Do Clients Avoid 'Contaminated' Offices? The Economic Consequences of Low Quality Audits

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Abstract

This study investigates whether local audit offices suffer financially following their association with low-quality audits. The announcement of a restatement indicates that the contracting auditor failed to detect and correct a material misstatement. Therefore, I predict that office reputation suffers following restatements of previously audited financial information. As the frequency of restatement announcements increases, the perceived pervasiveness of systematic audit failures ('contamination') within the office will increase accordingly. I document that contaminated offices (Big 4 and non-Big 4) suffer a decline in market share relative to their peers. Furthermore, when examining auditor retention decisions at the individual client level, I find that clients are more likely to dismiss auditors associated with greater 'contamination' and select auditors with lower contamination. This relation is observed for both restating *and* non-restating clients. Overall, evidence suggests that restatements impair a local office's reputation and that the cost of a restatement extends beyond the restating engagement.

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Chapter 1: Introduction

The objective of this study is to determine whether local audit offices suffer financially following client restatement announcements. An auditor's reputation is largely derived from its association with high quality financial information. When audited financial statements require restatement, it indicates that the auditor failed to detect and correct a material misstatement. Therefore, a restatement serves as an indictment on audit quality provided by the contracting auditor and an indication of possible 'contamination' of office-wide quality (Francis and Michas 2013). Consequently, I expect that association with restatement announcements impairs the engagement office's reputation and diminishes the value and desirability of that auditor's services.[1] Consistent with this expectation, results in this study indicate that an auditor's market share declines following restatement announcements. Evidence further indicates that this decline arises from an increased likelihood of dismissal as well as a lower likelihood of being chosen by switching (or new) clients. The relation holds for offices of both Big 4 and non-Big 4 audit firms. Overall, evidence suggests that auditor association with restatements results in reputational impairment that leads to a significant economic penalty.

Prior studies have indicated cross-sectional differences in audit quality between local offices within the same audit firm (Choi et al. 2010; Francis and Yu 2009; Francis et al. 1999; López and Peters 2012; Francis et al. 2012). These findings suggest that office level characteristics contribute to audit quality. As such, audit quality provided to one client reflects quality provided to other clients contracting the same auditor. In support of this, Francis and Michas (2013) find evidence that one restatement is indicative of 'contagion' within the office;

[1] For the purposes of this study, the auditor "associated" with the restatement is the engagement office that signed the audit opinion on the original financial statements that are subsequently restated.

and that one restatement predicts future restatements by other clients.[2] They argue that "the presence of one low-quality audit in an engagement office conveys negative information about the quality of concurrent audits conducted by the office." Following this, it stands to reason that local office reputation will be impaired following restatements of previously audited financial statements. Given that audit inputs are largely unobservable and the only observable output is the audit report, the impairment of the auditor's reputation could significantly damage the auditor's ability to compete in the local audit market. Because a restatement indicates an audit failure, I predict that auditor association with restatements is associated with a subsequent decline in the auditor's market share.

To test this prediction, I construct a measure that represents the extent of contamination of audit quality within a local office. The measure reflects the frequency with which previously audited financial statements are restated. Using this measure, I test whether offices associated with abnormally high levels of restatements suffer a subsequent decline in market share. Because change in market share can arise from several sources, I further examine auditor contracting decisions at the individual client level. Results indicate that the pervasiveness of audit quality 'contamination' leads to diminished market share. Furthermore, 'contaminated' auditors are more likely to be dismissed by their clients *and* less likely to be selected by clients choosing a new auditor. Taken together, the results suggest that restatements may have far reaching effects within the local office beyond the restating client.

This study should be of interest to auditors and regulators as it provides evidence as to how market factors may discipline auditors that perform substandard audits. Office-level

[2] Francis and Michas (2013) define 'contagion' following Gleason et al. (2008)… "when an adverse event at one firm conveys negative information about… other firms." I similarly define low-quality audits as 'contagious' and will refer to offices signing the audit opinion as 'contaminated' throughout this paper. A 'contaminated' office is one which is associated with low-quality audits, and therefore the quality of all audit work may be questioned.

management wishing to expand their market footprint should pay particular heed to the quality of audit work performed as this study indicates that low-quality audits can be detrimental to an office's profitability and actually lead to a decline in market share. While the PCAOB inspects auditors to "further the public interest in the preparation of informative, accurate and independent audit reports" (PCAOB), the scope of these inspections is limited due to time, resource, and practical constraints. Evidence that market forces discipline auditors indicates that the PCAOB is not the only disincentive against the performance of low quality audits. Furthermore, PCAOB inspection reports do not provide information indicating the local office inspected, which is an important factor in the determination of audit quality (Francis et al. 1999). Restatement announcements can, however, be traced back to the responsible office.[3] Finally, this study indicates that clients differentiate between auditors based on audit quality as clients appear to dissociate from low quality local offices.

This study makes several important contributions to existing literature. First, following the findings of Francis and Michas (2013), this study indicates that clients perceive the 'contagion' associated with restatements and try to avoid association with these auditors. As these audit failures are publicized through restatement announcements, clients distance themselves from contaminated auditors. This study also provides a new measure to reflect overall audit quality within a local office by indicating that clients respond not only to the presence of 'contagion' but also to the extent of the 'contagion'. Furthermore, this study informs literature on an additional factor contributing to auditor choice and auditor reputation by indicating that auditor performance on one engagement impacts contracting decisions for other

[3] The responsible office is the office that appears on the audit opinion. In this study, offices of the same audit firm operating in the same MSA are treated as the same office. Results are unchanged if different offices operating in the same MSA are separately identified.

clients. Finally, this study provides new evidence as to how auditor reputation may be both established and impaired.

Section II discusses prior literature and develops my hypotheses, and Section III describes the research methodology. Section IV presents the main results and Section V provides additional analysis and robustness tests. The paper concludes in Section VI.

Chapter 2: Background and Hypothesis Development

Information asymmetry and related agency costs between management and investors necessitate independent attestation of the quality of management produced financial information. Management incurs the "bonding costs" (Jensen and Meckling 1976) of an audit to provide assurance to stakeholders regarding financial statement accuracy. Assurance services lowering the perceived information risk to a greater degree will be more desirable. While audits are mandated for all public firms, auditor choice and audit fees are subject to client choice and negotiation. Clients may not always choose the auditor offering the lowest fees because that auditor may provide less bonding value. If audit benefits arising from reductions in the cost of capital due to reduced information asymmetry exceed the excess audit fees commanded by a higher quality auditor, then management may still determine that it is cost beneficial to hire the more expensive auditor. The value of audit services should be related to the degree to which information asymmetry is perceived to be reduced. An auditor perceived to be of higher quality reduces information asymmetry to a greater extent than a low-quality auditor increasing the desirability of that auditor's services. Furthermore, audit committees have an incentive to hire a high quality auditor to reduce the risk of misstatement and protect their reputation (Srinivasan 2005). Therefore, the services of these 'high-quality' auditors will be in greater demand. On the other hand, audit failures will decrease the perceived quality of an auditor making their services less desirable. As a result, auditor reputation and perception will contribute to the auditor's ability to build and maintain substantial market share.

However, it is possible that clients do not care about auditor reputation. If clients perceive an audit as a 'necessary evil' and do not care who the auditor is, particularly if it is a 'name brand' (Big 4) auditor, then I would expect no reaction to reputation impairment. PCAOB

chairman James Doty expressed concerns over the ‘commoditization’ of the audit stating that “An audit that is merely confirmatory, that supports management's vision without sufficiently testing it, promotes commoditization of the audit, and it does worse” (Doty 2012). If clients indeed perceive the audit as a commodity, they will see no reason to distance themselves from ‘contagious’ audits. Furthermore, while it would be contrary to the findings of Francis and Michas (2013), if clients perceive a restatement as idiosyncratic and unrelated to other audits performed by the auditor, they may be unresponsive to restatements by other clients. However, if management and audit committees see value in auditor reputation and a high quality audit, they may respond to auditor reputational impairments by distancing themselves from low-quality audits.

Early research indicates that auditor ability may be evaluated at the firm level. DeAngelo (1981) argues that firm size disciplines auditors to provide higher quality audits because large auditors have “more to lose” in the event of an audit failure. This reasoning indicates that larger audit firms have greater incentives to provide high quality audits. These large auditors have also been shown to command a fee premium (Craswell et al. 1995). However, within a given audit firm, it is unlikely that all audits are “created equal”. Recent research focuses on incentives and abilities at the local office level (Francis et al. 1999; Francis and Yu 2009; Reichelt and Wang 2010). These studies indicate that audit quality differs between offices based on factors such as office size and industry expertise. Because the local office is responsible for personnel assignment, contracting with clients, and the issuance of the audit opinion is on local office letterhead (Francis and Yu 2009), it stands to reason that office specific factors drive quality and auditor reputation.

In a related study, Francis and Michas (2013) find evidence that offices that provide one low-quality audit (subsequently restated) are more likely to provide another low quality audit. They attribute this relation to 'personnel and quality-control procedures' within an office that may be substandard. This relation extends for five years, demonstrating that one restatement indicates systematic audit quality concerns within an office that are not immediately rectified. Corroborating their claim that a restatement indicates systematic audit quality 'contagion', they also demonstrate that these offices have lower earnings quality than offices not exhibiting the 'contagion' of a restatement. Their study identifies a risk factor for low quality audits (other restatements within an office). This study extends their research by exploring the economic consequences of their findings and by indicating that clients react not only to the presence of 'contagion' but also to the extent of the contamination.

Following the logic above, it is reasonable that clients would consider auditor ability and reputation at the office-level when making contracting decisions. Because the local office performing the audit appears on the letterhead of the audit opinion, the office is linking its reputation to the quality of financial information contained in the accompanying 10-K. Cao et al. (2012) find evidence that company reputation suffers following restatement announcements. Because the auditor essentially ties its reputation to the reliability of the financial statements, I expect that auditor reputation declines following restatements as well. One restatement may signal contamination of other audit work and impair the office's reputation. Evidence that audit quality provided by that office is systematically low could have adverse impacts on the office's reputation as well as its positioning within the local audit market. When the reliability and quality of audit work provided by a local office is called into question, the value and desirability of that auditor's services may decline as well.

