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Growing Pains: Audit Quality and Office Growth*

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ABSTRACT: This study provides evidence on how local office growth affects audit quality. We predict that significant recent growth will temporarily stress office resources, leading to a negative relation between office-level growth and audit quality. To test this prediction, we examine a sample of 17,062 firm-year observations from 2005-2010. Results indicate a consistent negative relation between changes in volume of audit work and audit quality. Specifically, clients of offices that experience increases in workload over the prior year have greater absolute discretionary accruals as well as an increased likelihood of restatement. Our tests also indicate that the effect of office growth is transient and vanishes after one year. We find limited evidence that the size of the auditor's national network of offices partially mitigates the negative effects of office growth on audit quality. We further show that proxies for audit quality are negatively related to office-level growth from new and existing clients. These findings are robust to controls for client and auditor characteristics as well as alternative specifications of growth. Taken together, evidence indicates that while larger offices provide higher audit quality, the benefits of office size are not realized immediately and rapid growth temporarily impairs audit quality. These results are informative to regulators concerned with audit quality and to practitioners charged with adjusting to office growth.

Keywords: Audit Quality, Office Growth, Capacity Constraints, Office Resources

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1. Introduction

This study examines how growth impacts the audit quality provided by local offices of public accounting firms. Specifically, we address the following question: is office-wide audit quality impacted by changes in audit workload? Existing research generally treats financial reporting quality as a product of contemporaneous client and auditor characteristics. While auditor characteristics (e.g., Big 4 membership and office size) may contribute to audit quality, changes in office dynamics are also likely to contribute to audit quality. Applying theory from production economics, we contend that large increases in office-level workload will result in reallocation of resources and capacity constraints that temporarily impair office-level audit quality as offices experience 'growing pains'. Likewise, decreases in workload may result in a reduction in resource constraints resulting in greater office-wide audit quality. In this paper, we document a negative relation between recent changes in office-level workload and audit quality. Our findings also indicate that the results are driven by increases in workload (rather than decreases) and that the relation does not persist beyond the year of growth.

Extant literature has shown that audit quality is affected by observable client and auditor characteristics. Auditor characteristics affecting audit quality include both national (DeAngelo 1981) and office-level attributes (Francis, Stokes, and Anderson 1999). Office-level characteristics are of particular interest since most operating decisions are made at the local office level (e.g., assignment of personnel to engagements, acquisition of expertise, and signing of audit opinions). Francis and Yu (2009) investigate the relation between office size and audit quality, finding that larger offices provide superior audit quality compared to smaller offices. In subsequent work, Francis, Michas and Yu (2013) and Choi, Kim, Kim, and Zang (2010) confirm the findings that larger audit offices are associated with higher financial reporting quality. For brevity, we refer to the relation between office size and audit quality as the 'size effect'. We contend that this 'size effect' documented in prior literature is distinct from the 'growth effect' that occurs when office dynamics change. We posit that the benefits derived from the 'size effect' do not accrue immediately and an office may experience short term 'growing pains' arising from the auditor's difficulty in adapting to recent increases in workload. For example, we expect an office with $10 million in current year audit fees that grew from $7 million in audit fees in the prior year to have greater strains on resources than an

office with $10 million in audit fees this year and last year. The latter office is accustomed to the larger volume of audit work while the growing office is not.

Through examination of the 'growth effect', we fill a gap in empirical research by documenting a relation between changes in workload and audit quality. When local audit offices substantially expand the volume of audit services provided in a short period of time, the auditor's ability to provide quality audit services may be compromised. We expect that an office that has experienced recent growth, especially high levels of growth, will provide a decreased level of audit quality due to frictions during the adjustment and reallocation of resources. On the other hand, for offices operating under resource constraints, decreases in audit work could result in an increase in audit quality as constraints are relaxed. Both of these situations are consistent with our predicted negative relation between changes in volume of audit work and audit quality. However, existing theory and empirical evidence indicates that larger auditor firms have greater resources to detect misstatements and "more to lose" in the event of an audit failure (DeAngelo 1981). As such, the 'size effect' suggests that audit quality may increase as the audit offices grow. If offices are able to quickly adjust to changes in workload and immediately obtain the benefits from the 'size effect', then we would expect current year office size to be positively related to audit quality but growth to have no discernible effect.[1] Whether the 'growth effect' is substantial enough to counteract the benefits of the 'size effect' is an empirical question examined in this study. Additionally, if clients are attracted to high audit quality, a significant increase (decrease) in office-level audit work may reflect client migration to (from) a higher (lower) quality office. If this is the case, growth/decline may simply reveal pre-growth office characteristics. We address competing factors and potential alternative explanations by investigating reductions in audit work separately from increases and by utilizing fixed effects estimation to control for time-invariant selectivity.[2]

We operationalize office growth using both a continuous measure of change in volume of audit work and a dichotomous indicator of high office-level growth. These measures are formed using two main proxies for changes in auditor workload: changes in audit fees and changes in assets audited at the office level. In an additional analysis, we also measure changes in auditor workload using change in number of clients. To measure audit

[1] To the extent that offices maintain sufficient resources to adapt to growth, this should bias against finding a result that office growth impacts audit quality. Given the number of weekly hours worked by public company auditors on average (Sweeney and Summers 2002), it is likely, though, that a significant proportion of the audit offices in our sample operate at a level close to capacity. Further, it is expensive and inefficient for an office to operate with high levels of slack, making it unlikely that many offices do so.

[2] To the extent that clients migrate to high quality offices, this would bias against finding that office growth relates to declines in audit quality.

quality, we use restatements and abnormal accruals. Results indicate that office growth has a temporary effect on audit quality. We demonstrate that clients have greater abnormal accruals and a higher incidence of restatements when the auditor experiences year over year increases in audit workload. Specifically, we show that a one standard deviation increase in office growth results in an increase in discretionary accruals of approximately 8.8 – 11.5 percent of net income and an 8.1 – 11.3 percent increase in the likelihood of restatement. Further, using prior years' growth in our model, we show that this result does not have lasting effects outside of one year. We also investigate the extent to which firm network size mitigates the 'growth effect' and find mixed results. Lastly, we examine the impact of changes in workload from its components: growth from new clients, growth in size of individual engagements, growth from other existing clients, and decreases in workload from departed clients. We show that the effects of growth are primarily driven by growth from new engagements and increases in workload for specific individual engagements. Our results complement the findings of previous literature as they indicate that larger offices provide higher quality audits, but a similar sized office that recently experienced significant growth provides inferior quality to one that was relatively stable in the current year.

To our knowledge, this is the first study to investigate the impact of changes in volume of office-level audit work on audit quality. We believe these findings are informative to future academic research, practitioners, and regulators. Future research investigating office-level characteristics and audit quality should consider the effects of office size and office growth independently. That is, our findings suggest that office size gained in the current period ('growth effect') has detrimental effects on audit quality while office size gained from previous periods ('size effect') has positive effects on audit quality.[3] Our findings are also informative to practitioners who are responsible for overseeing allocation of firm resources and responding to changes in workload. Audit firms should be cognizant of the negative consequences arising from growth to adequately address risk within the firm. Moreover, our research may inform the PCAOB in assessing the risk of audit failure and the firm's response to changes in audit workload. In performing inspections of public accounting firms, the PCAOB takes a risk-based approach, which identifies those areas that represent the greatest risk of deficiency (Olson 2008). These risk factors include "…considerations related to the particular audit firm, practice office, or partner…" (PCAOB 2012). Our findings indicate that using office growth as a risk factor may assist the PCAOB in identifying which engagements to inspect and how the firm's system of quality controls mitigates those risks.

[3] Our findings also indicate that contemporaneous office size may be an incomplete proxy for the 'size effect'. Since it is likely that the positive effects of office size accrue over time, a lagged measure of office size may better capture the benefits obtained from office size.

The remainder of the paper is organized as follows: The next section provides background information and hypotheses. In Section 3, we describe our research design, variable measurement, and sample. We present the findings and sensitivity tests in Sections 4 and 5 respectively. Section 6 concludes with areas for future research, and possible implications of the study.

2. Background And Hypothesis Development

Previous literature has considered the impact of audit firm size on audit quality. DeAngelo (1981) suggests that firm size is a driver of audit quality since large firms are associated with greater independence and have more capital at risk in the event of an audit failure.[4] Recent research has focused on auditor size at the office level, as many local and engagement related decisions occur at this level. Empirical studies have indicated that larger offices provide superior quality (Choi et al. 2010; Francis et al. 2013; Francis and Yu 2009) and attribute this finding to greater in-house expertise. When an office grows, these findings would indicate that the 'size effect' from additional audit work will cause immediate increases in audit quality throughout the office. However, we contend that the 'growth effect' may temporarily impair audit quality due to transient 'shocks' and strains to existing office resources, especially where the growth rate is high.

In production economics literature, Lovelock (1984) and Sridharan (1998) describe the difficult task faced by managers of maintaining delivery dependability and quality in constrained systems. For service firms, capacity constraints can lead to deterioration in quality. In a survey of public accountants, Sweeney and Summers (2002) document average workloads of between 49 and 63 hours per week. This indicates that public accountants generally work under time constraints and may not have sufficient time available to accommodate increases in workload.[5] To the extent that office-level resources are constrained, changes in audit workload will likely have an effect on audit quality. Further, in line with economic theory, scarce resources (e.g., human capital) should be allocated in a manner that maximizes their value. Under risk-based auditing, audit firms assign existing resources

[4] Several studies have empirically tested the prediction that larger auditors are associated with higher quality including: Becker, DeFond, Jiambalvo, and Subramanyam (1998), DeFond and Jiambalvo (1991), Francis et al. (1999), Hammersley, Myers, and Shakespeare (2008), Lennox and Pittman (2010), Nelson, Elliott, and Tarpley (2002), Palmrose (1998), and Teoh and Wong (1993).

