

June 15, 2020

Via email: comments@pcaobus.org

Office of the Secretary
PCAOB
1666 K Street N. W.
Washington, DC 200006-2803

Re: Interim Analysis No. 2020-01, Critical Audit Matter Requirements

Dear PCAOB Board Members and Staff of the Office of Economic and Risk Analysis,

We appreciate the opportunity to comment on the Interim Analysis of Critical Audit Matter (CAM) Requirements. Herein we provide comments and analysis relating primarily to the consequences of the implementation of the CAM requirements in AS 3101, effective on June 30, 2019 for large accelerated filers.

Part I of this letter provides a brief summary of the objectives of the CAM requirements, primarily to “inform investors and other financial statement users of matters arising from the audit that involved especially challenging, subjective, or complex auditor judgment, and how the auditor addressed these matters (PCAOB Release No. 2017-001).” We also provide a summary of the expected benefits, limitations and costs of the requirements, based on the Comment Letters provided to PCAOB Release No. 2016-003, the discussion in PCAOB Release No. 2017-001 and SEC Release No. 34-81916, and relevant academic research on the expanded auditor’s report. We hope that this discussion will provide relevant context to assess the standard.

Part II of this letter provides an analysis of issuers’ publicly available data aiming to assess the consequences of the CAM requirements. Our analyses pertain to the CAM requirements for two groups of issuers (1) large accelerated filers that had auditor reports with CAMs for fiscal years ending on or after June 30, 2019; and, (2) accelerated filers that had auditor reports without CAMs. We include four years of data for both groups before June 30, 2019 and nine months after that date (until mid-April 2020).

We provide **early evidence** on how auditors responded to the CAM requirements, whether the requirements are associated with an increase in the decision usefulness of the auditor’s report, and whether the requirements have an impact on audit fees.

1. We provide evidence in response to **Question 1** of the Request for Comment. Using data for all large accelerated filers until Mid-April 2020, we provide descriptive statistics on the number of CAMs, common CAM topics, length of the CAM descriptions and auditor’s responses, and other characteristics of CAMs.

We find that the number of CAMs is typically low, between one and two on average and reaching a maximum of five, and that CAMs typically reflect four common (and known) complex financial reporting topics: revenue recognition, business combinations and consolidation, goodwill valuation and impairment, and accounting for income taxes. The length of the combined CAMs is on average 675 words (i.e., between one and two pages of text) and the text is evenly distributed between the description of the matter and the auditor’s response. Finally, we find that there are some industry and auditor trends, but the number of CAMs is generally consistent across issuers. These preliminary findings stand in contrast to stakeholders’ concerns that CAMs would result in significant information overload. However, some may argue that the conciseness of the CAM text and the known complexity of the CAM topics limit their information content.

2. We provide evidence in response to **Questions 2 and 3** of the Request for Comment. We examine the incremental decision usefulness of the auditor’s report after the CAM requirement. We acknowledge that this is not a straightforward task. Nevertheless, in our analyses we rely on established practice and use the unexpected changes in share prices (i.e., absolute abnormal returns) around the release of issuers’ annual reports – which include the auditor’s report – as an overall measure of investors’ reaction to the release of CAMs.

We find that the CAM requirements had nominal incremental impact on investors’ reaction to the release of annual reports when excluding the “COVID-19” return period (after mid-February 2020). Next, even considering the “COVID-19” period, an observable negative incremental market reaction is attributable to issuers not subject to the CAM requirements. Furthermore, we document that variations in the length and number of CAMs do not have a noticeable effect on investors’ reaction.

Hence, there is limited evidence in support of a systematic increase in the decision usefulness of the auditor’s report due to the CAM requirements.

3. We provide evidence in response to **Question 8** of the Request for Comment. We document that the CAM requirements had no observable impact on audit fees for large accelerated filers. However, we note that there could be other hidden costs not immediately captured by audit fees.

Part III of this letter discusses several limitations that apply to our analyses and provides our recommendations to the PCAOB that may help with its assessment of the impact of the CAM requirements.

Our analyses must be interpreted with caution due to some inherent limitations. Our findings are still preliminary, given the relatively short history of the CAM requirements. Next, the first year of the CAM requirements is affected by the impact of the COVID-19 pandemic on share prices and trading after mid-February 2020. Also, there is a typically low market reaction to all annual report filings in the U.S. (see for example Beyer et al. 2010). Finally, our analyses focus on the *average* effect of the CAM requirements and cannot be taken as conclusive evidence that CAMs do not have *any* incremental information or costs for *some* large accelerated filers.

Beyond the limitations that apply to our analyses, our inability to document a significant market reaction to CAMs may be a result or combination of one of the following: (1) the information in

CAMs may be preempted by other prior or concurrent information (i.e., CAMs do not provide incremental information); (2) the information in CAMs may not be relevant to investors in making investment decisions; (3) investors may not consider risks disclosed in CAMs to be significant if they believe that such risks are sufficiently mitigated during the audit process.

Going forward, we recommend the PCAOB and other interested parties to examine (1) the overlap and discrepancies between CAMs and existing public disclosures to pinpoint new information in CAMs; (2) whether such new information is incrementally relevant for investment decisions; (3) the effect of CAMs on communications between the auditor and the audit committee; (4) the effect of CAMs on auditors' time constraint during the closing phase of the audit; (5) the effect of CAMs on the likelihood of litigation actions against issuers and auditors; and, (6) the effect of CAMs on audit quality. Such analyses would require a mix of publicly available and private data (possibly available to the PCAOB) about issuers and their audits.

We encourage the PCAOB and other interested parties to perform a robust post-implementation economic analysis to determine the effectiveness of the CAM requirements. We would be interested in further evidence of what conditions could be in place to ensure that CAMs yield benefits to investors and other stakeholders.

We hope you find our comments helpful. Please feel free to contact Professor Miguel Minutti-Meza (mminutti@bus.miami.edu) if you have any questions about this letter or our associated analysis.

