



# The spillover effect of SEC comment letters through audit firms

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## Abstract

This study examines whether auditors serve as a conduit for disseminating Securities and Exchange Commission (SEC) views on reporting and disclosure matters as the result of being privy to clients' SEC comment letters. This examination is important because auditors' involvement in and private access to clients' comment letters can enhance the timeliness of dissemination and constrain reporting or disclosure choices that diverge from SEC views. Among clients with a greater expectation of impaired goodwill that do not receive a comment letter with a goodwill-related comment, we find a greater likelihood of goodwill impairment when the audit firm serving the client is exposed to more goodwill-related comments received by other clients. Further examination of the channels of dissemination through the audit firm indicates that the results are driven by auditor exposure through other clients of the audit office in the same industry, the channel with the greatest exposure to the audit team, and clients in different audit offices in different industries, the channel with the broadest potential for spillover (i.e., the greatest number of other audit firm clients). Importantly, we observe these effects after controlling for alternative sources of spillover and when auditor comment letter exposure is not yet publicly available, suggesting that auditors' private access to client comment letters facilitates timely spillover. Further analyses indicate that spillover through industry clients within the audit office is also apparent in goodwill footnote disclosure.

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## 1 Introduction

Research suggests that public access to Securities and Exchange Commission (SEC) comment letters indirectly influences industry and local peer reporting practices (e.g., Kubick et al. 2016; Brown et al. 2018), but the potential role of auditors as a channel for this influence remains underexplored.<sup>1</sup> We examine whether auditors' exposure to their clients' comment letters facilitates the dissemination of SEC views on reporting and disclosure matters. We also assess the relative importance of internal networks within audit firms through which spillover could occur (e.g., audit firm generally, local audit office, and local and nonlocal audited industry clients).

Understanding whether auditors facilitate spillover matters for at least two reasons. First, auditors' private access to their clients' comment letters can facilitate timely spillover. Public access to SEC comment letters occurs no sooner than 20 days (45 days prior to 2012) after the conversation ends (SEC 2021). Additionally, although the average number of days to complete a conversation has declined over time, the average duration of a conversation ranges between 39 and 51 days over the last five years (Coleman 2022).<sup>2</sup> As such, auditors are positioned to facilitate spillover to other clients often within the same reporting period as the comment letter recipient before the comment letter conversation becomes publicly available. Timely spillover can help alleviate time spent by the SEC reviewing filings in subsequent years with similar issues, particularly since issuers' periodic filings may not be reviewed every year. Second, while public access to comment letters can help disseminate SEC views on accounting and reporting issues, auditors' exposure to client comment letters can create incentives for the auditor to encourage compliance with those views when there are financial statement recognition implications.<sup>3</sup> Auditors may try to preempt SEC scrutiny and reduce the likelihood of outcomes that could impact reputation and litigation (e.g., SEC enforcement actions or the restatement of previously audited financial statements).<sup>4</sup> Thus, even with eventual public access to comment letter conversations, spillover through auditors can enhance the timely dissemination of information from the SEC's selective reviews. This serves

<sup>1</sup> Throughout the study, a comment letter refers to a complete, unique comment letter conversation. Following Cassell et al. (2013), a comment letter conversation includes a minimum of three total letters, including the initial letter from the SEC and the final "no further comment" letter to end the conversation. Following Cassell, Cunningham, and Lisic (2019), we remove letters seeking an extension, letters with no substantive information, cover letters, duplicate letters, and "Tandy letters."

<sup>2</sup> In Cassell et al.'s (2013) sample, the average duration of a conversation is approximately 80 days.

<sup>3</sup> While we recognize that not all comment letters request accounting changes and are often requests for additional clarification or disclosure, we argue that an auditor's exposure to these requests leads to an increased likelihood of identifying evidence for the need to impair at-risk goodwill, which increases the likelihood that the auditor will deem an impairment necessary.

<sup>4</sup> In our arguments, we assume that the receipt of an SEC comment letter increases the risk of restatement or of an SEC enforcement action. We validate this assumption by examining the association between the receipt of a comment letter and subsequent restatement announcements and SEC Accounting and Auditing Enforcement Releases (AAERs). Consistent with this assumption and prior evidence (Blackburne et al. 2021), we find a positive association between comment letters and subsequent restatements and SEC AAERs. We provide the results of this examination in Appendix 1.

as a preventative approach to disseminating the SEC's views on accounting and reporting matters.

While SEC comment letters cover a variety of accounting and disclosure issues, our examination focuses on recognition-related spillover that may not otherwise occur without auditor involvement. Among the highest-ranking topics included in comment letters, some are outside the financial statements and related footnotes (e.g., MD&A and non-GAAP disclosures). Consequently, these topics receive only limited auditor involvement to ensure consistency and no material omissions of fact (PCAOB 2022). Some other frequent topics are specific to disclosures without implications for financial statement recognition, such as segment reporting. We focus on goodwill and related impairment comments, which rank high in frequency during the sample period (ranging from third to 12th in a given year).<sup>5</sup> While only one of several frequent comment letter topics, the goodwill setting has several desirable features for our examination. In addition to having broad application across companies and industries and a rich literature to follow when designing our empirical tests (e.g., Beatty and Weber 2006; Ramanna and Watts 2012; Ayres et al. 2019a), it is a reporting topic that garners significant attention and scrutiny from both auditors and regulators, as evidenced by the frequency of critical audit matters involving goodwill and intangibles (CAQ 2020) and Public Company Accounting Oversight Board (PCAOB) inspection reports (PCAOB 2016). Managers are much less incentivized to recognize an impairment charge than to mimic a peer's disclosure, particularly since impairments have been shown to negatively impact stock price and manager reputation (e.g., Beatty and Weber 2006; Bens et al. 2011; Gu and Lev 2011). Aligning with SEC views on goodwill impairment can be costly and, as such, may be less likely to occur without the SEC's direct involvement or indirect influence through auditor constraint. Research highlights how monitoring plays a key role in recognizing biased assumptions and enforcing the timely recording of economic losses (Vyas 2011; Stein 2019). The goodwill impairment setting also provides a credible null hypothesis since auditors may be disincentivized to propose impairments to avoid dismissal (Ayres et al. 2019b).

After first establishing that companies receiving comment letters with goodwill-related comments are more likely to impair goodwill (see Appendix 2), we examine whether an auditor's exposure to goodwill-related comments impacts the likelihood of a goodwill impairment for that auditor's clientele that do not receive a comment letter but exhibit a greater risk of goodwill impairment (i.e., at-risk goodwill). To tighten the identification of exposure through the audit firm, we identify exposure based on whether other clients within the audit firm receive goodwill-related comments in the past year that are not yet publicly available. We begin with exposure broadly through the audit firm and then separately capture it from audit office clients and from audit clients served by different offices of the firm. We also examine exposure from audit clients within the same industry

<sup>5</sup> Figure 2 provides information on trends of highest-ranking topics included in comment letters covered during our sample period based on data from Audit Analytics. These trends are consistent with several Big 4 publications (Deloitte 2017; EY 2017; EY 2018; EY 2019).

and clients from different industries. We further break down office and non-office exposure into independent categories based on the industry of the client(s) creating the exposure as follows: 1) same industry and same office, 2) same industry and different office, 3) different industry but same office, and 4) different industry and different office. Limiting the exposure to comment letters that are not yet publicly available not only strengthens inferences regarding auditors' role in spillover but also provides insight into dissemination timeliness.

We recognize that comment letter spillover could occur through channels outside the audit firm. As such, our ability to draw inferences regarding which channels matter and their relative importance relies on incorporating each of these potential channels into our analyses. Building on prior findings, we control for other regulatory scrutiny and spillover that could occur from exposure to comment letters that have been made public from 1) local peers audited by the same or a different audit firm in the same industry, 2) local peers audited by the same or a different audit firm in different industries, 3) non-local industry peers audited by the same or a different audit firm, and 4) nonlocal companies in different industries audited by the same or a different audit firm.

Among audit clients with at-risk goodwill that do not receive a goodwill-related comment in an SEC comment letter, we find that goodwill is more likely to be impaired when the audit firm serving the client is exposed to more goodwill-related comments received by other clients within the firm that are not yet publicly available. Greater disaggregation of potential dissemination channels provides additional context. We find an increased likelihood of recording an impairment charge when the audit firm has greater exposure from other clients in the same industry served by the same office, the channel with the greatest exposure to the audit team of the client receiving the comment letter, and by other clients in different industries served by different offices, the channel with the broadest potential for spillover (i.e., the greatest number of other audit firm clients). Importantly, we observe these effects after controlling for alternative sources of spillover after comment letters are made public, suggesting that auditors' private access to client comment letters facilitates timely dissemination of SEC views. When comparing relative effect sizes of the various spillover channels, we find that exposure to goodwill-related comments received by other office clients in the same industry has the greatest impact on impairment likelihood. This particular channel is likely to capture some degree of overlap in engagement teams, given that individual auditors within offices tend to concentrate in industries and often serve on multiple audit engagements. As such, this finding provides compelling evidence of auditors' role in recognition-related spillover. These results are robust to the exclusion of companies with more than one business segment and the exclusion of observations that received comment letters with comments of any kind (i.e., we also remove companies receiving comment letters that did not have goodwill-related comments). In a subsequent analysis, we attempt to examine a more granular mechanism through which spillover could occur through an audit

firm—the audit partner. However, data limitations prohibit a meaningful empirical analysis of this potential source of spillover.<sup>6</sup>

We supplement these findings with tests of disclosure-related spillover. Because comment letters often seek clarification or additional disclosure, we also expect spillover to manifest in disclosure changes of nonrecipient audit clients. In additional analyses, we find an increased likelihood of textual changes to goodwill footnote disclosure when the audit firm has greater exposure from other clients in the same industry served by the same office (the channel with the greatest exposure to the audit team of the client receiving the comment letter).

To provide further insights, we perform cross-sectional analyses to exploit variation in auditor incentives to monitor other clients' adherence to SEC reporting and disclosure views. We find some evidence that the spillover effects are more pronounced when the auditor is directly copied on comment letter correspondence and in years with high SEC attention on goodwill reporting matters. Although we find spillover among nonrecipient office clients, regardless of industry, when the comment letter recipient records an impairment charge, we also find evidence of spillover among office clients within the same industry and non-office clients in different industries, even in the absence of an impairment charge by the client receiving the comment letter. Further, in a subsample after 2012 when the SEC shortened the timeframe for making comment letters public, we only observe spillover through the audit office; however, we observe audit office spillover, regardless of the clientele industry. In an additional test, we also observe spillover if we expand the comment letter exposure measure to include both private and public exposure. This result highlights that auditors pay attention to the comment letters of their own firm's clients.

This study contributes to the emerging literature examining auditor involvement in the SEC comment letter process. Baugh and Schmardebeck (2023) find that auditors tend to have disclosure styles, as evidenced by the occurrence of common disclosure issues among audited clients noted in SEC comment letters. Our examination differs in that we focus on the potential spillover of SEC scrutiny through auditors rather than common disclosure issues among clients of the same auditor. Ballesterio and Schmidt (2022) find that auditor involvement in comment letters is associated with quicker company responses to the SEC and greater willingness to increase disclosure. Our study complements these findings by providing further evidence of auditor involvement—facilitating the dissemination of SEC views on accounting and reporting matters. Although Brown et al. (2018) explore whether audit firms are a conduit of comment letter spillover for MD&A risk factor disclosures, they find no evidence after controlling for industry fixed effects. We recognize, however, that risk factor disclosures are unaudited and arguably less influenced by auditor involvement. As such, our study offers unique insight into the role

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<sup>6</sup> Audit partner data from the PCAOB Form AP database is only available for a small portion of our sample period (2016 through 2020). After obtaining and merging this data with the sample for our tests, we note descriptively that although 53.3 percent of the audit partners in our sample have more than one public audit client, only 3.4 percent have more than one public audit client with at-risk goodwill.

auditors play in disseminating SEC views on accounting and reporting matters and builds upon the work of Cassell et al. (2013, p. 1902) by answering their call to investigate the benefits derived from the SEC comment letter process. Although public accessibility of comment letters has been cited as a reason for the downward trend in comment letters (Cunningham and Leidner 2022), our results suggest that auditors' private access to comment letters facilitates the timely dissemination of comment letter information, even during a period when comment letter conversations are publicly available shortly after completion.

This study complements prior work examining the influence of SEC reviews on goodwill reporting (Johnson et al. 2023). Although SEC transactional filing reviews, as evidenced by comment letters, reduces the likelihood of subsequent restatement and goodwill impairment, we find that SEC periodic filing reviews indirectly influence constraint applied by auditors exposed to client comment letters. Additionally, this study directly answers the call by DeFond and Zhang (2014) for more research on the role of auditors' competencies, as it provides evidence on how auditors gain their competencies and specializations. Our results provide evidence that this regulatory intervention provides auditors with insight into the SEC's views on accounting and disclosure matters.

Our study should be of interest to regulators, as it demonstrates indirect effects of the SEC's comment letter review process. These effects are manifest in matters of recognition, which might not otherwise occur without auditor involvement. These insights are important given limited SEC resources dedicated to the task of reviewing SEC filings and the criticisms sometimes expressed about its efficacy, particularly when major accounting failures go undetected (e.g., Chung and Farrell 2008; Khuzami and Walsh 2009; Gelles 2016). This study also provides relevant insights to standard setters. Between 2019 and 2022, the Financial Accounting Standards Board (FASB) was considering whether to reinstate goodwill amortization rather than impairment testing, given the subjectivity inherent in fair value measurements and the difficulty in enforcing timely impairments. Given that the FASB decided to abandon this project, our results provide insights into the role auditors play along with regulators in timely impairment recognition.

