Direct Evidence on
Earnings Used in Executive Compensation Performance Measurement*

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Abstract

Motivated by competing theories on the properties of earnings required for compensation performance measurement, we provide direct evidence on the properties of actual accounting earnings that are used in determining compensation payouts (Compensation Earnings). Using a large sample of manually collected Compensation Earnings for U.S. firms, we show that firms make economically significant adjustments to GAAP Earnings in arriving at Compensation Earnings. While GAAP Earnings exhibit conservatism, we fail to detect conservatism (either by statistical significance or by magnitude of coefficient) in Compensation Earnings using the same sample and the same research design. The absence of conservatism in Compensation Earnings is also documented in various subsamples partitioned on market-to-book ratio, leverage, firm size, and corporate governance. Further analyses indicate that the adjustment from GAAP Earnings to Compensation Earnings involves the removal of less persistent components of GAAP Earnings, resulting in Compensation Earnings that are more persistent than GAAP Earnings.

Keywords: Compensation Contracting; Performance Measurement; Conditional Conservatism; Standard Setting.

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1. Introduction

This paper provides direct evidence on the properties of actual accounting earnings that are used in determining compensation payouts. A large literature (e.g., Healy, 1985; Holthausen, Larcker, and Sloan, 1995; Murphy, 1999; Murphy, 2013) documents that accounting performance measures play an important role in management compensation contracts. Furthermore, a number of studies (e.g., Watts and Zimmerman, 1986; Basu, 1997; Holthausen and Watts, 2001; Watts, 2003; Kothari, Ramanna, and Skinner, 2010) suggest that the demand of contracts (notably compensation contracts and debt contracts, among others) for accounting information is an important force that shapes accounting rules and financial reporting practices. Thus, understanding the properties of accounting performance measures in executive compensation contracts is important not only for researchers interested in compensation contracting theories, it also has implications for accounting standard setting.

Direct empirical evidence on the informational properties of accounting performance measures in executive compensation contracts is especially relevant because there lacks a consensus among existing theories regarding the properties of accounting performance measures that are valuable for compensation contracting. On the one hand, some studies propose that a property of accounting performance measures valuable for executive compensation contracting is conditional conservatism.[1] In particular, Basu (1997) and Watts (2003) argue that conservative accounting helps to mitigate the moral hazard problem in management performance measurement because conservatism constrains managerial

[1] Throughout the paper, we use conditional conservatism and conservatism interchangeably.

opportunistic behavior and offsets managerial biases with its asymmetrical verifiability requirement. Basu (1997) states that: "If managerial compensation is linked to reported earnings, then managers have incentives to withhold from reported earnings any information that would adversely affect their compensation. Rational claimholders would reduce managerial compensation by the expected effect of such malfeasance. The emergence of the conservatism principle and the preparation of audited financial statements can be ascribed to managerial attempts to bond against exploiting their asymmetrically informed position relative to other claimholders". On the benefits of conservatism in compensation performance measurement, LaFond and Roychowdhury (2008) state that: "Tying compensation to changes in book value, or earnings, along with conservative reporting effectively penalizes managers for their value-reducing actions and defer their compensation until the benefits are realized. This reduces the mangers' ability to overstate cumulative changes in firm value and avoids the deadweight costs associated with managers attempting to transfer wealth rather than optimally managing the firm". Thus, the conservatism literature argues that conservative financial reporting, combined with financial-reporting-based performance measurement in compensation contracts, constitutes a corporate governance tool to deal with an important agency problem, i.e., managers' incentives to misreport (Watts, 2003).

Moreover, in theoretical development regarding the desirability and/or the determinants of accounting conservatism, many studies explicitly rely on the impact of conservative financial reporting on management incentives through financial reporting-based compensation contracts (e.g., Watts and Zimmerman, 1986; Ball and Shivakumar, 2005, 2006; Bushman and Piotroski, 2006; LaFond and Roychowdhury, 2008; Francis and Martin, 2010; Byzalov and Basu, 2016). For example, Francis and Martin (2010) state that: "Well-governed firms can use timely loss recognition to monitor managerial performance and discipline managers. If mangers know ex ante that economic losses will be recognized earlier (rather than later), they

are less likely to engage in value destroying acquisitions. This is because the negative earnings consequences will reduce earnings-based compensation and threaten job security". Embedded in these arguments is the assumption that the conservatism observed in GAAP earnings is also present in the earning-based performance measures in compensation contracts. As noted by Kothari et al. (2010), such arguments assume "second-best conditions", i.e., complete contracting outside of GAAP is too costly to be feasible, which in turn drive the optimality of accounting conservatism in GAAP reporting.[2]

On the other hand, Lambert (2010) suggests that conditional conservatism is but one of many valuable features of a performance measure and it is not clear how compensation contracts would trade off conservatism versus other useful properties of accounting performance measures. In particular, Lambert points out that conservative accounting practices produce earnings components (such as asset write-downs and impairments) that are less persistent than other earnings components. Because of the low persistence, he suggests that including these conservatism-related earnings components in earnings can make earnings a less valuable performance measure for contracts. Traditional compensation theories (e.g., Holmstrom, 1979; Lambert and Larcker, 1987; Banker and Datar, 1989) also suggest that noisier signals for management performance and for their contribution to firm value are less useful in compensation performance measurement. While asset write-downs and impairments do reflect on managerial performance under certain circumstances (for example, post-acquisition asset write-downs, as in Francis and Martin, 2010), they could also result from events beyond management's control (for example, asset write-downs due to negative industry-level or economy-level demand shocks). Thus, outcomes of conservative accounting practices such as asset write-downs and impairments, compared to recurring earnings components, may

[2] They suggest that certain critical features of GAAP have evolved because transactions and information costs are economically significant and so preclude "first-best" solutions that would eliminate agency problems.

be considered by traditional compensation theories to be less desirable in compensation performance measurement. Therefore, these theories suggest that compensation contracts may value persistence over conservatism in earnings as a performance measure.

Motivated by these competing theories, we empirically examine the properties of earnings numbers that are used by the board in determining compensation payout (hereafter, Compensation Earnings), thereby providing direct evidence on the trade-off of properties of accounting performance measures in compensation contracts. The 2006 Securities and Exchange Commission rule 33-8732A, which requires expanded disclosure of information related to executive compensation in the proxy statement, allows us to directly observe Compensation Earnings. We manually collect a large sample of Compensation Earnings used by non-financial and non-utility firms that are included in either the S&P 500 index or the Midcap 400 index during 2008-2014.[3] Our sample includes 2,826 firm-year observations that correspond to 580 unique firms. Analyses show that firms make economically significant adjustments to GAAP Earnings in arriving at Compensation Earnings. The median absolute value of the adjustments amounts to 2.0-3.5% of total assets. While there are both positive and negative adjustments, on average the adjustments result in Compensation Earnings that are higher than GAAP Earnings; at the median, the signed adjustment is 1.5-2.9% of total assets. Note that the large difference between Compensation Earnings and GAAP Earnings is not mechanically driven by our data collection procedure, because we collect all Compensation Earnings that are disclosed by firms, whether they are GAAP or non-GAAP.

For this sample, we follow the research design of Basu (1997) and confirm that GAAP Earnings exhibit conditional conservatism (asymmetric timeliness in loss recognition). However, using the same sample and the same research design, we fail to find any evidence

[3] The sample selection decision is based on a trade-off between the benefit of empirical power and generalizability and the cost of manual data collection.

(either in statistical significance or in magnitude of coefficient) of conditional conservatism in Compensation Earnings. We also conduct the same analysis in various subsamples partitioned on market-to-book ratio, leverage, firm size, and corporate governance, which are found by prior studies to be associated with the degree of conditional conservatism in GAAP Earnings; results show that, across all of these subsamples, the adjustments from GAAP Earnings to Compensation Earnings reduce conservatism, and the resulting Compensation Earnings exhibit no detectable sign of conservatism. Further analyses suggest that the adjustment from GAAP Earnings to Compensation Earnings involves the removal of less persistent components of GAAP Earnings, which results in Compensation Earnings that are significantly more persistent than GAAP Earnings. Last, compared to an alternative version of adjusted earnings that result from a mechanical removal of transitory earnings components from GAAP Earnings, Compensation Earnings exhibit lower conservatism and higher persistence.

This study contributes to the accounting literature in the following ways. First, we add to the literature of executive compensation contracting by providing direct evidence on the trade-off of two potentially valuable features (namely conditional conservatism and persistence) of accounting performance measures in compensation contracts. The results indicate that, on average, the board makes significant adjustments to GAAP Earnings in arriving at Compensation Earnings; such adjustments involve the removal of less persistent components of earnings, resulting in an accounting performance measure that is more persistent but not conservative. Thus, our study provides a direct empirical test of competing theories regarding the desired properties of earnings performance measures in compensation contracts, lending support to Lambert's (2010) suggestion that persistence, as opposed to conservatism, is valued in compensation performance measurement. The finding that conservatism is removed from Compensation Earnings for firms with both strong and weak corporate governance suggests that this phenomenon is unlikely to be driven by managers' rent seeking behavior.

Second, we add to the ongoing discussion on the role of contracting in shaping financial reporting standards and practices and consequently the properties of GAAP Earnings (e.g., Watts and Zimmerman, 1986; Holthausen and Watts, 2001; Kothari et al., 2010). We find that significant adjustments are made to GAAP Earnings in arriving at Compensation Earnings. Confirming the findings by existing studies, we show that GAAP Earnings in our sample are conservative; in contrast, we do not find any conservatism in Compensation Earnings. This finding suggests that the performance measurement in bonus compensation contracts does not demand a higher level of conditional conservatism than what is preferred by other forces. As a result, the need for performance measurement in bonus compensation contracts is unlikely to be of first-order importance in explaining the widely documented conditional conservatism in GAAP earnings. Watts (2003) suggests that the alternative explanations for conditional conservatism in GAAP earnings include contracting (notably debt contracting and compensation contracting, among others), shareholder litigation, taxation, and accounting regulation. This study improves our understanding of the explanations and implications of accounting conservatism in GAAP earnings. In this regard, our study complements Dyreng, Vashishtha, and Weber (2017), who examine the properties of earnings used in the performance covenants of debt contracts. To the extent that the evidence provided by Dyreng et al. suggests that performance covenants in debt contracts do not necessarily demand conservatism, it is even more important to study other potential sources of accounting conservatism as suggested in the accounting literature.[4]

[4] This paper is also related to Black, Black, Christensen, and Gee (2017), who conduct a search of non-GAAP keywords to identify a sample of firms that use non-GAAP EPS in compensation contracting. By sample construction, the focus of Black et al. is on the use of *non-GAAP EPS* in compensation contracting and its effect on the disclosure of non-GAAP earnings in earnings announcement. In contrast, our analyses are not conditional on the use of non-GAAP earnings in compensation contracts; using a large comprehensive sample containing all earnings performance measures in compensation contracts, we provide evidence on the *average informational properties of all earnings performance measures* (both GAAP and non-GAAP, and not limited to EPS) in compensation contracts.

The remainder of the paper is organized as follows. Section 2 discusses the use of accounting information in compensation contracts. Section 3 provides a literature review and hypothesis development. Section 4 describes the research design and presents the empirical evidence. Section 5 concludes.

