Online Early — Preprint of Accepted Manuscript

This is a PDF file of a manuscript that has been accepted for publication in an American Accounting Association journal. It is the final version that was uploaded and approved by the author(s). While the paper has been through the usual rigorous peer review process for AAA journals, it has not been copyedited, nor have the graphics and tables been modified for final publication. Also note that the paper may refer to online Appendices and/or Supplements that are not yet available. The manuscript will undergo copyediting, typesetting and review of page proofs before it is published in its final form, therefore the published version will look different from this version and may also have some differences in content.

We have posted this preliminary version of the manuscript as a service to our members and subscribers in the interest of making the information available for distribution and citation as quickly as possible following acceptance.

The DOI for this manuscript and the correct format for citing the paper are given at the top of the online (html) abstract.

Once the final published version of this paper is posted online, it will replace this preliminary version at the specified DOI.
PRACTITIONER SUMMARY
Audit Quality and Disclosures of Less-Experienced Participating Audit Firms in PCAOB Filings

Carol Callaway Dee
University of Colorado Denver
carol.dee@ucdenver.edu

Ayalew Lulseged
University of North Carolina Greensboro
aalulseg@uncg.edu

Tianming Zhang
Florida State University
TZhang@admin.fsu.edu

April 2020

Key words: PCAOB; audit quality; earnings quality; affiliates; other audit participants; group audits; Form AP.

Acknowledgement: We thank the editor and two anonymous reviewers for their comments on an earlier version of the paper.
**ABSTRACT**

In “Who Did the Audit? Audit Quality and Disclosures of Other Audit Participants in PCAOB Filings” (Dee, Lulseged and Zhang 2015), we examine quality for issuer audits disclosed as involving less-experienced “participating auditors”. We find that market prices of these issuers reacted negatively at the time of disclosure, and investors’ valuations of their post-disclosure quarterly earnings declined; investors have greater uncertainty in the numbers reported. In addition, the quality of the reported earnings is lower. However, we do not see a subsequent increase in audit fees which suggests clients don’t increase demands for higher quality to counteract the uncertainty in investors’ perceptions of audit quality. Since our sample is limited to less-experienced participating auditors, the results are not readily generalizable to the universe of participating auditors. We suggest research using Form AP data explore if our findings are generalizable to issuer audits involving the wider population of participating auditors.
I. INTRODUCTION

In many audits, particularly audits of clients with multinational operations, firms other than the firm signing the audit report ("lead auditor" or "principal auditor") perform substantial portions of the audit. These other audit firms ("other auditors" or "participating auditors") may perform a variety of functions, including auditing a client’s subsidiary, or assisting the lead audit firm with audit work on the issuer’s operations in another country.\(^1\) In our paper “Who Did the Audit? Audit Quality and Disclosures of Other Audit Participants in PCAOB Filings” (Dee, Lulsegged and Zhang 2015, hereafter DLZ), we examine audit quality when disclosures made by audit firms in Public Company Accounting Oversight Board (PCAOB or Board) filings indicate that audit firms other than the firm signing the audit report have substantially participated in the audit. This paper summarizes the findings of DLZ and describes implications for practice and areas of future research.

Our study was conducted while the PCAOB was debating a requirement that audit firms publicly disclose the extent to which other auditors are involved in the audit. James Doty, former PCAOB chair states:

There’s no way for an investor to tell today how much of an audit was performed by firms other than the signing firm. In the case, say, of a large financial institution with major operations in two or more financial centers, a significant portion – or even most – of the audit may be performed by other firms. (Doty, J. 2015).

In its Release No. 2016-002 (p. 5), the PCAOB notes that they have found deficiencies in some engagements involving the use of other auditors, “deficiencies that lead auditors did not identify or did not address.” They also state that “…in audits selected by the PCAOB for inspection that involve other auditors, the other auditors audit on average between one-third and

\(^1\) We refer to publicly traded audit clients as “issuers” to conform to PCAOB and Securities and Exchange Commission (SEC) terminology.
one-half of the total assets and total revenues of the company being audited” (PCAOB 2016, 7).²

In sum, the Board argued that other auditors have significant participation in the audit of SEC issuers; the integration of these audits is far from seamless; and investors are not aware of the extent of participation of the other auditors. Thus, the PCAOB pressed for the requirement of principal audit firms to disclose the use of other auditors.

