

**THE IMPACT OF OFFICE-LEVEL vs. FIRM-LEVEL AUDITORS' INDUSTRY
EXPERTISE ON CONSERVATISM**

Keith Jones
School of Management
George Mason University
E-mail: kjonesm@gmu.edu

Gopal V. Krishnan*
Department of Accounting
Lehigh University
E-mail: gok208@lehigh.edu

Kevin Melendrez
Department of Accounting & IS
New Mexico State University
E-mail: kdm@nmsu.edu

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*Corresponding author.

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Abstract

The objective of this study is to examine whether earnings conservatism, a fundamental property of financial reporting is driven by auditors' industry expertise measured at the firm (national)-level or the local office-level. Our findings indicate that it is the office-level industry expertise that drives conservatism. Further, we find that this relation is even stronger for clients who pay high unexpected fees to the auditors, suggesting that fee dependence does not compromise auditor independence for auditors who are city-specific industry leaders.

THE IMPACT OF OFFICE-LEVEL vs. FIRM-LEVEL AUDITORS' INDUSTRY EXPERTISE ON CONSERVATISM

I. INTRODUCTION

A number of recent studies examine auditing phenomena at city-level markets (Ferguson et al. 2003, Francis et al. 2005a, 2005b, and Krishnan 2005a). Francis et al. (2005b) find that the three-level hierarchy (city-specific, national, and joint city-specific and national industry leaders) of Big 5 audit pricing documented by Francis et al. (2005a) maps to the earnings quality of audit clients. Francis et al. (2005b) find that abnormal accruals of audit clients are smaller when auditors are city-specific industry leaders, either alone or in conjunction with national industry leadership. Similarly, clients are less likely to meet or just beat earnings forecasts when the auditor is a city-specific industry leader, either alone or in conjunction with national industry leadership. They also find that abnormal accruals of clients of auditors that are national leaders alone, without being a city-specific industry leader, are no different than abnormal accruals of clients of non-leaders.

The objectives of this study are three-fold. First, we examine the relation between Francis et al.'s (2005a) three-level hierarchy of Big 5 audit quality and earnings conservatism, i.e., timely recognition of economic losses.¹ Our study differs from Francis et al. (2005b) because we focus on conservatism. Conservatism is a pervasive characteristic of financial reporting (Ball 2001), and is a component of earnings quality, but measures a different construct than abnormal accruals. Moreover, the recent accounting scandals in the U.S. and elsewhere, and the record number of recent financial statement restatements, underscore the importance of conservative

financial reporting. Watts (2003a and 2003b) emphasizes that conservatism facilitates effective monitoring of managers and efficient contracting.

Also, focusing on conservatism allows us to avoid measurement problems associated with abnormal accruals. Additionally, auditors are concerned with litigation risk. Therefore, auditors are concerned with imposing greater conservatism on their clients, and timely recognition of bad news is vital to litigation risk and ultimately to auditor reputation. Finally, audit specialists should be in the best position to impose greater loss recognition on their clients. Thus, our study focuses on the three-level hierarchy of Big 5 audit pricing and conservatism.

Second, we examine whether the relation between the three-level hierarchy of audit quality and conservatism is moderated by auditor's fee dependence. The issue of whether auditor's independence is compromised when the auditor performs significant nonaudit services has received considerable attention from regulators, auditors, investors, media, and academic researchers. A number of studies have explored the relation between properties of accounting earnings and fees paid to the auditors (Frankel et al. 2002; Ashbaugh et al. 2003; Chung and Kallapur 2003; Krishnan 2004; Larcker and Richardson 2004; and Ruddock et al. 2006). While Francis et al. (2005b) find that higher earnings quality is associated with city-specific audit specialists, they do not examine the interaction between auditor's economic dependence on the client and earnings quality. In other words, does the relation between earnings quality and city-specific audit specialists hold even in the presence of fee dependence?

Third, we consider whether implementation of Sarbanes-Oxley, specifically whether the prohibiting of various non-audit services, has had an impact on client conservatism. Presumably, auditor independence was impaired by the additional fees received from performing non-audit services and the banning of such services was designed to restore auditor independence.

