The Effects of SEC Comment Letters on Compensation Contract Efficiency

Rachel Geoffroy
The Ohio State University
geoffroy.1@osu.edu

Sophia Hamm
Tulane University
jhamm4@tulane.edu

Brent Schmidt
Pennsylvania State University
bjs6505@psu.edu

February 2023

Abstract

The SEC issues comment letters about executive compensation disclosure deficiencies. Although it is not the SEC's goal, we posit these comment letters indirectly influence compensation practices via improved disclosure. We show these letters increase pay-for-performance and relative performance evaluation in compensation contracts. Consistent with better disclosure increasing stakeholder discipline, we show the enhancement to contracting efficiency is most pronounced when (i) firms anticipate more negative public attention from receiving a comment letter and (ii) the comment letter is likely to spur changes to disclosure. Using grant-level details of plan-based compensation, we also document that comment letters lead to an increase in the use of performance objectives and the selection of performance peers that are more similar to the firm. As a consequence of the enhanced efficiency, comment letters are associated with increased future investment efficiency and profitability. Overall, we document that comment letters improve compensation contracting efficiency via improved disclosure.

We appreciate helpful comments from Jungho Choi, Rafael Copat, Gus De Franco, Jen Glenn, Patrick Kielty, John Robinson, Andy Van Buskirk, Xue Wang, Da Xu, Rick Young, and seminar participants at the 2022 AAA Annual Meeting, The Ohio State University, and Tulane University. We are grateful for financial support from The Ohio State University, Pennsylvania State University, and Tulane University.

1. Introduction

The last two decades have seen significant shifts in the executive compensation paradigm toward stricter regulation and monitoring of compensation practices (Murphy and Jensen 2018). In line with these shifts, the SEC introduced stricter compensation disclosure requirements as part of various regulatory changes, including the 2002 Sarbanes-Oxley Act and the FAS 123R, 162(m) coverage expansions. The SEC also pushed initiatives for proxy statement disclosure, most notably 2006's change of the Compensation Discussion and Analysis (CD&A) rule. These disclosure regulations aim to expand executive compensation disclosure requirements and to apply the expanded requirements to more executives. As part of its enforcement of these regulations, the SEC issues non-compliant filers comment letters about the subject of compensation disclosure.

The goal of the comment letter process, however, is not to change firms' compensation practices. In a 2009 speech about executive compensation disclosures, Shelley Parratt, Deputy Director of the Division of Corporate Finance, stated, "The SEC's role in this area is not to regulate *how* companies compensate their executives, but rather to see that investors have the critical disclosure they need to make informed investment and voting decisions." (Parratt 2009). Prior research supports this statement, suggesting that more rigorous compensation disclosure requirements should not necessarily have a direct impact on the compensation practices themselves (e.g., Murphy 2013; Murphy and Jenson 2018).

Nevertheless, comment letters may indirectly affect firm's compensation via improved disclosure. Several studies document an improvement in disclosure quality following the receipt of an SEC comment letter (see Cunningham and Leidner 2022 for a review). Particularly relevant to our study, Robinson, Xue, and Yu (2011) document an improvement in disclosures related to executive compensation following the receipt of a comment letter. This improved disclosure can

lead to changes in compensation contracts because better-informed market participants strengthen market discipline. Consistent with this indirect channel, one of the SEC's stated goals for executive compensation disclosure regulations is to enhance market discipline. When discussing the new CD&A regulations, former SEC Chairman Christopher Cox stated:

> It's because of these potential, and often real, conflicts of interest that a good deal of sunlight needs to be focused on the entire process by which executive compensation is determined. It's already hard enough for shareholders to exert themselves, without inadequate information compounding the problem. We aim to fix that. … By improving the total mix of information available to the marketplace, we can help shareholders and compensation committees of boards to assess information themselves, and reach their own conclusions. (Cox 2006)

As the SEC's reasoning makes apparent, we posit the comment letter process can enhance the market's disciplining of a firm's compensation contracts for executives so that they are better aligned with shareholder interests (i.e., are more efficient).

We examine whether the receipt of an SEC comment letter on executive compensation affects contracting efficiency. More specifically, we investigate the association between receiving a comment letter and pay-for-performance sensitivity, the extent to which pay is tied to performance, of future compensation contracts. While pay-for-performance is not the only aspect of contracting efficiency, it is most likely to be affected by the receipt of a comment letter because of shareholder demand for and the regulatory emphasis on pay-for-performance disclosure (SEC 2022; CFA Institute 2015). If improved disclosure from the comment letter process enhances the market's disciplining of the firm's compensation practices, we expect pay-for-performance sensitivity to increase.

To investigate the effect of receiving a comment letter on pay-for-performance sensitivity, we adopt the relative performance evaluation (RPE) framework from Albuquerque (2009). Within this framework, we examine two aspects of contract design. First, we capture the extent to which the firm ties its CEO's pay to the firm's performance as proxied by annual stock returns. Second, we examine whether the contract filters out industry peers' returns, which are meant to capture exogenous shocks outside of the CEO's control. It is important to capture both of these aspects because tying pay to the firm's overall performance includes compensation for exogenous shocks; this practice would not be considered efficient contracting because the CEO is being rewarded for luck (Bertrand and Mullainathan 2001; Garvey and Milbourn 2006).[1] Thus, within this framework, the construct of contracting efficiency captures the extent to which CEO compensation is (i) positively associated with firm performance and (ii) negatively associated with peer performance.

Our data are built on a large sample of SEC comment letters drawn from Audit Analytics. Using text searches, we extract 27,164 comment letters about executive compensation disclosure from 2005 to 2020. Our main sample consists of 25,552 firm-year observations with the necessary variables, 10% of which receive at least one compensation-related comment letter.

We begin our analyses by examining the impact of receiving a comment letter on the level of future CEO compensation. Prior studies examine the association between the change in excess total compensation (Core, Guay, and Larcker 2008) and the number of disclosure defects identified in a comment letter (Robinson et al. 2011; Wang, Zhang, Wilson, and Kala 2022).[2] We extend these studies by examining which components of CEO compensation are affected by the receipt

[1] To further highlight this point, in its comments on the new pay versus performance rules, the CFA Institute stated, "…forces beyond the control of management may cause the rise in a sector or an entire market, overwhelming the impact of a management team. A management team that has not achieved its goals and whose bonuses are therefore justifiably limited by the board may seem underpaid…if a sector or market mania has 'risen all boats' even if a management team has underperformed." (CFA Institute 2015).

[2] While Robinson et al. (2011) find no association between the number of disclosure defects in a comment letter and future excess compensation, Wang et al. (2022) find a significantly negative association.

of a comment letter. In untabulated analyses, we find receiving a comment letter is associated with a lower level of future plan-based compensation for CEOs (i.e., stocks, options, and non-equity incentives awards), but it does not affect the other components of total compensation.[3] Using the framework in Core et al. (2008), we also find comment letters are associated with lower future excess plan-based compensation. Motivated by these initial results, we examine how the receipt of an SEC comment letter affects contracting efficiency with respect to plan-based compensation.

Our main results suggest that the receipt of a comment letter is associated with improved efficiency in future executive compensation contracting. Specifically, we find that the positive correlation between a CEO's plan-based compensation and the firm's performance is stronger, consistent with higher pay-for-performance sensitivity, after the receipt of a comment letter. When holding firm performance constant, we find a stronger negative association between plan-based compensation and the firm's peers' performance, consistent with an increased use of RPE, after comment letter receipt.[4] Taken together, our results indicate that receiving a comment letter about executive compensation is associated with higher future contracting efficiency.

As discussed in Section 2, our main prediction is that comment letters lead to higher contracting efficiency via improved disclosure leading to greater market discipline. We explore these arguments using two complementary approaches. First, we expect the effect of comment letters to be stronger when firms anticipate receiving more negative attention from stakeholders. Second, we expect the comment letters that are most likely to lead to greater disclosure improvements to have a greater effect on future contracts.

[3] We find that 83% of the compensation-related comment letters that we identify have at least one keyword related to compensation from plan-based awards (i.e., "equity," "option," "stock," "share," or "nonequity incentive").
[4] Holding the firm's performance constant, higher peer performance suggests that the firm's own performance is worse by comparison (i.e., the firm's relative performance is lower). Thus, to the extent the firm uses RPE when setting compensation, the association between compensation and peer returns (conditional on the firm's performance) should be negative. See Section 4.1 for further discussion.

In our first approach, we examine cross-sectional variation in stakeholder attention. Stakeholder attention can serve as a channel for media attention, which can put pressure on compensation (Dyck and Zingales 2002; Core et al. 2008). In addition, stakeholder attention can ignite shareholder activism, including say-on-pay votes or labor force dissatisfaction with the pay gap (Ertimur, Ferri, and Muslu 2011; Crawford, Nelson, Rountree 2021), both of which can lead to demands for more stringent executive compensation practices. We examine four proxies for negative stakeholder attention: the number of negative press articles written about the firm, comment letter downloads on EDGAR, the number of ISS recommendations on proxy voting that are counter to management's recommendations, and whether the firm's existing contracting efficiency is low. Our cross-sectional analyses suggest these proxies for negative stakeholder attention intensify the comment letter's effect on tying future pay more closely to performance. We also find the negative press and low contracting efficiency variables strengthen the increase in RPE use following the receipt of a comment letter. These results suggest firms improve their contract design in anticipation of negative stakeholder attention following comment letter receipt.

Our second approach considers whether the main findings are driven by comment letters that have a higher likelihood of improving the firm's future compensation disclosures. Because comment letter characteristics cannot be measured for the control firms (i.e., firms that do not receive a comment letter), we adopt a subsample analysis approach. That is, we create two comment letter variables based on (i) whether the firm changes its disclosure about its existing compensation by restating its 10-K after receiving a comment letter and (ii) whether the average stock market reaction to the comment letters the firm receives during the year is below the sample median. Both variables proxy for the severity of the current disclosure deficiency and the stakeholder pressure for getting more information about compensation details, and they thus

predict a higher likelihood of improvement in the disclosure of future compensation contracts. We find that both proxies are linked to (i) a stronger tie between plan-based compensation and firm performance and (ii) more use of RPE. These results suggest that those comment letters that are more likely to improve the firm's disclosures about executive compensation are more likely to improve contracting efficiency.

Having found support for our main hypothesis, we next examine whether our results are asymmetric across firm performance. The prior literature suggests that a firm may use RPE more when its performance is poor (e.g., Coughlan and Schmidt 1985; Warner, Watts, and Wruck 1988; Murphy and Zimmerman 1993). This potential asymmetry would suggest that the pay-for-performance scheme in compensation becomes more sensitive to low performance. We find evidence that a comment letter leads to increased pay-for-performance sensitivity, along with a greater use of RPE, only when the firm's performance is poor. These results provide evidence that the effect of receiving a comment letter on improving future contracting efficiency is concentrated in cases of reduced pay for poor performance.

To further strengthen our interpretation that the receipt of a comment letter is associated with higher future contracting efficiency, we examine two expected consequences of this improvement in contract design. Prior studies relate the efficiency of equity compensation contracts to executives' incentive horizon and the resulting investment decisions (e.g., Jensen 1986; Graham, Harvey, and Rajgopal 2005; Edmans, Gabaix, Sadzik, and Sannikov 2012; Edmans, Fang, and Lewellen 2017; Gopalan, Milbourn, Song, and Thakor 2014). These studies begin with the premise that more efficient compensation contracts are better tied with long-term firm performance (e.g., Bebchuk and Fried, 2010). Consistent with an improvement in contracting efficiency, we document higher average investment efficiency over the two years subsequent to

the receipt of a comment letter, in particular when the average investment efficiency is measured as convergence toward optimal investment from underinvestment (Biddle, Hilary, and Verdi 2009). These firms also experience a higher average ROA during the two years after receiving a comment letter about compensation. These findings provide further support for the receipt of a comment letter being associated with higher future contracting efficiency.

Our main RPE framework requires the use of a researcher-constructed peer group, which likely introduces noise to the analysis. An alternative approach is to use firms' disclosures to identify pay-for-performance schemes and performance benchmarking peers (Gong, Li, and Shin 2011). As additional tests of the impact of receiving a comment letter on contracting efficiency, we examine grants of plan-based awards for (i) the use of performance objectives and (ii) performance benchmarking peers' characteristics. First, we examine the prevalence of performance-vesting, as opposed to time-vesting, grants after the receipt of a comment letter. Second, we examine whether the similarity between the firm and its disclosed performance benchmarking peers changes after the firm receives a comment letter. Our first set of tests suggests a higher prevalence of performance objectives in plan-based compensation contracts following the receipt of a comment letter, consistent with an increase in pay-for-performance sensitivity. In our second set of tests, we find the firm's disclosed performance benchmarking peers are more likely to be in the same 2-digit SIC industry and to be more similar to the firm in terms of size (i.e., market value of equity and total sales) after receiving a comment letter. These results, based on the detailed characteristics of grants of plan-based awards, reinforce our main findings that receiving a comment letter about executive compensation is associated with higher future contracting efficiency.

Finally, we examine whether board characteristics affect the comment letters' impact on

contract design. We do not find evidence that the quality of the compensation committee (Sun, Cahan, and Emanuel 2009), nor the quality of the full board, change comment letters' effect on contracting efficiency. However, we do find evidence that higher quality compensation committees and boards are associated with higher pay-for-performance sensitivity, irrespective of whether the firm receives a comment letter. Thus, while board characteristics do not affect the impact of receiving a comment letter on contracting efficiency, it is possible that they play a role in setting more efficient compensation contracts at an earlier stage. Overall, our findings suggest that the main facilitator of comment letters' effect on compensation is enhanced market discipline via improved disclosure, rather than board characteristics.

Our paper contributes to the literature on executive compensation. The question of whether enhancing compensation disclosure impacts compensation practices (e.g., Murphy 2013; Murphy and Jenson 2018) and the mixed empirical findings related to this question are often used to challenge disclosure mandates' efficacy in promoting shareholder monitoring. For example, following the 2006 disclosure mandate, Grinstein, Weinbaum, and Yehuda (2017) find that the value of awarded perks decreases, while Gipper (2020) documents an increase in total pay. In addition, Choi, Gipper, and Shi (2022) find an increase (decrease) in RPE use (pay for idiosyncratic firm performance) after the 2006 rule change. Rather than looking at a disclosure rule change, we highlight the role of enforcement by showing that for non-compliant firms, receiving an SEC comment letter is associated with improved contracting efficiency. Furthermore, the evidence on the direct effect of media attention or shareholder voting on executive compensation is also limited (Core et al. 2008; Armstrong, Gow, and Larcker 2013). We highlight the role of negative media or shareholder attention as a facilitator of comment letters' effects on contract design.

We also contribute to the literature on the use of RPE in executive compensation. Early

empirical studies found modest evidence supporting the use of RPE (e.g., Antle and Smith 1986; Janakiraman, Lambert, and Larcker 1992; Murphy 1999), which is surprising given the strong theoretical support for it. More recent work addresses this "RPE puzzle" in various ways, including refining the approach to select researcher-constructed peer groups (Albuquerque 2009; De Angelis and Grinstein 2020; Jayaraman, Milbourn, Peters, and Seo 2021) and using firms' own disclosures to identify RPE use (Carter, Ittner, and Zechman 2009; Gong et al. 2011; Bettis, Bizjak, Coles, and Kalpathy 2018). We extend this literature by showing that enforcement of disclosure rules is an effective regulatory device to increase the use of RPE.

Last, our research contributes to the literature on SEC comment letters' efficacy. A large and growing literature offers evidence that SEC comment letters result in significant market responses and improvement in disclosure compliance (Robinson et al. 2011; Cassell, Dreher, and Myers 2013; Bens, Cheng, and Neamtiu 2016; Dechow, Lawrence, Ryans 2016; Kubick, Lynch, Mayberry, and Omer 2016; Bozanic, Dietrich, and Johnson 2017; Duro, Heese, and Ormazabal 2019; Rauter 2020; Ryans 2021; Wang et al. 2022). We add to this literature (i) by examining the effects of receiving a comment letter on pay-for-performance sensitivity and RPE use, and (ii) by highlighting the role of stakeholder attention in the comment letter process.