A restatement indicates a low-quality audit (Kinney et al. 2004; Francis et al. 2012; Newton et al. 2013; Palmrose et al. 2004) as the auditor presumably failed to correct a material misstatement on the originally issued financial statements. Restatements are announced primarily via SEC filings such as 8-Ks or 10-Ks.[4] In some instances, the restatement is announced in a press release prior to the restatement filing with the SEC. While the restatement announcement does not always explicitly mention the auditor, the realization that financial statements attested to by the engagement office were incorrect incriminates the auditor. While one restatement does not necessarily mean that all financial statements audited by that office were misstated, it does indicate a greater likelihood of low-quality audits. Consistent with this reasoning, Newton et al. (2013) claim that restatements provide a "highly visible… threat to public trust regarding the quality of financial reporting". Because restatements are "highly visible", other clients within the local market are likely aware of their occurrence. For example, one company in the sample, Dell, issued a restatement of four years of net income during the period. The restatement was filed with the SEC in the form of an 8-K. The company also issued a press release *and* The Wall Street Journal published an article the following day detailing the nature of the restatement. Furthermore, while issuers operating within a locale may not always be aware of restatement announcements, competing auditors wishing to obtain a client's business may use audit failures of other auditors to sway potential clients. In this way, competitors may bring attention to audit failures. Because of the visibility and discrete nature of restatements, they provide a natural setting to examine auditor reputational impairment.[5]

[4] For example, a company in the sample issued a restatement as a part of their 10-K filing. The restatement of previous years' financial information is included in the current year filing.

[5] It is unlikely that *all* clients are aware of *all* restatements within their local market. However, given the limited number of public companies within each MSA, as well as the high profile nature of many public clients such as the example above, it is reasonable that the auditor's competitors as well as other clients of the auditor are aware of many of these audit failures

Reichelt and Wang (2010) provide evidence that local office industry expertise contributes to audit quality, particularly when combined with national industry expertise. Francis et al. (2005) find evidence that clients are willing to pay a fee premium for this expertise. This is consistent with Mayhew and Wilkins (2003) who contend that "bargaining power increases" through auditor differentiation if the client "cannot obtain similar quality… from competing firms". Taken together, these studies indicate that clients assess local office reputation and seek out the services of a high quality auditor. Therefore, the services of auditors perceived to be of lower quality will be less desirable/valuable. In a univariate setting, Wilson and Grimlund (1990) find evidence that audit firms may suffer following SEC enforcement action against firms in the 1970s and 1980s.[6] This is interpreted as evidence that clients respond to reputational impairments. Therefore, an event damaging the auditor's reputation may impact the auditors standing within the local audit market. Prior research has examined the role that high profile frauds have had on the auditor. For example, Barton (2005) finds evidence that highly visible companies were more likely to defect from Arthur Andersen following the Enron scandal. This is interpreted as evidence that these companies have strong incentives to dissociate from a tainted auditor.[7] Enron was an extreme event that resulted in failure of an entire audit firm; so the extent to which the results can be generalized to other events impacting auditor reputation is an empirical question. Furthermore clients had other reasons to depart in this situation as the audit firm's survival was called into question. This study investigates the effects of a generalizable and recurring phenomenon potentially damaging auditor reputation when auditor survival is likely

[6] Due to data limitations at the time, the authors do not formally test hypotheses with statistical tests. The trends observed, however, are consistent with a decline in market share following enforcement actions.

[7] Chaney and Philipich (2002) document similar evidence of a decline in Andersen's reputation from an investor perspective following the realization that the auditor shredded documents. This finding was subsequently called into question by Nelson et al. (2008) who determine that the decline in market value of clients was primarily attributable to Andersen's client portfolio as well as declines in oil prices.

not a factor contributing to client choice. Furthermore, this study contributes to our understanding of the perception of the engagement office, rather than the entire firm.

Liu et al. (2009) find that a higher proportion of shareholders of a restating firm do not vote for auditor ratification following a restatement announcement, indicating that shareholders hold the auditor partially responsible when a restatement is announced. Furthermore, audit committees may be incentivized to distance themselves from subpar auditors, as Srinivasan (2005) finds that directors, particularly audit committee members, suffer reputational costs following restatements. Consistent with these findings, Mande and Myungsoo (2013) find that clients issuing a restatement are more likely to switch auditors following the restatement announcement. They believe clients do so in an effort to 'restore reputational capital' lost due to the restatement. Because audit failures within an audit office indicate a greater possibility of other audit failures (Francis and Michas 2013), then even non-restating clients may distance themselves from 'contagious' audits. As the number of restatements announced increases, the perceived contamination will be more significant and pervasive, lowering the desirability of the auditor's services even further. Audit committee members in particular are likely to be both aware of restatements by other clients and incentivized to distance themselves from low-quality auditors in order to avoid restatement by their clients. As auditor reputation suffers, the auditor's ability to build and maintain market share will suffer as well, leading to hypothesis 1 (alternative form):

H1*: Local office market share declines following restatement announcements.*

If a decline in market share is observed following restatement announcements, it may come from several sources. An auditor may be unable to attract new audit work (e.g. IPO's or other switching clients), an auditor may lose existing clients, or the auditor may suffer in fee

negotiations. I explore the possible sources of market share at the individual client level in hypotheses 2 and 3. Similar to clients departing auditors following restatements of their own financial statements in order to 'restore reputational capital' (Mande and Myungsoo 2013), non-restating clients may also distance themselves from 'contagious' audits. While costs associated with changing auditors likely exist, the cost of staying with an auditor's whose reputation is impaired may exceed these costs.[8] Management and audit committee members may perceive the risk of remaining with a substandard auditor as too great, if they perceive the chances of a restatement to be at an unacceptable level. This leads to hypothesis 2 (alternative form):

H2*: The likelihood of auditor dismissal is positively related to the frequency with which an office's clients restate.*

If clients are more likely to dismiss auditors following reputational impairments, then clients choosing new auditors may be less likely to select 'contaminated' offices. Consistent with the argument above, management and audit committees are unlikely to recommend or ratify the choice of an auditor that has recently been associated with audit failures. While I make no formal hypothesis, I expect that clients dismissing their auditor will select a new auditor with lower levels of 'contamination' than the dismissed auditor. I also expect clients that are selecting new auditors for another reason (previous auditor resigned or IPO) to preferentially select auditors associated with fewer restatements.

While dissatisfaction with an auditor may cause a client to be more inclined to switch auditors, the dissatisfaction may alternatively manifest itself in fee negotiations. Client specific knowledge noted in (Carcello et al. 1992) to be an important contributor to audit quality by

[8] It is important to note that I am not claiming that all clients will switch following restatement announcements by clients sharing an auditor. However, at the margins some clients may perceive a switch to be cost beneficial if auditor reputation is sufficiently damaged. Because the cost of switching auditors differs between clients, this factor will contribute to some clients changing auditors while not affecting other clients' decisions. This possibility is addressed in the additional analysis.

financial statement preparers and auditors will be lost in the event of a switch. Furthermore, (Ghosh and Moon 2005) find that investor perceptions of quality are increasing with tenure, so auditors may be hesitant to leave following restatements, as switching inevitably shortens auditor tenure. Clients may also be hesitant to switch auditors if they fear that it will send a negative signal to investors. However, damaged auditor reputation may place the client in a more advantageous position in fee negotiations. Casterella et al. (2004) find evidence that industry experts can obtain fee premiums for their expertise. They claim that this can be done through differentiation, but only if the differentiation adds value to the client. Similar to this argument, I contend that restatements differentiate the auditor, but in a manner that diminishes value for the client. When the auditor's perceived quality is compromised, the value of their services decreases accordingly. Rather than leaving the auditor in response to reputational impairment, the client may be in a position to negotiate a more favorable fee arrangement.[9] This leads to my final hypothesis (alternative form):

H3*: Audit fees for returning clients (restating and non-restating) will be lower following restatement announcements.*

[9] While the hypothesis is stated in the alternative, a plausible null hypothesis exists. Those clients that do not dismiss a contaminated auditor may already be paying low fees if the auditor was already known to be of low quality or the client already perceived the auditor to be of low quality. Furthermore, clients that do not switch, may not care about the perception of the auditor *or* may not be aware of the restatements. If any of these situations exist, there may be no fee reaction to restatements.

Chapter 3: Research Design and Methodology

Restatements

Restatements are identified using the Audit Analytics database.[10] Consistent with Francis et al. (2012), I only include those restatements resulting from inappropriate application of GAAP. In these situations, the auditor failed to identify the client's misapplication of accounting rules. The restatement is deemed to be associated with this auditor whether or not the auditor is retained as of the restatement announcement date.[11] The auditor responsible for the audit opinion in the year that is subsequently restated is presumed to have provided a low quality audit.[12] Because this study investigates the non-restating client's reaction to restatements, the announcement date is used as the restatement date because other clients should have no advance knowledge that a restatement will occur prior to the announcement. Auditor reputational impairment will occur in response to the restatement announcement, not the initial misstatement.

Restatement Frequency Measures

While Francis and Michas (2013) proxy for the existence of 'contagion' with an indicator for the existence of a restatement, this study aims to differentiate based on the *extent* of the contamination. As the number of restatements announced increases, the perception of the auditor should decrease accordingly. To reflect this, I construct two measures to reflect how pervasive

[10] Restatements are obtained from the Audit Analytics Non-Reliance Restatement database. Furthermore, I only include those restatements that are audited financial statement restatements. If restatements only relate to quarterly information, they are not included as the auditor did not opine on this information. Results are similar if quarter-only restatements are included as well. However, because the auditor never issued an audit opinion on this information, I believe it is inappropriate to include them in this study as auditor reputation should not be linked to information they did not audit.

[11] To attribute each restatement to one auditor, the auditor signing the audit opinion on the most recent financial statements within the restatement period is identified as the responsible auditor.

