The SEC Comment Letter Process and Firm Disclosure

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Abstract

In an effort to enhance informational transparency for investors, the SEC periodically reviews public firms' filings for regulatory compliance. Although the SEC dedicates significant resources to the filing review process, the efficacy of this process is unclear. Upon receipt of a comment letter consequent to the SEC's review, the firm may: (1) remedy perceived disclosure deficiencies, (2) attempt to avoid making substantive disclosure changes, (3) make a confidential treatment request, or (4) negotiate with the SEC. In this paper, we examine the nature, extent, and impact of modifications to firms' disclosures requested by an SEC comment letter. While our initial evidence suggests that firms enhance their disclosure, we do not find similar results for firms requesting confidential treatment. Further, we show that registrant negotiation has an attenuating effect on disclosure. Consistent with proprietary cost concerns, we find that firms in high tech industries and with greater amounts of R&D are more likely to request confidential treatment. We then turn to examine informational transparency in order to test the SEC's stated intention of the filing review process. We find that improvements to firms' disclosures following a comment letter are associated with a decrease in information asymmetry, an increase in analyst following, and a reduction in litigation risk. Collectively, our paper contributes to the literature on disclosure regulation by providing evidence that the SEC comment letter process generally enhances firms' disclosures, improves informational transparency for investors, and mitigates firms' litigation risk, but that some firms take actions that diminish these enhancements through confidential treatment requests and negotiation.

Keywords: Corporate Disclosure, Disclosure Regulation, Comment Letters, SEC

JEL Classification: G14, K22, M41

1. Introduction

Securities regulations in the United States are premised on a simple concept: investors should have access to fundamental information about a firm in which they are making an investment. The Securities and Exchange Commission ("SEC") states that "all investors, whether large institutions or private individuals, should have access to certain basic facts about an investment prior to buying it, and so long as they hold it."[1] To achieve this objective, the SEC issues regulations that require public firms to disclose certain information to the public.[2] Managers must interpret these regulations and prepare corporate reports that disclose information as required by SEC regulations. Further, the SEC issues guidance to assist corporate financial reporting managers in implementing its disclosure regulations, including staff interpretations, speeches or other public statements by Commissioners and staff members.[3,4]

Beyond the provision for general guidance, staff members in the Division of Corporation Finance ("Corp Fin") systematically review corporate filings such as registration statements and annual or other periodic reports. This filing review process often results in a comment letter requesting that a firm provide additional information so that the staff can better understand the firm's disclosure. The firm's response, which may involve multiple rounds of correspondence, may lead the staff to conclude that the filing conforms to SEC regulations in all material respects. However, the staff may determine that a public firm's filing does not comply with the SEC's disclosure requirements, for at least two reasons. First, a manager may prefer to not

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1 See "How the SEC Protect Investors, Maintains Market Integrity, and Facilitates Capital Formation" at http://www.sec.gov/about/whatwedo.shtml

2 Public firms include firms with securities traded on a national exchange, or that have more than 500 investors and $10 million in assets. Public firms often are referred to as "registrants."

3 Interpretations include: staff accounting bulletins, compliance and disclosure interpretations, the *Financial Reporting Manual* issued by the Division of Corporation Finance, and other staff reports. See http://www.sec.gov/interps.shtml

4 See http://www.sec.gov/news/speech.shtml

disclose certain information and therefore may omit information that is required to be disclosed or may disclose information in a way that is difficult for (at least some) readers to understand. This view is consistent with Warren Buffet's statement that "if you can't understand a footnote or other managerial explanation, it's usually because the CEO doesn't want you to."[5] A second reason is that a manager may interpret and implement a disclosure requirement in a way that differs from what the SEC intended. The staff may offer corrective advice, either to revise a previously filed document or to alter the firm's disclosure approach in future filings.

Comment letter reviews have been conducted as long as the SEC has existed.[6] Based on its allocation of staff resources, Corp Fin views filing reviews as a substantial activity.[7] Notwithstanding this view, whether or not the comment letter process results in substantive disclosure changes with favorable implications for firms' disclosure transparency remains unclear. While Corp Fin Deputy Director Shelly Parratt notes, "…it seems that many [firms] are reluctant to address these comment themes until we provide specific comments requesting enhanced disclosure,"[8] Robinson et al. (2011) discusses how "non-compliance" can be a possible equilibrium due to the costs of verification and limitations in expected penalties. The study further notes that the market may not impose additional penalties because of its inability to discern between an agency motive and a proprietary cost motive of non-compliance with the SEC staff's directives. As such, the primary question which motivates our study is whether or

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5 See "Chairman's Letter," by Warren E. Buffett, in Berkshire Hathaway's 2002 Annual Report, page 21.

6 Evidence of this long-standing review and comment letter process can be found on the SEC Historical Society website (www.sechistorical.org) which has references to a "letter of comment" process dating back to the 1930s. Recent SEC Annual Reports document details regarding the number of reviews conducted each fiscal year.

7 In 2012, approximately 80 percent of Corp Fin's employees were engaged in the filing review process. See http://www.sec.gov/divisions/corpfin/cffilingreview.htm

8 See http://www.sec.gov/news/speech/2009/spch110909sp.htm

not the SEC comment letter review process prompts firms to modify their disclosures consistent with the SEC's intent of improving disclosure transparency for firm stakeholders and whether the disclosure changes are meaningful from the perspectives of investors and information intermediaries.

While on the one hand, firms may comply with the staff's directions, on the other, firms may attempt to thwart the process by making few or even no improvements to their disclosures. A firm that endeavors to thwart the staff's directions may anticipate that Corp Fin staff will not review the future filing, perhaps due to resource constraints or because it believes that its disclosures sufficiently conform to applicable disclosure requirements. In some instances, if the firm and Corp Fin staff disagree on whether the firm's filing complies with SEC regulations, Corp Fin staff may refer the firm to the SEC's Division of Enforcement for further action. However, even if Corp Fin refers a firm, the Division of Enforcement may not take any further action.[9] In choosing how best to strategically respond to the SEC, firms must weigh the potential benefits from enhanced disclosures against its costs. For example, while the SEC's requested changes to a firm's disclosures may result in increased transparency for the firm's stakeholders and/or the potential for decreased expected litigation costs for the firm, it may have the potential to reveal sensitive information about the firm that is valuable to the firm's competitors.

As illustrated in the examples provided in Appendix A, there are at least four ways in which firms may attempt to navigate the comment letter process without fully complying with all disclosure requests. First, the firm may simply refuse to respond to an SEC comment letter. This non-response may or may not result in a referral to Enforcement for further action. Second,

[9] Boone et al. (2013) finds no evidence of an increase in the number of Enforcement investigations following an SEC annual report review.

the firm may agree to provide additional disclosure in the future, such as in the next annual report, but then fail to fully incorporate the agreed-upon revisions in the future filing. As the SEC does not have formal procedures in place to consistently follow up before the next periodic review, the deficient disclosure could persist for multiple years. Third, the firm may negotiate with the staff on the appropriateness of the current disclosures. Even in the cases where the staff originally requests an amendment to the current filing being reviewed, through providing supplemental information on the facts and circumstances they considered in arriving at the current disclosure practices, the firm may satisfy the staff's concerns without modifying current or future disclosures. Fourth, as part of the comment letter process, firms may elect to make a confidential treatment request where at least a portion of their response letter is redacted. In these cases only the SEC staff is able to view the proprietary disclosures, which are redacted from the response letter that is eventually made public.

Several academic research surveys have called for more empirical research on the effectiveness of disclosure regulation. Healy and Palepu (2001) raises the concern that "fundamental questions about the…effectiveness of…disclosure regulation in the economy remain unanswered." Leuz and Wysocki (2008), citing this literature review, states "As Healy and Palepu (2001) note in their survey, empirical research on disclosure regulation…is rare and most of these studies focus on early U.S. disclosure regulation in the 1930s." The limited amount of empirical research in the area of disclosure regulation is surprising given the central role that regulation plays in shaping the disclosure landscape and thus academic research on disclosure. Leuz and Wysocki (2008) concludes with suggestions for future research, which include a better understanding of the "dynamics" and "process" through which financial disclosures are regulated. The survey also suggests an examination of *ex ante* (preventative)

approaches to disclosure regulation in addition to *ex post* (enforcement or litigation) approaches. Additionally, Beyer et al. (2010) notes that "not much is known about the effect of regulation on the incentives to produce and disseminate information and the resulting information asymmetry between insiders and outsiders and among investors…"

We seek to partially address this void by investigating the impact of the SEC comment letter process on firms' disclosures as well as their information and litigation environments. We measure modifications to firm's disclosures by extracting five attributes of annual reports that are commonly studied in the qualitative disclosure literature. For the sake of parsimony, we then use a variable reduction technique to collapse the attributes into a single factor, which serves as the basis for our qualitative disclosure proxy. We find that comment letter reviews are significantly associated with the qualitative disclosure proxy as well as four out of the five individual qualitative disclosure attributes used to construct the proxy. We perform validity tests on the univariate significance and direction of the disclosure changes for each of the five disclosure attributes and generally find results consistent with our predictions. In terms of the individual attributes, we find that comment letters are associated with (i) an increase in disclosure length, (ii) a decrease in optimistic tone, (iii) an increase in numerical intensity, and (iv) an increase in forward-looking statements.

Because the comment letter process is intended to be a dialogue, a firm may respond to a comment letter in a variety of ways. We therefore examine how firms' responses to comment letters affect their disclosures. While it appears that, generally, a registrant modifies its disclosures after receiving a comment letter, we do not find a statistically significant change to qualitative disclosure for firms that make a confidential treatment request. In the absence of a confidential treatment request, the effect may be due to those who choose not to "push back" on

SEC comment letters requesting improvements to firms' disclosures. We therefore explore the effect of registrant negotiation on the extent of the disclosure modifications. We find that the propensity of a firm to appeal the SEC staff's requests has an attenuating effect on the improvements to firms' disclosures, which may suggest that firms with substantial legal resources are more effective at thwarting the SEC's attempts to influence such firms' disclosures. Consistent with proprietary cost concerns, we further find that firms in high tech industries and with greater amounts of R&D are more likely to request confidential treatment.