2. Institutional Background and Hypotheses Development

The Sarbanes Oxley Act requires the SEC to review public firms' annual financial statements at least every three years with the discretion to conduct additional reviews. The SEC's Division of Corporate Finance (DCF) assesses compensation disclosures primarily as part of this routine review process, which also involves comment letters. Per Items 402 and 407 of Regulation S-K, firms are required to annually disclose their executive compensation details in financial statements. Most of the Item 11 disclosures in 10-Ks' Part III direct readers to the annual proxy

document (DEF 14A) for executive compensation information. Thus, most SEC comment letters related to executive compensation are tied to routine 10-K reviews and address whether all the compensation disclosures required by Regulation S-K have been properly disclosed in DEF 14A.

In Appendix A, we present examples of comment letters; these are similar in substance to most of the comment letters in our sample. The comment letters seek to ensure that all compensation disclosures meet the standards required by Regulation S-K. Firms that receive a comment letter are required to respond. A response can include references to an amended disclosure so that the SEC can see where and how the firm changed its filing in light of the SEC's concern. Alternatively, firms can clarify why the current disclosure is correct and sufficient. If the SEC is not satisfied with these responses, it will issue another round of comments. Any comments older than 180 days that are not sufficiently addressed by the time of the next 10-K filing must be disclosed in the 10-K in Item 1B. Failure to respond can lead the DCF to pass the comments on to the Division of Enforcement, which can initiate legal action against the filer.

We posit the comment letter process indirectly influences compensation practices by improving disclosure, thus enabling market discipline. The SEC's role is to enforce disclosure rules, thereby giving shareholders better information about compensation practices. Recently, the SEC reiterated its role in disclosure regulation. In its FY2020 Budget Request by Program, the SEC states, "Through its selective review program, [the DCF] reviews company filings and provides comments to address possible material noncompliance with disclosure and accounting requirements…and to enhance investor protection." (SEC 2019, p. 29). The SEC has also made specific remarks about its role with respect to executive compensation. In a speech, former SEC Chairman Christopher Cox stated, "It's because of these potential, and often real, conflicts of interest that a good deal of sunlight needs to be focused on the entire process by which executive

compensation is determined. It's already hard enough for shareholders to exert themselves, without inadequate information compounding the problem. We aim to fix that." (Cox 2006).

An important assumption that underlies our main prediction is that the receipt of a comment letter leads to an improvement in disclosure. Studies document the efficacy of SEC comment letters in improving disclosure quality (see Cunningham and Leidner 2022 for a review). Most relevant to our study is Robinson et al. (2011), who document an improvement in disclosures related to executive compensation after receiving a comment letter. Prior studies also examine the association between the number of disclosure defects identified in a comment letter (Robinson et al. 2011; Wang et al. 2022) and the change in excess total compensation (Core et al. 2008), with the premise that SEC comment letters may reduce executive compensation. While Robinson et al. (2011) find no association between the number of disclosure defects in the comment letter and future excess compensation, Wang et al. (2022) find a negative association. These studies show comment letters lead to disclosure improvements, which in turn can affect compensation practices.

Our main prediction is that the improved disclosure from the comment letter process enhances market discipline of firms' compensation practices, leading to an improvement in contracting efficiency. More specifically, the receipt of a comment letter implies that the SEC will demand more transparent disclosure in the future. Therefore, firms anticipate more attention to future contracts and stronger disciplining by shareholders because they would be more informed about such contractual details. In other words, in light of the increased disclosure transparency arising from the comment letter process, suboptimal future compensation contracts would become more apparent to stakeholders and would garner negative stakeholder attention. To preempt this, firms adjust their compensation contracts in a way that is consistent with shareholders' interests (i.e., they improve contracting efficiency). Therefore, we make the following prediction:

H1: Receiving an SEC comment letter about executive compensation is associated with higher future contracting efficiency.

At the construct level, we define contracting efficiency as greater pay-for-performance in general, and greater weight placed on relative performance (i.e., filtering out exogenous shocks). While these are not the only aspects of contracting efficiency,[5] we posit they are most likely to be affected by the receipt of a comment letter because of shareholder demand for and the regulatory emphasis on pay-for-performance disclosure. In support of this point, we note that Regulation S-K Item 402(v), the most recent disclosure requirement set forth in August 2022, requires the tabulation of more granular compensation details, stock returns, peer returns, and other performance measures. These changes are designed to promote transparency regarding pay for performance. Furthermore, in comments on the proposed rules, the CFA Institute said, "Compensation for senior company executives…should be explicitly linked to financial and operating performance. We believe that creating a link between executive compensation and fundamental performance best aligns executive and shareowner interests." (CFA Institute 2015). Finally, Brossy and Jones (2015) suggest that pay-for-performance deficiencies are one of three areas that typically become the focus of cases against incumbent pay programs.

Agency theory suggests that executive compensation should be linked to firm performance. The RPE hypothesis further suggests that exogenous shocks should be filtered out of the firm performance measure (Holmstrom 1982). The reasoning in support of RPE is twofold. First, the peer-filtered, idiosyncratic performance measure is mostly driven by the manager's actions, and thus is more suitable for evaluating the manager's performance. Second, it insulates a risk-averse

[5] Compensation contract efficiency more broadly concerns attracting, incentivizing, and retaining employees in a way most beneficial to shareholders. For example, Na (2020) examines the participation constraint in contract design, showing that the staggered rejection of the Inevitable Disclosure Doctrine is associated with pay being tied to general market conditions (which may be correlated with the CEO's reservation utility).

manager from risk that arises from exogenous shocks, reducing the cost of compensation without altering the manager's incentives. To filter out exogenous shocks, the firm's performance is evaluated relative to a peer group that is exposed to similar shocks. In sum, our construct-level definition of contracting efficiency (i.e., higher pay-for-performance sensitivity and greater use of RPE) is consistent with compensation contracts being better aligned with stakeholder interests.

3. Data and Sample Selection

We use five main sources to construct the variables for our analyses.[6] Financial statement information is from Compustat, market variables are from CRSP, and compensation data are from Execucomp. For the tests of plan-based grants, we obtain data from ISS Incentive Lab. Last, the comment letter data are from Audit Analytics. We determine that the letters relate to executive compensation if the phrase "executive compensation" is included in the list of comment letter issue phrases (LIST_CL_ISSUE_PHRASE). This procedure yields 27,164 comment letters over our sample period. We construct comment letter variables by year based on the letter's filing date.

Table 1 outlines the sample selection procedures for the main contracting efficiency tests. We begin with all firm-years in Compustat from 2005 to 2020. We then drop 70,271 observations without coverage in CRSP, 36,231 observations without the peer returns variable, and 1,353 observations without a valid CIK number. Next, we drop 46,530 observations that are missing additional variables for the contracting efficiency analyses. This yields our main sample of 25,552 firm-year observations. For the subsequent performance objectives tests, we drop an additional 13,916 observations for which ISS Incentive Lab data are missing, resulting in a sample of 11,636. Finally, for the performance benchmarking peers tests, we lose another 9,260 observations for which the firm discloses no performance benchmarking peers, yielding a sample of 2,376

[6] In addition to the main data sources listed here, Appendix B notes additional sources of data. Please see Appendix B for the data sources for all the variables.

observations. In the notes to Table 1, we outline the samples for several other tests that we start with the main sample and lose additional observations.

4. Research Design and Results

4.1 Effects of Receiving a Comment Letter on Contracting Efficiency

Table 2 presents the descriptive statistics for the variables used throughout the paper. *CL* is an indicator variable set to 1 if the firm receives an SEC comment letter related to executive compensation during the year, 0 otherwise. We also show t-tests that examine the differences in the means of these variables for observations without a comment letter ($CL_t = 0$) and those with at least one letter ($CL_t = 1$). 10% of the firm-years in our sample receive at least one compensation-related comment letter in a year. The initial univariate evidence suggests that receiving a compensation-related comment letter is associated with lower future plan-based compensation (*PlanBasedComp*). *PlanBasedComp* is defined as the natural log of one plus the sum of the values of the CEO's stock awards, option awards, and non-equity incentives for the year.

To set up the base cases for our main tests, we first expand on Wang et al.'s (2022) finding that the number of compensation-related defects in SEC comment letters is associated with a smaller change in future excess compensation. In untabulated tests, we examine how the receipt of a comment letter affects the various components of total compensation as outlined in Figure 1 by running the following regression:

$$Compensation_{t+1} = \alpha_1 CL_t + \beta Controls_t + \gamma_1 Firm\ FE + \gamma_2 Year\ FE + \varepsilon, \quad (1)$$

where *Compensation* is either *PlanBasedComp* (previously defined), *SalaryAndBonus* (the natural log of one plus the sum of the CEO's salary and bonus for the year), *OtherComp* (the natural log of one plus the sum of the CEO's change in pension value and other compensation for the year), or *ExcessPBComp* (excess *PlanBasedComp* of the CEO, calculated following Core et al. 2008).

We find *CL* is associated with lower future *PlanBasedComp* and *ExcessPBComp*, but is not significantly associated with future *SalaryAndBonus* and *OtherComp*. This result leads us to the main focus of our paper, examining how comment letter receipt affects contracting efficiency. Because we find the only component of total compensation affected by receiving a comment letter is *PlanBasedComp*, our contracting efficiency tests focus on this portion of compensation.

To examine the effects of receiving a comment letter on contracting efficiency, we adopt the framework of RPE. The critical task in examining RPE is the selection of an appropriate peer group. Prior literature takes two general approaches. The first approach relies on researcher-constructed peer groups, such as those based on industry and size (e.g., Albuquerque 2009). This approach allows for a larger sample size and it captures both explicit and implicit RPE. However, researcher-constructed peer groups may introduce noise and thus reduce the power of the tests. Second, studies use firms' own disclosures to identify peer firms (e.g., Gong et al. 2011). The advantage of this approach is that it does not rely on research-constructed peer groups. However, the sample size is quite limited,[7] and the approach only captures formulaic and explicit RPE, not implicit RPE (Gong et al. 2011, p. 1013). For our main tests, we adopt the first approach. We use 2-digit SIC industry and size quartile to construct the peer group following Albuquerque (2009), who demonstrates these characteristics best mitigate the aforementioned noise and power issues.[8,9]

[7] Gong et al. (2011) note that only 25% of their sample firms are identified as disclosing the use of RPE.

[8] Using the data discussed in Section 4.5 as an additional validation of the Albuquerque (2009) approach in our setting, we model the determinants of the firm's choice of performance benchmarking peers (similar to Equation 3 in Gong et al. 2011). Specifically, we examine six determinants: (i) membership in the same 2-digit SIC industry, (ii) membership in the same 3-digit SIC industry, (iii) identical membership status in the S&P 500, and the absolute value of the difference in (iv) the market value of equity, (v) annual returns, and (vi) total sales. Membership in the same 2-digit SIC industry is the most significant predictor (t-stat 32.02). The difference in the market value of equity between the two firms is also a significant predictor (t-stat -3.24). Finally, even after separately controlling for membership in the same 2-digit SIC industry and the continuous size difference, we find that an indicator variable for membership in *both* the same 2-digit SIC industry *and* size quartile has incremental explanatory power (t-stat 3.15).

[9] In subsequent analyses, we additionally adopt an approach similar to Gong et al. (2011), and examine grants of plan-based awards, which relates to *PlanBasedComp* as outlined in Figure 1. With these analyses, we are limited to less than 10% of our main sample (see Section 4.5). This represents roughly 20% of firms covered by the Incentive Lab data, consistent with the 25% of RPE firms reported in Gong et al. (2011).

To examine whether the receipt of a comment letter leads to (i) an increase in pay for the firm's performance and (ii) more filtering of exogenous shocks, we run the following regression:

$$\begin{aligned} PlanBasedComp_{t+1} = {} & \alpha_1 CL_t + \alpha_2 Ret_{t+1} + \alpha_3 PeerRet_{t+1} + \alpha_4 CL_t \text{ x } Ret_{t+1} \\ & + \alpha_5 CL_t \text{ x } PeerRet_{t+1} + \beta Controls_t + \gamma_1 Firm\ FE \\ & + \gamma_2 Year\ FE + \varepsilon, \end{aligned} \quad (2)$$

where *Ret* is the firm's cumulative daily stock returns during the year; and *PeerRet* is the equal-weighted, cumulative daily stock returns for the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm.[10] The coefficient on *Ret* (α_2) captures the extent to which the firm ties pay to its own performance. Holding peer performance constant, higher firm performance should be associated with higher compensation levels; thus, α_2 is expected to be positive. On the other hand, the coefficient on *PeerRet* (α_3) captures the extent to which compensation is associated with the performance of the firm's peer group. Holding the firm's performance constant, higher peer performance suggests the firm's own performance is worse by comparison (i.e., the firm's relative performance is lower). Thus, if the firm is benchmarking its own performance against the peer group when setting compensation, α_3 should be negative. H1 predicts the receipt of an SEC comment letter is associated with higher future contracting efficiency. If the receipt of a comment letter strengthens the relationship between the firm's own performance and pay, we expect α_4 to be significantly positive. Similarly, if the receipt of a comment letter strengthens the use of RPE, we expect α_5 to be significantly negative.

Table 3 presents the results of estimating Equation 2, altering the fixed effects structure while including our full set of control variables in all columns.[11] Across all four columns, we find

[10] Another approach to capturing performance is the use of accounting returns (i.e., ROA). However, Albuquerque (2009) fails to find evidence of RPE in accounting returns when using industry-size peers. Therefore, consistent with Albuquerque (2009), we measure performance using stock returns.

[11] Column 1 omits fixed effects from the model, Column 2 includes only firm fixed effects, Column 3 includes only year fixed effects, and Column 4 includes the full model.

that the coefficients on CL_t x Ret_{t+1} are significantly positive, and those on CL_t x $PeerRet_{t+1}$ are significantly negative. This suggests that the receipt of a comment letter strengthens the relationship between the firm's own performance and plan-based compensation for the CEO and also increases the use of RPE. In terms of economic magnitude, using the results in Column 4, when *CL* equals 1, a one standard deviation increase in *Ret* (*PeerRet*) leads to future *PlanBasedComp* that is 3.3% (1.0%) higher (lower) than the unconditional mean.[12] Furthermore, we note that the coefficient on *Ret* increases by 75% when *CL* equals 1 and that the coefficient on *PeerRet* is only significant when *CL* is 1.[13] In summary, our main results suggest that receiving an SEC comment letter about executive compensation leads to higher future contracting efficiency.

4.2 Cross-Sectional and Subsample Analyses

We next consider cross-sectional and subsample analyses to test the underlying predictions discussed in Section 2. More specifically, we predict that firms improve their compensation contracting efficiency after receiving an SEC comment letter because they anticipate improved disclosure and enhanced market discipline. We test this prediction via two complementary approaches. First, we proxy for the firm-level environment in which a compensation-related comment letter is expected to garner greater negative attention from stakeholders. These variables can be measured both for firms that receive and those that do not receive a comment letter; we use them to conduct cross-sectional analyses for the full sample. Second, we partition the firms that receive a comment letter based on (i) whether the firm subsequently restates its 10-K[14] and (ii)

[12] To calculate this economic magnitude, we compute the change in *PlanBasedComp* by multiplying the sum of the coefficients on *Ret* and *CL* x *Ret* (*PeerRet* and *CL* x *PeerRet*), 0.590 (-0.302) by the untabulated standard deviation of *Ret* (*PeerRet*), 0.424 (0.243), which yields 0.250 (-0.073). We then divide these amounts by the unconditional mean of *PlanBasedComp* in Table 2, 7.665, to arrive at the percentages reported above (3.3% and 1.0%, respectively).
[13] To calculate this, we divide the coefficient on *CL* x *Ret*, 0.251, by the coefficient on *Ret*, 0.339.
[14] Proxy statements (i.e., forms DEF 14A) cover the information required to be disclosed in Part III of 10-K reports (https://www.sec.gov/files/form10-k.pdf). Amendments to the proxy statement are filed as amendments to the 10-K and are the most common reason for filing an amended 10-K (https://blog.auditanalytics.com/reasons-for-an-

whether the average stock market reaction to the comment letters the firm receives during the year is below the sample median. This second approach utilizes variables that can only be measured when a firm receives a comment letter. We use these partitions to create separate treatment (i.e., *CL*) variables; we refer to these as our subsample analyses.