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Part I. Summary of the objectives and expected benefits, limitations, and costs of the CAM requirement.

I.A Objective of the CAM requirements

In this section, we provide a discussion that may provide context for assessing the CAM requirement. Since the initial PCAOB Release No. 2011-003, the Board’s primary motivation for the CAM requirement was to transition from a boilerplate audit opinion model to a more specific discussion of important judgments and actions that affect audits. In addition, the PCAOB’s regulatory actions were concurrent with a worldwide trend to revise the auditor reporting model.

The primary objective of the CAM requirement is to “inform investors and other financial statement users of matters arising from the audit that involved especially challenging, subjective, or complex auditor judgment, and how the auditor addressed these matters (PCAOB Release No. 2017-001).” Below we summarize three potential benefits of the CAM requirement discussed by the release, followed by a discussion of issues for the Board and other interest parties to consider.

More useful and informative audit report: The Board believes that a direct benefit of the new audit reporting model is to provide information related to the audit that was previously *unknown* to investors and other stakeholders.¹ The Board believes that this new information will help reduce the information gap between investors and auditors, and consequently, investors and management. Since auditors have specific insight into the financial reports provided by filers, their unique perspective and expertise could provide relevant information to stakeholders. Specifically, the board highlighted three dimensions by which CAMs would benefit stakeholders.

- *Informing:* The new CAMs would add disclosures to the total mix of publicly available information. Stakeholders can use CAMs in combination with other financial disclosures to help inform valuation decisions and to better understand the financial reporting aspects of the issuer.
- *Framing:* The new CAMs will provide new perspective to stakeholders and focus their attention to the areas of financial reporting that would be most important for long-term valuation considerations.
- *Monitoring:* Stakeholders will be able to monitor shifts in CAMs over time, which will allow them to better understand the changing aspects of an issuer in a timelier fashion.

While CAMs may be beneficial along the above-mentioned dimensions, we believe the usefulness and incremental value of CAMs hinges on at least three underlying assumptions, which may not hold for a typical issuer.

1. *CAMs provide incremental information to what is already publicly available.* Issuers provide numerous financial disclosures that discuss critical accounting matters, risk factors, and other aspects that help investors to understand a company’s financial performance.

¹ Throughout discussion, we use the term “stakeholders” to refer to a wide group of users, including investors, interested in an issuer’s valuation and monitoring that rely on financial reporting.

Therefore, it is possible that existing disclosures already convey the same information that would be contained in CAMs, thus reducing the usefulness of the CAM disclosures.

2. *The information in CAMs is relevant to market participants in making investment decisions.* Assuming the information in CAMs is incremental to other publicly available information, the next concern is whether the information itself is meaningful to impact stakeholder decisions. Simply documenting risks related to specific audit areas may not materially change stakeholders' perceptions of the fundamental value of a company, given that financial statements should be in accordance with GAAP and free of material misstatements. For example, while there could be risk associated with fair value estimates, the financial results should be within a reasonable range for purposes of a fair representation to stakeholders.
3. *Market participants will consider risks linked to CAMs a threat that may not have been sufficiently addressed during the audit process.* When auditors discuss CAMs in the audit report, it may be reasonable for stakeholders to assume that auditors addressed these risks through the audit process in order to issue their unqualified audit report. Therefore, it is possible that stakeholders would acknowledge CAMs but deem them an acceptable or non-value relevant residual risk.

Improved audit and financial reporting quality: The Board highlights multiple ways by which CAMs could indirectly increase both audit and financial reporting quality. Consistent with agency theory, the Board believes that CAMs can increase the scrutiny of management by the auditor, audit committee, and external stakeholders. Consequently, management will increase the quality of their financial statements and disclosures due to the expectation of increased scrutiny by others. Additionally, the Board believes the CAM requirement will focus the auditor more on identifying critical risks and ultimately result in more effective audits. Overall, we believe that the expected effect of CAMs on audit and financial reporting quality is highly indirect.

While it is possible that audit and financial reporting quality will increase, the conjectures by the Board assume that the auditor did not know the risks disclosed in CAMs prior to the mandate. Existing auditing standards require auditors to evaluate audit risks for each account, as well as the financial statements as a whole. The standards also require auditors to identify the key risks underlying the audit and how they went about obtaining evidence to mitigate those risks to reasonable level. Therefore, it is likely that auditors were already addressing the risks that are now disclosed in CAMs and that there would be no change in overall audit quality. Rather, CAMs would make the audit process more transparent for stakeholders.

Similar comments apply to the idea that management will improve financial reporting quality in response to CAMs. Again, CAMs disclosures relate to areas in the audit that present heightened risk, not necessarily instances where management was purposefully reducing financial reporting quality. While it is possible that management would improve financial accounts and disclosures, any changes will likely be within the bounds of materiality. Changes beyond the bounds of materiality would suggest that audited financial reports prior to the CAM mandate were materially misstated.

Differentiation among auditors' reports: The board discussed the ability for external stakeholders to compare CAM disclosures across audit firms and engagement partners. The ability to examine

these differences could lead to an indirect measure of audit quality by which external stakeholders are able to determine audit firm and partners' styles and differences. While this benchmarking exercise may be possible, it assumes that audit firms would not adopt some sort of standardized, unified, generic, or boilerplate styles of language for the various areas that would be commonly disclosed as a CAM. For example, most CAM disclosures would focus on high-risk areas, like revenue recognition or accounting for income tax. Arguably, the national offices of large audit firms will provide guidance aiming to provide consistent disclosures and continue to request the PCAOB to provide template examples.

Finally, while there may be differences between audit firms during initial years, it is possible that they would move to common practices. This has happened with other SEC reporting requirements, where many filers utilize a common style of language, especially within the same industry/peer group.

I.B Stakeholders' views on the CAM requirements

In this section, we summarize the views of a wide set of stakeholders on the CAM requirements. We summarize our review of the 88 Comment Letters in response to PCAOB Release No. 2016-003, Rulemaking Docket No. 34. The views in these Comment Letters were considered by the PCAOB before adopting the CAM requirement in the new auditor reporting standard AS 3101, *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion* (PCAOB Release No. 2017-001).² A number of stakeholders expressed important limitations that need to be overcome to achieve the intended objective of the CAM requirement.