[5] Some research has explored the effects of resource constraints on audit quality by investigating the negative consequences of audit work being performed during peak ('busy season') versus nonpeak periods. The results of this research have been mixed with some evidence suggesting impaired audit quality during busy season audits (Johnstone and Bedard (2001), López and Peters (2012)) while others have failed to show any significant difference in audit quality (Lambert, Jones, and Brazel (2011)). In other related research, Goodwin (2011) documents a negative relation between partner busyness and audit quality. Our study investigates a relatively less certain situation in which auditor resources may be constrained (i.e., year-to-year audit work growth).

based on the level of risk in an activity (Bowlin 2011; Knechel 2007). According to a 2007 report issued by the PCAOB, risk-based allocation of resources should result in more efficient and effective audits (PCAOB 2007). If firms allocate their resources using a risk based approach to achieve audit effectiveness, changes in office dynamics could cause the firm to temporarily deviate from risk-based allocation. As existing resources are diverted to satisfy new audit work, resource constraints could be felt office-wide.

Auditors are not without means for adjusting capacity. When new audit work is obtained, an office can adjust by diluting existing resources, reassigning resources from within the contracting office, or acquiring outside resources. However, adjusting resources is unlikely to be a frictionless process.[6] While new employees may be hired or transferred from other offices to accommodate increases in workload, there is likely to be an adjustment period for the new or reassigned employees. Acquiring new resources outside the audit firm may be particularly difficult for senior level professionals who are more likely to affect audit outcomes. To the extent that new audit work is uncertain, resource acquisition is unlikely to occur until the increased workload is certain to avoid costly overstaffing and employee downtime. Moreover, new audit work may cause increased audit team turnover on existing jobs as knowledgeable and experienced employees are reassigned to service new audit work; and new resources may require time to acclimate to the new environment. Carcello, Hermanson, and McGrath (1992) show that engagement specific knowledge is an important determinant of audit quality. As such, increases in audit workload leading to increased team turnover could adversely affect audit quality.

Conversely, decreases in audit workload for a local office could result in increased audit quality for other clients within an office. As an office loses audit work, constraints on existing resources may be relaxed. If the office does not terminate or transfer employees as soon as audit workload decreases, an increase in audit quality may occur if employees are redistributed to understaffed engagements or freed up to better complete tasks that may not have received sufficient attention in prior audits. Fewer capacity constraints may result in more time devoted to remaining audit work. If the average local office operates under resource constraints before changes in volume of workload, then decreases in audit work may result in increased quality for remaining clientele.

For the reasons outlined above, we expect increases (decreases) in office workload to have a negative (positive) effect on audit quality. This leads to our first hypothesis (alternative form):

[6] If audit firms are effective at immediately reassigning resources from outside offices, the predicted relation between growth and audit quality would be mitigated. We further explore this prospect in H4.

HYPOTHESIS 1 (H1): *Audit quality will exhibit a negative relation with changes in volume of audit work.*

While the predicted relation may exist for both increases and decreases in audit workload, we expect the relation to be stronger for those offices with increasing workloads, especially where there are high levels of growth. Increasing office resources requires interviewing, budgeting, and training which can be time consuming and costly. If additional resources are not obtained in a timely manner, resource constraints imposed on existing engagements could result in decreased audit quality. Even if employees are hired or transferred, acclimation and familiarization with the engagement must take place. However, if an office experiences a decrease in audit work, terminating or transferring the excess resources may happen relatively quickly. Interviewing and training are not necessary for workforce reductions, decreasing the amount of time to adjust. Even if there are excess resources that are diverted to other audit clients, the benefits may not be realized immediately as new employees take time to acclimate to the engagements. Additionally, if the office has sufficient resources prior to the decline in audit work, then audit quality will be unaffected as increases in slack may not add quality to other engagements. Therefore, increases in quality from the excess resources may not accrue immediately if at all. This leads to our second set of hypotheses (alternative form) in which we examine increases and decreases in audit work separately:

HYPOTHESIS 2A (H2A): *Audit quality will exhibit a negative relation with changes in volume of audit work when offices grow (i.e., as offices grow (positive growth), quality decreases).*
HYPOTHESIS 2B (H2B): *Audit quality will exhibit a negative relation with changes in volume of audit work when offices shrink (i.e., as offices shrink (negative growth), quality increases).*

H1 and H2 are predicated on the idea that office growth has an effect on audit quality. However, we also posit that the effects of growth are transient. Francis and Yu (2009) suggest that public client experience contributes positively to audit quality ('size effect'). Experience is accumulated over time, so the benefits of experience should not be realized in the first year of new audit work. In subsequent years however, the benefits of client experience should take hold once the office has adapted to the additional workload. Further, per the discussion above, while interviewing, training, and acclimation to additional audit work may not occur in the year of the growth, the office should eventually be able to adapt to the additional audit work. We expect the negative impacts of growth to subside, and the 'size effect' to take hold after the office has adjusted. This leads to our third hypothesis (null form):

HYPOTHESIS 3 (H3): *Prior period changes in volume of audit work will have no effect on audit quality.*

Local offices of the large audit firms have greater resources for addressing capacity concerns than small firms. Large firms can transfer and assign resources among a large network of regional and national locations. This ability may reduce the likelihood that a significant change in local office workload would lead to either strained or excess capacity. Further, large audit firms also have greater reputational concerns than smaller audit firms (DeAngelo 1981). National offices have an incentive to protect the reputation of the overall firm by reducing the audit risk related to any individual audit office or engagement. As such, we predict that the effects of growth on local offices' audit quality will be diminished for offices of large firms. This leads to our fourth hypothesis (alternative form):

HYPOTHESIS 4 (H4): *The effects of changes in volume of audit work on audit quality will be smaller for large audit firms than for small audit firms.*

3. Research Design

Measures of Audit Quality

To measure audit quality we use two different proxies. First, we calculate the modified version of the Jones (1991) model proposed by Dechow and Sloan (1995). Accruals based measures make the inherent assumption that abnormal accruals are both suggestive of the firm's propensity to manage earnings and subject to audit procedures (Chang, Cheng, and Reichelt 2010). In other words, audit procedures are designed to detect misstatements in accruals and therefore deviations from the predicted level of accruals may be indicative of 'poor' audit quality. Since both positive and negative values of discretionary accruals are indicative of earnings management, we use the absolute value as a proxy for audit quality. Based on Kothari, Leone, and Wasley (2005) we include a measure of firm performance in the estimation equation. We use the following model to estimate abnormal accruals by industry-year:[7]

[7] Consistent with Francis and Yu (2009), the absolute value of the residual (abnormal accruals) is censored at 1. TA_{it} (Total Accruals) = (change in current assets – change in current liabilities – change in cash and short term investments + change in debt in current liabilities – depreciation); A_{it-1} = Total assets for firm *i* for year *t-1;* ΔREV_{it}-ΔREC_{it} = (Change in revenues from *t-1* to *t*) – (Change in receivables from *t-1* to *t*) for firm *i* in year *t*; PPE_{it} = Gross property, plant, and equipment for firm *i* in year *t;* NI_{it} = Net income for firm *i* in year *t*. This is estimated on all industry-years with at least 10 observations.

$$TA_{it}/A_{it-1} = \alpha + \lambda_0 (1/A_{it-1}) + \lambda_1(\Delta REV_{it}-\Delta REC_{it})/(A_{it-1}) + \lambda_2(PPE_{it}/A_{it-1}) + \lambda_3(NI_{it}/A_{it-1}) + \varepsilon_{it} \quad (1)$$

Second, we also use accounting restatements obtained from the Audit Analytics Non-Reliance database as a measure of audit quality. We define a restatement year as a fiscal year-end that falls between the restatement beginning and restatement end date as defined by this dataset. We include only those restatements defined as an accounting rule application failure consistent with Francis et al. (2013). "Restatement" takes the value of 1 for years in which the year-end financial statements are subsequently restated, and 0 otherwise.[8] While the use of discretionary accruals provides a continuous measure of audit quality, it can be a noisy estimate of auditor performance. Restatements are often used by regulators and investors as an indication of the quality of auditing and financial reporting. Restatements also provide a relatively unambiguous indication of audit failure as one can infer that the auditor failed to detect and correct a misstatement before the financial statements were released (DeFond and Zhang 2014). Through the use of these distinctly different measures of audit quality, we are able to capture the relative benefits of each.

Growth Measures

We use multiple proxies to measure the work performed by a local office in a given year. The engagement office is determined based on the office issuing the audit report as reported in Audit Analytics. For each office-year, we determine the total audit fees received.[9] We expect audit fees to be an approximation of total work performed on a given engagement since audit fees are primarily driven by total audit work required to complete the audit. For an office with an increase (decrease) in audit fees from one year to the next, audit work is presumed to increase (decrease) proportionally. However, as noted in prior literature, audit fees may reflect other client risk factors as well. As such, we also perform analyses using total assets under audit by office-year.[10] Assets should be immune to client specific risk factors that may be included in fees but do not reflect workload. As such, using assets to measure growth provides additional comfort that the results are not driven by client risk factors associated with audit fees. In combination, these two measures provide comfort that the results are robust to different specifications of office growth.

[8] Because several years are often restated consecutively for the same accounting failure, only the first year restated is included in the analysis. The year following a restatement is not included in our sample. Each restatement therefore is only included once. The restatement frequency in Francis et al. (2013) is greater than ours for this reason, however when all restated years are included, our frequency is similar to theirs and inferences in all tests are unchanged.

[9] Office 'fiscal' years are determined using the Compustat year convention. Total office fees are determined using the full Audit Analytics database.

[10] Assets under audit are determined for those observations that have Compustat data. We re-run our tests using the Audit Analytics asset population and results are similar.