For the cross-sectional tests, we examine four proxies for negative stakeholder attention: the number of negative press articles written about the firm (*NegArticles*), comment letter downloads on EDGAR (*CLDownloads*), the number of ISS recommendations on proxy voting that are counter to the management's recommendation (*ISSDisagree*), and an indicator for low levels of contracting efficiency (*LowCE*).

Negative sentiment in the firm's press coverage proxies for an environment in which regulatory events, such as receiving a comment letter about disclosure deficiencies, can cause stakeholders to interpret these events more negatively. *NegArticles* is the number of news articles during the year with a negative composite sentiment score (i.e., CSS in RavenPack is less than 50). The computation includes articles with a RavenPack relevance score that is greater than 90.

We use download counts for comment letters as a proxy for the level of investor attention to the letters, consistent with prior studies that link EDGAR download counts to investor attention (deHaan, Shevlin, and Thornock 2015; Drake, Roulstone, and Thornock 2015; Drake, Jennings, Roulstone, and Thornock 2016). *CLDownloads* is the number of downloads of the firm's comment letters on EDGAR during the year.[15] We exclude web crawlers from the download count.[16]

amended-10-k-2020/). Therefore, we examine amendments to 10-Ks in order to capture subsequent changes to proxy statements.

[15] When calculating *CLDownloads*, we measure the downloads of all comment letters, not just those related to executive compensation, so that the variable can be measured both for firms that receive comment letters related to executive compensation and those that do not. Also, as the SEC stopped providing EDGAR download data after 6/30/2017, the sample period for the *CLDownloads* cross-sectional test stops at that point.

[16] Web crawlers are defined as IP addresses in the EDGAR log files that (i) identify as a web crawler, (ii) have more than 5 searches per minute, or (iii) have more than 50 searches per day.

We use ISS recommendation disagreements to proxy for a higher level of shareholder attention, and a higher level of disagreement with management vis-à-vis governance issues. *ISSDisagree* is the number of recommendations on shareholder votes held during the year when ISS issues a recommendation that is counter to the management's recommendation.[17]

Last, we expect firms to anticipate more negative attention if their level of contracting efficiency is lower upon receiving a comment letter. To capture this, we estimate the following regression within each 2-digit SIC industry-year, which is a base-line regression of Equation 2:

$$PlanBasedComp_t = \beta_0 + \beta_1 Ret_t + \beta_2 PeerRet_t + \varepsilon. \quad (3)$$

LowCE is an indicator set to 1 if the estimated β_1 from this regression is below the sample median and the estimated β_2 from this regression is above it, 0 otherwise.

Collectively, these four proxies capture the likelihood of negative stakeholder attention that the firm anticipates when it receives a comment letter. We estimate the following model:

$$\begin{aligned} PlanBasedComp_{t+1} = {} & \alpha_1 CL_t + \alpha_2 Ret_{t+1} + \alpha_3 PeerRet_{t+1} + \alpha_4 Mod_t + \alpha_5 CL_t \text{ x } Ret_{t+1} \\ & + \alpha_6 CL_t \text{ x } PeerRet_{t+1} + \alpha_7 CL_t \text{ x } Mod_t + \alpha_8 Ret_{t+1} \text{ x } Mod_t \\ & + \alpha_9 PeerRet_{t+1} \text{ x } Mod_t + a_{10} CL_t \text{ x } Ret_{t+1} \text{ x } Mod_t \\ & + \alpha_{11} CL_t \text{ x } PeerRet_{t+1} \text{ x } Mod_t + \beta Controls_t + \gamma_1 Firm\ FE \\ & + \gamma_2 Year\ FE + \varepsilon, \end{aligned} \quad (4)$$

where *Moderator* is one of the four proxies discussed above, calculated in year t for both the treatment and control firms. We predict that α_{10} (α_{11}) will be significantly positive (negative). We include all the controls from Table 3, along with firm and year fixed effects.

The results of these cross-sectional tests are presented in Table 4, Panel A. As predicted, α_{10} is significantly positive across all models, suggesting the effect of receiving a comment letter on increasing pay-for-performance sensitivity is stronger when firms expect more negative

[17] The vast majority of proxy votes on executive compensation began after the implementation of say-on-pay in 2011. Limiting the measurement of *ISSDisagree* only to votes on executive compensation would cause us to lose roughly half of our sample. Therefore, we measure *ISSDisagree* for all proxy votes.

stakeholder attention. Furthermore, α_{11} is significantly negative in Columns 1 and 4 (*NegArticles* and *LowCE*, respectively), consistent with negative press coverage and lower levels of contracting efficiency strengthening the effect of comment letters on the firm's increased use of RPE. Overall, the results in Table 4, Panel A are consistent with firms improving their contracting efficiency in anticipation of negative stakeholder attention that results from receiving an SEC comment letter.

For the subsample tests, we partition firms receiving a comment letter based on (i) whether the firm subsequently restates its 10-K (*AmendedFiling*) and (ii) whether the average stock market reaction to the comment letters the firm receives during the year is below the sample median (*LowCLReturns*). As discussed in Section 2, we predict comment letters affect contracting efficiency because firms anticipate that improved disclosure will enable stronger market discipline. We expect this disclosure effect to be stronger when the firm subsequently changes the information in its proxy statement. Our first partitioning variable, *AmendedFiling*, is an indicator variable equal to 1 if the firm files an amended 10-K after it receives a comment letter, but no later than 90 days after the end of the fiscal year, 0 otherwise. We also expect the disclosure effect to be stronger when the comment letter garners a negative shareholder reaction. Our second partitioning variable, *LowCLReturns* is an indicator variable equal to 1 if the cumulative market-adjusted return during the window [t-1, t+1] (relative to the filing date of the comment letter), averaged across all comment letters the firm receives during the year, is below the sample median, 0 otherwise.

To implement our subsample analyses, we estimate the following model:

$$\begin{aligned} PlanBasedComp_{t+1} = {} & \alpha_1 CL\_Part{=}0_t + \alpha_2 CL\_Part{=}1_t + \alpha_3 Ret_{t+1} + \alpha_4 PeerRet_{t+1} \\ & + \alpha_5 CL\_Part{=}0_t \text{ x } Ret_{t+1} + \alpha_6 CL\_Part{=}1_t \text{ x } Ret_{t+1} \\ & + \alpha_7 CL\_Part{=}0_t \text{ x } PeerRet_{t+1} + \alpha_8 CL\_Part{=}1_t \text{ x } PeerRet_{t+1} \\ & + \beta Controls_t + \gamma_1 Firm\ FE + \gamma_2 Year\ FE + \varepsilon, \end{aligned} \quad (5)$$

where *CL_Part=0* (*CL_Part=1*) is equal to *CL* when the partitioning variable is equal to 0 (1), 0 otherwise; the partitioning variable is either *AmendedFiling* or *LowCLReturns*.

The results of the subsample analyses are presented in Panel B of Table 4. In Column 1 (Column 2), the partitioning variable is *AmendedFiling* (*LowCLReturns*). We find that the receipt of comment letters improves contracting efficiency only when the firm amends its 10-K or when the letters cause negative shareholder reactions (i.e., in both columns, α_6 is significantly positive and α_8 is significantly negative, whereas α_5 and α_7 are insignificant). Furthermore, as reported at the bottom of Panel B, we find that α_6 is significantly more positive than α_5 (α_8 is significantly more negative than α_7) is in both columns (in Column 1). Collectively, our results show that the improvement in contracting efficiency upon receiving comment letters is stronger when the firm amends its 10-K and when the comment letters generate negative shareholder reactions.

4.3 Low vs. High Firm Performance Analysis

We examine whether the effect of receiving a comment letter on contracting efficiency differs between low and high-performance periods. To explore this potential asymmetry, we run the following regression:

$$\begin{aligned} PlanBasedComp_{t+1} = {} & \alpha_1 CL_t + \alpha_2 LowRet_{t+1} + \alpha_3 MedHighRet_{t+1} + \alpha_4 LowPeerRet_{t+1} \\ & + \alpha_5 MedHighPeerRet_{t+1} + \alpha_6 CL_t \text{ x } LowRet_{t+1} \\ & + \alpha_7 CL_t \text{ x } MedHighRet_{t+1} + \alpha_8 CL_t \text{ x } LowPeerRet_{t+1} \\ & + \alpha_9 CL_t \text{ x } MedHighPeerRet_{t+1} + \beta Controls_t + \gamma_1 Firm\ FE \\ & + \gamma_2 Year\ FE + \varepsilon, \end{aligned} \tag{6}$$

where we define poor performance as the firm's returns being in the bottom quartile for the year following Albuquerque (2009). That is, *LowRet* and *LowPeerRet* (*MedHighRet* and *MedHighPeerRet*) are equal to *Ret* and *PeerRet*, respectively, if *Ret* is below (above) the sample 25th percentile for the year; otherwise, these variables are set to 0. If the effect of receiving a comment letter on contracting efficiency is stronger when the firm's performance is low, we expect α_6 to be significantly more positive than α_7, and α_8 to be significantly more negative than α_9.

Table 5 presents the results of estimating Equation 6. First, α_6 and α_8 are, respectively,

significantly positive and significantly negative. Second, α_7 and α_9 are both insignificant (t-stats 0.96 and -1.09, respectively). Thus, we find evidence that the receipt of a comment letter increases pay-for-performance sensitivity and the use of RPE, but only when the firm's performance is poor. Finally, the bottom of Table 5 shows that α_6 is significantly more positive than α_7 is (F-stat 3.52) but α_8 and α_9 are not statistically distinguishable (F-stat 1.57). These outcomes suggest that the increase in pay-for-performance after receiving a comment letter is stronger in periods of poor firm performance. Taken together, the results in Table 5 provide some evidence that the receipt of a comment letter has an asymmetric effect on contracting efficiency.

4.4 Investment Efficiency and Profitability Analyses

As another approach to examining the impact of comment letter receipt, we examine two potential consequences of enhancing compensation contract efficiency: investment efficiency and profitability. Prior studies relate the efficiency of equity compensation contracts to executives' incentive horizon and their investment decisions (e.g., Jensen 1986; Graham et al. 2005; Edmans et al. 2012; Edmans et al. 2017; Gopalan et al. 2014) based on the premise that more efficient compensation contracts are more closely tied to long-term firm performance (e.g., Bebchuk and Fried 2010). To the extent that comment letters contribute to an improvement in contracting efficiency, we expect improvement in both future investment efficiency and future profitability.

To investigate the effect of receiving a comment letter on future investment efficiency, we take two approaches based on Biddle et al. (2009). For the first approach, we estimate the unexpected level of investment for each firm-year as a residual from an industry-year regression of investment on sales growth.[18] We then rank firms into deciles based on the average of the

[18] We run the following regression separately for each 2-digit SIC industry-year that has at least 20 observations: $Investment_{t+1} = \beta_0 + \beta_1 SalesGrowth_t + \varepsilon$. *Investment* is the sum of capital expenditures, R&D expenditures, and acquisitions minus sales of PP&E, scaled by lagged total assets. *SalesGrowth* is the year-over-year change in total revenue scaled by lagged total assets.

residuals over the next two years.[19,20] We define *InvestState* as an indicator variable equal to 1 if the firm's average level of unexpected investment over the next two years is in the upper decile, equal to -1 if it is in the bottom decile, and 0 otherwise. Firms for which *InvestState* is equal to 0 are considered to be investing at the expected level. Thus, when *InvestState* is equal to 1 and -1, we respectively classify firms as overinvesting and underinvesting.

We jointly test whether the receipt of a comment letter will lead to more efficient future investment, and whether it is achieved through mitigation of underinvestment, overinvestment, or both. The asymmetric effect we document in Table 5 suggests that subsequent to receiving a comment letter, compensation contracts tend to punish managers more for poor performance than they reward good performance. This change to contract design will incentivize managers to minimize the probability of poor performance when making investment decisions. We thus posit that the effect of receiving a comment letter on under- and overinvestment depends on whether under- and overinvestment is likely to lead to negative future performance.

We first examine how under- and overinvestment predict future firm performance (i.e., *Ret*). Specifically, we run the following regression:

$$Ret_{t+1} = \alpha_1 UnderInvest_t + \alpha_2 OverInvest_t + \varepsilon, \quad (7)$$

where *UnderInvest* (*OverInvest*) is an indicator equal to 1 if *InvestState* is equal to -1 (1), 0 otherwise. We also run Equation 7 separately while including either only *UnderInvest* or only

[19] For the future investment efficiency and firm profitability tests, our outcome variables are averaged over the next two years (i.e., years t+1 and t+2). This allows additional time for the changes in contracting efficiency that result from receiving a comment letter to have an effect on the firm's investment and profitability.

[20] Biddle et al. (2009) rank firms into quartiles of unexpected investment, rather than deciles. We opt to use decile ranks for two reasons. First, ranking firms into quartiles implicitly assumes 50% of firms are investing inefficiently. While any cutoff is somewhat arbitrary, our use of deciles assumes 20% of firms are investing inefficiently, which, in our view, is a more reasonable assumption. Second, as discussed below, the second approach to examining investment efficiency involves ranking firms into deciles based on the ex ante likelihood that they will under- or overinvest. Our use of decile ranks with the first test allows us to make a more direct comparison between the two approaches. Nonetheless, in untabulated analyses, we find that our results are similar if we rank firms into quartiles.

OverInvest in the model. α_1 and α_2 capture the extent to which underinvestment and overinvestment, respectively, predict future firm performance.

The results of estimating Equation 7 are presented in Panel A of Table 6. First, we find that *UnderInvest* significantly predicts a lower future return when both *UnderInvest* and *OverInvest* are included in the model together (first column) and also when *UnderInvest* is separately included in the model (second column). Second, *OverInvest* is not a significant predictor of future return (i.e., α_2 is insignificant in both the first and third columns). Finally, at the bottom of the panel, we find that α_1 is significantly more negative than α_2 in the first column (F-stat 10.71). In sum, our results suggest that underinvestment more strongly predicts lower future firm performance.

Next, we examine the impact of the receipt of a comment letter on the likelihood of either under- or overinvesting by running the following multinomial logit regression:

$$InvestState_{t+1} = \alpha_0 + \alpha_1 CL_t + \beta Controls_t + \varepsilon. \quad (8)$$

The multinomial logit model simultaneously, but separately, tests the likelihood of under- and overinvestment against the normal investment benchmark (i.e. *InvestState* equal to 0). The control variables in Equation 8 follow Biddle et al. (2009). We exclude fixed effects when estimating Equation 8 in order to achieve convergence with the estimation of the multinomial logit model. Based on the results in Panel A of Table 6, we expect the receipt of a comment letter to have a stronger effect on reducing underinvestment. Thus, we predict that α_1 will be significantly negative for the underinvestment regression.

Table 6, Panel B presents the results of this test, with the first (second) column showing the underinvestment (overinvestment) results. The coefficient on *CL* is significantly negative in the first column but insignificant in the second. Consistent with underinvestment being more likely to lead to lower future firm performance (Table 6, Panel A) and the CEO's pay being more

sensitive to lower firm performance after receiving a comment letter (Table 5), we find the receipt of a comment letter reduces future underinvestment but not future overinvestment.

Our second approach is to examine the firm's future level of investment conditional on the firm's ex ante likelihood of under- or overinvesting (*Underfirm* and *Overfirm*, respectively). We first decile-rank firms based on their sign-adjusted level of *Cash* and *Leverage*, rescale the rank measures to be between 0 and 1, and average the two measures to create composite measures, *Underfirm* and *Overfirm*.[21] *Underfirm* (*Overfirm*) represents the likelihood that the firm will underinvest (overinvestment) due to being cash constrained and highly-levered (cash rich and under-levered.)[22] We then run the following regression:

$$\begin{aligned} AvgInvestment_{[t+1,\,t+2]} = {} & \alpha_1 CL_t + \alpha_2 Underfirm(\text{or } Overfirm)_t \\ & + \alpha_3 Underfirm(\text{or } Overfirm)_t \times CL_t + \beta Controls_t \\ & + \gamma_1 Firm\ FE + \gamma_2 Year\ FE + \gamma_3 Industry\ FE + \varepsilon, \end{aligned} \tag{9}$$

where $AvgInvestment_{[t+1,\,t+2]}$ is the average of *Investment* over the next two years. We include the same control variables as in Equation 8 as well as firm, year, and industry fixed effects.