Our final tests examine the impact of the disclosure improvements on firms' information and litigation environments to provide evidence on the informativeness of the disclosure improvements. We find that qualitative improvements to firms' disclosures prompted by the comment letter process are associated with a decrease in information asymmetry as evidenced by decreased bid-ask spreads. In terms of firm following, we find a positive association between analyst coverage and the improvements to firms' disclosures following a comment letter review. Finally, for firms that make large disclosure improvements, we find that their litigation risk is reduced following a comment letter review. Rather than creating information or legal uncertainty, these results suggest that firms that commit to provide more transparent disclosure, i.e., those not requesting confidential treatment or "pushing back" on the SEC, benefit from the comment letter review process along the dimensions we study.

In sum, consistent with the calls by Healy and Palepu (2001), Leuz and Wysocki (2008), and Beyer et al. (2010), we add to the literature on disclosure regulation by providing evidence on the role the SEC comment letter review process has on enhancing corporate disclosure. While our results are mostly aligned with the SEC's objective of influencing firm disclosures as

its "chief regulatory tool" in order to enhance informational transparency, a caveat is noted.[10] Despite our general findings, consistent with the regulatory capture literature (see, for example, Bozanic et al., 2012), our results suggest that firms can and do circumvent the comment letter review process through confidential treatment requests as well as by negotiating directly with the SEC.

Section 2 details the institutional background of the filing review process. Section 3 provides a literature review, and Section 4 lays out specific hypotheses. Section 5 describes the data used in the study and the research design used to test our hypotheses. Sections 6 and 7 provide descriptive statistics and the empirical results, respectively. Section 8 concludes.

2. Institutional Background

Prior to 2004, individuals, investors, and other interested parties were able to access comment letter correspondence only by request under the Freedom of Information Act ("FOIA".) To provide greater transparency with respect to comment letter review process, in 2004 the SEC decided to publicly release comment letters and response letters after the conclusion of a comment letter review. This decision, and the consequent set of comment (and response) letters provides public access to details on the timing, content, and outcome of the reviews. This public availability affords an opportunity to investigate the effects of comment letter reviews, which is timely given that the Dodd-Frank Act requires that the SEC must annually submit to Congress a report on the effectiveness of its supervisory controls for each of its major divisions. Consistent with the motivation of the current study, the requirement explicitly states that the report include

[10] Paredes (2003)

an assessment of the effectiveness of the procedures relating to the "reviews of corporate financial securities filings."[11]

2.1 *Filing Review Scope*

The SEC's two largest divisions are Corporation Finance and Enforcement. Each of these divisions has a distinct role in carrying out the SEC's mission of investor protection. Whereas Enforcement focuses on enforcing U.S. securities laws, Corp Fin focuses primarily on overseeing corporate disclosure through its filing review process.

Corp Fin reviews two types of filings: registration statements and periodic reports. Registration statements, which are also referred to as transactional filings, include IPOs (Form S-1) and mergers (Form S-4) where the underlying securities are required to be registered under the Securities Act of 1933. In contrast, periodic reports, such as Forms 10-K, 10-Q, 8-K, and proxy statements, are required to be filed under the Securities Exchange Act of 1934. A review could include more than one filing type, such as when a secondary offering filed on Form S-3 incorporates an outstanding 10-K by reference. Registration statement reviews historically have taken precedence over periodic filing reviews and still have a "timeliness" priority, as they are tied to a live transaction. However, in recent years, reviews of periodic filings occur more frequently and in larger numbers; nearly two-thirds of the comment letters issued between 2004 and 2012 pertain to periodic filing reviews.

The significant increase in the number of periodic filing reviews (of which, roughly 77% are 10-K reviews) can be attributed to Section 408 of the Sarbanes Oxley Act of 2002 ("SOX"), which mandates that all SEC registrants must be reviewed at least once every three years.

[11] See http://www.gao.gov/products/GAO-13-314.

Following the passage of SOX, the SEC's staff size increased. In particular, the number of accounting examiners who have the requisite expertise for 10-K reviews increased markedly. Although periodic filings other than 10-Ks (such as 8-Ks and proxy statements) are reviewed regularly, 10-K reviews are particularly important because 10-Ks provide comprehensive financial disclosures as evidenced by the average burden required to prepare them.[12] Figure 1 presents the percentage of registrants reviewed each SEC fiscal year from 2003 to 2012 and the number of publicly available comment letters pertaining to 10-K reviews issued during the same period.

2.2 *Structure of Corp Fin*

Corp Fin refers to its process of meeting the SOX mandate as the "market cap project." Although the SEC does not publicly disclose the selection criteria it uses to determine the timing and frequency of the periodic reviews beyond the three year maximum, Section 408 of SOX includes five recommended considerations.[13] The review process is organized across twelve Assistant Director ("AD") offices within Corp Fin. AD offices are organized by industry, based on SIC codes. Each public firm is assigned to one AD office for staff review and each AD office determines the nature, timing, and extent of each review. Outside of the AD offices, which are referred to as "Disclosure Operations" there are several support offices within the division, such as the Office of the Chief Accountant, which assists with appeals by the registrants and other consultations with the staff examiners. The staff is comprised primarily of accountants and

[12] As noted by the SEC, the estimated average time burden to prepare a 10-K is about 2,000 hours. In contrast, an 8-K requires an average of 6 hours. See http://www.sec.gov/about/forms/secformsalpha.htm.

[13] Factors that can accelerate the timing of an annual report review include restatements, stock price volatility, market capitalization, PE ratios, and the materiality of the firm's operations in the economy.

attorneys, but some industry groups also have financial analysts and others with specialized expertise; e.g., engineers review mining and oil and gas filings.

2.3 *Review Type, Negotiation, and Outcome*

Depending on the review history and available resources, a 10-K review team may include two accountants and two attorneys, two accountants and no attorneys, or two attorneys and no accountants. The examiner team determines the scope of the review, i.e., whether it will include a preliminary, targeted or full review. The preliminary review criteria are not publically available, but constitute more than just a checklist. The preliminary review results in either no further review, a review of targeted issues, or a full review. If the examiner team determines that no comment letter is warranted, the firm is not informed that its filing was subjected to a review. Targeted reviews focus on certain issues or sections of the filing being reviewed. A full review examines the entire 10-K from cover to cover. If a 10-K review is assigned to accountants only or if the legal review team performs a preliminary review but no further review, it is called a full-financial review. In a full-financial review, the entire 10-K is reviewed for any accounting-related disclosure issues. A 10-K review entails reviewing the 10-K itself and other available filings, such as 8-Ks and 10-Qs, and other public disclosures, such as corporate websites and press releases. These reviews are ongoing throughout the year, not just immediately after 10-K filing dates, and a staff member reviews approximately one initial filing per week.

The review team collaborates on what comments, if any, to issue to the firm being reviewed. Some frequently issued comments relate to revenue recognition, fair value estimates,

segment disclosures, impairment issues, and executive compensation disclosures.[14] The comment letter process is viewed by the SEC as a dialogue with the firm about its disclosure. Upon receipt of a comment letter, the firm is requested to respond within 10 business days or communicate an alternative timeframe. Comments can: (i) request supplemental information to better evaluate the disclosures, (ii) request a revision to future filings, or (iii) request that the filing under review be amended. The SEC has no systematic process in place to follow up on future filing revisions after the completion of the comment letter process until the firm's next periodic review. For a given comment letter review, the process can vary in the number of comment letter rounds. This variation arises in part due to the extent of negotiation by the registrant. The comment letters explicitly encourage firms to provide a detailed explanation in their response letter when they do not agree with the recommended revisions and to provide supplemental information to help the staff understand their disclosure practices. At any point during the review, if the firm does not agree with the position or requests of the staff, the firm may request reconsideration of the issue by the senior level staff of the AD office, and may also consult with the Office of the Chief Accountant within the Division or ultimately the Office of the Chief Accountant of the SEC. Even in the cases where the staff originally requests an amendment to the current filing being reviewed, the firm may negotiate to either provide the requested revisions in a future filing or not at all. Consistent with this view, less than 30% of our sample firms that were requested to file an amendment did so before the review was completed and closed. In addition, the firm may respond to comments by providing certain information under a confidential treatment request, where certain portions of the response letter may be redacted or supplemental non-public information may be withheld from being filed on EDGAR.

[14] See Appendix B for examples of SEC comment letters requesting modifications to the specific disclosure attributes we explore in this study.

The correspondence between the Corp Fin staff and the firm continues until all issues are resolved, upon which time, the firm receives a "Completion of Review" letter.[15]

3. Prior and Contemporaneous Academic Literature

There is a nascent literature on the determinants and consequences of comment letter reviews. The results of prior studies on the determinants of receiving an SEC comment letter generally are consistent with the requirements in Section 408 of SOX.[16] Cassell et al. (2013) examines firm and auditor characteristics that are associated with a higher likelihood of receiving a comment letter and additionally considers the costs of complying with proposed disclosure modifications. The study finds that firms with large auditors and effective internal controls, who are more profitable and less complex, are less likely to receive a comment letter and are able to resolve the comments more quickly. Similarly, Boone et al. (2013) examines the association between accounting standard characteristics and the likelihood and duration of an SEC comment letter review. The study finds that both accounting estimates and rule-based characteristics in GAAP standards increase the probability of receiving a comment letter, and that accounting estimates are positively associated with the duration to resolve such issues.

Johnston and Petacchi (2013) finds that trading volume declines and analyst forecast accuracy improves around earnings announcements following the completion of 10-K/Q comment letter reviews. Dechow et al. (2014) examines insider sales prior to the public release of comment letters following the completion of the review and find evidence of strategic trades. Brown et al. (2014) finds evidence consistent with comment letter spill-over effects onto peer

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[15] See the SEC's summary of the Filing Review Process at http://www.sec.gov/divisions/corpfin/cffilingreview.htm

[16] For example, see Ertimur and Nondorf (2006) and Gao et al. (2010).

firms. Other studies concentrate on the effects of comment letter reviews on filings other than the 10-K/Q. For example, Ertimur and Nondorf (2006) examines reviews of IPO registration statements. Robinson et al. (2011) focuses on compensation disclosures contained in proxy statements and Ettredge et al. (2011) studies only 8-K disclosures related to auditor changes.

International evidence found in Christensen et al. (2013) points to a positive capital market effect (enhanced liquidity) in five EU countries that instituted a filing review process in conjunction with the adoption of IFRS. Gietzmann and Isidro (2013) utilizes SEC comment letters as "one of the few publicly available independent assessments by experts on the quality of firms' reporting" to examine the economic consequences of the adoption of international accounting standards. The study finds that, compared to US GAAP reporting firms, IFRS reporting firms that are registered with the SEC have a higher likelihood of receiving a comment letter and experience a larger reduction in institutional holdings following a comment letter review.