In regression analysis, to model the change in workload (*GROWTH*), we use the percent change in audit fees (assets) from year *t-1* to year *t*. For example, if an office receives $4 million in audit fees (assets) in year *t-1* and $7 million in audit fees in year *t*, the value of the percent change in fees (assets) variable in year *t* would be 0.75 [(7 – 4)/ 4 = 0.75].[11] The variable is calculated in percent form since the impact of changes in workload should be determined in a manner relative to the amount of audit work currently performed by the local office. To illustrate, a $1 million increase in audit fees (assets) for an office that currently has $2 million in total audit fees (assets) will likely result in a greater relative impact than a $1 million increase for a local office that currently has $100 million in audit fees (assets). The former represents a 50 percent increase in audit work while the latter represents only a 1 percent increase. We also construct an indicator variable for those instances in which the office has undergone high levels of growth in the past year (*HIGHGROWTH*). This is an indicator variable that takes the value of 1 if the office-year is in the top decile of *GROWTH* measured using total fees or assets under audit (depending on the analysis), and 0 otherwise. This variable indicates those offices that are most likely to have audit quality consequences arise from growth.

Methodology

Using the above variables as proxies for volume of audit work and audit quality, we construct the following model, adapted from Francis and Yu (2009):

$$AUDIT\ QUALITY = \beta_0 + \beta_1\ GROWTH + \beta\underline{\boldsymbol{X}} + e_{it} \qquad (2)$$

Standard errors, and related test statistics, are calculated using client-level clustering (Petersen 2009). *AUDIT QUALITY* is measured as either the absolute value of the residual obtained from (1), or as an indicator variable that takes a value of 1 for first time restatements, and 0 otherwise. The larger the absolute value of the residual from (1), the greater the suspected earnings management and therefore lower financial reporting quality. Likewise, when the restatement indicator takes a value of 1, audit quality is considered to be inferior to instances when it takes a value of 0. As a result, the direction of the coefficients in regressions using either measure can be interpreted in a similar manner. H1 predicts that $\beta_1 > 0$ for each of the specifications.

X is a vector of control variables borrowed from previous research. Refer to Appendix 1 for a listing and definitions of all variables used in multivariate analyses. We use variables to control for client size (*CLIENTSIZE*),

[11] We censor this variable at 2 (200 percent growth). We believe that limiting growth to 200 percent is reasonable to limit the effect of outliers. The relation beyond this point is unlikely to be linear, and any values for growth in excess of 200 percent are largely driven by the small denominator effect (low prior year total office fees or assets under audit). Results are robust to an alternative 100 percent censoring point.

client influence (*INFLUENCE)*, acquisitions/consolidations (*AQC*), profitability (*CFO*, *ROA*, *LOSS*), financial position (*DEBT*, *MB*, *ALTMANZ*), client growth (*SALESGROWTH*), client volatility (*CFOVOLATILITY*, *SALESVOLATILITY*), December year-end (*BUSY*), and client internal control weaknesses (*WEAKNESS*). We further include several auditor characteristic variables. We control for audit firm size (*BIG4*), a dichotomous variable equal to 1 if the client has employed the same auditor for three years or less (*TENURE*), and joint national and city-level industry expertise (*EXPERT*).[12] Lastly, we also control for industry and year fixed effects in all of our analyses.[13]

Sample

The sample covers all firms from 2005 to 2010 with the requisite auditor (Audit Analytics) and financial statement data (Compustat). Consistent with previous literature, we exclude all foreign incorporated, financial services, and utility observations from the sample as well as observations with assets less than $5 million. The local office, as listed in Audit Analytics, is the office that signs the audit opinion, consistent with prior studies focusing on the local office.[14] For each office-year, we calculate total audit fees received (assets audited) by the local office. Office-level variables are calculated with all observations that include the requisite fees/size information whether or not they are included in our final sample. Using this data, we calculate the percent change in the audit work variable (*GROWTH*) to quantify the change in audit workload for each office in each year.

4. Results

Descriptive Statistics

Table 1 presents descriptive statistics at the client-year level as well as the office-year level. The first panel presents descriptive statistics for the client-year observations in our sample. All continuous variables are winsorized at the 1 percent and 99 percent levels. The following three panels present descriptive statistics at the office-year level, first for all office-years, then separately for Big 4 and non-Big 4 offices. There are 3,258 unique office-year observations with average total audit fees of $18.2 million. As expected, Big 4 offices are larger and

[12] We follow Reichelt and Wang (2010) to create the joint measure of industry specialization. If we alternatively use separate local and national expertise variables similar to Francis and Yu (2009), results on the variables of interest are unchanged.
[13] Year fixed effects may not fully control for changes to auditing standards that differentially impact clients within a given year. We mitigate this concern in two ways. First, all analyses using audit fees are re-performed using only post-AS5 observations (2007-2010) and all inferences remain qualitatively unchanged (untabulated). Second, by using assets under audit as a measure of office workload we alleviate these concerns as client assets are not likely to be a function of changes in audit standards.
[14] In untabulated analysis, we define the local office by MSA instead of city. We also eliminate any firms that merged during the sample period and results are not materially sensitive to these alternative specifications.

experience lower levels of *GROWTH* than their non-Big 4 counterparts.

Table 2 presents a Pearson-Spearman correlation table. We document positive correlations between the growth proxies and the audit quality proxies (significant at $p < 0.01$ in seven of eight correlations). These findings provide initial support for our hypotheses, indicating that higher growth offices are associated with greater abnormal accruals as well as higher likelihood of restatement. Further, consistent with prior research, the correlations between the office size proxies and the audit quality proxies are negative (significant at $p<0.01$ in five of eight correlations).

Analysis of Office Growth and Audit Quality

Table 3 presents the results of our main analyses. For discretionary accruals analyses, we estimate an OLS regression of (2) with industry and year fixed effects.[15] For the restatement analysis, we estimate a logit model with first time restatements as the dependent variable as well as industry and year fixed effects. All standard errors are clustered by client (Petersen 2009).

H1 predicts a positive coefficient on each of our *GROWTH* variables. In Table 3, we present results using both audit fees and total assets under audit to construct the *GROWTH* measures. We estimate regressions employing both absolute abnormal accruals (columns 1 and 2) and first time restatements (columns 3 and 4) as dependent variables to proxy for audit quality. As mentioned above, while fees are highly correlated with total audit work performed, fees may also be a function of client risk factors. Therefore we also use assets under audit as it should not reflect these risk factors. Columns 1 and 3 (2 and 4) present the results utilizing audit fees (assets under audit) to construct the *GROWTH* measure. Results are robust to either specification with both proxies for audit quality.

Consistent with our hypothesis, change in office size is negatively related to audit quality (positive and significant coefficients) across each specification. The positive and significant coefficients on *GROWTH* indicate greater (lesser) absolute discretionary accruals and greater (lesser) likelihood of a restatement for clients whose contracting local office has experienced growth (decline). These results are also economically significant. A one standard deviation increase in office growth results in an estimated increase in discretionary accruals of

[15] P-values presented in the results section represent one-tailed tests when directional hypotheses are included and two-tailed tests otherwise.

approximately 0.29 (0.38) percent of assets in column 1 (column 2). Given that the median *ROA* in this sample is 3.3 percent of assets, this is equivalent to 8.8 (11.5) percent of income. We also observe that office growth can likewise have a significant impact on the propensity of an office's clients to restate. A one standard deviation increase in office growth results in an estimated 0.25 (0.35) percent increase in propensity for a client to restate in column 3 (column 4). Given that the unconditional likelihood of a first time restatement for a firm in the sample is 3.1 percent, this is an 8.1 (11.3) percent increase in the likelihood that the company will ultimately restate. This indicates that office growth has both an economically and statistically significant impact on the financial reporting quality of an office's clients. Signs and significance on control variables are generally consistent with expectations based on prior research.

Additionally, while our results indicate that an office that has grown provides inferior audit quality to a similar sized office that has not grown, it is still possible that some benefits of the 'size effect' mitigate the 'growth effect' in year *t*. To address this, we estimate the net effect of growth on an office with $16 million in audit fees. An office that undergoes growth at the 75th percentile (0.215) would grow from $16 million to $19.4 million. We calculate an expected 0.0005 reduction in estimated abnormal accruals from the 'size effect'.[16] However, based on the coefficient estimates from *GROWTH* we expect an increase in abnormal accruals of 0.0016 arising from the 'growth effect'.[17] Overall, the adverse effects of growth appear to outweigh the benefits of size (0.0016 - 0.0005 = 0.0011).[18] This analysis indicates that not only are offices unable to fully realize the benefits of recently acquired size, but the detriments from growth have a net negative overall effect on audit quality in the year of the growth. If the detriments of growth persisted past the year of the growth, our results would be difficult to reconcile with Francis and Yu (2009) as this would indicate that benefits from increases in size would never be realized due to the detriments from growth. However, evidence presented below indicates that the 'growth effect' is transient as negative effects do not persist beyond one year.

The clients of offices that recently experienced relatively high levels of growth are the most likely to suffer shocks to existing resources. Therefore, we also present results replacing *GROWTH* with an indicator variable taking the value of 1 if the office is in the highest decile of growth (fees or assets), and 0 otherwise

[16] This is calculated as follows from column 1: -0.0024 * (Ln($19.4M) – Ln($16M)) = -0.0005.
[17] This is calculated by multiplying 21.5 percent fee growth from year *t-1* to year *t* (0.215) by the estimated coefficient on *GROWTH* of 0.0073. These values are expressed as a percentage of total assets and are likely material to the client's profitability.
[18] If similar analysis is performed on columns 2-4, similar positive estimates are obtained. We note that the estimates in columns 3 and 4 relate to changes in the log likelihood.