We measure conservatism using the asymmetric operating accrual-cash flow test introduced by Ball and Shivakumar (2005). Our sample consists of 7,399 client-observations audited by Big 5 auditors over the years 2000 through 2004. There are two key findings. First, when fees paid to the auditors are not considered, earnings conservatism is higher for clients audited by city-specific, national, and joint city-specific and national leaders relative to clients audited by non-leaders. When city-specific, national, and joint leaders are included in the same model, higher earnings conservatism is found only for clients of city-specific leaders. In other words, city-specific audit specialists appear to have greater impact on conservatism than national or joint leaders. These findings are consistent with Francis et al. (2005b). Next, we find that the relation between conservatism and city-specific audit leadership holds for clients who pay high unexpected total fees to their auditors. On the other hand, we do not observe a significant relationship for clients of national or joint leaders. However, there is no evidence of lower conservatism for clients who pay high unexpected total fees to national or joint leaders. These findings are consistent with the notion that auditors' economic dependence on the client does not impair auditor independence and in fact, auditor independence is greater for city-specific audit specialists who earn high unexpected total fees.

When we interact a time dummy variable (1 if the observation is post Sarbanes-Oxley and 0 otherwise), we find that clients of city-specific auditors who pay high unexpected audit fees were less conservative before Sarbanes-Oxley but were more conservative after Sarbanes-Oxley took effect. Prior to Sarbanes-Oxley, clients who paid low unexpected audit fees to city-specific auditors were more conservative. After Sarbanes-Oxley, clients paying low unexpected audit fees to city-specific auditors were still more conservative than clients who did not have a city-specific auditor, but slightly less so.

The contributions of this study are in three areas. First, is the growing literature on city-level audit markets to which we contribute by providing empirical evidence that earnings conservatism is positively associated with auditors' industry expertise measured at the office-level. Our finding that national-level industry expertise is not associated with conservatism beyond city-specific industry expertise underscores the importance of examining auditors' expertise at the office-level. Second, prior research on the role of auditing in enhancing conservatism finds that litigation risk against auditors is an important determinant of conservatism (Basu 1997). Basu et al. (2000) extend this research by providing evidence that conservatism is greater for clients of Big 8 auditors relative to the clients of non-Big 8 auditors, i.e., audit quality is associated with conservatism. Krishnan (2005b) provides evidence that among clients of Big 6 auditors, conservatism is greater when the auditor is an industry specialist (measured at the firm-level). We extend this literature by providing evidence that it is the office-level industry expertise rather than the expertise measured at the firm-level that is driving conservatism.

Finally, to the literature that examines the consequences of nonaudit services on properties of earnings we contribute by providing evidence that auditors' economic dependence on the client as measured by the unexpected total fees does not impair auditor independence. In fact, earnings conservatism is higher for those clients who pay high unexpected fees relative to clients who pay low unexpected fees when the auditor is a city-specific industry leader. In doing so, our research differs from two concurrent papers that examine the relation between conservatism and fees paid to the auditors. Krishnan (2004) finds that earnings of high-total fee clients have

become more sensitive to bad news in year 2001 relative to 2000, perhaps in response to mitigate investor concerns about auditor independence arising from fee disclosures.

Ruddock et al. (2006) examine the association between nonaudit services and earnings conservatism for a sample of Australian firms and find that higher levels of nonaudit services are not associated with reduced conservatism. However, their results may not be generalizable outside Australia, particularly, to the U.S. auditors and their clients for the following reasons. The potential for economic bonding and the threats to auditor independence are significantly greater in the U.S. relative to Australia. The opportunities to earn quasi-rents from audit clients are much greater in the U.S. due to the size of the market for audit and nonaudit services compared to Australia. Further, auditors in Australia are allowed to provide many nonaudit services that are banned in the U.S. This indicates that Australian regulators do not perceive the joint provision of audit and nonaudit services by the incumbent auditor as a threat to auditor independence. Thus, the findings of Ruddock et al. (2006) are not unexpected. Another characteristic that is unique to the U.S. financial reporting environment is the high risk of litigation faced by auditors and their clients relative to other countries. While the potential for economic bonding is higher in the U.S., market-based incentives to remain independent are also higher in the U.S. relative to Australia.