## 2 Background and hypothesis development

### 2.1 Goodwill impairment

In 2001, the FASB issued SFAS 142 (now ASC 350–20), which eliminated the decades-long amortization of goodwill under APB 17 and instead implemented required annual impairment testing. In implementing the impairment testing approach, “the Financial Accounting Standards Board expected that managers would, on average, use estimates of goodwill’s fair value to convey private information on future cash flows” (Ramanna and Watts 2012, p. 750), thus improving financial reporting “because the financial statements of entities that acquire goodwill and other intangible assets would [now] better reflect the underlying economics of those assets” (FASB 2001, p. 7). This change greatly increased the amount of discretion afforded

to management in estimating the future profitability of a reporting unit with which to compare the carrying value in determining whether there was a need for goodwill impairment, as the estimates are “based on unverifiable characteristics, assumptions, and cash flow projections” (Chambers and Finger 2011, p. 39). Despite the intention of the FASB to increase representational faithfulness, research finds evidence “that managers, on average, use this unverifiable discretion to avoid timely goodwill write-offs in circumstances where they have agency-based motives to do so” (Ramanna and Watts 2012, p. 753).

In 2011, the FASB issued Accounting Standards Update (ASU) No. 2011-08, which allowed companies to perform a qualitative “Step 0” in determining whether goodwill impairment testing was necessary. This updated guidance allows companies to bypass the requirements of the previous standard if qualitative factors suggest that it is more likely than not that the fair value of a reporting unit is greater than or equal to its carrying value (FASB 2011). In early 2017, the FASB further simplified the testing and accounting for goodwill impairment with the issuance of ASU No. 2017-04 (FASB 2017), which eliminated Step 2 of the goodwill impairment process and required that companies take a goodwill impairment charge equal to the difference in carrying value of the asset and its fair value, limited by the total amount of goodwill associated with the asset, after performing the qualitative “Step 0” of the goodwill impairment process. Although these standard updates should reduce complexity and costs of compliance in certain cases, managers continue to wield significant discretion in the existence or timing of write-offs.

## 2.2 SEC comment letters

As part of its charge to protect investors, the SEC reviews public company filings and enforces compliance with applicable accounting standards under the federal securities laws (SEC 2021). The SEC’s Division of Corporation Finance (DCF) reviews all initial and transactional filings (Johnson et al. 2023) and selectively reviews periodic filings (e.g., 10-Qs and 10-Ks) at least once every three years.<sup>7</sup> Each of the offices of the DCF is charged with inspecting several industries and is staffed with employees who have specialized accounting, industry, and disclosure expertise.<sup>8</sup> If a filing is deemed to be deficient in some way or if the SEC desires further information supporting an accounting treatment, a comment letter is issued to the company under review and the SEC’s standard procedure is to require a response within 10 business days, with an option to request more time to respond appropriately (SEC 2001). SEC comment letters become “an instant priority, distracting CFOs from other work and costing a sizable sum to boot” (Johnson 2010, p. 27), as lawyers, managers, and the external auditor are all involved in crafting the response letter to address each of the SEC’s concerns. In an attempt to increase transparency of the comment process, the SEC began publicly releasing this correspondence in May 2005 for filings made

<sup>7</sup> SOX 408 mandate that these periodic reviews must include a review of Form 10-K.

<sup>8</sup> The number and composition of these offices have changed over time (see <https://www.sec.gov/corpfina/announcement/cf-disclosure-program-realignment>).

after August 1, 2004, that were reviewed by the SEC staff (SEC 2005). The SEC makes the conversation publicly available no sooner than 20 days (45 days prior to 2012) after it ends (SEC 2021).

Studies around SEC comment letters have focused on the factors affecting the likelihood of receiving a comment letter and the associated cost of remediation (Cassell et al. 2013; Ballesterio and Schmidt 2022), how the receipt of a comment letter affects an initial public offering (IPO) (Li and Liu 2017), and how interactions with the SEC throughout the process can affect earnings management intentions and financial reporting outcomes (Cassell et al. 2019; Cunningham et al. 2020; Johnson et al. 2023). Cassell et al. (2013) find that low profitability, weaknesses in governance, and engaging a small audit firm are all positively associated with receiving a 10-K related comment letter. They also find that comment letters relating to fair value measurements and classification issues result in higher remediation costs. Ballesterio and Schmidt (2022) find that auditor involvement in the comment letter process is associated with quicker company responses to the SEC and greater willingness to increase disclosure. Li and Liu (2017) find that IPO issuers reduce their offer price if they receive comment letters and that this reduction in price from the IPO filing date to the final issue date is greater when the IPO firm has more correspondence with the SEC. Cassell et al. (2019) find that the lack of readability in a company's response letters to the SEC results in a higher likelihood that the company files a restatement or amendment as a result of the SEC review. Cunningham et al. (2020) find increased scrutiny by the SEC, as evidenced by comment letters, increases the use of real earnings management as opposed to accrual-based earnings management. Johnson et al. (2023) find that SEC transactional filing reviews, as evidenced by comment letters, reduce the likelihood of subsequent restatement and goodwill impairment.

### 2.3 Hypothesis development

Studies show that auditors also learn and adapt to knowledge gained from regulatory action. Qi et al. (2015) examine how regulatory sanctions affect audit partners. They find that clients of these partners exhibit lower levels of discretionary accruals and an increased frequency in modified audit opinions following a sanction by Chinese regulators. Evidence from Lamoreaux et al. (2023) suggests that auditors learn from regulatory actions with which they are not directly involved. They investigate the effects that PCAOB settled disciplinary orders have on the audit quality of other audit firms in the same metropolitan statistical area (MSA). They find that audit quality improves for nonsanctioned firms in the same MSA as the sanctioned auditor and that this spillover effect results in increased audit fees after the settled disciplinary order is made public. Unlike other regulatory inspections (e.g., PCAOB inspections), SEC comment letters allow us to identify the specific clients targeted by the SEC and the specific financial statement areas investigated.

Related to SEC comment letters, Brown et al. (2018) examine whether the letters provide disclosure-related spillovers. Specifically, they examine whether companies revise risk factor disclosures based on comment letters with comments



related to risk factor disclosures received by the leader in their industry or peer firms. They find evidence of a spillover effect for these no-letter companies and suggest that companies pay attention to comment letters received by their industry leader or peers and make adjustments to avoid subsequent regulatory interaction. Although they also find evidence of spillover through a common audit firm before controlling for industry, they find no evidence after controlling for industry fixed effects. However, their setting is not likely an ideal testing ground for the examination of spillover through an audit firm as risk factor disclosures are unaudited.

Other research examines recognition-related spillover from SEC comment letters through industry or local peers. Kubick et al. (2016) examine whether tax-related SEC comment letters influence tax avoidance behavior. They not only find that firms receiving a tax-related SEC comment letter subsequently decrease their tax avoidance behavior, but also firms in the same industry not receiving a tax-related comment letter. Their results highlight how SEC attention through comment letters can affect reporting, but their analysis does not consider whether and the extent to which auditors facilitate this spillover.

Our study contributes to these streams of research by investigating whether auditors facilitate the dissemination of and encourage compliance with SEC views on reporting and disclosure matters. Auditors' exposure to client comment letters that have recognition-related implications can create incentives for auditors to encourage clients' compliance with SEC views to preempt SEC scrutiny and reduce the likelihood of outcomes that could impact auditor reputation and litigation. In the goodwill setting, managers have significant incentives to avoid timely impairment charges (e.g., Beatty and Weber 2006; Bens et al. 2011; Gu and Lev 2011), which may reduce the likelihood of aligning with SEC views without direct SEC involvement or auditor constraint (Vyas 2011; Stein 2019).

Although the SEC's comment letters are often phrased as requests for further explanation, drafting a response that satisfies the SEC staff that there are not issues that need to be resolved is a serious matter. While the wording used may appear benign, the SEC makes inquiries into areas where their staff suspect that there may be issues that warrant further disclosure or changes to the financial statements. To avoid the potential for reputational concerns about the auditor's quality and expertise in financial reporting matters, we expect that insight garnered from client comment letters on certain issues (e.g., goodwill and related impairment) will lead them to enhance their scrutiny of these audit areas on other clients to prevent inquiry or attention from the SEC on similar topics (e.g., the analyses in Appendix 1 suggest that comment letter receipt increases the likelihood of SEC enforcement actions and restatements). It is due to the auditor's enhanced scrutiny of these areas that we expect increases in the likelihood of (1) identifying evidence that confirms the need for a goodwill impairment and (2) the auditor deeming a material change necessary. These arguments form the basis of our first hypothesis:

*Hypothesis 1: An auditor's exposure to goodwill-related comment letters positively impacts the likelihood of goodwill impairment for companies expected to need impairment.*

Spillover through audit firms can occur in various ways. At the local audit office, the physical proximity of the audit professionals within an office and direct resource sharing across office engagements can facilitate spillover. For example, individual auditors typically serve on multiple audit teams within an office allowing for spillover of information across local clients. At the national level, audit firms track comment letter trends and gain insights through their involvement with clients as advisors in the comment letter process. Audit teams often consult national office partners on accounting and reporting matters raised in comment letters (Chen and Choudhary 2021). These insights are then shared through audit firm communications and trainings. Research suggests that national offices not only facilitate knowledge transfers but also monitor and influence significant judgments among audit engagements (Chen and Choudhary 2021). As such, one might reasonably expect spillover to occur across audit firm clients.

Apart from local- and firm-level communications, other internal networks within audit firms may facilitate the efficacy and timeliness of spillover to other audit clients. Auditors often specialize in particular industries due to local concentration or unique or nuanced accounting rules and complexities (Hogan and Jeter 1999). At the local level, auditors will often work on multiple teams within these industry specializations, which facilitates interactions and communication. Partners who serve particular client industries also tend to serve as engagement review partners or quality control reviewers of other audit firm clients within the same industry. Often these partners are from the same audit office but may also come from different offices. Firms conduct industry-level trainings and provide industry specific communications and knowledge sharing, regardless of geographic location. These interactions within industry specializations at both the local and firm levels could also facilitate knowledge transfers, including accounting and disclosure matters that arise from regulatory scrutiny of audit clients.

We expect that timely spillover is more likely when there is greater exposure to the audit team of the client receiving the comment letter. Research suggests that auditors are more likely to consult or network with local peers than with colleagues elsewhere (Danos et al. 1989; Francis and Yu 2009). Also, auditors' private access to their clients' comment letters sometimes only extends a few months, and we expect it to take more time for information to disseminate through other audit firm channels (e.g., firm-wide communications, planned industry-related trainings, etc.). Further, because individual auditors within offices tend to concentrate in industries and often serve on multiple audits, we expect that spillover is likely to be most pronounced among nonrecipient industry clients in the same office as the client receiving the goodwill-related comment. This leads to our next hypothesis:

*Hypothesis 2: The likelihood of goodwill impairment for companies expected to need impairment due to an auditor's exposure to goodwill-related comment letters is greater among office clients that share the same industry as the client receiving the comment letter relative to other audit firm clients.*

While we argue that an auditor's exposure to goodwill-related SEC comments will lead to greater scrutiny of their other clients with at-risk goodwill, it is not a

forgone conclusion that this will lead to recognition-related spillover. Goodwill-related comments often request additional clarification or disclosure of key assumptions, which may not necessarily necessitate impairment charges. Even in circumstances where impairment is in question, evidence from Ayres et al. (2019b) highlights an increased likelihood of auditor dismissal following a goodwill impairment charge. Given auditors' incentives to retain clients, they may be less (or no more) likely to propose goodwill impairment adjustments, despite insights recently gained from exposure to goodwill-related SEC comments. Further, the public availability of comment letter correspondence shortly after the conversation ends to other local companies, audit firms, or industry peers, as well as audit firm efforts to track and advise their clients on topics of interest to the SEC may nullify the effects of auditor exposure to their own clients' comment letters.

### 3 Research methodology and sample selection

#### 3.1 Methodology

To test our hypotheses, we restrict the sample to observations with at-risk goodwill. This design choice recognizes that not all companies with goodwill need to record an impairment (nor should they) and resembles the methodology used in the literature examining the likelihood of issuing a going-concern audit report modification that restricts test samples to financially distressed companies (Carcello and Neal 2000; Knechel and Vanstraelen 2007; Krishnan and Wang 2015).<sup>9</sup> Under the rules developed by the FASB, a company should record a goodwill impairment if the estimated fair value of the reporting unit that carries the goodwill falls below its book value. As in Ayres et al. (2019a, b), companies with a greater expectation for goodwill impairment are those with a market value of assets that is below the book value of those assets.<sup>10</sup> We test our hypothesis with the following ordinary least squares (OLS) regression models including controls adapted from Ayres et al. (2019a, b):

<sup>9</sup> Ayres et al. (2019a, b) include a dummy variable for expected impairment and an interaction term between their variable of interest and their measure of expected impairment rather than dropping observations not expected to impair. We find, in an untabulated robustness test, that the inferences from the test of our hypothesis are similar if we use this alternative specification; however, the inclusion of numerous interaction terms with the various dissemination paths in our models leads to significant multicollinearity issues. We find high VIFs (above 10) on most of our interaction terms and several control variables when we use this alternative specification.