[12] Several studies examining the market reaction to restatements limit the analysis to restatements resulting in a reduction of net income or negative market reactions (Gleason et al. 2008). I do not limit my sample in this manner because I am investigating a distinctly different question. The focus of this study is how the restatement impacts perceptions of the auditor, rather than the client and related cash flows. As a result, any acknowledgement of a previously undetected material misstatement, regardless of the direction, results in a negative update to the perception of the auditor. I explore differences in the nature of the restatement in Section V.

restatements are for an engagement office. I expect auditor evaluation (selection, retention, fee negotiations etc.) to occur with respect to the most recent information reflecting office-wide audit quality. Therefore, for each client-year, I count the number of restatements of previously audited financial information that are announced relating to the client's auditor's (local office) work in the twelve months leading up to that client's year-end.[13] The more restatement announcements, the more contaminated the office is expected to be. One measure (***LOG_RESTATE)*** reflects the number of restatements announced and is equal to natural log (1 + number of related restatements in the prior twelve months). The second measure (***OFFICE_FREQUENCY)*** captures the *relative* frequency with which financial statements are restated.[14] This variable is equal to number of related restatements in the prior twelve months / total clients of the engagement office. Because offices vary greatly in the number of clients audited, it is important to have a variable that accounts for this factor.[15] For either specification, audit quality perception should generally decrease as the measure increases.

Market Share Tests

In order to maintain or increase profitability, an engagement office must be able to compete within the local audit market and expand its market footprint. An office can do so by retaining existing clients, obtaining new audit clients, or receiving fee a premium. An office's success may be largely determined by the percent of public company audit fees/clients that the

[13] For example, if an observation has a November 30, 2008 year-end in my sample, relevant restatements are those that are announced between December 1, 2007 and November 30, 2008 relating to financial statements audited by the office that currently performs that client's audit work. Because the financial statements are released on average approximately 3 months following the fiscal year end, in untabulated analysis, this date is alternatively used to begin the 12 month look-back window. Results are unchanged by this alternative specification.

[14] This variable is limited to 1 in analysis.

[15] For example, consider a situation in which office A has 30 clients and is associated with 3 restatement announcements in a given year. Office B has 10 clients and 2 restatement announcements. While the number of restatements is great for Office A, Office B may in fact have greater 'contamination' or 'contagion' as a relatively higher percentage of Office B's clients ended up announcing restatements. The use of the both variables allows me to capture both constructs.

auditor is able to obtain. Any damage to the auditor's reputation may inhibit the auditor's ability to compete and thereby reduce their market share. Therefore, I construct a variable to capture the relative strength of an auditor j within a local market. The variable reflects the percent of public company audit work within an MSA in a given year performed by the local office.

$$\boldsymbol{SHARE_{jt}} = \textbf{Total Office Size}_{\textbf{jt}} \textbf{ / } (\Sigma \textbf{ Total Office Size}_{\textbf{jt}})$$ [16]

This variable takes a percent value from 0 (no audit clients) to 100 (an auditor has all clients within an MSA). In analysis, the change in this variable is examined. For any given office, I expect this measure to decline following high levels of restatements as reputational impairments from restatements inhibit an auditor's ability to gain or maintain market share. The advantage of examining this construct at the office level is that it captures the aggregate economic impact of restatement announcements. Specifically, both client count and total fees capture changes in market share due to inability to retain clients or obtain new clients. When using fees, the measure also captures relative changes in fees and reflects that losing/gaining a large client is more costly than a losing/gaining a small client. I estimate an OLS regression of change in market share on previous year restatement frequency as well as a variety of office level control variables. Similar to the methodology in Francis and Michas (2013), clientele characteristics are generated as the mean value of client attributes at the office-year.[17] With each office-year as an observation, I test whether restatements lead to a decline in market share in the subsequent year using the following model for office *j* in year *t*:

[16] Office Size is measured as either total audit fees or total audit clients. In this way, the market share variable can capture either percentage of public clients audited *or* percentage of total audit fees within a given MSA.

[17] If the median of client specific variables is used instead, the results are the unchanged. It should be noted that the frequency variable may differ across clients within the same office-year if they have different year ends. For example, a restatement in August 2008 will be in the previous twelve months for a June 2009 year end client but not for a December 2009 year-end client. However, the M_FREQUENCY (mean frequency) will be the mean value of all these values in the same fiscal year.

$$\textit{Equation 1: } \Delta Share_{jt+1} = \beta_0 + \beta_1 * M_RESTATEMENTS_{jt} + \beta * M_X_{it} + \varepsilon_{jt} \qquad [1]$$

$\Delta SHARE_{jt+1}$ captures the change in market share from year t to year $t+1$[18]. It is calculated as ($SHARE_{t+1} - SHARE_t$) / $SHARE_t$.[19] In this model Hypothesis 1 predicts a negative coefficient β_1. If restatements impair auditor reputation, then the auditor's market share will decline following relatively higher restatement frequency. I expect that following restatements, the percent of public company audit work in an MSA performed by an auditor will decline following restatements. In case clients with certain characteristics are both more likely to restate *and* more likely to lead to growth (decline) in their local office, I control for the mean of client specific characteristics within an office in year t.[20] Control variables are borrowed from Landsman et al. (2009), as that study predicts auditor switches, which is a major contributor to changes in market share. Control variables include proxies for client growth, abnormal accruals, audit opinion, auditor tenure, profitability, leverage, cash, auditor expertise, size, and merger activity. I also include variables to control for office and city size.[21] The specific calculations of the variables are included in the appendix.[22] It could be that offices with restating clients are also those that perpetually lose clients to other auditors because the office is subpar. Therefore, I also include

[18] It is possible that contaminated offices resign from other engagements in order to avoid other failures. Therefore, the change in market share from resignations is removed, so that I only capture those changes in market share that are *not* the result of auditor choices. If I include all clients, results are unchanged.

[19] For example, if an auditor has 30% of the fees in a local market in year t and 35% in year $t+1$, then this variable would take the value of 16.7% = (.35 - .30) / .30

[20] For example, if an office's clients have low cash balances on average, they may be more likely to go out for bid to obtain more favorable fee arrangements, therefore loss of market share may not be a reflection on the auditor, but of client characteristics. Therefore I control for variables from an auditor switches model to ensure that the model is not capturing characteristics of an auditor's client portfolio.

[21] Office size is controlled for because it may be easier for smaller offices to grow or decline due to their smaller size. City size is controlled for because the number of options a client has may be greater

[22] Although change in market share is the dependent variable, changes are not used for independent variables. Clients usually contract with the auditor at the beginning of a fiscal year. Similar to Hilary and Lennox (2005) who examine whether audit firms lose clients (market share) following adverse peer reviews, I examine whether offices lose clients (market share) following restatement announcements by the office's clients. I control for aggregate client characteristics in addition due to the large differences in client portfolios of different offices.

lagged change in market share to adjust for any serial relation between changes in market share that could also be related to client restatements.[23] It is also possible that smaller audit firms are more susceptible to the reputational effects of restatements due to the relatively smaller number of offices and less reputational capital as a whole. Therefore, all tests are also run on a subsample of only Big 4 offices.

Auditor Switches Model

After examining market share at the office level, I examine auditor retention decisions at the individual client level. I use a model adapted from Landsman et al. (2009). The logit model is constructed as follows for firm *i* in year *t* that employs auditor *j*:[24]

$$\textit{Equation 2: } DISMISS_{it+1} = \beta_0 + \beta_1 * RESTATEMENTS_{jt} + \beta * \boldsymbol{X_{it}} + \textit{fixed effects} + \varepsilon_{it}^{25} \qquad [2]$$

Where **X** is a vector of control variables defined in the Appendix.[26] The variables capture client characteristics as well as characteristics of the auditor which may influence the client's decision to change auditors. Each variable represents the client or auditor characteristic as of year *t* and *DISMISS* reflects the decision of a client to dismiss their auditor following year *t*. The coefficient β_1 provides a test of Hypothesis 2 and is expected to be positive, indicating that a greater frequency of restatements is associated with a higher likelihood that a client will dismiss their current auditor. I control for client specific characteristics in the event that certain clients are

[23] I also perform tests using local office fixed effects, which addresses a similar issue.
[24] Auditor dismissals are identified using Audit Analytics "Auditor Change" database. Only those changes identified as dismissals by this database are identified as such. If an auditor resigns from an engagement, that client-year is not included in the sample as the client did not make an auditor retention/change decision. If they are included, results are unchanged.
[25] Frequency is either one of the two measures discussed in the previous section.
[26] In individual client analysis (switches and fees) an additional indicator variable is included for those clients announcing the restatement to ensure that they are not driving result. Fixed effects for Fama and French 48 industry (Fama and French 1997), audit firm, and year are included in the model.

more likely to dismiss their auditor for other reasons. I expect clients to be less likely to switch auditors when afforded earnings management discretion and more likely to switch when they are charged abnormally high audit fees (Woo and Koh 2001) as clients may switch in an attempt to negotiate more favorable fee arrangements. If larger auditors provide higher quality services, then auditor size may be negatively related to the client's decision to change auditors.

Fees Model

A decrease in market share can also be driven by lower future fees relative to competitors. If restatements impair the auditor's reputation, then the auditor may be in a disadvantaged position in fee negotiations and may accept lower fees in the subsequent year than they otherwise may. Therefore, to test hypothesis 3, I estimate the following changes regression model.[27] Because fees are often negotiated using last year's fees as a benchmark, I employ a changes model to reflect the relation between restatement announcements and changes in audit fees for non-switching clients.

$$\textit{Equation 3: } \Delta FEES_{it+1} = \beta_0 + \beta_1 * RESTATEMENTS_{jt} + \beta_2 * \boldsymbol{\Delta X_{it+1}} + \textit{fixed effects} + \varepsilon_{it} \qquad [3]$$

Where **X** is a vector of control variables defined in the Appendix. Because Sarbanes Oxley includes provisions for compliant firms that greatly increases audit fees, I include additional variables for an internal control opinion by the auditor as well as a variable indicating whether an

[27] This model is only estimated on clients that did not switch auditors. The vector of control variables is the same as in the switches analysis with the exception of Abnormal Fees. As fees are the dependent variable, it is not appropriate to include abnormal fees in the model. All variables are changes variables as fees are negotiated based on the level of fees currently charged as well as projected changes in client factors that contribute to audit work (fees). A changes model also benefits as it controls for any client specific unobservable variable that contributes to audit fees. The FREQUENCY and CLIENT RESTATEMENT variables are as of year *t* because negotiations for year *t+1* fees begin at the end of year *t* and the presence of restatements during year *t+1* will not be known during negotiations.

adverse opinion was issued by the auditor. $\Delta FEES_{it+1}$ is the percent change in fees from year *t* to year *t+1* ((Audit $Fees_{t+1}$ – Audit $Fees_t$)/ Audit $Fees_t$). If high levels of restatements impair the auditor's reputation and bargaining position, then a negative coefficient β_1 would be observed. This would indicate lower fees follow a relatively higher frequency of restatements.