2. The Use of Accounting Information in Executive Compensation Contracts

Almost all publicly traded U.S. corporations use accounting-based bonus plans for their executives including the CEOs (Armstrong, Guay, and Weber, 2010; Murphy, 1999; Murphy, 2013). Typically, for each quantitative performance measure in the bonus plan, a performance target is set by the compensation committee at the beginning of a year. At the end of the year, the compensation committee compares the realized performance to the performance target in evaluating managers and determining bonus payouts. In addition to providing incentives, such practices of performance evaluation and compensation serve to organize and coordinate firm-wide efforts and decisions (Murphy and Jensen, 2011; Indjejikian, Matějka, Merchant, and Van der Stede, 2013). Although bonus plans do not typically comprise a dominant part of executive compensation packages in dollar amounts, Murphy (2013) suggests that from a behavioral perspective "bonus plans based on accounting measures may be as important as equity in actually directing the activities of CEOs and other executives" for two reasons. First, CEOs understand the impact of their actions on accounting numbers better than that on stock prices. Second, cash bonus payouts are tangible and immediate compared to the distant and uncertain paper gains in unvested equity plans.

Relatedly, studies have examined the determinants of the importance of accounting performance measures in executive compensation. For example, Lambert and Larcker (1987) show that the importance of accounting performance measures in compensation is positively related to their signal-to-noise ratios. Bushman and Indjejikian (1993) and Kim and Suh (1993)

focus on the role that earnings play in removing the noise in stock price in a rational expectations pricing model. Sloan (1993) suggests that earnings-based bonus plans help shield executives from market-wide factors in stock prices. Barclay, Gode, and Kothari (2005) highlight the importance of accounting performance measures to capture delivered performance in executive compensation.

While firms may use a variety of financial performance measures (e.g., earnings; revenue; cash flow) and non-financial performance measures (e.g., customer satisfaction; achievement of strategic goals) in their bonus plans, almost all rely at least partly on earnings (e.g., Murphy, 1999; Murphy, 2013; Shalev, Zhang, and Zhang, 2013). However, given the use of earnings as a performance measure, there are further choices to make. Some firms may decide to directly use GAAP earnings, while others may make adjustments to GAAP earnings, and these adjustments can vary both across firms and over time for each firm.

The idea that the board (or the compensation committee) may assign different weights to different components of earnings in compensation decisions is not new. Abdel-Khalik (1985) finds that CEO compensation is adjusted for the effects of accounting procedure changes. In contrast, Healy, Kang, and Palepeu (1987) find no evidence that CEO compensation is adjusted for the effects of accounting procedure changes and conclude that bonus payout is determined using reported GAAP earnings. Dechow, Huson, and Sloan (1994) show that compensation is not affected by the negative impact of restructuring charges but instead find that managers are rewarded in bonus compensation for undertaking restructuring. Adut, Cready, and Lopez (2003) revisit the findings of Dechow et al. and show that bonus compensation may be completely shielded, partially shielded, or not shielded from restructuring charges depending on circumstances. Gaver and Gaver (1998) find that extraordinary items and income from discontinued operations affect compensation when they are positive but does not when they are negative; on the other hand, they show that special items, either positive or negative,

significantly affect compensation payout.[5,6] Last, Dechow, Myers, and Shakespeare (2010) find that compensation is as sensitive to securitization gains and losses as it is to other earnings components. Overall, existing studies provide mixed evidence on the extent to which various earnings components are included or excluded in determining compensation payouts.

In addition, previous studies on the properties of accounting performance measures in compensation contracts follow an indirect approach, where measures of executive compensation are regressed on various components of accounting income. Under this linear regression approach, the coefficient estimate on a component of accounting income is taken as evidence for whether or not that component of accounting income is used in setting compensation. The literature suggests that this linear regression approach is subject to limitations. First, a non-linear pay-performance relation is typical in bonus plans, in which the "incentive zone" falls only between the lower and upper performance bounds (e.g., Healy, 1985).[7] When the underlying pay-performance relation is non-linear, inferences drawn from a linear estimation may be subject to alternative explanations, especially because the realized performance may systematically fall into different regions of the non-linear bonus-performance relation (pages 197-198, Dechow 2006). Second, as pointed out by Demski and Sappington (1999) and Bushman and Smith (2001), when performance measures are not observed and some performance measures are omitted from regressions, the regression approach creates potential for biased estimates due to interactions between measures in contracts. Thus, Bushman and Smith (2001) and Dechow (2006) caution against drawing inferences from the indirect regression approach in compensation studies.

[5] Relatedly, Johnson, Lopez, and Sanchez (2011) show that an increase in the frequency of special items in the past 30 years, especially from 2003 to 2009, which is the end of their sample period.

[6] In a related study, Baber, Kang, and Kumar (1998) show that the sensitivity of compensation to earnings varies with earnings persistence, especially when executives are approaching retirement; they provide no discussion of the role of specific earnings components in their findings.

[7] Although there are econometric methods to estimate piecewise linear relations, such methods are difficult to implement when the turning points are unknown and it is possible for each firm-year to have a different turning point.

The 2006 Securities and Exchange Commission rule 33-8732A requires the disclosure of material factors that underlie compensation policies and decisions. For the bonus compensation, such factors include, among others, performant measures, performance targets, and the actual (realized) performance used by the board in calculating bonus payouts. In this study, we manually collect a large sample of the realized earnings performance that are used in determining bonus payouts (i.e., Compensation Earnings). We then compare the properties of this sample of Compensation Earnings to those of GAAP Earnings from the same firm-year observations. Such a comparison provides direct evidence on the adjustment that the board applies to GAAP Earnings in order to arrive at Compensation Earnings.

Appendix 1 presents three examples of proxy statement disclosure regarding the realized earnings performance that is used in determining CEO bonus payouts. The first example comes from the proxy statement of PACCAR Inc. for the fiscal year that ended December 31, 2009. The actual net profit used in determining bonus payout is $111.9 million. While the proxy statement does not state explicitly whether the net profit used is GAAP or non-GAAP, the figure is exactly the same as the GAAP net income reported in the same year.

The second example comes from the proxy statement of The McGraw-Hill Companies, Inc. for the fiscal year that ended December 31, 2009. The company states that it uses diluted earnings per share for bonus payouts and that the compensation committee applies discretionary adjustments "to exclude all or a portion of the positive or negative effects of the following items: (1) discontinued operations; (2) extraordinary items and any other unusual or non-recurring items, including restructurings; (3) changes in accounting principles; (4) acquisitions or divestitures; (5) changes in federal corporate tax rates; and (6) any other item of gain or loss as determined by the Committee for the year." For that year, the diluted EPS under GAAP is $2.332, and the diluted EPS used in determining bonus payouts is $2.369; the adjustments actually applied include the removal of two negative items (restructuring charges

and loss on the sale of a business segment) and one positive item (gain on the sale of a business segment).

The third example is Exelon Corporation for the fiscal year that ended December 31, 2012. In arriving at the non-GAAP operating EPS of $2.91 from the GAAP EPS of $1.42, the firm made 11 adjustments (seven positive and four negative). There are a wide range of adjustments listed, with the largest being amortization of commodity contract intangibles. While the other adjustments correspond to specific accounting items, "Adjustment by Compensation Committee" appears to be based purely on board discretion.

The examples suggest that Compensation Earning could be either GAAP Earnings or adjusted non-GAAP Earnings. In cases where adjusted non-GAAP earnings are used, while not all firms provide the same level of details in their disclosure, the latter two examples suggest the following features of the adjustment process: (1) the adjustment may involve considerable discretion by the board (or compensation committee, to be specific); (2) the adjustment can be complex, involving many possible adjustment items; (3) individual adjustment items may be either income-increasing or income-decreasing; (4) the adjustment may have a substantial impact on the performance measure and hence bonus payouts; and (5) the practice may vary substantially across firms. Given the complexity of the adjustment process and its potentially significant impact on CEO compensation, a study of this phenomenon can be of considerable interest to researchers, regulators, and standard setters.

As the examples suggest, a firm may make multiple adjustments in arriving at Compensation Earnings. Ideally, it would be interesting to know the exact item-by-item adjustments for each firm-year. However, the disclosure by the majority of the firms is not sufficiently detailed to allow for such an analysis. We focus our analyses on the disclosed Compensation Earnings because it captures the net effect of all adjustments (or the absence of

adjustment in cases where Compensation Earnings are the same as the reported GAAP Earnings). Ultimately, Compensation Earnings is the number plugged into the bonus formula by the board in determining the bonus payout, and therefore we are particularly interested in its properties and how they differ from those of GAAP Earnings.

3. Hypothesis Development

Ball (2001) and Holthausen and Watts (2001), among others, argue that the observed accounting practices are shaped by heterogeneous demands placed on general purpose financial statements to support a wide range of decisions and contractual arrangements. Two major roles of accounting have been proposed in the literature. The control perspective of accounting focuses on mitigating incentive problems between managers and shareholders (through compensation contracts) and the conflict of interests between debt-holders and shareholders (through debt contracts). The valuation perspective of accounting, on the other hand, focuses on providing valuation information to equity investors.

Under the control (or contracting) view of accounting, compensation contracts are used to mitigate the conflict of interests between managers and shareholders. Specifically, stockholders design compensation packages to influence management's future actions to be in the stockholders' best interests. While almost all executive compensation contracts include a bonus component, where accounting measures are used to evaluate managers' performance and to determine their pay (Murphy, 1999, 2013), there lacks a theoretical consensus on what properties of accounting performance measures are relatively valuable. On the one hand, Basu (1997) and Watts (2003) emphasize the importance of conservatism in the performance measurement of executive compensation contracts. They suggest that conservatism constrains managerial opportunistic behavior and offsets managerial biases with its asymmetrical verifiability requirement; thus, conservative accounting arises as a means of addressing the

moral hazard problem of management. By recognizing losses in a timely manner in earnings, conservative performance measures reduce managers' incentives to continue poorly performing projects and constrain their ability to over-state the profitability of their projects.[8] Moreover, in theoretical development regarding the desirability and/or the determinants of accounting conservatism, numerous studies explicitly rely on the impact of conservative financial reporting on management incentives through financial reporting-based compensation contracts (e.g., Watts and Zimmerman, 1986; Ball and Shivakumar, 2005, 2006; Bushman and Piotroski, 2006; LaFond and Roychowdhury, 2008; Francis and Martin, 2010; Byzalov and Basu, 2016).

On the other hand, Lambert (2010) suggests that conditional conservatism is but one of many valuable features of a performance measure and it is not clear how compensation contracts would trade off conservatism versus other useful properties of accounting performance measures. In particular, Lambert points out that the earnings components (such as asset write-downs and impairments) resulting from conservative accounting practices differ from other earnings components in that they are less persistent and suggests that including these components in earnings can make earnings a less valuable performance measure for contracts.[9] Classic compensation theories (e.g., Holmstrom, 1979; Lambert and Larcker, 1987; Banker and Datar, 1989) also suggest that noisier signals for management performance and for their contribution to firm value are less useful in compensation performance measurement. While assets write-downs and impairments may reflect on managerial performance (for example, post-acquisition asset write-downs, as in Francis and Martin, 2010), they, compared

[8] Kwon, Newman, and Suh (2001) show theoretically that in a limited liability setting, in which penalties that can be imposed on agents are restricted, conservative performance measures arise to efficiently motivate managers.