4. Hypothesis Development

4.1 *Review Impact on Annual Report Disclosures: Confidential Treatment Requests*

In preparing each year's annual report, it is likely that a firm generally maintains the structure and approach it used in its most recent previous annual report. Indeed, a firm may follow the same disclosure practices by preparing its current annual report based on its previous annual report, with revisions only to reflect changes in facts and circumstances between the previous and current years. Such improvements might have relatively little impact on certain features of the annual report, such as its length or numerical intensity. In addition, firms may have incentives to not provide additional or revised disclosure. As part of the comment letter process, the firm may submit a confidential treatment request that the solicited information only

be disclosed to the SEC staff. The proprietary information is then redacted from the firm's response letter that is eventually made public. As such, we interpret a confidential treatment request ("CTR") as a signal that the firm is unwilling to disclose at least some potentially material information that may be considered proprietary. This is consistent with Robinson et al. (2011) which discusses how disclosure "non-compliance" can be a possible equilibrium due to the costs of verification and limitations in expected penalties (see Appendix A for examples). We state our first hypothesis as follows:

H1: The impact of comment letter reviews on firms' disclosure is attenuated for firms requesting confidential treatment.

4.2 *Review Impact on Annual Report Disclosures: Negotiation*

As part of the comment letter process, firms may negotiate with the SEC staff as to the level of disclosure improvements they are willing to make. Comment letters explicitly encourage firms to provide a detailed explanation in their response letter when they do not agree with the recommended revisions and to provide supplemental information to help the staff understand their disclosure practices. If the firm and initial review team are unable to come to a resolution on a given disclosure issue, the firm may appeal to higher levels of authority within the SEC. Therefore, the extent of observed disclosure improvements may depend on the success of the negotiation process from the firm's perspective. We state our second hypothesis as follows:

H2: The impact of comment letter reviews on firms' disclosure is attenuated by the extent of negotiation.

4.3 *Firms' Information Environment, Information Intermediary Following, and Litigation Risk*

Comment letter reviews may have implications for firms' information environments if the resultant disclosure improvements reduce existing information asymmetries among investors (Amiram et al., 2012; Leuz and Wysocki, 2008). Changes in firms' disclosure practices could decrease information asymmetry if improvements to firms' disclosures reduce investors' differential private information and/or processing abilities. However, given the rich disclosure environments that exist among SEC reporting firms, the quality of accounting standards in the U.S., and oversight by auditors and other regulators, an SEC review may not result in a material change to a firm's information environment. We state our third hypothesis as follows:

H3: Improvements to firms' disclosures arising from comment letter reviews alter firms' information environments.

Next, the decision by information intermediaries to cover firms may be impacted by improvements to firms' disclosures following a comment letter review (Bhushan, 1989; Lang and Lundholm, 1996). Revelation of financial information or perceived changes in transparency may attract greater attention to a firm. Equity analysts who are considering initiating coverage may perceive the disclosure improvements following a comment letter review to indicate a firm's commitment to provide increased transparency (Lehavy et al., 2011). However, the comment letter process might reveal disclosure deficiencies, which could be interpreted as managers' reluctance to be forthright with the public, thus prompting a decrease in analyst following. We state our fourth hypothesis as follows:

H4: Improvements to firms' disclosures arising from a comment letter review alter information intermediary following.

Lastly, if firms make improvements to their disclosures aligned with the SEC's intent of improving informational transparency, such actions may not only correct disclosure deficiencies but also reflect firms' commitments towards more transparent disclosure following a comment letter review. Given that securities class-action lawsuits often are spurred by allegations of false or misleading information, improvements arising out of the comment letter process may deter possible future litigation (Field et al., 2005; Rogers et al., 2010). We state our fifth and final hypothesis as follows:

H5: Improvements to firms' disclosures arising from a comment letter review reduce litigation risk.

5. Data and Methodology

5.1 *Data Sources and Collection*

We use the Audit Analytics ("AA") database to identify and assemble our sample of comment letters. Considering that annual reports are the disclosures most frequently demanded from EDGAR (Drake et al., 2013) and that annual report reviews comprise 77% of all periodic filing reviews, we focus exclusively on annual report reviews. Therefore, we retain all initial comment letters in a conversation[17] that focus exclusively on annual report reviews, resulting in 12,955 initial comment letters for the 2004-2011 period. We purge any duplicate comment letter conversations where an initial comment letter is tied to more than one AA-assigned conversation identification code. This screen removed 141 comment letters. Limitations in availability of data used as control variables from CRSP, Compustat, I/B/E/S, and Thomson Financial result in 3,105 comment letter conversations in the sample. Next, we identify the annual report that is the

[17] A conversation refers to the series of communications between a firm and Corp Fin arising from an initial comment letter.

subject of the review ("the subject annual report"). We also obtain the subsequent annual report ("the subsequent annual report") to determine qualitative disclosure changes between annual reports. See Figure 2 for a hypothetical timeline of a comment letter review.

We use Perl to locate and download the subject and subsequent annual reports. Once the subject annual reports are identified from AA, we identify the subsequent annual reports from EDGAR's index files and download both annual reports from EDGAR. This process results in 5,804 annual reports corresponding to the 3,105 comment letters identified above. Note that we do not obtain precisely twice the number of annual reports as comment letters due to consecutive comment letter conversations. Once both the subject and subsequent annual reports have been downloaded, we remove all HTML (or similar) code, embedded files and tables to produce a "flat" text file. Using propensity score matching to address endogeneity concerns, we then match the annual reports subject to comment letter reviews to annual reports for which no comment letter was issued. We match one-to-one using the nearest neighbor on the dimensions of industry, year, and the following SOX 408 criteria in accordance with the Cassell et al. (2013) determinants model: size, return volatility, reported material weaknesses, and restatements. Untabulated analysis suggests that the covariates are well balanced. See Table 1 for the details of the sample construction.

5.2 *Disclosure Proxy*

We measure several qualitative disclosure attributes using a firm's subject and subsequent annual reports to examine improvements to qualitative disclosure associated with comment letter reviews. Following prior qualitative disclosure literature, we examine five attributes in our study: *Length*, *Readability*, *Tone*, *Numerical Intensity* (*NI*), and *Forward-Looking Statement Intensity* (*FLSI*). *Length* and *Readability* are captured, following Li (2008),

by the Lingua::EN::Fathom module in Perl. *Length* is measured as the number of sentences contained within the annual report. *Readability* is measured using the Fog Index of the annual report (Gunning, 1952). Note that a higher *Readability* score indicates that the disclosure is *less* readable. *Tone* is measured as the number of optimistic words less pessimistic words contained within the annual report, using the dictionaries developed by Henry (2008) and Henry and Leone (2010) for use in financial discourse. *NI* is measured as the count of non-date numbers in the annual report. *FLSI* is measured as the number of forward-looking sentences contained within the annual report. We identify forward-looking sentences as those containing forward-looking terms and phrases as identified in Li (2008).

We assume that the SEC implicitly considers that improved qualitative disclosure is associated with increased *Length*, decreased *Readability* (i.e., lower FOG Index), decreased *Tone*, increased *NI* and increased *FLSI*. [18] For the sake of parsimony, we calculate a composite measure of qualitative disclosure as the first factor derived from a factor analysis of our five qualitative disclosure attributes discussed above. We call this summary proxy for composite qualitative disclosure the qualitative disclosure factor (*QDF*). In applying the variable reduction technique, we multiply *Readability* and *Tone* by -1 before extracting the factor in order to consistently interpret an increase as an improvement in the disclosure from the perspective of the SEC (that is, more readable and less optimistic disclosure is considered as "better" according to comment letters reviewed). To ensure the attributes which comprise the proxy align with the SEC's intent, we also provide univariate validation tests for each of our qualitative disclosure attributes.

[18] See examples in Appendix B.

5.3 *Information Environment, Information Intermediary Following, and Litigation Risk Proxies*

We utilize a standard information environment proxy, abnormal bid-ask-spread (*BAS*), to examine changes in information asymmetry corresponding to the annual report filing subsequent to the comment letter review relative to the subject annual report. We calculate this measure as the event period average daily percent spread minus the pre-period average daily percent spread. The event period is trading days (0,+2) relative to the annual report filing date and the pre-period is the 45 trading days prior (-45,-1). Daily percent spread is obtained from CRSP and calculated as the daily high offer price less the daily low bid price scaled by the midpoint, all multiplied by 100, consistent with Amiram et al. (2012). Next, we examine changes in analyst following surrounding the subject and subsequent annual report to assess the impact of qualitative disclosure changes on information intermediaries. Analyst coverage (*Analyst_Cov*) is the average number of analysts following a firm in the 30 days after the annual report filing date. Lastly, we examine litigation risk using data on securities class-action lawsuits from the Stanford Securities Class Action Clearinghouse database. Litigation risk (*Litigation*) is an indicator variable for a firm undergoing a securities class-action lawsuit within a year following the completion of a comment letter review.

5.4 *Empirical Design*

We employ the following baseline empirical specification to establish the impact of the comment letter process on firms' disclosures before proceeding to test our hypotheses.

$$QDF = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 CL*Post + \beta_4 LogSize + \beta_5 BTM + \beta_6 LogAssets + \beta_7 ROA + \beta_8 Loss + \beta_9 IO + \beta_{10} Analysts + \beta_{11} Stdev\_Earn + \beta_{12} Age + \beta_{13} Beta + \beta_{14} M\&A + \beta_{15} Restate + \beta_{16} CL\_Complexity + \beta_{17} Disclosure\_Trend + \varepsilon \quad \textbf{Eq. 1}$$

The unit of analysis is the entire annual report filing corresponding to the comment letter review. In order to isolate the impact of the comment letter review on the annual report, we implement a difference-in-differences design. *CL* is an indicator variable for the annual report that is the subject of the review. *Post* is an indicator variable for the annual report subsequent to the report that was the subject of the review. The coefficient of interest, β_3, on the interaction term *CL*Post* reflects the improvements to the qualitative disclosure factor (*QDF*) for firms subject to a comment letter review relative to matched firms that were not.

All control variables are measured in the accounting period prior to the initial comment letter and are defined in Appendix C. The initial control variables in the model relate to fundamental firm characteristics that could be associated with disclosure improvements whereas the last three controls relate to other characteristics that could also impact disclosure improvements. For example, being involved in mergers and acquisitions (*M&A*) or a restatement (*Restate*) in the year of or year prior to the subject annual report could impact both the probability of being reviewed by the SEC and the annual report disclosure properties describing these events (Cassell et al., 2013). *CL_Complexity* is the number of accounting comments raised by the SEC in the review. *Disclosure_Trend* is the average industry-year length of annual reports, which controls for industry disclosure trends, given the concern that annual reports have increased in length over time. In all regression tests, we include industry fixed effects and t-statistics are calculated with standard errors clustered by firm.