However, because the lead or principal audit firm bears the risk of litigation and damage to its reputation in the event of an audit failure, the firm has incentives to ensure the overall audit is of high quality regardless of the extent to which other audit firms participate. In addition, investors are aware of these incentives for the lead auditor to provide high quality, and therefore may be uninterested in learning of the involvement of audit firms other than the principal auditor. Thus, it is not clear whether investors will find disclosure of other audit participants useful.

These conflicting arguments—the concerns of regulators versus the lead audit firm’s incentives for high quality—motivate our study (DLZ). In general, other audit participants are not identified in the auditor’s report.³ However, in 2010, the PCAOB began requiring registered audit firms to publicly file “Form 2”.⁴ Firms must include on Form 2 a list of clients for which the firm acted as principal auditor. PCAOB registered audit firms that do not act as principal auditor on any engagement are also required to file Form 2, and list the audits on which the firm “substantially participated”, along with the identity of the principal auditor. We use these Form 2 disclosures to identify the experimental issuers.

² Because the PCAOB primarily uses a risk-based (non-random) method for selecting engagements to inspect, the actual percentage of total assets or revenues audited by other auditors (including engagements the PCAOB did not inspect) may differ from this.
³ An exception is a “shared responsibility” opinion, in which the principal auditor makes reference to the other auditor in the report and indicates the extent of the other auditor’s work on the engagement. DLZ excludes issuers with shared responsibility opinions. Beginning in 2017, principal audit firms are required to inform the PCAOB on Form AP of the involvement of other audit firms in its audits. These data are available on the PCAOB’s website.
⁴ https://pcaobus.org/Rules/Pages/Form_2.aspx
Disclosures about participating auditors on Form 2 are made only by audit firms that (a) played a “substantial role” in the audit of an issuer, and (b) did not issue audit reports of their own for SEC issuers.\(^5\) These participating auditors do not act as lead auditor on any issuer audits, yet they audit at least 20% of an issuer client for another firm that is acting as lead auditor. Thus, we emphasize that the participating auditors in our study are not representative of the universe of participating auditors. However, this setting—in which the participating auditors likely have limited experience in the audits of SEC issuers because they do not have issuer audit clients of their own—allows us a strong test of whether using participating auditors is associated with reduced audit quality. If the use of participating auditors leads to lower audit quality, such evidence is most likely found in the population we study—audit firms that do not have issuer clients of their own, yet are responsible for at least 20% of the audit. For ease of exposition, hereafter we use the phrase “LE participating auditors” to indicate this subset of less experienced other auditors we examine. Figure 1 provides an example of Form 2 for Deloitte & Touche LLP, Deloitte’s affiliate in Ireland.

[Please Insert Figure 1]

Using these Form 2 disclosures filed by LE participating auditors, we identify client engagements on which these firms substantially participated. We first investigate whether investors view audits using LE participating auditors as being of lower quality. We find a negative stock market reaction when LE participating auditors first identify themselves and the issuer audits on which they participated on Form 2, indicating that investors discount the value of the client’s stock when this news is disclosed. Moreover, in quarters subsequent to the

\(^5\) PCAOB Rule 1001(p)(ii) states that an audit firm plays a substantial role in an audit when it performs either (a) material services—defined as services consisting of 20% or more of the total audit hours or audit fees on the engagement; or (b) the majority of the audit procedures with respect to a subsidiary or component of the client that makes up at least 20% of the consolidated assets or revenue of the client. https://pcaobus.org/Rules/Documents/Section_1.pdf.
disclosure, we find a reduction in the association between “unexpected earnings” and short-window (3-day) “abnormal stock returns” for these clients. This is consistent with the notion that investors perceive these issuer’s quarterly earnings as less credible than they did before news of the LE participating auditors was revealed. In addition, we find that clients of auditors identified as using LE participating auditors have higher accruals (in absolute value) than are expected, which we interpret as an indication of lower earnings quality. However, we find no statistical difference in audit fees between our sample of clients using LE participating auditors, and a control sample, which suggests that clients do not increase demands for higher audit quality to counteract the uncertainty in investor perceptions of audit quality.