The results of this test are presented in Panel C of Table 6. The main effect (α_2) is significantly negative for *Underfirm* and positive for *Overfirm*, giving validity that they capture the likelihood of under- or overinvesting in the future. The coefficient on *CL* (α_1), however, is insignificant when a firm is most likely to overinvest (*Underfirm* is 0), while it is significantly positive when it is most likely to underinvest (*Overfirm* is 0), indicating that receiving a comment letter enhances investment efficiency via incentivizing the most underinvesting executives to

[21] When calculating *Underfirm*, we multiply *Cash* by -1 so that both *Cash* and *Leverage* increase in the likelihood of underinvestment. When calculating *Overfirm*, we multiply *Leverage* by -1 instead so that both *Cash* and *Leverage* increase in the likelihood of overinvestment.

[22] Biddle et al. (2009) only calculate *Overfirm*, not *Underfirm*. As discussed below, we examine both *Underfirm* and *Overfirm* to observe their respective role when they are 0, which allows for a more direct comparison with the results in Panel B of Table 6. We note that our calculation of *Overfirm* is consistent with the approach in Biddle et al. (2009) and that our calculation of *Underfirm* is calculated analogously. The correlation between the two measures is -0.9983.

increase investment. This outcome is consistent with the asymmetric results presented in Panel B of Table 6, which show a comment letter mitigates underinvestment but not overinvestment.

The coefficient on the interaction term (α_3) captures the extent to which the receipt of a comment letter mitigates under- or overinvestment in a more general sense. We document a significantly positive (negative) α_3 for *Underfirm* (*Overfirm)*, suggesting the receipt of a comment letter more generally mitigates both future under- and overinvestment. Thus, we find the receipt of a comment letter is associated with an improvement in future investment efficiency, mitigating both under- and overinvestment overall, and notably by mitigating extreme underinvestment.

Next, we examine the impact of receiving a comment letter on future firm profitability. If comment letters improve efficiency in executive compensation contracting, we expect receiving one to be associated with higher future firm profitability. We run the following regression:

$$AvgROA\ (AvgAdjustedROA)_{[t+1,t+2]} = \alpha_1 CL_t + \beta Controls_t + \gamma_1 Firm\ FE + \gamma_2 Year\ FE + \varepsilon, \quad (10)$$

where the dependent variable is either $AvgROA_{[t+1,t+2]}$, defined as income before extraordinary items scaled by the average total assets, or $AvgAdjustedROA_{[t+1,t+2]}$,[23] defined as income before extraordinary items plus *PlanBasedComp*, scaled by the average total assets. Both measures are averaged over the next two years.

Table 7 shows the results of the ROA tests. In both columns, with the respective dependent variables $AvgROA_{[t+1,t+2]}$ and $AvgAdjustedROA_{[t+1,t+2]}$, the coefficients on *CL* are significantly positive. These results suggest the receipt of a comment letter is associated with higher future profitability, consistent with an increase in contracting efficiency.

4.5 Performance Objectives and Performance Benchmarking Peers Analyses

[23] We address the possibility that the decrease in *PlanBasedComp* after receiving a comment letter (untabulated test in Section 4.1) mechanically increases ROA in two ways. First, we include *PlanBasedComp* as a control variable in the $AvgROA_{[t+1,t+2]}$ regression (the rest of the control variables in Table 7 are drawn from Feng, Li, McVay, and Skaife 2015 and are defined in Appendix B). Second, we examine $AvgAdjustedROA_{[t+1,t+2]}$ as a second dependent variable.

Plan-based awards are defined as stocks, options, and non-equity incentives awards for CEOs. As alternative tests of the impact of comment letter receipt on contracting efficiency, we use data from ISS Incentive Lab (see Figure 1) and examine grants of plan-based awards for (i) the use of performance objectives and (ii) the characteristics of performance benchmarking peers.

For the first set of tests, we examine the prevalence of performance-vesting grants, as opposed to time-vesting grants, after the receipt of a comment letter. We construct two measures using plan-based grant data in the "Grants of Plan-Based Awards" (GpbaGrant) table from ISS Incentive Lab. For each year, a firm can award multiple plan-based grants, each of which can be classified as either performance- or time-vesting (Bettis et al. 2018). For performance-vesting grants, specified performance objectives must be met before the CEO receives a payout from the grant. These performance objectives can be tied to accounting numbers (e.g., sales, EPS), stock price, or to other metrics (e.g., customer satisfaction). The performance objectives can also either be absolute or relative to a defined benchmark. As a result, there is wide variation in the type of performance objectives used. Grants that are not tied to performance benchmarks are considered time vesting. The first measure, *PerformGrantsRatio*, is defined as the proportion of total grants tied to performance objectives (relative to time-vesting grants). A higher value of *PerformGrantsRatio* indicates that the firm ties plan-based awards more to performance objectives. We interpret this outcome as an improvement in contractual efficiency. The second measure, *PerformGrantsIndicator*, is an indicator variable that is equal to 1 if *PerformGrantsRatio* is greater than zero, and 0 otherwise.

In Table 8, Panel A, we show the results of re-estimating Equation 2, using either *PerformGrantsRatio* or *PerformGrantsIndicator* as the dependent variable. To control for changes in other aspects of contract design, we also include the future level of *PlanBasedComp* and the

current and future number of time-vesting grants (*NumTimeGrants*). For both *PerformGrantsRatio* and *PerformGrantsIndicator,* the coefficients on *CL* are significantly positive, consistent with an increase in the prevalence of performance-vesting grants after comment letter receipt. These results suggest grants of plan-based awards have higher pay-for-performance sensitivity, consistent with our main results in Table 3.

However, these results do not speak directly to the efficiency enhancement in measuring relative performance following the receipt of a comment letter. To investigate this issue, our second set of tests explore whether the differences in the characteristics of the firm and those of its disclosed performance benchmarking peers change after the firm receives a comment letter. We follow Gong et al. (2011) and examine the characteristics of a firm's performance benchmarking peers using the GpbaRelPeer and GpbaAccPeer tables from ISS Incentive Lab.[24] We calculate three outcome variables in two steps. First, for each firm-peer pair, we define three variables: *SameSIC2* (an indicator variable set to 1 if the firm and its peer are in the same 2-digit SIC industry, 0 otherwise), *LogMVEDiff* (the natural log of 1 plus the absolute difference between the firm and its peer in terms of their respective market values of equity), and *LogSalesDiff* (the natural log of 1 plus the absolute difference between the firm and its peer in terms of total sales). Then, we take the median of *SameSIC2* (*LogMVEDiff*, *LogSalesDiff*) for each firm, *MedianSameSIC2* (*MedianLogMVEDiff*, *MedianLogSalesDiff*), to construct the dependent variables.

We again estimate Equation 2 using those dependent variables. In addition to the control variables from Table 3, we include the future level of *PlanBasedComp* and the future number of time-vesting grants and performance-vesting grants (*NumTimeGrants* and *NumPerformGrants*,

[24] Consistent with Gong et al. (2011), we focus on performance benchmarking peers, rather than peers used to benchmark the CEO's level of compensation. These tables from Incentive Lab capture instances where the grant's performance objectives are benchmarked against a peer group.

respectively) to control for changes in other aspects of the contract design. We also include the future number of performance benchmarking peers (*NumPeers*) to control for the number of disclosed peers. In Table 8, Panel B, we document that the coefficient on *CL* is significantly positive for *MedianSameSic2*, while it is negative for *MedianLogMVEDiff* and *MedianLogSalesDiff*. These results suggest that after receiving a comment letter, firms choose more similar peers for performance benchmarking; the firm's performance benchmarking peers are more likely to be in the same 2-digit SIC industry and to be in closer size proximity, in terms of both the market value of equity and total sales. This is consistent with our main result suggesting a contractual efficiency improvement related to RPE after comment letter receipt.

4.6 The Role of Board Characteristics

Our results suggest that the improvement in contracting efficiency following the receipt of a comment letter is explained by the improved disclosure enabling better market discipline. However, the prior literature also explores the role of the board of directors within the context of stricter compensation disclosure regulations and requirements (Lo 2003). While SEC comment letters are not a new mandate of disclosure requirements, but an enforcement of existing ones, the characteristics of the board, and of the compensation committee more specifically, may facilitate or hinder this enforcement. We therefore explore how the compensation committee and board quality affect comment letters' role in improving future contract efficiency.

For compensation committee (CC, hereafter) quality, we follow Sun et al. (2009) and construct two proxies: *CCQ1* and *CCQ2*. These two composite measures are based on the following six variables: (i) *Appoint* (the proportion of CC directors appointed by the CEO, multiplied by -1); (ii) *Senior* (the proportion of CC directors with 10 or more years of board service); (iii) *CEODir* (the proportion of CC directors that are CEOs at other firms, multiplied by

-1); (iv) *Shares* (the aggregate shareholdings of CC directors deflated by the number of directors on the committee); (v) *BusyDir* (the proportion of CC directors with three or more additional board seats, multiplied by -1); and (vi) *CMSize* (the number of CC directors). *CCQ1* is the factor score from a factor analysis of the six individual measures. *CCQ2* is calculated as the number of these measures that are above the sample median, divided by six. For board quality, we calculate analogous measures, *BQ1* and *BQ2*, constructed at the board level. For example, in constructing *BQ1* and *BQ2*, *Appoint* is defined as the proportion of board directors appointed by the CEO, multiplied by -1. *BQ1* is the factor score from a factor analysis of the six individual measures and *BQ2* is the number of these measures that are above the sample median, divided by six. *CCQ1* and *CCQ2* (*BQ1* and *BQ2*) increase in the strength of the compensation committee (board of directors).

We re-run Equation 4 using each proxy separately as a cross-sectional variable. If CC/board strength amplifies the efficacy of the SEC's enforcement via comment letters, we expect these proxies to strengthen the improvement in contracting efficiency (i.e., α_{10} would be significantly positive and α_{11} would be significantly negative). The results are presented in Table 9. We note two main findings. First, across all four columns, the coefficients on CL_t x Ret_{t+1} (α_5) are significantly positive and the coefficients on CL_t x $PeerRet_{t+1}$ (α_6) are significantly negative, suggesting the main results in Table 3 are robust to controlling for CC and board strength. Second, none of the three-way interaction terms' coefficients (α_{10} and α_{11}) are significant. Thus, we do not find evidence that CC and board characteristics facilitate the effect of comment letters on future contracting efficiency.[25]

One potential reason for our failure to find evidence that CC/board strength facilitates the

[25] In addition to the composite measures of CC and board quality, untabulated analyses examine each of the six underlying CC and board quality variables separately. None of the three-way interaction terms are statistically significant, which is consistent with the results documented in Table 9.

effect of receiving a comment letter is that firms with higher CC/board quality may already have higher contracting efficiency relative to firms with lower CC/board quality. As shown in Table 4, Panel A, Column 4, we find the improvement in contracting efficiency following the receipt of a comment letter is stronger for firms with low contracting efficiency. That is, CC/board quality may play a role in enhancing contracting efficiency regardless of whether the firm receives a comment letter.[26] In untabulated analyses, we re-estimate Equation 2 by replacing *CL* with each of the four CC/board strength variables individually. We find that the interaction terms with *Ret* (i.e., α_4) are significantly positive for three of the four CC/board quality variables. Furthermore, while the coefficient on the interaction terms with *PeerRet* (α_5) are negative, they are statistically insignificant at conventional levels. Taken together, we find evidence that CC/board quality leads to higher contracting efficiency with respect to pay-for-performance, which may explain why CC/board quality metrics do not facilitate the effect of comment letters on contracting efficiency.

5. Conclusion

We examine whether the SEC affects executive compensation contracting efficiency through the comment letter process, which enforces more transparent disclosure and thereby enables greater market discipline. Using the implicit approach to estimate the use of relative performance evaluation (RPE), we show compensation contracts shift toward higher pay-for-performance sensitivity and an increased use of RPE after comment letter receipt. Our results indicate receiving a comment letter is associated with improved future contracting efficiency.

We provide further evidence to support our reasoning that firms improve compensation contracts after receiving a comment letter in anticipation of improved disclosure of those contracts

[26] We acknowledge the possibility that firms with higher CC/board quality may be less likely to receive a comment letter. In addition to including firm fixed effects in the main model, we note that our main results continue to hold when we include board/CC quality measures (and additional interaction terms) in the model (Table 9).

and greater market discipline. First, using four cross-sectional variables capturing variation in negative stakeholder attention, we find that these negative stakeholder attention proxies intensify comment letters' effect on pay-for-performance sensitivity and RPE use in future contracts. Second, we partition the comment letters based on the severity of the current disclosure deficiency and stakeholder pressure for better disclosure about compensation details, i.e., based on (i) whether the firm immediately restates its disclosure after comment letter receipt and (ii) whether the market reaction to the comment letter is more negative. We find both proxies are associated with higher pay-for-performance sensitivity and the greater use of RPE in future contracts.

Consistent with contracts becoming more efficient, we find higher investment efficiency and a higher average ROA subsequent to receiving a comment letter. Building on our findings that the effect of comment letter receipt on contract efficiency is stronger when firm performance is poor, and that poor performance is more likely with underinvestment, we document that a comment letter improves future investment efficiency, particularly in mitigating underinvestment. These findings lend further support to the receipt of a comment letter being associated with higher future contracting efficiency.

Utilizing grant-level data about plan-based awards, we examine (i) the use of performance objectives and (ii) the characteristics of performance benchmarking peers. We find firms increase the use of performance objectives in plan-based compensation contracts and choose more similar performance benchmarking peers after comment letter receipt, corroborating our main findings.

Last, we do not find evidence that either the quality of the compensation committee or of the full board has a significant impact on the effect of comment letters. Instead, higher quality compensation committees and boards are associated with overall higher pay-for-performance sensitivity, suggesting compensation committees and boards set more efficient compensation

contracts at an earlier stage. Our findings suggest the main facilitator of comment letters' effect on compensation is enhanced market discipline via improved disclosure, rather than board strength.

Our paper contributes to the literature on executive compensation. Disclosure regulations' efficacy has been challenged in the context of the theoretical question of whether enhancing disclosure should impact compensation practices and the empirical findings are mixed. We highlight the role of enforcement of disclosure regulation in promoting shareholder monitoring of executive compensation by showing that an SEC comment letter is associated with improved contracting efficiency. We also shed light on the role of negative stakeholder attention as a facilitator of comment letters' effect on compensation practices. Furthermore, we contribute to the literature on the use of RPE in executive compensation by showing that the enforcement of disclosure rules is an effective regulatory device for increasing the use of RPE. Last, our research adds to the literature on SEC comment letters' efficacy by (i) examining the effects of receiving a comment letter on pay-for-performance and RPE use, and (ii) emphasizing the role of stakeholder attention in the comment letter process.

References

Albuquerque, A. 2009. Peer firms in relative performance evaluation. *Journal of Accounting and Economics*, 48, 69-89.

Antle, R., Smith, A., 1986. An empirical investigation of the relative performance evaluation of corporate executives. *Journal of Accounting Research*, 24, 1-39.

Armstrong, C., Gow, I., Larcker, D., 2013. The efficacy of shareholder voting: Evidence from equity compensation plans. *Journal of Accounting Research*, 51, 909–950.

Bebchuk, L., Fried, J. 2010. Paying for long-term performance. *University of Pennsylvania Law Review*, 158, 1915–1959.

Bens, D.A., Cheng, M., Neamtiu, M., 2016. The impact of SEC disclosure monitoring on the uncertainty of fair value estimates. *The Accounting Review*, 91, 349–375.

Bertrand, M., Mullainathan, S., 2001. Are CEOs rewarded for luck? The ones without principals are. *Quarterly Journal of Economics*, 116, 901–932.

