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# Does the PCAOB Inspection have an Effect on Audit Fees and Audit Quality?

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DOES THE PCAOB INSPECTION HAVE AN EFFECT  
ON AUDIT FEES AND AUDIT QUALITY?

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor in Philosophy

in

The Department of Accounting

by

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May 2015

I dedicate this dissertation to my wife who has stood by me and supported me throughout this process. This is for you.

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## **ABSTRACT**

I investigate the effects of the issuance of the PCAOB Part II report on audit fees and audit quality. The PCAOB replaced the peer review auditor program with an independent inspection of audit firms. Upon completion of each inspection, the PCAOB issues inspection reports that include a public portion (Part I) of identified audit deficiencies, and most include a nonpublic portion (Part II) of identified quality control weaknesses which is not disclosed publicly unless the audit firm does not sufficiently complete remediation during the next 12 months. Upon issuance of the Part II report, I find that audit firms experience reputational damage resulting in a decrease in audit fees. I also find that though audit fees decrease, audit quality increases as the audit firms increase their efforts to remediate the quality control issues identified in the Part II report in an effort to comply with the expectations of the PCAOB. In summary, my results indicate that there is an associated cost to audit firms when they are unable to remediate their control deficiencies within the 12 month remediation period as well as an associated benefit for the audit clients who decide to remain with the audit firm after the issuance of the Part II report, as they not only are able to negotiate lower audit fees but also receive higher audit quality for those lower fees.

## 1. INTRODUCTION

The purpose of this study is to examine the effect of the release of the Public Company Accounting Oversight Board (PCAOB) Part II reports on audit fees and audit quality. More specifically, does the release of the PCAOB Part II report damage the reputation of the audit firm and ultimately decrease audit fees for the firm's clients? Additionally, does the reputational damage result in increased effort by the audit firms in an attempt to repair their relationship with their clients and ultimately increasing audit quality at the expense of a reduced margin? My findings suggest that the audit firm does experience reputational damage resulting in their inability to charge fee increases and a negative change in audit fees for the two year period following the Part II issuance. In addition, the clients experience an increase in audit quality as proxied by abnormal accruals.

The Sarbanes–Oxley Act (2002) established the PCAOB (Board) with a charge to, “. . . protect the interests of investors and further the public interest in the preparation of informative, accurate, and independent audit reports.” The act provides the Board with responsibilities related to registration, standard setting, and enforcement but it is the inspections that the Board feels are the primary vehicle for improving the quality of auditing practice (Gillan, 2005; Goelzer, 2006; McDonough, 2005). The PCAOB replaced the peer review auditor program with an independent inspection of audit firms. Upon completion of each inspection, the PCAOB issues inspection reports that include a public portion (Part I) of identified audit deficiencies, and most include a nonpublic portion (Part II) of identified quality control weaknesses which is not disclosed publicly unless the audit firm does not sufficiently complete remediation of the quality control weaknesses during the 12 months following the issuance of Part I.

The PCAOB's evaluation of a firm's system of quality control covers a broad range of controls that facilitates audit firms ability to provide a quality audit. This would include a review of policies, procedures, and practices concerning audit performance, training, compliance with independence requirements, client acceptance and retention, and the establishment of policies and procedures (PCAOB 2012). Additional areas covered are the corporate governance controls that include the firm's 'tone at the top' as it relates to audit quality, partner management, and the firm's self-monitoring of its practice (PCAOB 2012). When a significant quality control problem is identified, the inspectors address the issues with the firm and; the final inspection report provided to the auditor includes a description of the problem (PCAOB 2006), although the information is redacted from the report prior to its issuance to the public. Section 104(g)(2) of the Sarbanes Oxley Act provides the firm 12 months to satisfactory address the identified control issues. Effective remediation of control deficiencies in Part II reports allows audit firms to prevent the public disclosure of Part II information. However, if the firm fails to address the quality control deficiencies to the Board's satisfaction, the Part II report is released to the public (PCAOB 2006).

Recent research has questioned the transparency and informativeness of the PCAOBs reporting model (Hodowanitz and Solieri 2005; Coates 2007; Johnson 2007; Lennox and Pittman 2010). Lennox and Pittman's (2010) findings suggest that the PCAOB's reporting model allows for information to be hidden from audit clients and thus the public reports are not viewed as informative about audit firm quality. This finding is supported by J. Michael Cook, the former CEO of Deloitte who stated (Johnson 2007) "I think the [PCAOB inspection] process is well intentioned, and it is helpful and constructive, but right now it is not producing the kind of results



that it should for people who are using the results and trying to understand what this means.”

Similarly, Hodowanitz and Solieri (2005) criticize the lack of transparency in PCAOB reports,

“With today's emphasis on full disclosure by public companies, a confidentiality escape clause does little to inspire investor confidence in the PCAOB as the auditing profession's newly appointed watchdog. Unless there is full disclosure and transparency in the inspection process, Congress, the SEC, and the PCAOB will have a hard time explaining future audit failures to the investing public.”

As time has passed, PCAOB inspections have allowed for increasing transparency of audit quality for those audit firms who have experienced the public issuance of their Part II reports. The disclosures of unresolved quality control issues are one source for gaining some insight into problems that undermine effective quality controls, and possibly the quality of audits performed. As these are firm wide and pervasive control issues, they would affect every client the firm serves. The public disclosure of the audit firm's poor quality to its clients, potential clients and investors provides additional information that can be used to exert fee pressure on the firm. However, the firm still has a duty and responsibility to its clients to do everything in its power to resolve the identified quality issues. In completing that task the firm may determine that it is in its best interest to acquiesce to the fee pressure while ultimately exerting more effort. In this way the firm is willing to take a hit on its margin in order to keep its clients. Using a large sample of firm clients, I find that clients who remain with the audit firm for a two year period after the release of the Part II report experience greater audit quality at reduced audit fees than prior to the release of the Part II report.

Past research has found what appears to be a link between the number of weaknesses identified in the peer report and firm-quality attributes (Casterella et al. 2009). Additionally, there is a link between seriously deficient weaknesses or internal control deficient weaknesses identified in the PCAOB Part I report and firm-quality attributes for the inspected auditors

(Gunny et al. 2013; DeFond and Lennox 2015). Each of these papers point out the usefulness of audit review reports to identify firms with poor audit quality. However, they do not consider how the Part II quality control weaknesses (how the firms internal quality control, training programs and audit methodology) plays into the auditor's failure to identify these serious deficient weaknesses. Part II reports describe the quality control issues that are broad and pervasive and affect every audit conducted by the auditor, essentially affecting every client of the auditor. With the Part II issuance, clients are able to understand their auditors' ability to perform a quality audit and make decisions as to whether to switch auditors. If they decide to remain with the audit firm, they are also able to increase their bargaining power and demand lower audit fees. Using three different measures of audit fees, natural log of audit fees (LNAF), fee increases, and changes in audit fees, I find that these clients have lower audit fees in the two year post remediation period as compared to the three year period prior to the issuance of the Part II report.

Recent research has started addressing whether the release of the Part II report damages the auditor's reputation. Nagy (2014) finds that audit firms lose a significant amount of market share following the public disclosure of quality control criticisms indicating that the disclosure damages the auditors' reputation. Buslepp and Victoravich (2014) find that clients of triennial firms are more likely to change auditors after the release of the Part II. Additionally, they find that audit quality is lower in terms of restatements for those triennial companies during the remediation period. However, they do not consider the post remediation period. This study considers the reputational damage to the audit firms by looking at the effect of the Part II report on audit fees for those clients who remain with the firm after the issuance of the report. I find that audit firms are unable to increase their audit fees and their change in audit fees is significantly negative in the two year period following the issuance of their Part II report. Using

abnormal accruals as a proxy for audit quality, I also find that audit quality increases in this two year period for those clients who remain with the firm.

