion of one-time items is generally justifiable, while it is less likely that the exclusion of a recurring item is justifiable (Doyle et al. 2003; Kolev et al. 2008).[17] We do not include other variables that could be related to future operating performance in Equation 3 so that we can provide

[16] Since non-GAAP in the *BOTH* scenario is identical between the earnings announcement and the proxy statement nearly 80% of the time in our NONGAAP Sample (Figure 1), we do not differentiate between the two numbers. We use the number in the earnings announcement for all observations from the *BOTH* scenario because this makes our analysis more comparable to other studies examining non-GAAP EPS disclosure in the earnings announcement. Our inferences therefore generalize to the *presence* of non-GAAP EPS in both the proxy and the earnings announcement and include the possibility that the two numbers could differ. If we restrict the sample to observations where the non-GAAP EPS number is equal between the documents (i.e., drop approximately 20% of observations in the *BOTH* scenario), we reduce statistical power and model fit in some instances, and we find weaker differences in exclusion persistence and no difference in market reactions between firms in the *EA ONLY* and *BOTH* scenarios. Overall, however, conclusions are the same as those from results in Tables 7 through 9.

[17] SEC guidance also suggests that excluding recurring expense items "could be misleading" at https://www.sec.gov/divisions/corpfin/guidance/nongaapinterp.htm, Question 100.01.

evidence of the inherent persistence of exclusions, rather than the persistence incremental to other firm characteristics (Easton 2003). The coefficient of interest in Equation 3 is β_2, the coefficient on *NONGAAP EXCL*, which should be non-positive for firms excluding less value-relevant items. To compare across the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios, we pool the three scenarios together and interact *NONGAAP EARN* and *NONGAAP EXCL* with indicators for scenario membership (e.g., *EA ONLY* and *PROXY ONLY*), leaving the *BOTH* scenario as the base case for comparison.

Table 7, Panel A presents the results of estimating Equation 3 for each scenario. We find that non-GAAP earnings (*NONGAAP EARN*) and exclusions (*NONGAAP EXCL*) are generally positively associated with future operating performance for all three scenarios. The significantly positive coefficient on *NONGAAP EXCL* in all but one model is consistent with prior studies using quarterly non-GAAP reporting data (e.g., Doyle et al. 2003, Kolev et al. 2008) and indicates that excluded items are not completely value irrelevant. Panel B presents results for the pooled NONGAAP Sample with comparisons of *NONGAAP EARN* and *NONGAAP EXCL* across scenarios. Columns 1 (2) and 3 (4) report results when we exclude (include) controls from prior research (*LOSS*, *SIZE*, *BM*, *SALES GROWTH*, and *STDROA*) to capture differences in future operating performance related to firm characteristics (as well as industry and year fixed effects). We find that exclusions are significantly more persistent in the *EA ONLY* scenario than in the *BOTH* scenario for both future operating cash flows (CFO_{t+1}) and future operating earnings ($OPEARN_{t+1}$). The difference in exclusions persistence is consistent with non-GAAP EPS being of higher quality in the *BOTH* scenario than in the *EA ONLY* scenario. For the *PROXY ONLY* scenario, we find that exclusions are significantly more persistent, based on future cash flows, relative to the *BOTH* scenario, which implies that the items excluded from non-GAAP EPS disclosed only in the proxy statement are more related to operating performance relative to items excluded when non-GAAP EPS is disclosed in both the earnings announcement and the proxy statement. Untabulated tests reveal no significant difference in the persistence of exclusions between the *EA ONLY* and *PROXY ONLY* scenarios. Overall, the results in Table 7 suggest that exclusions are the least persistent (i.e., highest quality) in the *BOTH* scenario.

4.5. Indicators of Aggressive Non-GAAP Reporting

We next examine whether the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios differ based on indicators used by prior research to measure aggressive, or lower quality, non-GAAP earnings disclosure. The three indicators we examine are: *OTHER EXCL*, an indicator equal to one when non-GAAP EPS differs from operating EPS in Compustat (zero otherwise), which is interpreted to denote the exclusion of recurring items (Doyle et al. 2003); *MEETBEAT*, an indicator equal to one when the firm has GAAP EPS that misses the I/B/E/S consensus GAAP forecast but reports non-GAAP EPS that meets or beats the I/B/E/S consensus street forecast, zero otherwise (Bradshaw et al. 2018); and *EXCEED*, an indicator for when the firm's non-GAAP EPS exceeds I/B/E/S consensus street actual (zero otherwise), which indicates that analysts did not view performance to be as positive as the firm did (Kyung et al. 2019, Chen et al. 2020). We again conduct this analysis using our NONGAAP Sample. We perform t-tests for differences in the occurrence of these reporting practices across the three scenarios: *BOTH*, *EA ONLY*, and *PROXY ONLY*.

Table 8 presents the results of these tests. Other exclusions (*OTHER EXCL*) are the least common in the *BOTH* scenario and the most common in the *PROXY ONLY* scenario, and the differences in occurrence are significant. We find that the use of non-GAAP reporting to meet-or-beat forecasts (*MEETBEAT*) is more likely in the *BOTH* scenario than in the *EA ONLY* scenario. Finally, we find that reporting non-GAAP EPS that exceeds what analysts are willing to corroborate (*EXCEED*) is least common in the *BOTH* scenario and most common in the *PROXY ONLY* scenario, and the differences are significant. We note that Bradshaw et al. (2018) find that transitory or nonrecurring items, often considered relatively high-quality exclusions, are the strongest determinant of *MEETBEAT*. Thus, while firms in the *BOTH* scenario are more likely to meet-or-beat forecasts using non-GAAP EPS (*MEETBEAT*) than are firms in the *EA ONLY* scenario, this result could be attributable to exclusions of nonrecurring items with which analysts apparently agree more often in the *BOTH* scenario (*EXCEED*). Overall, the results for *OTHER EXCL*, and *EXCEED* are consistent with higher quality (i.e., less aggressive) non-GAAP EPS disclosure, in the *BOTH* scenario, and the interpretation of *MEETBEAT* is somewhat ambiguous. The reporting choices

in the *EA ONLY* and *PROXY ONLY* scenarios appear less aligned with what is useful for an investor assessing firm value.[18]

4.6. Relevance of Non-GAAP Earnings News for Investors

Finally, we examine the association between earnings-announcement stock market returns and non-GAAP earnings news for each scenario. Based on prior research, a more positive association indicates that earnings news is more relevant for investors. For the *BOTH* and *EA ONLY* scenarios, this type of association can be interpreted as an earnings response coefficient (ERC). For the *PROXY ONLY* scenario, however, the non-GAAP EPS number from the proxy statement is not available to investors at the time of the earnings announcement. Therefore, a positive association for this scenario cannot be interpreted as investors' response, but rather as investors using information at the earnings announcement date that is correlated with the ultimate non-GAAP earnings news available in the proxy statement.[19] We test for the association between earnings-announcement stock market returns and non-GAAP EPS news by estimating the following equation using OLS, separately for each scenario:

$$CAR_{it} = \beta_0 + \beta_1 NONGAAP\ FE_{it} + \varepsilon_{it} \quad (4)$$

where *CAR* is the three-day market-adjusted return around the earnings announcement date. *NONGAAP FE* is non-GAAP EPS reported in the earnings announcement less analysts' consensus street earnings forecast, scaled by price as of fiscal year-end. The coefficient on *NONGAAP FE* is the earnings response coefficient, or ERC. We conduct this analysis using our NONGAAP Sample and cluster standard errors by earnings announcement date (Hirshleifer et al. 2009). β_1, the coefficient on *NONGAAP FE*, is the coefficient of interest. To compare this coefficient across the scenarios, we pool the three scenarios together and interact *NONGAAP FE* with indicators for scenario membership (e.g., *EA ONLY* and *PROXY ONLY*), leaving the *BOTH* scenario as the base case for comparison.