Bettis, J., Bizjak, J., Coles, J., Kalpathy, S., 2018. Performance-vesting provisions in executive compensation. *Journal of Accounting and Economics*, 66, 194–221.

Biddle, C., Hilary, G., Verdi, R., 2009. How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, 48, 112–131.

Bozanic, Z., Dietrich, J. R., Johnson, B. A., 2017. SEC comment letters and firm disclosure. *Journal of Accounting and Public Policy*, 36, 337–357.

Brossy, R., Jones, B., 2015. Activists at the gate of executive pay. White paper. http://www.semlerbrossy.com/wp-content/uploads/SemlerBrossy-AR-2015.pdf.

Carter, M.E., Ittner, C.D., Zechman, S.L.C., 2009. Explicit relative performance evaluation in performance-vested equity grants. *Review of Accounting Studies*, 14, 269-306.

Cassell, C.A., Dreher, L.M., Myers, L.A., 2013. Reviewing the SEC's review process: 10–K comment letters and the cost of remediation. *The Accounting Review*, 88, 1875–1908.

CFA Institute, 2015. Re: Pay versus performance rule (file no. S7-07-15). July 6. https://www.sec.gov/comments/s7-07-15/s70715-39.pdf

Choi, J.H., Gipper, B., Shi, S.X., 2022. Executive pay transparency and relative performance evaluation: Evidence from the 2006 pay disclosure reforms. Working paper.

Coles, J., Daniel, N., Naveen, L., 2006. Managerial incentives and risk-taking. *Journal of Financial Economics*, 79, 431–468.

Core, J., Guay, W., Larcker, D., 2008. The power of the pen and executive compensation. *Journal of Financial Economics*, 88, 1–25.

Coughlan, A., Schmidt, R., 1985. Executive compensation, management turnover, and firm performance. *Journal of Accounting and Economics*, 7, 43-66.

Cox, C., 2006. Speech by SEC Chairman: Remarks before the Council of Institutional Investors. Washington, DC. March 30. https://www.sec.gov/news/speech/spch033006cc.htm.

Crawford, S., Nelson, K., Rountree, B., 2021. Mind the gap: CEO-employee pay ratios and shareholder say-on-pay votes. *Journal of Business Finance & Accounting*, 48, 308-337.

Cunningham, L., Leidner, J., 2022. The SEC filing review process: A survey and future research opportunities. *Contemporary Accounting Research*, 39 (3), 1653–1688.

De Angelis, D., Grinstein, Y., 2020. Relative performance evaluation in CEO compensation: A talent-retention explanation. *Journal of Financial and Quantitative Analysis*, 55, 2099-2123.

Dechow, P.M., Lawrence, A., Ryans, J.P., 2016. SEC comment letters and insider sales. *The Accounting Review*, 91, 401–439.

deHaan, E., Shevlin, T., Thornock, J., 2015. Market (in)attention and the strategic scheduling and timing of earnings announcements. *Journal of Accounting and Economics*, 66, 36–55.

Drake, M., Jennings, J., Roulstone, D., Thornock, J., 2016. The comovement of investor attention. *Management Science*, 63, 2773-3145.

Drake, M., Roulstone, D., and Thornock, J., 2015. The determinants and consequences of information acquisition via EDGAR. *Contemporary Accounting Research*, 32 (3), 1128–1161.

Duro, M., Heese, J., Ormazabal, G., 2019. The effect of enforcement transparency: Evidence from SEC comment-letter reviews. *Review of Accounting Studies*, 24, 780–823.

Dyck, A., Zingales, L., 2002. The corporate governance role of the media. Working paper.

Edmans, A., Fang, V., Lewellen, K., 2017. Equity vesting and investment. *The Review of Financial Studies*, 30, 2229–2271.

Edmans, A., Gabaix, X., Sadzik, T., Sannikov, Y., 2012. Dynamic CEO compensation. *Journal of Finance*, 67, 1603–1647.

Ertimur, Y., Ferri, F., Oesch, D., 2013. Shareholder votes and proxy advisors: Evidence from say on pay. *Journal of Accounting Research*, 51, 951–996.

Feng, M., Li, C., McVay, S., Skaife, H., 2015. Does ineffective internal control over financial reporting affect a firm's operations? Evidence from firms' inventory management. *The Accounting Review*, 90, 529–557.

Garvey, G., Milbourn, T., 2006. Asymmetric benchmarking in compensation: Executives are rewarded for good luck but not penalized for bad. *Journal of Financial Economics*, 82, 197–225.

Gipper, B., 2020. The economic effects of expanded compensation disclosures. *Journal of Accounting and Economics*, 71, 101–338.

Gong, G., Li, L.Y., Shin, J.Y., 2011. Relative performance evaluation and related peer groups in executive compensation contracts. *The Accounting Review*, 86, 1007-1043.

Gopalan, R., Milbourn, T., Song, F., Thakor, A., 2014. Duration of executive compensation. *Journal of Finance*, 69, 2777–2817.

Graham, J., Harvey, C., Rajgopal, S., 2005. The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40, 3–73.

Grinstein, Y., Weinbaum, D., Yehuda, N., 2017. The economic consequences of perk disclosure. *Contemporary Accounting Research*, 34, 1812–1842.

Holmstrom, B., 1982. Moral hazard in teams. Bell J. Econ. 13, 324-340.

Janakiraman, S.N., Lambert, R.A., Larcker, D.F., 1992. An empirical investigation of the relative performance evaluation hypothesis. *Journal of Accounting Research*, 30, 53-69.

Jayaraman, S., Milbourn, T., Peters, F., Seo, H., 2021. Product market peers and relative performance evaluation. *The Accounting Review*, 96, 341-366.

Jensen, M., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76, 323–329.

Kubick, T.R., Lynch, D.P., Mayberry, M.A., Omer, T.C., 2016. The effects of regulatory scrutiny on tax avoidance: An examination of SEC comment letters. *The Accounting Review*, 91, 1751–1780.

Lo, K., 2003. Economic consequences of regulated changes in disclosure: The case of executive compensation. *Journal of Accounting and Economics*, 35, 285–314.

Murphy, K.J., 1999. Executive compensation. Handbook of Labor Economics, 3, 2485-2563.

Murphy, K.J., 2013, Executive Compensation: Where We Are, and How We Got There, Handbook of the Economics of Finance, 211–356.

Murphy, K.J., Jensen, M.C., 2018. The Politics of Pay: The Unintended Consequences of Regulating Executive Compensation. *Journal of Law, Finance, and Accounting*, 3, 189–242.

Murphy, K. J., Zimmerman, J., 1993. Financial performance surrounding CEO turnover. *Journal of Accounting and Economics*, 16, 273-315.

Na, K., 2020. CEOs' outside opportunities and relative performance evaluation: Evidence from a natural experiment. *Journal of Financial Economics*, 137, 679-700.

Parratt, S., 2009. Speech by SEC staff: Executive compensation disclosure: Observations on the 2009 proxy season and expectations for 2010. The 4th Annual Proxy Disclosure Conference: Tackling Your 2010 Compensation Disclosures. San Francisco, CA. November 9. https://www.sec.gov/news/speech/2009/spch110909sp.htm

Rauter, T., 2020. The effect of mandatory extraction payment disclosures on corporate payment and investment policies abroad. *Journal of Accounting Research*, 58, 1075–1116.

Robinson, J.R., Xue, Y., Yu, Y., 2011. Determinants of disclosure noncompliance and the effect of the SEC review: Evidence from the 2006 mandated compensation disclosure regulations. *The Accounting Review*, 86, 1415–1444.

Ryans, J.P., 2021. Textual classification of SEC comment letters. *Review of Accounting Studies*, 26, 37–80.

Securities and Exchange Commission (SEC), 2019. Fiscal year 2020 congressional budget justification and annual performance plan; Fiscal year 2018 performance report. Washington, D.C.: Government Printing Office. https://www.sec.gov/files/secfy20congbudgjust.pdf.

Securities and Exchange Commission (SEC), 2022. Pay Versus Performance. https://www.sec.gov/rules/final/2022/34-95607.pdf.

Sun, J., Cahan, S., Emanuel, D., 2009. Compensation committee governance quality, chief executive officer stock option grants, and future firm performance. *Journal of Banking & Finance*, 33, 1507–1519.

Wang, W., Zhang, L., Wilson, M., Kala, T., 2022. SEC compensation-related comment letters and excess CEO compensation. Eur. *The Accounting Review*, 31, 1089–1118.

Warner, J., Watts, R., Wruck, K., 1988. Stock prices and top management changes. *Journal of Financial Economics*, 20, 461-492.

Appendix A: Comment Letter Examples

The following are examples of comments made by the SEC concerning executive compensation.

VERIZON COMMUNICATIONS INC. (NYSE: VZ)

"We note that Mr. Seidenberg received a $13.8 million discretionary award in addition to payment of 100% of the number of PSU's awarded for the 2008-2010 performance cycle. We also note that he received a similar discretionary award in 2007 and 2009. However, these discretionary payments were not disclosed in your summary compensation table. Although performance measures were considered as part of the Board's review in 2010, we particularly note that neither of the two objective measures (revenue and earnings growth) were met. Please advise why these discretionary payments should not be considered bonuses and disclosed in the summary compensation table."

"You state that "[i]f a named executive officer's employment terminates as a result of an involuntary termination without cause, or his or her death, disability or retirement, all then-unvested RSUs will vest and all then-unvested PSUs will vest at target level performance." The chart on the bottom of page 55 suggests that this statement was made outside the context of a change of control. Our review of the "Verizon Communications Inc. Long-Term Incentive Plan Performance Stock Unit Agreement 2010-12 Award Cycle" (Exhibit 10a to the March 31, 2010 Form 10-Q) indicates, however, that, while the PSUs awarded in 2010 would vest upon the above described triggering events, the eventual payout would depend on actual company performance during the 2010-2012 term, not "target level performance." Please advise.

GENERAL FINANCE CORP (NASDAQ: GFN)

"Please revise to enhance your disclosure regarding how you determined the number of stock awards and option awards to be granted to each named executive officer.

We note that your compensation committee "engaged Semler Brossy [..] *to provide a benchmarking analysis which compared the Company's compensation program to industry peers and comparable companies." Please revise to clarify whether you benchmarked the compensation of your named executive officers against the data provided by Semler Brossy. If so, please disclose the component companies used for benchmarking and the level at which you benchmark. Refer to Item 402(b)(2)(xiv) of Regulation S-K."*

FLEXSTEEL INDUSTRIES INC (NASDAQ: FLXS)

"In future filings please disclose the following: the achieved amount for each performance objective; the percentage of target incentive compensation received at the threshold and maximum; and how the incentive reward is calculated when the achieved performance objectives are between the threshold and target or between the target and maximum.

Additionally, please briefly describe the nature of the "leadership and effectiveness" and "individual" goals for your named executive officers. Please provide us supplementally with what this revised disclosure would have looked like for fiscal year 2015."

DROPBOX, INC. (NASDAQ: DBX)

"We note that you have provided estimated compensation expected to be paid to your named executive officers in fiscal year 2017. Item 402(n) of Regulation S-K requires compensatory information for your last completed fiscal year. Please disclose the compensation paid to your named executive officers in fiscal year 2016. Further, to the Page 6 extent that you awarded cash bonuses to your named executive officers in fiscal year 2016, clarify any individual performance factors that were considered in determining the cash bonus amounts payable. Refer to Item 402(o) of Regulation S-K. This comment also applies to your disclosure of director compensation. Refer to Item 402(r) of Regulation S-K."

Appendix B: Variable Definitions

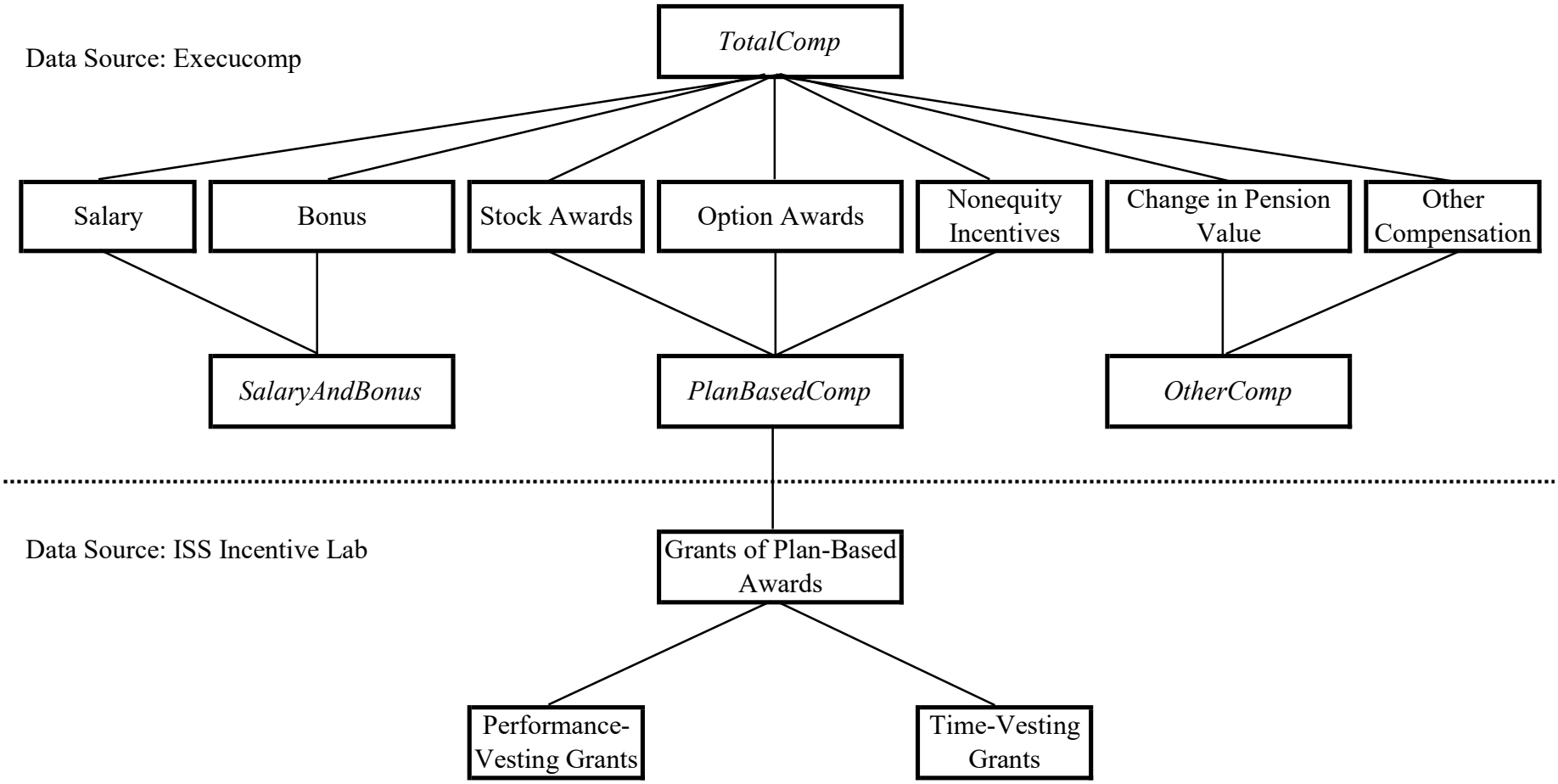
Age	Natural logarithm of 1 plus the number of years the firm is covered by CRSP at the end of the year.
AmendedFiling	Indicator variable equal to 1 if the firm files an amended 10-K after it receives a comment letter, but no later than 90 days after the end of the fiscal year, 0 otherwise.
Auditor	Indicator variable equal to 1 if the firm hires one of the six largest audit firms (Audit Analytics *auditor_fkey* $\leq$ 7), 0 otherwise.
$AvgAdjustedROA_{[t+1,t+2]}$	Average of *AdjustedROA* over the next two years (i.e., t+1 and t+2). *AdjustedROA* is defined as income before extraordinary items (*ib* in Compustat) plus *PlanBasedComp*, scaled by average total assets (*at* in Compustat).
$AvgInvestment_{[t+1,t+2]}$	Average of *Investment* over the next two years (i.e., t+1 and t+2).
$AvgROA_{[t+1,t+2]}$	Average of *ROA* over the next two years (i.e., t+1 and t+2).
BTM	Book-to-market ratio at the end of the fiscal year. To calculate the book value of equity, we use the first of the following Compustat variables that is not missing: *ceq*, *seq*, and *teq*. To calculate the market value of equity, we use the first of the following variables that is not missing: abs(*prc*)**shrout* (CRSP), *prcc_f*csho* (Compustat), and *mkvalt* (Compustat).
CapInt	Natural logarithm of 1 plus total gross property, plant, and equipment (*ppegt* in Compustat).
Cash	Cash (*che* in Compustat) scaled by total assets (*at* in Compustat).
CCQ1 (*CCQ2*, *BQ1*, *BQ2*)	Compensation committee ("CC") and board quality composite measures following Sun et al. (2009). The composite measures are based on the following six variables: (i) *Appoint* (the proportion of CC directors appointed by the CEO, multiplied by -1), (ii) *Senior* (the proportion of CC directors with 10 or more years of board service), (iii) *CEODir* (the proportion of CC directors that are CEOs of other firms, multiplied by -1), (iv) *Shares* (the aggregate shareholdings of the CC directors deflated by the number of directors on the committee), (v) *BusyDir* (the proportion of CC directors with three or more additional board seats, multiplied by -1), and (vi) *CMSize* (the number of CC directors). CCQ1 is the factor score from a factor analysis of the six individual measures. CCQ2 is calculated as the number of the six individual measures that are above the sample median and deflated by six. *BQ1* and *BQ2* are composite measures of board quality and are measured analogously to *CCQ1* and *CCQ2* for the full board (whereas *CCQ1* and *CCQ2* are calculated only for the compensation committee). These variables are obtained from BoardEx.
CFOtoSales	Cash flows from operating activities (*oancf* in Compustat) scaled by total sales (*sale* in Compustat).
CFOVol	Standard deviation of cash flows from operating activities (*oancf* in Compustat) over the last five years.
CL (*CL_Part=0*, *CL_Part=1*)	Indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. In Table 4 Panel B, *CL_Part=0* (*CL_Part=1*) is equal to *CL* when the partitioning variable is equal to 0 (1) and is set to 0 if the partitioning variable is equal to 1 (0); the partitioning variable in Column 1 (Column 2) is *AmendedFiling* (*LowCLReturns*).
CLDownloads	Number of downloads of the firm's comment letters on EDGAR during the year. Web crawlers, defined as IP addresses in the EDGAR log files that (i) identify as a web crawler, (ii) have more than 5 searches per minute, or (iii) have more than 50 searches per day, are excluded from the download count.
Competition	Herfindahl Index for the year, calculated by summing the squared market share (in terms of sales; *sale* in Compustat) of each firm in the industry (4-digit SIC code).
CompRank	Quartile of *TotalComp* within each industry-year (4-digit SIC code).
Delta	Sensitivity of the CEO's equity portfolio to a 1% change in the stock price, calculated following Coles, Daniel, and Naveen (2006) and Core and Guay (2002).