Chapter 4: Results

Sample Selection and Descriptive Statistics

The sample is constructed from all multi-office audit firms from 2003-2012.[28] Auditor characteristics, including the office issuing the audit opinion, audit fees, going concern modification and restatements are obtained from Audit Analytics, while client level data is obtained from Compustat. The market share sample is aggregated at the local office-year level. Table 1, Panel A presents descriptive statistics of observations aggregated at the office-year level. They are presented in aggregate, and for only Big 4 offices. The variables presented in this table are the mean values of the client variables for all clients in an office in a given year. As expected, the mean value for change in market share variables at the office level is approximately 0.[29] These values do not exactly match the means of the client level descriptive statistics because each office is equally weighted regardless of the number of clients. Therefore, each client of a small office ends up being weighted more in the office-level variables than in the client level variables.

(Insert Table 1)

Client level descriptive statistics are presented in Panel B. Variables are in line with expectations. Auditor dismissals only occur in approximately 4 percent of observations. Approximately 6 percent of clients announce restatements in a given year. This is slightly lower than Francis et al. (2012), who have restatements in 11 percent of their sample. This is primarily because they are looking at the percent of financial statements that are restated, while I am

[28] A multi-office firm is one that has more than one office auditing a public client during a year. If all offices are used, results are unchanged. However, for firms with only one office, disentangling audit firm and audit office reputation effect is not possible, therefore the results are presented using only clients of multi-office firms. Market share is still calculated with ALL clients within the MSA as clients may still depart for single office firms or come from single office firms.

[29] The value is not exactly 0 because the value is a percent change variable. If a smaller office obtains a client from a larger office, then the average change between the two offices will be positive.

looking at the percent of clients to announce restatements in a given year. Since many restatements relate to more than one fiscal year, they are included multiple times in their sample, but only once in this sample, as the restatement is only announced once.

Change in Market Share Following Restatements

If previous low-quality audits indicate office-wide contagion (Francis and Michas 2013) then it will impair the auditor's reputation and diminish the value of the auditor's bonding services. I expect that clients will attempt to avoid 'contamination' associated with audit failures. Therefore, restatement announcements may cost the auditor in terms of reputational capital and local market share in the subsequent period. Table 2 presents the results of the estimation of equation 1 testing whether restatements are associated with a subsequent decline in market share.

(Insert Table 2)

The negative and significant coefficients on the restatement variables are consistent with hypothesis 1. Columns 1 and 2 estimate the effect of restatements on changes in market share calculated using percentage of total audit fees within an MSA to proxy for market share. Columns 3 and 4 use percentage of public companies within the MSA audited by the office to capture market share. In all specifications, a higher value for the frequency variable (MEAN_RESTATEMENTS / MEAN_FREQUENCY) indicates more frequent restatements which are negatively related to changes in market share. The negative and significant coefficients indicate that restatements are followed by a decline in market share in the subsequent year. The results are also economically significant, as a one standard deviation increase in OFFICE FREQUENCY in column 2 is associated with a 3.97 percent reduction in an office's market

share.[30] In untabulated analysis, to ensure that a fixed unobservable office-specific factor is not driving the results, I include office-level fixed effects (instead of firm level in the main analysis). Inferences are unchanged, indicating that fixed unobservable factors are not driving the observed association.

Due to their national presence and extensive history as large public accounting firms, Big 4 audit firms have established reputations that extend beyond the local offices. Because Big 4 networks are significantly larger, they may not be as susceptible to the reputational impairment that may accompany audit failures at the local office level. To ensure that results are not being driven by the smaller firms, I re-perform the tests in Table 2 on just Big 4 offices. Results are similar to those on the full sample (negative coefficients – significant in 3 of the 4 specification) indicating an economic cost to restatements for Big 4 offices.

(Insert Table 3)

Auditor Dismissals

The previous analysis indicates a negative aggregate impact of restatements on an office's market share. In this analysis I examine auditor retention decisions at the individual client level. While prior research has indicated that restating clients are more likely to dismiss the auditor, I expect that even non-restating clients are also more likely to dismiss a 'contaminated' auditor. Providing initial support for H2, the office restatement frequency for switching clients (using either measure) is significantly greater than for non-switching clients in a univariate setting.[31] To ensure that results are not driven by restating clients, I omit restating clients and

[30] Estimated impact = -.331 * .12 (Standard Deviation) = .036. The estimates for in other regressions are similar ranging from 2 percent to 3 percent.

[31] It is important to note that I am not claiming that restatements are the *only* factor at play when clients consider auditor retention, nor does a high frequency guarantee an auditor switch. Rather, reputational impairment accompanying restatement announcements may shift client and market perceptions of the auditor and at the margin provide the impetus for going out for bid.

obtain a quantitatively and qualitatively similar result. In Table 5, I examine this relation in a multivariate setting.

(Insert Table 4)

I estimate a fixed effects regression in equation 2, to determine whether the conditional likelihood of an auditor switch is related to auditor contamination.[32] The positive and significant coefficients on LOG_RESTATE and RESTATE_FREQUENCY are consistent with univariate tests and support Hypothesis 2, indicating that clients are more likely to dismiss auditors following relatively higher frequency of restatement announcements. Control variables are also generally consistent with expectations. I find that larger offices are less likely to lose clients. Because larger offices have demonstrated the ability to obtain and retain clients, it is expected that this would relate to their future ability to retain clients. I also find evidence consistent with Ettredge et al. (2007) indicating that clients charged abnormally high fees are more likely to dismiss their auditor. Clients experiencing losses are also more likely to change auditors, as they are also likely to feel fee pressure and change auditors to seek a more favorable fee arrangement. Also, consistent with Mande and Myungsoo (2013), I find that the client issuing the restatement is more likely to switch auditors. This is expected as the restating clients may want to distance themselves from an auditor deemed to be inferior to 'restore reputational capital'. To ensure that results are not driven only by restating clients, I also estimate the regression on only non-restating clients (columns 3 and 4) and find that they too are more likely to dismiss their auditor following restatements by *other* clients. Similar to market share analysis, I examine the auditor dismissal decisions of Big 4 clients separately in Table 5. Consistent with previous results,

[32] A fixed effects regression is used to present main results because it does not impose the restriction of within group variation in the dependent variable (dismissal). Groups (audit firms) that are not dismissed by a client during the period are dropped from a logit model. A fixed effects OLS regression does not suffer from this restriction and still provides unbiased estimators. If a logit model is used, results are quantitatively and qualitatively unchanged. Because auditors that are not dismissed represent valid observations, results are presented using this method.

positive and significant coefficients are obtained on the variable of interest across all specifications. This indicates that Big 4 offices are also susceptible to reputational damage following audit failures.

Auditor Choice Following Dismissals

If clients dismiss auditors following restatements, then I expect the subsequent auditor be relatively less 'contaminated'. To test this, I examine the subsequent auditor choice of clients dismissing their auditors. I compare the level/frequency of restatements for the office dismissed to that of the office engaged following auditor dismissal.[33] A significant decrease is consistent with clients responding to reputational impairment in both their dismissal *and* their subsequent auditor choice. The results of these tests are presented in table 6.

(Insert Table 6 Here)

The first panel displays the change when the restatement variable is defined as the number of restatements in the previous 12 months. The second panel displays the results using change in restatement frequency. The dismissals are further broken down based on auditor dismissed and whether the client restated or not. In all cases, the average difference is negative, indicating that the dismissed auditor was relatively more 'contaminated' than the auditor selected following the dismissal (Significant at $p < .10$ two-tailed in all but one instance).[34]

[33] To do so, I examine the restatement frequency of the dismissed auditor as of the year end prior to dismissal and compare it to the frequency of the new auditor as of the same time period. It is important to examine the two offices contemporaneously as auditor engagement is generally made at the exact same time as dismissal.

[34] Choosing an auditor that has on average a lower restatement frequency could be a product of leaving a more 'contaminated' auditor and selecting another auditor at random (without regard to contamination). To ensure that this relation is not mechanical, I compare the selected auditor's restatement frequency to the average frequency across all other auditors and find that it is significantly lower than the average auditor. I also compare the selected auditor's frequency to the average frequency in that MSA-year (excluding the office that the client dismisses) and also find that it is significantly lower. This indicates that clients not only leave contaminated auditors, but choose a new auditor with less contamination than the average auditor.

Restatement Frequency and Changes in Audit Fees

Because there are high costs involved with switching auditors, clients may not change even in the presence of reputational impairment. Therefore, I test whether restatements are associated with lower future audit fees for clients that do not switch auditors. Results of fees analysis is presented in Table 7.

(Insert Table 7 Here)

While the coefficient on restatement frequency is negative across all specifications, it is insignificant in all specifications. The lack of results may be because non-switching clients do not care about restatements on other engagements or that they do not know. As a result, the primary results in market share tests appears to be driven by auditor selection more than fee reductions for returning clients. Interestingly, the restating client does appear to have lower fees in the subsequent year.

