Styles of Regulators: Evidence from the SEC's Comment Letters*

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ABSTRACT

We investigate whether individual securities regulators exhibit personal styles in their work, a question of importance to corporate executives and capital market participants. Using the SEC's comment letters as our setting, we find that SEC staff members exhibit unique personal "styles." We manually collect information on SEC staff members and provide evidence that staff members' personal characteristics influence the SEC's review process. Further analyses reveal that SEC staff members with a CPA qualification are associated with a lower likelihood of future accounting restatements; moreover, similarity between the SEC staff member and the firm's correspondent is associated with lower scrutiny intensity. Overall, our study offers evidence that SEC staff members exhibit individual differences and that their styles shape the SEC's enforcement actions. Our results offer implications for the working of securities regulators.

Keywords: regulation enforcement, SEC, comment letters, fixed effects, individual differences, SEC reviewers

Styles des responsables de la réglementation : données probantes tirées des lettres de commentaires de la SEC

RÉSUMÉ

Nous vérifions si les personnes responsables de la réglementation des valeurs mobilières affichent des styles personnels dans le cadre de leur travail, une question qui a son importance pour les dirigeants d'entreprise et les participants des marchés financiers. En nous appuyant sur des lettres de commentaires de la SEC, nous montrons que les membres du personnel de la SEC ont des « styles » personnels uniques. Nous recueillons de façon manuelle de l'information sur des employés de la SEC et fournissons des données probantes indiquant que leurs caractéristiques personnelles influencent le processus d'examen de la SEC. D'autres analyses révèlent que les employés de la SEC détenant la désignation de CPA sont associés à une plus faible probabilité de retraitements comptables ultérieurs; en outre, les similitudes entre les employés de la SEC et leurs

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interlocuteurs au sein des entreprises sont associées à un contrôle moins minutieux. Dans l'ensemble, notre étude dégage des éléments de preuve indiquant que les employés de la SEC présentent des différences individuelles, et que leurs styles influencent les mesures d'application des règles de la SEC. Nos résultats ont des conséquences sur le travail des responsables de la réglementation des valeurs mobilières.

Mots-clés : application des règlements, SEC, lettres de commentaires, effets fixes, différences individuelles, examinateurs de la SEC

1. Introduction

In the United States, the SEC is the primary public enforcer of securities regulations governing the capital markets. We examine whether SEC staff members exhibit individual differences in their enforcement actions. Conceptually, the answer to our question is far from obvious. Although prior studies document that corporate executives have personal styles,[1] these findings do not readily apply to SEC staff members, as these civil servants' actions are dictated by government policies and bureaucratic procedures. As discussed in detail in section 2, the SEC is keenly aware of the need to maintain consistency in its enforcement efforts and has taken numerous measures to ensure uniformity among SEC staff members. In stark contrast, corporate executives not only face no institutional constraints, but are also encouraged to increase their market value in the labor market through tactics such as personal branding. Furthermore, SEC staff members have strikingly similar educational and professional backgrounds, which reduce the likelihood that personal differences are empirically detectable. For example, almost all SEC staff members in our sample have college degrees and are either accountants or lawyers by training.

Our research setting is the SEC's comment letters on firms' 10-K filings. When firms file their 10-Ks with the SEC, SEC staff members review their filings and issue comment letters addressed to the firms. The firms typically respond to these comments by providing clarifications and amending their current or future filings. In extreme cases where SEC staff find fraud, they might refer the case to the Division of Enforcement for litigation.

The SEC's comment letters offer an ideal setting for us to investigate our research question for four important reasons. First, this setting allows us to attribute decisions to individuals. The SEC staff reviewer is identifiable through the comment letter, with the follow-up contact indicated in the letter. We confirmed this is the reviewer through the discussions with an SEC staff member. Thus, this setting enables us to link individuals with observable outcomes. Second, the SEC began to make comment letters public in its EDGAR database in 2005. Our sample includes 5,604 comment letter conversations among 1,448 firms written by 358 individual staff members for the period between 2005 and 2015. This large panel data set facilitates our empirical analyses.[2] Third, prior studies examining managerial styles (Bertrand and Schoar 2003) are subject to the concern that omitted correlated variables drive both the outcome variables of interest and corporate managers' styles. As SEC staff members are not directly involved in firms' daily operating and financial reporting process, this endogeneity concern is alleviated in our research setting. However, our setting is subject to a different endogeneity concern—namely, that specific staff members may be intentionally assigned to specific firms. We address this concern later in this paper. Finally, existing research has demonstrated that the SEC's review process has a notable impact on firms' financial reporting. Comment letters by SEC staff result in firms modifying their current and subsequent disclosures, reducing their accrual-based earnings management, and changing their fair value estimates (Cassell et al. 2013; Bens

1. Interested readers can refer to Bertrand and Schoar (2003), Bamber et al. (2010), Dyreng et al. (2010), Ge et al. (2011), Graham et al. (2012), Yang (2012), Gul et al. (2013), Ewens and Rhodes-Kropf (2015), Liu et al. (2016), and Bushman et al. (2021).
2. When the letter is written by more than one reviewer, we include multiple SEC staff indicators.

et al. 2016; Brown et al. 2018; Johnston and Petacchi 2017; Cunningham et al. 2019). Thus, the significance of the role an individual SEC staff member plays in the review process is an important issue to consider.

We employ a fixed effects-based research design, which was introduced by Bertrand and Schoar (2003) and has been used in a variety of settings (Bamber et al. 2010; Ge et al. 2011; Yang 2012; Dejong and Ling 2013). In our model, the dependent variable is a measure of the outcome of the SEC's review process. We control for industry-year fixed effects and 18 time-varying auditor and firm characteristics. The coefficient estimate of the SEC staff member indicator thus represents the association between the outcome variable and an individual staff member, incremental to industry-year fixed effects and other control variables. We extract the coefficient estimates and use their distribution to explore the economic significance of SEC staff member fixed effects.

We document significant personal styles in SEC staff members' reviews of 10-K filings in terms of the intensity of scrutiny and letter content.[3] We measure the intensity of scrutiny based on the number of topics raised in the comment letter, the number of rounds of communication the firm must go through with the SEC, and the time it takes to complete the review process. From the staff member at the 25th percentile to the staff member at the 75th percentile, the number of topics increases by 44.2%, the number of rounds increases by 27.2%, and the length of the review process increases by 60.9%. These statistics demonstrate that individual SEC staff members play an important role in determining the intensity of scrutiny. Simply put, some staff members are substantially tougher than others. We further investigate the content of the SEC's comment letters by analyzing the focuses on six categories of topics raised in the letters. From the staff member at the 25th percentile to the staff member at the 75th percentile, the focus on accounting disclosure increases by 16.8%.[4] Overall, our results suggest that individual SEC staff members have their own focused areas.

We conduct several robustness checks. Our analyses of the comment letters' linguistic features provide evidence that the SEC staff members exhibit their own personal styles in writing the letters. We find that female staff members tend to write with a positive tone, those with CPA qualifications prefer to use more tentative language, those with MBAs tend to use strong modal words (e.g., must, shall, etc.), and those with legal background are likely to use legal jargon in their comment letters. This result validates our approach to identifying letter writers. Further tests suggest that the personal styles of SEC staff members cannot be attributed to office-specific factors, are not overshadowed by the personal styles of heads of offices, and are not driven by the fixed effects of the firm or the firm's top executives (i.e., CEO and CFO). For the sake of brevity, all these results are reported in Tables A1–A6 in the online Appendix.[5,6,7]

3. We do not investigate the impact of SEC staff members' individual styles on firms' financial reporting quality for several reasons. First, most financial reporting quality measures tend to be noisy (Dechow et al. 2010), reducing our ability to precisely capture the impact. Second, many factors, such as managerial incentives, may play a more important role in shaping firms' financial reporting quality than the SEC review process. We thus face a severe concern of endogeneity in our analysis. Third, firms' financial reporting quality is determined by firms' management. Consequently, the SEC staff members' impact on quality is indirect.
4. In untabulated tests, we document staff fixed effects when we examine the focuses within the accounting disclosure category (i.e., core earnings, non-core earnings, accounting classification, and fair value).
5. Please see supporting information as an addition to the online article.
6. The addition of SEC staff fixed effects to the regression where we control for CEO, CFO, and firm fixed effects (reported in Table A6 of the online Appendix) increases adjusted R^2 by about 10%. This increase in R^2 serves as our lower bound estimate for the SEC staff fixed effects.
7. We conduct a falsification test and find that the SEC staff styles do not explain the likelihood of M&A activity and the number of employees of the firms being reviewed. To the extent that SEC staff members have no impact on firms' M&A activities and number of employees, this falsification test validates our approach.

We next attempt to shed light on the "black box" of SEC staff member fixed effects. We are interested in examining the roles played by gender, age, education, professional qualifications, and work experience. We manually collect information on SEC staff members from their LinkedIn pages and by Googling their names. Of the 358 SEC staff members in our sample, we are able to collect information for 250 of them, forming a sample of 4,114 observations. We find that SEC staff members with MBA degrees are associated with high scrutiny intensity while SEC staff members with CPA qualifications tend to focus on accounting disclosures. These results suggest that individual characteristics influence the SEC's review process.

To assess the efficacy of SEC reviews, we examine the likelihood of future restatements. Our results indicate that a higher number of review rounds and a longer time to finish the review are associated with lower restatement likelihood. These results are broadly consistent with the notion that higher intensity of scrutiny is associated with higher financial reporting quality. Furthermore, SEC staff members with CPA qualifications are associated with a lower likelihood of accounting restatements. This finding demonstrates the importance of accounting expertise in the SEC's reviews. Our additional analyses demonstrate that the similarities in MBA degrees and CPA qualifications between the SEC staff member and the firm's correspondent are associated with a lower number of topics in the SEC letter. These results suggest that the background similarity between the staff member and the firm's correspondent influences the review letters.

An alternative explanation for our finding is that the SEC assigns staff members to firms by matching individual characteristics with firm characteristics. For example, a firm that has complex or novel accounting practices may be more likely to have an accounting expert as its reviewer. Consequently, the personal styles of SEC staff members may actually be a reflection of firm characteristics. To address this concern, we investigate the SEC's assignment process and uncover three pieces of evidence that are at odds with the notion that the assignment is mainly driven by matching firms and individual staff members. First, our conversation with an SEC staff member suggests that the SEC does not consider individual characteristics when assigning tasks. Second, our analyses of SEC staff members' workloads, discussed in section 3, indicate that the SEC attempts to distribute workloads evenly across staff members. As the SEC is resource-constrained, it probably does not have the luxury of waiting for the "ideal" staff member to be available while allowing "non-ideal" staff members to remain idle. Third, as reported in section 3, the correlations between staff characteristics and firm characteristics further mitigate concerns that personal characteristics are the major consideration in assigning reviews.

Our results are subject to three limitations. First, all of our results are based on observable SEC comment letters. We are unable to precisely observe the SEC's process for assigning staff members to firms and, therefore, our results may be influenced by the assignment of review tasks to individual SEC staff members. Second, although our focus is on SEC staff members, the intensity of scrutiny will also be a function of the quality and content of firms' responses. Third, we are unable to make normative judgments on the desirability of tough SEC staff members from the perspective of maximizing shareholder value. Although tough SEC staff members may increase firm value by improving the firm's financial reporting, thereby reducing its information asymmetry and cost of capital, they may reduce firm value by directing management's time and efforts away from running the business.