[9] In support of his argument, Lambert observes anecdotally that, in constructing the accounting performance measure for compensation purposes, firms sometimes "take out" the effects of restructurings or write-downs, which could undo the result of conservatism being applied in GAAP accounting. Nevertheless, without systematic empirical evidence, it is not clear whether the type of adjustments are isolated incidents or common practices, nor is it clear what exact impact such adjustments have on the properties of accounting performance measures such as conservatism and persistence.

to recurring earnings components, could also be considered more likely to result from events beyond management's control and thus less desirable in compensation performance measurement.[10]

In summary, while some accounting theories suggest that conservatism is a desirable feature of earnings performance measures in compensation contracts because it mitigates an important agency problem in managers' incentive to misreport, others suggest that persistence is a valuable property. Since the earnings components (such as asset write-downs and impairments) resulting from conservative accounting practices are typically transitory in nature and low in persistence, these theories are not necessarily consistent with each other. Thus, Lambert (2010) suggests that it is interesting to study how compensation contracts would trade off conservatism versus other useful properties of accounting performance measures. This leads to our hypotheses, stated in the null form.

H1: Compensation Earnings are as conservative as GAAP Earnings.

H2: Compensation Earnings are as persistent as GAAP Earnings.

H3: The components of GAAP Earnings that are removed in arriving at Compensation Earnings are as persistent as Compensation Earnings.

Note that these hypotheses are not necessarily independent from each other. To the extent that the board includes (excludes) conservatism-related earnings components in

[10] In a related literature, Bushman, Engel, and Smith (2006) and Banker, Huang, and Natarajan (2009) find a positive association between the stewardship and valuation roles of accounting. Bushman et al. propose theoretically a source of this positive association: because managerial actions have multiperiod effects that are not fully captured in the current earnings number, valuation earnings coefficient is included in the incentive coefficient to motivate the manager to internalize the discounted all-in value impact of current period action. A plausible mechanism for valuation earnings coefficient to be included in compensation incentive coefficient is for the performance measurement of bonus contracts to focus on the relatively persistent (recurring) components of earnings.

compensation performance measurement, it would result in both a high (low) level of conservatism and a low (high) level of persistence in Compensation Earnings.

4. Research Design and Empirical Results

4.1. Sample Selection and Distribution

Table 1 summarizes the sample selection procedures. We start with all firm-year observations in either S&P 500 index or Midcap 400 index at any time during 2008-2014.[11] After following existing compensation studies and dropping firms in financial industries (two-digit SIC code 60-69) and utility industries (two-digit SIC code 49), we are left with 826 firms and 5,251 firm-year observations. We further require all observations to have necessary financial information from Compustat, stock return data from CRSP, and proxy statements on EDGAR that include discussion of bonus compensation; these requirements reduce the sample to 748 firms and 4,313 firm-year observations. From the proxy statements, we manually collect information on CEO bonus contracts, including the performance measures, performance targets, and the realized performance that is used in determining bonus payout. Because the focus of this study is on earnings used in compensation performance measurement, we require that each firm-year observation have at least one earnings-based performance measure; this requirement reduces the sample to 728 firms and 4,138 firm-year observations.[12] Last, we drop observations without disclosure of the realized performance (Compensation Earnings) that is used in determining compensation payout, resulting in a final sample of 580 firms and 2,826 firm-year observations.[13] If more than one earnings-based performance measures are used for

[11] The SEC rule 33-8732A, which requires expanded disclosure on executive compensation, applies to all proxy statements filed on or after December 15, 2006. However, studies such as Robinson et al. (2011) suggest that disclosure is less detailed at the initial years of compliance. To minimize potential sample selection issues, we skip the first year of compliance and start our sample at 2008.

[12] This requirement eliminates observations where no detailed information regarding performance measures are disclosed and observations where only non-financial performance measures or non-earnings financial performance measures (e.g., revenue or cash flow) are used in bonus contracts.

[13] In this step, 1,002 observations are dropped because there is no disclosure of the realized performance used in determining bonus payout, and another 307 observations are dropped because of the following reasons: 1. the performance measure is

any firm-year, we include only one in our analyses, following the priority order of net income, earnings per share, diluted earnings per share, return on assets, return on equity, earnings before taxes, earnings before interests and taxes, earnings before interests, taxes, depreciation and amortization, and operating income.[14,15] In the final sample of 2,826 firm-years, 750 have operating income as the performance measure, while the remaining 2,076 have other categories of earnings as the performance measure. We consider operating income a version of (adjusted) earnings-based performance measure and informative of firm behavior in the compensation process; thus, we include these observations in the full sample analyses (2,826 firm-years). However, we note that the definition of operating income differs significantly from those of other earnings-based performance measures such as EPS. We therefore conduct additional analyses with the subsample (2,076 firm-years) that excludes the operation income observations; we obtain similar results from these subsample analyses. We winsorize all continuous variables at 1% and 99% to mitigate the influence of extreme observations.

Panel A of Table 2 presents the sample distribution by year. The number of observations increases from 2008 to 2010 and remains relatively stable thereafter, presumably because it takes time for firms to be fully compliant with the new SEC compensation disclosure requirements (Robinson, Xue, and Yu, 2011). For the later part (2010-2014) of the sample period, our sample includes around 70% of the firm-year observations for which we are able to identify some description of bonus contract information in the proxy statements. The total assets captured by our sample is around 65% during 2010-2014; the market value captured by

return on invested capital, which cannot be converted to earnings without a clear definition of invested capital; or 2. the performance measure is based on growth from the previous year, which cannot be converted to earnings without the value of previous year's earnings used in the calculation; or 3. the performance measure is benchmarked against a peer group.

[14] The firm-year observations with more than one earnings-based performance measures in bonus contracts account for only about 10% of our sample.

[15] For performance measures that are on a per share basis (earnings per share and diluted earnings per share) or in ratios (return on assets and return on equity), we convert the realized performance to a dollar amount so that they are comparable to each other and comparable to GAAP Earnings. For example, when the performance measure is earnings per share, we multiply the realized performance by the number of shares outstanding; when the performance measure is return on assets, we multiply the realized performance by the lagged assets.

our sample is slightly lower, but still around 60% in these years. Panel B of Table 2 reports the sample distribution across industries. Our sample spans a large number of industries, with the most observations in Computers (16.27%) and the fewest observations in Restaurant (1.42%).

4.2. Summary Statistics

Figure 1 plots the distribution of GAAP Earnings and Compensation Earnings, both scaled by the market value of equity. Compared to the distribution of GAAP Earnings, the distribution of Compensation Earnings is shifted to the right. Compensation Earnings are also less left-skewed compared to GAAP Earnings. Figure 2, where both versions of earnings are scaled by total assets, shows a similar pattern.

Panel A of Table 3 reports summary statistics on the distribution of Compensation Earnings, GAAP Earnings, and their difference (*DIFF_E,* Compensation Earnings – GAAP Earnings). Compensation Earnings are higher than GAAP Earnings at all percentiles, consistent with Figure 1. *DIFF_E* is positive at both the mean and the median across different scaling choices (market value of equity, assets, sales, and the absolute value of GAAP Earnings), suggesting that on average positive adjustments are made to GAAP Earnings in arriving at Compensation Earnings. The economic magnitude of the adjustment is nontrivial, with the median of the signed (unsigned) adjustments at 2.9% (3.5%) of assets; in untabulated analyses, we exclude observations with operating income as the performance measure and find the median of the signed (unsigned) adjustments to be at 1.5% (2.0%) of assets.

It is important to note that, for all of the analyses (including the figures, summary statistics, and regressions), our sample includes all firm-year observations that disclose Compensation Earnings, even if no adjustment is made to GAAP Earnings in arriving at

Compensation Earnings. In other words, our sample selection is not conditional non-GAAP earnings being used for compensation performance measurement. In the sample of 2,826 firm-year observations, 28 or 1.0% have Compensation Earnings exactly equal to GAAP Earnings, and 278 or 9.8% (375 or 13.3%) have Compensation Earnings that do not deviate from GAAP Earnings for more than 0.1% (0.2%) of total assets. The goal of this study is to provide evidence on the average properties of all earnings-based performance measures in compensation contracts, whether they are GAAP or non-GAAP.

Panel B of Table 3 presents summary statistics on the other variables use in the analyses. The year-to-year change in the log one plus bonus payout has a positive mean and the median is close to zero. On average, Compensation Earnings exceed the corresponding performance targets by a small margin. Transitory items are on average negative. The mean (median) annual stock return is 19% (15.5%), with 30.8% being negative.

4.3. The Relation between Compensation Earnings and Actual Bonus Payout

Proxy statement disclosures indicate that the Compensation Earnings that we use in this study are what the board uses in determining bonus payout. Before moving to our analyses regarding the properties of Compensation Earnings, we empirically validate this claim by the firms. Ederhof (2010) shows that firms occasionally deviate from the bonus formula and award discretionary bonus.[16] It is possible that such discretionary bonus is a function of GAAP Earnings, although there is no particular reason to expect so, as the board already takes the effort to make adjustments to GAAP Earnings in compensation performance measurement. Nevertheless, we start by documenting that Compensation Earnings, as opposed to GAAP Earnings, indeed constitute the dominant earnings performance measure in determining total

[16] Ederhof (2010) find 234 such cases using a keyword search of Forms 8-K and proxy statements in Lexis/Nexis between August 23, 2004 and September 20, 2006.

bonus payout (including both formula-based bonus payout and discretionary bonus payout). We estimate the following equation.

$$Change\ in\ LogBonus_t = \beta_0 + \beta_1(EARNINGS_t - TARGET_t)/AT_t + \varepsilon_t \quad [1]$$

where *EARNINGS* represents either *COMP_E* (Compensation Earnings) or *GAAP_E* (GAAP Earnings) and *TARGET* is the performance target specified in the bonus formula, as disclosed in proxy statements. *Change in LogBonus*$_t$ is the change from year *t-1* to year *t* in the natural logarithm of one plus total bonus payout (defined to include both formula-based payout and discretionary bonus payout). Throughout the paper, we measure variables at the firm-year level, but omit the firm subscript for brevity. Note that we take the difference between realized earnings and earnings targets based on proxy statement disclosure that earnings targets serve as performance expectations.[17] Although this linear regression approach still suffers from issues due to the nonlinear nature of a typical bonus plan, as pointed out by Bushman and Smith (2001) and Dechow (2006) and discussed earlier in the paper, it is useful as a starting point to establish that Compensation Earnings are empirically related to bonus payout (and more so than GAAP Earnings).