[18] While we earlier find that non-GAAP reporting in the *PROXY ONLY* scenario is related to contracting incentives (Tables 4 and 5), we do not distinguish whether this reflects efficient contracting or managerial power. Thus, non-GAAP reporting that is less useful for investors in the *PROXY ONLY* scenario is not necessarily opportunistic in compensation contracting.

[19] In the *PROXY ONLY* scenario, firms do not disclose a non-GAAP EPS number in the earnings announcement; thus, an investor would have to construct their own adjusted earnings metric using disaggregated income statement data, and the resulting investor-constructed metric could be correlated with the number that firms eventually provide in the proxy statement.

Table 9, Panel A, presents the results of estimating Equation 4. We find a positive coefficient on *NONGAAP FE* in all three scenarios, which indicates that non-GAAP EPS news is relevant for investors. Panel B reports comparisons across the three scenarios. Column 1 (2) reports results when we exclude (include) controls from prior research (*SIZE*, *BM*, *ANALYSTS*, *RPT LAG*, *INSTOWN*) to account for factors that may be related to announcement-date returns (as well as industry and year fixed effects). The coefficient for the *BOTH* scenario is statistically greater than that for the *EA ONLY* scenario in only Column 2, which is modest evidence that non-GAAP EPS news is less relevant for investors when non-GAAP EPS is not also disclosed in the proxy statement. If we also interact *NONGAAP FE* with our control variables when we test for differences across the *BOTH*, *EA ONLY*, and *PROXY ONLY* scenarios, the difference in the relevance of earnings news to investors between the *BOTH* and *EA ONLY* scenarios is more significant (i.e., p-value < 0.05) relative to that reported in Column 2 (results untabulated). Untabulated analyses do not reveal a significant difference in the relevance of the earnings news between the *PROXY ONLY* scenario relative to the other two scenarios. The results in Tables 6, 7, and 8 imply that non-GAAP EPS should be of higher quality in the *BOTH* scenario (e.g., because non-GAAP EPS in the *BOTH* scenario is less likely to exclude recurring items and more likely to be corroborated by analysts). We find weak evidence that investors find non-GAAP EPS news more relevant in the *BOTH* scenario relative to the *EA ONLY* scenario. We suspect that the low number of observations in the *PROXY ONLY* scenario may impair our ability to identify differences between the *PROXY ONLY* and *BOTH* scenarios.[20]

[20] In untabulated analyses, we interact *EA ONLY* and *PROXY ONLY* with the control variables (e.g., *BM*) and fixed effects in Tables 7 and 9, which allows the relation between these variables and future operating performance or returns to vary across the reporting scenarios. Relative to the results in Table 7, the difference in exclusions persistence between the *BOTH* and *EA ONLY* scenarios is of the same sign (i.e., *EA ONLY* is more persistent) but not statistically significant, possibly because future operating performance is more related to growth prospects for firms in the *EA ONLY* scenario (i.e., the coefficient on the interaction between *BM* and *EA ONLY* is significantly negative). These results suggest that a mechanism for why exclusions are more related to future performance for *EA ONLY* firms is that future performance is more related to growth prospects. This finding does not change the inference that, on average, *EA ONLY* firms' exclusions are more persistent (Table 7). *EA ONLY* firms may even understand how future performance relates to growth and, nevertheless, choose to exclude persistent items. Relative to the results in Table 7, we continue to find a significant difference between the *BOTH* and *PROXY ONLY* scenarios when future operating cash flow is the dependent variable. Relative to the results in Table 9, the difference in the relevance of non-GAAP earnings news between the *BOTH* and *EA ONLY* scenarios is of the same sign (i.e., *BOTH* is more relevant) but is not statistically significant (p-value = 0.13).

5. Conclusion

We examine the disclosure of non-GAAP EPS in firms' annual earnings announcements and proxy statements using hand-collected data from firms' SEC filings. We find that variables reflecting capital market incentives (contracting incentives) are more highly associated with the likelihood of non-GAAP EPS disclosure in annual earnings announcements (proxy statements) than with the likelihood of non-GAAP EPS disclosure in proxy statements (earnings announcements). This result is consistent with the disclosure of non-GAAP EPS in earnings announcements (proxy statements) reflecting its use, or intended use, for valuation (compensation contracting). In addition, we find that the exclusion of nonrecurring items is more likely to occur when managers disclose non-GAAP EPS in both the annual earnings announcement and the proxy statement. Moreover, we find the least persistent non-GAAP exclusions, and least aggressive non-GAAP EPS disclosure, when firms provide non-GAAP EPS in both the annual earnings announcement and the proxy statement, which implies that when non-GAAP EPS is provided only in the earnings announcement or only in the proxy statement, non-GAAP EPS is less useful for investors assessing firm value. Our study provides the first large sample analysis of firms' disclosure of non-GAAP EPS in both the earnings announcement and the proxy statement. Overall, our results can inform securities regulators, accounting standard setters, market participants, and researchers on the properties of non-GAAP earnings disclosed for capital markets and used in compensation contracting. Inasmuch as these parties try to make sense of the widespread non-GAAP earnings disclosures in U.S. capital markets, and in their use for compensation, our results provide descriptive evidence to inform their discussions.

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Appendix A

Amazon MTurk Data Collection Instructions

This is a **QUALIFICATION TASK** for a research study to extract and record **ANNUAL NON-GAAP EARNINGS PER DILUTED SHARE** data. Correctly extracting and recording this data in 90% of these statements will qualify you for two tasks: ***Proxy: Annual Non-GAAP Earnings per Diluted Share***, and ***Earnings: Annual Non-GAAP Earnings per Diluted Share***.

INSTRUCTIONS

Extract and record **ANNUAL NON-GAAP EARNINGS PER DILUTED SHARE**.

Read each excerpt in full record the **ANNUAL NON-GAAP EARNINGS PER DILUTED SHARE** number disclosed for the company in the blank "ANSWER" space provided (see Example 1). Other terms indicating non-GAAP earnings per diluted share could be "adjusted earnings per diluted share," indicating an adjustment from GAAP earnings per diluted share.

Leave the "ANSWER" space blank if you cannot identify the **ANNUAL NON-GAAP EARNINGS PER SHARE** number from the excerpt. This will be the case if you encounter any of the following:

- There is no earnings number in the excerpt.
- The excerpt is a row of numbers without discernable dates to match the numbers.
- There is only information on non-GAAP earnings targets, forecasts, or ranges of targets or forecasts and no information on actual non-GAAP earnings results.
- The excerpt contains quarterly information, and no annual information. Do not record quarterly non-GAAP earnings per share numbers.
- The excerpt contains only annual non-GAAP earnings (unscaled) or annual non-GAAP earnings per basic share.
    - If you cannot tell whether an ANNUAL NON-GAAP EARNINGS PER SHARE number is per diluted share or per basic share from the information in the excerpt, record the available number in the "ANSWER" space.