We rated each Comment Letter based on the commenter's views about CAMs and found:

- 30 commenters agree;
- 44 commenters disagree; and,
- 14 commenters are neutral, or we cannot rate the comments.

There are differences between the types of stakeholders that express agreement and disagreement with the CAM requirements.

- From the 30 commenters that agree,
 - 10 are from audit firms and most of them are relatively large,
 - 6 are from professional associations,
 - 4 are from representatives of the investment fund community,
 - 4 are from representatives of investor groups or associations,
 - 4 are from other standard setters or regulators, and
 - 2 are from issuers across industries.
- From the 44 commenters that disagree,
 - 21 are from issuers across industries,

² Subsequently, the SEC conducted a last round of consultation, which received 51 additional Comment Letters. However, this consultation resulted in similar views as the previous round conducted by the PCAOB and did not lead to further changes in the CAM requirements.

- 11 are from professional associations,
- 5 are from individuals,
- 3 are from medium or small audit firms,
- 2 are from representatives of the investment fund community, and
- 2 are from representatives of investor groups or associations.

Notably, issuers do not support the CAM requirement, while relatively large audit firms are in favor but request additional implementation guidance and support exceptions and later effective dates for some issuers. The opinions of professional associations and representatives of the fund community and investor groups seem somewhat divided. Overall, we believe stakeholders had mixed views about the CAM requirement.

Expected limitations to CAMs in achieving their intended objective: Among the main limitations of the CAM requirement, several commenters mention issues related to the **information content** of CAMs. We found 83 mentions of information issues that we classify in four categories:

1. We found 36 instances where commenters mentioned that CAMs would result in a potential conflict because they can provide original information that is not contained in other disclosures prepared by management.
2. We found 21 instances where commenters mentioned that CAMs would result in information that has little value relevance for market participants, questioning how exactly market participants can interpret and use CAMs (including auditor responses) for investing decisions or questioning management on accounting choices.
3. We found 20 instances where commenters mentioned that CAMs would result in duplication of information already provided by other disclosures, especially the Critical Accounting Policies and Estimates in the MD&A and the footnotes.
4. We found 6 instances where commenters mentioned that CAMs would provide little new information or no new information at all.

Another set of limitations relates to **unexpected consequences** that CAMs would have on the auditor's opinion. We found 69 references to these consequences that we classify in four categories:

1. We found 25 instances where commenters mentioned that CAMs would have a high degree of subjectivity and that the process to determine CAMs is somewhat uncertain due to issues such as imprecise materiality thresholds, broad definition of CAMs, and whether internal control issues can be CAMs. The issues may ultimately lead to inconsistencies or low comparability between issuers.
2. We found 19 instances where commenters mentioned that CAMs would undermine or question the pass/fail nature of the auditor's opinion, inducing potentially irrelevant variation between issuers and leading to perceptions of differences in quality (i.e., piecemeal opinion).
3. We found 14 instances where commenters mentioned that CAMs would lead auditors and clients to aggressive benchmarking and eventually to generic or boilerplate language.

4. We found 11 instances where commenters mentioned that CAMs would lead to long audit reports and disclosure overload, partially due to auditors' tendency to conservative over-reporting of CAMs and audit procedures.

The aforementioned limitations make it an open question whether the adoption of the CAM requirements in the U.S. would be associated with a change in the decision usefulness of the annual report and auditor's opinion for stakeholders.

Expected costs of the CAM requirements: The Comment Letters also provide opinions on a variety of direct and indirect costs that may result from the CAM requirement. We found 64 references to costs that we classify in four categories:

1. We found 20 instances where commenters mentioned that CAMs would undermine the governance role of the audit committee and lead to a chilling effect and increased tension in the communication between auditors and the audit committee (or other representatives of management and the board).
2. We found 18 instances where commenters mentioned that CAMs would increase litigation costs for auditors and issuers.
3. We found 15 instances where commenters mentioned that CAMs would increase the complexity and cost of audits in general.
4. We found 11 instances where commenters mentioned that CAMs would increase workload for auditors and issuers, especially towards the time-constrained closing phase of the audit process.

Based on the consultation process, it is highly unclear how these costs will be borne by issuers and auditors and whether they would incrementally affect the costs of audits.

I.C Evidence from academic research on the expanded auditor's report

Broadly, some academic studies demonstrate that non-standard auditor reports, such as going concern opinions, have information content when they are not expected (Frost 1997; Chen et al. 2000; Taffler et al. 2004; Citron et al. 2008; Ghicas et al. 2008; Menon and Williams 2010). Nevertheless, it is unclear whether this research directly applies to CAMs.

More specifically, recent studies have examined the new disclosures issued by U.K. companies after the Financial Reporting Council (FRC) issued International Standard on Auditing (ISA) 700 (UK and Ireland, Revised June 2013) "The Independent Auditor's Report on Financial Statements" (FRC 2013). Following the FRC's rule changes, the auditor's report must describe the risks of material misstatement that had the greatest effect on the audit (i.e., risks of material misstatement, later renamed key audit matters to converge with IAASB rules), the application of materiality, and the scope of the audit. Aligned with the PCAOB's efforts, the primary objective of FRC requirements was to improve the informational value of the audit report for users of financial statements by promoting greater transparency about the judgments made by management and auditors in the process of preparing and auditing financial statements (FRC 2012).

At the time when the PCAOB's rule deliberation took place, research on the U.K. experience was emerging. Now, there is more consensus on the consequences of the expanded auditor's report in the U.K.