Further, a limitation that is common to both Krishnan (2004) and Ruddock et al. (2006) is that neither study examines the impact of auditors' fee dependence on conservatism at the office-level. Wallman (1996) argues that auditor's economic dependence is best examined at the office-level because key decisions such as client recruitment, retention, and fees are determined at the office-level. A case in point is the Houston office of Arthur Andersen (Krishnan 2005a).

In other words, the risk of examining auditor's economic dependence at the firm-level is that when client observations are pooled across different city-markets as in Krishnan (2004) and Ruddock et al. (2006), fee dependence, even if it exists at the city-level markets could be masked by the pooling effect. Therefore, we employ an office-level focus to examine the relation between fee dependence and conservatism.

The remainder of the paper is organized as follows. The next section develops the hypothesis and describes the empirical models. The sample and descriptive statistics are discussed section three. Results are reported in section four. Sensitivity tests are discussed in section five, followed by conclusions.

II. HYPOTHESIS AND EMPIRICAL MODELS

Auditing plays an important role in enforcing timely recognition of bad news in earnings. This is because financial statements are the result of management's representations and the auditor's assurance to outsiders about the validity of those representations. For example, Kinney and Martin (1994) analyze nine data sets of audit-related adjustments from more than 1,500 audits and conclude that audit-related adjustments are overwhelmingly negative on pre-audit net earnings and net assets. Francis and Krishnan (1999) find that only Big 6 auditors practice reporting conservatism i.e., the practice of issuing modified audit reports particularly for clients with higher accruals. Further, Becker et al. (1998) and Francis et al. (1999) find that Big 6 auditors constrain accruals-based earnings management more than non-Big 6 auditors. Basu et al. (2000) find that timely recognition of bad news is further enhanced when the auditor is a brand name auditor. This is consistent with the notion that Big 5 auditors have strong incentives to protect their reputation capital and therefore, persuade their clients to recognize bad news in a

timely fashion. Krishnan (2005b) extends Basu et al. (2000) by providing evidence that among clients served by the Big 6, earnings conservatism is positively associated with auditors' industry expertise (measured at the national level). Francis et al. (2005b) extend this literature by focusing at the city-level audit markets and provide evidence that earnings quality is higher when the auditor is a city-specific leader.

While Francis et al. (2005b) examines the effect of city-level expertise on earnings quality (abnormal accruals and probability of meeting or beating analyst forecasts), it does not examine the effect of city-level expertise on conservatism. Conservatism is a component of earnings quality, but is separate and distinct from the measures used in Francis et al. (2005b). In order to protect their reputation and in response to litigation risk auditors must be concerned that clients are recognizing bad news in a timely fashion, and city-level specialists are should be in the best position to impose greater conservatism on their clients. Thus, our hypothesis is as follows:

H1: Conservatism is positively associated with auditors' city-level industry leadership.

We also examine the relation between national level leadership and joint city-level and national leadership and conservatism, but offer no predictions on the nature of the relationship with conservatism.

Next, turning to the role of fees paid to the auditors in the relation between conservatism and auditor's city-level industry expertise, prior research recognizes that the economic bonding arising from audit and nonaudit services could pose a threat to auditor's independence (DeAngelo 1981 and Beck et al. 1988). If economic bonding due to fee dependence is indeed associated with lower conservatism, then the potential for impairment of independence increases with the total fee (sum of audit fee and nonaudit fee) derived from a client. Further, recall that

Wallman (1996) argues the threat to the auditor independence is more serious at the office-level. In summary, while city-specific industry leadership could have a favorable impact on the audit client's earnings conservatism, auditor's fee dependence on the client could have a negative impact on conservatism. Therefore, we do not offer a prediction on the nature of the relationship between conservatism and city-level industry expertise in the presence of auditor's fee dependence on the client and state out second hypothesis in the null form as follows:

H2: The fees paid to auditors by clients have no effect on the association between conservatism and auditors' city-level industry leadership.

We partition audit clients into low fee dependence and high fee dependence groups based on unexpected total, audit, and non-audit fees and examine whether conservatism differs between the low and high groups for clients audited by city-specific industry leaders, national leaders, and joint leaders.