When you encounter more than one **ANNUAL NON-GAAP EARNINGS PER DILUTED SHARE** number in an excerpt, do the following:

- Record the number from the most recent annual period in the "ANSWER" field and record the year in the "NOTES" field.
- If more than one **ANNUAL NON-GAAP EARNINGS PER DILUTED SHARE** number exists in an excerpt **from the same annual period**, record the largest number and explain your choice in the "NOTES" field.

When recording a number in the "ANSWER" space, follow these formatting rules:

- No dollar signs or other currency labels
- Record the number in terms of dollars. "Four cents" should be recorded as 0.04.

Example 1
Full year diluted net income per share, excluding per share restructuring and impairment expense, of $4.35 compared to $4.25 in 2009

ANSWER:
4.35
NOTES:

Example 2
Diluted net income per share of $0.75, compared to $0.61 per share in fourth quarter 2009; excluding per share restructuring and impairment expense of $0.31 and $0.35, respectively, adjusted net income per share of $1.06 compared to $0.96 per share in the fourth quarter of 2009

ANSWER:
NOTES:

Appendix A (continued)
Amazon MTurk Qualification Test

Qualification Test

1) The Company's diluted non-GAAP earnings per share ("EPS") for fiscal year 2013 was $5.31 per share, significantly above the EPS target that drove the financial objectives portion of the cash incentive program, as established by the Compensation Committee and, in aggregate, the Company also exceeded the target performance for its strategic objectives

ANSWER:
5.31
NOTES:

2) With respect to the fiscal year 2013 non-GAAP EPS goal, the minimum non-GAAP EPS target approved by the Compensation Committee that would have resulted in a payout under the 2013 bonus program was $2.43 per share

ANSWER:
NOTES:

3) The non-GAAP net income for fiscal 2009 was $427 million, or $1.84 per diluted share, compared to net loss of ($466) million, or ($2.07) per share, in fiscal 2008

ANSWER:
1.84
NOTES:
2009

4) The amount of bonuses payable under the 2013 bonus program were based on the following: (1) the Company's performance during fiscal year 2013 relative to a non-GAAP EPS target, which constituted 65% of the 2013 bonus program, and (2) the Company's performance relative to strategic objectives, which collectively constituted 35% of the 2013 bonus program

ANSWER:
NOTES:

5) Non-GAAP operating profit was $417 million, or 34% of total revenue, compared to non-GAAP operating loss of ($568) million, or (66%) of total revenue, in the fourth quarter of fiscal 2008 and non-GAAP operating profit of $263 million, or 28% of total revenue, in the third quarter of fiscal 2009

ANSWER:
NOTES:

6) Delivered non-GAAP operating margin of 29%, resulting in record diluted earnings per share on a non-GAAP basis of $5.31 per share, more than twice the non-GAAP diluted earnings per share in fiscal year 2012

ANSWER:
5.31
NOTES:

7) On a non-GAAP basis, which excludes the impact of acquisition-related charges, share-based compensation expense, impairment of goodwill and acquisition-related intangible assets, non-cash economic interest expense associated with the cash-settled convertible note, and related tax adjustments and valuation allowance, fourth-quarter net income was $277 million, or $1.18 per diluted share, compared to a net loss of ($359) million, or ($1.59) per share, in the fourth quarter of fiscal 2008 and net income of $176 million, or $0.75 per diluted share, in the third quarter of fiscal 2009

ANSWER:
NOTES:

8) NON-GAAP NET INCOME (LOSS) $ 277,211 $ (359,331) $ 427,207 $ (465,974)

ANSWER:
NOTES:

9) Delivered non-GAAP operating margin of 28%, resulting in record diluted earnings per share on a non-GAAP basis of $5.60 per share, up 5% from the non-GAAP diluted earnings per share in fiscal year 2013

ANSWER:
5.60
NOTES:

10) Income (loss) before income taxes 377,256 (1,615,168) 503,801 (1,952,374)

ANSWER:
NOTES:

Appendix A (continued)
Additional Instructions for Qualified MTurk Workers

We sent the following additional instructions to MTurk workers who passed our qualification test in order to provide further guidance.

SUBJECT: Important NON-GAAP Earnings Task Feedback and Additional Instructions

MESSAGE:

You are receiving this email because you are qualified to work on Proxy: Annual Non-GAAP Earnings per Diluted Share and Earnings: Annual Non-GAAP Earnings per Diluted Share in Amazon Mturk. Before I release additional batches, please review this feedback and additional instructions to ensure improved accuracy of the data collection task/your work.

General Feedback

Non-GAAP earnings can be described in many different ways. Adjusted EPS, Core EPS, and many other kinds of adjusted earnings per share numbers should also be considered non-GAAP.

Further Examples and Instructions

Only quarterly information

Example 1

Excluding the net restructuring charges discussed previously, fourth quarter 2012 non-GAAP income from operations grew $6.0 million or 27.0 percent to $28.2 million or 9.5 percent of revenue

Example 1 should be left blank – only provides fourth-quarter information

Example 2

EX-99.1 2 a15-5396_1ex99d1.htm EX-99.1 Exhibit 99.1 TELETECH ANNOUNCES FOURTH QUARTER AND FULL YEAR 2014 FINANCIAL RESULTS Fourth Quarter 2014 Results Revenue Increased 6.3 Percent to $338.2 Million (8.4 Percent to $344.9 Million Non-GAAP); Operating Income was $30.1 Million, 8.9 Percent of Revenue (9.4 Percent Non-GAAP); Fully Diluted EPS was 44 Cents (46 Cents Non-GAAP); Signed $100 Million in New Business (an Increase of 25 Percent) Initiates a Semi-annual Cash Dividend and Increases Share Repurchase Allowance Provides Outlook for Full Year 2015 Revenue and Operating Income Denver, Colo., February 25, 2015 - TeleTech Holdings, inc (NASDAQ: TTEC), a leading global provider of customer experience, engagement and growth solutions, today announced financial results for the fourth quarter and full year ended December 31, 2014

Example 2 should be left blank – the numbers given all relate to "Fourth Quarter 2014 Results" and we're looking for annual, or full-year, information.

No information on year or quarter

Example 3

Non-GAAP EPS attributable to TeleTech shareholders $ 0.29 $ 0.28 $ 1.26 $ 1.03

Example 3 should be left blank – no idea which of the four numbers is the number we're looking for

Example 4

Non-GAAP fully diluted earnings per share increased 12.3 percent to $1.55 from $1.38 in the prior year period

Example 4 - make an educated assessment – the phrase prior year period is not specific; could be the full year last year, OR the same quarter last year. However, we want the data, so record 1.55.