Drake et al. (2014) investigate whether audit firms respond to the particular account related deficiencies identified in PCAOB Part II reports. They examine client changes in reporting of the deficient account by considering the changes brought about by the public release of Deloitte's 2009 Part II report. They find that Deloitte's clients increased the reserve for uncertain tax benefits (UTBs) in response to increased auditor scrutiny over the tax accounts and suggest that the change in auditor scrutiny also influences the financial reporting of the inspected audit firm's clients. Though these papers address audit quality during the period of remediation and how the public issuance of the report is associated with decisions to make a change in auditor or a change in financial reporting, they do not address whether the PCAOBs issuance of the report fulfills their objective and obligation to the investors of ultimately increasing audit quality during the 12 months following the issuance of the Part II report (post remediation period). Additionally, they do not address the effect of the reputational damage on the audit firms audit fees.

Using recent audit fee research methodology (Francis et al. 2005; Hay et al 2006; Reichelt and Wang 2010), I develop three measures of audit fees, natural log of audit fees (LNAF), fee increases and changes in audit fees from one period to the next. To determine the effect of the Part II reports on audit fees, I regress the audit fee measure on the Post Remediation (Post\_Rem) period which is a two year period after the public issuance of the Part II report. I find that overall audit firms are unable to raise their audit fees after the issuance of the Part II report. Specifically, audit firms are unable to increase audit fees and audit fee changes are significantly negative after the issuance.

Using abnormal accruals as a proxy for audit quality (Dechow and Dichev 2002; Kothari 2005) I determine the effect of the Part II reports on audit quality. I find that the overall audit firms limit their clients' ability to manage earnings through the use of abnormal accruals after the public issuance of their Part II reports.

In summary, a public Part II report does damage the reputation of the audit firm resulting in lower audit fees. However, the audit firms efforts to clear the quality control deficiencies and meet the expectations of the PCAOB ultimately increases the audit quality for those clients who decide to remain with their audit firm after the public issuance of their Part II report.

As researchers it is important that our research provides information that is useful to investors, regulators and the public as a whole. As there is still some question on whether the additional cost of Sarbanes-Oxley was worth the benefits, one of which is whether the cost of the PCAOB inspection process is providing the expected benefits? My study contributes to the literature as follows: First, I provide evidence that there is a cost to the audit firm associated with the release of their Part II report. That is, clients who decide to remain with their auditor who had a Part II report released are able to demand lower audit fees in the two year period after the release. Second, I find that while audit fees decreased, audit quality (based on abnormal accruals) increased for these clients. The third contribution is that my study provides direct evidence to auditors, regulators and the users of the financial reports that the PCAOB inspection process is meeting its main objective of increasing audit quality.

The remainder of the paper is organized as follows. Section two provides a review of related studies and develops the hypotheses of this study. Section three describes the sample selection, the methodology, and presents the results of descriptive statistics and univariate analysis. Section four describes the research design and presents the results of the multivariate

analysis of audit fees and audit quality and section five provides the additional tests in support of my hypotheses. Section six provides the conclusion and a discussion of the limitations of the study.

## **2. RELATED STUDIES AND HYPOTHESIS DEVELOPMENT**

### **2.1 Reputational Damage and Audit Fees**

The objective of the PCAOB's inspections is to provide protection to investors by scrutinizing audit work, providing public information about identified audit weaknesses, and creating incentives for auditors to be more diligent and watchful (e.g., DeFond 2010). Therefore, one would expect that after notification of the intent to publicly disclose the Part II report that the audit firm reaction would be to take every and all actions necessary to correct the deficiencies to avoid public release of the Part II report related to the same issues in the following year. However, my review of the firms with Part II reports indicates that some firms experience multiple subsequent Part II releases. To date all of the Big 4 and Grant Thornton have received multiple subsequent Part II public releases. Dowling et al. (2015) would say this is due to the slippery slope of enforcing regulations. That is, as the oversight regulator strengthens their enforcement strategy, an antagonistic (rather than synergistic) compliance climate emerges where the regulator and the regulated hold divergent views of the optimal methods for achieving compliance (Dowling et al. 2015). This view can be seen in Deloitte's response to its inspection report in 2009 (PCAOB 2009a).

My experience in an audit firm who had a Part II release and Deloitte's response in its Advancing Quality through Transparency Report (Deloitte & Touche 2010) substantiates this notion. Deloitte's report discusses their intentions to implement further process improvements in response to PCAOB inspections along with strengthening its own internal inspection processes by implementing a new audit methodology, developing new training, and enhancing engagement review and feedback procedures. Additionally, Ernst & Young has issued a public response to their 2010 PCAOB Part II inspection report stating:

We have provided our audit professionals with new audit tools, additional training, and expanded technical guidance. These efforts have been beneficial generally and continue to improve our execution. Overall, we have invested thousands of partner and staff hours on these issues and believe we approached each board criticism seriously and responsibly (PCAOB 2010a, p. 3).

As the public responses indicate, the audit firms take these firm-wide audit quality control deficiencies very seriously and the audit firms' response would be significantly different in contrast to the issuance of the Part I reports. With that said, audit firms may need to exert more effort on their audits to address the PCAOB's concerns and complete their remediation efforts which would result in increased audit fees if they are able to convince their audit clients that the additional effort is in the clients' best interests.

Recent research has indicated that the PCAOB has met their objective of increasing audit quality as some smaller accounting firms (local and regional) stopped auditing public companies due to concerns over the inspection process (Read et al. 2004). Carcello et al. (2011) find that the inception of the PCAOB inspection process as a whole yields an increase in audit quality (proxied by a decrease in the absolute value of discretionary accruals). However, Gunny and Zhang (2013) find that engagement-level audit deficiencies identified in PCAOB Part I inspection reports do not distinguish audit quality. An inherent limitation to the Part I report is its lack of information about the client or offices reviewed so in some settings, high-deficiency audit firms are associated with higher audit quality. Though past research has mixed results, the PCAOB's inspection process, by its very nature, promotes learning. Inspectors discuss issues with accounting firm representatives and provide formal feedback on audit deficiencies and on the firms' quality controls (PCAOB 2009a and b; 2010 a - c).

Other research on the informativeness and usefulness of the PCAOB audit reports calls into question whether the PCAOB has fully met its objective. Lennox and Pittman (2010) find

that weaknesses identified in the Part I reports, the public portion of the report, are not perceived by clients as informative as it fails to predict subsequent changes in the audit firms' market share. They imply that the information contained in the non-public portion of the (Part II) report may be deemed more important than what is reported in the Part I report. However, others find an association between the type of deficiencies and auditor dismissal (Abbott et al. 2013; Daugherty and Tervo 2010). Additionally, others have identified a significant market response to the issuance of the Part I reports (Robertson and Houston 2010; Offermanns and Peek 2011). Those that have found a market reaction to the issuance of the PCAOB Part I reports point out that public criticism of the audit firms has resulted in damage to the firm's reputation resulting in a market reaction to the clients' stock price.

With the maturing of the inspection process, more Part II reports have become public and recent research finds a negative client reaction associated with the public criticism of the auditor's quality control system. Nagy (2014) finds that audit firms lose a significant amount of market share following the public disclosure of quality control criticisms indicating that the disclosure is damaging to the auditors reputation. Buslepp and Victoravich (2014) find that clients of triennial firms are more likely to change auditors after the release of the Part II report. Though these papers have considered some aspects of the effect of the damage brought about by clients leaving the firm or the firm's ability to replace those clients, they have not considered the affect for those clients who decide to remain with the firm.

Several past papers have noted that managers will pay audit fee premiums to receive higher audit quality not only to reduce agency costs but also for brand name recognition or specialization (Watts and Zimmerman 1986; Francis 1984; Francis et al. 2005). Additionally, Boone et al. (2014) find that the PCAOB's censure (i.e., 2007 disciplinary order) was associated



with a decrease in Deloitte's ability to retain and attract new clients, and a decrease in Deloitte's audit fee growth rates. Additionally, Weber et al. (2008) find that KPMG had an increase in the number of clients who switched audit firms in the year of the ComROAD scandal. Both studies indicate that once the reputation of the auditor is tarnished, the client's willingness to pay audit fee premiums is lessened. However, with the increased scrutiny of the PCAOB, the audit firm would be inclined to increase its efforts to complete their remediation plan that they were unable to complete during the 12 month remediation period. This increased effort could be either at the corporate level or the client level which would ultimately result in increased audit fees. DeFond and Lennox (2015) find that higher rates of internal control deficiencies in the Part I report prompt auditors to perform more rigorous tests and evaluation of their clients resulting in higher audit fees. As such, I propose the following hypothesis:

**Hypothesis 1:** Audit fees are different for audit firm clients who remain with the audit firm after the firm has experienced the release of the PCAOB Part II report.