1. Gutierrez et al. (2018) and Lennox et al. (2019) conclude that the expanded auditor's report had nominal valuation consequences, in terms of incremental market reaction to the report's release (i.e., event study tests based on returns and trading volume), as well as in terms of changes in overall firm value (i.e., value-relevance tests). A primary reason for these findings is that the expanded auditor's report provides little incremental information. Gutierrez et al. (2018) document that the majority of risks disclosed by the auditor are duplicated (known) in the audit committee report. More extensively, Lennox et al. (2019) document that a substantial number of risks are preempted by other publicly available information.
2. Gutierrez et al. (2018), Lennox et al. (2019), and Reid et al. (2019) conclude that the expanded auditor's report did not result in a direct increase in audit fees.
3. There is some debate as to whether there was an effect on audit quality. Gutierrez et al. (2018) does not find audit quality implications, while Reid et al. (2019) finds some evidence of short-term improvements in quality. The divergence in their conclusions are attributable to research design choices (see Gutierrez et al. 2018 for a detailed discussion).

At the moment, research is ongoing examining other jurisdictions that have adopted an expanded auditor report model under IAASB rules (i.e., disclosing key audit matters or KAMs), such as Hong Kong, China, and Australia. It is somewhat early to conclude on the consequences of KAMs in other jurisdictions.

In summary, there are potential benefits of CAMs. However, many of the proposed benefits in PCAOB Release No. 2017-001 are contingent on important assumptions holding for the typical issuer. The most critical assumptions are that (1) CAMs provide incremental information to what is already publicly available; (2) the information in CAMs is relevant to market participants in making investment and valuation decisions of external stakeholders; and (3) market participants will consider risks linked to CAMs a threat that may not have been sufficiently addressed during the audit process. Many of the comments by stakeholders reflect concerns about whether these underlying assumptions will hold and whether the desired benefits will be realized. Some stakeholders mention that CAMs have the potential to increase information production and audit costs. While the CAM requirement has only been in place in the U.S. for large accelerated filers since summer 2019, there is international evidence that suggests that enhanced disclosures in the auditor's report in the U.K. have not resulted in detectable consequences for companies' valuation.

We encourage the PCAOB and other interested parties to perform a robust post-implementation economic analysis to determine the effectiveness of the CAM requirements. We would be interested in further evidence of what conditions could be in place to ensure that CAMs yield benefits to investors and other stakeholders.

Part II. Analyses of issuers’ publicly available data aiming to assess the consequences of the CAM requirements

In the following sub-sections, we aim to provide early evidence on how auditors responded to the CAM requirements, whether the requirements are associated with an increase in the decision usefulness of the auditor’s report, and whether the requirements have an impact on audit fees.

II.A How auditors responded to the CAM requirements

In this sub-section, we provide evidence in response to **Question 1** of the Request for Comment. Below, we show summary statistics on the number of CAMs, common CAM topics, length of the CAM descriptions and auditor’s responses, and other characteristics of CAMs for large accelerated filers.

We consider all audit opinions of large accelerated filers relating to financial years ending on or after 30 June 2019 and filed prior to April 19, 2020. This yields a sample of 2,142 filers, with a total of 3,575 unique CAMs disclosures. We note that of the 2,142 filers, 305 are foreign issuers subject to CAMs requirements.³

The average number of CAMs per issuer is 1.7, and the maximum is five. In Table 1 we document the frequency of the number of CAMs included within audit reports of large accelerated filers. Notably, 31% of issuers only report a single CAM, while over 70% of filers report no more than two CAMs. In contrast, only 7% of issuers report four or more CAMs. Overall, U.S. issuers report a relatively low number of CAMs when compared to U.K. companies recently subject to similar reporting requirements. Using a comprehensive sample of U.K. companies, Gutierrez et al. (2018) find that these companies disclose four risks of material misstatement, on average, within their audit reports.

Table 1. Number of CAMs reported

No. of CAMs	Frequency	Percentage
1	1096	30.66%
2	1470	41.12%
3	738	20.64%
4	216	6.04%
5	55	1.54%

In Table 2, we document the 15 most common CAM topics.⁴ Perhaps not surprisingly, we find that CAMs typically reflect four common complex financial reporting topics: revenue recognition,

³ In our analyses, we use databases that compile publicly available information, including Compustat, CRSP, and Audit Analytics. We can make the computer code used to generate these analyses available to the PCAOB upon request.

⁴ We classify CAMs based on the description of each matter using the taxonomy provided by Audit Analytics, with some minor adjustments. For example, we classify all CAMs relating to taxes into one topic (“Income Taxes”), and all CAMs relating to sales returns and allowances and revenue recognition issues into a single topic (“Revenue recognition”).

business combinations and consolidation, goodwill valuation and impairment, and accounting for income taxes. In fact, 45% of all CAMs reported by auditors relate to one of these four topics.

Table 2. Most common CAMs topics

CAM Topic	Frequency	Percentage of Total
Revenue recognition	476	13.31%
Business combinations / consolidation	457	12.78%
Goodwill	451	12.61%
Income taxes	332	9.29%
Allowance for credit losses	207	5.79%
Other contingent liabilities	202	5.65%
Property, plant and equipment	179	5.00%
Other investments	124	3.46%
Inventory	108	3.02%
Policy changes	103	2.88%
Deferred and capitalized costs	101	2.82%
Other intangible assets	100	2.80%
Insurance contract liabilities	78	2.19%
Equity investments and joint ventures	64	1.79%
Proven and unproven reserves	63	1.76%

In Table 3, we provide descriptive statistics of CAM content and length by industry. We stratify our sample of large accelerated filers into industry divisions based on 4-digit SIC codes. We report, the number of filers in each industry, the most common CAM topic disclosed, the average length (i.e. word count) of CAM descriptions, of the associated auditor response, and of the overall CAM disclosures (i.e. description and response combined).

CAM topics vary predictably by industry, for example, matters relating to proven and unproven reserves dominate disclosures by mining companies, while “Allowance for credit losses” was the most common CAM reported for financial firms. However, the average number of CAMs is generally consistent across industries. For the overall sample, the average length of CAM disclosures is 675 words, which is about evenly distributed between the description of critical matters (367 words, on average) and the auditor responses (308 words, on average).