Our study contributes to two different literature streams. First, it contributes to the literature documenting the importance of idiosyncratic factors in decision-making. Prior studies have demonstrated that managers have individual styles, which can have a substantial impact on firms' major decisions (Bertrand and Schoar 2003; Ge et al. 2011; Graham et al. 2012; Ewens and Rhodes-Kropf 2015; Bushman et al. 2021). Although managers play an important role in the capital markets, so do regulators. Our study, therefore, marks a substantial expansion in this area of research. We demonstrate that, despite institutional settings designed to ensure consistent enforcement of regulations, individual SEC staff members have their own styles. Our paper corroborates the finding in Baugh et al. (2021) that SEC staff members

exhibit personal styles in their comment letters. Several key differences between the two papers lie in the following. First, we differ in the way we identify authors of the SEC comment letters. Baugh et al. (2021) use the identities provided by Audit Analytics, while we assume that those identified in the comment letters for further questions write the comment letters. Second, we obtain personal data of SEC staff members from their LinkedIn accounts and other public sources. We are therefore able to analyze how age, CPA qualification and MBA degrees affect their personal styles. Finally, we examine how similarity between the SEC staff members and the firm's correspondents influences the intensity of the SEC's scrutiny and the content of the comment letters.

Second, our study contributes to the literature examining SEC regulations and, more specifically, SEC comment letters. We demonstrate that SEC staff members have their own personal styles, and these unique styles have a substantial impact on the outcome of the SEC's review process. However, our results do not indicate that firms are treated unfairly by the SEC. The assignment process is random, meaning firms have an equal chance of being reviewed by staff members with certain personal characteristics, suggesting the process is not systematically biased. Our results further provide evidence that SEC staff members' personal characteristics influence the SEC's review process. For example, staff members with CPA qualifications are more likely to focus on accounting disclosures in their comment letters. Thus, our results deepen our understanding of how background characteristics influence individuals' decision-making.

The remainder of this study is organized as follows. Section 2 discusses the institutional background. Section 3 covers sample formation, empirical methodology, and main results. Section 4 analyzes how staff members' background characteristics affect the review process. Section 5 discusses how similarities between the firm's correspondent and the SEC staff member influence the comment letters. Section 6 concludes the study.

2. Institutional background

The Sarbanes-Oxley Act of 2002 requires the SEC to review an SEC registrant's filings at least once every three years. When an SEC staff member deems a filing to be materially deficient or requires further clarification from a firm, the staff member will issue a comment letter to the firm; the firm is required to respond within 10 days. Given the authority vested in the SEC, corporate managers take great care in addressing the SEC's comments. The firm's response letter generally offers explanations and, if appropriate, discusses how the firm will amend its current or future filings in response to the comments. One or more rounds of letter exchanges ensue until the staff member is satisfied with the firm's responses and issues a "no further comment" letter.

According to Dechow et al. (2016), SEC comment letters are predominantly related to firms' annual and quarterly financial reports (Form 10-K and Form 10-Q) whereas other non-routine transactional filings, such as registration and prospectus filings, receive less attention. Because we are interested in financial reports, we focus on SEC comment letters on Form 10-Ks. Reviews of filings are conducted by the Division of Corporation Finance (DCF), whose 11 offices implement the filing review process. Firms are assigned to an office based on their 4-digit SIC code.[8] The 11 DCF offices are Healthcare and Insurance; Consumer Products; Information Technologies and Services; Natural Resources; Transportation and Leisure; Manufacturing and Construction; Financial Services; Real Estate and Commodities; Beverages, Apparel, and Mining; Electronics and Machinery; and Telecommunications. Each office is staffed with 25–35 professionals and headed by one assistant director and at least two accounting branch chiefs. Firms sharing the same 3-digit SIC codes are typically assigned to the same office whereas firms with the same 2-digit

8. In rare cases, a different office is in charge of reviewing the firm's filing. This may occur when a particular transaction in the firm's filing pertains to another office's area of expertise or if the division is targeting specific disclosure items (Blackburne 2014).

SIC code may be allocated to different offices. Given that firms from the same industry are assigned to the same office, and the same firm may be allocated to the same staff member for reviews, SEC staff member fixed effects may represent a manifestation of industry fixed effects. We address this concern by including industry-year fixed effects in our model.

The DCF states on its website, "In its filing reviews, the Division concentrates its resources on critical disclosures that appear to conflict with Commission rules or the applicable accounting standards and on disclosures that appear to be materially deficient in explanation or clarity."[9] The scope of the reviews may include (i) a full cover-to-cover review, where the entire filing is examined; (ii) a review where the staff focus on financial statements and related disclosures, such as management's discussion and the analysis of financial conditions; and (iii) a targeted review where the staff focus on selected items in the filing. To uphold the integrity of the review process, the division does not disclose the criteria it uses to select firms to review.

The SEC has adopted several measures to ensure consistency in reviewing filings. A typical SEC filing review involves one examiner and one reviewer. The examiner is responsible for offering comments to firms while the reviewer reads the filing and the comments proposed by the examiner to ensure consistency in comments. In addition, the SEC regularly publishes Staff Accounting Bulletins that reflect its official views regarding accounting-related disclosure practices. These bulletins provide staff members with guidance when reviewing filings. Furthermore, the Government Accountability Office reports that the DCF conducts internal supervisory control activities to ensure uniformity in reviewing SEC filings (GAO 2013). These activities include archiving all reviews and related documents as well as conducting regular meetings for SEC staff members. The archived documents serve as benchmarks for subsequent reviews, whereas the regular meetings promote the sharing of information and help standardize the practices of individual staff members.

After a discussion with an SEC staff member,[10] we are able to determine that the SEC staff members responsible for the comment letters are those who should be contacted for questions regarding the comment letters. For example, in Appendix 2, Marc Thomas is identified as the staff member responsible for the comment letter. Using textual analyses, we identify the official title of the responsible staff members and find that virtually all professionals within the DCF office can be contacted for questions regarding comment letters.

3. Data, methodology, and main results

Sample formation and variable definition

SEC comment letters became publicly available in EDGAR in August 2004, so we use 2005 as the starting year of our sample, which covers the period spanning from 2005 to 2015. We obtain comment letter data from the Audit Analytics Comment Letter Conversation database, which organizes the exchange of comment letters between a firm and the SEC into conversations. We then merge the comment letter conversations with accounting variables from Compustat, stock prices from CRSP, executive information from ExecuComp, 10-K forms from EDGAR, and auditor information from the Audit Analytics Audit & Compliance database. In order to isolate the effect of the staff member from the effect of the firm, we exclude staff members who only review one firm during our sample period.[11] We then compute all the dependent and independent variables. After requiring all variables to be non-missing, we obtain the final sample of 5,604 comment letter conversations and 358 unique staff members.

9. Refer to https://www.sec.gov/divisions/corpfin/cffilingreview.htm for complete details.
10. One of the authors emailed the SEC for enquiry and was given the contact details of one staff member (who has been working at the SEC since 2004; her current position is Senior Staff Accountant, Office of Telecommunications). We had an informal discussion over the phone about the SEC review process.
11. This requirement drops 49 staff members from our sample, amounting to 13.7% of the unique staff members in our sample.

We use three variables to reflect the intensity of the SEC's scrutiny: *topics*, which refers to the number of topics raised in the comment letter conversation as defined by Audit Analytics; *rounds*, which indicates the number of rounds of exchanges between the SEC and the firm from the first letter to the "no further comment" letter; and *time*, which is the number of days between the first letter and the "no further comment" letter.[12] To examine comment letter content, following Cassell et al. (2013), we classify the topics raised by the SEC's comment letters into six categories: accounting disclosure, internal control disclosure, management discussion and analysis (MD&A), regulatory filing, risk factor disclosure, and other disclosure. We measure the focus on each category by scaling the number of topics in the category by the total number of topics raised. We identify six variables corresponding to the focus of each of the six categories: *foc_accdis* is the focus on accounting disclosure—computed as the number of topics in the accounting disclosure category divided by the total number of topics, *foc_intcon* is the focus on internal control, *foc_mda* is the focus on MD&A, *foc_regfil* is the focus on regulatory filing,[13] *foc_risk* is the focus on risk factor disclosure, and *foc_other* is the focus on other disclosures.

Empirical methods

We run the following OLS regression to test whether SEC staff members exhibit individual styles:

$$Outcome_{it} = \alpha_0 + Controls_{it} + Industry\text{-}Year_{it} + Staff_j + \varepsilon_{it}, \quad (1)$$

where $Outcome_{it}$ is the outcome variable (scrutiny intensity and comment letter content) in year t for firm i. *Industry-Year* is the industry-year fixed effects, with industry defined by the first two digits of the SIC code,[14] and *Staff* is SEC staff member fixed effects. Time-varying fixed effects are important to account for trends and SEC directives that partly dictate the focus of the reviewers. Standard errors are clustered by industries. For details on how we construct all variables, refer to Appendix 1.

Fee et al. (2013) raise a methodological concern with the use of an *F*-test to detect individual styles. They point out that, when the dependent variable is highly serially correlated, it leads to an over-rejection of the null hypothesis. This problem is less severe in our analysis. Our dependent variables are intensity of scrutiny and SEC letter content, both of which are at the discretion of the SEC staff member. As the same SEC staff member rarely reviews the filings of the same firm (our statistics show that the likelihood of having the same reviewer for consecutive comment letters is only 18%), the persistence of the measures over time is likely low and, therefore, our results are less subject to the methodological concern raised by Fee et al. (2013). However, as a precaution we conduct a bootstrapping test similar to that used in Fracassi et al. (2016). We first identify each staff-firm combination in our sample. For example, if Staff member 1 covers Apple Inc. for two consecutive comment letters, this is a single staff-firm combination. We then randomly reassign sample staff members to the staff-firm combinations, requiring that each staff member still be assigned to the same number of combinations as in the actual sample. By construction, the randomized data set preserves the same persistence structure as the original sample because the combinations themselves do not vary. Our randomization yields 1,000 samples. We estimate baseline regressions in each sample and compute the *F*-statistic for the test that the staff

12. Our untabulated results indicate that the number of days the SEC takes in each round has a mean value of 21 and a median value of 16. The 1st quartile is 9 and 3rd quartile is 28. The distribution is arguably tight, as at least 75% of the rounds are completed within four weeks.
13. Regulatory filing issues include specific Reg S-K and Reg S-X disclosure requirements, among others. For example, Regulation S-K Item 103 requires listed firms to disclose information about material pending legal cases.
14. Our untabulated results suggest that our conclusions continue to hold when we use 3-digit SIC codes to identify industries.

indicator variables are jointly significant for each simulated sample. We report the percentage of *F*-statistics from the 1,000 simulated samples that are greater than the *F*-statistic from the actual data in the column "Bootstrap *p*-value" (panel A of Tables 4–6). Inferences based on this *p*-value help mitigate the concern raised by Fee et al. (2013).