## **2.2 Reputational Damage and Audit Quality**

The PCAOB's main objective is to increase audit quality through their inspection process. Through a risk based approach the PCAOB select audit engagements to review the audit firm's audit results along with performing other procedures to assess the audit firm's control environment (e.g., assessment of managements "tone at the top", training and internal quality control processes and policies and procedures to name a few). It is the control environment, as with a company, that determines the firm's ability to produce quality work (i.e., quality audits). Some would say that the PCAOB has not yet met its objective and point directly to the non-public portion of the PCAOBs reporting process as the issue (Hodowanitz and Solieri 2005; Lennox and Pittman 2010). Others have found limited evidence of improvement in audit quality

through the use of the Part I report information (Carcello et al. 2011; Defond and Lennox 2011; Gramling et al. 2011; Church and Shefchik 2012; Gunny and Zhang 2013; Defond and Lennox 2015). These studies have predominantly found results indicating that audit quality has improved for the triennially inspected firms but have found mixed results for the annually inspected firms.

Carcello et al. (2011) find a decrease in earnings management in the year following the first two PCAOB inspections. Though they point out that the decrease is attributable to the audit firms' changes to their training, audit approach, and documentation to address deficiencies noted in PCAOB inspection reports they fail to consider that the changes may be driven by unrelated quality control issues identified in the non-published Part II report. Additionally, through a risk based approach the PCAOB selects audit firm clients for review which with the client base of annually inspected auditors being large and diverse, may not be representative of the auditor's overall client base.

On the other hand, Gunny and Zhang (2013) find among the annually inspected auditors, the results are conflicting and suggest PCAOB inspection reports do not distinguish audit quality during the period inspected. Though these papers have addressed some aspects of audit quality they have not considered the effect of the public issuance of the Part II report which directly addresses a firm's quality control issues that would have an overall effect on all of the firm's clients (i.e., Deloitte's recent change in audit methodology after the release of its 2009 Part II report).

Finally, there are some papers that specifically consider the effects of the issuance of the Part II reports. Nagy (2014) finds that audit firms lose market share after the public issuance of the Part II report indicating that the reports are a credible signal of audit quality to the audit

clients. Drake et al. (2014), using the issuance of Deloitte's 2007 Part II report, find that the content of the report affects auditor scrutiny, and the change in auditor scrutiny also influences the financial reporting quality of the inspected audit firm's clients. Buslepp and Victoravich (2014) find that triennially audited firms who have not remediated their quality control issues had lower audit quality in terms of restatements in the remediation period, that is the 12 month period between the issuance of the Part I and the issuance of the Part II reports, than those firms who had successfully remediated their quality control issues. However, they do not consider the audit quality for the period after the issuance of the Part II report (post remediation period).

Although, these papers are making strides to consider how the public release of the Part II reports provide information about audit quality, they have not specifically considered the reaction of audit firms to the public criticism. Audit firms take the release of their Part II reports very seriously as demonstrated by Deloitte's comments in its Advancing Quality through Transparency Report (Deloitte 2010) and E&Y's public response to their 2010 PCAOB Part II inspection report (PCAOB 2010a, p. 3). Additionally, the PCAOB Chairman has indicated that by identifying and incentivizing accounting firms to correct their quality control defects, the quality control remediation process has the potential to lead firms to improve the quality of all their future audits (Doty 2011). Although the chairman was addressing the initial remediation period, it is logical to expect that audit firms would be even more incentivized to correct any and all issues prior to the next years report. As such, I propose the following hypothesis:

**Hypothesis 2:** Audit quality is different for audit firm clients who remain with the audit firm following the PCAOB's release of their PCAOB Part II report.

### 3. SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

#### 3.1 Sample Selection

I begin the sample selection process by collecting PCAOB reports for those firms with Part II releases and release dates of the reports prior to December 31, 2014. There are 160 reports issued for 121 audit firms (average of 1.33 reports per firm) during my sample period. Audit firms with Part II reports are made up of triennially and annually inspected audit firms (116 and 5 respectively). The annually inspected population includes all of the Big4 audit firms along with Grant Thornton<sup>1</sup>. Each of these firms has had two subsequent years Part II reports issued. Figure 1 below provides an overview of the release of annually inspected audit firms Part II report issuance during my sample period.

From the Part II reports I identify the period of interest and match this information to Audit Analytics to obtain client, audit fees, going concern opinions and internal control opinions data. I delete foreign client firms, firms with zero or negative audit fees, and firms in the financial sector (SIC Codes 6000–6999).<sup>2</sup> I then match to Compustat to obtain financial information for each client. To facilitate my ‘block’ design, I restrict the sample to the same client firms for all periods.<sup>3</sup> From this sample, I derive several subsamples to analyze: audit fees (as proxied by the natural log of audit fees, fee increase and change in audit fees) and audit quality (as proxied by abnormal accrual). My main sample includes 4,263 observations (approximately 852 client years) which include 58 triennially inspected audit firm client observations and 4,205 annually inspected audit firm client observations.

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<sup>1</sup> BDO, Crowe Horwath, and McGladrey are also inspected on an annual basis, but did not have a Part II report issued during the sample period.

<sup>2</sup> Consistent with Francis et al. (2005), we exclude firms in the financial sector due to their dissimilarity and heavy industry regulation.

<sup>3</sup> I restrict my sample to a ‘block’ design which requires that all firms represented be included in all periods of the sample.

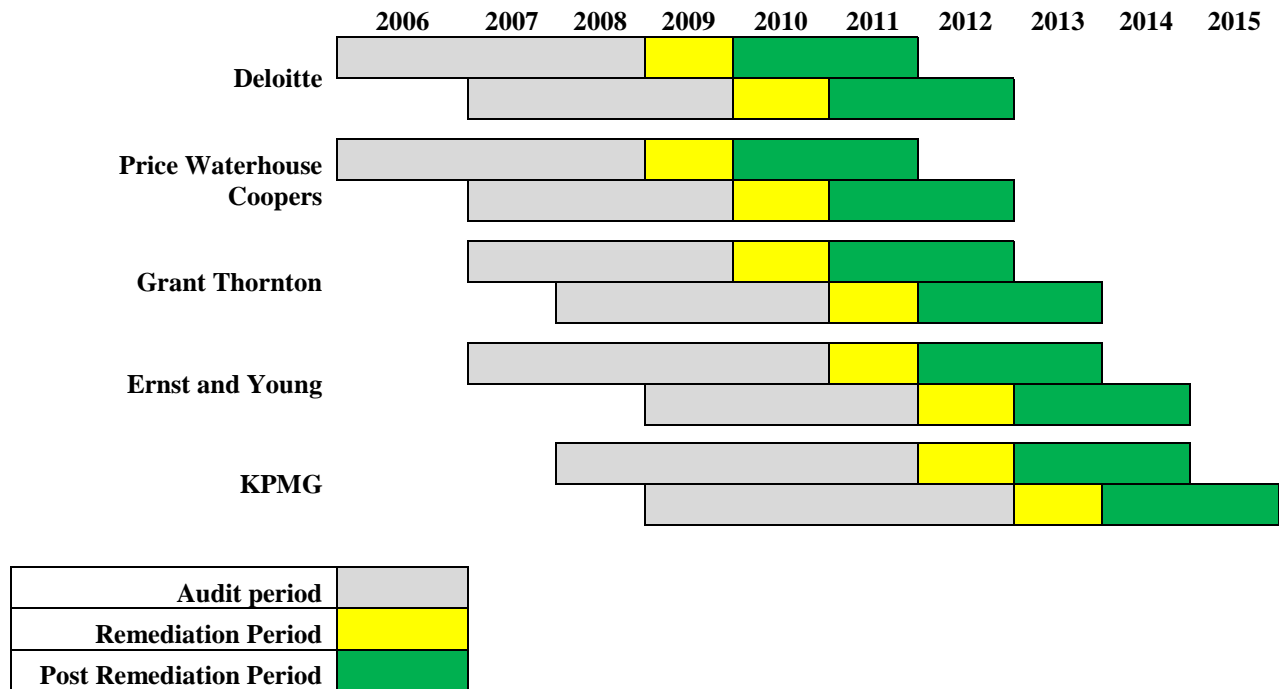


FIGURE 1: Depiction of the Annually Inspected Part II Report Issuance

### 3.2 Descriptive Statistics

Table 1 provides the descriptive statistics for my sample selection. The sample is predominantly large clients who are audited by the Big 4 and Tier 2 audit firms (99%). These clients have mean total assets of approximately \$6.18 billion and mean audit fees of approximately \$2.39 million. Additionally, 99% of them have FOREIGN operations, along with several business SEGMENTS. Finally, these clients are more complex as 15% have been through a MERGER and/or Acquisition, 19% have LEVEL 3 fair valued assets and/or liabilities, and 77% have INTANGible assets.