Column (1) of Table 4 shows that the change in bonus payout is significantly related to $(COMP\_E_t - TARGET_t)/AT_t$ (the difference between Compensation Earnings and earnings target, scaled by assets at the beginning of the year). When we replace Compensation Earnings with GAAP Earnings, column (2) shows that the relation is still statistically significant, but the magnitude of coefficient shrinks by more than five times (from 21.286 in column (1) to 3.896 in column (2)). The relation between bonus payout and GAAP Earnings does not necessary indicate that GAAP Earnings are used in determining bonus payout; instead, it could be driven

[17] Previous compensation studies (e.g., Leone, Wu, and Zimmerman, 2006) typically use the year-to-year change in ROA in explaining bonus payout, which effectively treat prior year's earnings (ROA) as the performance expectation, under the assumption of a random walk in annual earnings.

by the positive correlation between GAAP Earnings and Compensation Earnings. Thus, we include both Compensation Earnings and GAAP Earnings in the same regression and report the results in column (3). The coefficient estimate on Compensation Earnings remains statistically significant, while that on GAAP Earnings is not significant at conventional levels; in magnitude, the coefficient estimate on Compensation Earnings (20.720) is about 36 times of that on GAAP Earnings (0.575). Last, the R-squared in column (3) is the same as that in column (1); thus, given the inclusion of Compensation Earnings, GAAP Earnings have no incremental explanatory power for the variation in bonus payout.[18] Overall, these results suggest that Compensation Earnings, compared to GAAP Earnings, indeed play a dominant role in determining bonus payout, as indicated by proxy statement disclosure.

4.4. Conservatism in GAAP Earnings and Compensation Earnings

Our first hypothesis (null form) is that Compensation Earnings are as conservative as GAAP Earnings. To test this hypothesis, we estimate the effect of conditional conservatism using the following equation (Basu, 1997).

$$EARNINGS_t = \beta_0 + \beta_1 RETURN_t + \beta_2 D_t + \beta_3 RETURN_t * D_t + \varepsilon_t \qquad [2]$$

where *EARNINGS* represents either *GAAP_E* (GAAP Earnings) or *COMP_E* (Compensation Earnings), scaled by *MVE*, the market value of equity at the beginning of year, following Basu (1997). *RETURN* is annual stock return measured over a window beginning in the fourth month of a firm's fiscal year and ending in the third month after the fiscal year-end. *D* is an indicator variable that equals one if *RETURN* is negative, and zero otherwise. The coefficient

[18] In untabulated analyses, we replace the independent variables with their changes from year *t-1* to year *t* and obtain similar results.

on *RETURN*D* captures the asymmetric timeliness of loss recognition in accounting income (Basu, 1997).

Panel A of Table 5 reports the coefficient estimates based on the full sample. Consistent with previous studies, column (1) shows that GAAP Earnings are conservative, as indicated by the significantly positive coefficient (0.171) on the interactive term *RETURN*D*.[19] In stark contrast, in column (2) where Compensation Earnings are the dependent variable, the same coefficient (-0.023) is not statistically different from zero. Thus, for the same sample of firm-year observations, the analysis detects conditional conservatism in GAAP Earnings, but fails to do so in Compensation Earnings. In column (3), we change the dependent variable to the difference between Compensation Earnings and GAAP Earnings (Compensation Earnings minus GAAP Earnings) and re-estimate equation [2]. The coefficient on *RETURN*D* is significantly negative, confirming that the reduction in conservatism from GAAP Earnings to Compensation Earnings is statistically significant.[20] In addition, in column (3) the coefficient estimate on *RETURN* is significantly positive, indicating that Compensation Earnings are more timely in good news recognition; the sum of that coefficient estimate on *RETURN* and that on *RETURN*D* is significantly negative, indicating that Compensation Earnings are less timely in bad news recognition. Thus, the absence of asymmetric timeliness (conservatism) in Compensations Earnings is attributable to both higher timeliness in good news recognition and lower timeliness in bad news recognition relative to GAAP Earnings.

[19] Note that the insignificant coefficient on the main effect of *RETURN* is similar to prior research (e.g., Nikolaev, 2010; Dyreng, Vashishtha, and Weber, 2017), and is not of primary concern in our study.

[20] Patatoukas and Thomas (2011) suggest that the asymmetric timeliness measure by Basu (1997) contains a bias that is attributable to scale effects. We note that in our setting such a scale-induced bias likely applies both to the estimation using GAAP Earnings and that using Compensation Earnings. Since our inference is based on the contrast of the asymmetric timeliness between GAAP Earnings and Compensation Earnings, it is subject less to the concern raised by Patatoukas and Thomas. Ball, Kothari, and Nikolaev (2013) characterize the issue identified by Patatoukas and Thomas as a correlated omitted variable problem and suggest that it can be addressed using firm fixed effects. In untabulated analysis, we follow Ball et al. and control for firm fixed effects. Our inferences are unchanged. After adding firm fixed effects, the coefficient estimates for *RETURN*D* for columns (1), (2), and (3) of Panel A are 0.110 (significant at the 1% level), 0.016 (insignificantly different from zero), and -0.094 (significant at the 1% level), respectively. We apply the same analysis to the subsample that excludes observations with operating income as the performance measure and obtain similar results. We also obtain qualitatively similar results using industry fixed effects.

While we consider operating income as a version of earnings-based performance measure, we note that operating income is significantly different from other performance measures in definition. In Panel B of Table 5, we conduct additional analyses using the subsample that excludes observations with operating income as the performance measure. Consistent with the results in Panel A, we find that the coefficient on the interactive term *RETURN*D* is significantly positive (0.164) when GAAP Earnings are the dependent variable, insignificantly different from zero (-0.031) when Compensation Earnings are the dependent variable, and significantly negative (-0.194) when the dependent variable is the difference between Compensation Earnings and GAAP Earnings.

In the previous analyses, our sample includes observations based on performance measures such as EBT, EBIT, and EBITDA because these performance measures reflect adjustment decisions made by companies, and it is possible that adjustments for tax expenses, interest expenses, depreciation and amortization expenses may affect earnings properties.[21] Nevertheless, we would like to know to what extent the inclusion of different performance measures in our sample affect our inferences. Thus, we conduct two more additional analyses involving alternative treatment of performance measures. In Panel C, we use the subsample excluding the observations based on operating income, and convert observations based on EBT, EBIT, and EBITDA by adding back interest expenses, interest and tax expenses, and interest, tax, depreciation, and amortization expenses, respectively, so that they are after such expenses and consistent with earnings in definition. In Panel D, we use the subsample that not only excludes observations with operation income as the performance measure, but also excludes those with EBT, EBIT, or EBITDA as the performance measure; thus, this subsample includes only those observations with net income, earnings per share, diluted earnings per share, return

[21] For example, conservative accounting practices such as asset impairment and change of depreciation methods result in changes in depreciation and amortization expenses; therefore, removing such expenses may affect the level of accounting conservatism in earnings performance measures.

on assets, and return on equity as performance measures. Both Panel C and Panel D report results that are consistent with those in Panel A and Panel B: GAAP Earnings exhibit significant conservatism, the adjustment from GAAP Earnings to Compensation Earnings results in a significant reduction of conservatism, and there is no detectable conservatism in Compensation Earnings either in statistical significance or in economic magnitude.

Overall, Table 5 shows that, in the performance measurement of compensation contracts, the board makes substantial adjustments to GAAP Earnings, resulting in Compensation Earnings that are not conservative. These results are robust to different types of earnings-based performance measures.

4.5. Conservatism in GAAP Earnings and Compensation Earnings across Subsamples

In this section, we examine the conditional conservatism in GAAP Earnings and Compensation Earnings across various subsamples partitioned on variables that are found by past studies to be associated with conservatism in GAAP Earnings.[22] Watts (2003) suggests the conservatism in GAAP Earnings may be driven by multiple forces such as contracting, shareholder litigation, taxation, and accounting regulation. To the extent that the conservatism in GAAP Earnings are predominantly driven by forces other than compensation contracting, the conservatism in Compensation Earnings, compared to that in GAAP Earnings, will not only be at a lower level on average, it may also show a weaker association with the firm characteristics that explain the cross-sectional variation of conservatism in GAAP Earnings.

4.5.1. Leverage, Market-to-Book Ratio, and Size

[22] Throughout this section, we report only the coefficient estimates on *RETURN*D* (i.e., conservatism estimate, or Basu coefficient) due to space constraint.

We first follow Khan and Watts (2009) and use a parsimonious set of firm characteristics (leverage, market-to-book ratio, and size) that are documented by past studies (e.g., Roychowdhury and Watts, 2007; Zhang, 2008; Khan and Watts, 2009; Nikolaev, 2010) to be associated with the level of conservatism in GAAP Earnings. Table 6 Panel A reports estimates of the Basu coefficient for subsamples partitioned on market-to-book ratio, leverage, and size, respectively. For each partitioning variable, we form two subsamples of equal size. In general, the results show that GAAP Earnings exhibit different levels of conservatism across these sample partitions (column (1)), consistent with previous studies. In contrast, there is no detectible sign of conservatism in Compensation Earnings for all of the subsamples (column (2)), either in statistical significance or in economic magnitude of the coefficients. Last, across all subsamples, in column (3) where the dependent variable is the difference between Compensation Earnings and GAAP Earnings, the coefficients on *RETURN*D* are significantly negative and large in magnitude, indicating the removal of conservatism in arriving at Compensation Earnings. The results are similar when we exclude observations with operation income as the performance measure (columns 4-6).

4.5.2. Corporate Governance

To the extent that accounting conservatism is part of the corporate governance mechanism to mitigate agency problems (e.g., Watts 2003), one may wonder whether the removal of conservatism from Compensation Earnings reflects another agency problem, where managers manipulate the compensation process to avoid the constraint of conservative financial reporting. Under that conjecture, one would expect to observe a removal of conservatism in the construction of Compensation Earnings for firms with weak corporate governance, but not so for firms with strong corporate governance. We test this prediction using two measures of corporate governance. For each of these two partitioning variables, we form two subsamples of equal size.

The first measure of corporate governance comes from García Lara, García Osma, and Penalva (2009), who predict that firms with stronger corporate governance will demand a higher degree of conservatism and find supporting evidence. Following García Lara et al., we construct a composite measure based on *GIndex* (the takeover protection index developed by Gompers, Ishii, and Metrick (2003), CEO-Chair duality, and the percentage of top executives on the board.[23] Consistent with García Lara et al., Table 6 Panel B shows a higher conservatism in GAAP Earnings (column (1)) in the subsample with strong corporate governance. However, Compensation Earnings (column (2)) are conservative in neither of the two subsamples; in addition, the significant coefficients in column (3), where the dependent variable is the difference between Compensation Earnings and GAAP Earnings, indicate a significant removal of conservatism in arriving at Compensation Earnings. The results are unchanged when we exclude observations with operation income as the performance measure (columns 4-6).

The second measure of corporate governance is board co-option, defined as the fraction of the directors appointed after the CEO assumed office. Low board co-option is shown to be associated with high board monitoring effectiveness (Coles, Daniel, and Naveen, 2014), low likelihood of corporate fraud, and high likelihood of fraud detection (Khanna, Kim, and Lu, 2015); it is also used by Dechow et al. (2010) to measure corporate governance in a compensation setting. Table 6 Panel B shows a higher conservatism in GAAP Earnings (column (1)) in the subsample with lower board co-option. Compensation Earnings (column (2)) are conservative in neither of the two subsamples; in addition, the significant coefficients in column (3), where the dependent variable is the difference between Compensation Earnings and GAAP Earnings, indicate a significant removal of conservatism in arriving at

[23] In their composite corporate governance measure, García Lara et al. include another variable, the number of board meetings; Execucomp has stopped providing this variable in our sample period. In untabulated analyses, we include in the composite corporate governance measure the value of this variable from 2005, which is the last available year, and obtain similar results.

Compensation Earnings. The inferences are unchanged when we exclude observations with operation income as the performance measure (columns 4-6).