Empirical results

Descriptive statistics

We report descriptive statistics of firm-year observations in panel A of Table 1. On average, SEC staff members raise 14.7 topics for discussion. The mean values of *rounds* and *time* indicate that, on average, 4.7 rounds of exchanges occur before the SEC staff member closes the dialogue, and the entire process takes 66.7 days. As for comment letter content, 42.9% of the topics are in the accounting disclosure category, 0.6% are in the internal control category, 22% are related to MD&A issues, 11.9% are related to regulatory filings, 1.7% are related to risk factors, and 20.9% are related to other issues. Turning to control variables, 90.8% of our sample observations are *big_n* auditor clients, and 5.2% are clients of second-tier auditors. On average, auditor tenure is 8.5 years. Note that all tenure variables (*audtenure*, *ceo_tenure*, *cfo_tenure*) are measured in the sample—that is, they represent the number of years of the relationship, starting from the first year the relationship is observed in our sample between 2005 and 2015. In our sample, 10.8% of firms restate their earnings, while 5.2% report material internal control weakness in the current year.[15] The mean value of *lnmarketcap* is about 7.6.[16] In addition, 16% of observations report accounting losses, 4.0% engage in M&A deals, and 2.1% undergo restructuring. The mean value of sales growth is about 18.1%, although this variable is skewed by outliers as the median value is only 6.7%. On average, firms have three reporting segments. The decile ranking of bankruptcy risk averages 4.5. Meanwhile, 14.0% of firms have a CEO who is also chairman of the board, and the mean value of CEO tenure and CFO tenure are 5.5 and 3.5 years, respectively. Furthermore, 28.1% of our sample firms have high return volatility, 3.1% dismiss their auditors, and auditors resign in 0.8% of our sample.[17]

We manually collect information on staff characteristics from staff members' LinkedIn profile pages. An example of an SEC staff member's LinkedIn page is shown in Appendix 3 (identifying information hidden). As not all SEC staff members have a LinkedIn page, we also Google each of the staff members to find more information about them online. We are able to collect information for 250 SEC staff members, reducing the number of usable observations to 4,114 after the data are merged with our existing sample. Following prior literature (Bertrand and Schoar 2003; Bamber et al. 2010; Ge et al. 2011), the staff characteristics we consider include gender, age cohort, CPA qualification, MBA degree, career experience, and law background. We measure these characteristics using the following variables: *female* is a binary variable that equals one if the SEC staff member is female, and zero otherwise; *age* is a binary variable equal to one if the SEC staff member obtained the first college degree before 2002;[18] *cpa* is a binary variable that equals one if the SEC staff member has obtained a CPA qualification, and zero otherwise; *mba* is a binary variable that equals one if the SEC staff member has obtained an MBA degree, and zero otherwise; *sec_exp* is a binary variable equal to one if the staff member started working

15. The proportion of restating firms is 10.2% in Dechow et al. (2016), which is similar to our value.
16. Our sample firms tend to be larger than those in Cassell et al. (2013). This is because we require the full text of SEC comment letters to be available from EDGAR. Firms satisfying this requirement, by definition, are firms that have better disclosures, which tend to be larger firms.
17. Our descriptive statistics are largely consistent with prior literature. For example, Cassell et al. (2013) report that, in their sample, the mean value of *rounds* is 2.75, the mean of *time* is 80 days, the mean of *topics* is 11.7, the mean of *big_n* is 0.781, the mean of *m_weak* is 0.066, the mean of *loss* is 0.249, and the mean of *segments* is 2.053. The corresponding values in our study are similar.
18. Assuming that the staff member obtains the first college degree at the age of 22, *age* is essentially an indicator for individuals born before 1980.

TABLE 1
Descriptive statistics

Panel A: Descriptive statistics for firm-year observations

Variable	*N*	Mean	SD	p25	p50	p75
topics	5,604	14.697	9.941	8	12	19
rounds	5,604	4.706	2.230	3	4	6
time	5,604	66.664	69.214	28	46	82
foc_accdis	5,604	0.429	0.205	0.250	0.444	0.600
foc_intcon	5,604	0.006	0.028	0	0	0
foc_mda	5,604	0.220	0.142	0.111	0.176	0.300
foc_regfil	5,604	0.119	0.113	0	0.110	0.200
foc_risk	5,604	0.017	0.053	0	0	0
foc_other	5,604	0.209	0.107	0.133	0.200	0.286
big_n	5,604	0.908	0.289	1	1	1
second_tier	5,604	0.052	0.222	0	0	0
audtenure	5,604	8.491	3.589	6	9	11
restate	5,604	0.108	0.310	0	0	0
m_weak	5,604	0.052	0.221	0	0	0
lnmarketcap	5,604	7.598	1.597	6.499	7.511	8.625
loss	5,604	0.160	0.367	0	0	0
m_a	5,604	0.040	0.196	0	0	0
restructuring	5,604	0.021	0.142	0	0	0
salesgrowth	5,604	0.181	4.120	−0.013	0.067	0.162
segments	5,604	3.358	2.381	1	3	5
bankruptcyrank	5,604	4.480	2.156	3	4	6
ceo_chair	5,604	0.140	0.347	0	0	0
ceo_tenure	5,604	5.500	3.382	3	5	8
cfo_tenure	5,604	3.450	2.315	1	3	5
highvolatility	5,604	0.281	0.385	0	0	1
auditor dismissed	5,604	0.031	0.173	0	0	0
auditor resigned	5,604	0.008	0.055	0	0	0

(The table is continued on the next page.)

TABLE 1 (continued)

Panel B: Summary statistics for staff characteristics

$N = 250$	Frequency	Percent
Gender		
Male	150	60%
Female	100	40%
Accounting qualification		
CPA	60	24%
No CPA	190	76%
Higher education		
MBA	19	7.6%
No MBA	231	92.4%
Year of birth		
<1965	18	7.2%
1965–1969	13	5.2%
1970–1974	48	19.2%
1975–1979	66	26.4%
1980–1984	83	33.2%
>1985	22	8.8%
Started at SEC		
<1985	3	1.2%
1985–1989	3	1.2%
1990–1994	4	1.6%
1995–1999	10	4.0%
2000–2004	118	47.2%
2005–2009	72	28.8%
>2010	40	16.0%
Lawyer		
No	185	74%
Yes	65	26%

(The table is continued on the next page.)

TABLE 1 (continued)

Panel C: Correlation matrix

Variable	*female*	*cpa*	*mba*	*age*	*sec_exp*	*lawyer*	*topics*	*rounds*	*time*
female		0.00	0.00	−0.00	−0.07	−0.06	−0.05***	0.06***	0.05***
cpa	0.00		0.34***	0.32***	0.18***	−0.32***	0.00	−0.05***	−0.07***
mba	0.00	0.34***		0.13**	0.11*	−0.08	−0.03***	0.02**	0.02**
age	−0.06	0.21***	0.12*		0.41***	−0.17***	0.02**	0.01	0.09***
sec_exp	−0.07	0.18***	0.11*	0.33***		−0.32***	0.00	−0.08***	−0.03***
lawyer	−0.06	−0.32***	−0.08	−0.20***	−0.32***		−0.06***	0.03***	0.11***
topics	−0.04***	−0.02*	−0.02***	0.03***	0.00	−0.04***		0.07***	0.04***
rounds	0.04***	−0.06***	0.03***	−0.00	−0.06***	0.02***	0.09***		0.80
time	0.05***	−0.07***	0.02***	0.05***	−0.02*	0.08***	0.05***	0.80	

Panel D: Correlation matrix between SEC staff characteristics and firm characteristics

Variable	*female*	*cpa*	*mba*	*age*	*sec_exp*	*lawyer*
topics	−0.05***	0.00	−0.03***	0.02**	0.00	−0.06***
rounds	0.06***	−0.05***	0.02**	0.01	−0.08***	0.03**
time	0.05***	−0.07***	0.02**	0.09***	−0.03***	0.11***
big_n	0.01	−0.04***	−0.02**	−0.01	0.02**	0
second_tier	−0.03***	0.03***	−0.01	0.01	0.03***	−0.02
audtenure	0.06***	0	0.01	0.00	−0.07***	0.06***
restate	−0.01	0	0	0.00	0.03***	−0.01
m_weak	−0.04***	0	0	0.02*	0.03***	−0.03***
lnmarketcap	0.06***	0.01	0.03***	0.00	−0.03***	0.03***
loss	0	0.02**	−0.01	−0.01	−0.01	0
m_a	0.04***	0	0.03***	−0.01	−0.04***	0.04***
restructuring	0.01	0.02	0.01	0.03***	0	−0.01
salesgrowth	0.02*	−0.02**	0.02*	−0.01	−0.02	0.01
segments	−0.02	0	0	0.04***	0.03***	−0.01
bankruptcyrank	0.01	0	−0.01	0.01	0	−0.01
ceo_chair	−0.08***	−0.02**	−0.04***	0.04***	0.1***	−0.04***

(The table is continued on the next page.)

TABLE 1 (continued)

Panel D: Correlation matrix between SEC staff characteristics and firm characteristics

Variable	*female*	*cpa*	*mba*	*age*	*sec_exp*	*lawyer*
ceo_tenure	0.04***	0	0	0.01	−0.02*	0.03***
cfo_tenure	0.08***	0.02*	0.03***	0.00	−0.09***	0.06***
highvolatility	−0.02	−0.02**	−0.01	−0.05***	−0.02*	0
auditordismissed	−0.01	−0.01	−0.01	0.02*	0.02*	−0.02
auditorresigned	−0.01	0	0	0.01	0.01	−0.01

Notes: This table presents descriptive statistics. Panel A reports the descriptive statistics for the firm-year observations in the analyses. Panel B reports the summary statistics of the staff characteristics. Panel C reports the correlation matrix among the staff characteristics and scrutiny intensity (Pearson correlation coefficients are shown in the lower triangle, while Spearman rank correlations appear above the diagonal). Panel D reports the correlation matrix among the staff characteristics and firm characteristics (only Spearman rank correlations are shown, for brevity). ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). The definition of each variable can be found in Appendix 1.

at the SEC before 2005. Finally, *lawyer* is a binary variable equal to one if the staff member has a legal degree (the staff member is a JD/LLM/JSD or has graduated from a law school).

We report descriptive statistics of staff member characteristics in panel B of Table 1. Our results reveal that the majority of SEC staff members are male (60%). We infer gender from the first name of the staff member, and in case it is ambiguous, we perform Google searches on the full name of the staff member to see if we can find any information about the person online to facilitate gender identification. In terms of qualifications, 24% of SEC staff members report that they have a CPA qualification, and 7.6% report that they have an MBA degree. In addition, 33.2% of SEC staff members are in the 1980–1984 birth cohort, and 47.2% started working at the SEC in the 2000–2004 period. Finally, 26% of staff members have a law background.

Panel C of Table 1 reveals the correlations among SEC staff member characteristics and scrutiny intensity. Pearson correlation coefficients are included below the diagonal, while Spearman rank correlations are included above it. We find that an SEC staff member is likely to have an MBA degree if she is older and also holds a CPA qualification. Unsurprisingly, age and SEC experience are positively correlated. We also observe that female staff members raise fewer topics in the comment letter but take more rounds and a longer time to finish the review. Staff members with a CPA qualification and more years of SEC experience take fewer rounds and a shorter time in their review.

Panel D of Table 1 reports the correlations among firm characteristics and staff member characteristics. Our results are inconsistent with the notion that matching individual characteristics and firm characteristics is the driving force behind the staff member-firm pairing. One example is the CPA qualification. There is some evidence suggesting that CPA expertise is recognized and deployed strategically: CPAs are less likely to be assigned to *big_n* clients and profitable firms. These firms are likely to have good accounting quality (Jiang et al. 2018) and therefore the reviewer may not need to have accounting expertise. However, if assigned intentionally, we would expect CPAs to be assigned to firms with low accounting quality. However, this is not supported by data. We find that having a CPA is unrelated to clear signals of low accounting quality (i.e., a firm reporting the dismissal of an auditor or resignation of an auditor). This finding casts doubt on the matching between firms having poor accounting quality and staff members having CPA qualifications. Conflicting evidence also exists for SEC staff member experience. Although we find that firms with more segments, that restate earnings, and that report material internal control weaknesses (i.e., complicated cases) are associated with more experienced SEC staff members; more experienced staff members are also deployed to look after firms with lower volatility and a lower likelihood of engaging in M&A deals (these firms are less risky and less complicated). Moreover, while the correlation coefficients are often significant, their magnitude is low with none of the coefficients exceeding 10% in magnitude. Overall, we do not find convincing results that suggest that the assignment is strictly according to a match between individual SEC staff member characteristics and firm characteristics.