<sup>10</sup> Since the market and book value of assets are computed at the consolidated entity-level and impairment decisions are made at the reporting unit level, using these measures to identify expected impairment could exclude companies whose goodwill is impaired at the reporting unit level but is not expected at the consolidated level. However, this potential measurement error is a limitation of this and other goodwill studies because of the unavailability of reporting unit-level data. In a robustness test discussed in Section 5, we limit our sample to companies with one business segment and find consistent results with those in our main analyses, except that the significance on *SameAF*, *DiffAO*, and *DiffAO\_DiffInd* become significant at the  $p < 0.10$  level (two-tailed). Additionally, we find similar results using alternative measures for expected impairment.

$$\begin{aligned} \text{Impair}_{it} = & \beta_1 \text{SameAF}_{it} + \beta_2 \text{SameInd\_SameMSA}_{it} + \beta_3 \text{SameInd\_DiffMSA}_{it} \\ & + \beta_4 \text{DiffInd\_SameMSA}_{it} + \beta_5 \text{DiffInd\_DiffMSA}_{it} + \text{Controls} + \text{FEs} + \varepsilon \end{aligned} \quad (1a)$$

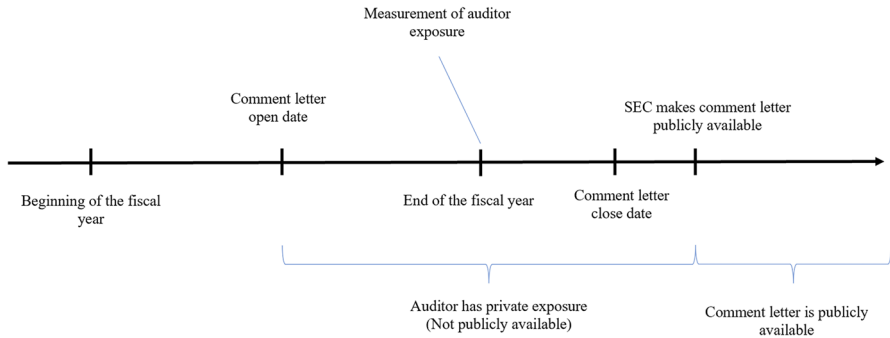
$$\begin{aligned} \text{Impair}_{it} = & \beta_1 \text{SameAO}_{it} + \beta_2 \text{DiffAO}_{it} + \beta_3 \text{SameInd\_SameMSA}_{it} + \beta_4 \text{SameInd\_DiffMSA}_{it} \\ & + \beta_5 \text{DiffInd\_SameMSA}_{it} + \beta_6 \text{DiffInd\_DiffMSA}_{it} + \text{Controls} + \text{FEs} + \varepsilon \end{aligned} \quad (1b)$$

$$\begin{aligned} \text{Impair}_{it} = & \beta_1 \text{SameAF\_SameInd}_{it} + \beta_2 \text{SameAF\_DiffInd}_{it} + \beta_3 \text{SameInd\_SameMSA}_{it} \\ & + \beta_4 \text{SameInd\_DiffMSA}_{it} + \beta_5 \text{DiffInd\_SameMSA}_{it} + \beta_6 \text{DiffInd\_DiffMSA}_{it} \\ & + \text{Controls} + \text{FEs} + \varepsilon \end{aligned} \quad (1c)$$

$$\begin{aligned} \text{Impair}_{it} = & \beta_1 \text{SameAO\_SameInd}_{it} + \beta_2 \text{SameAO\_DiffInd}_{it} + \beta_3 \text{DiffAO\_SameInd}_{it} \\ & + \beta_4 \text{DiffAO\_DiffInd}_{it} + \beta_5 \text{SameInd\_SameMSA}_{it} + \beta_6 \text{SameInd\_DiffMSA}_{it} \\ & + \beta_7 \text{DiffInd\_SameMSA}_{it} + \beta_8 \text{DiffInd\_DiffMSA}_{it} + \text{Controls} + \text{FEs} + \varepsilon \end{aligned} \quad (1d)$$

The dependent variable is an indicator variable equal to one if the company recorded a goodwill impairment during the fiscal year and zero otherwise. Our variables of interest are the measures that capture audit firm exposure to comment letters with goodwill-related comments that are not yet publicly available. Figure 1 provides an example timeline of an SEC comment letter conversation and the measurement windows of both auditor and public exposure through which spillover to other (nonrecipient) companies could occur. In Eq. (1a), we examine exposure through the audit firm broadly (*SameAF*). In Eq. (1b), we separately capture exposure from audit office clients and exposure from audit clients in different offices (*SameAO* and *DiffAO*). In Eq. (1c), we separately capture exposure based on the industry of the audit client(s) creating the comment letter exposure (*SameAF\_SameInd* and *SameAF\_DiffInd*). In Eq. (1d), we further breakdown the office and non-office exposure into independent categories based on the industry of the audit client(s) creating the comment letter exposure (*SameAO\_SameInd*, *SameAO\_DiffInd*, *DiffAO\_SameInd*, and *DiffAO\_DiffInd*). Each variable captures exposure within these respective channels based on the count of comment letters with a goodwill-related comment that are not yet publicly available as of a nonrecipient client's fiscal year-end.<sup>11</sup> A positive and significant coefficient on any of these variables would suggest that an audit firm's exposure increases the likelihood that other audit firm clients with at-risk goodwill recognize an impairment charge.

<sup>11</sup> We recognize that a comment letter conversation that becomes public after fiscal year-end but before filing could provide some limited public exposure before completion of the audit. However, we argue that these comments would be known by and could inform the audit firm. Still, we recognize that any disclosure after year-end and before the issuance of the audit report, even with a short window of public exposure, could influence impairment decisions, and, as such, we determine the robustness of our findings to this design choice. To do so, we alternatively capture private and public comment letter exposure as of a nonrecipient client's audit report date. We find similar results in both sign and significance using this alternative measurement date.



**Fig. 1** An example timeline of SEC comment letter exposure. Note: This figure presents an example timeline of a SEC comment letter conversation and the measurement windows of both auditor and public exposure through which spillover to other (nonrecipient) companies could occur. Note that goodwill-related comments that become publicly available prior to year-end are not included in the measures of auditors’ private exposure to comment letters but are included in the measures of publicly available comment letter exposure. We acknowledge that this choice removes some of the comment letter exposure through the audit firm from the respective audit firm measures of exposure to goodwill comments. Although this choice could work against our finding support for our hypothesis, it tightens the identification of exposure through the audit firm. As noted in footnote 12, we find, in untabulated results, that inferences are similar if we capture all exposure to client comment letters (public and private) from the past year in the measures of goodwill-related comment exposure through the auditor. Also note that a comment letter conversation that becomes public after fiscal year-end but before filing could provide some limited public exposure prior to the audit report date. However, we argue that these comments would be known by the audit firm and could inform the audit. Still, we recognize that any disclosure after year-end and before the issuance of the audit report, even with a short window of public exposure, could influence impairment decisions, and, as such, we determine the robustness of our findings to this design choice. To do so, we alternatively capture private and public comment letter exposure as of a non-recipient client’s audit report date (rather than fiscal year-end). As described in footnote 11, we find similar results in both sign and significance using this alternative measurement date

In each model specification, we control for exposure to comment letters that have been made public in the past year from (1) companies in the same industry and same MSA (*SameInd\_SameMSA*), (2) companies in the same industry and different MSAs (*SameInd\_DiffMSA*), (3) companies in different industries within the same MSA (*DiffInd\_SameMSA*), and (4) companies in different industries from different MSAs (*DiffInd\_DiffMSA*).<sup>12</sup> To strengthen inferences regarding auditors’ role in spillover and provide insight into dissemination timeliness, we remove all observations from the sample where a goodwill impairment was recorded prior to the earliest goodwill-related comment received by another audit firm client.

<sup>12</sup> For each of these measures of publicly available comment letter exposure, we include goodwill-related comments received by other clients of a company’s audit firm that are publicly available. We acknowledge that this choice removes some of the comment letter exposure through the audit firm from the respective audit firm measures of exposure to goodwill comments. Although this choice could work against our finding support for our hypothesis, it tightens the identification of exposure through the audit firm. We find, in untabulated results, that inferences are similar if we include all comment letter exposure (private and public) from the past year in the measures of goodwill-related comment exposure through the auditor. These results are consistent with auditors being responsive to comments received by other clients of their firm, whether those comments are public or private.

We include numerous controls for company characteristics (*Size*, *ROA\_PreImpair*, *Loss\_PreImpair*, *LnBusSeg*, *Leverage\_PreImpair*, *EBITDAChg*, *IntangPercent*, *AcqGoodwill*, *ReturnStDev*, and *AnnualReturn*), external monitors (*InstOwn* and *LnAnalyst*), and auditor characteristics (*Big4*, *Spec*, and *AOClientCount*). We control for an audit office's exposure to clients with goodwill impairments (*OfficeImpair*), as this may affect the likelihood that the auditor's other clients would record an impairment. We control for the average number of comments in the comment letters with a goodwill-related comment (*AvgCLIssues*) to reduce the possibility that the effect is a result of a conservative reaction to more extensive comment letters, regardless of the specific issues mentioned. To minimize concerns that greater scrutiny of goodwill and related impairment occurs for reasons other than an auditor's goodwill-related comment letter exposure, we control for restatements of the company's financial statements in the current year (*Restate*), SEC AAERs against the company (*AAER*), and whether the company's audit firm had an audit deficiency related to goodwill impairment in its most recent PCAOB inspection report (*GWDeficiency*). We control for manager incentives to avoid impairment charges (*MeetOrBeat* and *SmallProfit*). Finally, we include year and industry fixed effects. We define industry based on the SEC office to which the issuer is assigned.<sup>13</sup> We winsorize continuous variables at 1 and 99 percent to mitigate the effect of outliers and cluster standard errors by company.<sup>14</sup> All variables are defined in Appendix 3.

### 3.2 Sample and descriptive statistics

To construct our samples, we obtain all available data for companies in Compustat and Audit Analytics with a fiscal year beginning on or after January 1, 2005, as this is the first full year for which SEC comment letters were made publicly available on EDGAR. We end our sample with fiscal years ended on or before December 31, 2020. We use the Audit Analytics Comment Letter database to retrieve comment letter correspondence. Using this database, we then sort through the aggregated comment letter correspondence to identify those that include any discussion about goodwill in the initial comment letter. We use the Audit Analytics Opinions database to identify audit opinion dates and the audit office responsible for the audit opinion. We obtain financial statement data from the Compustat Fundamentals Annual database, stock return and volatility data from CRSP, analyst following from I/B/E/S, segment data from Compustat Historical Segments, and institutional ownership from Thomson Reuters Institutional (13f) Holdings database. Following Yu (2008), we assume zero analyst coverage for those companies not covered by I/B/E/S. Similarly, we assume zero institutional ownership for those companies not included in the Thomson Reuters Institutional (13f) Holdings database.

Table 1 summarizes our sample selection procedure. We begin with a sample of 95,210 company-year observations included in both Compustat and Audit Analytics

<sup>13</sup> In an untabulated analysis, we find that results are similar in sign and significance if we instead define industry based on two-digit SIC codes.

<sup>14</sup> To determine the sensitivity of our results to winsorization, we re-estimate our tests without winsorization and find results similar in both sign and significance.

**Table 1** Sample selection

	Observations
<b>Panel A: Goodwill impairment sample</b>	
Observations from Compustat and Audit Analytics from 2005–2020	95,210
Less: Observations with less than \$1 million in total assets	(5,190)
Less: Observations in the financial service or banking industry (SIC codes 6000–6999)	(19,393)
Less: Observations whose audit offices have less than three public clients	(7,128)
Less: Observations with missing data needed to construct control variables	(8,644)
Less: Observations with no or immaterial goodwill	(21,352)
Less: Observations that received goodwill-related comment letters during the current year	(2,083)
Less: Observations that recorded a goodwill impairment in a quarter before the earliest goodwill-related comment letter was received by another client of the audit office	(201)
Less: Observations where the market value of assets exceeds the book value of assets	(27,293)
Final Sample	3,926
Unique Companies	1,747
<b>Panel B: Goodwill footnote sample</b>	
Observations from Compustat and Audit Analytics from 2005–2020	95,210
Less: Observations with less than \$1 million in total assets	(5,190)
Less: Observations in the financial service or banking industry (SIC codes 6000–6999)	(19,393)
Less: Observations whose audit offices have less than three public clients	(7,128)
Less: Observations with missing data needed to construct control variables	(8,644)
Less: Observations with no or immaterial goodwill	(21,352)
Less: Observations that received goodwill-related comment letters during the current year	(2,083)
Less: Observations that recorded a goodwill impairment in a quarter before the earliest goodwill-related comment letter was received by another client of the audit office	(201)
Less: Observations without goodwill footnote data	(19,435)
Final Sample	11,784
Unique Companies	2,509

with fiscal years between 2005 and 2020, inclusive, whose auditors are headquartered in the United States. Consistent with prior literature (Cassell et al. 2013), we remove 5,190 observations with assets less than \$1 million.<sup>15</sup> We remove 19,393 observations in the financial services or banking industries (SIC codes between 6000–6999). We remove 7,128 observations served by audit offices with less than three public clients. We remove an additional 8,644 observations with missing data needed to construct control variables. To ensure that the goodwill accounting decisions are consequential, we remove 21,352 observations with either no or immaterial amounts of pre-impairment goodwill defined as goodwill that is less than 0.5 percent of revenues.<sup>16</sup> Next, so that the focus of the tests are on clients that did not

<sup>15</sup> However, the results are similar in sign and significance with the inclusion of these observations.

<sup>16</sup> This materiality threshold is consistent with quantitative materiality levels used by eight of the nine largest U.S. audit firms (Eilifsen and Messier 2015). The results are similar in sign and significance with the inclusion of these firm-year observations.



receive comment letters, we remove 2,083 observations that received a comment letter with a goodwill-related comment. To ensure that goodwill impairments were not taken before exposure to comment letters with goodwill-related comments, we remove 201 observations that recorded a goodwill impairment in a quarter before the earliest goodwill-related comment not yet publicly available was received by another audit firm client within the respective audit firm channel. Finally, we remove 27,293 observations not expected to be impaired (i.e., firm-years with market values of assets that exceed pre-impairment book values). This results in a final sample of 3,926 company-year observations, comprising 1,747 unique companies, for the tests of our hypothesis.