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TABLE 1: Descriptive Statistics (Audit Fees)

<b><u>Variable</u></b>	<b><u>N</u></b>	<b><u>Mean</u></b>	<b><u>Median</u></b>	<b><u>Std Dev</u></b>
<i>AUDIT FEES (\$000)</i>	4,263	2,387.35	1,136.00	4,236.92
<i>ASSETS (\$ millions)</i>	4,263	6,175.54	829.27	17,826.70
<i>LNAF</i>	4,263	7.06	7.04	1.18
<i>SIZE</i>	4,263	6.76	6.71	2.16
<i>LIQUIDITY</i>	4,263	2.64	1.78	3.01
<i>INVAR</i>	4,263	0.20	0.15	0.16
<i>FOREIGN</i>	4,263	0.99	1.00	0.10
<i>MERGER</i>	4,263	0.15	0.00	0.36
<i>GC</i>	4,263	0.03	0.00	0.18
<i>ICW</i>	4,263	0.05	0.00	0.22
<i>LOSS</i>	4,263	0.32	0.00	0.47
<i>YE</i>	4,263	0.78	1.00	0.42
<i>TENURE</i>	4,263	8.77	7.00	7.43
<i>ROA</i>	4,263	0.08	0.06	0.09
<i>LITIGATION</i>	4,263	0.22	0.00	0.42
<i>LEVERAGE</i>	4,263	0.17	0.16	0.55
<i>SEGMENT</i>	4,263	0.60	0.00	0.71
<i>LEVEL3</i>	4,263	0.19	0.00	0.39
<i>INTANG</i>	4,263	0.77	1.00	0.42
<i>CFO</i>	4,263	0.06	0.08	0.29
<i>ABAF</i>	4,063	0.06	0.07	0.56
<i>BIG4</i>	4,263	0.86	1.00	0.35
<i>TIER 2</i>	4,263	0.13	0.00	0.34
<i>FEE PREMIUM</i>	4,263	0.52	1.00	0.50

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For the purposes of this table, I use a block sample method which requires firms to be consistent throughout the entire sample period. All variables are defined in Appendix A.

## 4. RESEARCH DESIGN

### 4.1 Client and Period Identification

For each identified PCAOB Part II release, I identify all clients for those audit firms who were with the firm during the period one year prior to the initial audit review and remained with the audit firm subsequent to the release of the Part II report for a two year period. I select this post period to allow the client some time to react and renegotiate their audit fees with their auditor and also to allow the audit firm time to complete their remediation of quality issues. I construct a dummy variable POST\_REM which I use to compare the period of the initial audit and the subsequent 12 months after the audit (coded 0) to the one year period after the release of the Part II audit report (coded 1) see Figure 2 below.

Mar 06 – Mar 07	Mar 07 – Nov 07	Nov 07 – May 08	18 May 08	18 May 08 - 17 May 09	18 May 09	May 09 – May 11
Pre- Inspection Period	Inspection Period	Post Part I Period	Part I Issued	Remediation Period	Part II Report Issued	Post_Rem
Code 0						Code 1

FIGURE 2: Illustration of Period Identification

### 4.2 Audit Fees Methodology

To consider the effect of the release of the Part II report on audit fees I estimate three models. Consistent with past research for audit fees, I use the dependent variable LNAF, measured as the natural log of a firm’s annual audit fees. To consider whether audit fees are affected by public issuance of the firms Part II report, I regress LNAF on POST\_REM and a number of control variables derived from the audit fee literature (e.g., Francis et al. 2005; Whisenant et al. 2003):

$$\begin{aligned}
LNAF = & INTERCEPT + \alpha_1 SIZE + \alpha_2 LIQUIDITY + \alpha_3 INVAR + \alpha_4 FORIEGN + \alpha_5 MERGERS + \\
& \alpha_6 GC + \alpha_7 ICW + \alpha_8 LOSS + \alpha_9 YE + \alpha_{10} TENURE + \alpha_{11} ROA + \alpha_{12} LITIGATION + \\
& \alpha_{13} LEVERAGE + \alpha_{14} SEGMENTS + \alpha_{15} LEVEL3 + \alpha_{16} INTANG + \alpha_{17} ANNUAL + \\
& \alpha_{18}(POST\_REM) + year\ and\ industry\ fixed\ effects + \varepsilon
\end{aligned}
\tag{1a}$$

A significant negative/positive coefficient on *POST\_REM* would support Hypothesis 1 that audit fees significantly changed after the public issuance of the Part II report. A negative coefficient would indicate that the reputational damage brought about by the release of the audit firm's Part II report has adversely affected the audit firm to charge audit fee premiums for those clients who decided to remain with the firm. However, a positive coefficient would indicate that the firms were able to pass along the cost of the extra effort made by the firm to resolve the quality control deficiencies noted in their Part II reports to their clients.

Based on prior research additional variables are included within the model to control for client (size, risk and complexity) and auditor characteristics that would increase the effort of the auditor and are commonly used in the audit fee literature (Francis et al. 2005; Hay et al 2006; Reichelt and Wang 2010). To control for complexity which would increase auditor effort resulting in higher audit fees I include client *SIZE* (log\_assets), *MERGERS*, *FOREIGN* operations, the number of business *SEGMENTS* (Log(SEG)), having Level 3 valued assets and/or liabilities (*LEVEL3*), and companies having intangibles (*INTANG*). To control for audit effort and risk, I also include the amount of inventory and receivables (*INVAR*), the issuance of a going concern opinion (*GC*), internal control weaknesses (*ICW*), return on assets (*ROA*), *LEVERAGE*, companies with high litigation risk (*LITIGATION*), and companies with losses (*LOSS*). Additionally, I control for audit fee premiums associated with annually inspected



auditors (*ANNUAL*), busy season demand for companies with December year-ends (*YE*), and the length of auditor tenure (*TENURE*)<sup>4</sup>.  $\varepsilon$  is a random disturbance term.

As a secondary test, I separate the population based on whether an audit fee increase was paid in the post remediation period to determine if the *POST\_REM* period was associated with an increase in audit fees or not. I estimate the following model with the dependent variable *Fee Increase*, an indicator variable equal to one if the change in audit fees from period t-1 to t is greater than zero, and zero otherwise, to determine the propensity to have a fee increase during the *POST\_REM* period.

$$\begin{aligned} \text{Logit}(FEE\ INCREASE=1) = & INTERCEPT + \lambda_1 SIZE + \lambda_2 LIQUIDITY + \lambda_3 INVAR + \lambda_4 FOREIGN + \\ & \lambda_5 MERGERS + \lambda_6 GC + \lambda_7 ICW + \lambda_8 LOSS + \lambda_9 YE + \lambda_{10} TENURE + \lambda_{11} ROA + \\ & \lambda_{12} LITIGATION + \lambda_{13} LEVERAGE + \lambda_{14} SEGMENT + \lambda_{15} LEVEL3 + \lambda_{16} INTANG \\ & + \lambda_{17} ABAF + \lambda_{18} ANNUAL + \lambda_{19}(POST\_REM) + \text{year and industry fixed effects} \\ & + \varepsilon \end{aligned} \tag{1b}$$

I also include the residual from the audit fee model (1a), abnormal audit fees (*ABAF*) as a control variable. A significant negative coefficient for *POST\_REM* would support the notion that audit firms have suffered reputational damage brought about by the release of the audit firm's Part II report.