Table 2 presents information on the match between SEC staff members and firms. Panel A sorts staff members according to the number of unique firms to which the staff members have written comment letters. We retain only those staff members who have commented on more than one firm so that we can identify staff fixed effects. The data indicate that 150 staff members (41.9%) have commented on more than one firm but fewer than 10 firms, and 104 staff members (29.1%) have issued comment letters to between 11 and 20 firms. Panel B sorts firms according to the number of SEC staff members from whom the firms have received comment letters. Among the 1,448 firms in our sample, 276 firms have only one letter writer, 312 firms have two letter writers, and 221 firms have three letter writers during our sample period (the letter writers review corporate filings from different time periods). The maximum number of letter writers is 6, with 323 firms having that many letter writers. Overall, by construction, all staff members in our sample have written comment letters to more than one firm, while most firms have received comment letters from more than one SEC staff member.

TABLE 2
Staff and firm correspondence

Panel A: Distribution of SEC staff members according to the number of unique firms to which they have written comment letters of firms on which

Number of firms to which SEC staff member has written comment letters	Number of staff members	Percent
2–10	150	41.9%
11–20	104	29.1%
21–30	29	8.1%
31–40	19	5.3%
>40	56	15.6%
Total	358	100%

Panel B: Distribution of firms according to the number of unique SEC staff members who have issued comment letters to them

Number of letter writers	Number of firms	Percent
1	276	19.1%
2	312	21.6%
3	221	15.3%
4	188	13.0%
5	128	8.8%
6	323	22.3%
Total	1,448	100%

Notes: This table provides information on the correspondence between staff members and firms in the sample.

Analyses of workload

As discussed in the introduction, our results could be driven by the SEC matching firms' characteristics with individual SEC staff members' personal characteristics. Our conversation with an SEC staff member reveals that assignment of the review tasks are not based on personal characteristics, but rather on staff availability. In other words, if staff members are available to take on additional tasks, they are assigned the next review. We conduct empirical analyses on staff members' workloads to empirically assess the assignment of tasks.

We first quantify each individual staff member's workload in each month. We examine the calendar months of the first and the last SEC letters to a firm and assume that the SEC staff member works on the firm's review during the months in between. For example, if the first letter is dated January 15, 2010, and the last letter April 15, 2010, we assume that the SEC staff member worked on the firm's review between January and April 2010. We then count the number of firms the staff member reviews in a particular month. We understand that this is not a truly precise workload measure. For example, the staff member may have done work prior to the date on the first letter. However, there is no reason to expect this measurement error to bias our conclusions in one way or another.[19]

To test whether indeed the SEC tries to achieve equal assignment across individual staff members, we run the following regression:

19. Our untabulated results suggest that we cannot reject the hypothesis that the distribution of the workload is the same across calendar months and across offices. We also cannot reject the hypothesis that the mean values of all six personal characteristics are the same across offices.

TABLE 3
Staff workload analysis

Variables	*ΔWorkload*
Workload_Q1 (*lowest*)	0.483**
	(0.216)
Workload_Q2	0.0141
	(0.222)
Workload_Q3	−0.377
	(0.247)
Workload_Q4	−0.238
	(0.396)
Workload_Q5 (*highest*)	−1.372***
	(0.481)
Office fixed effects	Yes
Year-month fixed effects	Yes
Observations	9,492
Adj. R^2	0.084

Notes: This table reports the results of the following regression:

$$\Delta Workload_{it} = \alpha_1 Workload\_Q1_{it-1} + \alpha_2 Workload\_Q2_{it-1} + \alpha_3 Workload\_Q3_{it-1} + \alpha_4 Workload\_Q4_{it-1} + \alpha_5 Workload\_Q5_{it-1} + Office\ fixed\ effects + Year\text{-}month\ fixed\ effects + \varepsilon_{it}.$$

$\Delta Workload_{it}$ is the change in staff i's workload from the prior month $t-1$ to the current month t, where workload is the number of firms the staff member works on in a particular month. $Workload\_Q1_{it-1}$ is a binary variable equal to one if staff i's workload in month $t-1$ is in the first quintile (the lowest). $Workload\_Q5_{it-1}$ is a binary variable equal to one if staff i's workload in month $t-1$ is in the fifth quintile (the highest). Similar approaches apply for $Workload\_Q2_{it-1}$, $Workload\_Q3_{it-1}$, and $Workload\_Q4_{it-1}$. The regression is run without an intercept constant so all five coefficients of workload quintiles can be estimated. *** and **denote significance at the 1% and 5% levels, respectively (two-tailed). The figures in parentheses represent the standard errors.

$$\begin{aligned}\Delta Workload_{it} = {} & \alpha_1 Workload\_Q1_{it-1} + \alpha_2 Workload\_Q2_{it-1} + \alpha_3 Workload\_Q3_{it-1} \\ & + \alpha_4 Workload\_Q4_{it-1} + \alpha_5 Workload\_Q5_{it-1} + Office\ fixed\ effects \\ & + Year\text{-}month\ fixed\ effects + \varepsilon_{it}, \end{aligned} \tag{2}$$

where $\Delta Workload_{it}$ is the change in staff i's workload from the prior month $t-1$ to the current month t. We define workload as the number of firms the staff member reviews in any particular month. For every calendar month, we sort individuals into five quintiles based on their workload. $Workload\_Q1_{it-1}$ is a binary variable that is equal to one if the staff i's workload in month $t-1$ is in the first quintile (the lowest workload quintile), and zero otherwise. $Workload\_Q5_{it-1}$ is a binary variable that is equal to one if the staff i's workload in month $t-1$ is in the fifth quintile (the highest workload quintile), and zero otherwise. $Workload\_Q2_{it-1}$, $Workload\_Q3_{it-1}$, and $Workload\_Q4_{it-1}$ are similarly defined. The regression is run without an intercept term so that all five coefficients on workload quintiles can be estimated and reflect the average changes for individuals in the quintiles.

Our regression results are reported in Table 3. We find that the coefficient of *Workload_Q1* is 0.483 and is significant at the 5% level, suggesting that, on average, SEC staff members whose workload is in the bottom quintile will experience a 0.483 increase in their workload next month. The coefficients of *Workload_Q2*, *Workload_Q3*, and *Workload_Q4* are insignificant, suggesting

that staff members with a medium workload do not experience significant changes in their workload. The coefficient of *Workload_Q5* is −1.372 and significant at the 1% level, indicating that those in the highest quintile of workload experience a significant reduction in their workload in the next month. Overall, our findings offer some evidence that the SEC attempts to achieve a fair distribution of workload. Those who have little to do will experience an increase in workload whereas those who are busier will see a reduction in their workload. The evidence is inconsistent with the notion that the assignment is entirely determined by matching individual staff member characteristics to firm characteristics.

Scrutiny intensity

Panel A of Table 4 reports results for SEC staff fixed effects on the intensity of the SEC's scrutiny. Our model specification is discussed in equation (1). Following prior literature (Ge et al. 2011; Gul et al. 2013), for brevity, we do not report on the control variables.[20]

For each variable, the first row reports the adjusted R^2 from a baseline regression without SEC staff fixed effects. The second row reports the *F*-statistics and the associated *p*-values from the test of the joint significance of SEC staff fixed effects as well as the adjusted R^2 after we add SEC staff member indicators to the regression. We report both the actual *p*-value and the *p*-value obtained from Fracassi et al.'s (2016) bootstrapping tests. Because *topics*, *rounds*, and *time* represent count data, we take the natural logarithm of them in our regressions.

The first scrutiny intensity proxy is *topics*. The adjusted R^2 in the baseline regression is 26.0%. When we include SEC staff fixed effects, the adjusted R^2 increases to 43.5%. The increase in the adjusted R^2 is 17.5% (67.3% in percentage terms), which is material, especially given that the original model includes industry-year fixed effects and 18 control variables. The *F*-statistic is 1.92, significant at the 1% level (for both actual and bootstrap *p*-values), rejecting the null hypothesis that SEC staff members have no impact on the number of topics. The second scrutiny intensity proxy is *rounds*. The adjusted R^2 in the baseline regression is 21.4%. When we include SEC staff fixed effects, the adjusted R^2 increases to 34.9%. The increase in the adjusted R^2 is 13.5% (63.1% in percentage terms). The *F*-statistic is 5.63, significant at the 1% level (for both actual and bootstrap *p*-values), thereby rejecting the null hypothesis that SEC staff members have no impact on the number of rounds. The third scrutiny intensity proxy is *time*. The adjusted R^2 in the baseline regression is 20.0%. When we include SEC staff fixed effects, the adjusted R^2 increases to 36.4%. The *F*-statistic is 2.47, significant at the 1% level (for both actual and bootstrap *p*-values), suggesting that the personal styles of SEC staff members affect the length of the SEC's review process.

To assess the economic significance of SEC staff fixed effects on remediation costs, in panel B of Table 4 we report the percentage of SEC staff member indicators that are significant at least at the 10% level in the column "% sig." We also report the interquartile range (the difference between the 25th percentile and 75th percentile) of the estimated SEC staff fixed effects. The first row (*topics*) shows that 40.5% of SEC staff member indicators are significant. After adjusting for the log-transform of the dependent variable, the interquartile range is 44.2%, suggesting that the SEC staff member at the 75th percentile requires 44.2% more topics than the staff member at the 25th percentile.

To check the economic significance of the interquartile range, following Mitton (2021), we generate a uniform random variable on the interval (0,1) and create pseudo SEC staff indicators that equal one if an observation is above a randomly selected cutoff on the interval (0,1) and zero otherwise. We then replace the real SEC indicators with these pseudo indicators and rerun the baseline regression to estimate the pseudo staff fixed effects. We conduct 1,000 rounds of

20. We report the full set of results in Table A7 of the online Appendix.

TABLE 4
Effects of SEC staff members on scrutiny intensity

Panel A: Scrutiny intensity

	F-test on SEC staff fixed effects	*F*-test *p*-value	Bootstrap *p*-value	*N*	Adj. R^2 (%)
topics				5,604	26.0
topics	1.92	<0.01	<0.01	5,604	43.5
rounds				5,604	21.4
rounds	5.63	<0.01	<0.01	5,604	34.9
time				5,604	20.0
time	2.47	<0.01	<0.01	5,604	36.4

Panel B: Distribution of SEC staff fixed effects

Variable	*N*	% sig	Interquartile range (A)	Mean of simulated IQ range (S_Mean)	SD of simulated IQ range (S_Std)	Diff ((A−S_Mean)/S_Std)
topics	358	40.5%	44.2%	3.16%	1.57%	26.1
rounds	358	34.4%	27.2%	2.16%	1.40%	17.9
time	358	36.9%	60.9%	4.40%	2.18%	25.9

Notes: This table presents the effects of SEC staff members on scrutiny intensity. Panel A reports the test results for SEC staff fixed effects on firms' scrutiny intensity. The scrutiny intensity proxies are number of topics (*topics*), number of rounds (*rounds*), and time to close (*time*). For each dependent variable, the first row reports results without SEC staff member fixed effects, and the second row reports results when we include the fixed effects. We report the test results of joint significance for the staff fixed effects. We report the *F*-statistic, its *p*-value (two-tailed), and the bootstrap *p*-value (two-tailed) using Fracassi et al.'s (2016) method. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. All variables are defined in Appendix 1. Panel B reports the percentage of fixed effects that are significant at the 10% level and the interquartile range of the staff fixed effects (estimated). The interquartile range is adjusted for dependent variables, for which we use the log values (*rounds*, *time*, and *topics*). To check the economic significance of the interquartile range, following Mitton (2021, 18), we generate a uniform random variable on the interval (0,1) and create pseudo SEC staff indicators that equal one if an observation is above a randomly selected cutoff on the interval (0,1) and zero otherwise. We then replace the real SEC indicators with these pseudo indicators and rerun the baseline regression to estimate the pseudo staff fixed effects. We run 1,000 rounds of simulation and report the mean of the simulated interquartile (IQ) ranges as well as the standard deviation. The last column, Diff, reports the actual interquartile range minus the mean of the simulated IQ ranges, divided by the standard deviation of the simulated IQ ranges.

simulations, resulting in 1,000 observations of the interquartile range. We also report the mean and standard deviation of the distribution as well as the actual interquartile range. To assess whether the actual interquartile range is statistically different from the mean value based on the simulated distribution, we report Diff, computed as the actual value minus the mean value, divided by the standard deviation. Essentially, Diff represents how many standard deviations away the actual interquartile range is from the expected value based on the simulations. For *topics*, Diff is 26.1, suggesting that the actual interquartile range is considerably different from the expected value based on the simulations.