Provides a forecast or guidance, not an actual result

Example 5

Sirona announces fiscal 2013 guidance: revenue growth of 9% to 11% constant currency, and EPS on a non-GAAP adjusted basis in a range of $3.33 to $3.43 (reflecting growth of approximately 10% to 13%)

Example 5 should be left blank – company is sharing what it thinks non-GAAP EPS will be, but the actual is not known yet

Provides a target or threshold, not an actual result

Example 6

(1) The shares of restricted stock vested upon certification by the compensation committee of the company's board of directors, of the achievement of an established threshold level of non-GAAP earnings per share of $0.96 per diluted share for the year ended December 31, 2012

Example 6 should be left blank – $0.96 is the pre-established threshold, not the actual result. We know the actual result was at least as high as $0.96, but we don't know the actual number.

Example 7

These awards vested 12 months from the date of grant upon the achievement of non-GAAP earnings per share of $0.70 for the year ended December 31, 2010

Example 7 should be left blank -- $0.70 is the target or threshold that was achieved.

Example 8

Actual performance achieved in 2010 was operating revenue of $218 million, non-GAAP earnings per share of $0.74, and non-GAAP adjusted EBITDA of $69 million

Example 8 should record 0.74 – this is the actual non-GAAP earnings per share

Appendix B
Variable Definitions

Name	Description	Source
ACQUISITION	Equals "1" if non-GAAP EPS from the earnings announcement excludes acquisition-related items; "0" otherwise.	Black et al. (2018, 2020)
AMORTIZATION	Equals "1" if non-GAAP EPS from the earnings announcement excludes amortization of intangibles; "0" otherwise.	Black et al. (2018, 2020)
ANALYST NONGAAP	Equals "1" if analysts follow the firm on a non-GAAP basis, i.e., if IBES unadjusted actual EPS for the fiscal year differs from epsfi in Compustat; "0" otherwise.	Compustat, IBES
ANALYSTS	The number of analysts contributing to the I/B/E/S EPS consensus forecast before the earnings announcement. Calculated as the natural log of (1 + the number of analysts). When there is no consensus forecast on I/B/E/S, we assume that the number of analysts contributing is zero.	I/B/E/S
BM	Book value of equity at fiscal year-end (seq from Compustat) divided by the market value of equity as of the fiscal year-end month (from CRSP, or from Compustat when CRSP data is unavailable). In market-response tests, this is ranked into deciles and scaled to range from -0.5 to 0.5.	Compustat, CRSP
CAR	Three-day cumulative market-adjusted return surrounding the earnings announcement date. Calculated as the firm's buy-and-hold return over the [-1,+1] window around the earnings announcement date, which is day 0, less the value-weighted market buy-and-hold return over the same window.	Compustat, CRSP
CEO CHAIR	Equals "1" if the CEO is chairperson of the board of directors, i.e., the characters "CHAIRMAN" or "CHMN" are in titleann in Execucomp; "0" otherwise.	Execucomp
CFO_{t+1}	Operating cash flow for the following year. Calculated as operating cash flow for year *t+1* (oancf from Compustat) scaled by total assets in year *t* (at from Compustat).	Compustat
COMPENSATION	Natural log of 1 plus CEO total compensation for fiscal year *t* (tdc1 from Execucomp).	Execucomp

Name	Description	Source
CURRENCY	Equals "1" if non-GAAP EPS from the earnings announcement excludes foreign currency exchange gains and losses; "0" otherwise.	Black et al. (2018, 2020)
DEBT EXTINGUISHMENT	Equals "1" if non-GAAP EPS from the earnings announcement excludes gains or losses on extinguishment of debt; "0" otherwise.	Black et al. (2018, 2020)
DELTA	Natural log of (1 + CEO's equity delta) from https://sites.temple.edu/lnaveen/data/. This variable measures the CEO's change in wealth with respect to changes in stock price.	Execucomp
DIVESTITURE	Equals "1" if non-GAAP EPS from the earnings announcement excludes divestiture-related gains or losses; "0" otherwise.	Black et al. (2018, 2020)
EXCEED	Equals "1" if non-GAAP EPS from the annual earnings announcement exceeds the I/B/E/S actual EPS earnings number; "0" otherwise	SEC.GOV 8-K, I/B/E/S
IMPAIRMENT	Equals "1" if non-GAAP EPS from the earnings announcement excludes impairment-related costs; "0" otherwise.	Black et al. (2018, 2020)
INSTOWN	The proportion of total outstanding shares owned by institutional investors.	Thomson Reuters Institutional Holdings
INTANGIBLES	The ratio of intangible assets (intan from Compustat) to total assets (at from Compustat) as of the fiscal year-end.	Compustat
INTEREST EXPENSE	Equals "1" if non-GAAP EPS from the earnings announcement excludes interest-related revenues or costs; "0" otherwise.	Black et al. (2018, 2020)
INTERNAL	Equals "1" if the CEO was promoted from within the organization, i.e., joined_co from Execucomp is earlier than becameceo in Execucomp; "0" otherwise.	Execucomp
INVESTMENT	Equals "1" if non-GAAP EPS from the earnings announcement excludes investment-related gains and losses; "0" otherwise.	Black et al. (2018, 2020)
LEGAL	Equals "1" if non-GAAP EPS from the earnings announcement excludes legal-related gains or losses; "0" otherwise.	Black et al. (2018, 2020)
LITIGATION	Annual measure of ex ante litigation risk, using variables and coefficients from Kim and Skinner (2012), model 3/3a. We merge the litigation risk measure to our data based on fiscal year.	Compustat, CRSP