(*HIGHGROWTH*). Results are presented in Table 4. Consistent with expectations, accruals are higher and the likelihood of restatement is greater for offices that experienced the highest levels of growth than for other offices.

Analysis of Increases in Office Size vs. Decreases in Office Size

To test H2A and H2B, we specify regressions similar to the analysis above, except that increases in audit work volume (*Positive GROWTH*) and decreases in audit work volume (*Negative GROWTH*) are represented by separate variables. The *Positive GROWTH* variable takes the value of *GROWTH* when *GROWTH* is positive, and the value 0 otherwise. Conversely, the *Negative GROWTH* variable takes the value of *GROWTH* when *GROWTH* is negative, and 0 otherwise. A positive coefficient on either variable of interest is consistent with our findings in Table 3 (*Negative GROWTH* has only negative values, so a positive coefficient indicates audit quality *gains* associated with *declines* in audit work volume). Table 5 presents the results of the analyses.

In all regressions, consistent with H2A, the estimated coefficients on *Positive GROWTH* are positive and significant indicating that greater growth is associated with decreased audit quality. However, we find little support for H2B that a decrease in audit work is related to audit quality. Taken together, consistent with our expectations, we find that increases in office size are associated with declines in audit quality and do not find convincing evidence that declines in office size contribute to increases in audit quality.

Analysis of Prior Period Growth and Audit Quality

To test H3, we re-perform our tests including lagged versions of our *GROWTH* variables. We expect a positive and significant coefficient on $GROWTH_t$ as in prior analysis; however, we expect insignificant coefficients on $GROWTH_{t-1}$ and $GROWTH_{t-2}$. Table 6 presents the results of the lagged growth analysis. Consistent with H3, the coefficient on $GROWTH_t$ is positive and significant in each specification. The diminished magnitude and lack of significance on coefficients for the lagged growth variables is consistent with the theory and predictions made in H3 indicating that the effects of growth vanish after the first year.[19]

[19] None of the variance inflation factors (VIFs) are greater than 4, indicating that multicollinearity is unlikely to be a significant issue (Greene 2012). To further address any concern about multicollinearity, we estimate separate regressions including just $GROWTH_{t-1}$ and just $GROWTH_{t-2}$. In these specifications, the coefficients are consistent in magnitude and significance with those displayed in Table 6 (i.e., insignificant) indicating that the lack of significance is likely not driven by inflated standard errors.

Analysis of Audit Firm Size as a Mitigating Factor of Office Growth

To test H4, we include a variable (*OFFICES*) indicating the number of local offices within a firm outside of the contracting office.[20] We include an interaction between this variable and our growth variables to indicate the degree to which the existence of other offices within a network can mitigate the impact of changes in office size. A negative coefficient on the interaction would indicate that firm size helps mitigate the effects of office growth.

As shown in Table 7 Panel A, *GROWTH* is positive and significant. However, we find mixed results with the interaction term (*GROWTH x OFFICES*). The coefficient on the interaction is negative and significant in analyses using discretionary accruals but insignificant in analyses using restatements. If offices do in fact operate as "semi-autonomous practice offices" (Francis and Yu 2009), then it is reasonable to assume that firm size may not fully mitigate the effect of growth. To further examine the effect of office growth on clients of large audit firms, we examine the impact of growth on only clients of Big 4 auditors in Panels B and C using both the continuous *GROWTH* measure and dichotomous *HIGHGROWTH* measures. The results presented in Panels B and C are mixed regarding the effect of office growth on audit quality for offices of Big 4 firms (positive and significant in five of eight specifications). The diminished significance may be driven by Big 4 offices experiencing lower levels of growth thereby decreasing the effect size. Alternatively, Big 4 auditors may have the ability to effectively mitigate the negative effects of office growth and absorb the shocks associated with growth. Overall, the evidence is inconclusive as to whether the size of the network entirely mitigates the effects of growth, although results are consistently weaker for the offices of Big 4 auditors.

5. Additional Analyses And Robustness

Alternative Proxies for Audit Quality and Office Growth

We test the sensitivity of the previous findings using additional measures of audit quality and office growth. An alternative measure for office growth is the percent change in number of SEC clients audited by an office.[21] In untabulated results, the tests on abnormal accruals using change in clients audited are consistent with those using other growth proxies; however, tests on restatements fall below conventional levels of significance in three of four tests.

[20] *BIG4* is not included in this analysis as *BIG4* is intended to capture a similar construct. We also proxy for firm size through the use of both total assets under audit by the firm, and total public company audit fees received by the firm (logarithm of these values are used). Untabulated results using these alternative measures are qualitatively similar.

[21] While this variable is more independent of client characteristics than audit fees or assets under audit, it is likely to be a much noisier measure of growth because it treats all engagements as requiring the same amount of audit effort (Francis and Yu 2009).

Primary tests are performed using two distinctly different measures of audit quality (restatements and accruals); however, we test the robustness of results using two alternative measures. First, we re-perform tests on a subsample of firms with income increasing accruals (*POS_ACC*). The absolute value of discretionary accruals used in analyses above reflects income increasing and income decreasing accruals; however, auditors and clients may be more likely to disagree over income increasing accruals. We also perform tests using change in absolute abnormal accruals (ΔABS_ACC) from *t-1* to *t*.[22] While the prior tests include extensive controls for client characteristics, using change measurement as the dependent variable helps rule out potentially omitted client specific variables. Untabulated results are generally consistent with the main tests indicating that the results are not sensitive to these additional audit quality proxies.

Decomposition of Growth from Existing and Migrating Clients

Changes in office audit workload can arise from several sources. Offices can attract and lose clients and the associated audit work. Additionally, offices can grow as existing clients grow through normal expansion, mergers and acquisitions, or through increases in attestation services provided (fees only). Existing client growth can arise from the client of interest or from other returning clients. Each source of growth should impact the allocation of office resources and may contribute to resource constraints. However, each source of growth may impact audit quality differently. We investigate the effects of each source of growth by separating the office growth variable into components.

We construct four alternative test variables that proxy for the different types of office growth. *New Client GROWTH* is calculated as total fees (assets) from new clients$_t$ / total office fees (assets)$_{t-1}$. *Lost Client GROWTH* is calculated as total fees (assets) from departed clients$_{t-1}$ / total office fees (assets)$_{t-1}$. *Existing Client GROWTH* is defined as (total fees (assets) for returning clients$_t$ – total fees (assets) for returning clients$_{t-1}$) / total office fees (assets)$_{t-1}$.[23] And finally, *Engagement GROWTH* is defined as (client fees (assets)$_t$ – client fees (assets)$_{t-1}$) / client fees (assets)$_{t-1}$). This variable represents the increase in audit work for a specific client. While each type of growth is distinctly different, we predict that each source of growth will exhibit a negative relation with audit quality. However, we do not make a prediction as to the relative impact of the measures.

[22] Hypothesis 3 is not tested using change in discretionary accruals. We expect that growth in year *t-1* will result in greater accruals in *t-1*. So growth in *t-1* will contribute to the current year change in accruals (accruals in year *t* minus accruals in year *t-1*), not through its impact on current year accruals, but by an expected increase in prior year accruals.

[23] This measure includes all returning clients *except* the client-year observation as that client's growth is in *Engagement GROWTH*.

Results shown in Table 8 indicate that *New Client GROWTH* and *Engagement GROWTH* appear to have the most pronounced effects on audit quality. Coefficients on *New Client GROWTH* and *Engagement GROWTH* are positive and significant in all specifications. The insignificant coefficients on *Existing Client GROWTH* may be due to growth from other existing clients having a less direct impact on the engagement audit team than growth in the specific engagement. The insignificant coefficients on the *Lost Client GROWTH* variables suggest that an office's audit quality does not appear to benefit from losing clients. Therefore, any detrimental impact from accepting new audit clients may not be offset by reduced constraints arising from departing clients.

As an additional robustness test, to ensure that the main results of the study are not explained by specific engagement growth alone, we include *Engagement GROWTH* in all tests of hypotheses. In untabulated analysis, all previously reported results are qualitatively similar in these estimations. This indicates that while engagement growth contributes to higher accruals and increased likelihood of restatement, office growth outside the engagement also affects audit quality.

Small Offices, Short Tenure Engagements, and High Growth Clients

Next, we perform several tests to ensure that the results are not driven by a subset of observations. Specifically, we exclude clients of small audit offices, short tenured clients, and high growth clients both individually and collectively. Small audit offices are most likely to experience high growth and have been shown to provide low quality audits (Choi et al. 2010; Francis and Yu 2009). Therefore, to assure that these observations are not responsible for our earlier results, we eliminate all offices in the bottom decile of *OFFICESIZE* and re-perform our analyses. Inferences remain unchanged indicating that small offices are not driving the previous results. Further, growing offices may have a disproportionate number of short tenured engagements and these clients may receive lower audit quality (Johnson, Khurana, and Reynolds 2002). Therefore, we perform analyses after eliminating all observations with short tenure (audit-client tenure of 3 years or less) and re-perform our tests on this subsample. Results on this subsample are qualitatively similar. This provides further evidence that the impact of growth extends to engagements that have an established auditor-client relationship. Finally, high growth clients may be most difficult to audit, and therefore may exhibit high accruals and higher incidences of restatements. To ensure that results are not being driven by those clients (not offices) experiencing high levels of growth, we eliminate those observations in the top decile of *SALESGROWTH*, and re-perform analyses on the remaining

observations. All of our core results continue to hold in these regressions. While each of the aforementioned factors may individually contribute to the results, it is possible that the factors tested above *all* collectively contribute to both office growth and audit quality, thereby confounding the results. Therefore, we perform tests of all hypotheses after eliminating clients of offices in the lowest decile of size, short-tenure observations, *and* clients in the top decile of *SALESGROWTH*. While the sample size is significantly limited by these restrictions, the results are consistent with full sample results in all specifications except for two of the four specifications testing H2.