Dividend	Indicator variable equal to 1 if the firm pays dividends (either *dvc* > 0 or *dv* > 0 in Compustat), 0 otherwise.
ExcessComp	CEO's excess compensation for the year, calculated following Core et al. (2008). Specifically, *ExcessComp* is the difference between *TotalComp* and *ExpectedComp*. *ExpectedComp* is the CEO's expected compensation for the year. Specifically, *ExpectedComp* is the predicted value from the following regression: $TotalComp = \beta_1 Tenure + \beta_2 SP500 + \beta_3 LogSales + \beta_4 BTM + \beta_5 Ret + \beta_6 LagRet + \beta_7 ROA + \beta_8 LagROA + \varepsilon$, where *LogSales* is the natural logarithm of total sales for the year, *LagRet* (*LagROA*) is the prior year's *Ret* (*ROA*), and all other variables are defined elsewhere.
ForeignOps	Indicator variable equal to 1 if the firm reports foreign exchange income or loss (*fca* in Compustat), 0 otherwise.
IndustryLeverage	Average *Leverage* within the two-digit SIC industry-year.
Investment	Sum of research and development expenditure (*xrd* in Compustat), capital expenditure (*capx* in Compustat), and acquisition expenditure (*acq* in Compustat) less cash receipts from sale of property, plant, and equipment (*sppe* in Compustat), scaled by lagged total assets (*at* in Compustat).
InvestmentVol	Standard deviation *Investment* over the last five years.
InvestState	Following Biddle et al. (2009), we estimate the level of unexpected investment by taking the residual from the following regression run separately for each industry-year: $Investment_{t+1} = \beta_0 + \beta_1 SalesGrowth_t + \varepsilon_t$ *InvestState* is equal to -1 if the level of unexpected investment is in the bottom decile, equal to 1 if it is in the upper decile, and 0 otherwise. Thus, *InvestState* equal to -1 (0, 1) represents the "underinvesting" ("normal investing," "overinvesting") firms.
ISSDisagree	Number of ISS recommendations on shareholder votes that are counter to the firm management's recommendation during the year.
Leverage	Market leverage calculated as total long-term debt (*dltt* in Compustat) scaled by the sum of total long-term debt and the market value of equity (*csho*prcc_f* in Compustat).
Loss	Indicator variable equal to 1 if net income (*ni* in Compustat) is negative for the year, 0 otherwise.
LowCE	To construct *LowCE*, which proxies for firms with low contracting efficiency, we first estimate the following regression within each 2-digit SIC industry-year: $PlanBasedComp_t = \beta_0 + \beta_1 Ret_t + \beta_2 PeerRet_t + \varepsilon$. *LowCE* is an indicator variable set to 1 if the estimated β_1 from this regression is below the sample median and the estimated β_2 from this regression is above the sample median, 0 otherwise.
LowCLReturns	Indicator variable equal to 1 if the cumulative market-adjusted return during the window [t-1, t+1] (relative to the filing date of the comment letter), averaged across the comment letters received during the year, is below the sample median, 0 otherwise.
LowRet (*LowPeerRet*, *MedHighRet*, *MedHighPeerRet*)	*LowRet* (*LowPeerRet*) is equal to *Ret* (*PeerRet*) if *Ret* is below the sample 25th percentile for the year, 0 otherwise. *MedHighRet* (*MedHighPeerRet*) is equal to *Ret* (*PeerRet*) if *Ret* is above the sample 25th percentile for the year, 0 otherwise.
MedianSameSIC2 (*MedianLogMVEDiff*, *MedianLogSalesDiff*)	Median of three proxies for proximity to benchmarking peers. *SameSIC2* is an indicator variable set to 1 if the firm and its performance benchmarking peer are in the same 2-digit SIC industry, 0 otherwise. *LogMVEDiff* (*LogSalesDiff*) is the natural log of 1 plus the absolute difference between the firm and its performance benchmarking peer in terms of the market value of equity (total sales). *MedianSameSIC2 (MedianLogMVEDiff, MedianLogSalesDiff*) is the median of *SameSIC2 (LogMVEDiff, LogSalesDiff*) for each firm-year.
Mod	In Table 4 (9), *Mod* is either *NegArticles*, *CLDownloads*, *ISSDisagree*, or *LowCE* (*CCQ1*, *CCQ2*, *BQ1*, or *BQ2*).
NegArticles	Number of news articles during the year with a composite sentiment score (i.e., CSS in RavenPack) less than neutral (i.e., less than 50). Only articles with a relevance score of at least 90 are included in the calculation.

NumPeers	Number of performance benchmarking peers disclosed by the firm in grants made during the year. These data come from the "Peer Data for Relative Performance Goals" (GpbaRelPeer) and "Peer Data for Accelerated Performance Goals" (GpbaAccPeer) tables in ISS Incentive Lab. Only grants made to the CEO (*currentceo* equals 1 or *rolecode* equals "CEO") are included.
NumPerformGrants (*NumTimeGrants*)	*NumPerformGrants* is the number of grants made during the year that are tied to performance objectives (*performancetype* equal to "Abs," "AbsRel," or "Rel") as compared to *NumTimeGrants*, the number of grants tied to time-vesting (*performancetype* equal to "Time"). These data come from the "Grants of Plan-Based Awards" (GpbaGrant) table in ISS Incentive Lab. Only grants made to the CEO (*currentceo* equals 1 or *rolecode* equals "CEO") are included.
OperatingCycle	Natural logarithm of receivables to sales (*rect*/*sale* in Compustat) plus inventory to COGS (*invt*/*cogs* in Compustat) multiplied by 360. If *sale* is missing in Compustat, we use *revt* when available.
OtherComp	Total value (in millions) of the CEO's change in pension value and nonqualified deferred compensation earnings (*pension_chg*) and other compensation (*othcomp*) from the Annual Compensation table in Execucomp.
Overfirm (*Underfirm*)	Composite scaled rank measures calculated following Biddle et al. (2009). We decile-rank firms based on their level of *Cash* and *Leverage* (we multiply *Leverage* by -1 before ranking so that both *Cash* and *Leverage* are increasing in the likelihood of overinvestment) and rescale the rank measures to be between 0 and 1. *Overfirm* is a composite score measure, calculated as the average of those two rank measures. *Underfirm* is calculated analogously, except that we multiply *Cash* (rather than *Leverage*) by -1 before ranking so that both *Cash* and *Leverage* are increasing in the likelihood of underinvestment.
OverInvest (*UnderInvest*)	*OverInvest* (*UnderInvest*) is an indicator variable equal to 1 if *InvestState* equals 1(-1), 0 otherwise.
PeerRet	Equal-weighted, cumulative daily stock returns (*ret* from the daily stock file in CRSP aggregated at the annual level) for the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm (Albuquerque 2009).
PerformGrantsIndicator	Indicator variable equal to 1 if *PerformGrantRatio* is greater than 0, 0 otherwise.
PerformGrantsRatio	Proportion of grants made during the year that are tied to performance objectives (*performancetype* equal to "Abs," "AbsRel," or "Rel") as compared to grants tied to time-vesting (*performancetype* equal to "Time"). These data come from the "Grants of Plan-Based Awards" (GpbaGrant) table in ISS Incentive Lab. Only grants made to the CEO (*currentceo* equals 1 or *rolecode* equals "CEO") are included.
PlanBasedComp	Total value (in millions) of the CEO's stock awards (*stock_awards*), option awards (*option_awards*), and nonequity incentive pay (*noneq_incent*) from the Annual Compensation table in Execucomp.
Reg	Indicator variable equal to 1 for 2-digit SIC industries 60 – 69 or 49, 0 otherwise.
Ret	Cumulative daily stock return during the year (*ret* from the daily stock file in CRSP aggregated at the annual level).
ROA	Income before extraordinary items (*ib* in Compustat) scaled by average total assets (*at* in Compustat).
SalaryAndBonus	Sum of the CEO's salary (*salary*) and bonus (*bonus*) for the year (in millions) from the Annual Compensation table in Execucomp.
SalesGrowth	Year-over-year change in total revenue (*revt* in Compustat) scaled by lagged total assets (*at* in Compustat).
SalesVol	Standard deviation of total sales (*sale* in Compustat) scaled by average total assets (*at* in Compustat) over the last seven years.
Segments	Natural logarithm of the total number of geographic and operating segments (*stype* equal to "OPSEG" or "GEOSEG;" *sales* > 0; and *ias* > 0 in Compustat).
Size	Natural logarithm of total assets (*at* in Compustat).

Slack	Cash (*che* in Compustat) scaled by total net property, plant, and equipment (*ppent* in Compustat).
SP500	Indicator variable equal to 1 if the firm belongs to the S&P 500 Index, 0 otherwise.
Tangibility	Total net property, plant, and equipment (*ppent* in Compustat) scaled by total assets (*at* in Compustat).
Tenure	Natural logarithm of the CEO's tenure (in years) as of the end of the year (the year the CEO's tenure began is determined using the *becameceo* and *joined_co* variables in Execucomp's Annual Compensation table).
TotalComp	CEO's total compensation for the year as reported in SEC filings in millions (*total_sec* in the Annual Compensation table in Execucomp; if *total_sec* is missing, we use the *tdc1* variable when available).
Vega	Sensitivity of the CEO's equity portfolio to a 0.01 change in volatility, calculated following Coles et al. (2006) and Core and Guay (2002).
Wordcount	Word count of the proxy statement for the current fiscal year (*wordcount* in WRDS SEC Analytics Suite).
ZScore	Altman Z-score, calculated as follows (all variables are from Compustat): $ZScore = 3.3(pi/at) + (sale/at) + 1.4(re/at) + 1.2((act-lct)/at) + 0.6((csho*prcc\_f)/lt$ If *pi* (*sale*) is missing in Compustat, we use *ni* (*revt*) when available.

Figure 1
Illustration of Compensation Components



This figure illustrates how the compensation components relate to one another. Total compensation (*TotalComp*) is made up of seven individual components. To analyze the components of *TotalComp* in untabulated analyses, we combine these seven components into three groups: *PlanBasedComp*, *SalaryAndBonus*, and *OtherComp*. In Table 8, we examine the characteristics of grants of plan-based awards, including the use of performance objectives and the characteristics of performance benchmarking peers. These grants can be classified as either performance-vesting or time-vesting. The data above (below) the dashed line come from Execucomp (ISS Incentive Lab).

Table 1
Sample Selection

		Sample Size
Compustat firm-years between 01/01/2005 and 12/31/2020		179,937
Less: firm-years missing CRSP variables	(70,271)	
Less: firm-years missing peer returns variable	(36,231)	
Less: firm-years with missing CIK	(1,353)	
Less: missing additional variables for contracting efficiency analyses	(46,530)	
Sample for main contracting efficiency tests		25,552
Less: observations missing Incentive Lab data	(13,916)	
Sample for performance objectives tests		11,636
Less: observations missing performance benchmarking peers	(9,260)	
Sample for performance benchmarking peers tests		2,376

This table reports the sample selection procedures for the main tests. For several tests, we report fewer observations than the sample for the main contracting efficiency tests (i.e., 25,552). We note how many additional observations are dropped as follows:

Table 4, Panel A, Column 2: 4,186 (missing $CLDownloads_t$)

Table 4, Panel A, Column 4: 1,450 (missing $LowCE_t$)

Table 6, Panels B and C: 2,659 (missing additional control variables)

Table 7: 3,371 (missing additional outcome and control variables)

Table 9: 4,788 (missing moderator variables)

Table 2
Descriptive Statistics

	Full Sample					$CL_t = 0$	$CL_t = 1$
Variable	N	Mean	P25	Median	P75	Mean	Mean
Variables for main tests (Table 3):							
CL_t	25,552	0.100	0.000	0.000	0.000	/	/
$PlanBasedComp_{t+1}$	25,552	7.665	7.205	8.122	8.818	7.701	7.347***
Ret_{t+1}	25,552	0.132	-0.121	0.100	0.325	0.131	0.138
$PeerRet_{t+1}$	25,552	0.104	-0.041	0.115	0.256	0.103	0.110
$Tenure_t$	25,552	1.687	1.069	1.791	2.398	1.686	1.699
$Leverage_t$	25,552	0.212	0.042	0.164	0.328	0.212	0.216
$IndustryLeverage_t$	25,552	0.208	0.121	0.192	0.278	0.208	0.214**
ROA_t	25,552	0.039	0.010	0.040	0.082	0.039	0.040
$SalesVol_t$	25,552	0.172	0.054	0.123	0.225	0.169	0.191***
$ExcessComp_t$	25,552	0.011	-0.322	0.063	0.395	0.021	-0.084***
$TotalComp_t$	25,552	8.322	7.672	8.395	9.030	8.335	8.211***
$Delta_t$	25,552	5.964	5.005	5.945	6.930	5.970	5.906*
$Vega_t$	25,552	3.828	2.241	4.338	5.582	3.780	4.261***
$CompRank_t$	25,552	1.351	0.000	1.000	2.000	1.343	1.416***
$NegArticles_t$	25,552	0.000	-1.429	0.238	0.741	-0.028	0.256***
$Wordcount_t$	25,552	24.630	13.863	23.773	34.267	24.235	28.183***
$Competition_t$	25,552	0.015	0.005	0.011	0.020	0.015	0.015
$Size_t$	25,552	7.955	6.709	7.882	9.082	7.964	7.872**
$Segments_t$	25,552	0.184	0.000	0.000	0.000	0.200	0.036***
$ForeignOps_t$	25,552	0.332	0.000	0.000	1.000	0.333	0.318
$SP500_t$	25,552	0.312	0.000	0.000	1.000	0.310	0.324
$Loss_t$	25,552	0.170	0.000	0.000	0.000	0.170	0.172
Reg_t	25,552	0.251	0.000	0.000	1.000	0.254	0.227***
Additional cross-sectional and subsample variables (Table 4):							
$CLDownloads_t$	21,366	2.278	0.693	2.565	3.526	2.214	2.750***
$ISSDisagree_t$	25,552	0.167	0.000	0.000	0.000	0.164	0.195***
$LowCE_t$	24,102	0.185	0.000	0.000	0.000	0.192	0.128***
$AmendedFiling_t$	2,556	0.099	0.000	0.000	0.000	/	/
$LowCLReturns_t$	2,556	0.500	0.000	0.000	0.000	/	/