Additionally, to consider the economic consequences of an audit fee change after the issuance of the Part II report I calculate the change in audit fee ( $\Delta AF$ ) equal to audit fees in the year following the issuance of the Part II report ( $af_t$ ) less the audit fees ( $af_{t-1}$ ) in the year prior to the issuance of the Part II report divided by audit fees ( $af_{t-1}$ ) in the year prior to the issuance of the Part II report and then estimate the following change model:

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<sup>4</sup> See Appendix A for variable descriptions and calculations

$$\begin{aligned}
\Delta AF = & INTERCEPT + \theta_1 \Delta SIZE + \theta_2 \Delta LIQUIDITY + \theta_3 \Delta INVAR + \theta_4 \Delta FORIEGN + \theta_5 \Delta MERGERS \\
& + \theta_6 \Delta GC + \theta_7 \Delta ICW + \theta_8 \Delta LOSS + \theta_9 \Delta ROA + \theta_{10} \Delta LEVERAGE + \theta_{11} \Delta SEGMENTS + \\
& \theta_{12} \Delta LEVEL3 + \theta_{13} \Delta INTANG + \theta_{14} ANNUAL + \theta_{15} (POST\_REM) + \textit{year and industry} \\
& \textit{fixed effects} + \varepsilon
\end{aligned}
\tag{1c}$$

A significant negative coefficient for *POST\_REM* would support the notion that the audit firms have suffered reputational damage brought about by the release of the audit firm's Part II report.

#### 4.2.1 Empirical Results

The results of estimating equations (1a), (1b) and (1c) are presented in Table 2. The t-stats are computed based on the methodology in Rogers (1993) and clustered by firm. The dependent variable, for the three regressions, are the natural logarithm of audit fees, fee increase (where fee = 1 if there was an increase in audit fees in t+1, 0 otherwise) and change in audit fees respectively. The adjusted R<sup>2</sup>'s for LNAF 0.78 and Fee Increase 0.04 are consistent with prior studies (Francis and Simon 1987; Ferguson et al. 2003; Francis et al. 2005, Ettredge et al. 2014). The coefficients on the control variables are consistent with prior studies (Francis and Simon 1987; Ferguson et al. 2003; Hogan and Wilkins 2008; Elder et al. 2009, Ettredge et al. 2014).

For the natural log of audit fees (LNAF) model, I find that audit fees in the post remediation period are negative but not significantly different from zero indicating that audit firms did not realize a cost associated with the issuance of their Part II report. However, I also consider the audit firms ability to increase fees in the remediation period. For both the Fee Increase and Change in Audit Fees models, I find that the *POST\_REM* period coefficient is negative and significantly different from zero (p-value < .05 and .01 respectively) suggesting that audit firms were unable to increase fees after the issuance of their Part II report and that the audit firms change in audit fees was significantly negative.

Overall, the results support H1 indicating that audit fees were significantly different during the first two years after the audit firm's Part II report was issued. Additionally, the results support the intuition that the issuance of the Part II report does damage the reputation of the audit firm, resulting in a significant cost to these firms in addition to the direct costs of remediation. In the two year period following the issuance of the Part II reports the audit firms experiences a negative 43% change in audit fees along with a 19% decrease in the firm's propensity to increase fees.

TABLE 2: Multivariate Analysis: The Impact of the Issuance of the PCAOB Part II Report on Audit Fees

<u>Dependent Variable/Control Variables</u>	<u>Log Audit Fees</u>			<u>Logistic Fee Premium = 1</u>			<u>Change in Audit Fees</u>		
	<u>Coeff</u>	<u>t-stat</u>		<u>Coeff</u>	<u>Chi-Sq</u>		<u>Coeff</u>	<u>t-stat</u>	
<i>INTERCEPT</i>	2.418	17.31	***	(0.280)	0.16			1.78	*
<i>SIZE</i>	0.488	81.56	***	0.058	6.53	**	0.044	1.40	
<i>LIQUIDITY</i>	(0.012)	(3.56)	***	0.006	0.22		0.447	22.29	***
<i>INVAR</i>	0.566	7.74	***	0.004	0.00		(0.001)	(4.07)	***
<i>FOREIGN</i>	0.278	3.08	***	(0.082)	0.06		(0.368)	(0.66)	
<i>MERGERS</i>	0.035	1.39		0.316	10.95	***	(0.217)	(1.41)	
<i>GC</i>	0.286	5.37	***	(0.174)	0.75		(1.190)	(3.20)	***
<i>ICW</i>	0.328	8.34	***	0.271	3.14	*	(0.439)	(2.17)	**
<i>LOSS</i>	0.115	4.95	***	(0.096)	1.16		0.220	1.77	*
<i>YE</i>	(0.006)	(0.26)		(0.029)	0.12		7.540	8.48	***
<i>TENURE</i>	0.007	5.33	***	(0.001)	0.01				
<i>ROA</i>	(0.045)	(0.42)		0.288	0.50		0.000	0.20	
<i>LITIGATION</i>	0.090	2.58	***	0.038	0.08				
<i>LEVERAGE</i>	(0.014)	(0.86)		(0.022)	0.17		0.000	1.66	*
<i>SEGMENTS</i>	0.096	6.94	***	0.027	0.27		(0.396)	(1.27)	
<i>LEVEL3</i>	0.109	4.62	***	(0.127)	2.00		(0.216)	(1.19)	
<i>INTANG</i>	0.170	6.81	***	(0.235)	6.03	**	2.209	7.69	***
<i>ABAF</i>				0.156	6.51	**			
<i>ANNUAL</i>	0.670	8.42	***	(0.453)	2.30		0.204	0.41	
<i>POST_REM</i>	(0.030)	(1.42)		(0.173)	4.72	**	(0.438)	(3.26)	***
<b>N</b>		<b>4,263</b>			<b>4,063</b>			<b>3,738</b>	
<b>Adj R2</b>		<b>77.65</b>			<b>4.28</b>			<b>21.13</b>	
<b>% Concordiant</b>					<b>63.0%</b>				

The sample includes all clients of firms who have a public Part II report. The sample is a matched sample with the same firms throughout the sample period. \*\*\*, \*\*, and \* denotes statistical significance at the 1, 5, and 10 percent level, respectively, using a two-tailed test. The model includes industry (based on two-digit SIC code) and year fixed effects which are not presented for brevity. t-values and p-values are computed based on the methodology in Rogers (1993) and clustered by firm. All variables are defined in Appendix A.

### 4.3 Discretionary Accruals Methodology

One objective of the PCAOB inspections is improved audit quality which implies reduced earnings management. Although the relation between audit firm quality and management behavior is indirect, research provides some evidence of a relation between audit firm quality and management behavior (in the form of accruals) indicating that a higher quality audit firm is more likely to limit management's accounting policy choices thereby reducing earnings management (DeFond and Jiambalvo 1994; Becker et al. 1998; DeFond and Subramanyam, 1998; Francis et al. 1999). As such, an improvement in any firm's quality controls should be reflected in lower abnormal accruals for the firm's clients.