Alternative Fixed Effect Specifications

We use fixed effects specifications (office and client) in robustness tests in an attempt to rule out possible alternative explanations for observed results. A limitation of fixed effects models, is that they do not take advantage of cross-sectional variation between groups and therefore can greatly reduce the efficiency (degrees of freedom) of tests when few observations within groups exist (Zhou 2001). However, fixed effects are useful as they control for time-invariant group specific omitted variables that pose a threat to the validity of inferences drawn in this study. One potentially confounding factor addressed by office-level fixed effects is the possibility that the results are driven by reverse causality. That is, clients may flock to offices that provide systematically high/low quality, causing the results to reflect differences in auditor type (i.e., office audit quality drives growth/decline) rather than differences in audit quality resulting from growth.

We rerun our analyses using two different fixed effect specifications. First, we re-estimate tests of H1-H3, but with local office fixed effects in addition to our industry and year fixed effects.[24] All results are materially insensitive to adding office fixed effects to the estimations, indicating that office specific characteristics are unlikely to be driving the observed results. This indicates that audit quality provided by growing/shrinking offices is not a reflection of pre-growth office attributes contributing to growth. Second, to address the possibility that the results are explained by unobservable client-specific characteristics, we perform our analyses using client fixed effects. Even with the significant reduction in degrees of freedom caused by the additional fixed effect regressors, inferences remain unchanged.[25]

[24] We exclude the *OFFICESIZE* variable from the models as it would be capturing within office variation in office size which is what our variable of interest is intended to capture.

[25] For successful estimation in the restatements analysis, we estimate our logit model with client fixed effects including only those clients that exhibit variation in the dependent variable (i.e., have both restated and non-restated observations in our sample).

Matched Sample Analyses

If clients of high growth offices have systematically different observable characteristics from clients of non-high growth offices *and* non-linearities exist between our audit quality proxies and the regressors, then functional form misspecification, as described in Lawrence, Minutti-Meza, and Zhang (2011), could be influencing the observed relation between audit quality and office growth. Therefore, we form matched samples to alleviate concerns that systematic differences in client or auditor characteristics explain the results. To construct the match, we create an indicator variable that takes the value of one if the client is audited by a high growth office and a value of zero otherwise. A high growth office (*HIGHGROWTH*) is defined as the top decile (two deciles) of *GROWTH*. We then estimate a logit model using all control variables in our earlier regressions.[26] The matching model is specified as follows (where $\boldsymbol{X}$ is the same vector of control variables from (2)):

$$HIGHGROWTH = \beta_0 + \beta\underline{\boldsymbol{X}} + e_{it} \qquad (3)$$

Each client of a high growth office (*HIGHGROWTH*=1) is matched to a client from a non-high growth office with the closest estimated 'propensity score', within a 3 percent caliper distance. We re-perform the tests from Tables 3 and 4 using several matched sample designs. First, observations from high-growth offices (top decile of growth) are matched to the observation with the closest propensity score (equation (3)) from a non-high growth office. Second, the matched subsample is formed in the same manner, except that high growth is defined as the top two deciles of growth. Third, a matched sample is constructed similarly to the second matched sample, except that each high growth observation is matched to two similar non-high growth observations. The benefits of the second and third matching designs is that they allow for a greater sample size, thus increasing the generalizability and power of the tests, while still providing adequate matches on client characteristics. In each of the matched samples, the control variables are generally similar between the *HIGHGROWTH* and non-*HIGHGROWTH* samples indicating a successful match on modeled characteristics. However, to control for any remaining potential differences between the samples, all control variables are still included in the analyses. Untabulated results of each of these matched sample designs are consistent with those previously shown.

[26] Industry fixed effects are not included in the matching logit model for two reasons. First, the client industry and office growth are unlikely to be related. Second, the inclusion of industry fixed effects greatly reduces the degrees of freedom and results in a lower quality match on other variables. In untabulated analysis, we estimate the model using industry fixed effects and the results are qualitatively unaffected by their inclusion.

Finally, while the previous matches were performed including office size and client size as matching variables, we also perform two additional matches to further rule out office size and client size as potentially confounding factors. First, rather than creating matched subsamples based on client-year observations, we match at the office level. Specifically, we match high growth *offices* (top two deciles) to two non-high growth *offices* with the closest office size within a 0.03 caliper distance and then compare the clients of these offices. In a second test, we match client-year observations on client and office size jointly. This procedure matches an observation from a high-growth office to another observation from a non-high growth office that has a similar client and office size. Untabulated results from tests on both of these matched samples are similar to those previously shown.

The robustness of our results to these matched sample specifications indicates that functional form misspecification is unlikely to be driving our results. We note that this method is subject to the same limitations noted by Lawrence et al. (2011). First, analysis using the constrained sample is less generalizable than analysis on the entire sample. Second, matching does not alleviate concerns related to unobservable client and auditor characteristics; however, the office and client level fixed effects analysis performed in the previous section addresses some concerns relating to time-invariant unobservable characteristics.

6. Conclusion

In this study, we investigate whether changes in the volume of audit work provided by a local office affect audit quality. We find evidence consistent with a negative relation between changes in the volume of audit services provided at the local office level and audit quality. The observed relation is robust to several specifications of changes in workload and audit quality. Further analysis indicates that the documented relation is driven by increases in office workload rather than decreases in office workload. We find that offices experiencing high increases in audit work in the current year are associated with greater abnormal accruals as well as higher likelihood of restatement. We attribute this reaction to stresses and constraints on office resources imposed by the increased volume of work performed. Further, our analysis indicates that the impact of growth is transient and does not extend past the first year. Lastly, we find limited evidence that the impact of office growth may be mitigated by the size of the firm and that the impact is most pronounced for offices of small firms. Taken together, the evidence presented in this study suggests that offices may not adequately prepare for or adjust to increases in audit work in the year of growth, leading to decreased audit quality.

This study should be of interest to regulators and those charged with quality control for audit firms. One implication of this study relates to the PCAOB's inspections of audit engagements. The PCAOB takes a risk based approach in selecting engagements to inspect. This study indicates that high levels of office growth are negatively related to the auditor's ability to provide high quality audit services and should be considered by the PCAOB in determining which offices and engagements to inspect. Also, findings suggest that audit firm management should pay special attention to the resource requirements of growing offices as they may present a greater risk of audit failures that may damage the firm in terms of reputation or litigation. This study also informs existing audit literature as we contribute to a developing stream of literature investigating the determinants of office-level audit quality. Further, this study may also prompt several future avenues for research. In particular, when office workload increases, do decreases in quality arise due to capacity constraints, audit team turnover, or some other mechanism? Also, research can examine ways in which offices successfully deal with increases in workload. Finally, do restatements in periods of high growth leave the auditor open to a higher likelihood of litigation?

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TABLE 1: Descriptive Statistics

VARIABLES	n	Mean	S.D.	25th Percentile	Median	75th Percentile
ABS_ACC	17,062	0.064	0.087	0.017	0.040	0.078
RESTATE	15,302	0.031	0.173	0.000	0.000	0.000
GROWTH (Fees)	17,062	0.089	0.395	-0.099	0.006	0.157
GROWTH (Assets)	17,062	0.147	0.454	-0.035	0.061	0.192
OFFICESIZE (Fees)	17,062	16.730	1.813	15.513	17.041	18.141
OFFICESIZE (Assets)	17,062	9.853	2.736	7.920	10.433	12.005
INFLUENCE	17,062	0.111	0.183	0.015	0.042	0.117
AQC	17,062	0.393	0.489	0.000	0.000	1.000
CLIENTSIZE	17,062	5.765	2.024	4.263	5.715	7.178
BUSY	17,062	0.656	0.475	0.000	1.000	1.000
WEAKNESS	17,062	0.147	0.792	0.000	0.000	0.000
TENURE	17,062	0.227	0.419	0.000	0.000	0.000
SALESGROWTH	17,062	0.130	0.401	-0.039	0.075	0.214
SALESVOLATILITY	17,062	0.197	0.278	0.054	0.111	0.224

CFO	17,062	0.050	0.201	0.009	0.084	0.149
CFOVOLATILITY	17,062	0.077	0.137	0.021	0.040	0.076
LOSS	17,062	0.292	0.455	0.000	0.000	1.000
DEBT	17,062	0.482	0.277	0.280	0.455	0.624
ALTMANZ	17,062	1.637	3.207	1.012	2.098	3.140
ROA	17,062	-0.046	0.263	-0.059	0.033	0.079
BIG4	17,062	0.683	0.465	0.000	1.000	1.000
MB	17,062	2.895	3.784	1.182	1.987	3.405
EXPERT	17,062	0.154	0.361	0.000	0.000	0.000

All Offices	n	Mean	S.D.	25th Percentile	Median	75th Percentile
Total Office Audit Fees	3,258	18,215.20	46,902.78	859.35	3,539.14	14,395.58
GROWTH (Fees)	3,258	0.125	0.510	-0.141	0.008	0.215
GROWTH (Assets)	3,258	0.190	0.587	-0.067	0.053	0.247

Big 4	n	Mean	S.D.	25th Percentile	Median	75th Percentile
Total Office Audit Fees	1,477	37,469.30	64,498.16	6,430.76	16,103.80	43,741.20
GROWTH (Fees)	1,477	0.035	0.335	-0.122	-0.011	0.112
GROWTH (Assets)	1,477	0.085	0.379	-0.043	0.044	0.136

Non-Big 4	n	Mean	S.D.	25th Percentile	Median	75th Percentile
Total Office Audit Fees	1,781	2,247.60	3,606.77	422.50	1,024.91	2,471.07
GROWTH (Fees)	1,781	0.199	0.609	-0.165	0.012	0.336
GROWTH (Assets)	1,781	0.278	0.704	-0.101	0.076	0.429

Refer to Appendix 1 for variable definitions.