The length of CAMs also varies by industry, with mining companies registering the longest overall CAM disclosures (an average of 816 words), and wholesale trade firms having the shortest CAM disclosures (an average of 615 words). These preliminary findings stand in contrast to stakeholders’ concerns that CAMs would result in significant information overload.

Table 3: CAMs topics and length by industry

Industry Division (SIC)	Number of Issuers	Most frequent CAM Topic	Avg. CAMs	Avg. words Description	Avg. words Auditor Response	Avg. words Combined
Agriculture, Forestry and Fishing	5	Goodwill (2) / Income taxes (2)	1.8	468	339	802
Mining	119	Proven / unproven reserves (58)	1.9	440	375	816
Construction	28	Revenue recognition (11)	1.7	376	336	713
Manufacturing	731	Revenue recognition (228)	1.7	364	307	671
Transportation, Comm, Electric, Gas and Sanitary	226	Deferred and capitalized costs (68)	1.7	391	315	706
Wholesale Trade	45	Goodwill (19)	1.5	331	284	615
Retail Trade	98	Policy changes (28)	1.7	342	302	643
Finance, Insurance and Real Estate	549	Allowance for credit losses (192)	1.6	364	296	661
Services	341	Revenue recognition (171)	1.7	349	301	650
Full Sample	2142	Revenue Recognition	1.7	367	308	675

Finally, we examine the variation in the number and length of CAMs by auditors. Table 5 reports the average number, and length, of CAMs reported by clients of the top 6 auditors (i.e., EY, KPMG, PWC, Deloitte, BDO and Grant Thornton), and by clients of other auditors. We find that among the top 6 there is little variation in the average number of CAMs reported per client. However, we observe differences in the average CAM length. For instance, PWC's clients tend to have longer disclosures (753 words, on average) than clients of other top 6 auditors, which is attributable to longer discussions of the matter. At the same time, PWC also provides responses to these CAMs, with an average auditor response of 289 words, compared to EY who provides the longest auditor responses of 344 words. Relative to other auditors, the top 6 auditors have longer CAM disclosures, which possibly reflect client size and complexities.

Table 4. CAMs by Auditor

Auditor	Number of Issuers	Avg. CAMs	Avg. words (CAM Description)	Avg. words (Auditor response)	Avg. words (Total CAM disclosure)
PricewaterhouseCoopers LLP	506	1.6	464	289	753
Ernst & Young LLP	597	1.8	338	344	682
Deloitte & Touche LLP	422	1.6	362	320	683
KPMG LLP	430	1.7	311	284	596
Grant Thornton LLP	72	1.7	346	276	623
BDO USA LLP	30	1.8	362	267	630
All Other Auditors	85	1.3	329	253	582

II.B Incremental decision usefulness of the auditor’s report

In this sub-section, we provide evidence in response to **Questions 2 and 3** of the Request for Comment. We examine the incremental decision usefulness of the auditor’s report after the CAM requirement. We acknowledge that this is not a straightforward task. Nevertheless, in our analyses we rely on established practice and use the unexpected changes in share prices (i.e., absolute abnormal returns) around the release of issuers’ annual reports (e.g., 10-K) – which include the auditor’s report – as an overall measure of investors’ reaction to the release of CAMs.

Our analyses include data surrounding the CAM requirements for two groups of issuers (1) large accelerated filers that had auditor reports with CAMs for fiscal years ending on or after June 30, 2019; and, (2) accelerated filers that had auditor reports without CAMs. We include several years of data for both groups before June 30, 2019 and 9 months after that date (most recent available data is until mid-April 2020).

We perform a within issuer and between issuer analyses of event period abnormal stock returns in the post CAMs period (i.e., post July 2019), relative to the pre-period. Our within issuer analysis compares filing period abnormal returns of large accelerated filers with CAMs reports in the post July 2019 period to the same issuers’ abnormal returns in the year prior to July 2019. In this manner, we are able to hold an issuer constant and test for the difference in market reactions to annual reports with CAMs and those with no CAMs.

We begin our analysis by estimating a within issuer model, estimated on a sample of large accelerated filers with CAMs audit reports in the post period, specified as follows:

$$|BHAR| = \alpha + \beta \times Post + \varepsilon \quad (1)$$

where, $|BHAR|$ is the two-day absolute market-adjusted return following the annual report filing, and $Post$ is an indicator variable equal to one for filings related to fiscal year-ends on or after 30 June 2019, and zero otherwise. **We expect the coefficient β to be positive and significant if new CAMs reporting requirements provide incremental information to the market.**

Next, our between issuer analysis performs a difference-in-difference comparison of abnormal returns of large accelerated filers (i.e., *treated* group) that had CAMs audit reports in the post 2019 period to the returns of all other issuers (i.e., *control* group) that had no CAMs reports in the post period. The estimation period for the difference-in-difference analysis are annual reports filed between January 2016 through mid-April 2020.

We estimate the following difference-in-differences model using both large accelerated filers and a large set of control issuers (i.e. other accelerated filers not subject to CAM requirements) during the period January 2016 until mid-April 2020:

$$|BHAR|_{it} = \alpha + \beta_1 \times Post_t + \beta_2 \times Treatment_i + \beta_3 \times Post * Treatment_{it} + FE + \varepsilon \quad (2)$$

where $|BHAR|$ is the two-day absolute market-adjusted return following the annual report filing, $Post$ is an indicator variable equal to one for filings related to fiscal year-ends on or after 30 June 2019, and zero otherwise, and $Treatment$ is equal to one if a company is a large accelerated filer and thus subject to CAM disclosure requirements, and zero otherwise. **We expect the coefficient**

β_3 on the interaction term to be positive and significant if new CAMs reporting requirements provide incremental information to the market.

Testing for market reactions using both within and between issuer analyses allows us to better isolate the informativeness of CAMs reporting within the audit reports. However, it is important to emphasize that a portion of our post period overlaps with the recent market downturn due to the COVID-19 pandemic (starting around mid-February 2020). To this end, we check the robustness of our inferences by performing our tests including and excluding return observations during the onset of COVID-19.