Table 2 provides descriptive statistics for the variables used in our hypothesis test. We find that 34.5 percent of the companies in the sample record a goodwill impairment. On average, an audit firm is exposed to 4.3 comment letters with goodwill-related comments from its other clients (median of 6). We find variation in the type of audit firm exposure to goodwill-related comments. On average, the greatest within-audit firm exposure to goodwill-related comments occurs among clients in different industries served by different offices (3.8 comment letters), followed by industry clients served by different offices (0.6 comment letters), non-industry clients served by the same office (0.2 comment letters), and finally industry clients served by the same office (0.03 comment letters). Exposure to publicly available comment letters occurs most often through non-industry, nonlocal companies (119.7 comment letters), followed by nonlocal industry peers (13.0 comment letters), local non-industry peers (2.0 comment letters), and local industry peers (0.4 comment letters). The mean (median) size of companies in our sample in terms of total assets is \$607 million (\$523 million). This large average client size is expected as goodwill is more common in larger companies. We find that 47.4 percent of the companies in the sample report a pre-impairment loss and the average return-on-assets is -2.9 percent. Big 4 audit firms audit 65.6 percent of the clients in our sample. In untabulated analyses, we find that *Size* has a variance inflation factor greater than 10; however, our inferences remain unchanged if we remove this variable from the model. Untabulated correlations between model variables indicate that both *SameAO\_SameInd* and *DiffAO\_DiffInd* are positively correlated with *Impair*, providing univariate support for our hypothesis.

Table 3 Panel A presents a summary of goodwill impairments by year, including the number of goodwill impairments, the total amount of goodwill impairments, and the average goodwill impairment by year. The years during the financial crisis and COVID-19, 2008 and 2020, represent a disproportionate amount of goodwill impairments in both the number (22.6 percent) and dollar amount (31.8 percent) as compared to the remainder of the sample period. The average goodwill impairment excluding 2008 and 2020 was approximately \$198 million, while the average impairment during 2008 and 2020 was \$317 million.<sup>17</sup> Table 3 Panel B presents a summary of SEC comment letters with goodwill-related comments by year. The

<sup>17</sup> Inferences are unchanged if observations during the financial crisis (2008) and COVID-19 (2020) are excluded from the model.



**Table 2** Descriptive statistics

Variable	N	Mean	p(10)	p(25)	p(50)	p(75)	p(90)
<b>Panel A: Goodwill impairment sample</b>							
<i>Impair</i>	3,926	0.345	0.000	0.000	0.000	1.000	1.000
<i>SameAF</i>	3,926	1.672	0.000	0.000	1.946	2.833	3.332
<i>SameAO</i>	3,926	0.167	0.000	0.000	0.000	0.000	0.693
<i>DiffAO</i>	3,926	1.637	0.000	0.000	1.792	2.833	3.296
<i>SameAF_SameInd</i>	3,926	0.481	0.000	0.000	0.000	0.693	1.386
<i>SameAF_DiffInd</i>	3,926	1.593	0.000	0.000	1.792	2.773	3.178
<i>SameAO_SameInd</i>	3,926	0.032	0.000	0.000	0.000	0.000	0.000
<i>SameAO_DiffInd</i>	3,926	0.142	0.000	0.000	0.000	0.000	0.693
<i>DiffAO_SameInd</i>	3,926	0.460	0.000	0.000	0.000	0.693	1.386
<i>DiffAO_DiffInd</i>	3,926	1.562	0.000	0.000	1.609	2.708	3.178
<i>SameInd_SameMSA</i>	3,926	0.344	0.000	0.000	0.000	0.693	1.099
<i>SameInd_DiffMSA</i>	3,926	2.640	1.099	1.946	2.773	3.434	3.784
<i>DiffInd_SameMSA</i>	3,926	1.098	0.000	0.000	0.693	1.946	2.639
<i>DiffInd_DiffMSA</i>	3,926	4.793	3.258	4.419	5.252	5.403	5.802
<i>Size</i>	3,926	6.408	3.713	4.812	6.260	7.884	9.220
<i>ROA_PreImpair</i>	3,926	-0.029	-0.162	-0.054	0.003	0.032	0.062
<i>Loss_PreImpair</i>	3,926	0.474	0.000	0.000	0.000	1.000	1.000
<i>LnBusSeg</i>	3,926	1.095	0.693	0.693	0.693	1.386	1.792
<i>Leverage_PreImpair</i>	3,926	0.713	0.000	0.111	0.420	0.951	1.738
<i>EBITDAchg</i>	3,926	-0.080	-0.346	-0.123	-0.016	0.050	0.161
<i>IntangPercent</i>	3,926	0.162	0.014	0.038	0.102	0.248	0.396
<i>AcqGoodwill</i>	3,926	0.137	0.000	0.000	0.000	0.000	1.000
<i>ReturnStdDev</i>	3,926	0.152	0.068	0.094	0.133	0.186	0.251
<i>AnnualReturn</i>	3,926	-0.275	-1.064	-0.614	-0.241	0.077	0.414
<i>InstOwn</i>	3,926	0.386	0.000	0.000	0.313	0.737	0.915
<i>LnAnalyst</i>	3,926	0.935	0.000	0.000	0.693	1.609	2.303
<i>Big4</i>	3,926	0.656	0.000	0.000	1.000	1.000	1.000
<i>Spec</i>	3,926	0.201	0.019	0.051	0.130	0.290	0.497
<i>AOClientCount</i>	3,926	2.741	1.609	2.079	2.708	3.367	3.829
<i>OfficeImpair</i>	3,926	0.670	0.000	0.000	1.000	1.000	1.000
<i>AvgCLIssues</i>	3,926	1.060	0.000	0.000	0.000	0.000	5.000
<i>Restate</i>	3,926	0.021	0.000	0.000	0.000	0.000	0.000
<i>AAER</i>	3,926	0.003	0.000	0.000	0.000	0.000	0.000
<i>GWDeficiency</i>	3,926	0.514	0.000	0.000	1.000	1.000	1.000
<i>MeetOrBeat</i>	3,926	0.085	0.000	0.000	0.000	0.000	0.000
<i>SmallProfit</i>	3,926	0.092	0.000	0.000	0.000	0.000	0.000
<b>Panel B: Goodwill footnote sample</b>							
<i>GWFNChg</i>	11,784	0.500	0.000	0.000	1.000	1.000	1.000
<i>SameAO_SameInd</i>	11,784	0.029	0.000	0.000	0.000	0.000	0.000
<i>SameAO_DiffInd</i>	11,784	0.153	0.000	0.000	0.000	0.000	0.693

**Table 2** (continued)

Variable	N	Mean	p(10)	p(25)	p(50)	p(75)	p(90)
<i>DiffAO_SameInd</i>	11,784	0.405	0.000	0.000	0.000	0.693	1.386
<i>DiffAO_DiffInd</i>	11,784	1.473	0.000	0.693	1.386	2.398	2.996
<i>SameInd_SameMSA</i>	11,784	0.320	0.000	0.000	0.000	0.693	1.099
<i>SameInd_DiffMSA</i>	11,784	2.337	1.099	1.386	2.398	3.219	3.738
<i>DiffInd_SameMSA</i>	11,784	1.034	0.000	0.000	0.693	1.792	2.485
<i>DiffInd_DiffMSA</i>	11,784	4.399	3.135	3.434	4.605	5.303	5.743
<i>Impair</i>	11,784	0.164	0.000	0.000	0.000	0.000	1.000
<i>AcqGoodwill</i>	11,784	0.263	0.000	0.000	0.000	1.000	1.000
<i>Size</i>	11,784	7.085	4.510	5.869	7.117	8.375	9.616
<i>MTB</i>	11,784	2.083	0.990	1.207	1.614	2.366	3.676
<i>Loss_PreImpair</i>	11,784	0.269	0.000	0.000	0.000	1.000	1.000
<i>ROA_PreImpair</i>	11,784	0.010	-0.124	-0.006	0.040	0.078	0.124
<i>MeetOrBeat</i>	11,784	0.199	0.000	0.000	0.000	0.000	1.000
<i>SmallProfit</i>	11,784	0.044	0.000	0.000	0.000	0.000	0.000

All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

number of comment letters steadily increased from 2005 through 2009, peaking during the financial crisis, and then declined subsequently.

## 4 Primary empirical results

Table 4 presents the primary results of the tests of our hypotheses. Consistent with our first hypothesis, the coefficient on *SameAF* in column (1) is positive and significant ( $p < 0.01$ ). This result indicates that, among audit clients with at-risk goodwill, an impairment charge is more likely when the audit firm serving the client is exposed to more goodwill-related comments from other clients in the past year. Importantly, we observe this effect when comment letter exposure is not yet publicly available, strengthening inferences regarding the auditors' role in recognition-related spillover from SEC comment letters. To provide economic context, the results suggest that a one standard deviation increase in audit firm exposure to goodwill-related comments is associated with a 11.3 percent increase in the likelihood of impairment for nonrecipient audit clients with at-risk goodwill, holding all other covariates at their mean values.<sup>18</sup> In column (2), when we split exposure based on audit office, we find that the coefficient on *DiffAO* is positive and significant ( $p < 0.05$ ), while the coefficient on *SameAO* is insignificant ( $p > 0.10$ ). In column (3), when we split exposure based on the industry of the client(s) creating the exposure, we find that the coefficient on *SameAF\_DiffInd* is positive and significant ( $p < 0.01$ ) while the

<sup>18</sup> Calculated as the estimated regression coefficient of the explanatory variable times the standard deviation of the explanatory variable divided by the mean of the dependent variable per (Mitton 2023) [(0.031\*1.257)/0.345=0.113].

**Table 3** Descriptive statistics on goodwill impairments and comment letters with goodwill-related comments**Panel A: Goodwill impairments by year**

<i>Year</i>	<i># Impairments</i>	<i>Total Impairment (\$)</i>	<i>Average Impairment (\$)</i>
2005	207	59,686,396,000	288,340,077
2006	193	34,777,888,000	180,196,311
2007	189	18,509,614,000	97,934,466
2008	609	184,766,065,000	303,392,553
2009	283	37,658,437,000	133,068,682
2010	156	19,463,680,000	124,767,179
2011	255	48,168,404,000	188,895,702
2012	265	93,912,638,000	354,387,313
2013	243	35,924,943,000	147,839,272
2014	248	26,741,313,000	107,827,875
2015	338	57,888,597,000	171,268,038
2016	263	30,529,663,000	116,082,369
2017	257	51,016,013,000	198,505,887
2018	309	95,293,324,000	308,392,634
2019	322	88,009,967,000	273,322,879
2020	418	140,885,765,000	337,047,285
Total	4,555	1,023,232,707,000	224,639,453

**Panel B: Summary of comment letters by year**

<i>Year</i>	<i># Comment Letters with Goodwill-related Comments</i>
2005	156
2006	179
2007	198
2008	214
2009	378
2010	259
2011	142
2012	164
2013	164
2014	106
2015	106
2016	107
2017	65
2018	33
2019	21
2020	27
Total	2,083

coefficient on *SameAF\_SameInd* is insignificant ( $p > 0.10$ ). While these results suggest that exposure from other clients' comment letters served by other offices or that do not belong to the same industry drives the spillover effect, the results in column

Table 4 Goodwill impairment test

Variables	Pred	Dependent Variable: <i>Impair</i>							
		(1)		(2)		(3)		(4)	
		Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
<i>SameAF</i>	+	0.031***	(2.441)						
<i>SameAO</i>	+			0.045	(1.179)				
<i>DiffAO</i>	+			0.029**	(2.309)				
<i>SameAF_SameInd</i>	+					-0.011	(-0.679)		
<i>SameAF_DiffInd</i>	+					0.033***	(2.425)		
<i>SameAO_SameInd</i>	+							0.132***	(2.526)
<i>SameAO_DiffInd</i>	+							0.024	(0.657)
<i>DiffAO_SameInd</i>	+							-0.024	(-1.382)
<i>DiffAO_DiffInd</i>	+							0.035***	(2.634)
<i>SameInd_SameMSA</i>		-0.013	(-0.762)	-0.014	(-0.787)	-0.014	(-0.751)	-0.015	(-0.846)
<i>SameInd_DiffMSA</i>		-0.003	(-0.141)	-0.003	(-0.152)	-0.003	(-0.198)	-0.002	(-0.121)
<i>DiffInd_SameMSA</i>		0.001	(0.062)	0.000	(0.005)	0.000	(0.055)	0.001	(0.077)
<i>DiffInd_DiffMSA</i>		-0.010	(-0.299)	-0.010	(-0.302)	-0.010	(-0.287)	-0.008	(-0.251)
<i>Size</i>		0.030***	(3.968)	0.030***	(3.966)	0.030***	(4.005)	0.030***	(4.040)
<i>ROA_PrefImpair</i>		0.069	(0.831)	0.069	(0.830)	0.069	(0.809)	0.061	(0.735)
<i>Loss_PrefImpair</i>		0.107***	(5.277)	0.106***	(5.258)	0.106***	(5.263)	0.105***	(5.211)
<i>LnBusSeg</i>		0.001	(0.031)	0.000	(0.011)	0.000	(0.067)	-0.000	(-0.004)
<i>Leverage_PrefImpair</i>		-0.063***	(-6.579)	-0.063***	(-6.573)	-0.063***	(-6.569)	-0.063***	(-6.574)
<i>EBITDAchg</i>		-0.113***	(-7.186)	-0.113***	(-7.169)	-0.113***	(-7.200)	-0.115***	(-7.257)
<i>IntangPercent</i>		0.225***	(4.334)	0.227***	(4.365)	0.227***	(4.337)	0.228***	(4.392)
<i>AcqGoodwill</i>		-0.045**	(-1.964)	-0.045**	(-1.963)	-0.045**	(-1.997)	-0.046**	(-1.994)
<i>ReturnsStDev</i>		0.822***	(8.197)	0.823***	(8.188)	0.823***	(8.222)	0.824***	(8.210)

Table 4 (continued)