TABLE 2: Correlation Matrix

	ABS_ACC	*RESTATEMENT*	*GROWTH (fees)*	*GROWTH (assets)*	*OFFICESIZE(fees)*	*OFFICESIZE(assets)*	*CLIENTSIZE*	*INFLUENCE*	*AQC*	*BUSY*	*WEAKNESS*	*TENURE*	*SALESGROWTH*	*SALESVOLATILITY*	*CFO*	*CFOVOLATILITY*	*LOSS*	*DEBT*	*ALTMANZ*	*ROA*	*BIG4*	*MB*	*EXPERT*
ABS_ACC		0.011	**0.036**	**0.044**	**-0.149**	**-0.171**	**-0.253**	0.017	**-0.070**	0.012	**0.057**	**0.115**	**0.046**	**0.207**	**-0.065**	**0.304**	**0.172**	**0.021**	**-0.112**	**-0.111**	**-0.185**	**0.026**	**-0.092**
RESTATEMENT	0.020		**0.025**	0.011	-0.012	**-0.021**	0.015	**0.025**	0.016	-0.012	**0.128**	-0.001	0.011	0.018	**-0.028**	0.008	0.003	**0.023**	**-0.021**	**-0.032**	0.002	**-0.025**	-0.008
GROWTH (fees)	**0.084**	**0.031**		**0.549**	**-0.026**	**-0.055**	**-0.085**	**-0.035**	-0.016	-0.002	**0.040**	**0.145**	**0.097**	**0.040**	**-0.030**	**0.056**	**0.020**	-0.003	-0.006	-0.002	**-0.100**	**0.056**	**-0.036**
GROWTH (assets)	**0.099**	**0.023**	**0.635**		**-0.045**	**-0.037**	**-0.067**	**-0.024**	-0.016	0.004	-0.002	**0.122**	**0.100**	**0.028**	0.002	**0.062**	0.010	**-0.027**	-0.003	**0.022**	**-0.116**	**0.059**	**-0.047**
OFFICESIZE(fees)	**-0.168**	-0.011	**-0.149**	**-0.162**		**0.932**	**0.509**	**-0.715**	**0.189**	**0.068**	**-0.056**	**-0.321**	**0.024**	**-0.147**	**0.146**	**-0.198**	**-0.161**	**0.064**	**0.038**	**0.124**	**0.730**	**0.120**	**0.260**
OFFICESIZE(assets)	**-0.197**	-0.019	**-0.190**	**-0.161**	**0.940**		**0.565**	**-0.643**	**0.195**	**0.065**	**-0.077**	**-0.339**	0.008	**-0.154**	**0.190**	**-0.242**	**-0.215**	**0.103**	**0.070**	**0.164**	**0.756**	**0.100**	**0.255**
CLIENTSIZE	**-0.248**	0.009	**-0.153**	**-0.140**	**0.531**	**0.591**		**0.075**	**0.352**	**0.033**	**-0.083**	**-0.282**	**0.037**	**-0.230**	**0.375**	**-0.452**	**-0.464**	**0.255**	**0.150**	**0.352**	**0.605**	**0.081**	**0.264**
INFLUENCE	**0.024**	0.012	**0.025**	0.012	**-0.588**	**-0.513**	0.013		**0.068**	**-0.042**	**0.084**	**0.191**	**-0.030**	**0.033**	0.007	**-0.063**	**-0.076**	**0.140**	-0.018	**0.032**	**-0.415**	**-0.072**	**-0.081**
AQC	**-0.076**	0.016	**-0.043**	**-0.047**	**0.199**	**0.208**	**0.345**	-0.002		0.000	-0.019	**-0.087**	**0.133**	**-0.041**	**0.159**	**-0.212**	**-0.234**	**0.067**	**0.060**	**0.141**	**0.197**	**0.022**	**0.075**
BUSY	0.018	-0.012	-0.018	-0.003	**0.070**	**0.068**	**0.039**	-0.019	0.000		0.014	-0.004	**0.058**	0.000	**-0.040**	**0.050**	**0.053**	**0.066**	**-0.155**	**-0.068**	**0.060**	**0.038**	0.006
WEAKNESS	**0.067**	**0.084**	**0.048**	0.015	**-0.026**	**-0.045**	**-0.045**	**0.057**	-0.016	0.003		**0.097**	0.004	**0.050**	**-0.105**	**0.067**	**0.095**	**0.047**	**-0.094**	**-0.111**	**-0.088**	**-0.046**	**-0.031**
TENURE	**0.114**	-0.001	**0.227**	**0.185**	**-0.322**	**-0.351**	**-0.275**	**0.114**	**-0.087**	-0.004	**0.077**		0.017	**0.134**	**-0.129**	**0.157**	**0.137**	-0.015	**-0.080**	**-0.119**	**-0.423**	**-0.065**	**-0.142**
SALESGROWTH	**0.130**	0.017	**0.063**	**0.080**	**-0.022**	**-0.041**	**-0.036**	-0.016	**0.063**	**0.059**	0.004	**0.041**		**0.072**	**0.178**	**0.099**	**-0.168**	**-0.056**	**0.054**	**0.227**	**0.024**	**0.259**	-0.014
SALESVOLATILITY	**0.189**	0.018	**0.071**	**0.064**	**-0.150**	**-0.171**	**-0.197**	**0.033**	**-0.028**	**0.036**	**0.044**	**0.154**	**0.123**		**-0.036**	**0.409**	**0.056**	**0.033**	**0.084**	**-0.029**	**-0.175**	**-0.038**	**-0.075**
CFO	**-0.199**	-0.008	**-0.059**	**-0.050**	**0.134**	**0.186**	**0.378**	0.006	**0.164**	**-0.062**	**-0.064**	**-0.101**	-0.014	**-0.040**		**-0.197**	**-0.612**	**-0.085**	**0.454**	**0.707**	**0.202**	**0.233**	**0.081**
CFOVOLATILITY	**0.292**	0.010	**0.080**	**0.092**	**-0.163**	**-0.210**	**-0.303**	-0.002	**-0.133**	**0.075**	**0.047**	**0.145**	**0.231**	**0.438**	**-0.359**		**0.332**	**-0.096**	**-0.160**	**-0.203**	**-0.261**	**0.064**	**-0.128**
LOSS	**0.188**	0.003	**0.051**	**0.047**	**-0.168**	**-0.229**	**-0.452**	**-0.028**	**-0.234**	**0.053**	**0.083**	**0.137**	**-0.032**	**0.080**	**-0.579**	**0.276**		**-0.039**	**-0.480**	**-0.690**	**-0.232**	**-0.092**	**-0.112**
DEBT	**0.099**	**0.020**	0.011	-0.004	**0.037**	**0.045**	**0.142**	**0.071**	0.013	**0.072**	**0.092**	0.008	-0.018	**0.038**	**-0.120**	**0.042**	**0.025**		**-0.441**	**-0.167**	**0.104**	0.006	**0.075**
ALTMANZ	**-0.198**	0.002	**-0.041**	**-0.032**	**0.062**	**0.113**	**0.266**	0.015	**0.114**	**-0.110**	**-0.067**	**-0.085**	**-0.028**	**0.032**	**0.578**	**-0.252**	**-0.469**	**-0.398**		**0.579**	**0.081**	-0.008	**0.045**
ROA	**-0.183**	-0.003	**-0.035**	**-0.027**	**0.117**	**0.172**	**0.388**	**0.023**	**0.161**	**-0.076**	**-0.074**	**-0.100**	0.016	**-0.036**	**0.725**	**-0.323**	**-0.612**	**-0.219**	**0.667**		**0.168**	**0.273**	**0.081**
BIG4	**-0.189**	0.002	**-0.226**	**-0.220**	**0.746**	**0.784**	**0.589**	**-0.287**	**0.197**	**0.060**	**-0.054**	**-0.423**	**-0.030**	**-0.175**	**0.172**	**-0.199**	**-0.232**	**0.050**	**0.111**	**0.158**		**0.131**	**0.290**
MB	**0.090**	-0.017	0.014	**0.026**	**0.050**	**0.036**	**-0.024**	**-0.045**	**-0.037**	**0.051**	**-0.024**	**-0.026**	**0.149**	0.013	**-0.052**	**0.116**	**0.029**	**0.030**	**-0.126**	**-0.051**	**0.043**		**0.047**
EXPERT	**-0.083**	-0.008	**-0.072**	**-0.069**	**0.258**	**0.259**	**0.264**	**-0.046**	**0.075**	0.006	-0.014	**-0.142**	**-0.034**	**-0.064**	**0.070**	**-0.077**	**-0.112**	**0.049**	**0.054**	**0.078**	**0.290**	0.015	

Bold if Pearson (Spearman) correlations are significant at the 1% level. Pearson (Spearman) correlations are shown on the bottom (top) diagonal. Refer to Appendix 1 for variable definitions.