To summarize, this section shows that the removal of conservatism from Compensation Earnings exists in all subsamples partitioned on leverage, market-to-book ratio, and size. In addition, the removal of conservatism from Compensation Earnings is present in both firms with both strong corporate governance and firms with weak corporate governance; hence, the results are not consistent with the removal of conservatism in compensation performance measurement being driven by managerial rent seeking behavior.

4.6. Persistence of GAAP Earnings and Compensation Earnings

Our second hypothesis (null form) is that Compensation Earnings are as persistent as GAAP Earnings. To test this hypothesis, we estimate the following equation:

$$EARNINGS_{t+1} = \gamma_0 + \gamma_1 EARNINGS_t + \varepsilon_t \qquad [3]$$

where *EARNINGS* represents either *GAAP_E* (GAAP Earnings) or *COMP_E* (Compensation Earnings), scale by total assets at the beginning of the year.[24] The coefficient of interest is γ_1, which measures the persistence of earnings (e.g., Sloan, 1996; Dechow, Ge, and Schrand, 2010).

The estimation results are reported in Panel A of Table 7.[25] Column (1) shows that the estimate of the coefficient of persistence, γ_1, is 0.613 for GAAP Earnings, i.e., a \$1 increase in current GAAP earnings predicts a \$0.613 increase in next year's GAAP Earnings. Column (2) shows that the estimate of γ_1 is 0.807 for Compensation Earnings, i.e., a \$1 increase in current

[24] In the analyses of this section, we follow the literature (see Dechow et al., 2010) and scale all of the variables by total assets. In untabulated analyses, we scale all variables by the market value of equity and obtain similar results.
[25] Note that the sample size is reduced by about 23%, compared to that in Panel A of Table 5, due to the requirement of two consecutive years' Compensation Earnings and GAAP Earnings.

Compensation Earnings predicts a $0.807 increase in next year's Compensation Earnings. The two coefficient estimates are statistically different from each other, indicating that Compensation Earnings are more persistent than GAAP Earnings. Columns (3) and (4) report the estimate results over the subsample that excludes observations with operating income as the performance measure; the inferences remain unchanged.

Next, to test the third hypothesis (null form) that the components of GAAP Earnings that are removed in arriving at Compensation Earnings are as persistent as Compensation Earnings, we estimate the following equation:

$$GAAP\_E_{t+1}/AT_{t+1} = \alpha_0 + \alpha_1\ COMP\_E_t/AT_t + \alpha_2\ (GAAP\_E_t - COMP\_E_t)/AT_t + \varepsilon_t \quad [4]$$

In arriving at Compensation Earnings, the board breaks down GAAP Earnings (*GAAP_E*) into two components, with one being Compensation Earnings (*COMP_E*), the component that is used in determining bonus payouts, and the other being the component that is removed in the process (*GAAP_E – COMP_E*).[26] H3 is interested in the relative persistence of these two components of GAAP Earnings.

The estimation results based on the full sample, as reported in column (1), Panel B of Table 7, indicate that a $1 increase in Compensation Earnings (*COMP_E*) predicts a $0.677 increase in next year's GAAP Earnings, while a $1 increase in the removed component of GAAP Earnings (*GAAP_E – COMP_E*) predicts a $0.480 increase in next year's GAAP Earnings. Thus, Compensation Earnings, the component of GAAP Earnings that is kept for compensation purposes, is more persistent than the component of GAAP Earnings that is removed for compensation purposes. Column (2) reports the estimation results over the

[26] This research design mirrors that of Sloan (1996), who decomposes earnings into a cash flow component and an accrual component and compares the persistence of these two components.

subsample that excludes observations with operating income as the performance measure; the inferences remain unchanged.

Collectively, Table 7 suggests that, in arriving at Compensation Earnings, the board removes a less persistent component of GAAP Earnings, resulting in Compensation Earnings that are more persistent than GAAP Earnings.

4.7. Is Compensation Earnings a Result of Mechanically Removing Transitory Items?

The examples discussed in Section 2 indicates that the adjustments made in arriving at Compensation Earnings commonly include, among other things, transitory earnings components. A natural question to ask is whether Compensation Earnings is a result of the board mechanically removing all transitory items. However, the examples also suggest that in some cases the board uses GAAP Earnings directly in the compensation performance measurement; even in cases the board makes adjustments, the disclosure often suggests that the board has substantial discretion regarding specific adjustments. Therefore, it is unlikely that Compensation Earnings result from mechanically removing transitory items. Nevertheless, it is interesting to empirically document to what extent transitory earnings components are removed in the compensation process. In this section, we conduct exploratory analyses in this regard. First, we estimate the following equation:

$$DIFF\_E_t/AT_t = \theta_0 + \theta_1 \, TRANS_t/AT_t + \varepsilon_t \qquad [5]$$

where *DIFF_E* is equal to Compensation Earnings minus GAAP Earnings, and *AT* is total assets measured at the beginning of the year. *TRANS* stands for the sum of transitory items, i.e., special items (SPI), discontinued operations (DO), and extraordinary items (XI), as defined by Compustat.

The estimation results based on the full sample are reported in column (1) of Table 8. The significantly negative coefficient on *TRANS/AT* indicates that transitory items are systematically removed from GAAP Earnings in arriving at Compensation Earnings. While the magnitude of the coefficient (-0.852) is fairly large and close to -1, it is statistically different from than -1, suggesting that the removal of transitory items is not complete on average. In addition, the R-squared of 22.8% suggests that, while the removal of transitory items is an important part of the adjustment process in arriving at Compensation Earnings, the adjustment is completely restricted to the removal of transitory items and possibly involves other earnings components. This can be an interesting area for future research. In column (2) of Table 8, we repeat the analysis using the subsample that excludes observations with operating income as the performance measure. The inferences are unchanged, with the coefficient on *TRANS/AT* being -0.841 (statistically different from -1) and the R-squared being 20.1%.

Next, we compare the properties of Compensation Earnings to an alternative version of adjusted earnings that result from a mechanical removal of all transitory items, which we term (*ADJ_E*, calculated as *GAAP_E – TRANS*). Panel A of Table 9 shows that, compared to this alternative version of adjusted earnings, Compensation Earnings are significantly less conservative, as indicated by the significantly negative coefficient on *RETURN*D* in column (3), both for the full sample and for the subsample that excludes observations with operating income as the performance measure. In Panel B, we compare the persistence of Compensation Earnings and the alternative version of adjusted earnings and find that Compensation Earnings are significantly more persistent, both for the full sample and for the subsample that excludes observations with operating income as the performance measure. Last, Panel C shows that Compensation Earnings are more persistent than the difference between the alternative version of adjusted earnings and Compensation Earnings for the full sample, although statistically significant only for the full sample.

Overall, the analyses in this section indicate that a substantial part of the adjustments in arriving at Compensation Earnings is the removal of the transitory components of GAAP Earnings such as extraordinary items, discontinued operations, and special items. However, consistent with the examples discussed in Section 2, the process of arriving at Compensation Earnings is a complex one, and Compensation Earnings do not appear to be a result of mechanically removing all transitory items. Compared to an alternative version of adjusted earnings that result from a mechanical removal of all transitory items, Compensation Earnings are less conservative and more persistent.

5. Conclusions

Motivated by competing theories on the properties of earnings required for compensation performance measurement, we provide direct evidence on the properties of actual accounting earnings that are used by the board in determining compensation payouts (Compensation Earnings). Using a large sample of manually collected Compensation Earnings from U.S. firms during 2008-2014, we show that firms on average make economically significant adjustments to GAAP Earnings in arriving at Compensation Earnings. This phenomenon is not mechanically driven by our data collection procedure, because our sample includes all Compensation Earnings that are disclosed by firms, whether they are GAAP or non-GAAP.

While GAAP Earnings in our sample exhibit conservatism, as documented by numerous other studies, Compensation Earnings exhibit no detectible conservatism, either in statistical significance or in magnitude of coefficient. The absence of conservatism in Compensation Earnings is also documented in various subsamples partitioned on market-to-book ratio, leverage, firm size, and corporate governance. The adjustment from GAAP Earnings to Compensation Earnings involves the removal of less persistent (transitory)

components of GAAP Earnings, resulting in Compensation Earnings that are more persistent than GAAP Earnings. Further analyses indicate that, while a substantial part of the adjustments is the removal of transitory earnings components, the process of arriving at Compensation Earnings is a complex one, and Compensation Earnings do not appear to be a result of mechanically removing all transitory items. Compared to an alternative version of adjusted earnings that result from a mechanical removal of all transitory items, Compensation Earnings are less conservative and more persistent.

We contribute to the literature of executive compensation contracting by providing a direct empirical test of competing theories regarding the desired properties of earnings performance measures in compensation contracts; our evidence lends support to Lambert's (2010) suggestion that persistence, as opposed to conservatism, is valued in compensation performance measurement. We also add to the ongoing discussion on the explanations for conservatism in GAAP Earnings and the role of contracting in shaping financial reporting standards and practices; our evidence suggests that the need for accounting performance measurement in compensation contracts is unlikely to be of first-order importance in explaining the conservatism in GAAP Earnings.

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Appendix 1: Examples of proxy statement disclosure of earnings used in setting compensation

Example 1: PACCAR INC.

(Excerpts from the proxy statement filed for the fiscal year ended December 31, 2009; highlights added)

Source: https://www.sec.gov/Archives/edgar/data/75362/000095012310022891/v55075dedef14a.htm

IC Awards for the Named Executive Officers are subject to the terms of the Senior Executive Yearly Incentive Compensation Plan (the "IC Plan") approved by the stockholders as required by Section 162(m) of the Internal Revenue Code. The maximum amount that may be paid to any eligible participant in any year under the Plan is $4,000,000. The Committee, in its sole discretion, may reduce or eliminate (but not increase) any award earned by the Named Executive Officers based on an assessment of individual performance.

For 2009, the Company's net profit target was $300 million and actual net profit was $111.9 million, an excellent result considering the difficult recession. However, the net profit was less than the threshold required for an award so none of the Named Executive Officers received payment on the Company profit goal.

Example 2: The McGraw-Hill Companies, Inc.

(Excerpts from the proxy statement filed for the fiscal year ended December 31, 2009; highlights added)

Source: http://www.sec.gov/Archives/edgar/data/64040/000119312510063772/ddef14a.htm

At the beginning of 2009, the Committee established a definition of earnings per share to be used for determining the achievement of the diluted earnings per share goal for incentive compensation purposes. For the 2009 performance year, earnings per share was defined as diluted earnings per share as shown on the Consolidated Statement of Income in the Company's Annual Report adjusted, at the discretion of the Committee, to exclude all or a portion of the positive or negative effects of the following items: (1) discontinued operations; (2) extraordinary items and any other unusual or non-recurring items, including restructurings; (3) changes in accounting principles; (4) acquisitions or divestitures; (5) changes in federal corporate tax rates; and (6) any other item of gain or loss as determined by the Committee for the year.

Under this definition, the Committee may exclude identified items from the calculation of earnings per share if such items represent non-recurring items that do not have an effect on our ongoing operations. The 2009 reported diluted earnings per share of $2.332 was adjusted by the Committee to exclude restructuring charges, the loss on the sale of Vista Research, and the gain on the sale of BusinessWeek, which resulted in an adjusted 2009 earnings per share of $2.369 for incentive compensation purposes. This level of performance achievement was 106.7% of the target goal and resulted in pool funding of 116.74% of the target incentive pool.