For our first and second hypotheses we augment Eq. 1 to include interaction terms for confidential treatment requests (CTR) and negotiation as follows:

$$QDF = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 CTR + \beta_4 CL*Post + \beta_5 CL*CTR + \beta_6 Post*CTR + \beta_7 CL*Post*CTR + \beta_x Controls + \varepsilon \quad \textbf{Eq. 2}$$

$$QDF = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 Negotiation + \beta_4 CL*Post + \beta_5 CL*Negotiation + \beta_6 Post*Negotiation + \beta_7 CL*Post*Negotiation + \beta_x Controls + \varepsilon \quad \textbf{Eq. 3}$$

where *QDF*, *CL*, *Post*, and *Controls* are as defined above. *CTR* is an indicator variable for a confidential treatment request by the registrant as part of the comment letter process. *Negotiation*, which proxies for the propensity of a firm to appeal the SEC staff's requests during the comment letter process, is an indicator for comment letter reviews with an above-median number of rounds where rounds is the number of SEC comment letters issued by the SEC during a review, excluding the "Completion of Review" letter. The coefficient of interest, β_7, on the interaction term *CL*Post*CTR* in Eq. 2 reflects the improvements in the qualitative disclosure factor (*QDF*) for reviews where the firm requests confidential treatment. The coefficient of interest, β_7, on the interaction term *CL*Post*Negotiation* in Eq. 3 reflects the improvement to the qualitative disclosure factor (*QDF*) for reviews where the firm negotiates with the SEC.

To test our third and fourth hypotheses, we modify Eq. 1 to replace the dependent variable with either the information environment or information intermediary proxy and then include an interaction term for the qualitative disclosure factor (*QDF*) as follows:

$$Information\_Environment \text{ or } Information\_Intermediary\_Following = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 QDF + \beta_4 CL*Post + \beta_5 CL*QDF + \beta_6 Post*QDF + \beta_7 CL*Post*QDF + \beta_x Controls + \varepsilon \quad \textbf{Eq. 4}$$

where the information environment construct is proxied for by abnormal bid-ask-spread (*BAS*) and the information intermediary following construct is proxied for by analyst coverage (*Analyst_Cov*) and are as defined above in Section 5.3 and in Appendix C. *Controls* are the same as those found in Eq. 1 with the exception of the exclusion of prior analyst following

(*Analysts*) when analyst coverage (*Analyst_Cov*) is the dependent variable. The coefficient of interest, β_7, on the interaction terms *CL*Post*QDF* in Eq. 4 reflects the change in the firm's information environment or information intermediary following, respectively, for firms that improve their disclosure following a comment letter review.

To test our fifth and final hypothesis, we modify Eq. 1 to replace the dependent variable with the litigation risk proxy (*Litigation*). We then include an interaction term for firms with the largest (upper quartile) change in the qualitative disclosure factor (ΔQDF) as follows:

$$Litigation = \beta_0 + \beta_1 CL + \beta_2 LogSize + \beta_3 BTM + \beta_4 LogAssets + \beta_5 ROA + \beta_6 Loss + \beta_7 IO + \beta_8 Analysts + \beta_9 Stdev\_Earn + \beta_{10} Age + \beta_{11} Beta + \beta_{12} M\&A + \beta_{13} Restate + \beta_{14} CL\_Complexity + \beta_{15} Disclosure\_Trend + \varepsilon \quad \textbf{Eq. 5}$$

$$Litigation = \beta_0 + \beta_1 CL + \beta_2 \Delta QDF + \beta_3 CL*\Delta QDF + \beta_4 LogSize + \beta_5 BTM + \beta_6 LogAssets + \beta_7 ROA + \beta_8 Loss + \beta_9 IO + \beta_{10} Analysts + \beta_{11} Stdev\_Earn + \beta_{12} Age + \beta_{13} Beta + \beta_{14} M\&A + \beta_{15} Restate + \beta_{16} CL\_Complexity + \beta_{17} Disclosure\_Trend + \varepsilon \quad \textbf{Eq. 6}$$

6. Descriptive Statistics

Table 2 provides descriptive statistics for the comment letter sample used in the empirical analyses. The average annual report contains 2,417 sentences. The average readability is greater than 20, indicating that more than 20 years of formal education is required to comprehend the average annual report. The average number of optimistic words net of pessimistic words is approximately 89. The number of numbers is 1,248 for the average annual report and the number of forward-looking statements is 787. With respect to the information environment proxies, the average abnormal bid-ask-spread in the three-day event window of the annual report filing date is 54 basis points. As for the coverage proxy, the average number of analysts following firms in the 30 days after the annual report filing date is 5.6. Approximately 19% of the comment letter conversations include a confidential treatment request from the firm to redact

at least a portion of their response letter. The mean (median) number of comment letter rounds is 1.5 (1.0). The firms in our sample are fairly large, with a market capitalization of roughly $1.2 billion and assets of $1.4 billion. The average firm is slightly riskier than the market with a beta of 1.13, and 29% of the firms experienced a loss in the most recent fiscal quarter prior to receiving a comment letter. Consistent with the sample being comprised of large firms, both institutional ownership and analyst following are fairly high at 82% and 11, respectively. Approximately 11% (47%) of the firm-years involved a restatement (M&A activity where the firm was either an acquirer or target) during the year of or year prior to the subject annual report. Table 3 presents correlation coefficients; the relations are generally as expected.

7. Empirical Results

7.1 *Comment Letters and Annual Report Disclosure Modifications*

7.1.1 *The Qualitative Disclosure Factor*

Table 4 presents regression results from estimating Eq. 1 on the association between comment letter reviews and changes in the qualitative disclosure factor (*QDF*) between the subject and subsequent annual reports. The coefficient of interest, β_3, on the interaction term *CL*Post* reflects the improvement to the qualitative disclosure factor (*QDF*) for firms subject to a comment letter review relative to firms that were not in our matched control design. We first present the regression results for the comment letter sample by itself in Column 1. We find a significantly positive change in *QDF*, which provides initial evidence supporting the view that firms modify their disclosure consequent to a comment letter review. The coefficient of 0.059 represents a 27% increase in the mean qualitative disclosure factor. The result is robust in the Column 2 difference-in-differences model.

7.1.2 *Components of the Qualitative Disclosure Factor*

Although we have established that the comment letter review process appears to impact qualitative disclosure, the preliminary results do not shed light on the individual components of the qualitative disclosure factor (*QDF*). Table 5 presents the results on the association between comment letter reviews and the individual qualitative disclosure attributes used to construct *QDF* for the comment letter sample.[19] We find a statistically significant change in the anticipated direction for four of the five qualitative disclosure attributes.[20] This provides additional evidence that comment letter reviews are associated with qualitative disclosure improvements between the subject and subsequent annual reports. On average, these changes result in a 3% increase in disclosure length, a 6% decrease in disclosure optimism, a 3% increase in numerical intensity, and a 3% increase in forward-looking statements. These results are consistent with standard language contained in the SEC comment letters to firms: "Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to *enhance* the overall disclosure in your filing. (italics added)"

7.1.3 *Univariate Validation Tests for Qualitative Disclosure Attributes*

Prior to testing our formal hypotheses, in order to provide further evidence supporting the construction of *QDF* beyond our review of select comment letters (see Appendix B), we examine the univariate change in each of the five qualitative disclosure attributes between the subject and subsequent annual report. Panel A of Table 6 presents the univariate changes for the comment letter sample unrestricted by control variable availability. The univariate results provide a

[19] Recall that the assumed sign of the coefficients is positive for *Length*, *NI* and *FLSI* and negative for *Readability* and *Tone*.

[20] We retain readability as an attribute in the QDF proxy given its pervasiveness in the qualitative disclosure literature. If we remove the attribute from the factor, our empirical results remain qualitatively unchanged.

baseline for the tests in Panel B and validation of the direction and significance of the qualitative disclosure improvements as evidenced by the decrease in *Tone* and the increase in *FLSI*. However, the significant univariate increase in *Readability* is contrary to our prediction, implying the comment letter reviews appear to decrease overall annual report readability.

In Panel B, we condition the sample based on the nature of the comment letter request as appropriate for each qualitative disclosure attribute. For *Length* we evaluate the subsample of comment letters that explicitly request a revision to a future filing and find a significant increase. For *Readability* we condition the sample on comment letters containing the keywords "plain english", "boilerplate", "clarify", "explain", or "define" and find that the annual report becomes less readable. For *Tone* we condition the sample on comment letters containing the keywords "tone", "balanced", "optimistic", "positive", or "negative" and find a significant decline in the tone of the annual report. For *NI* we condition the sample on comment letters containing the keywords "quantify" or "quantitative" and find a significant increase in the numeric intensity of the annual report. Finally, for *FLSI* we condition the sample on comment letters containing the keywords "forward-looking", "forward looking", "prospective", or "future" and find a significant increase in the forward-looking intensity of the annual report. To summarize, with the exception of readability, which is not statistically significant in the multivariate analysis found in Table 5, Panel B of Table 6 provides evidence supporting the validity of our construction of *QDF* in line with the stated objectives of the SEC and the specific requests found in comment letters.

7.2 *Confidential Treatment Requests* (H1) and *Registrant Negotiation* (H2)

Table 7 presents regression results from estimating Eq. 2. The coefficient of interest, β_7, on the interaction term *CL*Post*CTR* in Eq. 2 reflects the improvements to the qualitative

disclosure factor (*QDF*) for reviews where the firm requests confidential treatment. We find a statistically insignificant change in *CL*Post*CTR*. The result suggests that, while firms modify their qualitative disclosure consequent to a comment letter review on average, this practice is unchanged for firms making confidential treatment requests.

Table 8 presents regression results from estimating Eq. 3. The coefficient of interest, β_7, on the interaction terms *CL*Post*Negotiation* in Eq. 3 reflects the improvements to the qualitative disclosure factor (*QDF*) for reviews where the firm negotiates with the SEC. We find a statistically significant change in *CL*Post*Negotiation*. The result suggests that the increase in *QDF* is mitigated by the extent of registrant negotiation during the comment letter process, which provides evidence in support of H2. As firms increase the number of rounds of negotiations with the SEC, the observed changes in qualitative disclosure are diminished, which implies that firms are able to partially circumvent requests to modify their disclosure through negotiation. As such, the evidence provided is consistent with there being circumstances under which firms choose not to comply with the SEC, perhaps for reasons associated with proprietary costs (Robinson et al., 2011).