TABLE 3: Relation between Growth and Audit Quality

VARIABLES	Expected Sign	(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
GROWTH	+	0.0073***	0.0083***	0.2133**	0.2606***
		(<0.01)	(<0.01)	(0.027)	(<0.01)
OFFICESIZE	-	-0.0024***	-0.0021***	-0.1338***	-0.0971***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
CLIENTSIZE	-	-0.0059***	-0.0057***	-0.0059	-0.0027
		(<0.01)	(<0.01)	(0.441)	(0.472)
INFLUENCE	-	-0.0074*	-0.0078*	-0.0875	-0.0035
		(0.085)	(0.062)	(0.401)	(0.496)
AQC	+	0.0037***	0.0037***	0.1594*	0.1568*
		(<0.01)	(<0.01)	(0.083)	(0.087)
BUSY	?	-0.0023	-0.0022	-0.0989	-0.0965
		(0.175)	(0.187)	(0.352)	(0.363)
WEAKNESS	+	0.0036***	0.0037***	0.1739***	0.1717***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
TENURE	+	0.0003	0.0002	0.0487	0.0433
		(0.446)	(0.457)	(0.350)	(0.366)
SALESGROWTH	+	0.0145***	0.0141***	0.0873	0.0709
		(<0.01)	(<0.01)	(0.219)	(0.264)
SALESVOLATILITY	+	0.0203***	0.0202***	0.1832	0.1750
		(<0.01)	(<0.01)	(0.144)	(0.155)
CFO	?	-0.0181	-0.0181	-0.1887	-0.1845
		(0.160)	(0.158)	(0.608)	(0.611)
CFOVOLATILITY	+	0.0980***	0.0967***	0.6337**	0.5959**
		(<0.01)	(<0.01)	(0.028)	(0.036)
LOSS	+	0.0060**	0.0058**	0.1062	0.0990
		(0.015)	(0.018)	(0.229)	(0.244)
DEBT	+	0.0315***	0.0316***	0.2090	0.2135
		(<0.01)	(<0.01)	(0.132)	(0.126)
ALTMANZ	- / ?	-0.0015***	-0.0015***	0.0045	0.0063
		(<0.01)	(<0.01)	(0.820)	(0.753)
ROA	?	0.0157*	0.0157*	-0.0323	-0.0253
		(0.083)	(0.082)	(0.913)	(0.931)
BIG4	-	-0.0020	0.0005	0.2259	0.3026
		(0.214)	(0.571)	(0.908)	(0.956)
MB	+	0.0011***	0.0011***	0.0016	0.0011
		(<0.01)	(<0.01)	(0.444)	(0.462)
EXPERT	-	-0.0017	-0.0019*	-0.1113	-0.1222
		(0.117)	(0.097)	(0.236)	(0.214)
Industry and Year Fixed Effects		Yes	Yes	Yes	Yes
Observations		17,062	17,062	15,302	15,302
R-squared/Pseudo R-squared		0.164	0.165	0.032	0.033

*** p<0.01, ** p<0.05, * p<0.10. One tailed p-values are shown in parentheses where there is a directional prediction and two-tailed p-values are shown otherwise. Refer to Appendix 1 for variable definitions. Standard errors are clustered by client.

TABLE 4: Relation between High Growth and Audit Quality

VARIABLES	Expected Sign	(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
HIGHGROWTH	+	0.0101***	0.0120***	0.2802**	0.5001***
		(<0.01)	(<0.01)	(0.030)	(<0.01)
OFFICESIZE	-	-0.0022***	-0.0020***	-0.1265***	-0.0907***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
CLIENTSIZE	-	-0.0059***	-0.0057***	-0.0071	-0.0058
		(<0.01)	(<0.01)	(0.429)	(0.442)
INFLUENCE	-	-0.0070*	-0.0075*	-0.0776	0.0230
		(0.096)	(0.069)	(0.413)	(0.528)
AQC	+	0.0036***	0.0037***	0.1569*	0.1550*
		(<0.01)	(<0.01)	(0.086)	(0.089)
BUSY	?	-0.0023	-0.0022	-0.0975	-0.0954
		(0.178)	(0.185)	(0.359)	(0.368)
WEAKNESS	+	0.0037***	0.0037***	0.1734***	0.1728***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
TENURE	+	0.0003	0.0004	0.0546	0.0453
		(0.430)	(0.418)	(0.332)	(0.359)
SALESGROWTH	+	0.0145***	0.0142***	0.0873	0.0672
		(<0.01)	(<0.01)	(0.219)	(0.276)
SALESVOLATILITY	+	0.0204***	0.0203***	0.1877	0.1793
		(<0.01)	(<0.01)	(0.138)	(0.149)
CFO	?	-0.0180	-0.0181	-0.1884	-0.1842
		(0.161)	(0.158)	(0.607)	(0.610)
CFOVOLATILITY	+	0.0979***	0.0967***	0.6277**	0.5786**
		(<0.01)	(<0.01)	(0.029)	(0.041)
LOSS	+	0.0060**	0.0058**	0.1037	0.0960
		(0.016)	(0.019)	(0.234)	(0.250)
DEBT	+	0.0315***	0.0315***	0.2072	0.2097
		(<0.01)	(<0.01)	(0.134)	(0.130)
ALTMANZ	- / ?	-0.0015***	-0.0015***	0.0045	0.0062
		(<0.01)	(<0.01)	(0.822)	(0.753)
ROA	?	0.0155*	0.0159*	-0.0348	-0.0156
		(0.085)	(0.078)	(0.906)	(0.957)
BIG4	-	-0.0020	0.0004	0.2248	0.3246
		(0.214)	(0.567)	(0.908)	(0.966)
MB	+	0.0011***	0.0011***	0.0019	0.0009
		(<0.01)	(<0.01)	(0.437)	(0.471)
EXPERT	-	-0.0016	-0.00190*	-0.1088	-0.1217
		(0.126)	(0.093)	(0.241)	(0.214)
Industry and Year Fixed Effects		Yes	Yes	Yes	Yes
Observations		17,062	17,062	15,302	15,302
R-squared/Pseudo R-squared		0.164	0.165	0.032	0.034

*** p<0.01, ** p<0.05, * p<0.10. One tailed p-values are shown in parentheses where there is a directional prediction and two-tailed p-values are shown otherwise. Refer to Appendix 1 for variable definitions. Standard errors are clustered by client.

TABLE 5: Relation between Increases and Decreases in Office Size and Audit Quality

VARIABLES	Expected Sign	(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
Positive GROWTH	+	0.0092***	0.0086***	0.2075*	0.2871***
		(<0.01)	(<0.01)	(0.062)	(<0.01)
Negative GROWTH	+	-0.0018	0.0068*	0.2494	0.0872
		(0.613)	(0.075)	(0.273)	(0.409)
OFFICESIZE	-	-0.0022***	-0.0021***	-0.1344***	-0.0938***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
CLIENTSIZE	-	-0.0059***	-0.0057***	-0.0059	-0.0034
		(<0.01)	(<0.01)	(0.441)	(0.465)
INFLUENCE	-	-0.0075*	-0.0078*	-0.0870	0.0019
		(0.082)	(0.063)	(0.402)	(0.503)
AQC	+	0.0037***	0.0037***	0.1594*	0.1562*
		(<0.01)	(<0.01)	(0.083)	(0.088)
BUSY	?	-0.0022	-0.0022	-0.0991	-0.0962
		(0.184)	(0.187)	(0.351)	(0.365)
WEAKNESS	+	0.0036***	0.0037***	0.1739***	0.1709***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
TENURE	+	0.0002	0.0002	0.0491	0.0420
		(0.469)	(0.460)	(0.349)	(0.370)
SALESGROWTH	+	0.0145***	0.0141***	0.0873	0.0702
		(<0.01)	(<0.01)	(0.219)	(0.266)
SALESVOLATILITY	+	0.0203***	0.0202***	0.1830	0.1757
		(<0.01)	(<0.01)	(0.145)	(0.154)
CFO	?	-0.0180	-0.0181	-0.1890	-0.1834
		(0.162)	(0.159)	(0.607)	(0.613)
CFOVOLATILITY	+	0.0981***	0.0967***	0.6336**	0.5965**
		(<0.01)	(<0.01)	(0.028)	(0.036)
LOSS	+	0.0060**	0.0058**	0.1062	0.0991
		(0.015)	(0.018)	(0.229)	(0.243)
DEBT	+	0.0316***	0.0316***	0.2085	0.2147
		(<0.01)	(<0.01)	(0.133)	(0.125)
ALTMANZ	- / ?	-0.0015***	-0.0015***	0.0045	0.0065
		(<0.01)	(<0.01)	(0.823)	(0.745)
ROA	?	0.0156*	0.0157*	-0.0319	-0.0217
		(0.084)	(0.082)	(0.914)	(0.941)
BIG4	-	-0.0019	0.0005	0.2259	0.3029
		(0.221)	(0.573)	(0.908)	(0.957)
MB	+	0.0011***	0.0011***	0.0016	0.0011
		(<0.01)	(<0.01)	(0.445)	(0.463)
EXPERT	-	-0.0017	-0.0019*	-0.1114	-0.1212
		(0.120)	(0.092)	(0.235)	(0.216)
Industry and Year Fixed Effects		Yes	Yes	Yes	Yes
Observations		17,062	17,062	15,302	15,302
R-squared/Pseudo R-squared		0.164	0.165	0.032	0.033

*** p<0.01, ** p<0.05, * p<0.10. One tailed p-values are shown in parentheses where there is a directional prediction and two-tailed p-values are shown otherwise. Refer to Appendix 1 for variable definitions. Standard errors are clustered by client.