Chapter 5: Additional Analysis and Robustness

Persistence of Reputational Impairment

Prior results indicate that clients are more likely to dismiss an auditor following association with restatements in the past year. However, the reputational consequences may extend beyond the first year. In this section, I investigate whether the damage caused by restatements persists. To explore this possibility, I examine whether auditor dismissals are associated with prior year restatement frequency. If auditor reputation is tarnished by restatements, then clients may still be more likely to dismiss an auditor two years after the restatements occur. If this is the case, the economic consequences of restatements may actually be understated by the tests performed above. To test whether the reputational damage persists, I include a lagged version of the restatement frequency variable. If auditor reputation is still impacted by restatements from two years prior, I would expect the coefficient on the lagged variable to also be positive and significant. The results of these tests are presented in table 8.

(Insert Table 8 Here)

In all specifications, the coefficient on restatement frequency is positive and significant, consistent with tables 2 and 3. However, the coefficients on lagged frequency are insignificant across all specifications. One possible explanation is that any client that may respond to the reputational impairment has already dismissed the auditor immediately following the restatement announcements. A second possible explanation is that clients no longer consider those restatements to be relevant in their evaluation of the auditor, and therefore make their decision on whether or not to retain the auditor with the most recent information.[35] Either explanation is

[35] I do not interpret this as evidence that clients are myopic and quickly forget that the auditor was associated with low quality audits. Rather, it indicates that clients making auditor retention decisions evaluate the most recent auditor performance when making a decision rather than performance from earlier periods. Similar to the local office fixed effects analysis, this also indicates that the frequency measures do not simply capture an unobservable

consistent with a temporary decline in auditor reputation following restatements. If the auditor continues to audit misstated financial statements, results indicate that they will continue to be dismissed.

Auditor Reputation Restoration

Results displayed in Table 6 suggest that 'contaminated' auditors may have more difficulty obtaining new clients, as the departing clients tend to choose auditors associated with fewer restatements. The prior test indicates that while offices may lose clients in the year following a restatement, they are not dismissed at a greater rate in the year after that. While this suggests that the dismissal rate attenuates if the auditor 'improves' with respect to restatements, the question still stands as to whether the auditor can repair its reputation with other clients and recapture market share. To address this question, I identify those offices that are both associated with higher than average frequency of restatements (above the mean) *and* lose market share in the subsequent year.[36] This identifies a sample of 427 office-years (320 Big 4 office-years). Using this sample of firms that lost market share following restatements, I examine whether they are able to regain market share in the year following the decline if they "cure the contamination" and have no additional clients restate in the following year. Of the office-years in this sample, 119 have no restatements in the subsequent year. On average, their share of clients increases by 4.62% (p=0.06 two-tailed). This difference is significantly greater than zero. For the offices that have at least one restatement in the subsequent year as well, they experience another decline in market share of 2.14% (p=0.07 two-tailed).[37] Taken with the results of prior tests, these results suggest that an office can repair its reputation by avoiding audit failures in subsequent periods.

local office attribute in which the poor performing auditors are likely to be associated with restatements and have poor client service, leading to dismissal. If this were the case, then I would expect the coefficients to load positively on the lagged term as well.

[36] This sample represents those offices that lost clients following restatement announcements.

[37] Results are similar if market share is identified using audit fees rather than audit clients.

However, if an office continues to have audited financial statements restated, the decline in market share appears to continue.

Income Increasing Versus Income Decreasing Restatements

In their primary tests, Francis and Michas (2013) only identify those restatements that result in a downward earnings adjustment as audit failures because auditors are "most concerned with overstatements of net income due to liability concerns". While all restatements, regardless of impact on net income indicate an audit failure, income decreasing restatements may be perceived as more egregious auditor oversights. Therefore, in alternative analysis, I separately identify downward restatements from other restatements (income increasing and no income effect). For each observation, there are two restatement frequency variables, one that reflects the frequency of income decreasing restatements, and another that reflects the frequency of non-income decreasing restatements. If downward restatements cause greater reputational impairment, then clients may only dismiss their auditor in response to these restatements.

(Insert Table 9)

Results indicate that auditor reputation suffers most when the auditor allows the client to overstate earnings. In all specifications, income decreasing restatements are associated with an increased likelihood of auditor dismissal, however non-income decreasing restatements have no significant association with dismissal decisions. This suggests that auditor reputation may be most impaired when they allow clients to overstate earnings.

Dismissals and Resignations

In prior analysis, auditor switches that are designated as resignations are not included in the sample as these are auditor initiated changes and not client initiated. Auditor resignations are more likely to be associated with re-alignment with a different 'tier' of auditor as they often

occur if the auditor is unwilling or unable to perform the audit. In untabulated analysis, I find that the auditor is significantly more likely to resign from the engagement that restates (Company Restatement is accompanied by a positive and significant coefficient). However, consistent with the theory and hypothesis development, the auditor is not more likely to resign from *other* engagements (coefficients on restatement frequency variables are insignificant in all specifications). This is consistent with a reputational impairment accompanying restatements, but *not* an unwillingness by the auditor to retain other clients. The auditor may resign from the restating engagement due to unacceptably high audit risk, but it does not appear to affect their decision to retain other clients.

Switching Costs and Auditor Dismissals

For a client to dismiss their auditor following restatements by *other* clients, one of two situations likely exists. If switching costs are sufficiently low, then the threshold required for a client to dismiss their auditor is lower, therefore I expect those clients with low switching costs to be more responsive to restatements. The other situation involves clients that are likely to dismiss their auditor absent the presence of restatements due to misalignment. If a client is more likely to dismiss regardless of reputation (i.e. the client is 'mismatched' with its auditor), then they will likely be more responsive to reputational impairment because they are closer to the margin at which they determine to dismiss the auditor.

To test whether switching costs influence the client's decision, I include an interaction between client size and the restatement frequency variables. Larger clients will have higher switching costs due to the complex nature of many of these audits and the adjustment period for a new audit firm. Consistent with switching costs deterring a client switch, I find a negative and significant coefficient on the interaction in all specifications. This indicates that larger clients are

less responsive to restatements than smaller clients, consistent with higher switching costs for these clients that may not be overcome by impairment of the auditor's reputation.

Clients that are 'mismatched' with their auditor (i.e. the client is predicted to be with a Big 4 auditor and has a non-Big 4 auditor or vice versa) may be more responsive to reputational impairment. These clients are currently employing the services of an auditor that may not suit their needs. Therefore, it may take less for these clients to determine to dismiss their auditor. To test this, I include an interaction between MISMATCH and the restatement frequency variables. In all specifications, the coefficient on the restatement frequency variable is positive and significant (consistent with prior results) *and* the coefficient on the interaction is also positive and significant. This suggests that while all clients are more likely to dismiss their auditor in the presence of restatements, this relation is more pronounced for those clients that are mismatched with their current auditor. Taken with the previous results, this suggests that the results are most pronounced for clients that may be near the margin of switching auditors *prior* to the restatement.

Chapter 6: Conclusion

This study investigates the cost of restatements for local audit offices. Francis and Michas (2013) find that the presence of a restatement indicates that low-quality audits may be pervasive within the local office. As a result, restatements should impair the local office's reputation for quality audits. Because the price and desirability of an auditor's services is largely derived from the auditor's reputation, any impairment to auditor reputation will decrease the desirability of the auditor's service. To test this relation, I examine whether decreases in market share follow restatement announcements. If clients seek to distance themselves from the 'contagious' auditor, then offices associated with low quality audits should suffer a decline in market share. Consistent with this prediction, I find local audit offices lose market share following restatement announcements, indicating that the office's reputation may be tarnished.

Because a decline in market share may come from several sources, I further examine auditor retention decisions at the individual client level. Evidence indicates that clients are more likely to dismiss their current auditor following restatement announcements by clients within the same local office. This relation holds for both restating *and* non-restating clients indicating that the cost of a restatement to the 'responsible' auditor extends beyond the engagement in which they failed to detect and correct a misstatement. I find that this relation exists for offices of both Big 4 and non-Big 4 audit firms. Additional analysis indicates that the relation is driven by income decreasing restatements, indicating that these may be perceived to be the most egregious audit failures. I also find that the relation is muted for clients with high switching costs but more pronounced for clients that are 'mismatched' with their current auditor. Analysis further suggests that the consequences of restatements may be temporary if an auditor 'cures the contamination'

as auditors that lose clients following restatements regain marketshare in the subsequent year if they have no additional restatements.

The findings should be of interest to both regulators as well as audit firms. This study provides evidence that clients are concerned about the auditor's ability to provide high quality audit services and that market forces discipline auditors to provide high quality audit services. This is important, as some contend that the audit is viewed as an interchangeable commodity whose value is not related to quality. This research is particularly informative to audit firm management, as it highlights the importance of quality control at the local office level because low-quality audits may result in reputational impairment that decreases the local office's standing within the local market. While firms should consider the economic consequences of litigation resulting from restatements, this study indicates additional economic repercussions for low-quality audits beyond litigation. This research also informs researchers as it provides additional insight as to factors contributing to auditor choice and reputation. Furthermore, recent research has increasingly begun to use restatements as a measure of audit quality. This study indicates that clients view restatements as a negative signal of quality and detrimental to auditor reputation. Future research can examine whether restatements impact investors' perceptions of the local office and whether switches away from contaminated offices are valued by investors. Finally, research can explore whether auditors are hesitant to require restatements if the restatement relates to their previously audited work in order to protect their reputation?