To better understand the types of firms that may make confidential treatments requests and/or negotiate with the SEC, we examine whether proprietary costs may be a driver of firms' reluctance to be forthcoming in its disclosures (Verrecchia, 1983) following a comment letter. We identify firms likely to face proprietary cost concerns in two ways. First, we follow Bushee et al. (2003) and examine firms in high tech industries. Second, we follow Wang (2007) and examine R&D intensive firms. In either case, such firms are likely to possess trade secrets about their business strategies and plans that would be costly if publicly disclosed. Consistent with such concerns, in untabulated analyses, we find that firms in high tech industries and with greater

amounts of R&D are more likely to request confidential treatment. Firms in high tech industries are also more likely to negotiate.

7.3 *Disclosure Improvements and Firms' Information and Litigation Environments* (H3 - H5)

Tables 9 and 10 present regression results from estimating Eq. 4 regarding firms' information environments. The coefficient of interest, β_7, on the interaction terms *CL*Post*QDF* in Eq. 4 reflects the change in the firm's bid-ask spread or information intermediary following, respectively, for firms that improve their disclosure following a comment letter review. In Table 9, consistent with H3, the negative coefficient on the interaction term in the abnormal bid-ask spread regressions indicates that the disclosure improvements appear to decrease information asymmetry immediately following the filing of the subsequent annual report. In Table 10, consistent with H4, the positive coefficient on the interaction term in Column 1 suggests that disclosure improvements increase information intermediary following. However, the result from the difference-in-differences model found in Column 2 is not statistically significant at conventional levels. Table 11 presents regression results from estimating Eqs. 5 and 6 regarding firms' litigation risk. In Column 1 of Table 11, the negative coefficient on *CL* suggests that firms undergoing a review experience lower litigation risk following a review. Further, consistent with H5, Column 2 of Table 11 indicates that firms with the largest changes in *QDF* experience a greater reduction in litigation risk. Collectively, the results suggest that SEC comment letter reviews facilitate improvements in firms' disclosures which impact firms' information and legal environments. As such, we interpret these results as being indicative of firms' commitment to more transparent disclosures following a comment letter review which translates into better information environments for firm stakeholders as well as lower litigation risk for the firm.

8. Conclusion

Prior academic research has called for more empirical research on the effectiveness of disclosure regulation; however, little research has been done to assess the impact of the SEC comment letter process on firm disclosures and the implications of that process for firms' information and litigation environments. Given the SEC's objective of enhancing information transparency for investors, an examination of the nature, extent, and impact of improvements to firms' disclosures coinciding with the comment letter process is of interest to academics and regulators, as well as to practitioners and standard setters. Considering the general interpretive guidance that the SEC provides to firms, comment letter reviews may carry little weight and therefore lead to inconsequential disclosure changes, or even to no changes at all, suggesting that SEC resources may be better used for other purposes. In addition, firms may attempt to avoid making substantive disclosure changes by making a confidential treatment request, negotiating with the SEC staff, or failing to fully comply with the staff's requests.

The initial evidence presented suggests that comment letter reviews are associated with improvements in qualitative disclosure. Our univariate tests generally provide corroborating evidence and support our directional predictions that comment letters are associated with revised disclosures which are (i) expanded, (ii) less optimistic, (iii) more quantitative, and (iv) more prospective. Our multivariate tests indicate that firms that request confidential treatment do not appear to improve qualitative disclosure as a consequence of the comment letter review. Additionally, we find evidence that firms' propensity to negotiate with the SEC regarding comment letter requests has an attenuating effect on the disclosure improvements. Inconsistent with the SEC's stated intentions of the filing review process, these results suggest that the comment letters do not always enhance disclosure. Consistent with proprietary cost concerns,

we further find that firms in high tech industries and with greater amounts of R&D are more likely to request confidential treatment. We then turn to examine informational transparency in order to more directly test the SEC's stated intention behind the filing review process. Our results reveal that qualitative disclosure changes prompted by SEC comment letters decrease information asymmetry and, to some extent, increase intermediary following. In addition, our results suggest that firms' commitment to facilitate more transparent disclosure following a comment letter review reduces firms' litigation risk. Hence, rather than creating information or legal uncertainty, these results suggest that firms that commit to provide more transparent disclosure, i.e., those not requesting confidential treatment or "pushing back" on the SEC, benefit from the comment letter review process.

Our study builds on prior work by providing evidence on the role the SEC comment letter review process has on enhancing corporate disclosure and its implications for firms' information and legal environments. Consistent with the calls by Healy and Palepu (2001), Leuz and Wysocki (2008), and Beyer et al. (2010), we add to the literature on disclosure regulation by documenting the effectiveness of the interplay between regulators and registrants in the disclosure regulation compliance process. Collectively, the evidence presented in the paper is consistent with the SEC's objective of influencing firm disclosures as its "chief regulatory tool" in order to enhance informational transparency. Despite our general findings, consistent with the regulatory capture literature (see, for example, Bozanic et al., 2012), our results further suggest that firms can and do circumvent the comment letter review process through confidential treatment requests as well as by negotiating directly with the SEC. As such, the study speaks to the "…incentives to produce and disseminate information and the resulting information asymmetry between insiders and outsiders and among investors…" (Beyer et al., 2010).

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Appendix A – Examples of Comment and Response Letter Types

Non-Response Example

Northeast Automotive Holdings, Inc. comment letter dated March 7, 2013

> We issued comments on the above captioned filing on September 29, 2011**.** On December 13, 2011**,** we issued a follow-up letter informing you that those comments remained outstanding and unresolved, and absent a substantive response, we would act consistent with our obligations under the federal securities laws. As you have not provided a substantive response, we are terminating our review and will take further steps as we deem appropriate. These steps will include our releasing all correspondence relating to our review on the EDGAR system.

Non-Compliance Example

Stanley Black & Decker, Inc. comment letter dated March 30, 2012

> We note that in your letter dated April 8, 2010 in response to comment 1 of our letter dated March 30, 2010, you stated that you will disclose company sponsored research and development expenditures in Item 1 of future filings in accordance with Item 101(c)(1)(xi) of Regulation S-K. However, it does not appear that you have done so. Please comply with this comment in future filings.

Negotiation Examples

Myriad Genetics, Inc. response letter dated March 12, 2008

> The specific and detailed disclosure of research and development costs incurred by us, as requested, especially in light of the lack of equivalent disclosure by many of our competitors, would place us at an unfair competitive disadvantage …. Accordingly, we respectfully propose that we be allowed to continue reporting research and development costs on an aggregate basis.

Cedar Fair, L.P. response letter dated March 29, 2013

> The Partnership is filing a Request for Reconsideration with the Office of the Chief Accountant in reference to this Comment. (This appeal was repeated three times in this response letter – half of the six outstanding comments).

Confidential Treatment Request ("CTR") Example

PepsiCo, Inc. response letter dated October 8, 2013

> Rule 83 Confidential Treatment Request by PepsiCo, Inc. Request #1
>
> In the event we decide to pursue new business opportunities in any of these countries our activities would be conducted in accordance with U.S. laws, including where necessary licenses issued by the appropriate regulatory authority. [**].
>
> PepsiCo, Inc. respectfully requests that the information contained in Request #1 be treated as confidential information and that the Commission provide timely notice … before it permits any disclosure of the bracketed information contained in Request #1.

Appendix B – Examples of Comment Letters Requests

Length Example

Numerex Corporation comment letter dated August 15, 2013

> In future filings, please expand your discussion of your results of operations to address why your operating expenses are increasing at a higher rate and the steps management is taking, or plans to take, to counter this apparent negative trend.

Readability Example

Scholastic Corporation comment letter dated February 7, 2012

> We believe your disclosure would be much more useful to investors if it was focused on describing the current status of the matter, in plain English, rather than on the history of legal proceedings. Provide us with a copy of your intended revised disclosure. Refer to the disclosure requirements set forth by paragraphs 1-5 of ASC 450-20-50.

Tone Example

iParty Corporation comment letter dated March 9, 2005

> In addition, the tone of the Overview section is overwhelming positive despite the significant negative evidence you cite in your response to comment 7. In future filings in addition to providing increased disclosure of the change in income taxes and the related valuation allowance in your discussion of results of operations please provide a balanced discussion in the Overview section of the positive and negative factors that have impacted your company for the historical periods presented.

Numerical Example

Horizon Pharma, Inc. comment letter dated August 13, 2013

> We believe that your disclosure herein related to estimates of items that reduce gross revenue such as product returns, chargebacks, customer rebates and other discounts and allowances could be improved. Please provide us proposed disclosure to be included in future periodic reports to address the following…To the extent that information you consider in the preceding bullet is quantifiable, disclose both quantitative and qualitative information and to what extent information is from external sources.

Forward-Looking Statement Example

Industrial Income Trust, Inc. comment letter dated December 12, 2012

> We refer to the first sentence in this section, which states that any statements "that are not historical facts ... are forward-looking statements." This definition of forward-looking statements is too broad. Please include a revised definition in your response letter and include such definition in future filings.

Appendix C – Variable Definitions

Age – firm age as of the most recent fiscal quarter prior to the comment letter calculated as years listed on Compustat.

Analyst_Cov – average number of analysts covering the firm in the 30 days *following* the annual report filing date based on the number of outstanding forecasts.

Analysts – number of analysts following the firm as of the most recent fiscal quarter *prior* to the comment letter based on the number of outstanding forecasts.

BAS – abnormal bid-ask-spread calculated as the event period average daily percent spread minus the pre-period average daily percent spread. The event period is trading days (0,+2) relative to the annual report filing date and the pre-period is the 45 trading days prior. Daily percent spread is calculated as ((high offer price – low bid price)/midpoint)*100.

Beta – market beta calculated from regressions of daily firm returns on the market index for the fiscal year prior to the comment letter.

BTM – book to market value of equity as of the most recent fiscal quarter prior to the comment letter.

CTR – indicator variable for a confidential treatment request by the registrant as part of the comment letter process.

CL – an indicator variable for the annual report that is the subject of a comment letter review.

CL_Complexity – a measure of the quantity and significance of accounting comments raised during the review expressed as the total number of words in the SEC comment letters.

Disclosure_Trend – log of industry-average annual report word count using the 4-digit SIC code.