TABLE 6: Lagged Growth Analysis

VARIABLES	Expected Sign	(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
GROWTH	+	0.0071***	0.0074***	0.2507**	0.2780***
		(<0.01)	(<0.01)	(0.038)	(<0.01)
$GROWTH_{t-1}$	?	0.0021	0.0003	0.0460	0.1407
		(0.267)	(0.869)	(0.720)	(0.124)
$GROWTH_{t-2}$	?	-0.0005	-0.0001	0.0521	0.1658*
		(0.791)	(0.936)	(0.627)	(0.058)
OFFICESIZE	-	-0.0022***	-0.0015***	-0.1329**	-0.1034***
		(<0.01)	(<0.01)	(0.010)	(<0.01)
CLIENTSIZE	-	-0.0058***	-0.0058***	-0.0161	-0.0114
		(<0.01)	(<0.01)	(0.348)	(0.390)
INFLUENCE	-	-0.0033	-0.0016	-0.0721	0.0172
		(0.281)	(0.385)	(0.426)	(0.519)
AQC	+	0.0032***	0.0032***	0.1007	0.0980
		(<0.01)	(<0.01)	(0.196)	(0.202)
BUSY	?	-0.0031*	-0.0031*	-0.1096	-0.1077
		(0.061)	(0.058)	(0.321)	(0.328)
WEAKNESS	+	0.0037***	0.0037***	0.1816***	0.1820***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
TENURE	+	-0.0013	-0.0011	0.0947	0.0697
		(0.735)	(0.703)	(0.241)	(0.303)
SALESGROWTH	+	0.0157***	0.0154***	0.1547*	0.1322
		(<0.01)	(<0.01)	(0.097)	(0.133)
SALESVOLATILITY	+	0.0172***	0.0172***	0.1482	0.1321
		(<0.01)	(<0.01)	(0.229)	(0.254)
CFO	?	-0.0077	-0.0079	-0.4193	-0.4201
		(0.540)	(0.532)	(0.304)	(0.297)
CFOVOLATILITY	+	0.1083***	0.1078***	0.6260*	0.5989*
		(<0.01)	(<0.01)	(0.059)	(0.067)
LOSS	+	0.0064**	0.0062**	0.0592	0.0551
		(0.011)	(0.014)	(0.350)	(0.360)
DEBT	+	0.0273***	0.0275***	0.2236	0.2108
		(<0.01)	(<0.01)	(0.133)	(0.148)
ALTMANZ	- / ?	-0.0016***	-0.0016***	-0.0039	-0.0041
		(<0.01)	(<0.01)	(0.855)	(0.844)
ROA	?	0.0107	0.0109	0.1585	0.1922
		(0.187)	(0.181)	(0.613)	(0.535)
BIG4	-	-0.0013	-0.0006	0.2570	0.4476
		(0.304)	(0.412)	(0.926)	(0.991)
MB	+	0.0010***	0.0010***	0.0001	-0.0010
		(<0.01)	(<0.01)	(0.498)	(0.531)
EXPERT	-	-0.0020*	-0.0022*	-0.0965	-0.1057
		(0.076)	(0.058)	(0.266)	(0.247)
Industry and Year Fixed Effects		Yes	Yes	Yes	Yes
Observations		16,050	16,050	14,375	14,375
R-squared/Pseudo R-squared		0.159	0.159	0.031	0.033

*** p<0.01, ** p<0.05, * p<0.10. One tailed p-values are shown in parentheses where there is a directional prediction and two-tailed p-values are shown otherwise. Refer to Appendix 1 for variable definitions. Standard errors are clustered by client.

TABLE 7: Growth and Firm Size Analyses

Panel A: Growth with Firm Size Interaction

VARIABLES	Expected Sign	(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
GROWTH	+	0.0113***	0.0132***	0.2966**	0.2644**
		(<0.01)	(<0.01)	(0.022)	(0.019)
GROWTH x OFFICES	-	-0.0002**	-0.0002***	-0.0048	-0.0014
		(0.025)	(<0.01)	(0.122)	(0.351)
Control Variables and Fixed Effects		Yes	Yes	Yes	Yes
Observations		17,062	17,062	15,302	15,302
R-squared/Pseudo R-squared		0.165	0.166	0.032	0.033

Panel B: Growth on Big 4 Only Subsample

VARIABLES		(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
GROWTH	+	0.0043*	0.0029	0.0940	0.3068**
		(0.063)	(0.136)	(0.347)	(0.047)
Control Variables and Fixed Effects		Yes	Yes	Yes	Yes
Observations		11,661	11,661	10,146	10,146
R-squared/Pseudo R-squared		0.124	0.124	0.034	0.035

Panel C: High Growth Indicator on Big 4 Only Subsample

VARIABLES		(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
HIGHGROWTH	+	0.0060*	0.0016	0.3968*	0.7281***
		(0.060)	(0.332)	(0.073)	(<0.01)
Control Variables and Fixed Effects		Yes	Yes	Yes	Yes
Observations		11,661	11,661	10,146	10,146
R-squared/Pseudo R-squared		0.124	0.124	0.034	0.037

*** p<0.01, ** p<0.05, * p<0.10. One tailed p-values are shown in parentheses where there is a directional prediction and two-tailed p-values are shown otherwise. Refer to Appendix 1 for variable definitions. Standard errors are clustered by client.

TABLE 8: Analysis Decomposing Office Growth from Existing and Migrating Clients

VARIABLES	Expected Sign	(1) *Fees* *ABS_ACC*	(2) *Assets* *ABS_ACC*	(3) *Fees* *RESTATE*	(4) *Assets* *RESTATE*
New Client GROWTH	+	0.0065**	0.0041**	0.1854*	0.2059**
		(0.012)	(0.041)	(0.085)	(0.040)
Engagement GROWTH	+	0.0115***	0.0472***	0.2046***	0.2590***
		(<0.01)	(<0.01)	(<0.01)	(<0.01)
Existing Client GROWTH	+	0.0084	0.0079	0.4263	0.1259
		(0.103)	(0.117)	(0.140)	(0.352)
Lost Client GROWTH	?	-0.0031	-0.0062	0.0385	-0.0847
		(0.538)	(0.155)	(0.898)	(0.761)
Control Variables and Fixed Effects		Yes	Yes	Yes	Yes
Observations		16,932	16,932	15,191	15,191
R-squared/Pseudo R-squared		0.166	0.213	0.033	0.035

*** p<0.01, ** p<0.05, * p<0.10. One tailed p-values are shown in parentheses where there is a directional prediction and two-tailed p-values are shown otherwise. Refer to Appendix 1 for variable definitions. Standard errors are clustered by client.

Appendix 1: Variable Descriptions

Audit Quality Proxies	
ABS_ACC	Absolute value of the residual from (1), a modified discretionary accruals model as in Dechow and Sloan (1995) and controlling for performance as in Kothari et al. (2005) (censored at 1)
RESTATE	Indicator variable that takes a value of 1 if the firm issued restated financials, 0 otherwise
POS_ACC	Positive discretionary accruals obtained from the residual from (1)
Δ*ABS_ACC*	Yearly change in discretionary accruals obtained from the residuals from (1)
Test Variables	
GROWTH (Fees)	(Office-level audit fees$_t$ – office-level audit fees$_{t-1}$) / office-level audit fees$_{t-1}$
GROWTH (Assets)	(Office-level assets audited$_t$ – office-level assets audited$_{t-1}$) / office-level assets audited$_{t-1}$
Positive GROWTH	*GROWTH*$_t$ if *GROWTH*$_t$ > 0, 0 otherwise
Negative GROWTH	*GROWTH*$_t$ if *GROWTH*$_t$ < 0, 0 otherwise
Existing Client GROWTH	(Total returning client fees (assets)$_t$ – total returning client fees (assets)$_{t-1}$)/ total office fees (assets)$_{t-1}$
Engagement GROWTH	(Single returning client fees (assets)$_t$ – single returning client fees (assets)$_{t-1}$) / single returning client fees (assets)$_{t-1}$)
New Client GROWTH	(Total new client fees (assets)$_t$) / total office fees (assets)$_{t-1}$
Lost Client GROWTH	(Total departed client fees (assets)$_{t-1}$) / total office fees (assets)$_{t-1}$
HIGHGROWTH	Indicator variable equal to 1 if the firm is audited by an audit firm that was in the top (two) decile(s) of *GROWTH*$_t$
OFFICES	The number of local offices within a firm outside of the contracting office in year *t*
Control Variables Used for Abnormal Accruals and Restatement Analyses	
OFFICESIZE (Fees)	Natural logarithm of total audit fees received by the local office in year *t*
OFFICESIZE (Assets)	Natural logarithm of total assets under audit (millions) by the local office in year *t*
CLIENTSIZE	Natural logarithm of total client assets in year *t* (millions)
INFLUENCE	Client audit and audit related fees / total audit and audit related fees received by the local office
AQC	Indicator variable equal to 1 if the client had an acquisition or merger, 0 otherwise
BUSY	Indicator variable equal to 1 if the client has a December fiscal year-end, 0 otherwise
WEAKNESS	Number of material internal control weaknesses in year *t*
TENURE	Indicator variable equal to 1 if the client has employed the same auditor for 3 years or less, 0 otherwise
SALESGROWTH	(Sales$_t$ – sales$_{t-1}$) / sales$_t$ (censored at 2)
SALESVOLATILITY	Standard deviation in (sales / lagged total assets) for years *t-2* through *t*
CFO	Cash flow from operations$_t$ / total assets$_t$
CFOVOLATILITY	Standard deviation in *CFO* for years *t-2* through *t*
LOSS	Indicator variable equal to 1 if operating income after depreciation is negative, 0 otherwise
DEBT	Total liabilities$_t$ / total assets$_t$
ALTMANZ	Altman Z score from (Altman 1983) calculated as: 0.717 * working capital$_t$ / total assets$_t$ + 0.847 * retained earnings$_t$ / total assets$_t$ + 3.107 * earnings before interest and taxes$_t$ / total assets$_t$ + 0.42 * book value of equity$_t$ / total liabilities$_t$ + 0.998 * sales$_t$ / total assets$_t$
ROA	Return on assets (net income$_t$ / total assets$_t$)
BIG4	Indicator variable equal to 1 if the company's auditor is a Big 4 auditor, 0 otherwise
MB	Market value of equity$_t$ / book value of equity$_t$
EXPERT	Indicator variable equals 1 if the auditor is both the local and national leader in a client's industry, 0 otherwise
Other Descriptive Variables	
Total Office Audit Fees	Office-level audit fees$_t$ (in thousands)