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APPENDICES

Appendix A: Tables

Table 1 - Panel A: Office Level Descriptive Statistics

	All Offices					
Variable	OBS	MEAN	SD	P25	P50	P75
CHANGE_FEES	3,531	0.09	0.72	-0.14	0.00	0.14
CHANGE_CLIENTS	3,531	0.02	0.38	-0.10	0.00	0.11
M_OFFICE_RESTATE	3,531	0.31	0.50	0.00	0.00	0.67
M_OFFICE_FREQUENCY	3,531	0.05	0.12	0.00	0.00	0.06
M_GROWTH	3,531	0.15	0.28	0.01	0.09	0.20
M_ACC	3,531	0.24	0.28	0.08	0.16	0.29
M_INVREC	3,531	0.30	0.15	0.20	0.27	0.37
M_GC	3,531	0.07	0.18	0.00	0.00	0.04
M_ROA	3,531	-0.08	0.30	-0.08	0.01	0.05
M_LOSS	3,531	0.34	0.29	0.10	0.29	0.50
M_LEVERAGE	3,531	0.64	0.34	0.48	0.59	0.70
M_CASH	3,531	0.18	0.13	0.08	0.14	0.23
M_MISMATCH	3,531	0.22	0.29	0.00	0.10	0.33
M_EXPERT	3,531	0.53	0.37	0.14	0.56	0.89
M_SIZE	3,531	5.79	1.82	4.55	6.12	7.13
M_M_A	3,531	0.38	0.28	0.17	0.40	0.55
M_CITYSIZE	3,531	18.22	1.56	17.31	18.33	19.36
M_CLIENTS	3,531	12.43	20.70	3.00	6.00	13.00

Table 1 - Panel A Continued

	Big 4 Audit Offices					
Variable	OBS	MEAN	SD	P25	P50	P75
CHANGE_FEES	2,077	0.03	0.39	-0.09	0.00	0.10
CHANGE_CLIENTS	2,077	0.00	0.24	-0.09	0.00	0.09
M_OFFICE_RESTATE	2,077	0.42	0.57	0.00	0.00	0.69
M_OFFICE_FREQUENCY	2,077	0.06	0.11	0.00	0.00	0.08
M_GROWTH	2,077	0.14	0.21	0.03	0.10	0.20
M_ACC	2,077	0.19	0.20	0.07	0.14	0.24
M_INVREC	2,077	0.26	0.11	0.20	0.25	0.32
M_GC	2,077	0.02	0.07	0.00	0.00	0.00
M_ROA	2,077	0.00	0.12	-0.02	0.03	0.06
M_LOSS	2,077	0.25	0.21	0.07	0.23	0.36
M_LEVERAGE	2,077	0.60	0.18	0.51	0.59	0.67
M_CASH	2,077	0.15	0.11	0.08	0.13	0.20
M_MISMATCH	2,077	0.11	0.14	0.00	0.06	0.17
M_EXPERT	2,077	0.68	0.28	0.50	0.71	1.00
M_SIZE	2,077	6.92	1.05	6.26	6.94	7.57
M_M_A	2,077	0.47	0.24	0.33	0.50	0.60
M_CITYSIZE	2,077	17.98	1.39	17.12	18.04	18.93
M_CLIENTS	2,077	16.97	25.48	4.00	8.00	18.00

Table 1 - Panel B: Client Level Descriptive Statistics

	All Clients					
Variable	OBS	MEAN	SD	P25	P50	P75
DISMISS	29,950	0.04	0.20	0.00	0.00	0.00
OFFICE_RESTATE	29,950	0.76	0.75	0.00	0.69	1.10
RESTATE_FREQUENCY	29,950	0.05	0.07	0.00	0.03	0.08
COMPANY_RESTATEMENT	29,950	0.06	0.23	0.00	0.00	0.00
GROWTH	29,950	0.18	0.59	-0.04	0.06	0.19
ACC	29,950	0.23	0.44	0.03	0.08	0.23
INVREC	29,950	0.24	0.19	0.09	0.20	0.35
GC	29,950	0.04	0.19	0.00	0.00	0.00
TENURE	29,950	6.53	3.21	4.00	7.00	10.00
ROA	29,950	-0.05	0.43	-0.04	0.03	0.09
LOSS	29,950	0.33	0.47	0.00	0.00	1.00
LEVERAGE	29,950	0.56	0.48	0.31	0.51	0.69
CASH	29,950	0.22	0.24	0.04	0.12	0.32
MISMATCH	29,950	0.17	0.38	0.00	0.00	0.00
EXPERT	29,950	0.50	0.50	0.00	1.00	1.00
SIZE	29,950	6.16	2.16	4.71	6.18	7.61
M_A	29,950	0.47	0.50	0.00	0.00	1.00
AB_FEE	29,950	0.33	0.67	-0.13	0.33	0.78
CITYSIZE	29,950	19.17	1.36	18.35	19.42	19.97
CLIENTS	29,950	39.38	40.82	10.00	22.00	49.00

Table 1- Panel B Continued

	Big 4 Clients					
Variable	OBS	MEAN	SD	P25	P50	P75
DISMISS	24,006	0.04	0.20	0.00	0.00	0.00
OFFICE_RESTATE	24,006	0.85	0.77	0.00	0.69	1.39
RESTATE_FREQUENCY	24,006	0.06	0.07	0.00	0.03	0.08
COMPANY_RESTATEMENT	24,006	0.06	0.23	0.00	0.00	0.00
GROWTH	24,006	0.17	0.53	-0.03	0.06	0.19
ACC	24,006	0.21	0.40	0.03	0.08	0.21
INVREC	24,006	0.23	0.18	0.08	0.19	0.33
GC	24,006	0.02	0.14	0.00	0.00	0.00
TENURE	24,006	7.06	3.07	4.00	8.00	10.00
ROA	24,006	-0.02	0.30	-0.02	0.04	0.09
LOSS	24,006	0.30	0.46	0.00	0.00	1.00
LEVERAGE	24,006	0.54	0.33	0.33	0.52	0.70
CASH	24,006	0.21	0.23	0.04	0.12	0.31
MISMATCH	24,006	0.13	0.33	0.00	0.00	0.00
EXPERT	24,006	0.58	0.49	0.00	1.00	1.00
SIZE	24,006	6.67	1.93	5.34	6.63	7.93
M_A	24,006	0.51	0.50	0.00	1.00	1.00
AB_FEE	24,006	0.43	0.64	0.00	0.43	0.86
CITYSIZE	24,006	19.13	1.31	18.29	19.37	19.95
CLIENTS	24,006	45.73	42.94	13.00	30.00	70.00

Table 2: Restatement Announcements and Change in Market Share (Full Sample)

VARIABLES	(1) ΔShare_Fees	(2) ΔShare_Fees	(3) ΔShare_Clients	(4) ΔShare_Clients
MEAN_RESTATEMENTS	***-0.144******		***-0.0647******	
	(-6.739)		***(-5.642)***	
MEAN_FREQUENCY		***-0.331****		***-0.182****
		(-2.445)		***(-2.491)***
CHANGE_(FEES/CLIENTS)$_{t-1}$	-0.0937***	-0.0926***	-0.0426	-0.0410
	(-4.088)	(-4.069)	(-1.485)	(-1.429)
MEAN_GROWTH	-0.0209	-0.0233	-0.0269	-0.0282
	(-0.326)	(-0.362)	(-0.664)	(-0.692)
MEAN_ACC	-0.105	-0.108	-0.0217	-0.0238
	(-1.466)	(-1.518)	(-0.574)	(-0.629)
MEAN_INVREC	-0.282**	-0.286**	-0.150**	-0.152**
	(-2.027)	(-2.054)	(-2.079)	(-2.110)
MEAN_GC	-0.0201	-0.0205	-0.139	-0.140
	(-0.106)	(-0.108)	(-1.418)	(-1.409)
MEAN_ROA	0.136	0.134	-0.0150	-0.0152
	(1.236)	(1.208)	(-0.222)	(-0.225)
MEAN_LOSS	-0.122	-0.127	-0.0167	-0.0185
	(-1.482)	(-1.553)	(-0.344)	(-0.381)
MEAN_LEVERAGE	0.111	0.120	0.0461	0.0504
	(1.503)	(1.620)	(1.178)	(1.284)
MEAN_CASH	-0.110	-0.111	-0.0447	-0.0437
	(-0.607)	(-0.609)	(-0.447)	(-0.438)
MEAN_MISMATCH	-0.0981	-0.0960	-0.0296	-0.0284
	(-1.182)	(-1.156)	(-0.606)	(-0.583)
MEAN_EXPERT	-0.0292	-0.0348	0.0310	0.0285
	(-0.486)	(-0.579)	(0.852)	(0.784)
MEAN_SIZE	-0.0975***	-0.0955***	-0.00356	-0.00270
	(-4.906)	(-4.814)	(-0.319)	(-0.243)
MEAN_M_A	-0.0431	-0.0440	-0.00766	-0.00788
	(-0.613)	(-0.624)	(-0.199)	(-0.205)
CITYSIZE	0.0496***	0.0409***	0.0334***	0.0297***
	(3.546)	(2.970)	(4.092)	(3.673)
CLIENTS	-0.000985*	-0.00255***	-0.000611**	-0.00133***
	(-1.927)	(-3.763)	(-2.062)	(-3.743)
Auditor and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	3,531	3,531	3,531	3,531
R-squared	0.119	0.116	0.083	0.081

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed respectively. All Standard Errors are clustered by office.