Variables	Dependent Variable: <i>Impair</i>								
	(1)		(2)		(3)		(4)		
	Pred	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
<i>AnnualReturn</i>		-0.168***	(-10.999)	-0.168***	(-11.009)	-0.168***	(-11.009)	-0.168***	(-10.949)
<i>InstOwn</i>		0.098***	(3.123)	0.098***	(3.121)	0.098***	(3.147)	0.098***	(3.138)
<i>LnAnalyst</i>		-0.029**	(-2.151)	-0.029**	(-2.165)	-0.029**	(-2.159)	-0.030**	(-2.246)
<i>Big4</i>		-0.025	(-0.817)	-0.023	(-0.750)	-0.023	(-0.680)	-0.019	(-0.601)
<i>Spec</i>		-0.038	(-0.890)	-0.038	(-0.890)	-0.038	(-0.891)	-0.043	(-0.998)
<i>AOCientCount</i>		0.011	(0.842)	0.009	(0.656)	0.009	(0.828)	0.008	(0.595)
<i>OfficeImpair</i>		0.031*	(1.694)	0.032*	(1.732)	0.032*	(1.696)	0.032*	(1.728)
<i>AvgCLIssues</i>		-0.006	(-1.639)	-0.010*	(-1.814)	-0.010*	(-1.587)	-0.010**	(-1.979)
<i>Restate</i>		-0.016	(-0.326)	-0.018	(-0.358)	-0.018	(-0.285)	-0.018	(-0.362)
<i>AAER</i>		-0.094	(-0.764)	-0.095	(-0.777)	-0.095	(-0.772)	-0.085	(-0.687)
<i>GWDeficiency</i>		-0.007	(-0.395)	-0.006	(-0.377)	-0.006	(-0.413)	-0.008	(-0.440)
<i>MeetOrBeat</i>		-0.090***	(-3.535)	-0.091***	(-3.557)	-0.091***	(-3.512)	-0.088***	(-3.472)
<i>SmallProfit</i>		0.061**	(2.276)	0.061**	(2.272)	0.061**	(2.228)	0.059**	(2.210)
Constant		-0.083	(-0.510)	-0.074	(-0.456)	-0.082	(-0.501)	-0.081	(-0.496)
Year FE	Yes	Yes		Yes		Yes		Yes	
Industry FE	Yes	Yes		Yes		Yes		Yes	
N		3,926		3,926		3,926		3,926	
Adjusted R-squared		0.143		0.143		0.143		0.144	

We estimate these models using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ , 0.05, and 0.10, respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

(4), with greater disaggregation of potential dissemination channels, provide additional context. We find a positive coefficient on *SameAO\_SameInd* ( $p < 0.01$ ) and *DiffAO\_DiffInd* ( $p < 0.01$ ). These results indicate an increased likelihood of recording an impairment charge when the audit firm has greater exposure to goodwill-related comments received by other clients in the same industry served by the same office and by other clients in different industries served by different offices.

When comparing relative effect sizes, we find that the coefficient on *SameAO\_SameInd* is statistically larger ( $p < 0.10$ ) than those of all other spillover channels. This result supports our second hypothesis that the spillover effect is greater among office clients that share the same industry as the client receiving the comment letter relative to other audit firm clients. Although the *DiffAO\_DiffInd* channel has arguably the least potential for exposure to an audit team, it is also the channel with the most clients receiving goodwill comment letters, the breadth of which could impact an audit firm's focus on goodwill-related matters.

The sign and statistical significance of the control variables in the model are generally consistent with prior literature (Beatty and Weber 2006; Ramanna and Watts 2012; Ayres et al. 2019a, b). Interestingly, we do not observe recognition-related spillover effects from goodwill-related comment exposure through publicly available channels (the coefficients on *SameInd\_SameMSA*, *SameInd\_DiffMSA*, *DiffInd\_SameMSA*, *DiffInd\_DiffMSA* are insignificant). We acknowledge certain factors that could contribute to this nonresult. First, managers have incentives to avoid goodwill impairments (Beatty and Weber 2006; Ramanna and Watts 2012), and evidence suggests that managers use discretion to delay impairing goodwill (Hayn and Hughes 2006; Li and Sloan 2017; Ramanna and Watts 2012). While prior evidence suggests that firms may mimic a peer's disclosure following public disclosure of comment letters (e.g., Kubick et al. 2016; Brown et al. 2018), disclosure is much less costly than an impairment charge that negatively impacts earnings. Thus, it is possible that impairment recognition is not more likely to occur among companies with at-risk goodwill without auditor constraint. Second, when a goodwill-related comment is received by another partner of the same firm, a partner may be more insistent in encouraging an impairment, the client may be more persuaded of the need to impair, or both.

## 5 Additional analyses and cross-sectional tests

### 5.1 Comment letter spillover manifest in disclosure changes

While our primary tests focus on recognition-related spillover, to further strengthen inferences regarding the role of auditors in comment letter spillover, we also examine the effect of an auditor's exposure to goodwill-related comments on disclosure-related spillover. Using a similar design, we examine whether various channels of audit firm exposure to goodwill-related comments are associated with changes in goodwill footnote disclosure among other clients without a recent SEC comment letter. To perform this examination, we use SeekEdgar to capture and extract companies' goodwill footnote disclosure for all available companies in the EDGAR

database between 2005 and 2020. We identify all footnotes with “goodwill” in the title of the note. We require the company to have a goodwill footnote in both the current and prior year. For the observations with available footnote disclosure, we use the vector space model following Peterson et al. (2015) to estimate the similarity of the current year goodwill footnote with the company’s prior year goodwill footnote. All numbers in the footnote are replaced with the word “NUMBER” so that only the text is being used to capture the similarity with the previous years’ footnote. The two different footnotes are compared by measuring the cosine of the angle between the vectors, which captures the similarity of the two footnotes. Because disclosure-related spillover is likely to occur even among clients without an expected need to impair goodwill (e.g., greater transparency about methods and assumptions used in fair value assessments), we do not restrict the sample to companies with a book value of assets that exceeds the market value of assets. We can construct a goodwill footnote similarity score for 11,784 company-year observations.<sup>19</sup> Using this sample, we estimate the following model:

$$\begin{aligned} GWFNCh_{it} = & \beta_1 SameAO\_SameInd_{it} + \beta_2 SameAO\_DiffInd_{it} + \beta_3 DiffAO\_SameInd_{it} \\ & + \beta_4 DiffAO\_DiffInd_{it} + \beta_5 SameInd\_SameMSA_{it} + \beta_6 SameInd\_DiffMSA_{it} \quad (2) \\ & + \beta_7 DiffInd\_SameMSA_{it} + \beta_8 DiffInd\_DiffMSA_{it} + Controls + FEs + \varepsilon \end{aligned}$$

The dependent variable is an indicator variable set equal to one if a company’s similarity score between the current and prior year goodwill footnotes is below the sample median (indicating a greater change in the goodwill footnote disclosure) and zero otherwise. We disaggregate audit firm exposure to comment letters with goodwill-related comments that are not yet publicly available into the same four groupings as Eq. (1d) (i.e., *SameAO\_SameInd*, *SameAO\_DiffInd*, *DiffAO\_SameInd*, and *DiffAO\_DiffInd*). Similar to the primary analysis, we include controls for exposure to comment letters that have been made public in the past year (*SameInd\_SameMSA*, *SameInd\_DiffMSA*, *DiffInd\_SameMSA*, and *DiffInd\_DiffMSA*) and for factors that could impact disclosure changes in the goodwill footnote. Specifically, we control for whether the company recorded an impairment of goodwill (*Impair*) and whether the company recognized new goodwill during the year related to an acquisition (*AcqGoodwill*). We control for such company characteristics as size, the ratio of its market value of equity to book value of equity, and performance (*Size*, *MTB*, *Loss\_PreImpair*, and *ROA\_PreImpair*). We control for manager incentives to avoid impairment charges, which could reduce the likelihood of goodwill footnote changes (*MeetOrBeat* and *SmallProfit*). Similar to our primary analysis, we include industry and year fixed effects. All variables are defined in Appendix 3.

Table 5 presents the results of this analysis. We find a positive coefficient on *SameAO\_SameInd* ( $p < 0.05$ ). This result indicates an increased likelihood of textual changes to the goodwill footnote when the audit firm has greater exposure to

<sup>19</sup> We recognize that sometimes companies provide limited disclosure about goodwill and impairment in the significant accounting policies footnote. Given the limited disclosure around goodwill in this note and the difficulty of properly capturing “goodwill-related disclosure,” we have focused our analysis on companies that provide a specific footnote pertaining to goodwill.

**Table 5** Comment letter spillover: goodwill footnote similarity

Variables	Dependent Variable: <i>GWFNChg</i>	
	Coefficient	t-stat
<i>SameAO_SameInd</i>	0.064**	(2.009)
<i>SameAO_DiffInd</i>	-0.009	(-0.571)
<i>DiffAO_SameInd</i>	-0.004	(-0.371)
<i>DiffAO_DiffInd</i>	0.001	(0.091)
<i>SameInd_SameMSA</i>	-0.012	(-1.006)
<i>SameInd_DiffMSA</i>	0.010	(0.778)
<i>DiffInd_SameMSA</i>	0.003	(0.345)
<i>DiffInd_DiffMSA</i>	-0.008	(-0.384)
<i>Impair</i>	0.286***	(20.974)
<i>AcqGoodwill</i>	0.035***	(2.859)
<i>Size</i>	0.005	(1.114)
<i>MTB</i>	-0.017***	(-4.214)
<i>Loss_PreImpair</i>	0.069***	(4.308)
<i>ROA_PreImpair</i>	0.014	(0.283)
<i>MeetOrBeat</i>	-0.017	(-1.325)
<i>SmallProfit</i>	0.050**	(2.261)
Constant	0.446***	(4.445)
Year FE	Yes	
Industry FE	Yes	
N	11,784	
Adjusted R-squared	0.057	

We estimate this model using ordinary least squares (OLS) regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ ,  $0.05$ , and  $0.10$ , respectively, based on two-tailed tests. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

goodwill-related comments received by other clients in the same industry served by the same office. This finding, coupled with the results of the primary analysis focused on recognition, suggests that comment letter spillover through an audit firm is most pronounced from exposure created from other industry clients served by the same audit office. This particular channel is likely to capture some degree of overlap in engagement teams, given that individual auditors within offices tend to concentrate in industries and often serve on multiple audit engagements. As such, this finding provides compelling evidence of auditors' role in comment letter spillover.<sup>20</sup>

<sup>20</sup> In additional untabulated analysis, we partition each of the four variables of interest (*SameAO\_SameInd*, *SameAO\_DiffInd*, *DiffAO\_SameInd*, and *DiffAO\_DiffInd*) based on whether the comment letter(s) to which the auditor is exposed in these channels requests additional disclosure or additional information. We note that 54.9 percent request more financial statement disclosure while 48.4 percent request additional information in the comment letter response letter (15.1 percent request both). We find a positive and marginally significant coefficient on *SameAO\_SameInd\_MoreDisclose* ( $p < 0.10$ ) but an



## 5.2 Analysis exploiting auditor incentives to monitor clients' adherence to SEC views—Auditor copied on SEC comment letter correspondence

We perform cross-sectional analyses to exploit variation in auditor incentives to monitor other office clients' adherence to SEC reporting and disclosure views. First, we examine whether spillover is more or less pronounced based on whether the auditor is copied on the comment letter correspondence. Although auditors are frequently involved in the preparation of the companies' responses to the SEC, being copied directly can enhance auditors' incentives to ensure compliance with SEC views. Ballesterio and Schmidt (2022) find that audit firms are referenced directly in approximately 12 percent of companies' initial responses to the SEC. To explore this, we identify comment letters with goodwill-related comments where the auditor is copied on the initial comment letter. We then partition each of the four variables of interest (*SameAO\_SameInd*, *SameAO\_DiffInd*, *DiffAO\_SameInd*, and *DiffAO\_DiffInd*) based on whether auditor is copied on the initial comment letter(s) creating the exposure and re-estimate Eq. (1d).

As presented in Table 6, we find that the coefficients on *SameAO\_SameInd\_Copied*, *SameAO\_SameInd\_NotCopied*, and *DiffAO\_DiffInd\_Copied* are positive and significant ( $p < 0.01$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively). While these results suggest that the effects are more pronounced when the auditor is copied, we refrain from making definitive conclusions, given that the  $p$ -values of tests of coefficient equality between *SameAO\_SameInd\_Copied* and *SameAO\_SameInd\_NotCopied* and separately *DiffAO\_DiffInd\_Copied* and *DiffAO\_DiffInd\_NotCopied* are slightly above conventional levels of statistical significance ( $p = 0.106$  and  $0.147$ , respectively).

## 5.3 Goodwill-related comments that lead to a subsequent goodwill impairment

Next we examine whether spillover is more pronounced (or only manifest) when a goodwill-related comment leads to an impairment charge taken by the client receiving the comment letter (i.e., a severe outcome). To perform this analysis, we categorize the audit firm-related spillover channels based on whether the comment letter(s) creating the exposure led to a subsequent goodwill impairment by the recipient. Table 7 presents the results of this analysis. When the comment letter recipient subsequently impairs goodwill, we find evidence of spillover among other office clients in both the same ( $p < 0.01$ ) and different industries ( $p < 0.10$ ) as the comment letter recipient. We also find marginal evidence ( $p < 0.10$ ) of spillover among other office clients in the same industry and non-office clients in different industries when the recipient did not impair goodwill. While the coefficients on the measures of exposure to more severe comment letters appear larger, we note, in untabulated tests, that the coefficients on *SameAO\_SameInd\_Severe* and *SameAO\_SameInd\_NonSevere* as

Footnote 20 (continued)

insignificant coefficient on *SameAO\_SameInd\_MoreInfo*. These results suggest that greater exposure to comments requesting more goodwill-related disclosure received by other office clients within the same industry increases the likelihood of textual changes in the goodwill footnote.