Example 3: Exelon Corporation

(Excerpts from the proxy statement filed for the fiscal year ended December 31, 2012; highlights added)

Source:
http://www.sec.gov/Archives/edgar/data/1109357/000119312513107079/d474444ddef14a.htm

Note: Adjusted (non-GAAP) Operating Earnings

Adjusted (non-GAAP) operating earnings, which generally exclude significant one-time charges or credits that are not normally associated with ongoing operations, mark-to-market adjustments from economic hedging activities and unrealized gains or losses from nuclear decommissioning trust fund investments, are provided as a supplement to results reported in accordance with GAAP. Management uses such adjusted (non-GAAP) operating earnings internally to evaluate the company's performance and manage its operations.

Twelve months ended December 31, 2012	Exelon
2012 Adjusted (non-GAAP Operating Earnings (Loss) Per Share for Compensation Purposes	**$2.91**
Adjustment by Compensation Committee	**$0.06**
2012 Adjusted (non-GAAP) Operating Earnings (Loss) Per Share as Reported in Earnings Release	**$2.85**
Mark-to-market impact of economic hedging activities	0.38
Unrealized gains related to nuclear decommissioning trust funds	0.07
Plant retirements and divestitures	(0.29)
Constellation merger and integration costs	(0.31)
Maryland commitments related to Constellation merger	(0.28)
Amortization of commodity contract intangibles	(0.93)
FERC settlement	(0.21)
Reassessment of state deferred income taxes	0.14
Amortization of the fair value of certain debt	0.01
Midwest Generation bankruptcy charges	(0.01)
FY 2012 GAAP Earnings (Loss) Per Share	**$1.42**

Appendix 2: Variable Definitions

GAAP_E	GAAP earnings (Compustat item NI)
COMP_E	the realized earnings performance that is used in determining bonus payouts, as disclosed in proxy statements
DIFF_E	*COMP_E - GAAP_E*
ABSGAAP_E	the absolute value of *GAAP_E*
MVE	market value of equity (Compustat items CSHO*PRCC_F)
AT	total assets (Compustat item AT)
SALE	total sales (Compustat item REVT)
Change in LogBonus	the change from year *t-1* to year *t* in the natural logarithm of one plus total bonus payout (including both formula-based bonus payout and discretionary bonus payout, defined as Execucomp items BONUS + NONEQ_INCENT, following Coles et al. 2014).
TARGET	the target earnings (i.e., the performance target) specified in CEO bonus contracts
RETURN	stock return from nine months prior to the fiscal year-end to three months after the fiscal year-end
D	an indicator variable equal to one if *RETURN* is negative, and zero otherwise
MTB	the market value of equity (Compustat items CSHO*PRCC_F) divided by the book value of equity (Compustat item SEQ + TXDITC - PSTK)
LEVERAGE	the sum of debt in current liabilities (Compustat item DLC) and long-term debt (Compustat item DLTT) divided by the sum of debt in current liabilities (Compustat item DLC), long-term debt (Compustat item DLTT), and book value of equity (Compustat items SEQ + TXDITC - PSTK)
SIZE	the natural logarithm of total assets (*AT*)
TOTGOV	a composite measure of corporate governance quality, constructed as the unweighted average of three standardized variables (*GIndex*, *Chair*, and *Board Composition*), following García Lara et al. (2009). *GIndex* is the takeover protection index developed by Gompers et al. (2003). *Chair* is an indicator variable that equals one if the CEO is the chair of board of

	directors, and zero otherwise. *Board Composition* is the percentage of top executives serving on the board.
Co-Option	the number of directors who joined the board after the CEO assumed office divided by board size, following Coles et al. (2014).
TRANS	the sum of all transitory items, including special items (Compustat item SPI), gains or losses from discontinued operations (Compustat item DO), and extraordinary items (Compustat item XI).
ADJ_E	*GAAP_E – TRANS*

Figure 1: Distribution of GAAP Earnings versus Compensation Earnings

This figure plots the distribution of GAAP Earnings and Compensation Earnings, both scaled by the market value of equity (Compustat items CSHO*PRCC_F) at the beginning of the year. GAAP Earnings are the net income (Compustat item NI), and Compensation Earnings are the realized earnings performance that is used in determining bonus payouts.

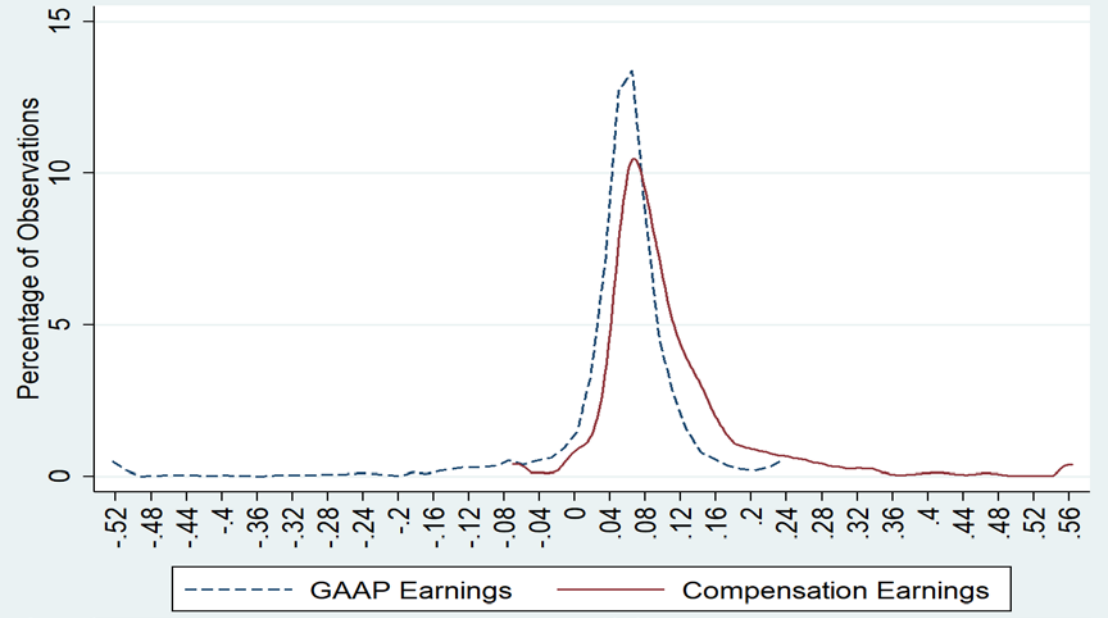

Figure 2: Distribution of GAAP Earnings versus Compensation Earnings

This figure plots the distribution of GAAP Earnings and Compensation Earnings, both scaled by total assets (Compustat item AT) at the beginning of the year. GAAP Earnings are the net income (Compustat item NI), and Compensation Earnings are the realized earnings performance that is used in determining bonus payouts.

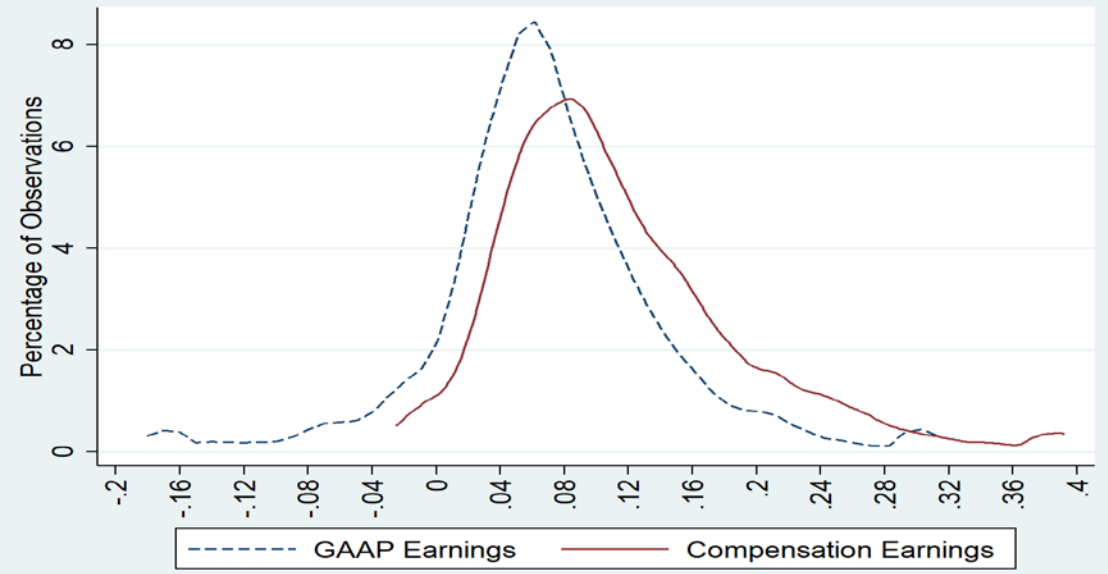

Table 1: Sample Selection Procedures

	Number of Firms	Number of firm-year Observations
Firms in S&P 500 or Midcap 400 for at least one year from 2008 to 2014, excluding firms in financial industries (two digit SIC code 60-69) and utility industries (two digit SIC code 49)	826	5,251
Drop observations missing COMPUSTAT information	804	4,933
Drop observations missing CRSP information	803	4,920
Drop observations missing Proxy Statements	784	4,705
Drop observations without explicitly discussing bonus contracts	748	4,313
Drop observations without earnings-based performance measure in bonus contract	728	4,138
Drop observations missing actual value of earnings-based performance measure in bonus contract	580	2,826

Table 2: Sample Composition

Panel A presents the distribution of the sample by year. Panel B presents the distribution of the sample by industries, as defined in Barth, Beaver, Hand, and Landsman (2005).