Table 5 reports results for the within issuer analysis, while Table 6 provides results for the difference-in-differences analysis. In both cases, when we include observations after mid-February 2020, we find significant market reactions to annual filings with CAMs audit reports. Specifically, in Table 5, we find that absolute abnormal returns on filing dates of annual reports with CAMs are around 1% higher in the post period relative to the pre-period when no CAMs were included in the reports. In Table 6, when we control for abnormal returns of issuers not yet affected by the CAMs implementation (i.e. control group) we find that absolute abnormal returns on filing dates of annual reports with CAMs are approximately 2.4% lower than those of the control group in the post CAMs period relative to the pre-period. These results suggest that following implementation of CAMs reporting requirements, companies unaffected by the policy experienced larger investor reactions to their annual reports, inconsistent with our predictions. As such, the results likely reflect that smaller companies in the control group of accelerated filers were more severely affected by the recent market drop due to COVID-19 pandemic.

Indeed, when we exclude observations after mid-February 2020, we find no significant differences in returns for our within and between issuer analyses in Table 5 and 6, respectively.⁵ Figures 1 and 2 provide graphical evidence for the difference-in-difference results reported in Table 6. When we *include* “COVID-19” observations in the analysis, we observe a larger increase in absolute abnormal returns for companies in the control group than for companies in the treatment group in the post period relative to the pre-period (see Figure 1). Similarly, this evidence is inconsistent with the predicted effect of CAMs, which should only be relevant for companies in the treatment group. When we *exclude* “COVID-19” observations from the analysis, we observe no discernable patterns in absolute abnormal returns for companies in *both* groups in the post period, relative to the pre-period (see Figure 2).

We also perform additional analyses focusing on variations in the length and number of CAMs. These variations do not appear to have a noticeable incremental effect on investors’ reaction to the release of issuers’ annual reports.

In conclusion, we find that the CAM requirements had nominal incremental impact on the investors’ reaction to the release of annual reports when excluding the “COVID-19” period. Next, even considering the “COVID-19” period, the observable negative incremental market reaction is attributable to issuers not subject to the CAM requirements. Furthermore, we

⁵ We find similar results when we use Fama-French four factors to adjust the filing period returns. In addition, partitioning the sample by the number or length of CAMs also fails to yield any significant differences in return reactions. Finally, the inclusion of additional control variables in the analysis presented in Table 6 (e.g., size, market-to-book, performance indicators, and volatility) does not qualitatively change our inferences.

document that variations in the length and number of CAMs do not have a noticeable effect on investors' reaction. Hence, there is limited evidence in support of a systematic increase in the decision usefulness of the auditor's report due to the CAM requirements.

Table 5. Within issuer analysis of Absolute Abnormal Returns around 10-K filing Dates

	Absolute Abnormal Returns, BHAR	
	(1)	(2)
	<i>Including COVID-19 Observations</i>	<i>Excluding COVID-19 Observation</i>
<i>Post</i>	0.010*** (8.19)	0.007 (1.12)
Observations	5,430	4,060
Adjusted R-squared	0.0108	0.0003

Table 6. Difference-in-difference analysis of Absolute Abnormal Returns around 10-K filing Dates

	Absolute Abnormal Returns, BHAR	
	(1)	(2)
	<i>Including COVID-19 Observations</i>	<i>Excluding COVID-19 Observation</i>
<i>Post</i>	0.035*** (12.35)	0.007 (1.35)
<i>Treatment</i>	0.005 (1.32)	-0.001 (-0.37)
<i>Treatment × Post</i>	-0.024*** (-8.03)	-0.002 (-0.37)
Firm Fixed Effects	Yes	Yes
Observations	18,286	15,447
Adjusted R-squared	0.293	0.317

Figure 1. Difference-in-difference analysis of Absolute Abnormal Returns around 10-K filing Dates, including COVID-19 observations

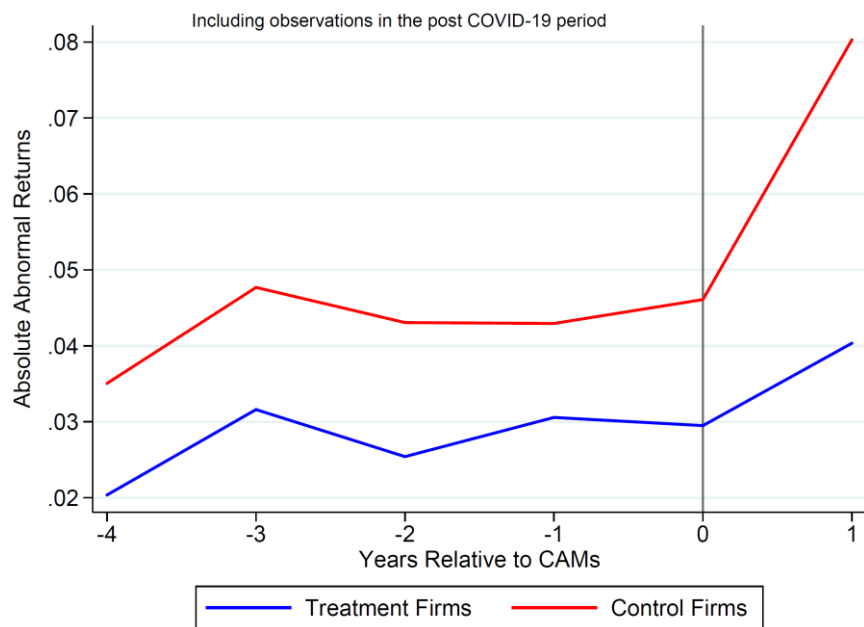
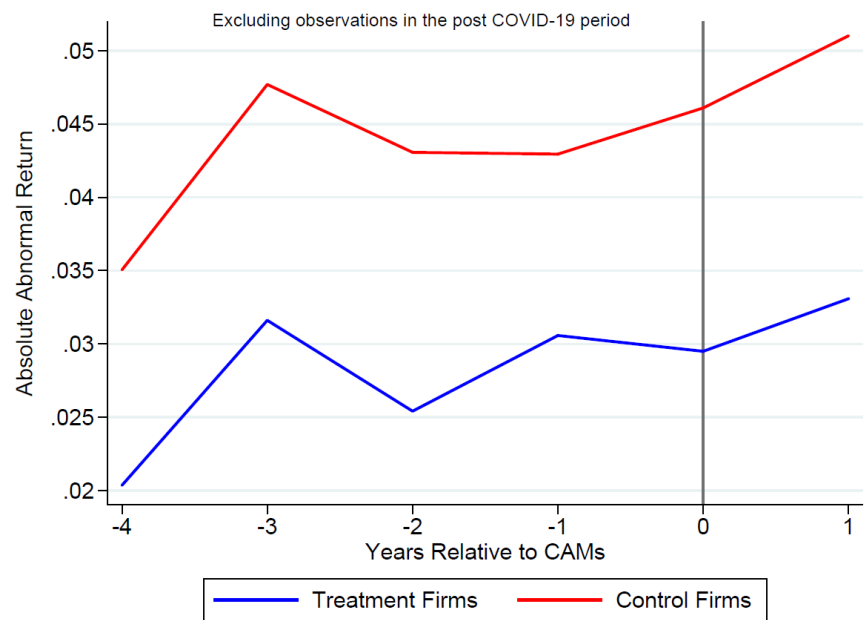