Finally, we consider whether the implementation of the independence rules in Sarbanes-Oxley have had an effect on client conservatism. Sarbanes-Oxley banned certain non-audit services in an effort to preserve auditor independence.² The assumption being that fees derived from non-audit services create an economic bond between auditor and client which increases the auditor's incentive to acquiesce to client pressure (Frankel et al. 2002). However, if an auditor is an industry leader, that auditor has a reputation to consider and is it is empirical question whether an industry leader would jeopardize its reputation for the sake of one client. If non-audit services created an economic bond between auditor and client, we would expect client conservatism to improve post implementation of Sarbanes-Oxley. However, if auditors are not willing to jeopardize their reputation for the sake of greater non-audit fees, then we would expect no

change in client conservatism post implantation of Sarbanes-Oxley. Due to competing theories on non-audit services and industry specialists, we present our third hypothesis in the null form:

H3: The implementation of Sarbanes-Oxley had no effect on the interaction of fees paid to city-level audit specialists and the conservatism of their clients.

In order to test H3, we include a dummy variable that measures 1 if the observation comes from years after the implementation of Sarbanes-Oxley.

Methodology

We employ a non-returns-based measure to estimate earnings conservatism. Ryan (2006) notes that this approach overcomes limitations associated with the returns-based measure Basu (1997). We use the asymmetric operating accrual-cash flow model introduced by Ball and Shivakumar (2005). We estimate the following model to test hypothesis 1.

$$\begin{aligned}
 ACC_t = & \beta_0 + \beta_1 DCFO_t + \beta_2 CFO_t + \beta_3 DCFO_t * CFO_t + \beta_4 SPCL + \beta_5 SPCL * DCFO_t \\
 & + \beta_6 SPCL * CFO_t + \beta_7 SPCL * DCFO_t * CFO_t + \beta_8 SIZE + \beta_9 DCFO_t * SIZE \\
 & + \beta_{10} CFO_t * SIZE + \beta_{11} DCFO_t * CFO_t * SIZE + \varepsilon_t.
 \end{aligned} \tag{1}$$

Where ACC_t is Accruals at time t , scaled by average total assets (Compustat Item #123 – #308) / average total assets (item #6); $DCFO_t$ is an indicator variable equal to 1 if cash flows are less than zero in year t , zero otherwise; CFO_t is cash flows from operations in year t (item #308) / average total assets (item #6); $SPCL$ is an indicator variable equal to 1 if the auditor is a industry leader, and zero otherwise (see below); $SIZE$ is the rank of total assets in year t .³

Consistent with Ball and Shivakumar (2005), β_2 is expected to be negative because earnings and cash flows are negatively correlated (Dechow 1994) and β_3 is expected to be positive because accrued losses are more likely to be recorded in periods of negative cash flows. $SPCL$,

the variable of interest represents audit specialists and is defined in three ways following the three-level hierarchy in Francis et al. (2005b). *CITY* equals 1 if the auditor is a city-specific industry leader and 0 otherwise. *NATL* is equal to 1 if the auditor is an industry leader at the national level and 0 otherwise. Finally, if the auditor is a joint leader at both the city and national levels, then *JNT* equals 1 and 0 otherwise. We interact *CITY*, *NATL*, and *JNT* with *DCFO*CF0* and include all the three interactions in the same model to examine the incremental impact of city-specific leadership after controlling for national and joint leadership. Thus, a positive coefficient on *CITY*DCFO*CF0* is consistent with hypothesis 1.

Consistent with Francis et al. (2005b), we assume that industry expertise is increasing in market share and define an auditor as an industry leader at the national level if the audit firm has the largest market share in a particular industry based on two-digit SIC codes. We define an auditor as a city leader if it has the largest market share in an industry in a particular city. Cities are classified by MSA as defined by the U.S. Census Bureau Office of Management and Budget as in Francis et al (2005b).