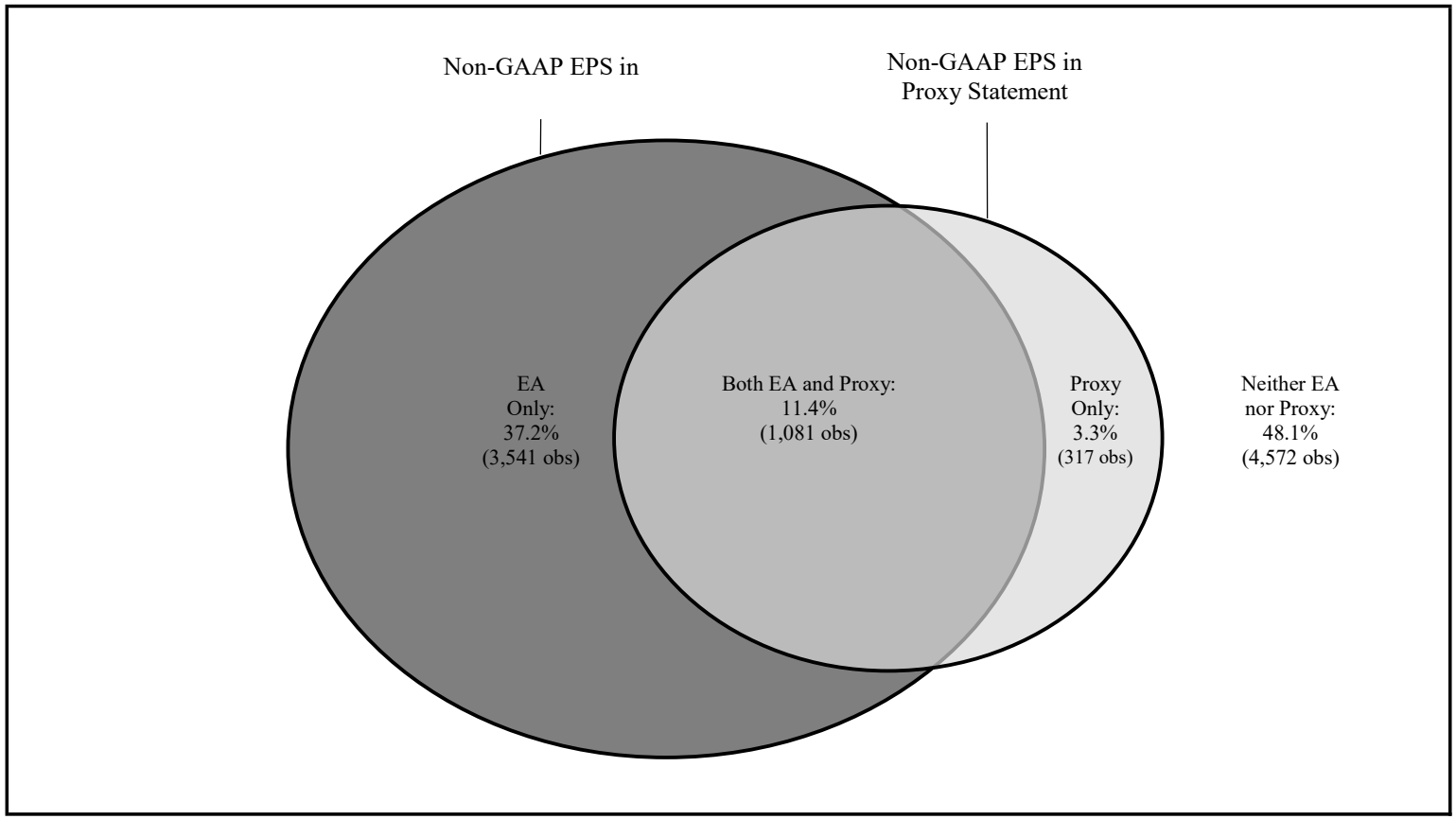
Name	Description	Source
LOSS	Equals "1" if GAAP net income (ni from Compustat) is less than zero; "0" otherwise.	Compustat
MEETBEAT	Equals "1" if non-GAAP exclusions move the firm from a GAAP miss to a non-GAAP meet or beat, i.e., *NEG GAAP SURPRISE* = 1 and Non-GAAP EPS hand-collected from the annual earnings announcement or proxy statement exceeds the IBES street EPS forecast; "0" otherwise.	SEC.GOV 8-K, SEC.GOV DEF 14A, I/B/E/S
NEG GAAP SURPRISE	Equals "1" if the IBES GAAP EPS actual is less than the IBES GAAP EPS forecast; "0" otherwise.	I/B/E/S
NG EA	Equals "1" if the firm reports a non-GAAP EPS measure in the annual earnings announcement for year *t*; "0" otherwise.	SEC.GOV 8-K
NG PROXY	Equals "1" if the firm reports a non-GAAP EPS measure in the proxy statement for year *t*; "0" otherwise.	SEC.GOV DEF 14A
NONGAAP EARN	Non-GAAP EPS hand-collected from the annual earnings announcement or proxy statement for year *t*, multiplied by diluted shares outstanding (cshfd from Compustat) and scaled by total assets (at from Compustat)	SEC.GOV 8-K, SEC.GOV DEF 14A, Compustat
NONGAAP EXCL	Non-GAAP exclusions from the annual earnings announcement or proxy statement for year t. Calculated as GAAP earnings (epsfi from Compustat times cshfd from Compustat) scaled by total assets (at from Compustat) less NONGAAP EARN, so that when the firm excludes an expense, NONGAAP EXCL has a negative sign.	SEC.GOV 8-K, SEC.GOV DEF 14A, Compustat
NONGAAP FE	Non-GAAP EPS hand-collected from the annual earnings announcement or proxy statement for year *t* less the most timely I/B/E/S median consensus street forecast and scaled by stock price as of the fiscal year-end date (prcc_f from Compustat). In market-response tests, this is ranked into deciles and scaled to range from 0 to 1.	SEC.GOV 8-K, SEC.GOV DEF 14A, Compustat, I/B/E/S
NONRECURRING	Equals "1" if the firm excludes at least one nonrecurring item, i.e., if the sum of *RESTRUCTURING*, *TAX RELATED*, *ACQUISITION*, *IMPAIRMENT*, *LEGAL*, *DIVESTITURE*, and *DEBT EXTINGUISHMENT* is at least 1; "0" otherwise.	Black et al. (2018, 2020)

Name	Description	Source
$OPEARN_{t+1}$	Operating earnings for the following year. Calculated as operating earnings per diluted share in year *t+1* (oprepsx from Compustat) multiplied by the number of diluted shares outstanding in year *t+1* (cshfd from Compustat) and scaled by total assets in year *t* (at from Compustat).	Compustat
OTHER EXCL	Equals "1" if Non-GAAP EPS hand-collected from the annual earnings announcement or proxy statement differs from operating earnings per diluted share (oprepsx from Compustat); "0" otherwise.	SEC.GOV 8-K, SEC.GOV DEF 14A, Compustat
PENSION	Equals "1" if non-GAAP EPS from the earnings announcement excludes pension related items; "0" otherwise.	Black et al. (2018, 2020)
RECURRING	Equals "1" if the firm excludes at least one recurring item, i.e., if the sum of *INVESTMENT*, *AMORTIZATION*, *STOCK COMPENSATION*, *PENSION*, *INTEREST EXPENSE*, and *CURRENCY* is at least 1; "0" otherwise.	Black et al. (2018, 2020)
RESTRUCTURING	Equals "1" if non-GAAP EPS from the earnings announcement excludes restructuring items; "0" otherwise.	Black et al. (2018, 2020)
RPT LAG	The number of days between earnings announcement date (determined following DellaVigna and Pollet 2009) and fiscal year-end.	Compustat, I/B/E/S
SALES GROWTH	Change in sales, as a proportion of total assets. Calculated as sales in year *t* (sale from Compustat) less sales in year *t-1*, scaled by total assets in year *t* (at from Compustat).	Compustat
SIZE	Natural log of market value of equity as of fiscal year-end month. In market-response tests, this is ranked into deciles and scaled to range from -0.5 to 0.5.	CRSP
STDROA	Standard deviation of a firm's return on assets (ib divided by at, from Compustat) over at least two of the past five years.	Compustat
STOCK COMPENSATION	Equals "1" if non-GAAP EPS from the earnings announcement excludes stock-based compensation items; "0" otherwise.	Black et al. (2018, 2020)
TAX RELATED	Equals "1" if non-GAAP EPS from the earnings announcement excludes tax-related items, inclusive of R&D tax credit and tax resolution or tax change items; "0" otherwise.	Black et al. (2018, 2020)

Name	Description	Source
TENURE	Natural log of 1 plus the number of years the CEO has held the position.	Execucomp
TRANS ITEM	Equals "1" if Compustat identifies transitory items, i.e., if oprepsx differs from epsfi in Compustat; "0" otherwise.	Compustat
UNCOMMON	Equals "1" if non-GAAP EPS from the earnings announcement excludes items not otherwise classified; "0" otherwise.	Black et al. (2018, 2020)
VEGA	Natural log of (1 + CEO's equity vega) from https://sites.temple.edu/lnaveen/data/. This variable measures the CEO's change in wealth with respect to changes in stock price volatility.	Execucomp