Panel A: By Year

Year	Number of Proxy Statements with Bonus Contract Discussion	Number of Observations in Sample	Sample Observations as % of Proxy Statements Searched in Number of Observations	in Total Assets	in Market Value
2008	607	307	50.58%	47.37%	45.57%
2009	620	357	57.58%	55.54%	51.48%
2010	634	428	67.51%	62.03%	60.26%
2011	618	441	71.36%	65.69%	60.35%
2012	611	432	70.70%	66.10%	62.45%
2013	619	436	70.44%	63.26%	59.68%
2014	604	425	70.36%	63.92%	61.84%
Total	4,313	2,826			

Panel B: By Industry

	Sample Firms	% of Sample Firms	Number of Observations	% of Sample Observations
Food	34	5.86%	163	5.78%
Textiles, printing & publishing	35	6.03%	176	6.24%
Chemicals	31	5.34%	162	5.74%
Pharmaceuticals	29	5.00%	107	3.79%
Extractive industries	35	6.03%	134	4.75%
Rubber, plastic, leather, stone, clay & glass	12	2.07%	62	2.20%
Metal	18	3.10%	75	2.66%
Machinery	36	6.21%	159	5.63%
Electrical equipment	23	3.97%	110	3.90%
Transportation equipment	17	2.93%	78	2.76%
Instruments	37	6.38%	186	6.59%
Miscellaneous manufacturers	7	1.21%	33	1.17%
Computers	101	17.41%	459	16.27%
Wholesale	15	2.59%	81	2.87%
Miscellaneous retail	43	7.41%	215	7.62%
Restaurant	8	1.38%	40	1.42%
Services	55	9.48%	273	9.67%
Others	44	7.59%	313	11.09%
	580	100%	2826	100%

Table 3: Summary Statistics

GAAP_E is GAAP Earnings (Compustat item NI). *COMP_E* is Compensation Earnings, the realized earnings performance that is used in determining bonus payout. *DIFF_E* is *COMP_E* minus *GAAP_E*. *MVE* is the market value of equity (Compustat items CSHO*PRCC_F), measured at the beginning of the year. *AT* is the total assets (Compustat items AT), measured at the beginning of the year. *SALE* is the total sales (Compustat item REVT) of the previous year. *ABSGAAP_E* is the absolute value of *GAAP_E*. *Change in LogBonus* is the change from year *t – 1* to year *t* in the natural logarithm of one plus total bonus payout. *TARGET* is the target earnings specified as the performance target in CEO bonus contracts. *TRANS* is the sum of all transitory items, including special items (Compustat item SPI), gains or losses from discontinued operations (Compustat item DO) and extraordinary items (Compustat item XI). *ADJ_E* is equal to *GAAP_E* minus *TRANS*. *RETURN* is the annual stock return from nine months prior to the fiscal year-end to three months after the fiscal year-end. *D* is an indicator variable equal to one if *RETURN* is negative, and zero otherwise. Panel A reports summary statistics on GAAP Earnings, Compensation Earnings, and their differences. Panel B reports summary statistics for the other variables used in the paper.

Panel A: Compensation Earnings and GAAP Earnings

Variable	N	Mean	1st pctl	25th pctl	50th pctl	75th pctl	99th pctl	STD	Mean of Absolute Value	Median of Absolute Value
GAAP_E_MVE	2826	0.046	-0.518	0.038	0.059	0.079	0.230	0.090		
COMP_E/MVE	2826	0.106	-0.070	0.060	0.084	0.126	0.563	0.088		
GAAP_E/AT	2826	0.070	-0.171	0.035	0.065	0.104	0.304	0.072		
COMP_E/AT	2826	0.114	-0.025	0.062	0.098	0.150	0.391	0.076		
DIFF_E/MVE	2826	0.060	-0.080	0.002	0.026	0.066	0.606	0.119	0.066	0.030
DIFF_E/AT	2826	0.044	-0.092	0.002	0.029	0.073	0.263	0.059	0.051	0.035
DIFF_E/SALE	2826	0.064	-0.137	0.001	0.032	0.089	0.559	0.106	0.073	0.037
DIFF_E/ABSGAAP_E	2826	1.373	-0.964	0.020	0.452	1.103	27.190	3.646	1.441	0.509

Table 3, Continued

Panel B: Descriptive Statistics of Other Variables						
	N	Mean	25th pctl	50th pctl	75th pctl	STD
Change in LogBonus	2477	0.110	-0.345	0.004	0.423	2.460
(COMP_E – TARGET)/AT	2477	0.002	-0.005	0.002	0.009	0.027
(GAAP_E – TARGET)/AT	2477	-0.042	-0.074	-0.026	0.001	0.066
TRANS/AT	2826	-0.012	-0.014	-0.004	0.000	0.033
ADJ_E/AT	2861	0.082	0.046	0.073	0.111	0.060
RETURN	2826	0.190	-0.051	0.155	0.359	0.448
D	2826	0.308	0.000	0.000	1.000	0.462

Table 4: The Relation between Bonus Payout and Compensation Earnings and GAAP Earnings

This table reports the regression of the year-to-year change in the log of bonus payout on the difference between Compensation Earnings and target earnings, and the difference between GAAP Earnings and target earnings. *Change in LogBonus* is the change from year $t-1$ to year t in the natural logarithm of one plus total bonus payout. *COMP_E* is Compensation Earnings, the realized earnings performance that is, as disclosed in proxy statements, used in determining bonus payout. *TARGET* is the target earnings specified as the performance target in CEO bonus contracts. *GAAP_E* is GAAP Earnings (Compustat item NI). *AT* is total assets measured at the beginning of the year. *RETURN* is the annual stock return from nine months prior to the fiscal year-end to three months after the fiscal year-end. Standard errors, adjusted for firm-level clustering, are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively, in two-tailed tests.

	(1) *Change in* $LogBonus_t$	(2) *Change in* $LogBonus_t$	(3) *Change in* $LogBonus_t$
$(COMP\_E_t - TARGET_t)/AT_t$	21.286***		20.720***
	(2.362)		(2.468)
$(GAAP\_E_t - TARGET_t)/AT_t$		3.896***	0.575
		(0.750)	(0.721)
$RETURN_t$	0.793***	0.962***	0.791***
	(0.148)	(0.152)	(0.148)
Intercept	-0.079*	0.089*	-0.053
	(0.041)	(0.048)	(0.047)
Observations	2,477	2,477	2,477
R-squared	0.087	0.045	0.087

Table 5: Conditional Conservatism in GAAP Earnings and Compensation Earnings

This table reports the Basu (1997) regression results. *GAAP_E* is GAAP Earnings (Compustat item NI). *COMP_E* is Compensation Earnings, the realized earnings performance that is used in determining bonus payout. *DIFF_E* is *COMP_E* minus *GAAP_E*. *MVE* is the market value of equity (Compustat items CSHO*PRCC_F), measured at the beginning of the year. *RETURN* is the annual stock return from nine months prior to the fiscal year-end to three months after the fiscal year-end. *D* is an indicator variable that equals one if *RETURN* is negative and zero otherwise. Panel A reports the results for the full sample. Panel B reports the results for the subsample that excludes observations with operating income as the performance measure. Panel C reports the results for the subsample that excludes observations with operating income as the performance measure, and with tax expense, interest expense, depreciations expense, and amortization expense added back to observations based on performance measures such as EBT, EBIT, and EBITDA. Panel D reports the results for the subsample that excludes observations with operating income, EBT, EBIT, or EBITDA as the performance measure. Standard errors, adjusted for firm-level clustering, are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively, in two-tailed tests.

Panel A: Full Sample

	(1)	(2)	(3)
	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$
$RETURN_t$	-0.009	0.047***	0.056***
	(0.010)	(0.009)	(0.010)
D_t	0.002	0.005	0.003
	(0.005)	(0.005)	(0.006)
$RETURN_t*D_t$	0.171***	-0.023	-0.194***
	(0.030)	(0.019)	(0.030)
Intercept	0.060***	0.094***	0.034***
	(0.003)	(0.004)	(0.004)
Observations	2,826	2,826	2,826
R-squared	0.067	0.040	0.043

Panel B: Subsample Excluding Observations with Operating Income as the Performance Measure

	(1)	(2)	(3)
	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$
$RETURN_t$	-0.014	0.052***	0.067***
	(0.012)	(0.014)	(0.014)
D_t	-0.001	0.007	0.008
	(0.006)	(0.007)	(0.009)
$RETURN_t*D_t$	0.164***	-0.031	-0.194***
	(0.035)	(0.025)	(0.036)
Intercept	0.062***	0.092***	0.029***
	(0.004)	(0.005)	(0.006)
Observations	2,076	2,076	2,076
R-squared	0.059	0.034	0.039

Table 5, Continued

Panel C: Subsample Excluding Observations with Operating Income as the Performance Measure, and with Tax Expense, Interest Expense, Depreciations Expense, and Amortization Expense added back to Observations based on Performance Measures such as EBT, EBIT, and EBITDA			
	(1)	(2)	(3)
	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$
$RETURN_t$	-0.014	0.016**	0.031***
	(0.012)	(0.008)	(0.009)
D_t	-0.001	-0.000	0.001
	(0.006)	(0.004)	(0.006)
$RETURN_t*D_t$	0.164***	0.029	-0.135***
	(0.035)	(0.020)	(0.029)
Intercept	0.062***	0.072***	0.010***
	(0.004)	(0.003)	(0.003)
Observations	2,076	2,076	2,076
R-squared	0.059	0.032	0.043

Panel D: Subsample Excluding Observations with Operating Income, EBT, EBIT, or EBITDA as the Performance measure			
	(1)	(2)	(3)
	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$
$RETURN_t$	-0.025*	0.017*	0.042***
	(0.014)	(0.009)	(0.010)
D_t	-0.011	-0.002	0.009
	(0.007)	(0.004)	(0.006)
$RETURN_t*D_t$	0.131***	0.016	-0.115***
	(0.035)	(0.019)	(0.027)
Intercept	0.069***	0.073***	0.004
	(0.004)	(0.003)	(0.004)
Observations	1,497	1,497	1,497
R-squared	0.058	0.036	0.051

Table 6: Conditional Conservatism in GAAP Earnings and Compensation Earnings – Sample Partitions

This table reports estimates of the Basu (1997) conservatism coefficient (β_3 in the following equation) on various sample partitions. We omit other information from the regressions due to space constraint.

$$EARNINGS_t = \beta_0 + \beta_1 RETURN_t + \beta_2 D_t + \beta_3 RETURN_t * D_t + \varepsilon_t$$

The dependent variable is either $GAAP\_E_t/MVE_t$, $COMP\_E_t/MVE_t$, or $DIFF\_E_t/MVE_t$. *GAAP_E* is GAAP Earnings (Compustat item NI). *COMP_E* is Compensation Earnings, the realized earnings performance that is used in determining bonus payout. *DIFF_E* is *COMP_E* minus *GAAP_E*. *MVE* is the market value of equity (Compustat items CSHO*PRCC_F), measured at the beginning of the year. *RETURN* is the annual stock return from nine months prior to the fiscal year-end to three months after the fiscal year-end. *D* is an indicator variable that equals one if *RETURN* is negative and zero otherwise.

Panels A reports the estimates over subsamples partitioned on *MTB*, *LEVERAGE*, and *SIZE*, respectively. *MTB* is the market value of equity (Compustat item CSHO*PRCC_F) divided by the book value of equity (Compustat item SEQ + TXDITC - PSTK). *LEVERAGE* is the sum of debt in current liabilities (Compustat item DLC) and long-term debt (Compustat item DLTT) divided by the sum of debt in current liabilities (Compustat item DLC), long-term debt (Compustat item DLTT), and book value of equity (Compustat item SEQ + TXDITC - PSTK). *SIZE* is the natural logarithm of total assets (Compustat item AT). For each partitioning variable, we form two subsamples of equal size.

Panels B reports the estimates over subsamples partitioned on *TOTGOV* and *Co-Option*, respectively. *TOTGOV* is a composite measure of governance quality, measured as the unweighted average of standardized variables of *GIndex*, *Chair*, and *Board Composition*, following García Lara et al. (2009). *GIndex* is the takeover protection index developed by Gompers et al. (2003). *Chair* is an indicator variable that equals one if the CEO is the chair of board of directors, and zero otherwise. *Board Composition* is the percentage of top executives serving on the board. *Co-Option*, board co-option, is the fraction of directors who joined the board after the CEO assumed office (e.g., Coles et al., 2014). For each partitioning variable, we form two subsamples of equal size.

Standard errors, adjusted for firm-level clustering, are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively, in two-tailed tests.