**Table 6** Cross-sectional test based on whether the auditor was copied on the comment letter

Variables	Pred	Dependent Variable: <i>Impair</i>	
		Coefficient	t-stat
<i>SameAO_SameInd_Copied</i>	+	0.290***	(2.691)
<i>SameAO_SameInd_NotCopied</i>	+	0.102**	(1.814)
<i>SameAO_DiffInd_Copied</i>	+	0.050	(0.854)
<i>SameAO_DiffInd_NotCopied</i>	+	0.027	(0.767)
<i>DiffAO_SameInd_Copied</i>	+	-0.010	(-0.353)
<i>DiffAO_SameInd_NotCopied</i>	+	-0.029	(-1.614)
<i>DiffAO_DiffInd_Copied</i>	+	0.048***	(2.803)
<i>DiffAO_DiffInd_NotCopied</i>	+	0.011	(0.778)
<i>SameInd_SameMSA</i>		-0.014	(-0.798)
<i>SameInd_DiffMSA</i>		-0.002	(-0.089)
<i>DiffInd_SameMSA</i>		0.001	(0.112)
<i>DiffInd_DiffMSA</i>		-0.010	(-0.300)
Controls		Yes	
Constant		Yes	
Year FE		Yes	
Industry FE		Yes	
N		3,926	
Adjusted R-squared		0.145	

We estimate this model using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ ,  $0.05$ , and  $0.10$ , respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

well as those on *SameAO\_DiffInd\_Severe* and *SameAO\_DiffInd\_NonSevere* are not statistically different ( $p > 0.10$ ). Given that the spillover effects among non-office clients in different industries are the most common type of exposure (nonsevere) and are the channel with the broadest potential for spillover generally (i.e., the most other audit firm clients), we do not attempt to draw strong inferences from this result. In summary, the results do not provide strong support for the spillover effect through the auditor being contingent on comment letters resulting in a severe outcome (e.g., the recipient firm subsequently recording a goodwill impairment).

#### 5.4 Regulatory attention on the effect of exposure

In a separate analysis, we examine whether the spillover effects vary based on increased regulator attention on the topic of goodwill. Although goodwill-related comments rank high in any given year during the sample period (ranging from 3rd to 12th), we partition the sample by years with greater/less SEC interest in goodwill based on relative rankings. Figure 2 provides information on the trends in the highest-ranking topics included in comment letters covered during

**Table 7** Cross-sectional test based on whether the comment letter recipient recorded a goodwill impairment

Variables	Pred	Dependent Variable: <i>Impair</i>	
		Coefficient	t-stat
<i>SameAO_SameInd_Severe</i>	+	0.188***	(2.341)
<i>SameAO_SameInd_NonSevere</i>	+	0.095*	(1.454)
<i>SameAO_DiffInd_Severe</i>	+	0.058*	(1.344)
<i>SameAO_DiffInd_NonSevere</i>	+	0.005	(0.127)
<i>DiffAO_SameInd_Severe</i>	+	-0.037	(-1.674)
<i>DiffAO_SameInd_NonSevere</i>	+	-0.012	(-0.638)
<i>DiffAO_DiffInd_Severe</i>	+	-0.001	(-0.058)
<i>DiffAO_DiffInd_NonSevere</i>	+	0.043***	(2.807)
<i>SameInd_SameMSA</i>		-0.021	(-1.180)
<i>SameInd_DiffMSA</i>		0.006	(0.359)
<i>DiffInd_SameMSA</i>		-0.000	(0.264)
<i>DiffInd_DiffMSA</i>		0.003	(-0.014)
Controls		Yes	
Constant		Yes	
Year FE		Yes	
Industry FE		Yes	
N		3,926	
Adjusted R-squared		0.145	

We estimate this model using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ , 0.05, and 0.10, respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

Year	MD&A	Non-GAAP	Fair Value	Revenue Recognition	Intangibles and Goodwill	Business Combinations	Segment Reporting	Income Taxes
2005	1	18	4	2	7	5	9	14
2006	1	10	4	2	8	5	11	13
2007	1	12	3	4	7	6	9	13
2008	1	13	2	4	7	5	9	12
2009	1	8	2	5	3	7	9	6
2010	1	10	2	3	4	5	11	6
2011	1	8	2	5	9	7	10	3
2012	1	5	2	3	9	7	10	4
2013	1	7	2	5	8	6	10	4
2014	1	7	2	4	9	5	10	6
2015	1	6	2	3	8	7	9	5
2016	1	2	3	7	9	5	8	4
2017	1	2	3	5	9	4	8	6
2018	1	3	4	2	10	5	9	7
2019	1	2	5	3	12	6	7	11
2020	1	3	6	5	10	2	7	14

**Fig. 2** Ranking of topic frequency in SEC comment letters by year. Note: This figure provides rankings of comment letter topic frequency by year during our sample period based on data from Audit Analytics

our sample. Sample years with high SEC attention on goodwill are 2005–2010, 2013, and 2015, while sample years with low SEC attention on goodwill include 2011–2012, 2014, and 2016–2020. Table 8 presents the results of this analysis. We find that the results presented in column (3) of Table 4 are only manifest in the subsample with high SEC attention on goodwill (the results in column 2 of Table 8). In the subsample with low SEC attention, the coefficients on the audit firm channels are all insignificant.

In an additional test, we examine the spillover effect before and after 2012 when the lag for public dissemination of comment letters was shortened to 20 days following conversation completion. Table 9 presents the results of this analysis. In the pre-2012 period, we find spillover effects when the audit firm has greater exposure to goodwill-related comments received by other office clients in the same industry and by other clients in different industries served by different offices. Interestingly, in the post-2012 period, we observe spillover through the audit office, regardless of the office clientele industry. (The coefficient on *SameAO\_SameInd* is 0.214,  $p < 0.05$ , and the coefficient on *SameAO\_DiffInd* is 0.280,  $p < 0.01$ .) These post-2012 results are consistent with the overall inferences of information dissemination timeliness as spillover is only manifest among engagement teams with greater exposure to the audit team of the client receiving the comment letter(s).

**Table 8** Cross-sectional test based on the intensity of SEC scrutiny surrounding goodwill

Variables	Pred	(1)		(2)	
		Low SEC Scrutiny Dependent Variable: <i>Impair</i>		High SEC Scrutiny Dependent Variable: <i>Impair</i>	
		Coefficient	t-stat	Coefficient	t-stat
<i>SameAO_SameInd</i>	+	0.103	(0.759)	0.142***	(2.515)
<i>SameAO_DiffInd</i>	+	0.044	(0.456)	0.001	(0.038)
<i>DiffAO_SameInd</i>	+	0.001	(0.038)	-0.041	(-2.004)
<i>DiffAO_DiffInd</i>	+	0.018	(0.880)	0.043***	(2.523)
<i>SameInd_SameMSA</i>		-0.024	(-0.849)	-0.006	(-0.288)
<i>SameInd_DiffMSA</i>		0.006	(0.209)	-0.013	(-0.458)
<i>DiffInd_SameMSA</i>		0.000	(0.024)	-0.001	(-0.050)
<i>DiffInd_DiffMSA</i>		-0.114	(-0.812)	-0.005	(-0.135)
Controls		Yes		Yes	
Constant		Yes		Yes	
Year FE		Yes		Yes	
Industry FE		Yes		Yes	
N		1,824		2,102	
Adjusted R-squared		0.100		0.188	

We estimate these models using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ , 0.05, and 0.10, respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

**Table 9** Cross-sectional test based on change in dissemination lag of SEC comment letters

Variables	Pred	(1)		(2)	
		2005–2011		2012–2020	
		Dependent Variable: <i>Impair</i>		Dependent Variable: <i>Impair</i>	
		Coefficient	t-stat	Coefficient	t-stat
<i>SameAO_SameInd</i>	+	0.113**	(1.921)	0.214**	(1.819)
<i>SameAO_DiffInd</i>	+	−0.040	(−1.027)	0.280***	(2.857)
<i>DiffAO_SameInd</i>	+	−0.050	(−2.417)	0.005	(0.169)
<i>DiffAO_DiffInd</i>	+	0.061***	(3.178)	0.001	(0.067)
<i>SameInd_SameMSA</i>		−0.016	(−0.732)	−0.015	(−0.539)
<i>SameInd_DiffMSA</i>		−0.018	(−0.587)	0.025	(0.846)
<i>DiffInd_SameMSA</i>		−0.003	(−0.201)	0.003	(0.174)
<i>DiffInd_DiffMSA</i>		−0.003	(−0.080)	−0.159	(−1.106)
Controls		Yes		Yes	
Constant		Yes		Yes	
Year FE		Yes		Yes	
Industry FE		Yes		Yes	
N		1,997		1,929	
Adjusted R-squared		0.181		0.121	

We estimate these models using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ , 0.05, and 0.10, respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

## 5.5 Robustness tests

We perform numerous additional tests (untabulated) to evaluate the sensitivity of our results to various research design choices. We find that results are robust to the inclusion of audit firm fixed effects or separately to re-estimating Eq. (1) after removing each of the Big audit firms one at a time. Next we limit our sample to companies with one business segment and find consistent results with those in our main analyses, except that the significance on *SameAF*, *DiffAO*, and *DiffAO\_DiffInd* become significant at the  $p < 0.10$  level (two-tailed). We find consistent evidence if we limit the sample to companies that do not receive comment letters with comments of any kind (i.e., we also remove companies receiving comment letters that did not have goodwill-related comments). We also conducted analyses that remove observations that received comment letters with goodwill-related comments within 1) the previous fiscal year and 2) the previous two fiscal years. All results are consistent within these subsamples. Results are consistent if we include observations with reported goodwill below 0.5 percent of revenues and are robust to alternative measures of the expected need to impair goodwill. Specifically, we follow Beatty and Weber (2006) and identify expected impairment as firm-years where the difference between the market and book value of equity is less than pre-impairment goodwill.

## 6 Conclusion

We examine whether auditors serve as a conduit for disseminating SEC views on reporting and disclosure matters. Recognizing that internal networks within audit firms enable the diffusion of information that could facilitate spillover to other audit clients, we also examine the efficacy and relative importance of audit firm channels through which spillover from comment letter exposure could occur. In a sample of companies with reported goodwill that did not receive a recent SEC comment letter, we find evidence suggesting that the auditor facilitates spillover among clients with a greater risk of impairment. Specifically, we find that goodwill impairments are more likely among clients with at-risk goodwill when the audit office is exposed to more goodwill-related comments received by other office clients within the same industry in the past year that are not yet publicly available and by other clients in different industries of other offices. When comparing relative effect sizes of the various spillover channels, we find that the greatest spillover occurs when the audit office serving the client is exposed to more goodwill-related comments received by other office clients within the same industry.

Further analyses indicate that spillover through industry clients within the audit office is also apparent in goodwill footnote disclosure. We find some evidence that the spillover effects are more pronounced when the auditor is directly copied on comment letter correspondence and in years with high SEC attention on goodwill reporting matters. Further, in the post-2012 period, after the SEC shortened the timeframe for making comment letters publicly available, we only observe spillover through the audit office; however, we observe audit office spillover regardless of the office clientele industry.

Our study should be of interest to regulators, as it provides evidence that auditors' private access to client comment letters continues to facilitate the dissemination of SEC views, even in a period when comment letter conversations are made publicly available shortly after conversation completion. This evidence provides evidence of indirect effects of the SEC comment letter review process. Importantly, these effects are manifest in matters of recognition, which might not otherwise occur without auditor involvement. Further, evidence of timely dissemination resulting in recognition-related spillover suggests that auditors can facilitate a preventative, not just corrective, approach to disseminating the SEC's views on accounting and reporting matters. The results are also relevant to standard setters that have recently considered the merits of reverting to an amortization model for subsequent goodwill reporting but ultimately decided to retain the current impairment model. Our results provide insights into the role auditors play along with regulators in timely impairment recognition.

Although our study focuses on how auditors' private access to client comment letters can facilitate spillover to other engagement teams or auditors within the firm, some research suggests that sophisticated investors sometimes become aware of SEC comment letter content prior to their public release (Geiger et al. 2022) and that auditors may even facilitate this spillover (e.g., Hope et al. 2022).

Although adherence to the American Institute of Certified Public Accountant (AICPA) code of professional conduct should deter auditors from sharing confidential client information, information flows in the goodwill impairment context to mutual fund clients or others could provide a significant information advantage and work against regulatory efforts to promote fair markets. We believe this is an important examination for future research. Future research can also consider examining factors or topics that may yield further nuance to the understanding of the scope and efficacy of comment letter spillover. While we believe these results should generalize to other less subjective areas of accounting, we acknowledge that our tests only provide evidence related to goodwill impairment.