Table 3: Restatement Announcements and Change in Market Share (Big 4)

VARIABLES	(1) ΔShare_Fees	(2) ΔShare_Fees	(3) ΔShare_Clients	(4) ΔShare_Clients
MEAN_RESTATEMENTS	***-0.0622****		***-0.0199*****	
	(-3.641)		***(-2.084)***	
MEAN_FREQUENCY		***-0.248*****		***-0.0776***
		(-2.013)		***(-1.283)***
CHANGE_(FEES/CLIENTS)$_{t-1}$	-0.0882***	-0.0891***	-0.0556*	-0.0561*
	(-3.015)	(-3.071)	(-1.726)	(-1.740)
MEAN_GROWTH	0.0395	0.0323	0.0457	0.0434
	(0.787)	(0.638)	(1.508)	(1.415)
MEAN_ACC	-0.144**	-0.147**	-0.0438	-0.0446
	(-2.122)	(-2.173)	(-0.964)	(-0.984)
MEAN_INVREC	-0.0712	-0.0728	-0.0695	-0.0700
	(-0.621)	(-0.637)	(-0.915)	(-0.922)
MEAN_GC	0.548	0.554	-0.0681	-0.0663
	(0.877)	(0.889)	(-0.453)	(-0.441)
MEAN_ROA	-0.0299	-0.0317	-0.0217	-0.0225
	(-0.241)	(-0.256)	(-0.287)	(-0.297)
MEAN_LOSS	-0.0387	-0.0469	0.0634	0.0608
	(-0.552)	(-0.674)	(1.056)	(1.014)
MEAN_LEVERAGE	-0.0773	-0.0689	-0.0470	-0.0445
	(-1.009)	(-0.924)	(-0.907)	(-0.862)
MEAN_CASH	-0.0904	-0.0766	-0.0367	-0.0325
	(-0.690)	(-0.587)	(-0.337)	(-0.301)
MEAN_MISMATCH	0.0738	0.0663	0.0663	0.0641
	(0.498)	(0.448)	(0.816)	(0.788)
MEAN_EXPERT	-0.113**	-0.120**	-0.0364	-0.0388
	(-2.294)	(-2.416)	(-1.084)	(-1.157)
MEAN_SIZE	-0.00504	-0.00463	0.0371***	0.0372***
	(-0.293)	(-0.272)	(2.833)	(2.888)
MEAN_M_A	0.0472	0.0516	-0.00254	-0.00114
	(0.851)	(0.929)	(-0.0668)	(-0.0301)
CITYSIZE	0.0136	0.00677	0.00974	0.00752
	(1.169)	(0.582)	(1.048)	(0.832)
CLIENTS	-0.000428	-0.00102***	-0.000266	-0.000456**
	(-1.327)	(-2.839)	(-1.195)	(-2.010)
Auditor and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	2,077	2,077	2,077	2,077
R-squared	0.034	0.034	0.042	0.042

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed. All Standard Errors are clustered by office.

Table 4: Restatement Announcements and Auditor Switches (Full Sample)

	All Clients		Non-Restating Clients	
VARIABLES	DISMISS	DISMISS	DISMISS	DISMISS
LOG_RESTATEMENTS	***0.00870****		***0.00814****	
	(3.590)		***(3.240)***	
RESTATE_FREQUENCY		***0.0694****		***0.0641****
		(3.636)		***(3.270)***
COMPANY_RESTATEMENT	0.0159***	0.0147**		
	(2.700)	(2.485)		
GROWTH	-0.00110	-0.00106	-5.82e-05	-3.84e-05
	(-0.508)	(-0.493)	(-0.0266)	(-0.0176)
ACC	-0.00681**	-0.00679**	-0.00742**	-0.00742**
	(-2.279)	(-2.271)	(-2.486)	(-2.486)
INVREC	0.0187**	0.0185**	0.0183**	0.0181**
	(2.139)	(2.121)	(2.094)	(2.072)
GOING_CONCERN	0.0467***	0.0468***	0.0409***	0.0411***
	(3.705)	(3.709)	(3.315)	(3.323)
TENURE	0.00205***	0.00204***	0.00192***	0.00191***
	(4.960)	(4.922)	(4.394)	(4.364)
ROA	0.00649	0.00646	0.00709	0.00707
	(1.547)	(1.541)	(1.640)	(1.635)
LOSS	0.0149***	0.0150***	0.0144***	0.0145***
	(3.891)	(3.910)	(3.635)	(3.648)
LEVERAGE	-0.00849***	-0.00855***	-0.00589*	-0.00596*
	(-2.668)	(-2.690)	(-1.716)	(-1.738)
CASH	-0.0434***	-0.0432***	-0.0411***	-0.0408***
	(-5.765)	(-5.670)	(-5.382)	(-5.305)
MISMATCH	0.0231***	0.0232***	0.0248***	0.0249***
	(5.176)	(5.198)	(5.403)	(5.414)
EXPERT	0.000998	0.00124	-0.000802	-0.000618
	(0.318)	(0.393)	(-0.251)	(-0.194)
SIZE	-0.0139***	-0.0139***	-0.0130***	-0.0131***
	(-14.91)	(-14.90)	(-13.47)	(-13.44)
M_A	-0.00470*	-0.00471*	-0.00420	-0.00420
	(-1.839)	(-1.842)	(-1.635)	(-1.634)
AB_FEE	0.00697***	0.00698***	0.00517**	0.00519**
	(2.923)	(2.933)	(2.075)	(2.081)
CITYSIZE	0.00225	0.00326**	0.00214	0.00298*
	(1.490)	(2.191)	(1.338)	(1.894)
CLIENTS	-0.000133***	-5.77e-05	-0.000130**	-6.00e-05
	(-2.634)	(-1.284)	(-2.536)	(-1.307)
Auditor, Year, and Industry Fixed Effects	Yes	Yes	Yes	Yes
Observations	29,950	29,950	28,215	28,215
R-squared	0.032	0.033	0.031	0.031

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed. All Standard Errors are clustered by office.

Table 5: Restatement Announcements and Auditor Switches (Big 4)

	All Clients		Non-Restating Clients	
VARIABLES	DISMISS	DISMISS	DISMISS	DISMISS
LOG_RESTATEMENTS	***0.00698****		***0.00679*****	
	(2.716)		***(2.549)***	
RESTATE_FREQUENCY		***0.0608****		***0.0591****
		(2.767)		***(2.633)***
COMPANY_RESTATEMENT	0.0134**	0.0124**		
	(2.151)	(1.975)		
GROWTH	-0.00406*	-0.00403*	-0.00309	-0.00305
	(-1.852)	(-1.839)	(-1.401)	(-1.385)
ACC	-0.00351	-0.00352	-0.00418	-0.00421
	(-1.158)	(-1.162)	(-1.348)	(-1.358)
INVREC	0.0307***	0.0305***	0.0304***	0.0301***
	(3.024)	(3.007)	(2.930)	(2.907)
GOING_CONCERN	0.0485***	0.0484***	0.0464***	0.0464***
	(2.957)	(2.949)	(2.704)	(2.702)
TENURE	0.00186***	0.00184***	0.00181***	0.00180***
	(4.057)	(4.023)	(3.775)	(3.747)
ROA	0.00244	0.00241	0.00228	0.00225
	(0.460)	(0.456)	(0.420)	(0.417)
LOSS	0.0159***	0.0160***	0.0153***	0.0153***
	(3.381)	(3.400)	(3.095)	(3.107)
LEVERAGE	-0.00402	-0.00408	-0.00205	-0.00208
	(-0.772)	(-0.783)	(-0.371)	(-0.377)
CASH	-0.0500***	-0.0497***	-0.0489***	-0.0487***
	(-5.380)	(-5.291)	(-5.294)	(-5.217)
MISMATCH	0.0314***	0.0316***	0.0325***	0.0326***
	(4.590)	(4.610)	(4.563)	(4.577)
EXPERT	0.00156	0.00177	-3.24e-05	0.000132
	(0.471)	(0.534)	(-0.00970)	(0.0396)
SIZE	-0.0142***	-0.0142***	-0.0135***	-0.0135***
	(-13.35)	(-13.35)	(-12.49)	(-12.47)
M_A	-0.00427	-0.00427	-0.00362	-0.00361
	(-1.519)	(-1.520)	(-1.276)	(-1.271)
AB_FEE	0.00743***	0.00739***	0.00572**	0.00570**
	(2.850)	(2.838)	(2.165)	(2.156)
CITYSIZE	0.00321**	0.00427***	0.00303*	0.00393**
	(1.996)	(2.628)	(1.831)	(2.357)
CLIENTS	-0.000132**	-7.65e-05	-0.000130**	-7.66e-05
	(-2.526)	(-1.620)	(-2.479)	(-1.612)
Auditor, Year, and Industry Fixed Effects	Yes	Yes	Yes	Yes
Observations	24,006	24,006	22,630	22,630
R-squared	0.039	0.039	0.038	0.038

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed. All Standard Errors are clustered by office.

Table 6: Difference in Office 'Contamination' for Dismissing Clients

	Difference in Restatement Count			
	Observations	Mean	T-Stat	
All Dismissals	1,148	-1.332	12.759	***
All Non-Restating Dismissals	1,046	-1.255	11.563	***
All Big 4 Dismissals	910	-1.677	13.492	***
All Non-Restating Big 4 Dismissals	829	-1.600	12.395	***
All Big 4 Lateral Dismissals	385	-0.314	1.933	*
All Non-Restating Lateral Dismissals	348	-0.184	1.117	

	Difference in Restatement Frequency			
	Observations	Mean	T-Stat	
All Dismissals	1,148	-0.021	5.912	***
All Non-Restating Dismissals	1,046	-0.017	5.142	***
All Big 4 Dismissals	910	-0.023	6.073	***
All Non-Restating Big 4 Dismissals	829	-0.020	5.460	***
All Big 4 Lateral Dismissals	385	-0.018	3.350	***
All Non-Restating Lateral Dismissals	348	-0.010	1.743	*

*,**,*** denote significance at p< .1,p< .05 and p< .01 respectively. All p-values are two-tailed