To test hypothesis 2, we estimate unexpected fees from the following fee model (Ashbaugh et al. 2003):

$$FEE = \alpha + \beta_1 Big5 + \beta_2 MVE + \beta_3 MERGER + \beta_4 FIN + \beta_5 MB + \beta_6 LEV + \beta_7 ROA + \beta_8 ARIN + \beta_9 NROA + \beta_{10} SPI + \sum_{i=1}^{13} Industrydummies_i + \varepsilon \quad (2)$$

Where *FEE* equals log of (total, audit or nonaudit) fees paid to auditors; *Big5* equals 1 if the firm is audited by a Big 5 firm and 0 otherwise; *MVE* is the natural logarithm of market value of equity; *MERGER* equals 1 if the firm is engaged in a merger or acquisition and 0 otherwise; *FIN*

equals 1 if *MERGER* is not equal to 1 and number of shares outstanding increased by at least 10 percent, or long-term debt increased by at least 20 percent and 0 otherwise; *MB* is market-to-book ratio; *LEV* is total assets less book value divided by total assets; *ROA* is return on assets; *ARINV* is the sum of receivables and inventory divided by total assets; *NROA* equals 1 if *ROA* is negative and 0 otherwise; *SPI* equals 1 if the firm reports special items and 0 otherwise. Consistent with Ashbaugh et al. (2003), we include industry dummies to control for cross industry differences in fees.⁴ The error term in equation (2) represents the unexpected fees. To test hypothesis 2, we use the estimated unexpected fees from equation (2), and estimate equation 1 separately for firms with high unexpected total fees (above the median in each year) and low unexpected total fees (below the median in each year). We repeat this procedure for audit and non-audit fees.

III. SAMPLE SELECTION

Our sample period covers the period in which audit fees are available, 2000-2004. We include firms for which the necessary data is available from *Compustat* to compute cash flows and accruals, and for which the necessary fee data is available from Audit Analytics to calculate fee variables, as well as the Francis et al. (2005b) measures of auditor industry leadership. Following Francis et al. (2005b) we restrict our sample to firms with a Big N auditor and observations where there are at least two observations per city/industry combination.⁵ Finally, we eliminate the top and bottom 1% of firms in the distribution of cash flows and accruals to control for the extreme observations as a result of scaling the variables by total assets. This results in a final sample of 7,399 firm-year observations for 2000-2004. We begin with the year 2000 because that is the first year in which audit fee data is publicly available.

Panel A of Table 1 provides a breakdown of how we arrived at our sample size. Panel B provides a detail of the sample broken down by industry. The largest percentage of the sample (57%) is manufacturing firms. The second largest percentage (24%) is in the service industry. Panel C shows that the firms are spread evenly across the five years.

(Insert Table 1 about here)

Table 2 provides descriptive statistics for the sample. The sample contains firms of all sizes. The mean total assets (in 1,000s) is 3,038 with a large standard deviation (19,395) which suggests the sample contains some extremely large firms and a large collection of smaller firms. Consistent with total assets, average total fees paid to auditors (in millions) is 2.2 with a large standard deviation (5.9). The average unexpected total fees paid to auditors is 0.02.

(Insert Table 2 about here)

IV. RESULTS

Table 3 presents results from the estimation of equation (1) which allows for an asymmetric relation between accruals and cash flow levels that differs between different levels of audit specialist – national, city, and joint. Table 3 presents 5 different regressions – Panel A which does not include an audit specialist variable, Panel B which includes *CITY* as the audit specialist variable, Panel C which includes *NATL* as the specialist variables, Panel D which includes *JNT* as the specialist variable and Panel E which includes all specialist variables in the same regression.

(Insert Table 3 about here)

In all regressions in Table 3, we find, consistent with Ball and Shivakumar (2005) that the coefficient on CFO_t is negative and significant indicating a negative relation between cash flows and accruals. This finding is consistent with accruals purging noise in cash flows from earnings (Dechow 1994; Dechow et al. 1998). In the negative cash flow years, the incremental coefficient (β_3) on $DCFO_t * CFO_t$ is positive and significant in all regressions which is consistent with Ball and Shivakumar's (2005) argument of asymmetrically more unrealized loss recognition via accruals than gain recognition. In other words, if accrued losses are more likely in periods of negative cash flows, then the positive incremental coefficient on $DCFO_t * CFO_t$ indicates the accrued losses (e.g. impairment charges) lead to a reduction in both current year accruals and cash flow.