FLSI – a measure of the amount of forward-looking disclosure, expressed as the number of forward-looking sentences contained within the annual report following Li (2008).

IO – institutional ownership as a percentage as of the most recent quarter prior to the comment letter.

Length – a measure of the amount of disclosure, expressed as the number of sentences contained within the annual report.

Litigation – indicator variable for a firm undergoing a securities class-action lawsuit within a year following the completion of a comment letter review.

LogAssets – logged total assets as of the most recent fiscal quarter prior to the comment letter.

LogSize – logged market value of equity as of the most recent fiscal quarter prior to the comment letter.

Loss – indicator variable for negative earnings in the most recent fiscal quarter prior to the comment letter.

M&A – indicator variable for a merger or acquisition involving the firm as either an acquirer or a target in the year of or year prior to the annual report being reviewed.

Negotiation – indicator variable for above-median number of comment letter rounds. Rounds is calculated as the number of letters issued by the SEC during a review, excluding the "Completion of Review" letter.

NI – a measure of numerical intensity, expressed as the count of non-date numbers contained within the text of the annual report.

Post – is an indicator variable for the annual report subsequent to the report that was the subject of the comment letter review.

QDF – factor analysis composite of our five disclosure attributes (*Length, Readability, Tone, NI,* and *FLSI*). Note we multiply Readability and Tone by -1 before computing the factor in order to consistently interpret an increase as an improvement in the disclosure. *ΔQDF* is an indicator variable for the highest quartile change in *QDF*.

Readability – the Fog Index of the annual report expressed in the number of years of education required to understand a passage of text and computed as .4[(words/sentences)+100(three or more syllable words/words)]. Note that a higher Fog Index indicates the disclosure is less readable.

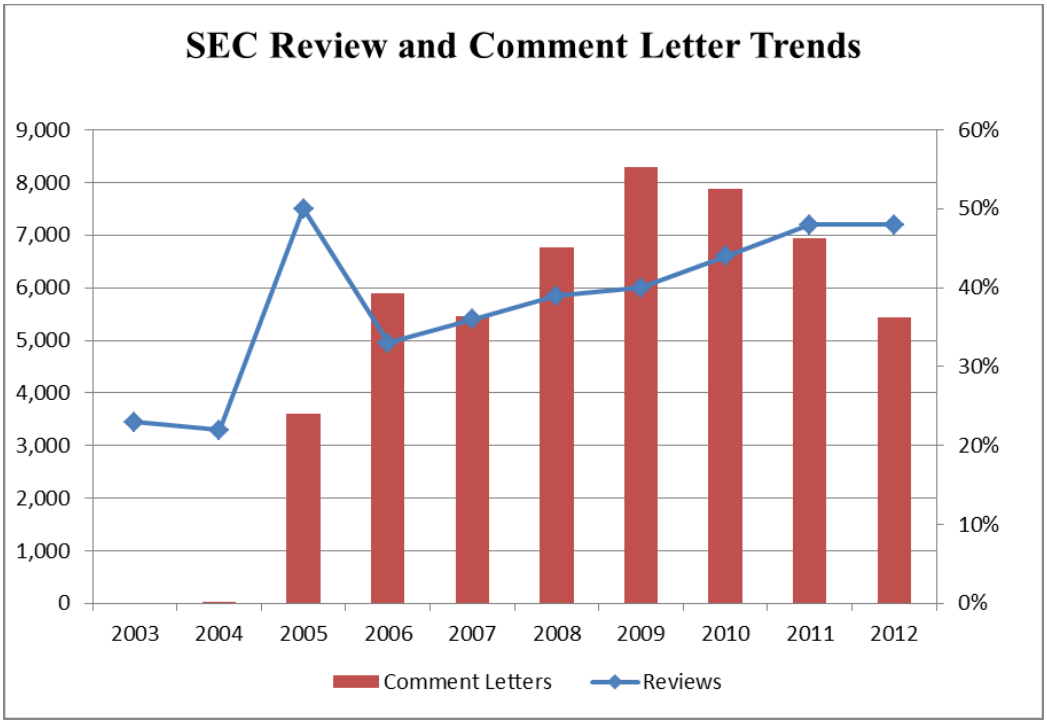
Restate – indicator variable for a restatement in the year of or year prior to the annual report being reviewed.

ROA – return on assets as of the most recent fiscal quarter prior to the comment letter.

Stdev_Earn – earnings volatility calculated as the standard deviation of the 12 quarterly earnings prior to the comment letter.

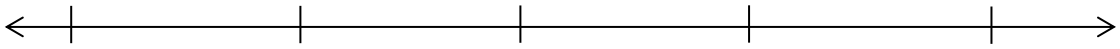
Tone – a measure of optimism expressed as the number of optimistic words less pessimistic words contained within the annual report using the dictionaries developed by Henry (2008) and Henry and Leone (2010) for use in financial discourse.

Figure 1



This figure shows the percentage of SEC registrants reviewed each fiscal year (right axis) as reported in the SEC Annual Reports at http://www.sec.gov/about/secreports.shtml and the number of annual report comment letters issued each fiscal year (left axis) per Audit Analytics.

Figure 2



Subject Annual Report Filing Date	Initial Comment Letter	Completion of Review Letter	Comment Letter Release Date	Subsequent Annual Report Filing Date
March 1, 2008	June 6, 2008	August 28, 2008	October 12, 2008	March 1, 2009

This figure presents a hypothetical timeline for a comment letter review. The subject and subsequent annual report filing dates spanning the comment letter review are the key event dates of this study.

Table 1 - Sample Construction

Description of Selection Criteria	Observations
1. Identify initial Annual Report Comment Letters ("CLs") in Audit Analytics (2004-2011) and remove duplicate "initial" CLs in the conversation thread	12,814
2. Merge CIK to GVKEY and PERMNO	5,730
3. Obtain complete set of available control variables, measured in the period prior to the comment letter filing review	3,105
4. Obtain subject and subsequent annual reports corresponding to CLs in #3 above	5,804

Table 1 describes the construction of the comment letter sample used in the study.

Table 2 - Descriptive Statistics

Variables	N	Mean	Median	Std. Dev.	25th Pctile	75th Pctile
Qualitative Disclosure Factor and Attributes						
QDF	5,804	0.217	-0.012	0.945	-0.347	0.514
Length	5,804	2,417	2,130	1,321	1,625	2,867
Readability	5,804	20.3	19.8	2.4	19.0	20.8
Tone	5,804	89.2	84.0	135.5	16.0	159.0
NI	5,804	1,248	1,102	627	859	1,455
FLSI	5,804	787	632	581	458	933
Information Environment and Litigation Risk Proxies						
BAS	4,653	0.0054	0.0004	0.0272	-0.0070	0.0114
Analyst_Cov	4,117	5.63	4.50	4.47	2.33	7.75
Litigation	3,197	0.033	0.000	0.177	0.000	0.000
Conditioning Variables						
CTR	5,744	0.186	0.000	0.389	0.000	0.000
Negotiation	4,881	0.360	0.000	0.480	0.000	1.000
Control Variables						
CL_Complexity	5,804	1,690	1,425	1,046	1,179	1,836
LogSize	5,804	7.054	6.970	1.849	5.708	8.340
BTM	5,804	0.603	0.488	0.871	0.272	0.777
LogAssets	5,804	7.208	7.173	1.954	5.741	8.558
ROA	5,804	-0.002	0.009	0.099	-0.003	0.021
Loss	5,804	0.292	0.000	0.455	0.000	1.000
IO	5,804	0.815	0.950	0.250	0.691	1.000
Analysts	5,804	10.51	9.00	7.71	5.00	15.00
Stdev_Earn	5,804	93.22	15.24	393.98	4.72	52.40
Age	5,804	19.99	16.75	12.84	10.75	26.75
Beta	5,804	1.132	1.088	0.530	0.777	1.434
M&A	5,804	0.473	0.000	0.499	0.000	1.000
Restate	5,804	0.112	0.000	0.316	0.000	0.000
Disclosure_Trend	5,804	10.53	10.52	0.35	10.34	10.70

Table 2 provides descriptive statistics for the comment letter sample used in the empirical analyses. Please refer to Appendix C for variable definitions.