Table 6, Continued

	Panel A: Market-to-Book, Leverage, and Size					
	Full Sample			Subsample Excluding Observations with Operating Income as the Performance Measure		
	(1)	(2)	(3)	(4)	(5)	(6)
	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$
Low *MTB*	0.199***	-0.012	-0.211***	0.191***	-0.020	-0.211***
	(0.039)	(0.025)	(0.042)	(0.046)	(0.033)	(0.051)
High *MTB*	0.088**	-0.030	-0.118***	0.081*	-0.037	-0.117***
	(0.036)	(0.021)	(0.034)	(0.043)	(0.025)	(0.041)
Low *LEVERAGE*	0.067**	-0.019	-0.085***	0.044	-0.028	-0.072**
	(0.029)	(0.022)	(0.028)	(0.035)	(0.027)	(0.034)
High *LEVERAGE*	0.221***	-0.005	-0.226***	0.216***	-0.010	-0.226***
	(0.041)	(0.026)	(0.042)	(0.047)	(0.035)	(0.051)
Low *SIZE*	0.181***	-0.043	-0.224***	0.185***	-0.024	-0.209***
	(0.045)	(0.029)	(0.041)	(0.052)	(0.040)	(0.049)
High *SIZE*	0.161***	-0.002	-0.163***	0.143***	-0.038	-0.181***
	(0.039)	(0.023)	(0.044)	(0.046)	(0.028)	(0.054)

Table 6, Continued

	Panel B: Corporate Governance and Board Co-Option					
	Full Sample			Subsample Excluding Observations with Operating Income as the Performance Measure		
	(1)	(2)	(3)	(4)	(5)	(6)
	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$	$GAAP\_E_t/MVE_t$	$COMP\_E_t/MVE_t$	$DIFF\_E_t/MVE_t$
Low *TOTGOV* (Strong Governance)	0.172***	-0.036	-0.208***	0.128***	-0.058	-0.186***
	(0.036)	(0.031)	(0.037)	(0.040)	(0.041)	(0.046)
High *TOTGOV* (Weak Governance)	0.032	-0.021	-0.053**	0.034	-0.030	-0.063**
	(0.022)	(0.021)	(0.025)	(0.023)	(0.025)	(0.028)
Low *Co-Option* (Strong Governance)	0.189***	-0.028	-0.218***	0.144***	-0.049	-0.193***
	(0.047)	(0.026)	(0.046)	(0.046)	(0.033)	(0.050)
High *Co-Option* (Weak Governance)	0.093***	-0.032	-0.125***	0.066**	-0.037	-0.103**
	(0.034)	(0.028)	(0.041)	(0.032)	(0.036)	(0.043)

Table 7: Persistence of GAAP Earnings and Compensation Earnings

GAAP_E is GAAP Earnings (Compustat item NI). *COMP_E* is Compensation Earnings, the realized earnings performance that is used in determining bonus payout. *AT* is the total assets (Compustat items AT), measured at the beginning of the year. Panel A compares the persistence between GAAP Earnings and Compensation Earnings. Panels B compares the persistence between Compensation Earnings and the component of GAAP Earnings that is removed in arriving at Compensation Earnings. Standard errors, adjusted for firm-level clustering, are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively, in two-tailed tests.

Panel A: Persistence of GAAP Earnings and Compensation Earnings

	Full Sample		Subsample Excluding Observations with Operating Income as the Performance Measure	
	(1)	(2)	(3)	(4)
	$GAAP\_E_{t+1}/AT_{t+1}$	$COMP\_E_{t+1}/AT_{t+1}$	$GAAP\_E_{t+1}/AT_{t+1}$	$COMP\_E_{t+1}/AT_{t+1}$
$GAAP\_E_t/AT_t$	0.613***		0.617***	
	(0.029)		(0.034)	
$COMP\_E_t/AT_t$		0.807***		0.810***
		(0.019)		(0.024)
Intercept	0.028***	0.021***	0.027***	0.020***
	(0.002)	(0.002)	(0.002)	(0.002)
Observations	2,178	2,178	1,599	1,599
R-squared	0.424	0.691	0.440	0.684
Test of H2: Slope Coefficient of Model (1) = Slope Coefficient of Model (2)			Test of H2: Slope Coefficient of Model (3) = Slope Coefficient of Model (4)	
Chi-Square Statistics		39.54		30.47
P-Value		0.000		0.000

Panel B: Persistence of Compensation Earnings versus Removed Earnings Component

	Full Sample	Subsample Excluding Observations with Operating Income as the Performance Measure
	(1)	(2)
	$GAAP\_E_{t+1}/AT_{t+1}$	$GAAP\_E_{t+1}/AT_{t+1}$
$COMP\_E_t/AT_t$	0.677***	0.678***
	(0.024)	(0.029)
$(GAAP\_E_t - COMP\_E_t)/AT_t$	0.480***	0.523***
	(0.041)	(0.045)
Intercept	0.015***	0.018***
	(0.002)	(0.003)
Observations	2,178	1,599
R-squared	0.448	0.459
Test of H3: Coef($COMP\_E_t/AT_t$) = Coef($(GAAP\_E_t - COMP\_E_t)/AT_t$)		
F-Statistics	34.30	17.71
P-Value	0.000	0.000

Table 8: Removal of Transitory Items from Compensation Earnings

This table reports the regression results of the difference between Compensation earnings and GAAP earnings on transitory items. *DIFF_E* is *COMP_E* minus *GAAP_E*. *GAAP_E* is GAAP Earnings (Compustat item NI). *COMP_E* is Compensation Earnings, the realized earnings performance that is used in determining bonus payout. *AT* is the total assets (Compustat item AT), measured at the beginning of the year. *TRANS* is the sum *SPI*, *DO*, and *XI*. *SPI* (special items, Compustat item SPI) is the sum of unusual and/or non-recurring items reported by the company. *DO* (discontinued operations, Compustat item DO) is the total income (loss) from operations of a division discontinued or sold by the company and the gain (loss) on disposal of the division. *XI* (Compustat item XI) is extraordinary items. Column (1) reports the results for the full sample, and column (2) reports the results for the subsample that excludes observations with operating income as the performance measure. Standard errors, adjusted for firm-level clustering, are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively, in two-tailed tests.

	(1) Full Sample	(2) Subsample Excluding Observations with Operating Income as the Performance Measure
	$DIFF\_E_t/AT_t$	$DIFF\_E_t/AT_t$
$TRANS_t/AT_t$	-0.852***	-0.841***
	(0.041)	(0.054)
Intercept	0.034***	0.026***
	(0.002)	(0.002)
Observations	2,826	2,076
R-squared	0.228	0.201

Table 9:

Comparison between Compensation Earnings and an Alternative Version of Adjusted Earnings

This table compares the properties of an alternative version of adjusted earnings (*ADJ_E*) and Compensation earnings (*COMP_E*). *ADJ_E* is equal to *GAAP_E* (GAAP Earnings, Compustat item NI) minus *TRANS*, defined as the sum of *SPI (*special items, Compustat item SPI), *DO* (discontinued operations, Compustat item DO), and *XI* (extraordinary items, Compustat item XI). *COMP_E*, Compensation Earnings, is the realized earnings performance that is used in determining bonus payout.

Panel A reports the Basu (1997) regression results for the full sample and the subsample that excludes observations with operating income as the performance measure, respectively. *MVE* is the market value of equity (Compustat items CSHO*PRCC_F), measured at the beginning of the year. *RETURN* is the annual stock return from nine months prior to the fiscal year-end to three months after the fiscal year-end. *D* is an indicator variable that equals one if *RETURN* is negative and zero otherwise.

Panel B compares the persistence between *ADJ_E* and *COMP_E*. Panel C compares the persistence between *COMP_E* and *ADJ_E – COMP_E*. The scaling variable *AT* is the total assets (Compustat item AT), measured at the beginning of the year.

Standard errors, adjusted for firm-level clustering, are reported in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively, in two-tailed tests.

Table 9, Continued

Panel A: Conservatism			
Full Sample			
	(1)	(2)	(3)
	ADJ_E_t/MVE_t	$COMP\_E_t/MVE_t$	$(COMP\_E_t - ADJ\_E_t)/MVE_t$
$RETURN_t$	0.020***	0.047***	0.027***
	(0.006)	(0.009)	(0.009)
D_t	-0.002	0.005	0.008
	(0.004)	(0.005)	(0.005)
$RETURN_t*D_t$	0.021	-0.023	-0.044**
	(0.015)	(0.019)	(0.017)
Intercept	0.072***	0.094***	0.022***
	(0.002)	(0.004)	(0.004)
Observations	2,826	2,826	2,826
R-squared	0.037	0.040	0.010

Subsample Excluding Observations with Operating Income as the Performance Measure			
	(1)	(2)	(3)
	ADJ_E_t/MVE_t	$COMP\_E_t/MVE_t$	$(COMP\_E_t - ADJ\_E_t)/MVE_t$
$RETURN_t$	0.021***	0.052***	0.032***
	(0.008)	(0.014)	(0.012)
D_t	-0.001	0.007	0.008
	(0.005)	(0.007)	(0.008)
$RETURN_t*D_t$	0.016	-0.031	-0.047**
	(0.018)	(0.025)	(0.022)
Intercept	0.073***	0.092***	0.019***
	(0.003)	(0.005)	(0.005)
Observations	2,076	2,076	2,076
R-squared	0.028	0.034	0.009

Table 9, Continued

Panel B: Persistence of *ADJ_E* and *COMP_E*

	Full Sample		Subsample Excluding Observations with Operating Income as the Performance Measure	
	(1)	(2)	(3)	(4)
	ADJ_E_{t+1}/AT_{t+1}	$COMP\_E_{t+1}/AT_{t+1}$	ADJ_E_{t+1}/AT_{t+1}	$COMP\_E_{t+1}/AT_{t+1}$
ADJ_E_t/AT_t	0.770***		0.766***	
	(0.021)		(0.027)	
$COMP\_E_t/AT_t$		0.807***		0.810***
		(0.019)		(0.024)
Intercept	0.018***	0.021***	0.017***	0.020***
	(0.002)	(0.002)	(0.002)	(0.002)
Observations	2,178	2,178	1,599	1,599
R-squared	0.630	0.691	0.617	0.684
Test of H2: Slope Coefficient of Model (1) = Slope Coefficient of Model (2)			Test of H2: Slope Coefficient of Model (3) = Slope Coefficient of Model (4)	
Chi-Square Statistics		3.19		3.19
P-Value		0.074		0.074

a – b =

Panel C: Persistence of *COMP_E* and *(ADJ_E – COMP_E)*

	Full Sample	Subsample Excluding Observations with Operating Income as the Performance Measure
	(1)	(2)
	ADJ_E_{t+1}/AT_{t+1}	ADJ_E_{t+1}/AT_{t+1}
$COMP\_E_t/AT_t$	0.769***	0.758***
	(0.020)	(0.025)
$(ADJ\_E_t - COMP\_E_t)/AT_t$	0.713***	0.724***
	(0.031)	(0.033)
Intercept	0.017***	0.017***
	(0.002)	(0.002)
Observations	2,178	1,599
R-squared	0.619	0.607
Test of H3: Coef($COMP\_E_t/AT_t$) = Coef($(ADJ\_E_t - COMP\_E_t)/AT_t$)		
F-Statistics	5.04	1.57
P-Value	0.025	0.211