In Panel B, the coefficient on the interaction of $CITY_t * CFO_t * DCFO_t$ is positive and significant ($p < .01$) implying that audit clients of city-level specialists are more conservative (i.e. recognize losses more timely). This finding is consistent with hypothesis 1. In panels C and D, $NATL_t * CFO_t * DCFO_t$ and $JNT_t * CFO_t * DCFO_t$ are positive and significant ($p < .1$ and $p < .05$ respectively). This finding indicates that relative to clients of non-national or joint leaders conservatism is higher for clients of national or joint leaders. However, when all specialist variables are included in one regression (panel E), only the interaction on city-level specialists is significant ($p < .05$) suggesting that city-level specialists are the most influential at preserving conservatism among their clients.

(Insert Table 4 about here)

Table 4 presents the results of estimating equation 2 to obtain estimates of unexpected total, audit, and non-audit fees. The results are consistent with Ashbaugh et al. (2003) in that all

variables are significant and in the expected direction. Additionally, the R^2 s are comparable in magnitude to the R^2 s in Ashbaugh et al. (2003). The variables in the model explain 74 percent, 67 percent and 57 percent of the variation in total fees, audit fees and non-audit fees respectively. Thus, the Ashbaugh et al. (2003) model of the determinants of fees seems appropriate for our sample period.

(Insert Table 5 about here)

Table 5 reports the results of estimating equation 1 on six subsamples partitioned on the magnitude of unexpected total, audit and non-audit fees. In Panels B, D and F, which represent high unexpected total fees, high unexpected non-audit fees and high unexpected audit fees respectively, the interaction coefficient on city specialist ($CITY_t * CFO_t * DCFO_t$) is positive and significant. This result indicates that when unexpected fees are high, the presence of a city-level specialist results in more conservative accounting. Panels A and C which represent low unexpected total fees and low unexpected non-audit fees respectively, show that the interaction terms for each type of specialist ($CITY_t * CFO_t * DCFO_t$, $NATL_t * CFO_t * DCFO_t$ and $JNT_t * CFO_t * DCFO_t$) are statistically insignificant. This finding suggests that for firms with low unexpected total fees and unexpected non-audit fees specialist auditors do not affect client conservatism. However in Panel E, which represents low unexpected audit fees, the interaction on city specialist ($DCFO_t * CFO_t * CITY_t$) is positive and significant. This finding, as well as a corresponding positive and significant coefficient in Panel F, indicates that clients of city specialists are more conservative regardless of whether they pay a high or low unexpected audit fees.

Finally, the coefficient on the interaction term ($NATL_t * CFO_t * DCFO_t$) in Panel F is positive and significant which suggests conservatism is greater for firms that have high unexpected audit fees and a national-level specialist. Overall, the results suggests that the presence of a specialist auditor increases conservatism when unexpected fees are high, that there is little or no effect of specialist auditors on conservatism when unexpected fees are low, and that the impact of specialist auditors on conservatism is driven by city-level specialists.

Next we examine the results related to H3. Table 6 presents descriptive statistics for fees pre- and post- Sarbanes-Oxley. Audit fees doubled post-Sarbanes-Oxley and audit fees as a percentage of total fees increased significantly as expected post-Sarbanes-Oxley. Unexpected audit fees and non-audit fees also increased post-Sarbanes-Oxley. The increases in fees are consistent with anecdotal evidence that suggests that the both scope of audit work and fees charged by auditors increased following Sarbanes-Oxley.

Table 7 presents the results of estimating equation 1 with the addition of a dummy variable, *Post*, measuring 1 if the observation was derived post implementation of Sarbanes-Oxley, and 0 otherwise. For simplicity, Table 7 only reports the interactions of interest ($CITY * DCFO_t * CFO_t$) and ($CITY * DCFO_t * CFO_t * Post$). Consistent with Table 5, the interaction of $CITY * DCFO_t * CFO_t$ is positive and significant for high unexpected total fees, high unexpected non-audit fees, and low unexpected audit fees. The four-way interaction of $CITY * DCFO_t * CFO_t * Post$ is insignificant for total fees and non-audit fees (except for a positive and marginally significant coefficient on low unexpected non-audit fees), which suggests that Sarbanes-Oxley had little effect on the influence of total fees and non-audit fees on client conservatism. However, Sarbanes Oxley does appear to affect the influence *audit* fees have on client conservatism. Table 5, shows that the three-way interaction of $CITY * DCFO_t * CFO_t$ is