Table 7: Restatement Announcements and Audit Fees

	All Clients		Big 4 Clients	
VARIABLES	**ΔFEES**	**ΔFEES**	**ΔFEES**	**ΔFEES**
LOG_RESTATEMENTS	***-0.00310***		***-0.00297***	
	(-0.685)		***(-0.638)***	
RESTATE_FREQUENCY		***-0.0328***		***-0.0254***
		(-0.848)		***(-0.605)***
COMPANY_RESTATEMENT	-0.0524***	-0.0514***	-0.0507***	-0.0502***
	(-3.673)	(-3.553)	(-3.310)	(-3.236)
ΔADVERSE_404	0.185***	0.185***	0.200***	0.200***
	(9.376)	(9.372)	(9.078)	(9.074)
ΔSOX_404	0.843***	0.843***	0.845***	0.846***
	(29.21)	(29.21)	(27.58)	(27.57)
ΔACC	-0.000310	-0.000320	-0.000104	-0.000110
	(-0.0439)	(-0.0453)	(-0.0135)	(-0.0143)
ΔGOING_CONCERN	0.0401	0.0400	0.0582**	0.0582**
	(1.591)	(1.589)	(2.076)	(2.075)
ΔCLIENTS	-0.00180***	-0.00177***	-0.00175***	-0.00173***
	(-4.450)	(-4.434)	(-4.348)	(-4.332)
ΔINVREC	-0.200**	-0.199**	-0.166	-0.165
	(-2.106)	(-2.104)	(-1.588)	(-1.587)
ΔCITYSIZE	0.0829***	0.0828***	0.0763***	0.0762***
	(5.390)	(5.380)	(5.856)	(5.833)
ΔSIZE	0.362***	0.362***	0.379***	0.379***
	(16.32)	(16.32)	(16.35)	(16.35)
ΔGROWTH	0.0663***	0.0663***	0.0784***	0.0784***
	(6.093)	(6.096)	(6.494)	(6.495)
ΔROA	-0.0777***	-0.0777***	-0.0906***	-0.0907***
	(-3.220)	(-3.220)	(-3.150)	(-3.151)
ΔLOSS	0.0638***	0.0638***	0.0618***	0.0618***
	(7.496)	(7.498)	(6.593)	(6.594)
ΔLEVERAGE	0.142***	0.142***	0.165***	0.165***
	(4.916)	(4.917)	(5.606)	(5.604)
ΔCASH	-0.295***	-0.295***	-0.317***	-0.317***
	(-5.715)	(-5.714)	(-5.497)	(-5.497)
ΔM_A	0.0427***	0.0427***	0.0410***	0.0410***
	(4.939)	(4.937)	(4.453)	(4.452)
ΔEXPERT	0.131***	0.131***	0.130***	0.130***
	(10.19)	(10.19)	(9.852)	(9.850)
Auditor, Year, and Industry Fixed Effects	Yes	Yes	Yes	Yes
Observations	25,520	25,520	22,758	22,758
R-squared	0.401	0.401	0.409	0.409

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed. All Standard Errors are clustered by office.

Table 8: Lagged Restatements and Auditor Dismissals

Panel A: Full Sample

	All Clients		Non-Restating Clients	
VARIABLES	DISMISS	DISMISS	DISMISS	DISMISS
LOG_RESTATEMENTS	***0.00699****		***0.00611*****	
	(2.854)		***(2.395)***	
RESTATE_FREQUENCY		***0.0595****		***0.0496*****
		(3.037)		***(2.310)***
LAG_LOG_RESTATEMENTS	***0.00371***		***0.00298***	
	(1.544)		***(1.230)***	
LAG_RESTATE_FREQUENCY		***0.0236***		***0.0130***
		(1.190)		***(0.640)***
Control Variables	Yes	Yes	Yes	Yes
Auditor and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	28,325	28,325	25,314	25,314
R-squared	0.036	0.036	0.033	0.033

Panel B: Big 4 Sample

	All Clients		Non-Restating Clients	
VARIABLES	DISMISS	DISMISS	DISMISS	DISMISS
LOG_RESTATEMENTS	***0.00605*****		***0.00441****	
	(2.331)		***(1.705)***	
RESTATE_FREQUENCY		***0.0577*****		***0.0482*****
		(2.582)		***(2.021)***
LAG_LOG_RESTATEMENTS	***0.00217***		***0.00226***	
	(0.837)		***(0.892)***	
LAG_RESTATE_FREQUENCY		***0.00897***		***-0.000417***
		(0.395)		***(-0.0199)***
Control Variables	Yes	Yes	Yes	Yes
Auditor and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	23,065	23,065	21,538	21,538
R-squared	0.042	0.042	0.038	0.038

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed. All Standard Errors are clustered by office.

Table 9: Positive Versus Negative Restatements and Auditor Dismissals

Panel A: Full Sample

	All Clients		Non-Restating Clients	
VARIABLES	DISMISS	DISMISS	DISMISS	DISMISS
RESTATEMENTS_ADVERSE	***0.00867****		***0.00839****	
	(3.722)		***(3.385)***	
FREQUENCY_ADVERSE		***0.0641****		***0.0615****
		(3.277)		***(3.046)***
RESTATEMENTS_POSITIVE	***0.00248***		***0.000987***	
	(0.721)		***(0.284)***	
FREQUENCY_POSITIVE		***0.0740***		***0.0467***
		(1.314)		***(0.765)***
Control Variables	Yes	Yes	Yes	Yes
Auditor and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	29,950	29,950	28,215	28,215
R-squared	0.033	0.032	0.031	0.030

Panel A: Big 4 Sample

	All Clients		Non-Restating Clients	
VARIABLES	DISMISS	DISMISS	DISMISS	DISMISS
RESTATEMENTS_ADVERSE	***0.00758****		***0.00793****	
	(3.052)		***(3.017)***	
FREQUENCY_ADVERSE		***0.0677****		***0.0725****
		(2.879)		***(2.997)***
RESTATEMENTS_POSITIVE	***0.00123***		***-0.000686***	
	(0.349)		***(-0.192)***	
FREQUENCY_POSITIVE		***0.00812***		***-0.0341***
		(0.146)		***(-0.588)***
Control Variables	Yes	Yes	Yes	Yes
Auditor and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	24,006	24,006	22,630	22,630
R-squared	0.039	0.039	0.038	0.038

T-statistics in parentheses; *,**,*** denote significance at p< .1,p< .05 and p< .01 two-tailed. All Standard Errors are clustered by office.

Appendix B: Variable Definitions

Dependent Variables	
ΔSHARE_FEES$_{t+1}$	(Market Share in Fees$_{t+1}$ – Market Share in Fees$_t$) / Market Share in Fees$_t$
ΔSHARE_CLIENTS $_{t+1}$	(Market Share in Clients$_{t+1}$ – Market Share in Clients$_t$) / Market Share in Clients$_t$
Market Share Fees	Total audit fees for Office *j* in year *t* / Total Audit Fees for all Offices in the MSA in year *t*
Market Share Clients	Total public audit clients for Office *j* in year *t* / Total Public Audit for all Offices in the MSA in year *t*.
DISMISS	0 if the company employs the same Big 4 auditor in year *t* and *t+1*. Switch takes the value of 1 if the client employed a different Big 4 auditor in year *t* and year *t+1*
ΔFEES$_{t+1}$	(Audit Fees – Audit Fees$_t$) / Audit Fees$_t$
Variables of Interest	
OFFICE RESTATE	Natural Log (1+ Number of Restatements announced relating to the client's office in the 12 months prior to that client's fiscal year end)
OFFICE FREQUENCY	(Number of Restatements announced relating to the client's office in the 12 months prior to that client's fiscal year end) / total number of clients audited by the office in year *t*
ΔOFFICE RESTATE	For Switching clients only = OFFICE RESTATE$_t$ for new auditor – OFFICE RESTATE$_t$ for previous auditor.
ΔOFFICE FREQUENCY	For Switching clients only = OFFICE FREQUENCY$_t$ for new auditor – OFFICE FREQUENCY$_t$ for previous auditor.
Control Variables	
COMPANY RESTATEMENT	Indicator variable that takes a value of 1 if the client issued a restatement in year t, 0 otherwise.
AB_FEE	The residual from the following model where Fees are audit fees: $Ln(Fees_{it}) = \beta_1*SIZE_{it} + \beta_2*GROWTH_{it} + \beta_3*ROA_{it} + \beta_4*LOSS_{it} + \beta_5*LEVERAGE_{it} + \beta_6*New\ Auditor_{it} + \beta_7*CITYSIZE_t + fixed\ effects_t + \varepsilon_{it}$
ACC	Absolute value of discretionary accruals[38]
ACQUISTION	Indicator variable if a client has had an acquisition in the previous two fiscal years
CASH	Ratio of Cash to total Assets
CITYSIZE	Natural Logarithm of total audit fees for the city in which the auditor operates in year *t*
CLIENTS	Number of public companies audited by the local office in year *t*
EXPERT	Indicator variable if the auditor is the national leader in the client's industry
GC	Indicator variable that takes the value of 1 if the company receives a going concern modified opinion

[38] Discretionary accruals are defined as the residual from a version of Modified Jones model including performance as suggested by (Kothari et al. 2005). The absolute value of this is used in analysis and is censored at a value of 1.

GROWTH	$(Assets_t – Assets_{t-1}) / Assets_{t-1}$
INVREC	$(Inventory_t + Receivables_t) / Total\ Assets_t$
LEVERAGE	$Total\ Liabilities_t / Total\ Assets_t$
LOSS	Indicator variable that takes the value of 1 if the company's net income is negative and 0 otherwise
New Auditor	An indicator variable that takes the value of 1 in the first year of an auditor-client relationship, and 0 otherwise.
ROA	$Net\ Income_t / Assets_t$
SIZE	Natural log of client assets (millions)
Fixed Effects	Industry, Year and Audit Firm Fixed Effects
MISMATCH	Using the model from Landsman et al. (2009), I predict whether a client will select a Big 4 or non-Big 4 auditor. If the client is expected to select and Big 4 auditor and does not, this variable takes a 1. Likewise, if the client is predicted to select a non-Big 4 auditor and selects a Big 4 auditor, the variable takes a 1. If the client selects the auditor type it was predicted to select, this variable takes a 0.
SOX_404	An indicator variable that takes the value of 1 if the firm received a SOX 404 opinion from its auditor, and 0 otherwise.
ADVERSE_404	An indicator variable that takes the value of 1 if firm received an adverse 404 opinion from its auditor, and 0 otherwise.
M_Variable	The mean value of the variable for that office in that fiscal year (using Compustat year convention)

Vita

Robert Lowell Whited was born to Janet and Jim Whited in Raleigh, North Carolina on October 14, 1985. Rob is the youngest of three siblings, Matt and Ben. He received his Bachelor of Science in Chemistry from the University of North Carolina at Chapel Hill in 2007. After graduation, he attended Wake Forest University on a full academic scholarship and obtained a Master of Science in Accountancy in December 2008. While attending Wake Forest University, Rob worked as an intern with Ernst and Young and successfully completed the CPA exam.

Upon graduation, he worked in the assurance practice of Ernst and Young from 2009-2010 and obtained his CPA licensure before entering the Accounting PhD program at the University of Tennessee. At the University of Tennessee, Rob taught courses in introductory and intermediate financial reporting. Rob has accepted a tenure track position at The University of Massachusetts. He and his wife will move there upon graduation in May 2014.