Research has shown that abnormal accruals represent a deviation of actual accruals from expected accruals and, therefore, greater abnormal accruals indicate lower quality of financial reporting (Jones 1991; DeFond and Jiambalvo 1994; Dechow et al. 1995; Kothari et al. 2005). Greater abnormal accruals also indicate that auditors do not constrain clients from managing earnings (Becker et al. 1998; Reynolds and Francis 2000; Frankel et al. 2002; Ashbaugh et al. 2003). To consider how the public issuance of the PCAOB Part II report effects the audit firms' client's level of discretionary accruals, I estimate equation (2) the absolute value (i.e., the magnitude) of abnormal accruals using two measures: following Kothari et al. (2005) performance adjusted methodology ( $|DACC|$ ) and following Dechow and Dichev's (2002) accruals quality measure ( $|DACCd|$ ) to test the association between the magnitude of abnormal accruals and the period that follow the issuance of the Part II report:

$$\begin{aligned} |DACC| \text{ or } |DACCd| = & INTERCEPT + \Phi_1 SIZE + \Phi_2 LOSS + \Phi_3 ICW + \Phi_4 LEVERAGE + \\ & \Phi_5 LITIGATION + \Phi_6 FORIEGN + \Phi_7 GC + \Phi_8 TENURE + \Phi_9 INVAR + \Phi_{10} MERGER + \\ & \Phi_{11} ROA + \Phi_{12} CFO + \Phi_{13} ANNUAL + \Phi_{14} (POST\_REM) + \varepsilon \end{aligned} \quad (2)$$

As with Equation (1), I base my hypothesis on the parameter estimate for *POST\_REM*. To test H2, I expect that the coefficients are significantly different from zero. A significant negative coefficient on *POST\_REM* will indicate that the reputational damage brought about by the release of the audit firm's Part II report has positively affected the audit quality for those clients who decided to remain with the audit firm.

Consistent with prior research, I also include company and audit firm control variables that have been shown to be related to discretionary accruals (e.g., Becker et al. 1998; Reynolds and Francis 2000; Frankel et al. 2002; Ashbaugh et al. 2003; Reichelt and Wang 2010). Specifically, I control for the amount of firm assets (*SIZE*), firms reporting losses (*LOSS*), firms receiving going-concern opinions (*GC*), firms with internal control weaknesses (*ICW*), cash flow from operations (*CFO*), *LEVERAGE*, firm inventory and accounts receivables (*INVAR*), firms in higher litigation risk industries (*LITIGATION*), operating performance (*ROA*), firm complexity (*MERGER*, *FOREIGN*, and *LOG(SEGMENT)*), annually inspected audit firms (*ANNUAL*), and auditor *TENURE*.  $\varepsilon$  is a random disturbance term.

#### 4.3.1 Empirical Results

The descriptive statistics and results from estimating model (2) are presented in Table 3. Panel A reports descriptive statistics for the sample, and Panel B reports the results of estimating equation (2) when the dependent variable is  $|DACC|$  ( $|DACCd|$ ). Panel A reports that the mean  $|DACC|$  is 5 percent and the mean  $|DACCd|$  is 6 percent. All other variables are similar to previous literature (Becker et al. 1998; Reynolds and Francis 2000; Frankel et al. 2002; Ashbaugh et al. 2003). Panel B reports the coefficients of the control variables, which are generally consistent with prior studies (Becker et al. 1998; Reynolds and Francis 2000; Frankel et al. 2002; Ashbaugh et al. 2003).

Panel B consistently report that the coefficient for the variable of interest (*POST\_REM*) is negative and statistically significant for both the Kothari (*|DACC|*) and Dechow Dichev (*|DACCd|*) Abnormal Accrual models. This result indicates that audit quality improved significantly after the issuance of the Part II report (post remediation periods), which supports H2. That is, audit firms were more restrictive in allowing management to manage earnings after the issuance of their Part II report.

It is interesting to note that in completing the task of clearing the quality control issues identified by the PCAOB, the audit firms may have determined that it is in their best interest to acquiesce to the fee pressure while exerting more effort that ultimately resulted in increased audit quality. In this way the firm was willing to take to reduce its margin in order to keep its clients.

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TABLE 3: The Impact of the Issuance of the  
PCAOB Part II Report on Audit Quality

Panel A: Descriptive Statistics

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Std Dev</b>
<i> DACC </i>	4,174	0.06	0.04	0.08
<i> DACCd </i>	3,813	0.07	0.04	0.14
<i>AUDIT FEES (\$000)</i>	4,174	2,349.24	1,076.86	4,337.16
<i>SIZE</i>	4,174	6.51	6.48	2.09
<i>INVAR</i>	4,174	0.21	0.18	0.17
<i>FOREIGN</i>	4,174	0.99	1.00	0.10
<i>MERGER</i>	4,174	0.17	0.00	0.37
<i>GC</i>	4,174	0.04	0.00	0.19
<i>ICW</i>	4,174	0.06	0.00	0.23
<i>LOSS</i>	4,174	0.34	0.00	0.48
<i>TENURE</i>	4,174	9.05	7.00	7.89
<i>ROA</i>	4,174	0.08	0.07	0.10
<i>LITIGATION</i>	4,174	0.25	0.00	0.43
<i>LEVERAGE</i>	4,174	0.14	0.12	0.66
<i>SEGMENT</i>	4,174	0.58	0.00	0.70
<i>CFO</i>	4,174	0.05	0.08	0.29
<i>BIG4</i>	4,174	0.85	1.00	0.36
<i>TIER 2</i>	4,174	0.13	0.00	0.34

(continued on next page)

TABLE 3 (continued)

Panel B: OLS Regression Results

<u>Variables</u>	<b>Kothari</b>			<b>Dechow and Dichev's Abnormal</b>		
	<u>Abnormal Accruals  DACC </u>			<u>Accruals  DACCd </u>		
	<u>Coeff</u>	<u>t-stat</u>		<u>Coeff</u>	<u>t-stat</u>	
<i>INTERCEPT</i>	0.061	3.57	***	0.116	3.82	***
<i>SIZE</i>	(0.006)	(9.16)	***	(0.003)	(2.41)	**
<i>INVAR</i>	0.026	3.50	***	0.036	2.65	***
<i>FOREIGN</i>	0.014	1.20		0.017	0.77	
<i>MERGER</i>	(0.000)	(0.11)		0.002	0.31	
<i>GC</i>	0.024	3.26	***	0.053	4.07	***
<i>ICW</i>	0.013	2.53	**	(0.012)	(1.19)	
<i>LOSS</i>	0.012	3.90	***	(0.007)	(1.20)	
<i>TENURE</i>	(0.000)	(2.47)	**	(0.000)	(0.79)	
<i>ROA</i>	0.094	6.37	***	0.041	1.49	
<i>LITIGATION</i>	0.004	1.26		(0.000)	0.00	
<i>LEVERAGE</i>	(0.000)	(0.02)		(0.006)	(1.74)	*
<i>SEGMENT</i>	(0.002)	(1.39)		(0.006)	(1.65)	*
<i>CFO</i>	(0.022)	(3.41)	***	(0.046)	(5.02)	***
<i>ANNUAL</i>	0.014	1.16		(0.035)	(1.87)	*
<i>POST_REM</i>	(0.007)	(2.62)	***	(0.018)	(3.47)	***
	<b>N</b>	<b>4,174</b>		<b>3,813</b>		
	<b>Adj R2</b>	<b>8.44</b>		<b>3.72</b>		

\*\*\*, \*\*, and \* denotes statistical significance at the 1, 5, and 10 percent level, respectively using a two-tailed test. t-value and p-value are computed based on the methodology in Rogers (1993) clustered by firm. The model includes year fixed effects which are not presented for brevity. |DACC| is the absolute value of abnormal accruals based on the performance-adjusted modified Jones model (Kothari et al. 2005), and |DACCd| is the absolute value of abnormal accruals based on the model in Dechow and Dichev (2002). Variable definitions are provided in Appendix A.

## 5. ADDITIONAL ANALYSIS

As the Big 4 and Tier 2 audit firms audit approximately 60% of all Compustat clients during my sample period (99% of my sample), I consider an additional question as to the effect of Part II report issuances on audit fees and audit quality for the annually versus triennially inspected audit firms. I include the interaction of the POST\_REM period with the ANNUALLY reviewed audit firms (POST\_ANNUAL) in each of the audit fee models (1a, 1b and 1c) and audit quality model (2).