positive and significant for low unexpected audit fees and high unexpected audit fees. However, Table 7 shows that $CITY * DCFO_t * CFO_t$ is positive and significant for low unexpected audit fees but *negative* and significant for high unexpected audit fees. The opposite is true for the four-way interaction of $CITY * DCFO_t * CFO_t * Post$. The four-way interaction is negative and significant for low unexpected audit fees and positive and significant for high unexpected audit fees. These findings suggest that prior to Sarbanes-Oxley, a high unexpected audit fee did appear to negatively influence the conservatism of audit clients, but that influence was completely reversed post-Sarbanes Oxley (i.e. the coefficient on $CITY * DCFO_t * CFO_t$ is *-0.15* and *0.42* on $CITY * DCFO_t * CFO_t * Post$). Thus, the findings in Table 5 that high and low audit fees positively influence audit conservatism appears to be primarily driven by post-Sarbanes-Oxley observations. Prior to Sarbanes-Oxley, the only negative influence fees paid to city-level audit specialists appears to be when the client pays high unexpected audit fees. However in post-Sarbanes-Oxley, high audit fees actually have a positive influence on client conservatism consistent with findings from Table 5. There, we reject H3 because the evidence suggests that the rules implemented by Sarbanes-Oxley have had an affect on the influence audit fees have on client conservatism even when the auditor is a city-level specialist.

VI. SENSITIVITY TESTS

It is possible that the magnitude of auditor fees is associated with the strength of corporate governance of the firm. Therefore, we estimate all models after including a control for corporate governance. Following prior research (Dechow et al. 1996, Klein 1998, and Klein 2002), we use board of directors composition as a proxy for corporate governance. Specifically, we use the percentage of outside directors to proxy for the strength of corporate governance. Including this

variable reduces our sample to 7,205 observations and has little effect on our results. Adding the control for strength of corporate governance has no effect on the results in Table 3. In magnitudes of the coefficients on the specialist variables are similar and significant at the same levels as in Table 3. Additionally, city-specific leaders continue to be the most influential at preserving conservatism among their clients.

When including the control variable for strength of corporate governance in Table 5, the results are again qualitatively unchanged with the exception of the model for high unexpected audit fees. In Table 5 the coefficient on $CITY * DCFO_t * CFO_t$ for high unexpected audit fees is 0.12 ($p < 0.10$), however after controlling for strength of corporate governance, the coefficient is 0.06 and not significant. Similarly, in Table 7 for low unexpected audit fees the coefficient on $CITY * DCFO_t * CFO_t * Post_t$ is -0.26 ($p < 0.10$), and after controlling for strength of corporate governance, the coefficient is 0.23 and not significant. Finally, in table 7 the coefficient on $CITY * DCFO_t * CFO_t$ for high unexpected total fees is 0.20 ($p < 0.10$), and after controlling for strength of corporate governance, the coefficient is 0.17 and not significant. Overall, including a control variable for the strength of corporate governance does not change our conclusions.

VI. CONCLUSION

One of the fundamental characteristics of accounting earnings is conservatism, i.e., the timely recognition of economic losses via accruals. A number of studies have examined the relation between conservatism and auditing phenomena – auditor size, auditors' industry expertise, and fees paid to the auditors. Following Wallman (1996) we argue that an auditor's economic dependence is best examined at the office-level because key decisions such as client recruitment, retention, and fees are determined at the office-level, and extend this literature by

providing empirical evidence that auditors' city-specific (office-level) industry expertise is associated with earnings conservatism. We find that once city-level industry expertise is controlled for national or even joint city-specific and national leadership are not significantly associated with conservatism. Further, we find that the relation between conservatism and city-specific industry expertise is even stronger when the auditor earns high unexpected fees. However, this positive relation only exists post-Sarbanes-Oxley. We find that prior to the implementation of Sarbanes-Oxley, high unexpected audit fees had a significant negative relation on client conservatism. While we are able to avoid the criticisms aimed at returns-based measures of conservatism by the Ball and Shivakumar (2005) measure of conservatism, a limitation of our study is that our results are dependent on the validity of the this model as a measure of conservatism.