FIGURE 1
Non-GAAP EPS Reporting in the Earnings Announcement (EA) and Use for Executive Compensation in the Proxy Statement (Proxy)

Panel A: Overlap in the presence of non-GAAP EPS in the Earnings Announcement and Proxy



Panel B: Overlap in the non-GAAP EPS number reported in the EA and Proxy

	Number of firm-years	Non-GAAP EPS in both EA and Proxy	Non-GAAP EPS matches	
Full Sample	9,511	1,081	744	69%
NONGAAP Sample	2,922	440	349	79%

This figure presents statistics on the proportion of observations in our Full Sample (9,511 firm-years) containing non-GAAP EPS in the earnings announcement and in the proxy statement (Panel A) and on the extent to which non-GAAP EPS matches between the documents for our two samples (Panel B). In Panel B, for the Full Sample, non-GAAP EPS matches if at least one of the potentially multiple non-GAAP EPS numbers from the earnings announcement equals at least one of the potentially multiple non-GAAP EPS numbers from the proxy statement. For the NONGGAAP SAmple, non-GAAP EPS matches if the unique (more accurate) non-GAAP EPS number from the earnings announcement equals the unique (more accurate) non-GAAP EPS number from the proxy statement.

TABLE 1
Data Collection Accuracy

Panel A: Earnings announcements

	N	% correctly identified
NG EA = 1	30	100.0%
NG EA = 0	30	76.7%
NG EA Overall	60	88.3%
	N	% contain correct number
Non-GAAP EPS	30	90.0%
When identified:		
1 Number	21	90.5%
2 Numbers	5	80.0%
3 Numbers	3	100.0%
4 Numbers	1	100.0%

Panel B: Proxy statements

	N	% correctly identified
NG PROXY = 1	30	86.7%
NG PROXY = 0	30	93.3%
NG PROXY Overall	60	90.0%
	N	% contain correct number
Non-GAAP EPS	26	73.1%
When identified:		
1 Number	21	81.0%
2 Numbers	5	40.0%

TABLE 2
Sample Selection

	Firm-Years
Firm-Years from Execucomp firms for fiscal years ending in 2009 - 2015	11,061
Less: missing either Earnings Announcement or Proxy Statement	(1,101)
Less: REITS (SIC code = 6798)	(449)
Full Sample	9,511

	Firm-Years
Full Sample	9,511
Less: does not report non-GAAP EPS in Earnings Announcement or Proxy Statement	(4,572)
Less: multiple non-GAAP EPS or Proxy numbers	(2,004)
Less: hand-correction of errors	(13)
NONGAAP Sample	2,922

TABLE 3
Descriptive Statistics

Panel A: Summary Statistics -- Full Sample

Variable	N	Mean	Median	Std Dev
NG EA	9,511	0.49	0.00	0.50
NG PROXY	9,511	0.15	0.00	0.35
NEG GAAP SURPRISE	5,660	0.48	0.00	0.50
ANALYST NON-GAAP	5,660	0.73	1.00	0.45
NG EA $_{t-1}$	5,660	0.49	0.00	0.50
INTERNAL	5,660	0.91	1.00	0.28
CEO CHAIR	5,660	0.52	1.00	0.50
TENURE	5,660	1.81	1.95	0.82
COMPENSATION	5,660	8.37	8.42	0.87
DELTA	5,660	5.37	5.35	1.39
VEGA	5,660	3.57	3.94	2.05
NG PROXY $_{t-1}$	5,660	0.14	0.00	0.35
INTANGIBLES	5,660	0.20	0.15	0.20
LITIGATION	5,660	-0.82	-1.13	1.60
LOSS	5,660	0.12	0.00	0.32
STDROA	5,660	0.05	0.03	0.07
TRANS ITEM	5,660	0.80	1.00	0.40
SIZE	5,660	7.89	7.75	1.56
BM	5,660	0.55	0.46	0.44

Panel B: Summary Statistics -- NONGAAP Sample

Variable	N	Mean	Median	Std Dev
NONGAAP EARN	2,188	0.06	0.05	0.05
NONGAAP EXCL	2,188	-0.02	-0.01	0.05
CFO $_{t+1}$	2,188	0.11	0.10	0.08
OPEARN $_{t+1}$	2,188	0.06	0.06	0.06
LOSS	2,188	0.13	0.00	0.34
SIZE	2,770	7.88	7.77	1.52
BM	2,770	0.57	0.47	0.45
SALES GROWTH	2,188	0.03	0.03	0.16
STDROA	2,188	0.06	0.03	0.08
NONGAAP FE	2,770	0.004	0.00	0.043
CAR	2,770	0.005	0.00	0.069
ANALYSTS	2,770	2.33	2.40	0.67
RPT LAG	2,770	40.47	39.00	12.23
INSTOWN	2,770	0.50	0.68	0.40

This table presents descriptive statistics. All continuous variables are winsorized over their respective samples at the 1st and 99th percentiles. Variables are defined in Appendix B.

TABLE 4
Determinants of Non-GAAP EPS Presence in EA and Proxy

Scenario	*NG EA*		*NG PROXY*	
Variable	(1)		(2)	
Intercept	-1.960	***	-2.627	***
	(0.27)		(0.30)	
Capital Market Incentives				
NEG GAAP SURPRISE	0.069	*	0.049	
	(0.04)		(0.05)	
ANALYST NONGAAP	0.934	***	0.451	*** (a)
	(0.05)		(0.07)	
NG EA $_{t-1}$	1.353	***	0.238	*** (a)
	(0.05)		(0.05)	
Contracting Incentives				
INTERNAL	-0.037		-0.173	**
	(0.08)		(0.09)	
CEO CHAIR	-0.001		0.067	
	(0.05)		(0.05)	
TENURE	0.029		-0.048	(a)
	(0.03)		(0.04)	
COMPENSATION	0.036		0.021	
	(0.04)		(0.04)	
DELTA	-0.010		0.022	
	(0.02)		(0.03)	
VEGA	-0.003		0.027	*
	(0.01)		(0.01)	
NG PROXY $_{t-1}$	0.247	***	1.602	*** (a)
	(0.06)		(0.07)	
Control Variables				
INTANGIBLES	0.592	***	0.380	***
	(0.11)		(0.13)	
LITIGATION	-0.030	**	-0.054	***
	(0.01)		(0.02)	
LOSS	-0.118	*	-0.262	***
	(0.07)		(0.08)	
STDROA	0.785	**	-0.555	(a)
	(0.31)		(0.41)	
TRANS ITEM	0.267	***	0.100	(a)
	(0.06)		(0.08)	
SIZE	-0.003		0.045	*
	(0.02)		(0.03)	
BM	-0.064		0.111	* (a)
	(0.05)		(0.06)	
N	5,660		5,660	
N = 1	2,917		953	
N = 0	2,743		4,707	
ROC	0.8609		0.8385	

This table presents the results of estimating Equation 1, a probit model of non-GAAP disclosure. Results pertain to the Full Sample, which includes firms that do not disclose non-GAAP EPS. All variables are defined in Appendix B. Estimated coefficients are presented above standard errors, which are clustered by firm. *, **, and *** indicate statistical significance of coefficient estimates from zero at the 10%, 5%, and 1% level, respectively, based on two-sided tests. Comparisons of coefficients across columns is performed using Seemingly Unrelated Estimation. "(a)" denotes a significant difference, at the 10% level, relative to Column 1.