The second row (*rounds*) shows that 34.4% of SEC staff member indicators are significant. After adjusting for the log-transform of the dependent variable, the interquartile range is 27.2%, suggesting that the SEC staff member at the 75th percentile requires 27.2% more rounds than the

TABLE 5
Effects of SEC staff members on comment letter content

Panel A: Comment letter content

	F-test on SEC staff fixed effects	*F*-test *p*-value	Bootstrap *p*-value	*N*	Adj. R^2 (%)
foc_accdis				5,604	15.3
foc_accdis	1.87	<0.01	<0.01	5,604	44.5
foc_intcon				5,604	11.3
foc_intcon	2.48	<0.01	<0.01	5,604	21.0
foc_mda				5,604	17.8
foc_mda	4.77	<0.01	<0.01	5,604	41.9
foc_regfil				5,604	15.7
foc_regfil	3.34	<0.01	<0.01	5,604	39.2
foc_risk				5,604	13.3
foc_risk	1.43	<0.01	0.04	5,604	36.2
foc_other				5,604	12.9
foc_other	1.59	<0.01	0.04	5,604	40.0

Panel B: Distribution of SEC staff fixed effects

Variable	*N*	% sig	Interquartile range (A)	Mean of simulated IQ range (S_Mean)	SD of simulated IQ range (S_Std)	Diff ((A−S_Mean)/S_Std)
foc_accdis	358	50.8%	16.8%	1.13%	0.71%	22.1
foc_intcon	358	23.5%	0.8%	0.16%	0.10%	6.4
foc_mda	358	43.9%	7.9%	0.77%	0.48%	14.9
foc_regfil	358	46.9%	8.6%	0.62%	0.39%	20.5
foc_risk	358	42.2%	2.5%	0.29%	0.19%	11.6
foc_other	358	46.6%	8.7%	0.60%	0.37%	21.9

Notes: This table presents the effects of SEC staff members on comment letter content. Panel A reports the test results for SEC staff fixed effects on firms' comment letter content. The proxies are percentage of topics about: accounting disclosure (*foc_accdis*), internal controls (*foc_intcon*), MD&A (*foc_mda*), regulatory filings (*foc_regfil*), risk factor disclosure (*foc_risk*), and other disclosures (*foc_other*). Refer to the notes to Table 4 for explanations of the approach used in the analysis here.

staff member at the 25th percentile. The actual interquartile range is also significantly different from the expected value based on simulations, as the value of Diff is 17.9.

The third row (*time*) shows that 36.9% of estimated staff fixed effects are significant, and the SEC staff member at the 75th percentile requires 60.9% more days than the staff member at the 25th percentile to close the review process. The actual interquartile range is about 26 standard deviations away from the expected value based on the simulation. Overall, our results suggest that individual SEC staff members exert substantial influence over the SEC's scrutiny intensity.

Comment letter content

Panel A of Table 5 presents results from the analyses of the comment letter content. Our model specification is discussed in section 3. The first comment letter content proxy is the focus on accounting disclosure, *foc_accdis*. The adjusted R^2 in the baseline regression is 15.3%. When we include SEC staff fixed effects, the adjusted R^2 increases to 44.5%. The *F*-statistic is 1.87, which is significant at the 1% level (for both actual and bootstrap *p*-values), suggesting that the personal styles of SEC staff members affect the focus on accounting disclosures. The second focus proxy is

foc_intcon. The *F*-statistic is 2.48, which is significant at the 1% level (for both actual and bootstrap *p*-values). Thus, we can reject the null hypothesis that SEC staff members have no impact on the focus on internal controls. We obtain similar results for focuses on the remaining categories.

To assess the economic significance of these findings, we report the distribution of the estimated SEC staff fixed effects in panel B of Table 5. The first row (*foc_accdis*) shows that 50.8% of SEC staff member indicators are significant at least at the 10% level. The focus on accounting disclosure issues is 16.8% greater when we go from the SEC staff member at the 25th percentile to the one at the 75th percentile. For the focuses on the remaining categories, the interquartile range takes on a value between 0.8% and 8.7%; in addition, between 23.5% and 46.9% of SEC staff member indicators are significant at least at the 10% level. The actual interquartile ranges are also considerably different from the null, with the values of Diff ranging from 6.4 to 22.1. Overall, across all six measures of comment letter content, we find consistent evidence supporting the expectation that SEC staff members' personal styles shape the content of SEC review letters.

4. Analyses of SEC staff members' background characteristics

Background characteristics and scrutiny intensity

Table 6 reports the results when we investigate the association between SEC staff member characteristics and scrutiny intensity. In column (1), *topics* is the dependent variable. The coefficient of *female* is 0.037, significant at the 10% level, indicating that female staff members discuss approximately 3.8% more topics in the review process.[21] The coefficient of *cpa* is 0.089, significant at the 1% level. The coefficient of *mba* is 0.082, significant at the 10% level, while the coefficient of *lawyer* is −0.493, significant at the 1% level. These findings suggest that female staff members and staff members with CPA qualifications or MBA degrees raise more topics while staff members with a legal background raise fewer topics in the SEC review letter.

As *topics* can influence *time* and *rounds* in the review process, we also control for *topics* when the dependent variable is *rounds* or *time*. In column (2), *rounds* is the dependent variable. Unsurprisingly, the coefficient of *topics* is 0.473, significant at the 1% level, suggesting that more rounds are needed when the letter touches upon more topics. The coefficient of *cpa* is −0.042, significant at the 1% level. The coefficient of *sec_exp* is −0.027, significant at the 5% level. The coefficient of *mba* is 0.087 while the coefficient of *lawyer* is 0.263, both significant at the 1% level. These findings imply that staff members with MBA degrees and law backgrounds require more rounds while staff members with CPA qualifications and longer SEC experience require fewer rounds in the review process.

In column (3), *time* is the dependent variable. The coefficient of *cpa* is −0.097 and of *lawyer* is 0.647, both of which are significant at the 1% level. The coefficient on *topics* remains positive and highly significant. These findings suggest that staff members with CPA qualifications take less review time while staff members with legal backgrounds take more time to finish the review process. Overall, Table 6 offers strong evidence that SEC staff members' personal characteristics influence the intensity of the scrutiny.

Background characteristics and comment letter content

Table 7 reports the results when we investigate the association between SEC staff members' characteristics and comment letter content. The dependent variable in column (1) is oc_accdis is *foc_accdis*. The coefficient of *female* is −0.027, significant at the 1% level. The coefficient of *cpa* is 0.056, significant at the 1% level. The coefficients of *age* and *lawyer* are, respectively, −0.018 and −0.390; both significant at the 5% level or better. These findings indicate that staff members with CPA qualifications focus more

21. Given that the dependent variable is the natural logarithm of the number of topics, the coefficient needs to be adjusted to calculate the percentage difference in the number of topics between males and females, that is, $e^{0.037} - 1$. For the same reason, we interpret coefficients in a similar way when the dependent variable is *rounds* or *time*.

TABLE 6
Effects of SEC staff's personal characteristics on scrutiny intensity

Variable	(1) *topics*	(2) *rounds*	(3) *time*
female	0.037*	−0.0007	−0.029
	(0.020)	(0.010)	(0.024)
cpa	0.089***	−0.042***	−0.097***
	(0.025)	(0.013)	(0.030)
mba	0.082*	0.087***	0.085
	(0.046)	(0.023)	(0.053)
age	−0.007	0.007	0.028
	(0.021)	(0.011)	(0.024)
sec_exp	−0.012	−0.027**	0.041
	(0.024)	(0.012)	(0.028)
lawyer	−0.493***	0.263***	0.647***
	(0.077)	(0.039)	(0.090)
topics		0.473***	0.759***
		(0.008)	(0.019)
Controls	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes
Observations	4,114	4,114	4,114
Adj. R^2	0.297	0.609	0.467

Notes: This table reports the results of outcome variables on SEC staff characteristics:

$$Dep\_var_{it} = \alpha_0 + Controls_{it} + Industry\text{-}year\ fixed\ effects + Staff\ characteristics_j + \varepsilon_{it}.$$

This table reports the test results on firms' scrutiny intensity. Due to space constraints, we do not report the coefficient estimates for control variables. If there is more than one SEC staff member reviewing the firm's filing, we take the average of all the staff members involved to compute staff characteristics. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. All variables are defined in Appendix 1. Standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed).

on accounting disclosure issues in their comment letters (Bernard et al. 2020) whereas female, older staff members, and staff members with law degrees focus less on these issues.

The dependent variable is *foc_mda* in column (3). The coefficient on *female* is 0.026, significant at the 1% level. The coefficient on *mba* is −0.025, significant at the 5% level. The coefficient on *age* is −0.009, significant at the 10% level. The coefficient on *lawyer* is 0.111, significant at the 1% level. The dependent variable is *foc_regfil* in column (4). The coefficient on *female* is −0.012, the coefficient on *cpa* is −0.019, the coefficient on *age* is 0.017, the coefficient on *sec_exp* is −0.015 and the coefficient on *lawyer* is 0.054, all significant at the 1% level. In sum, these results suggest that SEC staff members with a legal background focus more on legal issues while accountants pay less attention to them.[22] Overall, the results in Table 7 offer evidence that the contents of SEC review letters are shaped by SEC staff members' background characteristics.

22. Results in columns (5) and (6) suggest that more experienced staff members and staff members with MBA degrees are less likely to focus on risk disclosure while staff members with a legal background are more likely to focus on risk disclosure. In addition, those with CPA qualifications are less likely to focus on other issues, while staff members with MBA degrees, older staff members, and staff members with a legal background are more likely to focus on other issues.