In 2017, after the time of our study, the PCAOB began requiring identification of other audit participants on a new PCAOB Form AP (PCAOB 2015). Lead auditors must now disclose on Form AP the identities and participation percentages of all audit firms providing at least 5% of the total audit hours on the engagement. Aggregated information must be reported about firms providing less than 5% of the total hours on the audit. The Form AP disclosures will allow academic research to explore a broader population of other auditors than we were able to do in DLZ. However, we believe our study is an important first step in understanding the consequences of using participating auditors to conduct a substantial portion of the audit.

---

6 Accounting researchers call the association between unexpected earnings and abnormal stock returns an “Earnings Response Coefficient” or ERC. “Unexpected earnings” are the difference between quarterly earnings and the stock market’s expectation of quarterly earnings. We use the prior-year, same-quarter earnings as a measure of expected quarterly earnings. “Abnormal stock returns” are the difference between a short-window (3-day) stock return, and a statistical estimate of the expected return. The statistical estimate of the expected return is based on the stock’s returns relative to overall movements in the stock market.

7 We thank an anonymous reviewer for this point.
II. BACKGROUND

PCAOB Standards when Other Auditors are Involved

The PCAOB’s Auditing Standard (AS) 1205 *Part of the Audit Performed by Other Auditors* applies for audits of publicly traded companies that involve auditors other than the principal auditor. Under AS 1205.02, if a significant part of the audit is conducted by other auditors, the principal auditor “…must decide whether his own participation is sufficient to enable him to serve as the principal auditor and to report as such on the financial statements.”

If the auditor determines his participation is sufficient to act as principal auditor, he then decides whether or not to refer to the other auditors in the audit report. An opinion that makes reference to the other auditors is commonly called a “shared responsibility opinion.” In such a case, the auditor should clearly indicate in the audit report the division of responsibility between the audit work completed by the principal auditor and the work completed by the other auditor or auditors. Shared responsibility opinions are relatively rare for publicly traded companies. Over the nine-year period from 2009 through 2017, Mao, Ettredge, and Stone (2019) find a total of 653 shared responsibility opinions filed with the SEC, or roughly 73 per year. The more common approach in audits of issuer companies is for the principal auditor not to make reference to the other auditor in the audit report. Additional procedures are required in this case, largely related to documentation that must be obtained from the other auditor.

Regardless of whether the principal auditor makes reference to the other auditor in the report, the principal auditor must inquire as to the “…professional reputation and independence of the other auditor” (AS 1205.10). The principal auditor must determine through communication with the other auditor that he understands the component being audited will be

---

8 The relevant standard for audits of non-issuers is the AICPA’s AU-C Section 600 *Special Considerations—Audits of Group Financial Statements (Including the Work of Component Auditors)*. We focus on AS 1205 because the sample in DLZ includes only issuer clients. The two standards are very similar.
included in consolidated financial statements, and that there will be a review of intercompany transactions. Additionally, the principal auditor must make certain the other auditor is knowledgeable about PCAOB standards; Generally Accepted Accounting Principles; and SEC regulations (AS 1205.10.c).

**Audits of Multinational Corporations and the PCAOB’s Concerns**

While it may seem obvious to accounting professionals that more than one audit firm would be involved in the audit of an issuer with multinational operations, investors do not necessarily have the same cognizance. Former Chairman of the PCAOB Doty (2011) states:

I am concerned about investor awareness. I have been surprised to encounter many savvy business people and senior policy makers who are unaware of the fact that an audit report that is signed by a large U.S. firm may be based, in large part, on the work of affiliated firms. Such firms are generally completely separate legal entities in other countries.

Institutional and legal barriers largely prohibit principal audit firms from sending their U.S.-based employees to perform audits of client subsidiaries or component operations in foreign countries. Instead, firms must rely on outsourcing the work to auditors locally licensed in the applicable country. However, while global network firms advertise their seamless integration around the world, the structure of these networks is that each foreign affiliate of a global network firm is a separate legal entity organized in the foreign country. Because they bear the responsibility of the entire audit, and face litigation and reputation damage in the event of an audit failure, principal auditors have strong incentives to monitor the work of other auditors. However, they typically do not have access to the other auditors’ full set of working papers and must instead rely on a more limited set of documentation to assess the work of the other audit firm (Downey and Bedard 2019).
III. RESEARCH METHOD AND RESULTS

Each country’s affiliate of a global networked audit firm must be separately registered with the PCAOB if it is to conduct 20% or more of the audit of any issuer. Since 2010, the PCAOB has required registered audit firms to annually file “Form 2” with the Board, and we gather data on LE participating auditors from these filings. The forms we examine are filed by the LE participating auditor—not the principal auditor. We match each issuer (experimental sample) to an issuer not having LE participating auditors (control sample), based on the issuer’s principal auditor and percentage of foreign revenue. This matching allows us to isolate the effect of LE participating auditors on audit quality.