### Appendix 1 The association between SEC comment letters and subsequent restatements and SEC AAERs

The study argues that SEC attention and scrutiny on particular accounting or disclosure matters (as evidenced from a comment letter) can increase the risk of restatement of previously filed financial statements or the risk of an SEC Accounting and Auditing Enforcement Release (AAER), which can strain the auditor–client relationship and increase the likelihood of subsequent auditor–client realignments (e.g., Hennes et al. 2014). Research that finds a positive association between SEC comment letters and the initiation of SEC investigations supports this argument (Blackburne et al. 2021). In this appendix, we validate this assumption by examining broadly the association between the initial receipt of an SEC comment letter and restatement announcements as well as SEC AAERs in the following two years. To do this we estimate the following regression model based on prior studies examining accounting misstatements (e.g., Romanus et al. 2008; Newton et al. 2013; Ettredge et al. 2014) using all company-year observations with available data from Audit Analytics between 2005 and 2021, inclusive:

$$\begin{aligned}
 RestateFut_{it} = & \beta_0 + \beta_1 CommentLetter_{it} + \beta_2 Size_{it} + \beta_3 SizeSq_{it} + \beta_4 Big4_{it} + \beta_5 Spec_{it} + \beta_6 NAFeeRatio_{it} \\
 & + \beta_7 LnAuditFees_{it} + \beta_8 ShortTenure_{it} + \beta_9 MatWeak_{it} + \beta_{10} EPR_{it} + \beta_{11} Loss_{it} + \beta_{12} ROA_{it} \\
 & + \beta_{13} BTM_{it} + \beta_{14} EPSGrowth_{it} + Year\ FE + Industry\ FE + \epsilon.
 \end{aligned}$$

The results of the regression are provided in the table below:

Variables	Dependent Variable: <i>RestateFut</i>			
	(1)		(2)	
	Coefficient	t-stat	Coefficient	t-stat
<i>CommentLetter</i>	0.010***	(5.435)	0.008***	(4.787)
<i>Size</i>	-0.001	(-0.763)	-0.001	(-0.930)
<i>SizeSq</i>	-0.000*	(-1.756)	-0.000	(-1.622)
<i>Big4</i>	-0.025***	(-9.600)	-0.022***	(-8.749)
<i>Spec</i>	-0.009***	(-3.039)	-0.009***	(-3.091)

Variables	Dependent Variable: <i>RestateFut</i>			
	(1)		(2)	
	Coefficient	t-stat	Coefficient	t-stat
<i>NAFeeRatio</i>	-0.004	(-0.551)	-0.005	(-0.740)
<i>LnAuditFees</i>	0.010***	(4.317)	0.009***	(4.191)
<i>ShortTenure</i>	0.007***	(3.976)	0.006***	(3.802)
<i>MatWeak</i>	0.071***	(13.887)	0.069***	(13.463)
<i>EPR</i>	-0.002**	(-2.437)	-0.001**	(-2.147)
<i>Loss</i>	0.010***	(4.733)	0.009***	(4.515)
<i>ROA</i>	-0.001	(-1.417)	-0.001	(-1.209)
<i>BTM</i>	0.001	(0.353)	0.001	(0.575)
<i>EPStGrowth</i>	-0.009**	(-2.569)	-0.007**	(-2.183)
Constant	0.088***	(13.622)	0.078***	(12.465)
Year FE	Yes		Yes	
Industry FE	Yes		Yes	
N	81,716		79,795	
Adjusted R-squared	0.030		0.028	

Column (1) presents the results of estimating the effect of comment letters on all future restatements, and column (2) presents the results of estimating the effect of comment letters after removing observations with future restatements due to SEC involvement. We estimate this model using ordinary least squares (OLS) regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ ,  $0.05$ , and  $0.10$ , respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

We also obtain SEC AAER data from the authors of Dechow et al. (2011) and estimate the following regression model using all company-year observations with available data from Audit Analytics between 2005 and 2016, inclusive:

$$\begin{aligned}
 AAERFut_{it} = & \beta_0 + \beta_1 CommentLetter_{it} + \beta_2 Size_{it} + \beta_3 SizeSq_{it} + \beta_4 Big4_{it} \\
 & + \beta_5 Spec_{it} + \beta_6 NAFeeRatio_{it} + \beta_7 LnAuditFees_{it} + \beta_8 ShortTenure_{it} + \beta_9 MatWeak_{it} \\
 & + \beta_{10} EPR_{it} + \beta_{11} Loss_{it} + \beta_{12} ROA_{it} + \beta_{13} BTM_{it} + \beta_{14} EPStGrowth_{it} + YearFE \\
 & + Industry FE + \varepsilon.
 \end{aligned}$$

The results of the regression are provided in the table below:

Variables	Dependent Variable: <i>AAERFut</i>	
	Coefficient	t-stat
<i>CommentLetter</i>	0.317***	(3.060)
<i>Size</i>	0.109	(0.914)
<i>SizeSq</i>	-0.013	(-1.440)
<i>Big4</i>	-0.381**	(-2.004)
<i>Spec</i>	0.017	(0.071)
<i>NAFeeRatio</i>	-1.095*	(-1.899)
<i>LnAuditFees</i>	1.159***	(7.638)



Variables	Dependent Variable: <i>AAERF<sub>it</sub></i>	
	Coefficient	t-stat
<i>ShortTenure</i>	0.056	(0.425)
<i>MatWeak</i>	1.252***	(7.864)
<i>EPR</i>	0.034	(1.117)
<i>Loss</i>	0.146	(1.080)
<i>ROA</i>	-0.041	(-1.336)
<i>BTM</i>	0.457**	(2.290)
<i>EPSGrowth</i>	0.139	(0.467)
Constant	-6.673***	(-8.489)
Year FE	Yes	
Industry FE	Yes	
N	66,791	
Adjusted R-squared	0.011	

We estimate this model using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ , 0.05, and 0.10, respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

## Appendix 2 The association between SEC comment letters and subsequent goodwill impairments

In this appendix, we test whether companies that receive a comment letter with a goodwill-related comment are more likely to record a goodwill impairment. To perform this analysis, we use the following model:

$$Impair_{it} = \beta_1 GWCommentLetter_{it} + \beta_2 ExpectImpair_{it} + \beta_3 GWCommentLetter_{it} * ExpectImpair_{it} + Controls + YearFE + Industry FE + \epsilon$$

*GWCommentLetter* is an indicator variable equal to one if the company received a comment letter with a goodwill-related comment during the current fiscal year and zero otherwise. *ExpectImpair* is a dummy variable equal to one if the company's pre-impairment book value of assets is less than its book value of equity and zero otherwise. Note that *Impair* reflects nonrestated impairment charges taken after the initial comment letter. We removed all observations from the sample where a goodwill impairment was recorded prior to the initial comment letter date. We find that the coefficient on *GWCommentLetter* is positive, consistent with the receipt of goodwill comment letters having a direct effect on the likelihood of impairment. Interestingly, we also find an insignificant coefficient on *GWCommentLetter\*ExpectImpair*, indicating that companies that receive goodwill-related comments from the SEC are just as likely to record an impairment if they have an observable financial indicator of the need for impairment (market-to-book value of assets is less than one) or if they do not. Since the assessment of fair value to determine the need for impairment is performed

at the reporting unit level rather than the consolidated financial statement level, companies may require impairment without this observable indicator (i.e., book value of assets exceeds the market value). Direct SEC goodwill scrutiny appears to result in a similar likelihood of impairment for companies with or without this indicator.

Variables	Dependent Variable: <i>Impair</i>	
	Coefficient	t-stat
<i>GWCommentLetter</i>	0.037***	(4.026)
<i>ExpectImpair</i>	0.116***	(12.411)
<i>GWCommentLetter*ExpectImpair</i>	-0.017	(-0.633)
<i>Size</i>	0.018***	(7.972)
<i>ROA_PreImpair</i>	0.001	(0.060)
<i>Loss_PreImpair</i>	0.057***	(8.131)
<i>LnBusSeg</i>	0.031***	(4.912)
<i>Leverage_PreImpair</i>	-0.000	(-0.043)
<i>EBITDACHg</i>	-0.218***	(-14.352)
<i>IntangPercent</i>	0.213***	(12.438)
<i>AcqGoodwill</i>	-0.020***	(-3.611)
<i>ReturnStDev</i>	0.640***	(16.783)
<i>AnnualReturn</i>	-0.110***	(-22.650)
<i>InstOwn</i>	0.034***	(3.520)
<i>LnAnalyst</i>	-0.025***	(-6.254)
<i>Big4</i>	0.009	(1.138)
<i>Spec</i>	0.008	(0.528)
<i>AOClientCount</i>	-0.009**	(-2.438)
<i>OfficeImpair</i>	0.024***	(4.905)
<i>AvgCLIssues</i>	-0.003***	(-3.302)
<i>Restate</i>	0.001	(0.095)
<i>AAER</i>	0.002	(0.065)
<i>GWDeficiency</i>	0.003	(0.582)
<i>MeetOrBeat</i>	-0.019***	(-4.079)
<i>SmallProfit</i>	0.017	(1.579)
<i>Constant</i>	-0.117***	(-7.400)
Year FE	Yes	
Industry FE	Yes	
N	33,253	
Adjusted R-squared	0.136	

We estimate this model using OLS regression and cluster (by company) robust t-statistics are presented to the right of the coefficient. \*\*\*, \*\*, and \* indicate  $p < 0.01$ , 0.05, and 0.10, respectively, based on one (two)-tailed tests when a prediction is (is not) made. All continuous variables are winsorized at the first and 99th percentiles to mitigate the effect of outliers. All variables are defined in Appendix 3

## Appendix 3 Variable definitions

<i>AAER</i>	Indicator variable equal to one if the company receives any AAERs in the current year and zero otherwise
<i>AAERFut</i>	Indicator variable equal to one if the company receives any AAERs in the subsequent two years and zero otherwise
<i>AcqGoodwill</i>	Indicator variable equal to one if the company performed an acquisition that increased goodwill during the current year and zero otherwise
<i>AnnualReturn</i>	The company's buy-and-hold monthly stock return for the previous 12 months
<i>AOClientCount</i>	The natural logarithm of one plus total number of clients served by the company's audit office in the current year
<i>AvgCLIssues</i>	The average number of issues discussed in the comment letters received by the clients of a company's auditor in the past year
<i>Big4</i>	Indicator variable equal to one if the company's auditor is a Big 4 auditor and zero otherwise
<i>BTM</i>	Book to market value of equity
<i>CommentLetter</i>	Indicator variable equal to one if the company received a comment letter in the current year and zero otherwise
<i>DiffAO</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients in different audit offices that are not publicly available as of the end of the year
<i>DiffAO_DiffInd</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients in different industries and different offices that are not publicly available as of the end of the year
<i>DiffAO_DiffInd_Copied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in different industries and different offices that copied the auditor and are not publicly available as of the end of the year
<i>DiffAO_DiffInd_NonSevere</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that did not result in a goodwill impairment by an audit firm's clients in different industries and different offices that are not publicly available as of the end of the year
<i>DiffAO_DiffInd_NotCopied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in different industries and different offices that did not copy the auditor and are not publicly available as of the end of the year
<i>DiffAO_DiffInd_Severe</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that resulted in a goodwill impairment by an audit firm's clients in different industries and different offices that are not publicly available as of the end of the year
<i>DiffAO_SameInd</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients in the same industry but different offices that are not publicly available as of the end of the year
<i>DiffAO_SameInd_Copied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in same industries but different offices that copied the auditor and are not publicly available as of the end of the year

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<i>DiffAO_SameInd_NonSevere</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that did not result in a goodwill impairment by an audit firm's clients in same industries but different offices that are not publicly available as of the end of the year
<i>DiffAO_SameInd_NotCopied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in same industries but different offices that did not copy the auditor and are not publicly available as of the end of the year
<i>DiffAO_SameInd_Severe</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that resulted in a goodwill impairment by an audit firm's clients in same industries but different offices that are not publicly available as of the end of the year
<i>DiffInd_DiffMSA</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that are publicly disclosed and received by companies in a different industry and MSA but served by a different auditor
<i>DiffInd_SameMSA</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that are publicly disclosed and received by companies in a different industry but same MSA but served by a different auditor
<i>EBITDACHg</i>	The change in a company's EBITDA from time t-1 to time t, scaled by the total market value of equity
<i>EPR</i>	Basic earnings per share (including extraordinary items) divided by the stock price of the company
<i>EPSGrowth</i>	Indicator variable equal to one if the company has four consecutive quarters of earnings per share (including extraordinary items) growth and zero otherwise
<i>ExpectImpair</i>	Indicator variable equal to one if a company's market-to-book value of assets is less than one and zero; otherwise following Ayres et al. (2019a, b)
<i>GWCommentLetter</i>	Indicator variable equal to one if the company received a comment letter with a goodwill-related comment during the current fiscal year and zero otherwise
<i>GWDeficiency</i>	Indicator variable equal to one if an audit deficiency related to goodwill impairment was included in the most recent PCAOB inspection report of a company's audit firm and zero otherwise
<i>GWFNChg</i>	Indicator variable equal to one if a company's goodwill footnote change measured as the cosine of the angle between the vectors of a company's goodwill footnote in year t and year t-1 following Peterson et al. (2015) is above the median in the sample and zero otherwise
<i>Impair</i>	Indicator variable equal to one if the company recorded a goodwill impairment during the fiscal year and zero otherwise
<i>InstOwn</i>	The percentage of a company's stock that is held by institutional owners
<i>IntangPercent</i>	The pre-impairment percentage of a company's assets that is composed of goodwill
<i>Leverage_PreImpair</i>	The ratio of short-term and long-term debt to pre-impairment book value of equity
<i>LnAnalyst</i>	The natural logarithm of one plus the number of unique analysts who issued earnings forecasts for the fiscal year-end
<i>LnAuditFees</i>	The natural logarithm of one plus the amount of audit fees
<i>LnBusSeg</i>	The natural logarithm of one plus the number of business segments
<i>Loss</i>	Indicator variable equal to one if the company incurred a net loss and zero otherwise

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<i>Loss_PreImpair</i>	Indicator variable equal to one if the company incurred a pre-impairment loss and zero otherwise
<i>MatWeak</i>	Indicator variable equal to one if the company received an adverse internal control opinion within the previous two years and zero otherwise
<i>MeetOrBeat</i>	Indicator variable equal to one if a company met or just beat the most recent analyst consensus earnings forecast
<i>MTB</i>	The ratio of market value of equity divided by the book value of equity
<i>NAFeeRatio</i>	The ratio of non-audit fees paid to the external auditor to total fees paid to the external auditor
<i>OfficeImpair</i>	Indicator variable equal to one if any of the audit office's other clients in the past year recorded a goodwill impairment and zero otherwise
<i>Restate</i>	Indicator variable equal to one if the company announced a restatement of its financial statements in the current year
<i>RestateFut</i>	Indicator variable equal to one if the company announces a restatement on Item 4.02 on Form 8 K in the subsequent two years and zero otherwise
<i>ReturnStDev</i>	The standard deviation of the monthly stock returns for the previous 12 months
<i>ROA</i>	Return on assets measured as net income divided by the average total assets for the year
<i>ROA_PreImpair</i>	Return on assets measured as pre-impairment net income divided by the average total assets for the year
<i>SameAO</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients that are not publicly available as of the end of the year
<i>SameAO_DiffInd</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients in the same audit office but different industry that are not publicly available as of the end of the year
<i>SameAO_DiffInd_Copied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in the same audit office but different industry that copied the auditor and are not publicly available as of the end of the year
<i>SameAO_DiffInd_NonSevere</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that did not result in a goodwill impairment by an audit firm's clients in the same audit office but different industry that are not publicly available as of the end of the year
<i>SameAO_DiffInd_NotCopied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in the same audit office but different industry that did not copy the auditor and are not publicly available as of the end of the year
<i>SameAO_DiffInd_Severe</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that resulted in a goodwill impairment by an audit firm's clients in the same audit office but different industry that are not publicly available as of the end of the year
<i>SameAO_SameInd</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients in the same audit office and industry that are not publicly available as of the end of the year