TABLE 7
Effects of SEC staff's personal characteristics on comment letter content

Variable	(1) *foc_accdis*	(2) *foc_intcon*	(3) *foc_mda*	(4) *foc_regfil*	(5) *foc_risk*	(6) *foc_other*
female	−0.027***	0.002	0.026***	−0.012***	0.002	0.008**
	(0.007)	(0.001)	(0.005)	(0.004)	(0.002)	(0.004)
cpa	0.056***	0.0003	−0.007	−0.019***	−0.0003	−0.030***
	(0.009)	(0.001)	(0.006)	(0.005)	(0.002)	(0.005)
mba	0.006	−0.003	−0.025**	−0.0006	−0.008**	0.031***
	(0.016)	(0.003)	(0.011)	(0.009)	(0.004)	(0.009)
age	−0.018**	0.0002	−0.009*	0.017***	0.002	0.007*
	(0.007)	(0.001)	(0.005)	(0.004)	(0.002)	(0.004)
sec_exp	0.011	0.002	0.004	−0.015***	−0.006***	0.003
	(0.009)	(0.001)	(0.006)	(0.005)	(0.002)	(0.005)
lawyer	−0.390***	−0.004	0.111***	0.054***	0.025***	0.204***
	(0.028)	(0.004)	(0.019)	(0.016)	(0.007)	(0.015)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,114	4,114	4,114	4,114	4,114	4,114
Adj. R^2	0.245	0.129	0.213	0.201	0.174	0.219

Notes: This table reports the results of outcome variables on SEC staff characteristics:

$$Dep\_var_{it} = \alpha_0 + Controls_{it} + Industry\text{-}year\ fixed\ effects + Staff\ characteristics_j + \varepsilon_{it}.$$

This table reports the test results on firms' comment letter content. Due to space constraints, we do not report the coefficient estimates for control variables. If there is more than one SEC staff member reviewing a firm's filing, we take the average of all the staff members involved to compute staff characteristics. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. All variables are defined in Appendix 1. Standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed).

Effects of staff characteristics on future restatement

This section examines the effect of SEC staff members' personal characteristics on the likelihood of firms restating earnings. Our model is specified as follows:

$$\begin{aligned} Restate_{it+1,t+3} = {} & \alpha_0 + \alpha_1 topics_{it} + \alpha_2 rounds_{it}/time_{it} + Controls_{it} + Industry\text{-}year\ fixed\ effects_{it} \\ & + Staff\ characteristics_j + \gamma_1 rounds_{it}/time_{it} \times Staff\ characteristics_j + \varepsilon_{it}, \end{aligned} \quad (3)$$

where $Restate_{it+1,t+3}$ is equal to one if firm i restates its earnings in the three years after year t, and zero otherwise. We also include six staff characteristics: *female*, *cpa*, *mba*, *age*, *sec_exp*, and *lawyer*. The control variables are the same as in equation (1) and include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. We include *topics* and *rounds* or *time*, as well as the interaction between *rounds* or *time* with staff characteristics, to see how the SEC's scrutiny intensity is associated with future restatements.

Our results are reported in Table 8. In column (1), the coefficient of *rounds* is −1.241, significant at the 1% level, suggesting that more rounds of SEC reviews reduce the restatement likelihood. The coefficient of *cpa* is −1.188, significant at the 5% level. The related odds ratio suggests that, for an SEC staff member with a CPA qualification, the odds of restatement drop by 70% in the next three years. The coefficient of *rounds*×*female* is −0.807, significant at the 5% level, suggesting that the negative impact of *rounds* on the restatement likelihood is more pronounced when the reviewer is a female.

In column (2), we report our results when we replace *rounds* with *time*. The coefficient of *time* is −0.446, suggesting that a longer SEC review is associated with lower restatement likelihood. The coefficient of *cpa* is −1.757, significant at the 5% level. The odds ratio statistic suggests that the odds of restatement are 83% lower when the SEC staff member has a CPA qualification. The coefficient of *sec_exp* is −1.466, significant at the 10% level, indicating that the restatement likelihood is lower when the SEC member is more experienced. The coefficient of *time*×*cpa* is −0.380, suggesting that *time*'s negative impact on the restatement likelihood is more pronounced when the SEC staff member has a CPA qualification.

Overall, our results suggest that the scrutiny intensity and accounting expertise (as proxied by CPA qualification) are associated with a lower likelihood of future restatement, offering two implications. First, a high intensity of scrutiny is not a waste of resources as it reduces the likelihood of future restatements. Second, the SEC may find it beneficial to invest in its staff members' accounting expertise by either offering accounting training or hiring more accounting experts, because accounting expertise is associated with lower restatement likelihood.

5. Analyses of staff-correspondent similarity

Measure of similarity

We next analyze how similarity between the firm's correspondent and the SEC staff member influences the review process. We use the Audit Analytics database to identify the name of the firm's correspondent. When this information is unavailable in the database, we use a Python program to manually extract the name and title of the correspondent. After obtaining the name, we merge the information with BoardEx to extract the biographic information, which we use to compute our measures of demographic similarity between the staff members and the firm's correspondent.

We use four measures of similarities: *sim_age_cohort* (similarity in age cohort), *same_gender* (the staff member and the correspondent are of the same gender), *sim_mba* (similarity in MBA degrees), and *sim_cpa* (similarity in CPA qualifications) There are three possible values for age cohort, depending on the year of birth of the staff/firm correspondent. Specifically, it is equal to 1 if date of birth is 1980 and later (Millennial/Generation Y), it is equal to 2 if date

TABLE 8
Effects of SEC staff's personal characteristics on future restatements

	(1) *Restatement*		(2) *Restatement*	
Variables	Coeff.	Odds ratio	Coeff.	Odds ratio
topics	0.102	1.11	−0.0324	0.97
	(0.160)		(0.139)	
rounds	−1.241***	0.29		
	(0.381)			
time			−0.446**	0.64
			(0.226)	
female	0.859	2.36	−0.0212	0.98
	(0.574)		(0.833)	
cpa	−1.188**	0.30	−1.757**	0.17
	(0.510)		(0.690)	
mba	2.152	8.60	−1.267	0.28
	(2.051)		(2.848)	
age	0.544	1.72	0.744	2.10
	(0.754)		(0.862)	
sec_exp	−1.466	0.23	−1.466*	0.23
	(1.475)		(0.794)	
lawyer	−0.106	0.90	−4.020	0.02
	(2.289)		(3.171)	
rounds×*female*	−0.807**	0.45		
	(0.378)			
rounds×*cpa*	0.627	1.87		
	(0.609)			
rounds×*mba*	−0.869	0.42		
	(1.116)			
rounds×*age*	−0.255	0.77		
	(0.493)			
rounds×*sec_exp*	0.767	2.15		
	(1.325)			
rounds×*lawyer*	0.554	1.74		
	(1.269)			
time×*female*			−0.0734	0.93
			(0.207)	
time×*cpa*			−0.380**	0.68
			(0.162)	
time×*mba*			0.544	1.72
			(0.779)	
time×*age*			−0.149	0.86
			(0.217)	
time×*sec_exp*			0.293	1.34
			(0.210)	
time×*lawyer*			1.169	3.22
			(0.718)	
Controls	Yes		Yes	
Industry-year fixed effects	Yes		Yes	
Observations	4,114		4,114	
Adj. R^2	0.131		0.129	

(The table is continued on the next page.)

TABLE 8 (continued)

Notes: This table reports the results of outcome variables on SEC staff characteristics:

$$Restatement_{it+1,t+3} = \alpha_0 + topics_{it} + rounds_{it} + Staff\ characteristics_j + rounds_{it} \times Staff\ characteristics_j + Industry\text{-}year\ fixed\ effects + Controls_{it} + \varepsilon_{it}\ (\text{column}\ (1)),$$

$$Restatement_{it+1,t+3} = \alpha_0 + topics_{it} + time_{it} + Staff\ characteristics_j + time_{it} \times Staff\ characteristics_j + Industry\text{-}year\ fixed\ effects + Controls_{it} + \varepsilon_{it}\ (\text{column}\ (2)).$$

This table reports the test results on firms' future restatement. Due to space constraints, we do not report the coefficient estimates for control variables. If more than one SEC staff member is reviewing the firm's filing, we take the average of all the staff members involved to compute staff characteristics. The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. All variables are defined in Appendix 1. Standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed).

of birth is from 1965 to 1979 (Generation X), and it is equal to 3 if date of birth is before 1965 (Baby Boomer) (Dinas and Stoker 2014).

Following Westphal and Zajac (1995), we use Blau's index of heterogeneity to capture similarity between the firm correspondent and all staff members involved. For example, *sim_age_cohort* is calculated as:

$$1 - \left[\sum_{i=1}^{n} \frac{\left(Age\_cohort_{firm\ correspodent} - Age\_cohort_{staff,i}\right)^2}{n}\right]^{\frac{1}{2}},$$

where n is the number of staff members reviewing the firm's filing. When the age cohort is different, the value of *sim_age_cohort* decreases. Thus, *sim_age_cohort* reflects the extent of similarity in age cohort between the firm's correspondent and the staff members. *sim_mba* and *sim_cpa* are defined in the same way. *same_gender* takes the value of one if the SEC staff members are of the same gender as the firm's correspondent. In cases where more than one SEC staff member works on the review, we require the staff members to be of the same gender and remove observations that do not satisfy this requirement from our empirical analyses. These data requirements change the gender composition: the proportion of female staff members goes down from 40% to 24%.[23]

Our model is specified as follows:

$$Dep\_var_{it} = \alpha_0 + \alpha_1 sim\_age\_cohort_{it} + \alpha_2 same\_gender_{it} + \alpha_3 sim\_mba_{it} + \alpha_4 sim\_cpa_{it} + Controls_{it} + Industry\text{-}year\ fixed\ effects + Staff\ fixed\ effects + \varepsilon_{it}, \quad (4)$$

where *Dep_var* refers to either scrutiny intensity or comment letter content. The control variables are the same as before and include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*.

Empirical results

Panel A of Table 9 reports our regression results when the dependent variable is scrutiny intensity. Column (1) reports the results when the dependent variable is *topics*. The coefficient of

23. We call it similarity in CPA qualifications and MBA degrees because there may be more than one SEC staff member working on the review and they may differ in their CPA qualifications and MBA degrees. If we require all SEC members working on the same comment letter to have the same CPA qualification or MBA degree, we will end up with a very small sample.

TABLE 9
Effects of background similarity between staff members and firms' correspondents on scrutiny intensity

Panel A: All staff members

Variable	(1) *topics*	(2) *rounds*	(3) *time*
sim_age_cohort	0.026	−0.024	0.037
	(0.045)	(0.023)	(0.051)
same_gender	−0.012	0.014	−0.063
	(0.065)	(0.032)	(0.073)
sim_mba	−0.065*	0.0049	0.056
	(0.037)	(0.018)	(0.042)
sim_cpa	−0.079**	−0.0003	0.105**
	(0.038)	(0.019)	(0.043)
topics		0.536***	0.821***
		(0.017)	(0.039)
Controls	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes
Staff fixed effects	Yes	Yes	Yes
Observations	1,958	1,958	1,958
Adj. R^2	0.552	0.746	0.663

Panel B: All female staff members

Variable	(1) *topics*	(2) *rounds*	(3) *time*
sim_age_cohort	−0.133	−0.060	0.004
	(0.130)	(0.058)	(0.097)
same_gender	0.229	0.020	−0.173
	(0.194)	(0.087)	(0.138)
sim_mba	−0.002	0.063	0.031
	(0.102)	(0.045)	(0.076)
sim_cpa	0.114	0.002	0.133*
	(0.110)	(0.049)	(0.080)
topics		0.550***	0.984***
		(0.040)	(0.071)
Controls	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes
Staff fixed effects	Yes	Yes	Yes
Observations	467	467	467
Adj. R^2	0.739	0.881	0.720

Panel C: All male staff members

Variable	(1) *topics*	(2) *rounds*	(3) *time*
sim_age_cohort	0.056	−0.012	0.072
	(0.054)	(0.028)	(0.063)
same_gender	−0.041	−0.033	−0.114
	(0.075)	(0.039)	(0.087)

(The table is continued on the next page.)