We identify 149 unique issuer clients using 65 unique LE participating auditors. In our sample, 98% of the experimental issuers have non-US LE participating auditors, while only three (2.0%) issuers have US LE participating auditors. For 89% of the experimental issuers, the LE participating auditor is a foreign affiliate of the principal auditor.

First, our primary analyses focus on investors’ perceptions of audit quality. We examine the clients’ stock price reaction over a short (three-day) window when news of LE participating auditors is revealed in the participating audit firm’s Form 2 filing. We use statistical techniques that help isolate the effect of the news of LE audit participants from changes in stock prices unrelated to the news, such as overall market movements caused by unrelated economic events. Overall, we find that the stock prices for experimental issuers react negatively to the first-time news that less-experienced audit participants were involved in the audit. However, this negative reaction is only for the first issuance of Form 2—subsequent Form 2 filings by LE participating auditors mentioning their involvement in the audit of an issuer are not associated with stock market reaction. This supports our notion that the market reacts to the unexpected news of LE

---

9 PCAOB Rule 2100 [https://pcaobus.org/Rules/Pages/Section_2.aspx](https://pcaobus.org/Rules/Pages/Section_2.aspx).
participating auditors being involved in the audit and that investors perceive audits involving LE participating auditors as being of lower quality or having higher quality uncertainty.

Second, we compare earnings response coefficients (ERCs) between the experimental and control samples in the pre and post disclosure quarters. ERCs are a measure of how responsive the stock price is to the issuer’s unexpected earnings—that is, how much short-window stock returns are affected when the issuer’s financial information is revealed in its Form 10Q to differ from the market’s expectations.\(^\text{10}\) We find that ERCs are significantly lower in the post disclosure quarters only for the experimental issuers, not the control sample. The lower ERCs for the experimental issuers indicate that investors perceive the reported earnings less credibly due to greater uncertainty about the quality of the audit for the issuers disclosed as having LE participating auditors.

Third, we examine if issuers whose audits involve LE participating auditors have higher abnormal accruals. Abnormal accruals are “those that are higher or lower than expected” and are measured “using a well-established model for predicting expected accruals” (Causholli, Chambers, and Payne 2015).\(^\text{11}\) We find that abnormal accruals are higher for the experimental issuers compared to the control issuers. This is an indication that the quality of earnings is lower for the issuers disclosed as having LE participating auditors.

Finally, we examine audit fees to see if issuers using LE participating auditors pay lower fees than other issuers. In analyses that control for other factors associated with audit fees, we find no difference in fees paid between the experimental and control issuers. The lack of significant differences in fees suggests that clients do not increase demands for higher audit quality to counteract the uncertainty in investor perceptions of audit quality. Alternatively, this

\[^{10}\text{We describe our method for estimating ERCs in footnote 6.}\]

\[^{11}\text{The abnormal accruals in DLZ are unsigned; thus, they may either increase or decrease earnings.}\]
could be because (a) cost savings for the principal auditor in using LE participating auditors are not passed through to the issuer, or (b) the difference in fees is not significant enough to be detected by our statistical tests.

IV. IMPLICATIONS

Our study has implications for audit firms, their clients, and accounting researchers. First, the nature of audits of multinational corporations means that principal audit firms have little choice but to use other auditors; however, they can be better aware of the additional monitoring that may be necessary with less-experienced participating auditors. While the requirement to monitor participating auditors is not new, new required disclosures on Form AP about participating auditors will make the quality of their work more transparent. Second, clients should be aware of the potential market implications when less-experienced participating auditors perform substantial portions of the audit. Audit committees can request additional information from their principal auditors about the monitoring of less-experienced participating auditors. Finally, now that more data is available on issuer audits involving participating auditors, it is important for research to examine whether the findings in our study will continue to hold in a sample involving the wider population of participating auditors.
REFERENCES

Causholli, M., D. Chambers, and J. Payne. 2015. Does selling non-audit services impair auditor independence? New research says, “Yes”. Current Issues in Auditing 9 (2): P1–P6.