The results of the triennially versus annually inspected audit firms are presented in Table 4 Panels A and B. In Panel A, I provide the results for the audit fee analysis. I find that the annually inspected audit firms not only have a 3.6% significant decrease in audit fees after the issuance of their Part II report ( $p\_value < .010$ ) but they also have a 5% highly significant decrease in their ability to increase fees ( $p\_value < 0.05$ ) along with a 44.1% highly significant negative change in audit fees ( $p\_value < 0.01$ )<sup>5</sup>. However the triennially inspected audit firms do not have a significant increase in audit fees during their post remediation period ( $p\_value < 0.10$ ) and do not experience a significant change in their ability to increase fees nor do they experience a significant change in audit fees as compared to the annually inspected audit firms. Overall the results indicate that the annually inspected audit firms have the greatest reputational damage after the release of the Part II report.

In Panel B of Table 4, I provide the results for the audit quality analysis. I find that the annually inspected audit firms have a highly significant increase in audit quality for both the Kothari (2005) abnormal accrual ( $p\_value < 0.05$ ) and Dechow and Dichev (2002) abnormal accrual ( $p\_value < 0.01$ ) models. However, there isn't a significant change in audit quality for

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<sup>5</sup> The f-test shows the significance of the Post Remediation Period (POST\_REM) plus the interaction of the Post Remediation Period and Annually (POST\_ANNUAL) inspected firms.



the triennially inspected audit firms as compared to the annually inspected audit firms. Overall the results indicate that the annually inspected audit firms are increasing their effort to not only meet the expectations of the PCAOB to clear the quality control deficiencies, but also to keep their clients resulting in increased audit quality.

In summary, my results suggest that clients of annually inspected audit firms who receive a public Part II report are able to bargain for lower audit fees while receiving higher audit quality. However, clients of the triennially inspected audit firms may be better served to switch auditors after the public release of their audit firms Part II report, as prior research indicates that audit fees are generally lower when clients switch auditors (DeAngelo 1981; Francis and Simon 1987) and those clients who switch receive higher audit quality (Buslepp and Victoravich 2014).

TABLE 4: The Impact of the Issuance of the PCAOB Part II Reports on  
Triennially versus Annually Inspected Audit Firms

Panel A: Audit Fee Impact

<u>Dependent /</u> <u>Control</u>	<u>Log Audit Fees</u>				<u>Fee Premium</u>				<u>Change in Audit Fees</u>			
	<u>Coeff</u>	<u>t-stat</u>	<u>Coeff</u>	<u>t-stat</u>	<u>Coeff</u>	<u>Chi-Sq</u>	<u>Coeff</u>	<u>Chi-Sq</u>	<u>Coeff</u>	<u>t-stat</u>	<u>Coeff</u>	<u>t-stat</u>
<i>INTERCEPT</i>	2.418	17.31***	2.272	14.28***	(0.280)	0.16	0.062	0.01	1.152	1.78*	1.061	1.32
<i>SIZE</i>	0.488	81.56***	0.488	81.59***	0.058	6.53***	0.058	6.53**	0.044	1.40	0.044	1.37
<i>LIQUIDITY</i>	(0.012)	(3.56)***	(0.012)	(3.57)***	0.006	0.2179	0.006	0.22	0.447	22.29***	0.447	22.28***
<i>INVAR</i>	0.566	7.74***	0.577	7.88***	0.004	0.00	(0.023)	0.01	(0.001)	(4.07)***	(0.001)	(4.07)***
<i>FOREIGN</i>	0.278	3.08***	0.283	3.12***	(0.082)	0.06	(0.091)	0.07	(0.368)	(0.60)	(0.365)	(0.66)
<i>MERGER</i>	0.035	1.39	0.035	1.38	0.316	10.95***	0.316	10.98***	(0.217)	(1.41)	(0.217)	(1.41)
<i>GC</i>	0.286	5.37***	0.286	5.37***	(0.174)	0.75	(0.176)	0.77	(1.190)	(3.20)***	(1.191)	(3.20)***
<i>ICW</i>	0.328	8.34***	0.330	8.38***	0.271	3.14*	0.267	3.05*	(0.439)	(2.17)**	(0.438)	(2.17)**
<i>LOSS</i>	0.115	4.95***	0.115	4.97***	(0.096)	1.16	(0.097)	1.20	0.220	1.77*	0.220	1.77*
<i>YE</i>	(0.006)	(0.26)	(0.004)	(0.19)	(0.029)	0.12	(0.032)	0.14	7.540	8.48***	7.540	8.48***
<i>TENURE</i>	0.007	5.33***	0.007	5.37***	(0.001)	0.01	(0.001)	0.02				
<i>ROA</i>	(0.045)	(0.42)	(0.046)	(0.42)	0.288	0.50	0.289	0.51	0.000	0.20	0.000	0.20
<i>LITIGATION</i>	0.090	2.58***	0.088	2.51**	0.038	0.08	0.044	0.10				
<i>LEVERAGE</i>	(0.014)	(0.86)	(0.014)	(0.86)	(0.022)	0.17	(0.022)	0.16	0.000	1.66*	0.000	1.66*
<i>SEGMENT</i>	0.096	6.94***	0.095	6.89***	0.027	0.27	0.029	0.30	(0.396)	(1.27)	(0.397)	(1.27)
<i>LEVEL 3</i>	0.109	4.62***	0.110	4.69***	(0.127)	2.01	(0.131)	2.13	(0.216)	(1.19)	(0.215)	(1.19)
<i>INTANG</i>	0.170	6.81***	0.168	6.75***	(0.235)	6.03**	(0.232)	5.86**	2.209	7.69***	2.208	7.69***
<i>ABAF</i>					0.156	6.51**	0.156	6.51**				
<i>ANNUAL</i>	0.670	8.42***	0.814	7.44***	(0.453)	2.30	(0.799)	3.42*	0.204	0.41	0.296	0.43
<i>POST_REM</i>	(0.030)	(1.42)	0.251	1.69*	(0.173)	4.72**	(0.825)	2.10	(0.438)	(3.26)***	(0.251)	(0.25)
<i>POST_ANNUAL</i>			(0.287)	(1.92)*			0.666	1.34			(0.190)	(0.19)
<i>POST_REM +</i> <i>POST_ANNUAL</i>			<b>(0.036)</b>	<b>2.83*</b>			<b>(0.259)</b>	<b>3.91**</b>			<b>(0.441)</b>	<b>10.64***</b>
<b>N</b>		<b>4,263</b>		<b>4,263</b>		<b>4,063</b>		<b>4,063</b>			<b>3,738</b>	<b>3,738</b>
<b>Adj R2</b>		<b>77.65</b>		<b>77.67</b>		<b>4.28</b>		<b>4.29</b>			<b>21.13</b>	<b>21.11</b>
<b>% Concordiant</b>						<b>63%</b>		<b>63%</b>				

(continued on next page)

TABLE 4 (continued)