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<i>SameAO_SameInd_Copied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in the same audit office and industry that copied the auditor and are not publicly available as of the end of the year
<i>SameAO_SameInd_NonSevere</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that did not result in a goodwill impairment by an audit firm's clients in the same audit office and industry that are not publicly available as of the end of the year
<i>SameAO_SameInd_NotCopied</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment by an audit firm's clients in the same audit office and industry that did not copy the auditor and are not publicly available as of the end of the year
<i>SameAO_SameInd_Severe</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that resulted in a goodwill impairment by an audit firm's clients in the same audit office and industry that are not publicly available as of the end of the year
<i>SameAF</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients that are not publicly available as of the end of the year
<i>SameAF_SameInd</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients that are in the same industry and not publicly available as of the end of the year
<i>SameAF_DiffInd</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment received by an audit firm's clients that are in a different industry and not publicly available as of the end of the year
<i>SameInd_DiffMSA</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that are publicly disclosed and received by companies in the same industry but different MSA but served by a different auditor
<i>SameInd_SameMSA</i>	The natural logarithm of one plus the number of comment letters with a goodwill comment that are publicly disclosed and received by companies in the same industry and MSA but served by a different auditor
<i>ShortTenure</i>	Indicator variable equal to one if the current auditor has been the external auditor for less than four years and zero otherwise
<i>Size</i>	The natural logarithm of one plus total assets (in millions)
<i>SizeSq</i>	The squared value of <i>Size</i>
<i>SmallProfit</i>	Indicator variable equal to one if a company has ROA (net income divided by the average assets for the year) between 0 and 1 percent
<i>Spec</i>	The ratio of audit fees that an audit office generates in a three-digit SIC industry to the total audit fees generated by an audit office in a given year

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## References

- Ayres, D.R., J.L. Campbell, J.A. Chyz, and J.E. Shipman. 2019a. Do financial analysts compel firms to make accounting decisions? Evidence from goodwill impairments. *Review of Accounting Studies* 24 (4): 1214–1251.
- Ayres, D.R., T.L. Neal, L.C. Reid, and J.E. Shipman. 2019b. Auditing goodwill in the post-amortization era: Challenges for auditors. *Contemporary Accounting Research* 36 (1): 82–107.
- Ballesteros, R., and Schmidt, J. J. 2022. Auditor involvement in the SEC comment letter process: Client advocate, investor protector or both? Working paper, Kent State University and University of Texas at Austin. Available at SSRN: <https://doi.org/10.2139/ssrn.3350730>.
- Baugh, M., and R. Schmardebeck. 2023. Auditor style and common disclosure issues: Evidence from SEC comment letters. *The Accounting Review* 98 (5): 61–97.
- Beatty, A., and J. Weber. 2006. Accounting discretion in fair value estimates: An examination of SFAS 142 goodwill impairments. *Journal of Accounting Research* 44 (2): 257–288.
- Bens, D.A., W. Heltzer, and B. Segal. 2011. The information content of goodwill impairments and SFAS 142. *Journal of Accounting, Auditing & Finance* 26 (3): 527–555.
- Blackburne, T., Bozanic, Z., Johnson, B. A., and Roulstone, D. T. 2021. The regulatory observer effect: Evidence from SEC investigations. Working paper, Oregon State University, Florida State University, George Mason University, and Ohio State University. Available at SSRN: <https://doi.org/10.2139/ssrn.3514915>.
- Brown, S.V., X. Tian, and J.W. Tucker. 2018. The spillover effect of SEC comment letters on qualitative corporate disclosure: Evidence from the risk factor disclosure. *Contemporary Accounting Research* 35 (2): 622–656.
- Carcello, J.V., and T.L. Neal. 2000. Audit committee composition and auditor reporting. *The Accounting Review* 75 (4): 453–467.
- Cassell, C., L. Dreher, and L. Myers. 2013. Reviewing the SEC's review process: 10-K comment letters and the cost of remediation. *The Accounting Review* 88 (6): 1875–1908.
- Cassell, C., L. Cunningham, and L. Lisic. 2019. The readability of company responses to SEC comment letters and SEC 10-K filing review outcomes. *Review of Accounting Studies* 24 (4): 1252–1276.
- Center for Audit Quality. 2020. Critical Audit Matters: A Year in Review. December 2020. Available at: <https://www.theqaq.org/wp-content/uploads/2020/12/caq-critical-audit-matters-year-in-review-2020-12.pdf>.
- Chambers, D., and C. Finger. 2011. Goodwill non-impairments. *The CPA Journal* 4: 38–41.
- Chen, J., and Choudhary, P. 2021. The impact of national office governance on audit quality. Working paper, Loyola Marymount University and the University of Arizona. <https://doi.org/10.2139/ssrn.3702083>.
- Chung, J., and Farrell, G. 2008. SEC under pressure over crisis detection. *The Financial Times*, Dec. 17. Available at: <https://www.ft.com/content/a73e66ea-cc6d-11dd-acbd-000077b07658>.
- Coleman, D. 2022. Comment letters continue to decline during 2021. Available at: <https://blog.auditanalytics.com/comment-letters-continue-to-decline-during-2021>.
- Cunningham, L.M., and J.J. Leidner. 2022. The SEC filing review process: A survey and future research opportunities. *Contemporary Accounting Research* 39 (3): 1653–1688.
- Cunningham, L.M., B.A. Johnson, E.S. Johnson, and L.L. Lisic. 2020. The switch-up: An examination of changes in earnings management after receiving SEC comment letters. *Contemporary Accounting Research* 37 (2): 917–944.
- Danos, P., J.W. Eichenseher, and D.L. Holt. 1989. Specialized knowledge and its communication in auditing. *Contemporary Accounting Research* 6 (1): 91–109.
- Dechow, P.M., W. Ge, C.R. Larson, and R.G. Sloan. 2011. Predicting material accounting misstatements. *Contemporary Accounting Research* 28 (1): 17–82.
- DeFond, M.L., and J. Zhang. 2014. A review of archival accounting research. *Journal of Accounting and Economics* 58 (2–3): 257–326.
- Deloitte. 2017. SEC Comment Letters – Including Industry Insights. Available at: <https://www2.deloitte.com/us/en/pages/audit/articles/sec-comment-letters.html>.
- Eilifsen, A., and W.F. Messier Jr. 2015. Materiality guidance of the major public accounting firms. *Auditing: A Journal of Practice & Theory* 34 (2): 3–26.
- Ettredge, M., E.E. Fuerherm, and C. Li. 2014. Fee pressure and audit quality. *Accounting, Organizations and Society* 39 (4): 247–263.

- EY. 2017. SEC Reporting Update 2017 trends in SEC comment letters. Available at: <https://www.slide-share.net/JulienBoucher2/ey-sec-reporting-update-2017-trends-in-sec-comment-letters>.
- EY. 2018. SEC Reporting Update 2018 trends in SEC comment letters. Available at: [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_us/topics/audit/ey-secreportingupdate-04322-181us-commentstrends-24september2018.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_us/topics/audit/ey-secreportingupdate-04322-181us-commentstrends-24september2018.pdf).
- EY. 2019. SEC Reporting Update 2019 Highlights of trends in 2019 SEC comment letters. Available at: [https://www.ey.com/en\\_us/assurance/accountinglink/sec-reporting-update---highlights-of-trends-in-2019-sec-comment-](https://www.ey.com/en_us/assurance/accountinglink/sec-reporting-update---highlights-of-trends-in-2019-sec-comment-).
- Financial Accounting Standards Board. 2001. Statement of financial accounting standards no. 142. Goodwill and other intangible assets. Norwalk, CT: FASB. Available at: <https://www.fasb.org/page/PageContent?pageId=/reference-library/superseded-standards/summary-of-statement-no-142.html&bcpath=tf>.
- Financial Accounting Standards Board. 2011. ASU No. 2011-08. Available at: [http://fasb.org/jsp/FASB/Document\\_C/DocumentPage?cid=1176158924168&acceptedDisclaimer=true](http://fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1176158924168&acceptedDisclaimer=true).
- Financial Accounting Standards Board. 2017. ASU No. 2017-04. Available at: [http://fasb.org/jsp/FASB/Document\\_C/DocumentPage?cid=1176168778106&acceptedDisclaimer=true](http://fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1176168778106&acceptedDisclaimer=true).
- Francis, J.R., and M.D. Yu. 2009. Big 4 office size and audit quality. *The Accounting Review* 84 (5): 1521–1552.
- Geiger, M.A., B. Johnson, K.L. Jones, and A. Kumas. 2022. Information leakage around SEC comment letters. *Management Science* 68 (11): 7793–8514.
- Gelles, D. 2016. S.E.C. is criticized for lax enforcement of climate risk disclosure. *The New York Times*, Jan 23. Available at: <https://www.nytimes.com/2016/01/24/business/energy-environment/sec-is-criticized-for-lax-enforcement-of-climate-risk-disclosure.html>.
- Gu, F., and B. Lev. 2011. Overpriced shares, ill-advised acquisitions, and goodwill impairment. *The Accounting Review* 86 (6): 1995–2022.
- Hayn, C., and P.J. Hughes. 2006. Leading indicators of goodwill impairment. *Journal of Accounting, Auditing, & Finance* 21 (3): 223–265.
- Hennes, K.M., A.J. Leone, and B.P. Miller. 2014. Determinants and market consequences of auditor dismissals after accounting restatements. *The Accounting Review* 89 (3): 1051–1082.
- Hogan, C., and D. Jeter. 1999. Industry specialization by auditors. *Auditing: A Journal of Practice and Theory* 18 (1): 1–17.
- Hope, O.-K., P. Rao, Y. Xu, and H. Yue. 2022. Information sharing between mutual funds and auditors. *Journal of Business Finance & Accounting* 50 (1–2): 152–197.
- Johnson, S. 2010. The SEC has a few questions for you. *CFO*. Available at: <https://www.cfo.com/risk-e>.
- Johnson, B.A., L.L. Lisic, J.S. Moon, and M. Wang. 2023. SEC comment letters on form S-4 and M&A accounting quality. *Review of Accounting Studies* 28: 862–909.
- Khuzami, R., and Walsh, J. 2009. Testimony concerning the SEC's failure to identify the Bernard L. Madoff Ponzi scheme and how to improve SEC performance. Available at: <https://www.sec.gov/news/testimony/2009/ts091009rk-jw.htm>.
- Knechel, W.R., and A. Vanstraelen. 2007. The relationship between auditor tenure and audit quality implied by going concern opinions. *Auditing: A Journal of Practice & Theory* 26 (1): 113–131.
- Krishnan, G.V., and C. Wang. 2015. The relation between managerial ability and audit fees and going concern opinions. *Auditing: A Journal of Practice & Theory* 34 (3): 139–160.
- Kubick, T.R., D.P. Lynch, M.A. Mayberry, and T.C. Omer. 2016. The effects of regulatory scrutiny on tax avoidance: An examination of SEC comment letters. *The Accounting Review* 91 (6): 1751–1780.
- Lamoreaux, P., M. Mowchan, and W. Zhang. 2023. Does PCAOB regulatory enforcement deter low quality audits? *The Accounting Review* 98 (3): 335–366.
- Li, B., and Z. Liu. 2017. The oversight role of regulators: Evidence from SEC comment letters in the IPO process. *Review of Accounting Studies* 22 (3): 1229–1260.
- Li, K.K., and R.G. Sloan. 2017. Has goodwill accounting gone bad? *Review of Accounting Studies* 22: 964–1003.
- Mitton, T. 2023. Economic significance in corporate finance. *The Review of Corporate Finance Studies*, forthcoming.
- Newton, N.J., D. Wang, and M.S. Wilkins. 2013. Does a lack of choice lead to lower quality?: Evidence from auditor competition and restatements. *Auditing: A Journal of Practice & Theory* 32 (3): 31–67.
- Peterson, K., R. Schmardebeck, and T.J. Wilks. 2015. The earnings quality and information processing effects of accounting consistency. *The Accounting Review* 90 (6): 2483–2514.




- Public Company Accounting Oversight Board. 2016. Staff Inspection Brief: Preview of Observations from 2015 Inspections of Auditors of Issuers. Washington, D.C.
- Public Company Accounting Oversight Board. 2022. AS 2710: Other Information in Documents Containing Audited Financial Statements. Washington, D.C.
- Qi, B., Li, L., Robin, A., and Yang, R. 2015. Can enforcement actions on engagement auditors improve audit quality? Working paper, Xi'an Jiaotong University and Rochester Institute of Technology. Available at SSRN: <https://doi.org/10.2139/ssrn.2549041>.
- Ramanna, K., and R.L. Watts. 2012. Evidence on the use of unverifiable estimates in required goodwill impairment. *Review of Accounting Studies* 17 (4): 749–780.
- Romanus, R.N., J.J. Maher, and D.M. Fleming. 2008. Auditor industry specialization, auditor changes, and accounting restatements. *Accounting Horizons* 22 (4): 389–413.
- Stein, S. 2019. Auditor industry specialization and accounting estimates: Evidence from asset impairments. *Auditing: A Journal of Practice and Theory* 38 (2): 207–234.
- U.S. Securities and Exchange Commission. 2001. Comment letter follow up (AUDIT 326). August 15. Available at: <https://www.sec.gov/about/oig/audit/326fin.pdf>.
- U.S. Securities and Exchange Commission. 2005. SEC staff to begin publicly releasing comment letters and responses. Available at: <https://www.sec.gov/news/press/2005-72.htm>.
- U.S. Securities and Exchange Commission. 2021. Filing review process. Available at: <https://www.sec.gov/divisions/corpfin/cffilingreview.htm>.
- Vyas, D. 2011. The timeliness of accounting write-downs by U.S. financial institutions during the financial crisis of 2007–2008. *Journal of Accounting Research* 49 (3): 823–860.
- Yu, F. 2008. Analyst coverage and earnings management. *Journal of Financial Economics* 88 (2): 245–271.

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