TABLE 9 (continued)

Panel C: All male staff members

Variable	(1) *topics*	(2) *rounds*	(3) *time*
sim_mba	−0.061	0.008	0.085*
	(0.044)	(0.023)	(0.050)
sim_cpa	−0.122***	−0.016	0.039
	(0.044)	(0.023)	(0.052)
topics		0.513***	0.773***
		(0.022)	(0.048)
Controls	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes
Staff fixed effects	Yes	Yes	Yes
Observations	1,491	1,491	1,491
Adj. R^2	0.555	0.731	0.634

Notes: This table reports the results of the following regressions:

$$Dep\_var_{it} = \alpha_0 + \alpha_1 sim\_age\_cohort_{it} + \alpha_2 same\_gender_{it} + \alpha_3 sim\_mba_{it} + \alpha_4 sim\_cpa_{it} + Controls_{it} + Industry\text{-}year\ fixed\ effects + Staff\ fixed\ effects + \varepsilon_{it}.$$

The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. All variables are defined in Appendix 1. Standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). In panel B (C), we require all the staff members to be female (male).

sim_mba is −0.065, significant at the 10% level, while the coefficient of *sim_cpa* is −0.079, significant at the 5% level. These results indicate that, when the firm's correspondent and the staff members have a similar background with respect to having an MBA or a CPA, the SEC review involves fewer topics. As *topics* can influence *rounds* and *time*, we continue to control for *topics* when we examine *rounds* and *time*.

Column (2) reports the results when the dependent variable is *rounds*. The coefficient of *topics* is 0.536, significant at the 1% level, suggesting that the SEC review involves more rounds when the number of topics raised is higher. None of the similarity measures are significant after controlling for *topics*.

Column (3) reports the results when the dependent variable is *time*. The coefficient of *topics* is 0.821, significant at the 1% level. The coefficient of *sim_cpa* is 0.105, significant at the 5% level. This finding suggests that similarity in CPA qualifications is associated with a longer time to finish the review, after controlling for the number of topics.[24]

As the effects of similarity in background may differ across genders, we sort our sample observations into two subsamples, depending on the gender of the SEC staff members. Panels B and C in Table 9 report the results when all staff members are female and male, respectively. Panel B shows that, after controlling for *topics*, similarity in CPA qualifications[25] is associated with more time to finish the review when the staff members are female. Panel C shows that similarity in CPA qualifications is associated with a lower number of topics raised in SEC reviews when the staff members are male. After controlling for *topics*, none of the similarity measures are

24. The association between similarity in CPA qualifications and a longer time to finish the review is concentrated in the cases where neither firm correspondents nor SEC staff members have CPA qualifications.

25. This finding is concentrated in the cases where neither firm correspondents nor SEC staff members have CPA qualifications.

TABLE 10
Effects of background similarity between staff members and firms' correspondents on comment letter content

Panel A: All staff members

Variable	(1) *foc_accdis*	(2) *foc_intcon*	(3) *foc_mda*	(4) *foc_regfil*	(5) *foc_risk*	(6) *foc_other*
sim_age_cohort	0.004	−0.003	−0.007	0.011	−0.004	−0.0007
	(0.016)	(0.003)	(0.010)	(0.009)	(0.004)	(0.008)
same_gender	−0.004	−0.002	0.004	−0.004	0.006	0.0009
	(0.022)	(0.004)	(0.014)	(0.012)	(0.006)	(0.011)
sim_mba	−0.007	−0.0007	0.009	0.002	−0.005	0.0009
	(0.013)	(0.002)	(0.008)	(0.007)	(0.003)	(0.006)
sim_cpa	−0.008	−0.001	0.006	−0.006	−0.00007	0.008
	(0.013)	(0.002)	(0.008)	(0.007)	(0.004)	(0.006)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Staff fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,958	1,958	1,958	1,958	1,958	1,958
Adj. R^2	0.541	0.342	0.522	0.514	0.359	0.519

Panel B: All female staff members

Variable	(1) *foc_accdis*	(2) *foc_intcon*	(3) *foc_mda*	(4) *foc_regfil*	(5) *foc_risk*	(6) *foc_other*
sim_age_cohort	−0.043	−0.005	−0.016	0.064***	0.013	−0.013
	(0.038)	(0.008)	(0.026)	(0.021)	(0.012)	(0.023)
same_gender	−0.022	−0.009	−0.071*	0.009	0.012	0.081**
	(0.057)	(0.012)	(0.039)	(0.031)	(0.018)	(0.034)
sim_mba	0.004	0.0002	0.021	−0.015	−0.001	−0.0091
	(0.030)	(0.006)	(0.021)	(0.0166)	(0.009)	(0.018)
sim_cpa	−0.011	−0.002	−0.012	0.020	0.0008	0.005
	(0.032)	(0.007)	(0.022)	(0.018)	(0.010)	(0.020)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Staff fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	467	467	467	467	467	467
Adj. R^2	0.796	0.471	0.808	0.767	0.490	0.741

Panel C: All male staff members

Variable	(1) *foc_accdis*	(2) *foc_intcon*	(3) *foc_mda*	(4) *foc_regfil*	(5) *foc_risk*	(6) *foc_other*
sim_age_cohort	0.007	−0.003	−0.009	0.003	−0.006	0.007
	(0.020)	(0.003)	(0.012)	(0.011)	(0.005)	(0.009)
same_gender	0.005	0.0009	0.018	−0.014	0.010	−0.020
	(0.027)	(0.005)	(0.017)	(0.015)	(0.007)	(0.013)
sim_mba	−0.008	−0.001	0.009	0.007	−0.006	−0.0003
	(0.016)	(0.003)	(0.010)	(0.009)	(0.004)	(0.008)

(The table is continued on the next page.)

TABLE 10 (continued)

Panel C: All male staff members

Variable	(1) *foc_accdis*	(2) *foc_intcon*	(3) *foc_mda*	(4) *foc_regfil*	(5) *foc_risk*	(6) *foc_other*
sim_cpa	0.002	−0.001	0.005	−0.011	−0.001	0.006
	(0.016)	(0.003)	(0.010)	(0.009)	(0.004)	(0.008)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Staff fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,491	1,491	1,491	1,491	1,491	1,491
Adj. R^2	0.502	0.350	0.462	0.481	0.378	0.476

Notes: This table reports the results of the following regressions:

$$Dep\_var_{it} = \alpha_0 + \alpha_1 sim\_age\_cohort_{it} + \alpha_2 same\_gender_{it} + \alpha_3 sim\_mba_{it} + \alpha_4 sim\_cpa_{it} + Controls_{it} + Industry\text{-}year\ fixed\ effects + Staff\ fixed\ effects + \varepsilon_{it}.$$

The control variables include *big_n*, *second_tier*, *audtenure*, *restate*, *m_weak*, *lnmarketcap*, *loss*, *m_a*, *restructuring*, *salesgrowth*, *segments*, *bankruptcyrank*, *ceo_chair*, *ceo_tenure*, *cfo_tenure*, *highvolatility*, *auditordismissed*, and *auditorresigned*. All variables are defined in Appendix 1. Standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). In panel B, we require all the staff members to be female, and in panel C, all male.

significantly correlated with *rounds*. When the dependent variable is *time*, the coefficient of *sim_mba* is positive and significant.

Table 10 reports the results when the dependent variables are measures of the content of the SEC comment letters. None of the similarity measures load significantly in the regressions. We also report results when all staff members are female (male) in panel B (C). Panel B shows that *same_gender* is negatively associated with *foc_mda*, *sim_age_cohort* is positively associated with *foc_regfil*, and *same_gender* is positively associated with *foc_other*. The results in panel C are similar to those in panel A, partially because the majority of the overall sample observations are in the sample of panel C.

In sum, the results shown in Tables 9 and 10 provide some evidence that similarity in personal characteristics influences the review process. For example, in our overall sample, similarities in MBA degrees and CPA qualifications are associated with a lower number of topics, which is associated with a lower number of rounds and a shorter review time. These results are consistent with prior studies suggesting that individuals with shared characteristics trust each other more due to common values and beliefs (Uslaner and Conley 2003; Guiso et al. 2009; Pevzner et al. 2015; Bhagwat and Liu 2020). When staff members have more trust in the firms' correspondents, we expect the staff members will scrutinize the firms' filings less vigorously. Our subsample analyses further indicate that the influences of similarity differ between men and women.

6. Conclusion

Using SEC review letters, we investigate whether SEC staff members exhibit personal styles in their enforcement efforts. Our results demonstrate that SEC staff members do have unique styles, which shape both scrutiny intensity and letter content. Further analyses suggest that staff members with MBA degrees are tougher reviewers, as they are associated with a higher number of topics and rounds. In addition, staff members with CPA qualifications are more likely to focus on accounting disclosures and raise more topics during the SEC review.

To assess the efficacy of SEC reviews, we examine the likelihood of restatements. Our results demonstrate that a greater number of rounds and a longer time to finish the review are associated with a lower likelihood of future restatements. Moreover, SEC staff members with CPA qualifications are associated with a lower likelihood of accounting restatements. These results highlight the importance of accounting expertise in the SEC's reviews. We also investigate the similarity between the SEC staff members and the firm's correspondent. We find that similarities in MBA degrees and CPA qualifications are associated with a lower number of topics, which is associated with fewer rounds and a shorter review time.

It is not for us to decide which personal style is socially desirable. Although tougher SEC staff members may increase firm value by improving accounting quality and reducing firms' cost of capital, they might also destroy value by forcing firm management to focus on comment letters instead of running the business. We are also unable to judge how much individual discretion among SEC staff members is optimal from the perspective of social welfare. A question for future research is whether firms understand that SEC staff members have their own unique personal styles. We searched the popular press to determine whether anecdotal evidence suggests that firms complain about unfair treatment from the SEC, but found none. One explanation is that firms have interactions with only a very limited number of SEC staff members, effectively prohibiting them from drawing general conclusions.

Appendix 1: Variable definitions

Variable	Definition
Scrutiny intensity	
topics	Total number of issue codes assigned by Audit Analytics in the comment letter conversation database. In the regressions, we take the natural logarithm of the number of topics
rounds	Number of rounds from the first letter to the "no further comment" letter. In the regressions, we take the natural logarithm of the number of rounds
time	Response time (in days) from the first comment letter to the "no further comment" letter. In the regressions, we take the natural logarithm of number of days
Comment letter content	
foc_accdis	Percentage of total number of topics related to accounting disclosure (assigned by Audit Analytics)
foc_intcon	Percentage of total number of topics related to internal control disclosure (assigned by Audit Analytics)
foc_mda	Percentage of total number of topics related to management discussion and analysis (MD&A) (assigned by Audit Analytics)
foc_regfil	Percentage of total number of topics related to regulatory filing, for example, specific Reg S-K and Reg S-X disclosure requirements (assigned by Audit Analytics)
foc_risk	Percentage of total number of topics related to risk factor disclosure (assigned by Audit Analytics)
foc_other	Percentage of total number of topics related to other disclosures, for example, disclosures relating to executive and director compensation, legal matters, non-GAAP measures, related party transactions (assigned by Audit Analytics)

(The table is continued on the next page.)