Dee, C. C., A. Lulseged, and T. Zhang. 2015. Who did the audit? Audit quality and disclosures of other audit participants in PCAOB filings. The Accounting Review 90 (5): 1939-1967.

Doty, J. 2011. Statement on Proposed Amendments to Improve Transparency through Disclosure of Engagement Partner and Certain Other Participants in Audits. Speech given at the PCAOB Open Board Meeting, Washington, DC, October 11. Available at http://pcaobus.org/News/Speech/Pages/10112011_DotyStatement.aspx

Doty, J. 2013. Statement on the Reproposal on Improving Transparency through Disclosure of Engagement Partner and Certain Other Participants in Audits. Speech given at the PCAOB Open Board Meeting, Washington, DC, December 4. http://pcaobus.org/News/Speech/Pages/12042013_Doty_Transparency.aspx

Doty, J. 2015. Statement on adoption of rules to require disclosure of engagement partner and other firms participating in an audit. Speech delivered at PCAOB Open Board Meeting, Washington DC. December 15. https://pcaobus.org/News/Speech/Pages/Doty-statement-transparency-12-15-15.aspx

Downey, D., and J. Bedard. 2019. Coordination and communication challenges in global group audits. Auditing: A Journal of Practice and Theory 38(1): 123-147.

Mao, J., M. Ettredge, and M. Stone. 2019. Group audits: Are audit quality and price associated with the lead auditor’s decision to accept responsibility? Working paper, University of Texas at San Antonio; University of Kansas; and University of Alabama.

Public Company Accounting Oversight Board (PCAOB). 2015. Improving the Transparency of Audits: Rules to Require Disclosure of Certain Audit Participants on a New PCAOB Form and Related Amendments to Auditing Standards. PCAOB Release No. 2015-008 (December 15). https://pcaobus.org/Rulemaking/Docket029/Release-2015-008.pdf

Public Company Accounting Oversight Board (PCAOB). 2016. Proposed Amendments Relating to the Supervision of Audits Involving Other Auditors and Proposed Auditing Standard—Dividing Responsibility for the Audit with Another Accounting Firm. PCAOB Release No. 2016-002. (April 12.) https://pcaobus.org/Rulemaking/Docket042/2016-002-other-auditors-proposal.pdf

Public Company Accounting Oversight Board (PCAOB). 2017. AS 1205: Part of the Audit Performed by Other Independent Auditors. (December 15). https://pcaobus.org/Standards/Auditing/Documents/PCAOB_Auditing_Standards_as_of_December_15_2017.pdf
Figure 1
Excerpt from 2010 PCAOB Form 2, Filed by Deloitte’s Ireland Affiliate

Italicized terms are defined in PCAOB Rule 1001. The Firm must apply those definitions in completing this Form.

| ITEM 4.2 - AUDIT REPORTS WITH RESPECT TO WHICH THE FIRM PLAYED A SUBSTANTIAL ROLE DURING THE REPORTING PERIOD |
|---|
| a. If no issuers are identified in response to Item 4.1 a., but the Firm played a substantial role in the preparation or furnishing of an audit report that was issued during the reporting period, provide the following information concerning each issuer with respect to which the Firm did so. |

Note: If the Firm identifies any issuer in response to Item 4.1, the Firm need not respond to Item 4.2.

Note: In responding to Item 4.2, do not list any issuer more than once.

1. Issuer name
   McAfee Inc

2. Issuer CIK (Central Index Key) number, if any
   895081
   [ ] Check here, if none

3. Name of the registered public accounting firm that issued the audit report(s)
   Deloitte & Touche LLP

4. The end date(s) of the fiscal period(s) covered by the financial statements that were the subject of the audit report(s)
   12/31/2009

5. Substantial role played by the Firm with respect to the audit report(s)
   [ ] Subcontractor
   [ ] Assist Principal Auditor
   [ ] If other is selected, please enter substantial role played below -

1. Issuer name
   Microsoft Corporation

2. Issuer CIK (Central Index Key) number, if any
   785019
   [ ] Check here, if none

3. Name of the registered public accounting firm that issued the audit report(s)
   Deloitte & Touche LLP

4. The end date(s) of the fiscal period(s) covered by the financial statements that were the subject of the audit report(s)
   6/30/2009