## Panel B: Audit Quality Impact

<u>Variables</u>	<u>Kothari Abnormal Accruals  DACC </u>				<u>Dechow and Dichev's Abnormal Accruals  DACCd </u>							
	<u>Coeff</u>	<u>t-stat</u>		<u>Coeff</u>	<u>t-stat</u>	<u>Coeff</u>	<u>t-stat</u>	<u>Coeff</u>	<u>t-stat</u>			
<i>INTERCEPT</i>	0.061	3.57	***	0.077	3.66	***	0.116	3.82	***	0.119	3.35	***
<i>SIZE</i>	(0.006)	(9.16)	***	(0.006)	(9.18)	***	(0.003)	(2.41)	**	(0.003)	(2.41)	**
<i>INVAR</i>	0.026	3.50	***	0.025	3.43	***	0.036	2.65	***	0.036	2.63	***
<i>FOREIGN</i>	0.014	1.20		0.014	1.19		0.017	0.77		0.017	0.76	
<i>MERGER</i>	(0.000)	(0.11)		(0.000)	(0.10)		0.002	0.31		0.002	0.31	
<i>GC</i>	0.024	3.26	***	0.025	3.30	***	0.053	4.07	***	0.053	4.07	***
<i>ICW</i>	0.013	2.53	**	0.013	2.48	**	(0.012)	(1.19)		(0.012)	(1.20)	
<i>LOSS</i>	0.012	3.90	***	0.012	3.90	***	(0.007)	(1.20)		(0.007)	(1.21)	
<i>TENURE</i>	(0.000)	(2.47)	**	(0.000)	(2.48)	**	(0.000)	(0.79)		(0.000)	(0.79)	
<i>ROA</i>	0.094	6.37	***	0.093	6.33	***	0.041	1.49		0.041	1.48	
<i>LITIGATION</i>	0.004	1.26		0.004	1.28		(0.000)	-		0.000	-	
<i>LEVERAGE</i>	(0.000)	(0.02)		(0.000)	(0.03)		(0.006)	(1.74)	*	(0.006)	(1.74)	*
<i>SEGMENT</i>	(0.002)	(1.39)		(0.002)	(1.36)		(0.006)	(1.65)	*	(0.006)	(1.64)	*
<i>CFO</i>	(0.022)	(3.41)	***	(0.021)	(3.34)	***	(0.046)	(5.02)	***	(0.046)	(5.00)	***
<i>ANNUAL</i>	0.014	1.16		(0.003)	(0.17)		(0.035)	(1.87)	*	(0.039)	(1.47)	
<i>POST_REM</i>	(0.007)	(2.62)	***	(0.037)	(1.62)		(0.018)	(3.47)	***	(0.022)	(0.59)	
<i>POST_ANNUAL</i>				0.031	1.32					0.002	0.06	
<i>POST_REM + POST_ANNUAL</i>				<b>(0.006)</b>	<b>6.14</b>	**				<b>(0.020)</b>	<b>12.31</b>	***
	<b>N</b>	<b>4,174</b>		<b>4,174</b>	<b>4,174</b>		<b>3,813</b>	<b>3,813</b>		<b>3,813</b>	<b>3,813</b>	
	<b>Adj R2</b>	<b>8.44</b>		<b>8.46</b>	<b>8.46</b>		<b>3.72</b>	<b>3.72</b>		<b>3.70</b>	<b>3.70</b>	

This table reports the additional analysis for audit fees and audit quality. The sample includes all clients of firms who have a public Part II report. The f-test provides the significance of the Post Remediation Period (POST\_REM) plus the interaction of the Post Remediation Period and Annually (POST\_ANNUAL) inspected firms. The sample is a block sample with the same firms throughout the sample period. Each model includes industry (based on two-digit SIC code) and year fixed effects which are not presented for brevity. t-values and p-values are computed based on the methodology in Rogers (1993) and clustered by firm. All variables are defined in Appendix A. \*\*\*, \*\*, and \* denotes statistical significance at the 1, 5, and 10 percent level, respectively, using a two-tailed test.

## 6. CONCLUSION

Ultimately the PCAOB is charged with protecting the interests of investors and furthering the public interest in the preparation of informative, accurate, and independent audit reports. To accomplish their charge the PCAOB relies on its inspection process to provide information to the audit firms on their ability to produce quality audits. This information is also provided to audit clients and investors in the release of the Part I reports and ultimately in the release of the Part II reports if the audit firm is unable to remediate its quality control issues in the 12 month remediation period. My study directly addresses the question of whether the PCAOB is meeting its objectives as I consider the effect of the Part II release on audit quality. I find that audit firms who have a public Part II report have a significant increase in audit quality after the issuance of their Part II report. Additionally, I find that it is the annually inspected firms who have the highest increase in audit quality as compared to the triennially inspected firms. My findings directly support the view that the PCAOB is meeting its objective of increasing audit quality through the inspection process (Carecello et al. 2011; Gunny et al. 2013; Busepp and Vistoravich 2014).

Recent research has indicated there is reputational damage for those audit firms with public Part II reports as these firms lose market share following the release of the report (Nagy 2014; Busepp and Vistoravich 2014). However, this research does not address the cost associated with clients who choose to remain with the audit firm after the public release of their audit firms Part II report. In an effort to keep its clients the firm maybe more willing to charge less audit fees. However the firm may also need to increase their efforts at the corporate and ultimately the client level to completely address the issues identified in the Part II release. To recover the costs of the extra effort, the audit firm would have to negotiate fee increases during a time that the

clients are viewing them as substandard. I find that audit fees are not significantly different after the issuance of the Part II report; however, audit firms are unable to increase fees and the change in audit fees is significantly negative. Additionally, I find that the annually inspected audit firms not only have significantly lower audit fees, but also have significantly negative changes in audit fees as well as a significant negative propensity to increase fees as compared to the triennially inspected audit firms. Overall, my results support the view that the issuance of a Part II report does damage the reputation of the firm thereby creating an impetus for change.

Overall, my results indicate that there is an associated cost to the audit firms with publicly disclosed Part II reports. However this cost is not associated with a decline in audit quality. It is interesting to note that in completing the task of clearing the quality control issues identified by the PCAOB the audit firms may have determined that it is in their best interest to acquiesce to the fee pressure while exerting more effort that ultimately resulted in increased audit quality. In this way the firm was willing to take a reduction to its margin in order to keep its clients.

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## APPENDIX VARIABLE DEFINITIONS

### Dependent Variables:

*LNAF* = natural log audit fees paid by clients to auditors;

$|DACC|$  = the absolute value of abnormal accruals based on the performance-adjusted modified Jones model (Kothari et al. 2005).

$|DACCd|$  = the absolute value of abnormal accruals based on Dechow and Dichev (2002);

*FEE INCREASE* = 1 if the percentage change in audit fees from period  $t-1$  to  $t > 0$ , 0 otherwise;

$\Delta AF$  = audit fees ( $af_t$ ) in the year following the issuance of the Part II report minus the audit fees ( $af_{t-1}$ ) prior to the issuance of the Part II report divided by audit fees ( $af_{t-1}$ ) in the year prior to the issuance of the Part II report;

### Variable of Interest:

*POST\_REM* = 1 for the 24 month period following the issuance of the Part II report, 0 otherwise;

*POST\_ANNUAL* = Interaction of *POST-REM* \* *ANNUAL*;

### Control Variables:

*ABAF* = Abnormal audit fees calculated based on the residual of the audit fee model (1a).

*ANNUAL* = 1 if audited by an annually inspected auditor, 0 otherwise;

*CFO* = operating cash flows divided by total assets at the beginning of the year;

*FOREIGN* = 1 if foreign operations, as indicated by foreign currency adjustments to income, 0 otherwise;

*GC* = 1 if a firm receives a going-concern opinion, 0 otherwise;

*ICW* = 1 if a firm has an internal control material weakness over financial reporting, 0 otherwise;

*INTANG* = 1 if a firm has intangible assets

*INVAR* = Inventory plus accounts receivables divided by total assets;

*LEVEL3* = 1 if a firm has Level 3 valued assets and/or liabilities, 0 otherwise;

*LEVERAGE* = long-term liabilities divided by total assets;

*LITIGATION* = an indicator variable equal to 1 if a firm operates in a high-litigation industry (SIC codes of 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370–7370), 0 otherwise;

*LIQUIDITY* = Ratio of current assets divided by current liabilities;

*LOSS* = 1 if net income is less than zero, 0 otherwise;

*MERGER* = 1 if a firm has merger/acquisition activities, 0 otherwise;

*ROA* = income before interests and taxes, divided by total assets;

*SEGMENT* = natural log of the number of business segments;

*SIZE* = natural log of total assets;

*TENURE* = auditor tenure in number of years; and

*YE* = 1 if firm fiscal year is December 31, 0 otherwise.

## VITA

Elizabeth Johnson was born in Charleston, South Carolina. She grew up as a military brat travelling the world but calls Colorado home. She graduated from the University of Northern Colorado with her bachelor's degree in Mathematics in 1985. After graduation she spent 8 years in the Air Force as a KC-135 Navigator. Upon leaving the activity duty for the Air Force Reserves she attended the University of California, Riverside in 1992 and graduated from the University of Colorado, Denver with her master's degree in Accounting. After graduation she worked for thirteen years in public accounting at several of the Big 4 accounting firms. During this time she also retired from the Air Force Reserves with 20 years of service. As a Senior Manager at Deloitte, she made the decision to pursue her doctorate of Accounting at Louisiana State University. During her time at LSU she married her partner of 12 years. Her research interests include auditing and financial reporting. Her teaching interests include financial accounting, accounting theory, and auditing.