Figure 2. Difference-in-difference analysis of Absolute Abnormal Returns around 10-K filing Dates, excluding COVID-19 observations



II.C Analysis of CAMs reporting impacts on fees paid to auditors

In this sub-section, we provide evidence in response to **Question 8** of the Request for Comment. We examine whether CAM requirements had an observable impact on audit fees for large accelerated filers. Various stakeholders have expressed concerns about indirect consequences of the new rules, in particular the costs incurred by companies and auditors.

The academic literature has well established a link between audit fees and client size, risk, complexity, and auditors' litigation risk (e.g., Badertscher et al. 2014; Carcello and Li 2013; Hay et al 2006; Seetharaman et al. 2002; Bell et al. 2000). In the context of the CAM requirements, an increase in both auditor's effort and perceived litigation risk due to increased disclosures may drive an increase in audit fees.

To assess the impact of CAM requirements on audit fees, we employ a difference-in-differences design, conceptually similar to our previous analysis of market reaction. Our analyses include data surrounding the CAM requirements for two groups of issuers (1) large accelerated filers that had auditor reports with CAMs for fiscal years ending on or after June 30, 2019 (i.e. "Treatment" group); and, (2) accelerated filers that had auditor reports without CAMs (i.e. "Control" group). We include several years of data for both groups before June 30, 2019 and 9 months after that date, i.e., filings up to mid-April 2020. We estimate the following empirical model:

$$AUDIT_FEES_{it} = \alpha + \beta_1 \times Post_t + \beta_2 \times Treatment_i + \beta_3 \times Post * Treatment_{it} + \sum \beta_j Controls_{it} + FE + \varepsilon_{it} \quad (3)$$

where, for issuer i in year t , $AUDIT_FEES_{it}$ is measured as the natural logarithm of reported audit fees in USD (source: Audit Analytics), $Treatment_{it}$ is an indicator variable for our treatment and control firms that is equal to one for large accelerated filers with CAMs and zero for all other accelerated filers. $Post_{it}$ is a period indicator variable that equals one for fiscal year-ends on or after 30 June 2019 and zero otherwise. Finally, $Post_{it} * Treatment_{it}$ is an interaction of the treatment and period indicator variables that captures the difference-in-differences effect, i.e. changes in audit fees incurred by large accelerated filers following the implementation of CAMs reporting, relative to the changes in audit fees incurred by other accelerated filers not subject to CAMs reporting over the same period.

We also include a comprehensive set of control variables commonly used in previous audit fee research to isolate the effects of client risk, size, and complexity (e.g., Gutierrez et al., 2018; Cunningham et al. 2019). In particular, we include the following: $Size_{it}$, measured as the natural logarithm of total assets; ROA_{it} , measured as annual earnings before extraordinary items divided by average total assets; $LOSS_{it}$, an indicator variable equal to one if Net Income for the current year was negative; $Leverage_{it}$, measured as total long-term debt scaled by total assets; $Inventory_{it}$, measured as total inventory scaled by total assets; $Receivables_{it}$, measured as total receivables scaled by total assets; CFO_{it} , measured as cash flow from operations scaled by total assets; $Sales_Volatility_{it}$, measured as the standard deviation of sales scaled by total assets, over the previous three-year period; MTB_{it} , measured as the ratio of the market value of assets to the book value of assets at year-end; $Busy_{it}$, an indicator variable equal to one if the company's fiscal year-

end is December and zero otherwise; *Going Concern_{it}*, an indicator variable equal to one if the company's auditor issued a going-concern opinion and zero otherwise, *Material_Weakness_{it}*, an indicator variable equal to one if the company's auditor disclosed a material weakness under SOX 404b; *Big4_{it}* is an indicator variable equal to 1 if the company is audited by a Big 4 auditor and zero otherwise; and *Auditor_Change_{it}* an indicator variable equal to one if the company switched their auditor during the year and zero otherwise. We also include industry fixed effects to control for time-invariant industry differences in complexity and risk, which have been shown to impact fees. Standard errors are clustered at the issuer level. We obtain all financial data from Compustat, market data from CRSP, and all auditor related data (including audit fees) from Audit Analytics.