Table 3 – Correlations

Variables	QDF	CL Complexity	Length	Readability	Tone	NI	FLSI	LogSize	BTM	LogAssets	ROA	Loss	IO	Analysts	Stdev_Earn	Age	Beta	M&A	Restate	Disclosure Trend
QDF	1																			
CL_Complexity	0.029	1																		
	(0.025)																			
Length	0.985	0.025	1																	
	(0.000)	(0.053)																		
Readability	0.038	0.025	-0.107	1																
	(0.004)	(0.062)	(0.000)																	
Tone	-0.083	-0.015	-0.030	-0.131	1															
	(0.000)	(0.266)	(0.021)	(0.000)																
NI	0.925	0.041	0.882	0.135	-0.083	1														
	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)															
FLSI	0.948	0.023	0.898	0.147	-0.142	0.848	1													
	(0.000)	(0.079)	(0.000)	(0.000)	(0.000)	(0.000)														
LogSize	0.297	-0.069	0.309	-0.049	0.112	0.299	0.235	1												
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)													
BTM	0.029	0.024	0.025	0.033	-0.129	0.032	0.014	-0.226	1											
	(0.030)	(0.071)	(0.053)	(0.012)	(0.000)	(0.014)	(0.282)	(0.000)												
LogAssets	0.410	-0.027	0.414	0.024	-0.042	0.431	0.316	0.852	-0.002	1										
	(0.000)	(0.038)	(0.000)	(0.065)	(0.002)	(0.000)	(0.000)	(0.000)	(0.859)											
ROA	-0.044	-0.051	-0.038	-0.025	0.075	-0.039	-0.046	0.191	-0.095	0.095	1									
	(0.001)	(0.000)	(0.004)	(0.054)	(0.000)	(0.003)	(0.000)	(0.000)	(0.000)	(0.000)										
Loss	0.035	0.094	0.027	0.031	-0.116	0.036	0.041	-0.335	0.129	-0.219	-0.428	1								
	(0.007)	(0.000)	(0.041)	(0.017)	(0.000)	(0.006)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)									
IO	0.130	-0.057	0.134	-0.044	-0.005	0.124	0.118	0.375	-0.031	0.385	0.016	-0.109	1							
	(0.000)	(0.000)	(0.000)	(0.001)	(0.691)	(0.000)	(0.000)	(0.000)	(0.020)	(0.000)	(0.234)	(0.000)								
Analysts	0.189	-0.051	0.200	-0.056	0.100	0.163	0.168	0.722	-0.134	0.600	0.082	-0.181	0.330	1						
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)							
Stdev_Earn	0.188	0.020	0.184	0.048	-0.031	0.207	0.146	0.320	-0.046	0.372	0.016	-0.020	0.025	0.256	1					
	(0.000)	(0.122)	(0.000)	(0.000)	(0.017)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.235)	(0.136)	(0.056)	(0.000)						
Age	0.020	-0.058	-0.001	0.046	-0.119	0.090	0.019	0.366	-0.034	0.396	0.069	-0.125	0.177	0.174	0.164	1				
	(0.134)	(0.000)	(0.935)	(0.001)	(0.000)	(0.000)	(0.154)	(0.000)	(0.010)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)					
Beta	0.125	0.021	0.121	0.002	-0.079	0.154	0.098	0.093	0.021	0.178	-0.021	0.100	0.265	0.054	0.049	0.026	1			
	(0.000)	(0.111)	(0.000)	(0.895)	(0.000)	(0.000)	(0.000)	(0.000)	(0.109)	(0.000)	(0.102)	(0.000)	(0.000)	(0.000)	(0.000)	(0.050)				
M&A	0.082	0.000	0.089	-0.012	0.118	0.079	0.059	0.224	-0.016	0.216	0.011	-0.080	0.110	0.158	0.101	0.078	-0.025	1		
	(0.000)	(0.972)	(0.000)	(0.378)	(0.000)	(0.000)	(0.000)	(0.000)	(0.223)	(0.000)	(0.389)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.058)			
Restate	0.036	0.030	0.039	-0.025	-0.012	0.034	0.029	-0.083	0.000	-0.064	-0.033	0.093	-0.047	-0.080	-0.019	-0.027	0.029	-0.031	1	
	(0.006)	(0.021)	(0.003)	(0.061)	(0.343)	(0.009)	(0.026)	(0.000)	(0.994)	(0.000)	(0.012)	(0.000)	(0.000)	(0.000)	(0.142)	(0.040)	(0.027)	(0.017)		
Disclosure_Trend	0.226	-0.030	0.225	0.052	-0.044	0.222	0.181	0.154	0.006	0.222	-0.035	-0.026	0.111	0.056	0.042	0.038	0.026	-0.009	-0.023	1
	(0.000)	(0.024)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.650)	(0.000)	(0.007)	(0.049)	(0.000)	(0.000)	(0.001)	(0.004)	(0.045)	(0.502)	(0.084)	

Table 3 presents the pairwise correlations between variables used in the study for the comment letter sample. P-values are shown in parentheses below each Pearson correlation coefficient. Please refer to Appendix C for variable definitions.

Table 4 – SEC Comment Letters and Changes in the Qualitative Disclosure Factor (QDF)

$$QDF = \beta_0 + \beta_1\, CL + \beta_2\, Post + \beta_3\, CL{*}Post + \beta_4\, LogSize + \beta_5\, BTM + \beta_6\, LogAssets + \beta_7\, ROA + \beta_8\, Loss + \beta_9\, IO + \beta_{10}\, Analysts + \beta_{11}\, Stdev\_Earn + \beta_{12}\, Age + \beta_{13}\, Beta + \beta_{14}\, M\&A + \beta_{15}\, Restate + \beta_{16}\, CL\_Complexity + \beta_{17}\, Disclosure\_Trend + \varepsilon$$

Variables	QDF	QDF
Intercept	-3.470***	-9.748***
	(-5.86)	(-16.21)
CL		**-0.053****
		(-2.54)
Post	**0.059*****	**-0.028***
	(3.63)	**(-1.86)**
CL * Post		**0.060*****
		(2.71)
CL_Complexity	0.000	0.000***
	(1.55)	(3.19)
LogSize	-0.048**	-0.044***
	(-2.02)	(-3.01)
BTM	-0.001	0.007
	(-0.07)	(0.72)
LogAssets	0.254***	0.229***
	(10.80)	(13.42)
ROA	-0.223**	0.018
	(-2.01)	(1.19)
Loss	0.145***	0.245***
	(4.15)	(9.55)
IO	-0.086	-0.106**
	(-1.36)	(-2.57)
Analysts	-0.002	0.006**
	(-0.68)	(2.09)
Stdev_Earn	0.000	0.000**
	(1.41)	(2.28)
Age	-0.010***	-0.008***
	(-6.28)	(-6.20)
Beta	0.091***	0.049***
	(2.93)	(2.75)
M&A	0.021	0.035*
	(0.75)	(1.79)
Restate	0.140***	0.141***
	(2.98)	(5.60)
Disclosure_Trend	0.213***	0.830***
	(3.78)	(16.49)
N	5,804	11,770
R-squared	0.282	0.302

Table 4 presents regression results on the association between the SEC comment letter process and the change in the qualitative disclosure factor. *QDF* is the first factor derived from the five qualitative disclosure attributes. Column 1 presents the results for the comment letter sample. Column 2 presents the results of the difference-in-differences model with the matched control sample. t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.

Table 5 – Components of the Qualitative Disclosure Factor (QDF)

$$Disclosure\_Attribute = \beta_0 + \beta_1\ Post + \beta_2\ LogSize + \beta_3\ BTM + \beta_4\ LogAssets + \beta_5\ ROA + \beta_6\ Loss + \beta_7\ IO + \beta_8\ Analysts + \beta_9\ Stdev\_Earn + \beta_{10}\ Age + \beta_{11}\ Beta + \beta_{12}\ M\&A + \beta_{13}\ Restate + \beta_{14}\ Disclosure\_Trend + \varepsilon$$

Variables	Length	Readability	Tone	NI	FLSI
Intercept	-3,012.903***	21.835***	-145.438*	-1,322.371***	-861.814**
	(-3.58)	(17.64)	(-1.69)	(-3.40)	(-2.44)
Post	**81.414*** **	**0.049**	**-5.684*** **	**42.579*** **	**24.071** **
	(3.82)	**(1.45)**	**(-2.68)**	**(4.13)**	**(2.14)**
CL_Complexity	0.019	0.000	0.000	0.020**	0.010
	(1.17)	(0.91)	(0.04)	(2.40)	(1.48)
LogSize	-36.357	-0.325***	35.929***	-38.527**	-31.705**
	(-1.06)	(-4.30)	(10.68)	(-2.47)	(-2.18)
BTM	4.772	-0.076	-0.130	-7.329	-1.182
	(0.15)	(-1.24)	(-0.05)	(-0.60)	(-0.09)
LogAssets	349.067***	0.175**	-21.343***	174.225***	119.827***
	(10.34)	(2.57)	(-6.74)	(11.77)	(8.16)
ROA	-265.341*	-0.160	26.664	-174.495**	-152.041**
	(-1.70)	(-0.31)	(0.97)	(-2.39)	(-2.12)
Loss	202.222***	-0.014	-10.539*	87.480***	81.197***
	(4.06)	(-0.14)	(-1.87)	(3.66)	(3.80)
IO	-105.636	-0.480**	-16.143	-96.298**	-11.295
	(-1.13)	(-2.15)	(-1.55)	(-2.28)	(-0.31)
Analysts	-5.918	0.011	-1.106*	-3.933	2.654
	(-1.12)	(1.09)	(-1.95)	(-1.63)	(1.25)
Stdev_Earn	0.086	0.000	-0.010	0.079**	0.039
	(0.93)	(1.38)	(-1.19)	(2.39)	(1.20)
Age	-16.209***	0.015***	-1.547***	-2.758***	-4.474***
	(-7.34)	(3.09)	(-6.36)	(-2.83)	(-4.83)
Beta	122.010***	0.035	0.726	79.031***	43.246**
	(2.65)	(0.32)	(0.17)	(3.89)	(2.29)
M&A	36.888	0.002	23.539***	19.416	2.985
	(0.94)	(0.02)	(5.03)	(1.03)	(0.17)
Restate	211.527***	-0.220*	-4.749	82.541***	70.992**
	(3.14)	(-1.78)	(-0.71)	(2.68)	(2.38)
Disclosure_Trend	315.034***	-0.060	17.692**	148.980***	91.591***
	(3.95)	(-0.53)	(2.17)	(4.00)	(2.72)
N	5,804	5,804	5,804	5,804	5,804
R-squared	0.289	0.071	0.190	0.297	0.187

Table 5 presents regression results on the association between the SEC comment letter process and changes in each of the five components of the qualitative disclosure factor (*QDF*) for the comment letter sample. t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.

Table 6 – Univariate Validation Tests for Qualitative Disclosure Attributes

Panel A: Full Sample

ΔDisclosure_Proxy	N	Mean	t-stat	
ΔLength	7,576	22.3	1.64	
ΔReadability	7,576	0.2	6.71	***
ΔTone	7,576	-8.1	-6.90	***
ΔNI	7,576	8.7	1.29	
ΔFLSI	7,576	12.7	1.85	*

Panel B: Conditional Sample

ΔDisclosure_Proxy	N	Mean	t-stat	
ΔLength	4,604	31.4	1.91	*
ΔReadability	2,468	0.2	4.92	***
ΔTone	2,468	-8.7	-4.05	***
ΔNI	2,318	21.5	1.86	*
ΔFLSI	5,364	20.2	2.51	**

Table 6 presents validation tests for the qualitative disclosure proxy. Panel A presents the univariate significance of the change in each qualitative disclosure attribute between the subject and subsequent annual report for the unrestricted comment letter sample. Panel B presents the univariate results conditioning the sample based on whether the comment letter requests a future filing revision (as a validation test for *Length*) or contains relevant keywords regarding each qualitative disclosure attribute. For *Readability* we condition the sample on comment letters containing the keywords: plain english, boilerplate, clarify, explain, or define. For *Tone* we condition the sample on comment letters containing the keywords: tone, balanced, optimistic, positive, or negative. For numeric intensity (*NI*) we condition the sample on comment letters containing the keywords: quantify or quantitative. Finally, for forward-looking statement intensity (*FLSI*), we condition the sample on comment letters containing the keywords: forward-looking, forward looking, prospective, or future.