(continued)

Variable	Definition
Comment letter linguistic characteristics[26]	
positive	Percentage of net positive words in the comment letter conversation—that is, the number of positive words (e.g., "achieve," "excel") minus the number of negative words (e.g., "abnormal," "duress"), divided by the total number of words. We define positive and negative words using Loughran and McDonald's (2018) sentiment word list. We also account for the simple negation of positive words by accounting for instances where negation words (no, not, none, either, never, nobody) occur within three words preceding a positive word (Loughran and McDonald 2011)
uncertainty	Percentage of uncertainty words in the comment letter conversation—that is, the number of uncertainty words (e.g., "ambiguity," "probability"), divided by the total number of words. We define uncertainty words using Loughran and McDonald's (2018) sentiment word list
litigious	Percentage of litigious words in the comment letter conversation—that is, the number of litigious words (e.g., "acquit," "legal"), divided by the total number of words. We define litigious words using Loughran and McDonald's (2018) sentiment word list
strong_modal	Percentage of strong modal words in the comment letter conversation—that is, the number of strong modal words (e.g., "always," "must"), divided by the total number of words. We define strong modal words using Loughran and McDonald's (2018) sentiment word list
weak_modal	Percentage of weak modal words in the comment letter conversation—that is, the number of weak modal words (e.g., "could," "maybe"), divided by the total number of words. We define weak modal words using Loughran and McDonald's (2018) sentiment word list
active	Percentage of net active orientation words in the comment letter conversation—that is, the number of active orientation words (e.g., "adopt," "stimulate") minus the number of passive orientation words (e.g., "react," "receive"), divided by the total number of words. We define active orientation and passive orientation words using the Harvard General Inquirer dictionary. We also account for the simple negation of active orientation words by accounting for instances where negation words (no, not, none, either, never, nobody) occur within three words preceding an active orientation word (Loughran and McDonald 2011)
inclusive	Percentage of inclusive pronouns (e.g., "we," "let's") in the comment letter conversation—that is, the number of inclusive pronouns divided by the total number of words. We define inclusive pronouns using the Harvard General Inquirer dictionary
Control variables	
lnmarketcap	Natural logarithm of market capitalization, calculated as the number of shares outstanding at the fiscal year-end multiplied by the closing share price at the fiscal year-end
loss	Indicator variable that is equal to one if earnings before extraordinary items is negative in year *t*, and zero otherwise
m_a	Indicator variable that is equal to one for non-zero acquisitions or mergers as reported on a pre-tax basis (Compustat Item AQP) in year *t*, and zero otherwise
restructuring	Indicator variable that is equal to one for non-zero restructuring costs as reported on a pre-tax basis (Compustat Item RCP) in year *t*, and zero otherwise

(The table is continued on the next page.)

(continued)

Variable	Definition
salesgrowth	Percentage change in annual sales from year $t-1$ to year t
segments	Number of business segments at the end of year t reported in the Compustat Segments database
bankruptcyrank	Decile rank of the company's Altman's Z-score as of the end of year t. Companies in the decile having the poorest financial health are assigned a value of 10 while those in the decile having the best financial health are assigned a value of 1. Altman's Z-score is measured following DeFond and Hung (2003) and Altman (1968): $Z\text{-score} = 1.2 \times [\text{net working capital (ACT} - \text{LCT)/total assets (AT)}] + 1.4 \times [\text{retained earnings (RE)/total assets}] + 3.3 \times [\text{earnings before interest and taxes (PI} + \text{XINT)/total assets}] + 0.6 \times [\text{market value of equity (CSHO} \times \text{PRCC\_F)/book value of liabilities (LT)}] + 1.0 \times [\text{sales (SALE)/total assets}]$
m_weak	Indicator variable that is equal to one if a material weakness in internal control is identified under either section 302 or section 404 of the Sarbanes-Oxley Act, and zero otherwise
restate	Indicator variable that is equal to one if the firm files a 10-K restatement in the year, and zero otherwise
ceo_chair	Indicator variable that is equal to one if the CEO is also the chairman of the board of directors, and zero otherwise
ceo_tenure	Number of years the CEO has served in her current role since the beginning of our sample
cfo_tenure	Number of years the CFO has served in her current role since the beginning of our sample
highvolatility	Indicator variable that is equal to one if the volatility of abnormal monthly stock returns (equal to the monthly return [RET] minus the value weighted return [VWRTD]) is in the highest quartile in a given fiscal year, and zero otherwise. Return volatility is calculated as the standard deviation of monthly stock returns for the 12-month period ending in the last month of the fiscal year
auditordismissed	Indicator variable that is equal to one if the auditor was dismissed in year t, and zero otherwise. This information is obtained from the Audit Analytics Auditor Changes database
auditorresigned	Indicator variable that is equal to one if the auditor resigned in year t, and zero otherwise. This information is obtained from the Audit Analytics Auditor Changes database
big_n	Indicator variable that is equal to one if the auditor in year t is a Big-N audit firm, and zero otherwise
second_tier	Indicator variable that is equal to one if the auditor is at a second-tier audit firm (i.e., BDO Seidman, Crowe Horwath, Grant Thornton, or McGladrey & Pullen), and zero otherwise
audtenure	Number of years (through year t) during which the auditor has audited the company since the beginning of our sample
SEC staff member characteristics	
female	Indicator variable that is equal to one if the SEC staff member is female, and zero otherwise. We infer gender from the first name of the staff member. In cases where it is ambiguous, we perform Google searches with the full name to see if we can find any information of the staff member online
cpa	Indicator variable that is equal to one if the SEC staff member discloses that they are a CPA, and zero otherwise

(The table is continued on the next page.)

(continued)

Variable	Definition
mba	Indicator variable that is equal to one if the SEC staff member discloses that they have obtained an MBA degree, and zero otherwise
age	Indicator variable that is equal to one if the SEC staff member obtained their first college degree before 2002, and zero otherwise. This is equivalent to the staff member having been born before 1980, assuming that the SEC staff member obtained their first college degree at the age of 22
sec_exp	Indicator variable that is equal to one if the SEC staff member started working at the SEC prior to 2005, and zero otherwise
lawyer	Indicator variable that is equal to one if the SEC staff member discloses that they have obtained a law degree (the staff member is a JD/LLM/JSD or has graduated from a law school), and zero otherwise
Future restatement	
$Restatement_{it+1,t+3}$	Indicator variable that is equal to one if the company's financial statements in the next three years are later restated, whereby financial restatement is obtained from the Audit Analytics Non-Reliance Restatement database. Our sample ends in 2015, and we check restatement records up to the year 2020 to determine if any restatement has taken place
Staff-manager similarity measures	
sim_age_cohort	Measure of similarity in age cohort between the firm correspondent and the staff members. Essentially, we use Blau's index of heterogeneity to capture similarity between the firm correspondent and all staff members involved. Specifically, *sim_age_cohort* is calculated as $1-\left[\sum_{i=1}^{n}\frac{\left(Age\_cohort_{firm\ respondent}-Age\_cohort_{staff,i}\right)^2}{n}\right]^{\frac{1}{2}}$, where n is the number of staff members. There are three possible values for age cohort, depending on the year of birth of the staff/firm correspondent. Specifically, it is equal to 1 if year of birth is 1980 and later (Millennial/ Generation Y), it is equal to 2 if year of birth is from 1965 to 1979 (Generation X), and it is equal to 3 if year of birth is before 1965 (Baby Boomer)
same_gender	Indicator variable that takes the value of one if the SEC staff members are of the same gender as the firm's correspondent, and zero otherwise. In cases where more than one SEC staff member works on the review, we require the staff members to be of the same gender and remove observations that do not satisfy this requirement in the computation of this variable
sim_mba	Measure of similarity in MBA degree between the firm correspondent and the staff members. Essentially, we use Blau's index of heterogeneity to capture similarity between the firm correspondent and all staff members involved. Specifically, *sim_mba* is calculated as $1-\left[\sum_{i=1}^{n}\frac{\left(MBA_{firm\ respondent}-MBA_{staff,i}\right)^2}{n}\right]^{\frac{1}{2}}$, where n is the number of staff members
sim_cpa	Measure of similarity in CPA qualification between the firm correspondent and the staff members. Essentially, we use Blau's index of heterogeneity to capture similarity between the firm correspondent and all staff members involved. Specifically, *sim_cpa* is calculated as $1-\left[\sum_{i=1}^{n}\frac{\left(CPA_{firm\ respondent}-CPA_{staff,i}\right)^2}{n}\right]^{\frac{1}{2}}$, where n is the number of staff members

Appendix 2: Comment letter (sample)

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

May 22, 2014

Via E-mail
Christopher G. Marshall
Chief Financial Officer
Capital Bank Financial Corp.
121 Alhambra Plaza Suite 1601
Coral Gables, Florida 33134

Re: Capital Bank Financial Corp
Form 10-K for Fiscal Period Ended December 31, 2013
Filed February 28, 2014
File No. 001-35655

Dear Mr. Marshall:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

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Please address questions regarding all comments to Marc Thomas, Staff Accountant, at (202) 551-3452 or, if you thereafter need further assistance, to me at (202) 551-3752.

Sincerely,

/s/ Gus Rodriguez

Gus Rodriguez
Accounting Branch Chief

Appendix 3: SEC staff member's LinkedIn (sample)

CPA 3rd

Senior Staff Accountant at U.S. Securities and Exchange Commission

Ellicott City, Maryland | Accounting

Current	U.S. Securities and Exchange Commission
Previous	U.S. Securities and Exchange Commission, KPMG LLP
Education	University of Missouri-Columbia, College of Business

421 connections

Background

Experience

Senior Staff Accountant, Division of Corporation Finance
U.S. Securities and Exchange Commission
July 2016 – Present (6 months) | Washington D.C. Metro Area

Perform regulatory oversight and compliance of publicly registered companies, with a focus on the information technologies and services industry. Specific duties involve reviewing and analyzing SEC filings, identifying and resolving complex accounting and reporting issues, and researching and providing interpretation of regulations and statutes.

Office of the Managing Executive, Management and Program Analyst, Division of Corporation Finance
U.S. Securities and Exchange Commission
August 2013 – July 2016 (3 years) | Washington D.C. Metro Area

Worked on a variety of strategic and business management projects, with a focus on business operations, information technology and knowledge management. Collaborated with staff at all levels of the Division and Agency, including senior staff and management. Specific tasks included managing all aspects of our Division's budget, overseeing and managing our Division's contracts, managing Division resources and research tools for staff, managing Division communication efforts, managing the risk management process as the Division Risk Officer, working on business continuity and assisting with technology projects.

Senior Staff Accountant, Division of Corporation Finance
U.S. Securities and Exchange Commission
July 2007 – August 2013 (6 years 2 months) | Washington D.C. Metro Area

Performed regulatory oversight and compliance of publicly registered companies, with a focus in the financial services and banking industries. Specific duties involve reviewing and analyzing SEC filings, identifying and resolving complex accounting and reporting issues, and researching and providing interpretation of regulations and statutes.

▸ 1 honor or award

Education

University of Missouri-Columbia, College of Business
Masters, Accounting
2001 – 2002

University of Missouri-Columbia, College of Business
B.S., Accounting
1997 – 2001

Activities and Societies: Zeta Tau Alpha, Delta Sigma Pi, Beta Alpha Psi

Park Hill High School
1993 – 1997

Organizations

Days End Farm Horse Rescue
Board of Directors
Starting January 2012

Treasurer, April 2013 to present
Assistant Treasurer, December 2012 to April 2013
Auxiliary Member, January 2012 to December 2012

Mid-Maryland Triathlon Club
Starting April 2013

University of Missouri Alumni Association, DC/Baltimore chapter
Starting August 2010

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:
Online Appendix. Supporting information.