We present results for our regression analysis of audit fees in Table 7. While large accelerated filers tend to have modestly higher audit fees than companies in the control group, we fail to find a statistically significant difference-in-difference effect ($Post \times Treatment_{it} = -0.016$, $t = -0.84$). This suggests that the incremental costs associated with the implementation of the CAM requirements (for large accelerated filers) do not appear to be significant in relation to total audit costs and did not translate into observable fee increases. This finding cast doubt on the arguments of several commenters who suggest that CAMs would increase the costs for auditors and thus stakeholders. However, we highlight several limitations with our analysis in the following section.

TABLE 7: Analysis of fees paid to auditors

	<i>Audit Fees</i>
<i>Post × Treatment</i>	-0.016 (-0.84)
<i>Post</i>	0.018 (0.95)
<i>Treatment</i>	0.045 (1.61)
<i>Size</i>	0.513*** (57.16)
<i>ROA</i>	-0.282*** (-3.85)
<i>Loss</i>	0.102*** (5.18)
<i>Leverage</i>	0.226*** (4.82)
<i>Receivables</i>	0.262** (2.49)
<i>Inventory</i>	0.531*** (3.35)
<i>CFO</i>	-0.058 (-0.65)
<i>Sales_Volatility</i>	0.513*** (8.47)

<i>MTB</i>	0.003 (0.47)
<i>Big4</i>	0.456*** (16.08)
<i>Busy</i>	0.032 (1.23)
<i>Material_Weakness</i>	0.287*** (7.19)
<i>Going_Concern</i>	0.116* (1.92)
<i>Auditor_Change</i>	-0.091 (-1.43)
Fixed Effects	Industry
Clustered S.E.	Issuer Level
Observations	13,681
Adj. R-squared	82.63%

Part III. Limitations of our analyses and recommendations to the PCAOB

Most of the existing research on the expanded auditor’s report that may directly inform the standard setting process in this area is either experimental (Christensen et al. 2014; Gimbar et al. 2016; Brasel et al. 2016) or focuses on the experience of other countries (Gutierrez et al. 2018; Lennox et al. 2019; Reid et al. 2019).

Our analyses provide an early assessment of the content, decision usefulness, and costs of the CAM requirements for U.S. large accelerated filers in the first nine months after the new rules became effective. However, our analyses must be interpreted with caution due to some inherent limitations. We also recommend the PCAOB and other stakeholders to continue seeking robust evidence on a wide set of potential benefits, costs, and consequences of the CAM requirements.

Regarding the limitations of our analyses, a market-based test of the decision usefulness of the auditor report is a complex task that is also compounded by unique conditions in the first year of the implementation of the CAM requirements. Namely, we identify four important limitations.

1. There is a relatively short history of the CAM requirements in the U.S. Our analyses examine the first nine months of CAMs implementation. Some benefits and costs may take a long time to materialize or may not be reflected in audit fees during the first year.
2. The COVID-19 pandemic and anticipation of thereof have been significantly affecting the stock market since approximately mid-February 2020. We believe that the confounding effects in market trading activity can be partially mitigated by: (1) examining CAM disclosures separately for filings filed before and after mid-February 2020; and (2) having two groups of issuers, large accelerated filers that had auditor reports with CAMs for fiscal years ending on or after June 30, 2019, and accelerated filers that had auditor reports without

CAMs. However, these two groups of issuers are inherently different in their size and related characteristics (e.g., auditor size, institutional investors, analyst following, etc.).

3. The academic literature documents a low, on average, market reaction to annual report filings (e.g., Beyer et al. 2010). Therefore, it is difficult to identify the incremental informativeness of the auditor's opinion to investors.
4. Our analyses focus on the *average* effect of CAMs and do not provide conclusive evidence that CAMs do not have *any* incremental information or costs for *some* large accelerated filers.

Beyond the four limitations above, our inability to document a significant market reaction to CAMs may be a result or combination of one of the following: (1) the information in CAMs may be preempted by other prior or concurrent information (i.e., CAMs do not provide incremental information); (2) the information in CAMs may not be relevant to investors in making investment decisions; (3) investors may not consider risks disclosed in CAMs to be significant if they believe that such risks are sufficiently mitigated during the audit process.

Going forward, we recommend the PCAOB and other stakeholders to examine the following issues:

1. The relation between CAMs and other public information. There is a significant debate between stakeholders on the overlap of CAMs and existing public disclosures. We suggest using manual and machine-based textual analyses to identify what exactly is the new information in CAMs. Interestingly, we see a conflict between two concerns raised in the Comment Letter process: some comments mention the threat of duplication of information between CAMs and sections of the MD&A and footnotes, while others mention that the auditor should not be providing *any original information*. The prevalence of this conflict in practice is unknown.
2. The value relevance of CAMs. If there is any identifiable new information in CAMs, it is unclear how market participants would use such information in investing decisions. For instance, we cannot yet determine whether CAMs can “move the market” or perhaps help to more accurately assess earnings numbers. Also, CAMs may directly affect the expectations about an issuer's future cash flows and discount rate (e.g., by disclosing unexpected risks), and indirectly update beliefs about the issuer's financial reporting quality.
3. The effect of CAMs on communications between the auditor and the audit committee. Beyond some survey and anecdotal evidence, we have little systematic evidence about these communications.
4. The effect of CAMs on time pressure during the closing phase of the audit. This is a potentially non-trivial cost that will not necessarily be reflected in audit fees. As explained in Part I, a number of commenters mentioned that CAMs would increase workload for auditors and issuers, especially towards the time-constrained closing phase of the audit process.
5. The effect of CAMs on the likelihood of litigation actions against issuers and auditors. It is unclear whether CAMs will help to maintain a certain level of audit quality that may be

monitored through additional disclosures and enforced through litigation actions, or whether CAMs will instead become a disclaimer for responsibility (i.e., a “buyers beware” label, see Kachelmeier et al. 2019).

6. The effect of CAMs on audit quality. CAMs may influence audit quality by placing companies and their auditors under more scrutiny. However, it is unclear whether there is a direct correspondence between the expanded disclosures and audit quality since the CAMs requirements are not originally intended to increase audit quality.

These analyses would require a mix of publicly available and private data (possibly available to the PCAOB) about issuers and their audits.

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