Table 7 – The Attenuating Effect of Confidential Treatment Requests

$$QDF = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 CTR + \beta_4 CL*Post + \beta_5 CL*CTR + \beta_6 Post*CTR + \beta_7 CL*Post*CTR + \beta_x Controls + \varepsilon$$

Variables	QDF	QDF
Intercept	-3.407***	-9.748***
	(-5.73)	(-16.40)
CL		**-0.079*** **
		(-3.39)
Post	**0.053*** **	**-0.025**
	(3.06)	**(-1.47)**
CTR	**0.056**	**-0.037**
	(1.58)	**(-0.88)**
CL * Post		**0.069*** **
		(2.78)
CL * CTR		**0.159*** **
		(2.71)
Post * CTR	**0.009**	**-0.018**
	(0.22)	**(-0.45)**
CL * Post * CTR		**-0.055**
		(-0.94)
CL_Complexity	0.000	0.000***
	(1.19)	(2.73)
LogSize	-0.043**	-0.044***
	(-1.97)	(-2.98)
BTM	-0.009	0.006
	(-0.47)	(0.69)
LogAssets	0.245***	0.229***
	(10.94)	(13.42)
ROA	-0.224**	0.018
	(-2.05)	(1.20)
Loss	0.140***	0.244***
	(4.02)	(9.53)
IO	-0.079	-0.107***
	(-1.32)	(-2.60)
Analysts	-0.002	0.006**
	(-0.60)	(2.06)
Stdev_Earn	0.000	0.000**
	(1.32)	(2.25)
Age	-0.009***	-0.008***
	(-6.15)	(-6.22)
Beta	0.087***	0.050***
	(2.89)	(2.78)
M&A	0.030	0.035*
	(1.09)	(1.78)
Restate	0.133***	0.141***
	(2.92)	(5.57)
Disclosure_Trend	0.208***	0.829***
	(3.67)	(16.51)
N	5,744	11,770
R-squared	0.289	0.303

Table 7 presents regression results on the effect of a confidential treatment request (*CTR*) on the association between the SEC comment letter process and the change in the qualitative disclosure factor (*QDF*). Column 1 presents the results for the comment letter sample. Column 2 presents the results of the difference-in-differences model with the matched control sample. t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.

Table 8 – The Attenuating Effect of Registrant Negotiation

$$QDF = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 Negotiation + \beta_4 CL*Post + \beta_5 CL*Negotiation + \beta_6 Post*Negotiation + \beta_7 CL*Post*Negotiation + \beta_x Controls + \varepsilon$$

Variables	QDF	QDF
Intercept	-3.408***	-9.739***
	(-5.44)	(-16.07)
CL		**-0.074*** **
		(-3.12)
Post	**0.086*** **	**-0.032***
	(3.84)	**(-1.73)**
Negotiation	**0.118*** **	**0.004**
	(2.98)	**(0.11)**
CL * Post		**0.086*** **
		(3.16)
CL * Negotiation		**0.068**
		(1.55)
Post * Negotiation	**-0.091****	**0.015**
	(-2.23)	**(0.45)**
CL * Post * Negotiation		**-0.085***
		(-1.75)
CL_Complexity	-0.000	0.000***
	(-0.21)	(2.61)
LogSize	-0.050**	-0.044***
	(-1.99)	(-3.01)
BTM	-0.001	0.007
	(-0.06)	(0.74)
LogAssets	0.263***	0.229***
	(10.40)	(13.41)
ROA	-0.176	0.018
	(-1.64)	(1.19)
Loss	0.151***	0.245***
	(3.95)	(9.57)
IO	-0.107	-0.107***
	(-1.53)	(-2.61)
Analysts	-0.002	0.006**
	(-0.55)	(2.10)
Stdev_Earn	0.000	0.000**
	(1.60)	(2.27)
Age	-0.010***	-0.008***
	(-6.19)	(-6.21)
Beta	0.107***	0.049***
	(3.06)	(2.73)
M&A	0.020	0.034*
	(0.63)	(1.76)
Restate	0.142***	0.141***
	(2.81)	(5.60)
Disclosure_Trend	0.202***	0.829***
	(3.41)	(16.50)
N	4,881	11,770
R-squared	0.285	0.303

Table 8 presents regression results on the effect of registrant negotiation on the association between the SEC comment letter process and the change in the qualitative disclosure factor (*QDF*). *Negotiation* represents the above-median number of comment letter rounds and serves as a proxy for appeals by the registrant. Column 1 presents the results for the comment letter sample. Column 2 presents the results of the difference-in-differences model with the matched control sample. t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.

Table 9 – Changes in the QDF and Firms' Information Environments

$$Information\_Environment = \beta_0 + \beta_1 CL + \beta_2 Post + \beta_3 QDF + \beta_4 CL*Post + \beta_5 CL*QDF + \beta_6 Post*QDF + \beta_7 CL*Post*QDF + \beta_x Controls + \varepsilon$$

Variables	BAS	BAS
Intercept	0.054***	0.040**
	(3.29)	(2.09)
CL		**-0.001**
		(-1.01)
Post	**0.002*** **	**0.001** **
	(3.11)	**(2.10)**
QDF	**0.002** **	**0.002** **
	(2.37)	**(2.08)**
CL * Post		**-0.000**
		(-0.09)
CL * QDF		**0.001**
		(0.71)
Post * QDF	**-0.001***	**0.001**
	(-1.90)	**(1.02)**
CL * Post * QDF		**-0.002*** **
		(-2.67)
CL_Complexity	0.000	0.000
	(0.94)	(0.84)
LogSize	-0.001*	-0.003***
	(-1.80)	(-5.38)
BTM	0.000	0.000
	(0.00)	(0.69)
LogAssets	0.001	0.001**
	(1.57)	(2.54)
ROA	-0.003	-0.002
	(-0.65)	(-0.87)
Loss	0.002	0.003***
	(1.47)	(3.74)
IO	-0.003	-0.001
	(-1.36)	(-0.92)
Analysts	-0.000***	0.000
	(-2.71)	(1.03)
Stdev_Earn	0.000	0.000
	(1.12)	(0.73)
Age	-0.000**	-0.000
	(-2.36)	(-0.61)
Beta	-0.000	-0.000
	(-0.23)	(-0.13)
M&A	-0.002**	-0.001
	(-1.98)	(-0.99)
Restate	0.000	0.002***
	(0.27)	(2.95)
Disclosure_Trend	-0.004***	-0.003
	(-2.67)	(-1.58)
N	5,773	11,762
R-squared	0.045	0.051

Table 9 presents regression results on the association between the change in the qualitative disclosure factor (*QDF*) and the firm's information environment. Column 1 presents the results for the comment letter sample. Column 2 presents the results of the difference-in-differences model with the matched control sample. t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.

Table 10 – Changes in the QDF and Information Intermediary Following

$$Information\_Intermediary\_Following = \beta_0 + \beta_1\ CL + \beta_2\ Post + \beta_3\ QDF + \beta_4\ CL*Post + \beta_5\ CL*QDF + \beta_6\ Post*QDF + \beta_7\ CL*Post*QDF + \beta_x\ Controls + \varepsilon$$

Variables	Analyst_Cov	Analyst_Cov
Intercept	-10.913***	-15.742***
	(-6.02)	(-6.65)
CL		**-0.079**
		(-1.01)
Post	**0.186*** **	**0.193*** **
	(4.49)	**(4.36)**
QDF	**-0.110**	**0.151** **
	(-1.34)	**(2.02)**
CL * Post		**0.060**
		(1.02)
CL * QDF		**-0.183** **
		(-2.02)
Post * QDF	**0.124** **	**0.160** **
	(2.09)	**(2.36)**
CL * Post * QDF		**-0.112**
		(-1.31)
CL_Complexity	-0.000*	0.000
	(-1.73)	(0.71)
LogSize	1.996***	1.565***
	(15.62)	(20.42)
BTM	0.464***	0.210***
	(4.78)	(2.77)
LogAssets	-0.135	0.090
	(-1.34)	(1.38)
ROA	-0.142	-0.730**
	(-0.22)	(-2.00)
Loss	0.251*	0.345***
	(1.78)	(4.19)
IO	1.443***	0.819***
	(5.35)	(4.81)
Stdev_Earn	-0.000	0.000
	(-0.77)	(0.33)
Age	-0.054***	-0.039***
	(-6.75)	(-6.99)
Beta	-0.246**	-0.087
	(-2.22)	(-1.39)
M&A	-0.013	0.075
	(-0.10)	(0.99)
Restate	-0.531***	-0.290***
	(-3.01)	(-2.93)
Disclosure_Trend	0.340**	0.716***
	(2.09)	(3.43)
N	5,110	10,432
R-squared	0.539	0.534

Table 10 presents regression results on the association between the change in the qualitative disclosure factor (*QDF*) and following by information intermediaries. Column 1 presents the results for the comment letter sample. Column 2 presents the results of the difference-in-differences model with the matched control sample. t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.

Table 11 – Changes in the QDF and Litigation Risk

$$Litigation = \beta_0 + \beta_1 CL + \beta_2 \Delta QDF + \beta_3 CL*\Delta QDF + \beta_x Controls + \varepsilon$$

Variables	Litigation	Litigation
Intercept	-14.322***	-13.495***
	(-4.07)	(-3.81)
CL	**-0.490*** **	**-0.303***
	(-3.53)	**(-1.83)**
ΔQDF		**0.547*** **
		(2.95)
CL * ΔQDF		**-0.633** **
		(-2.12)
CL_Complexity	-0.000	-0.000
	(-0.39)	(-0.30)
LogSize	0.279**	0.281**
	(2.41)	(2.45)
BTM	0.062	0.051
	(0.70)	(0.61)
LogAssets	-0.118	-0.120
	(-1.18)	(-1.19)
ROA	0.277	0.298
	(1.06)	(1.12)
Loss	0.320*	0.314*
	(1.78)	(1.75)
IO	-0.146	-0.123
	(-0.47)	(-0.40)
Analysts	0.035**	0.033**
	(2.55)	(2.44)
Stdev_Earn	0.001**	0.001**
	(2.49)	(2.51)
Age	-0.010	-0.010
	(-1.34)	(-1.33)
Beta	0.134	0.126
	(0.95)	(0.90)
M&A	-0.175	-0.170
	(-1.22)	(-1.19)
Restate	0.271	0.277
	(1.48)	(1.50)
Disclosure_Trend	-0.140	-0.145
	(-0.42)	(-0.43)
N	5,567	5,567

Table 11 presents logistic regression results on the probability of a class-action lawsuit (*Litigation*) following a comment letter review and its association with changes in the qualitative disclosure factor (*ΔQDF*). t-statistics are shown in parentheses below the regression coefficients and are computed using standard errors clustered by firm. All regressions include industry fixed effects. *, **, and *** denote statistical significance at the 0.10, 0.05, and 0.01 significance levels, respectively. Please refer to Appendix C for variable definitions.