Table 2 (*continued*)

	Full Sample					$CL_t = 0$	$CL_t = 1$
Variable	N	Mean	P25	Median	P75	Mean	Mean
Additional investment efficiency variables (Table 6):							
$OverInvest_t$	25,552	0.096	0.000	0.000	0.000	0.098	0.079***
$UnderInvest_t$	25,552	0.096	0.000	0.000	0.000	0.097	0.084**
$InvestState_{t+1}$	22,893	0.000	0.000	0.000	0.000	-0.001	0.008
$AvgInvestment_{[t+1,t+2]}$	22,893	0.105	0.029	0.073	0.140	0.105	0.106
$Overfirm_t$	22,893	0.494	0.278	0.500	0.722	0.493	0.504*
$Underfirm_t$	22,893	0.498	0.278	0.500	0.722	0.499	0.486*
BTM_t	22,893	0.510	0.254	0.437	0.684	0.506	0.549***
$CFOVol_t$	22,893	0.042	0.016	0.030	0.051	0.042	0.045**
$InvestmentVol_t$	22,893	0.049	0.013	0.032	0.068	0.049	0.050
$ZScore_t$	22,893	3.743	1.203	2.794	4.799	3.756	3.633
$Tangibility_t$	22,893	0.231	0.050	0.142	0.341	0.230	0.236
$CFOtoSales_t$	22,893	0.142	0.066	0.126	0.223	0.142	0.144
$Slack_t$	22,893	4.293	0.178	0.807	3.177	4.310	4.150
$Dividend_t$	22,893	0.586	0.000	1.000	1.000	0.588	0.576
Age_t	22,893	3.049	2.565	3.091	3.611	3.050	3.045
$OperatingCycle_t$	22,893	4.901	4.219	4.722	5.214	4.904	4.880
Additional ROA variables (Table 7):							
$AvgROA_{[t+1,t+2]}$	22,181	0.038	0.012	0.046	0.085	0.037	0.046***
$AvgAdjustedROA_{[t+1,t+2]}$	22,181	0.041	0.014	0.048	0.087	0.040	0.049***
$CapInt_t$	22,181	6.589	5.215	6.616	7.943	6.592	6.559
$SalesGrowth_t$	22,181	0.075	-0.011	0.043	0.129	0.077	0.056**
$Auditor_t$	22,181	0.831	1.000	1.000	1.000	0.817	0.951***
Additional performance objectives and peer benchmarking variables (Table 8):							
$PerformGrantsRatio_{t+1}$	11,636	0.610	0.500	0.667	0.750	0.617	0.566***
$PerformGrantsIndicator_{t+1}$	11,636	0.957	1.000	1.000	1.000	0.960	0.931***
$MedianSameSIC2_{t+1}$	2,376	0.728	0.000	1.000	1.000	0.726	0.743
$MedianLogMVEDiff_{t+1}$	2,376	8.628	7.614	8.554	9.469	8.651	8.439**
$MedianLogSalesDiff_{t+1}$	2,376	8.074	6.949	8.083	9.072	8.070	8.105
Additional internal governance variables (Table 9):							
$CCQ1_t$	20,764	0.003	-0.750	0.048	0.748	0.002	0.007
$CCQ2_t$	20,764	0.348	0.167	0.333	0.500	0.348	0.349
$BQ1_t$	20,764	0.003	-0.677	0.023	0.699	-0.001	0.044*
$BQ2_t$	20,764	0.357	0.167	0.333	0.500	0.358	0.350

This table reports descriptive statistics and univariate tests. The univariate tests display the results of a test of the differences in the mean for observations with and without comment letters. For the univariate tests, an OLS regression is used to allow for the standard errors to be clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.

Table 3
Future Contracting Efficiency

Dependent Variable:	*PlanBasedComp* $_{t+1}$							
	Column (1)		Column (2)		Column (3)		Column (4)	
Variable	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	-0.174***	-4.35	-0.105***	-3.00	-0.125***	-2.90	-0.053	-1.43
Ret_{t+1}	0.380***	10.41	0.379***	11.60	0.355***	9.74	0.339***	10.44
$PeerRet_{t+1}$	-0.011	-0.21	0.036	0.71	-0.031	-0.47	-0.005	-0.09
CL_t*Ret_{t+1}	**0.251****	**2.22**	**0.237****	**2.26**	**0.273****	**2.42**	**0.251****	**2.41**
CL_t*$PeerRet_{t+1}$	**-0.438****	**-2.50**	**-0.367****	**-2.31**	**-0.362****	**-2.05**	**-0.297***	**-1.84**
$Tenure_t$	-0.143***	-6.60	-0.066***	-3.59	-0.144***	-6.62	-0.067***	-3.65
$Leverage_t$	-0.092	-0.73	-0.718***	-5.15	-0.023	-0.18	-0.659***	-4.83
$IndustryLeverage_t$	-0.563***	-2.90	-1.397***	-4.49	-0.460**	-2.28	-1.429***	-3.97
ROA_t	-0.234	-0.88	0.006	0.03	-0.226	-0.85	0.052	0.23
$SalesVol_t$	-0.288**	-2.48	-0.210*	-1.70	-0.215*	-1.86	-0.068	-0.55
$ExcessComp_t$	-0.328***	-4.62	-0.512***	-4.85	-0.325***	-4.52	-0.382***	-3.49
$TotalComp_t$	1.486***	18.80	0.924***	8.40	1.439***	17.69	0.705***	6.07
$Delta_t$	0.040*	1.86	0.060**	2.46	0.036	1.64	0.065***	2.64
$Vega_t$	0.017*	1.76	-0.034***	-3.53	0.031***	3.13	-0.006	-0.60
$CompRank_t$	-0.063***	-3.67	-0.096***	-5.39	-0.035*	-1.93	-0.041**	-2.30
$NegArticles_t$	-0.030**	-2.05	-0.041***	-3.41	0.006	0.37	0.009	0.63
$Wordcount_t$	0.004***	6.08	0.003***	4.01	0.004***	5.74	0.003***	3.55
$Competition_t$	-3.195**	-2.33	-3.572	-1.14	-2.743**	-2.01	-2.196	-0.73
$Size_t$	-0.053	-1.52	0.368***	7.87	-0.063*	-1.80	0.230***	4.81
$Segments_t$	0.094***	3.42	0.204***	5.60	0.003	0.12	0.042	1.13
$ForeignOps_t$	-0.010	-0.27	0.038	1.00	-0.017	-0.45	0.008	0.22
$SP500_t$	-0.148***	-2.82	-0.169**	-2.22	-0.142***	-2.70	-0.233***	-3.06
$Loss_t$	-0.198***	-3.99	-0.073*	-1.68	-0.222***	-4.46	-0.105**	-2.42
Reg_t	-0.004	-0.08	0.008	0.03	0.020	0.35	0.002	0.01
Firm Fixed Effects	No		Yes		No		Yes	
Year Fixed Effects	No		No		Yes		Yes	
Clustered SE	Yes		Yes		Yes		Yes	
N	25,552		25,552		25,552		25,552	
Adj. R^2	39.79%		55.85%		40.21%		56.40%	

This table reports the results of tests examining the impact of receiving comment letters related to executive compensation on future contracting efficiency. The dependent variable, *PlanBasedComp* , is the natural log of one plus the sum of the values of the CEO's stock awards, option awards, and non-equity incentives for the year. *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. *Ret* is the cumulative daily stock returns of the firm during the year. *PeerRet* is the equal-weighted, cumulative daily stock returns of the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm. We do not report constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.

Table 4
Cross-Sectional and Subsample Tests

Panel A: Cross-Sectional Tests

Dependent Variable:	*PlanBasedComp* $_{t+1}$							
Moderator Variables (*Mod*):	Column (1) *NegArticles*		Column (2) *CLDownloads*		Column (3) *ISSDisagree*		Column (4) *LowCE*	
Variable	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	-0.055	-1.47	-0.111	-1.36	-0.049	-1.32	-0.056	-1.32
Ret_{t+1}	0.338***	10.48	0.329***	5.23	0.336***	10.31	0.382***	10.61
$PeerRet_{t+1}$	-0.007	-0.11	0.023	0.22	-0.005	-0.08	-0.052	-0.78
Mod_t	0.009	0.55	-0.025*	-1.79	0.002	0.18	0.053*	1.90
CL_t*Ret_{t+1}	0.158	1.52	-0.221	-0.84	0.274***	2.65	0.129	1.17
CL_t*$PeerRet_{t+1}$	-0.227	-1.38	0.160	0.44	-0.333**	-2.05	-0.100	-0.57
CL_t*Mod_t	0.025	0.74	0.022	0.83	-0.039	-1.11	-0.030	-0.28
Ret_{t+1}*Mod_t	-0.014	-0.44	0.014	0.64	-0.057*	-1.65	-0.172**	-2.18
$PeerRet_{t+1}$*Mod_t	-0.011	-0.20	-0.031	-0.84	-0.038	-0.77	0.235*	1.95
CL_t*Ret_{t+1}*Mod_t	**0.408*** **	**3.37**	**0.169***	**1.77**	**0.428*** **	**3.76**	**0.690** **	**2.11**
CL_t*$PeerRet_{t+1}$*Mod_t	**-0.349** **	**-2.05**	**-0.149**	**-1.16**	**-0.154**	**-1.02**	**-1.204** **	**-2.23**
Controls	Yes		Yes		Yes		Yes	
Firm Fixed Effects	Yes		Yes		Yes		Yes	
Year Fixed Effects	Yes		Yes		Yes		Yes	
Clustered SE	Yes		Yes		Yes		Yes	
N	25,552		21,366		25,552		24,102	
Adj. R^2	56.44%		56.63%		56.45%		56.34%	

Table 4 (*continued*)

Panel B: Subsample Tests - Amended Filings and Comment Letter Stock Returns

Dependent Variable:	*PlanBasedComp* $_{t+1}$			
CL Partition:	Column (1): *AmendedFiling*		Column (2): *LowCLReturns*	
Variable	Coefficient	T-Stat	Coefficient	T-Stat
(1) CL_Part=0_t	-0.052	-1.33	-0.024	-0.49
(2) CL_Part=1_t	-0.061	-0.62	-0.080	-1.51
(3) Ret_{t+1}	0.339***	10.45	0.339***	10.44
(4) $PeerRet_{t+1}$	-0.006	-0.09	-0.005	-0.08
(5) CL_Part=0_t*Ret_{t+1}	**0.170**	**1.62**	**0.065**	**0.52**
(6) CL_Part=1_t*Ret_{t+1}	**0.798****	**2.42**	**0.474*****	**2.86**
(7) CL_Part=0_t*$PeerRet_{t+1}$	**-0.177**	**-1.04**	**-0.176**	**-0.86**
(8) CL_Part=1_t*$PeerRet_{t+1}$	**-1.133****	**-2.51**	**-0.432***	**-1.85**
Controls	Yes		Yes	
Firm Fixed Effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
Clustered SE	Yes		Yes	
N	25,552		25,552	
Adj. R^2	56.41%		56.41%	
F-Test:	Difference	F-Stat (P-Val)	Difference	F-Stat (P-Val)
(6) - (5) = 0	**0.628***	**3.40 (0.065)**	**0.409****	**4.02 (0.045)**
(8) - (7) = 0	**-0.956****	**3.97 (0.047)**	**-0.256**	**0.73 (0.392)**

This table reports the results of cross-sectional (Panel A) and subsample (Panel B) tests. The dependent variable, *PlanBasedComp*, is the natural log of one plus the sum of the values of the CEO's stock awards, option awards, and non-equity incentives for the year. *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. *Ret* is the cumulative daily stock returns of the firm during the year. *PeerRet* is the equal-weighted, cumulative daily stock returns of the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm. In Panel A, *Mod* is one of four moderator variables: *NegArticles* *CLDownloads*, *ISSDisagree*, or *LowCE*. *NegArticles* is the natural log of one plus the number of news articles during the year with a composite sentiment score (i.e., CSS in RavenPack) less than neutral (i.e., less than 50). *CLDownloads* is the natural log of one plus the number of EDGAR downloads of the firm's comment letters during the year. *ISSDisagree* is the natural log of one plus the number of recommendations on shareholder votes held during the year in which ISS issued a recommendation counter to management's recommendation. To construct *LowCE* which proxies for firms with low contracting efficiency, we first estimate the following regression within each 2-digit SIC industry-year:

$$PlanBasedComp_t = \beta_0 + \beta_1 Ret_t + \beta_2 PeerRet_t + \varepsilon.$$

LowCE is an indicator variable set to 1 if the estimated β_1 from this regression is below the sample median and the estimated β_2 from this regression is above the sample median, 0 otherwise. The continuous cross-sectional variables (Columns 1-3) are standardized to have a mean of zero and a standard deviation of one for ease of interpretation. In Panel B, *CL* is partitioned based on whether firms receiving at least one comment letter (i) amended their 10-K after receiving their first comment letter or (ii) experienced below-median short-window stock returns around the receipt of the comment letters. *AmendedFiling* (*LowCLReturns*) is an indicator variable equal to 1 if the firm filed an amended 10-K after the receipt of the first comment letter received during the year and no later than 90 days after the end of the fiscal year (if the cumulative market-adjusted return during the window [t-1, t+1] (relative to the filing date of the comment letter), averaged across the comment letters received during the year, is below the sample median), 0 otherwise. In Column 1, *CL_Part=0* (*CL_Part=1*) is equal to *CL* if *AmendedFiling* is equal to 0 (1) and is set to 0 if *AmendedFiling* is equal to 1 (0). In Column 2, *CL_Part=0* (*CL_Part=1*) is equal to *CL* if *LowCLReturns* is equal to 0 (1) and is set to 0 if *LowCLReturns* is equal to 1 (0). *Ret* is the cumulative daily stock returns of the firm during the year. *PeerRet* is the equal-weighted, cumulative daily stock returns of the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm. At the bottom of the table, we report the results of an F-test of the difference between coefficients (5) and (6) and the difference between coefficients (7) and (8). We do not report control variables and constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.