TABLE 5
Determinants of Non-GAAP EPS Presence in Both EA and Proxy

Panel A: Univariate Means

Variable	*BOTH (N = 734)* (1)	*EA ONLY (N = 2,183)* (2)	*PROXY ONLY (N = 219)* (3)	*NEITHER (N = 2,524)* (4)
Capital Market Incentives				
NEG GAAP SURPRISE	0.57	0.52 (a)	0.47 (a)	0.42 (a, b)
ANALYST NONGAAP	0.96	0.90 (a)	0.72 (a, b)	0.51 (a, b, c)
NG EA $_{t-1}$	0.82	0.75 (a)	0.37 (a, b)	0.17 (a, b, c)
Contracting Incentives				
INTERNAL	0.91	0.91	0.89	0.92
CEO CHAIR	0.57	0.50 (a)	0.57 (b)	0.51 (a, c)
TENURE	1.77	1.82	1.80	1.83 (a)
COMPENSATION	8.73	8.41 (a)	8.57 (a, b)	8.21 (a, b, c)
DELTA	5.75	5.36 (a)	5.70 (b)	5.24 (a, b, c)
VEGA	4.10	3.62 (a)	4.09 (b)	3.33 (a, b, c)
NG PROXY $_{t-1}$	0.59	0.08 (a)	0.46 (a, b)	0.04 (a, b, c)
Control Variables				
INTANGIBLES	0.28	0.24 (a)	0.23 (a)	0.15 (a, b, c)
LITIGATION	-1.00	-0.82 (a)	-0.95	-0.76 (a, c)
LOSS	0.07	0.13 (a)	0.05 (b)	0.13 (a, c)
STDROA	0.04	0.06 (a)	0.04 (b)	0.05 (a, b, c)
TRANS ITEM	0.91	0.89 (a)	0.83 (a, b)	0.70 (a, b, c)
SIZE	8.58	7.86 (a)	8.27 (a, b)	7.69 (a, b, c)
BM	0.50	0.53 (a)	0.56 (a)	0.58 (a, b)

TABLE 5 (continued)
Determinants of Non-GAAP EPS Presence in Both EA and Proxy

Panel B: Multinomial Logistic Regression

Scenario	*BOTH*	*EA ONLY*	*PROXY ONLY*
Variable	(1)	(2)	(3)
Intercept	-7.306 ***	-3.335 *** (a)	-4.766 *** (a)
	(0.80)	(0.50)	(0.99)
Capital Market Incentives			
NEG GAAP SURPRISE	0.203 *	0.133 *	0.130
	(0.11)	(0.08)	(0.16)
ANALYST NONGAAP	2.465 ***	1.553 *** (a)	0.493 *** (a, b)
	(0.24)	(0.10)	(0.19)
NG EA $_{t-1}$	2.317 ***	2.333 ***	0.484 ** (a, b)
	(0.14)	(0.09)	(0.19)
Contracting Incentives			
INTERNAL	-0.290	-0.156	-0.677 *** (b)
	(0.22)	(0.15)	(0.25)
CEO CHAIR	0.110	-0.032	0.072
	(0.12)	(0.09)	(0.19)
TENURE	-0.030	0.057	-0.117
	(0.08)	(0.06)	(0.12)
COMPENSATION	0.053	0.078	0.097
	(0.11)	(0.07)	(0.15)
DELTA	0.030	-0.017	0.068
	(0.07)	(0.04)	(0.09)
VEGA	0.030	-0.003	0.078 * (b)
	(0.03)	(0.02)	(0.05)
NG PROXY $_{t-1}$	2.864 ***	0.174 (a)	2.756 *** (b)
	(0.17)	(0.16)	(0.21)
Control Variables			
INTANGIBLES	1.508 ***	1.123 ***	1.174 ***
	(0.32)	(0.22)	(0.42)
LITIGATION	-0.144 ***	-0.052 ** (a)	-0.090
	(0.04)	(0.03)	(0.06)
LOSS	-0.540 **	-0.212 * (a)	-0.816 *** (b)
	(0.21)	(0.13)	(0.31)
STDROA	0.178	1.567 ***	-0.497
	(1.05)	(0.56)	(1.53)
TRANS ITEM	0.499 ***	0.500 ***	0.380 *
	(0.18)	(0.11)	(0.23)
SIZE	0.102	-0.030 (a)	-0.006
	(0.07)	(0.05)	(0.09)
BM	0.081	-0.110	0.304 * (b)
	(0.15)	(0.10)	(0.16)

N	5,660
BOTH = 1	734
EA ONLY = 1	2,183
PROXY ONLY = 1	219
NEITHER = 1 (reference group)	2,524

This table presents the results of estimating Equation 2, a multinomial logit model of non-GAAP disclosure. Results pertain to the Full Sample, which includes firms that do not disclose non-GAAP EPS. Panel A presents univariate means and results from two-sample t-tests. In Panel B, estimated coefficients relative to the *NEITHER* scenario are presented above standard errors, which are clustered by firm. *, **, and *** indicate statistical significance of coefficient estimates from zero at the 10%, 5%, and 1% level, respectively, based on two-sided tests. In Panel A, comparisons of means are performed using two-sample t-tests. In Panel B, comparisons of coefficients across columns is performed by changing the benchmark group and reestimating the multinomial logit model. "(a)" denotes a significant difference, at the 10% level, relative to Column 1 (the *BOTH* scenario). "(b)" denotes a significant difference, at the 10% level, relative to Column 2 (the *EA ONLY* scenario). In Panel A, "(c)" denotes a significant difference, at the 10% level, relative to Column 3 (the *PROXY ONLY* scenario). All variables are defined in Appendix B.

TABLE 6
Differences in Exclusion Types and Overlap between the EA and Proxy

Scenario	*BOTH* (N = 452)	*EA ONLY* (N = 872)	Difference
Exclusion Type	Mean	Mean	t-stat
RECURRING	0.50	0.53	-0.95
NONRECURRING	0.83	0.75	3.71 ***
UNCOMMON	0.39	0.33	2.26 **
Recurring Exclusions			
INVESTMENT	0.19	0.23	-1.78 *
AMORTIZATION	0.25	0.20	2.21 **
STOCK COMPENSATION	0.11	0.20	-4.28 ***
PENSION	0.09	0.08	0.36
INTEREST EXPENSE	0.05	0.05	0.21
CURRENCY	0.03	0.02	1.04
Nonrecurring Exclusions			
RESTRUCTURING	0.50	0.39	3.85 ***
TAX RELATED	0.31	0.30	0.23
ACQUISITION	0.37	0.29	3.13 ***
IMPAIRMENT	0.25	0.25	0.36
LEGAL	0.30	0.18	4.44 ***
DIVESTITURE	0.18	0.17	0.12
DEBT EXTINGUISHMENT	0.13	0.15	-0.69

This table compares the frequency of exclusion types across the *BOTH* and *EA ONLY* scenarios using univariate statistics and two-sample t-tests. Results pertain to a subset of the Full Sample where we have exclusions-level data for S&P 500 firms (see Section 4.3). All variables are defined in Appendix B. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively, based on two-sided tests.