Table 5
Low Versus High Firm Performance

Dependent Variable: *PlanBasedComp* $_{t+1}$	Coefficient	T-Stat
(1) CL_t	-0.002	-0.04
(2) $LowRet_{t+1}$	0.654***	7.57
(3) $MedHighRet_{t+1}$	0.210***	5.14
(4) $LowPeerRet_{t+1}$	-0.269**	-2.51
(5) $MedHighPeerRet_{t+1}$	0.078	1.19
(6) CL_t*$LowRet_{t+1}$	**0.706****	**2.47**
(7) CL_t*$MedHighRet_{t+1}$	**0.108**	**0.96**
(8) CL_t*$LowPeerRet_{t+1}$	**-0.694***	**-1.88**
(9) CL_t*$MedHighPeerRet_{t+1}$	**-0.188**	**-1.09**
Controls	Yes	
Firm Fixed Effects	Yes	
Year Fixed Effects	Yes	
Clustered SE	Yes	
N	25,552	
Adj. R^2	56.41%	
F-Test:	Difference	F-Stat (P-Val)
(6) - (7) = 0	**0.598***	**3.52 (0.061)**
(8) - (9) = 0	**-0.506**	**1.57 (0.211)**

This table reports the results of tests examining how the main results differ for low versus high firm performance. The dependent variable, *PlanBasedComp*, is the natural log of one plus the sum of the values of the CEO's stock awards, option awards, and non-equity incentives for the year. *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. *Ret* is the cumulative daily stock returns of the firm during the year. *PeerRet* is the equal-weighted, cumulative daily stock returns of the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm. *LowRet* (*LowPeerRet*) is equal to *Ret* (*PeerRet*) if *Ret* is below the sample 25th percentile for the year and is set to 0 otherwise. *MedHighRet* (*MedHighPeerRet*) is equal to *Ret* (*PeerRet*) if *Ret* is above the sample 25th percentile for the year and is set to 0 otherwise. At the bottom of the table, we report the results of an F-test of the difference between coefficients (6) and (7) and the difference between coefficients (8) and (9). We do not report control variables and constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.

Table 6
Future Investment Efficiency

Panel A: Underinvestment vs. Overinvestment and Future Stock Returns

Dep. Var.: Ret_{t+1}	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
(1) $UnderInvest_t$	**-0.044*** **	**-5.81**	**-0.044*** **	**-5.78**	/	/
(2) $OverInvest_t$	**-0.002**	**-0.16**	/	/	**0.003**	**0.27**
Fixed Effects	No		No		No	
Clustered SE	Yes		Yes		Yes	
N	25,552		25,552		25,552	
Adj. R^2	0.08%		0.09%		0.00%	

F-Test:	Difference	F-Stat (P-Val)
(1) - (2) = 0	**-0.042*** **	**10.71 (0.001)**

Panel B: Underinvestment and Overinvestment Probability

Prob. Modeled:	*UnderInvest* = 1		*OverInvest* = 1	
Dep. Var.: *InvestState*	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	**-0.297*** **	**-2.62**	**0.040**	**0.50**
$Size_t$	-0.062	-1.60	-0.116***	-3.48
BTM_t	0.518***	4.00	-0.858***	-7.44
$CFOVol_t$	-2.646	-1.56	3.673***	5.00
$SalesVol_t$	0.839**	2.53	-0.696***	-2.80
$InvestmentVol_t$	-8.191***	-5.31	7.330***	11.98
$ZScore_t$	-0.217***	-5.44	0.011	1.53
$Tangibility_t$	-3.956***	-8.36	1.645***	7.83
$Leverage_t$	0.306	0.98	-2.496***	-8.86
$IndustryLeverage_t$	4.290***	8.53	-3.144***	-5.78
$CFOtoSales_t$	1.057***	4.42	0.414**	2.03
$Slack_t$	0.023***	5.71	0.010***	2.90
$Dividend_t$	0.377***	3.18	-0.549***	-6.06
Age_t	-0.176***	-2.68	-0.140**	-2.51
$OperatingCycle_t$	0.308***	6.43	-0.016	-0.38
$Loss_t$	-0.471***	-3.77	0.348***	4.18
Fixed Effects	No		No	
Clustered SE	Yes		Yes	
N	22,893		22,893	
Pseudo R^2	28.73%		28.73%	

Table 6 (*continued*)

Panel C: Future Investment Level

Dep. Var.: $AvgInvestment_{[t+1,t+2]}$	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	**-0.004**	**-1.16**	**0.009*****	**2.64**
$Underfirm_t$	-0.097***	-9.51	/	/
$Overfirm_t$	/	/	0.106***	10.08
CL_t*$Underfirm_t$	**0.013****	**2.12**	/	/
CL_t*$Overfirm_t$	/	/	**-0.013****	**-2.05**
$Size_t$	-0.044***	-14.01	-0.044***	-13.99
BTM_t	-0.019***	-6.99	-0.019***	-6.95
$CFOVol_t$	-0.001	-0.04	-0.001	-0.04
$SalesVol_t$	-0.026***	-2.61	-0.026***	-2.63
$InvestmentVol_t$	-0.149***	-4.73	-0.147***	-4.67
$ZScore_t$	0.002***	5.32	0.003***	5.46
$Tangibility_t$	0.045**	2.01	0.047**	2.11
$Leverage_t$	-0.059***	-5.16	-0.054***	-4.79
$IndustryLeverage_t$	-0.024	-1.17	-0.023	-1.14
$CFOtoSales_t$	-0.016**	-2.34	-0.017**	-2.40
$Slack_t$	0.000	-1.07	0.000	-1.11
$Dividend_t$	0.002	0.44	0.002	0.48
Age_t	-0.004	-0.63	-0.004	-0.65
$OperatingCycle_t$	-0.001	-0.16	0.000	-0.12
$Loss_t$	-0.007***	-3.34	-0.007***	-3.31
Firm Fixed Effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
Industry Fixed Effects	Yes		Yes	
Clustered SE	Yes		Yes	
N	22,893		22,893	
Adj. R^2	59.40%		59.45%	

This table reports the results of tests examining the impact of receiving a comment letter on executive compensation on future investment efficiency. *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. Panel A examines the results of tests examining the impact of underinvestment versus overinvestment on future stock returns. The dependent variable, *Ret*, is the cumulative daily stock returns of the firm during the year. Following Biddle et al. (2009), we estimate the level of unexpected investment by taking the residual from the following regression run separately for each 2-digit SIC industry-year:

$$Investment_{t+1} = \beta_0 + \beta_1 SalesGrowth_t + \varepsilon_t$$

UnderInvest (*OverInvest*) is an indicator variable equal to 1 if the average level of unexpected investment over the next two years, i.e. t+1 and t+2, is in the bottom (upper) decile, 0 otherwise. Panel B presents the results of a multinomial logistic regression that simultaneously, but separately, tests the likelihood of under- and overinvestment. The dependent variable, *InvestState*, equals -1 if the average level of unexpected investment over the next two years (i.e., t+1 and t+2) is in the bottom decile, equals 1 if it is in the upper decile, and equals 0 otherwise. The first column of Panel B examines the likelihood that a firm is classified in the "underinvestment" group (*InvestState* = -1) and the second column tests the likelihood that a firm is classified in the "overinvestment" group (*InvestState* = 1). In both columns of Panel B, the "normal investment" group (*InvestState* = 0) serves as the benchmark. Panel C presents the results of the tests examining the level of future investment conditional on the *ex ante* likelihood that the firm under- or overinvests. The dependent variable in Panel C, $AvgInvestment_{[t+1,t+2]}$, is the average of *Investment* (defined as the sum of capital expenditures, R&D expenditures, and acquisitions minus sales of PPE, scaled by lagged total assets; Biddle et. al. 2009) over the next two years (i.e., t+1 and t+2). In Panel C, *Overfirm* is calculated following Biddle et al. (2009). Specifically, we decile-rank firms based on their level of *Cash* and *Leverage* (we multiply *Leverage* by -1 before ranking so that both *Cash* and *Leverage* are increasing in the likelihood of overinvestment) and rescale the rank measures to be between 0 and 1. *Overfirm* is the average of the two rank measures. *Underfirm* is calculated analogously, except that we multiply *Cash* (rather than *Leverage*) by -1 before ranking so that both *Cash* and *Leverage* are increasing in the likelihood of underinvestment. We do not report constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.

Table 7
Future Profitability

Dependent Variable:	$AvgROA_{[t+1,t+2]}$		$AvgAdjustedROA_{[t+1,t+2]}$	
Variable	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	**0.003***	**1.82**	**0.002***	**1.67**
$CapInt_t$	0.001	0.29	0.001	0.32
$SalesVol_t$	0.026***	2.96	0.027***	2.97
$SalesGrowth_t$	0.031***	7.93	0.032***	8.02
$Segments_t$	-0.004	-1.60	-0.004	-1.63
$ForeignOps_t$	0.000	-0.07	0.000	-0.15
Age_t	0.014***	2.75	0.015***	2.93
$Auditor_t$	0.005	0.75	0.005	0.83
ROA_t	0.221***	11.66	0.226***	11.90
$Loss_t$	0.001	0.54	0.001	0.53
$Size_t$	-0.035***	-10.06	-0.034***	-9.93
$PlanBasedComp_t$	0.004***	8.16	/	/
Firm Fixed Effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
Clustered SE	Yes		Yes	
N	22,181		22,181	
Adj. R^2	58.55%		57.76%	

This table reports the results of tests examining the impact of receiving a comment letter on executive compensation on future ROA. The first dependent variable, $AvgROA_{[t+1,t+2]}$, is the average of *ROA* (defined as income before extraordinary items scaled by average total assets) over the next two years (i.e., t+1 and t+2). The second dependent variable, $AvgAdjustedROA_{[t+1,t+2]}$, is the average of *AdjustedROA* (defined as income before extraordinary items plus *PlanBasedComp* scaled by average total assets) over the next two years (i.e., t+1 and t+2). *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. We do not report constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.

Table 8
Performance Objectives and Benchmarking Peers for Plan-Based Grants

Panel A: Performance Objectives Tests

Dependent Variable:	Column (1): $PerformGrantsRatio_{t+1}$		Column (2) $PerformGrantsIndicator_{t+1}$	
Variable	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	**0.012****	**2.00**	**0.012***	**1.66**
Table 3 Controls	Yes		Yes	
Additional Controls	Yes		Yes	
Firm Fixed Effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
Clustered SE	Yes		Yes	
N	11,636		11,636	
Adj. R^2	60.07%		32.75%	

Panel B: Performance Benchmarking Peers Tests

Dependent Variable:	Column (1): $MedianSameSIC2_{t+1}$		Column (2) $MedianLogMVEDiff_{t+1}$		Column (3) $MedianLogSalesDiff_{t+1}$	
Variable	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	**0.024***	**1.67**	**-0.044***	**-1.65**	**-0.069****	**-2.35**
Table 3 Controls	Yes		Yes			
Additional Controls	Yes		Yes			
Firm Fixed Effects	Yes		Yes		Yes	
Year Fixed Effects	Yes		Yes		Yes	
Clustered SE	Yes		Yes		Yes	
N	2,376		2,376		2,376	
Adj. R^2	79.25%		93.41%		93.72%	

This table reports the results of tests examining the impact of receiving a comment letter on the use of performance objectives in plan-based grants (Panel A) and the characteristics of performance benchmarking peers disclosed by the firm (Panel B). *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. In Panel A, the first dependent variable, *PerformGrantsRatio*, is the proportion of total grants tied to performance objectives (as compared to grants tied to time vesting). The second dependent variable, *PerformGrantsIndicator*, is an indicator variable set to 1 if *PerformGrantsRatio* is greater than zero, 0 otherwise. In Panel B, the dependent variables are based on three underlying variables. *SameSIC2* is an indicator variable set to 1 if the firm and its performance benchmarking peer are in the same 2-digit SIC industry, 0 otherwise. *LogMVEDiff* (*LogSalesDiff*) is the natural log of 1 plus the absolute difference between the firm and its performance benchmarking peer in terms of the market value of equity (total sales). To calculate the dependent variables, we take the median difference between the firm and its benchmarking peers. Specifically, the first (second, third) dependent variable, *MedianSameSIC2* (*MedianLogMVEDiff*, *MedianLogSalesDiff*) is the median of *SameSIC2* (*LogMVEDiff*, *LogSalesDiff*). We do not report constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). We include the control variables from Table 3 and additional control variables in each panel but do not report them for brevity. In Panel A (Panel B), the following variables are included as additional controls: $PlanBasedComp_t$, $NumTimeGrants_t$, and $NumTimeGrants_{t+1}$ ($PlanBasedComp_{t+1}$, $NumPeers_{t+1}$, $NumPerformGrants_{t+1}$, and $NumTimeGrants_{t+1}$). See Appendix B for variable definitions.

Table 9
Compensation Committee and Board Strength Cross-Sectional Tests

Dependent Variable:	*PlanBasedComp* $_{t+1}$							
Moderator Variables (*Mod*):	Column (1): *CCQ1*		Column (2): *CCQ2*		Column (3): *BQ1*		Column (4): *BQ2*	
Variable	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
CL_t	-0.042	-1.00	-0.043	-1.02	-0.043	-1.01	-0.039	-0.93
Ret_{t+1}	0.335***	9.29	0.348***	9.78	0.335***	9.33	0.348***	9.53
$PeerRet_{t+1}$	0.016	0.23	0.005	0.08	0.015	0.22	0.010	0.15
Mod_t	-0.020	-0.92	-0.017	-0.89	-0.009	-0.39	-0.020	-0.95
CL_t*Ret_{t+1}	**0.319*** **	**2.77**	**0.307** **	**2.57**	**0.337*** **	**2.96**	**0.331*** **	**2.82**
CL_t*$PeerRet_{t+1}$	**-0.406** **	**-2.36**	**-0.395** **	**-2.29**	**-0.414** **	**-2.40**	**-0.413** **	**-2.41**
CL_t*Mod_t	0.006	0.14	0.077*	1.96	0.010	0.23	0.029	0.69
Ret_{t+1}*Mod_t	0.035	1.05	0.092***	2.74	0.042	1.23	0.065*	1.81
$PeerRet_{t+1}$*Mod_t	0.025	0.43	-0.067	-1.25	-0.014	-0.25	-0.013	-0.25
CL_t*Ret_{t+1}*Mod_t	**0.080**	**0.69**	**0.019**	**0.16**	**0.142**	**1.10**	**0.107**	**0.85**
CL_t*$PeerRet_{t+1}$*Mod_t	**-0.016**	**-0.09**	**-0.070**	**-0.36**	**0.002**	**0.01**	**0.024**	**0.13**
Controls	Yes		Yes		Yes		Yes	
Firm Fixed Effects	Yes		Yes		Yes		Yes	
Year Fixed Effects	Yes		Yes		Yes		Yes	
Clustered SE	Yes		Yes		Yes		Yes	
N	20,764		20,764		20,764		20,764	
Adj. R^2	55.40%		55.42%		55.41%		55.42%	

This table reports the results of cross-sectional tests based on compensation committee ("CC") and board strength. The dependent variable, *PlanBasedComp* , is the natural log of one plus the sum of the values of the CEO's stock awards, option awards, and non-equity incentives for the year. *CL* is an indicator variable set to 1 if the firm received an SEC comment letter related to executive compensation during the year, 0 otherwise. *Ret* is the cumulative daily stock returns of the firm during the year. *PeerRet* is the equal-weighted, cumulative daily stock returns of the portfolio of firms within the same 2-digit SIC industry, year, and size quartile, excluding the focal firm. *Mod* is one of four variables: (i) *CCQ1* , (ii) *CCQ2* , (iii) *BQ1* , and (iv) *BQ2* . *CCQ1* and *CCQ2* are composite measures calculated following Sun et al. (2009), based on the following six variables: (i) *Appoint* (the proportion of CC directors appointed by the CEO, multiplied by -1), (ii) *Senior* (the proportion of CC directors with 10 or more years of board service), (iii) *CEODir* (the proportion of CC directors that are CEOs of other firms, multiplied by -1), (iv) *Shares* (the aggregate shareholdings of the CC directors deflated by the number of directors on the committee), (v) *BusyDir* (the proportion of CC directors with three or more additional board seats, multiplied by -1), and (vi) *CMSize* (the number of CC directors). *CCQ1* is the factor score from a factor analysis of the six individual measures. *CCQ2* is calculated as the number of the six individual measures that are above the sample median, deflated by six. *BQ1* and *BQ2* are composite measures of board quality and are measured analogously to *CCQ1* and *CCQ2* for the full board (whereas *CCQ1* and *CCQ2* are calculated only for the compensation committee). *CCQ1* , *CCQ2* , *BQ1* , and *BQ2* are all increasing in CC/board strength. The cross-sectional variables are standardized to have a mean of zero and a standard deviation of one for ease of interpretation. We do not report control variables and constant terms for brevity. Standard errors are clustered by firm. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively (two-tailed test). See Appendix B for variable definitions.