TABLE 7
Non-GAAP Exclusions Persistence

Panel A: Persistence by Reporting Scenario

Scenario	*BOTH*		*EA ONLY*		*PROXY ONLY*	
Dependent Variable	CFO_{t+1}	$OPEARN_{t+1}$	CFO_{t+1}	$OPEARN_{t+1}$	CFO_{t+1}	$OPEARN_{t+1}$
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	0.031 ***	0.008 **	0.063 ***	0.019 ***	0.035 ***	0.016 ***
	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)
NONGAAP EARN	1.133 ***	0.910 ***	0.833 ***	0.798 ***	1.109 ***	0.858 ***
	(0.07)	(0.05)	(0.05)	(0.04)	(0.12)	(0.09)
NONGAAP EXCL	**0.058**	**0.232** ***	**0.293** ***	**0.391** ***	**0.546** ***	**0.475** ***
	(0.06)	(0.07)	(0.05)	(0.04)	(0.16)	(0.11)
N	311	311	1,687	1,687	190	190
Adj. R^2	0.5575	0.6136	0.2881	0.4721	0.5225	0.6912

Panel B: Comparing Reporting Scenarios

Dependent Variable	CFO_{t+1}	CFO_{t+1}	$OPEARN_{t+1}$	$OPEARN_{t+1}$
	(1)	(2)	(3)	(4)
Intercept	0.031 ***		0.008 **	
	(0.01)		(0.00)	
NONGAAP EARN	1.133 ***	0.926 ***	0.910 ***	0.770 ***
	(0.07)	(0.07)	(0.05)	(0.05)
NONGAAP EARN × EA_ONLY	-0.300 ***	-0.156 **	-0.112 *	-0.054
	(0.08)	(0.07)	(0.06)	(0.06)
NONGAAP EARN × PROXY_ONLY	-0.024	-0.010	-0.052	-0.026
	(0.12)	(0.12)	(0.10)	(0.10)
NONGAAP EXCL	**0.058**	**0.132** **	**0.232** ***	**0.218** ***
	(0.06)	(0.07)	(0.07)	(0.08)
NONGAAP EXCL × EA_ONLY	**0.235** ***	**0.236** ***	**0.159** *	**0.176** **
	(0.08)	(0.08)	(0.08)	(0.08)
NONGAAP EXCL × PROXY_ONLY	**0.488** ***	**0.349** **	**0.243** *	**0.186**
	(0.16)	(0.15)	(0.13)	(0.13)
EA_ONLY	0.033 ***	0.018 ***	0.011 **	0.008 *
	(0.01)	(0.01)	(0.01)	(0.00)
PROXY_ONLY	0.004	0.005	0.009	0.009 *
	(0.01)	(0.01)	(0.01)	(0.01)
LOSS		0.031 ***		0.015 ***
		(0.01)		(0.01)
SIZE		0.002		0.004 ***
		(0.00)		(0.00)
BM		-0.038 ***		-0.019 ***
		(0.01)		(0.00)
SALES GROWTH		0.037 ***		0.026 ***
		(0.01)		(0.01)
STDROA		0.022		-0.017
		(0.02)		(0.02)
Industry Fixed Effects	No	Yes	No	Yes
Year Fixed Effects	No	Yes	No	Yes
N	2,188	2,188	2,188	2,188
Adj. R^2	0.3328	0.4466	0.4990	0.5518

This table presents the results of estimating Equation 3 and comparisons across reporting scenarios using OLS. Panel A reports estimation of Equation 3 by scenario, and Panel B reports comparsions across scenarios. Results pertain to the NONGAAP Sample, in which all firms have a single non-GAAP EPS measure. All variables are defined in Appendix B. Estimated coefficients are presented above standard errors, which are clustered by firm. *, **, and *** indicate statistical significance of coefficient estimates at the 10%, 5%, and 1% level, respectively, based on two-sided tests. Coefficients of interest are indicated in bold font.

TABLE 8

Indicators for Aggressive Non-GAAP Reporting Used in Prior Research

Scenario	*BOTH*	*EA ONLY*	*PROXY ONLY*
Indicator	Mean	Mean	Mean
OTHER EXCL	81.6%	86.6% (a)	92.3% (a, b)
	{440}	{2,222}	{260}
MEETBEAT	58.4%	52.0% (a)	59.3%
	{209}	{1,076}	{118}
EXCEED	9.9%	19.7% (a)	29.6% (a, b)
	{433}	{2,173}	{253}

This table compares the frequency of indicators for aggressive non-GAAP reporting across reporting scenarios using univariate statistics and two-sample t-tests. Results pertain to the NONGAAP Sample. All variables are defined in Appendix B. The number in brackets {} is the number of observations with nonmissing data for each statistic. Comparisons of frequency across reporting scenarios is performed by two-sample t-tests. "(a)" denotes a significant difference, at the 10% level, relative to the *BOTH* scenario. "(b)" denotes a significant difference, at the 10% level, relative to the *EA ONLY* scenario.

TABLE 9
Market Pricing of Non-GAAP EPS News

Panel A: Market Pricing by Reporting Scenario

Scenario	*BOTH*		*EA ONLY*		*PROXY ONLY*	
Dependent Variable	*CAR*		*CAR*		*CAR*	
Variable	(1)		(2)		(3)	
Intercept	-0.022	***	-0.013	***	-0.017	***
	(0.01)		(0.00)		(0.01)	
NONGAAP FE	**0.059**	***	**0.036**	***	**0.049**	***
	(0.01)		(0.01)		(0.01)	
N	416		2,108		246	
Adj. R^2	0.0503		0.0283		0.0559	

Panel B: Comparing Reporting Scenarios

Dependent Variable	*CAR*		*CAR*	
Variable	(1)		(2)	
Intercept	-0.022	***		
	(0.01)			
NONGAAP FE	**0.059**	***	**0.063**	***
	(0.01)		(0.01)	
NONGAAP FE × EA_ONLY	**-0.023**		**-0.025**	*
	(0.02)		(0.02)	
NONGAAP FE × PROXY_ONLY	**-0.011**		**-0.013**	
	(0.02)		(0.02)	
EA_ONLY	0.009		0.011	
	(0.01)		(0.01)	
PROXY_ONLY	0.005		0.008	
	(0.01)		(0.01)	
SIZE			0.018	**
			(0.01)	
BM			-0.004	
			(0.01)	
ANALYSTS			-0.008	**
			(0.00)	
RPT LAG			0.000	
			(0.00)	
INSTOWN			0.009	
			(0.01)	
Industry Fixed Effects	No		Yes	
Year Fixed Effects	No		Yes	
N	2,770		2,770	
Adj. R^2	0.0328		0.0373	

This table presents the results of estimating Equation 4 and comparisons across reporting scenarios using OLS. Panel A reports estimation of Equation 4 by scenario, and Panel B reports comparsions across scenarios. Results pertain to the NONGAAP Sample. All variables are defined in Appendix B. Estimated coefficients are presented above standard errors, which are clustered by the annual earnings announcement date. *, **, and *** indicate statistical significance of coefficient estimates at the 10%, 5%, and 1% level, respectively, based on two-sided tests. The coefficients of interest are indicated in bold font.