These findings are relevant to the ongoing debate about whether nonaudit services impair auditor's independence. Our findings are consistent with the notion that city-specific leaders have market-based incentives to protect their reputation capital and thus, prevail on their clients to enhance conservatism. Our findings have important implications for the regulators, managers, and investors. Taken together with the findings of Francis et al. (2005b), our results suggest that higher financial reporting quality is associated with city-specific auditors' industry expertise. Our results also underscore the importance of studying auditing phenomena at the office-level.

NOTES

1. Francis et al. (2005b) consider auditor conservatism as an alternative explanation for their finding that the three-level hierarchy of audit quality captures earnings quality. In supplemental tests they find that earnings persistence and the ability of current period earnings to predict future cash flows are higher when the auditor is a joint leader and interpret this evidence as consistent with the relation between audit quality and earnings quality. However, Kim and Kross (2005) provide evidence that the relationship between current earnings and future operating cash flows has increased over time and attribute the increase in predictability to increase in accounting conservatism.
2. Title II of Section 201 of the Sarbanes-Oxley Act of 2002 prohibits: (1) bookkeeping or other services related to the accounting records or financial statements of the audit client; (2) financial information systems design and implementation; (3) appraisal or valuation services, fairness opinions, or contribution-in-kind reports; (4) actuarial services; (5) internal audit outsourcing services; (6) management functions or human resources; (7) broker or dealer, investment adviser, or investment banking services; (8) legal services and expert services unrelated to the audit; (9) any other service that the Public Company Oversight Board determines is impermissible.
3. Consistent with Ball and Shivakumar (2005), the model also includes a control variable for size, $SIZE_t$, which equals the rank of total assets at the end of year t , standardized to the interval (0,1). Additionally, the interactions $SIZE_t*DCFO_t$, $SIZE_t*CFO_t$, and $SIZE_t*DCFO_t*CFO_t$ are also included.
4. The industry dummies correspond to the following groupings two-digit SIC codes: SIC 01-14, SIC 15-19, SIC 20-21, SIC 22-23, SIC 24-27, SIC 28-32, SIC 33-34, SIC 35-39, SIC 40-48, SIC 49, SIC 50-52, SIC 53-59, SIC 70-79.
5. For our sample period, we identify 458 unique city-industry combinations and averaged across these city-industry combinations, the average market share for the Big 5 auditors is 71.3%.

References

- Ashbaugh, H., R. LaFond, B. Mayhew. 2003. Do nonaudit services compromise auditor independence? Further evidence. *The Accounting Review* 78: 611-639.
- Ball, R. 2001. "Infrastructure Requirements for an Economically Efficient System of Public Financial Reporting and Disclosure." *Brookings-Wharton Papers on Financial Services*: 127-82.
- Ball, R. and L. Shivakumar. 2005. Earnings quality in UK private firms: Comparative loss recognition timeliness. *Journal of Accounting and Economics* 39: 83-128.
- Beck, P., Frecka, T., Solomon, I., 1988. An empirical analysis of the relationship between MAS involvement and auditor tenure: implications for auditor independence. *Journal of Accounting Literature* (7), 65-84.
- Becker, C., M. DeFond, J. Jiambalvo, and K. Subramanyam. 1998. The effect of audit quality on earnings management. *Contemporary Accounting Research* 15 (Spring): 1-24.
- Basu, S. 1997. The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics* (December): 3-37.
- _____, L. Hwang, and C. Jan, 2000. Differences in conservatism between Big Eight and non-Big Eight auditors. Working paper, City University of New York and California State University, Hayward.
- Chung, H., Kallapur, S., 2003. Client importance, nonaudit services, and abnormal accruals. *The Accounting Review* 78 (October), 931-955.
- DeAngelo, L.E., 1981. Auditor independence, 'low balling', and disclosure regulation. *Journal of Accounting and Economics* 3 (2): 113-127
- Dechow, P. 1994. Accounting earnings and cash flows as measures of firm performance: the role of accounting accruals. *Journal of Accounting and Economics* 18, 3-42.
- Dechow, P.M., S.P. Kothari, R.L. Watts. 1998. The relation between earnings and cash flow. *Journal of Accounting and Economics* 25: 133-168.
- Dechow, P.M., R.G. Sloan, and A. P. Sweeney. 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13, 1-36.
- Ferguson, A., J.R. Francis, and D.J. Stokes. 2003. The effects of firm-wide and office-level industry expertise on audit pricing. *The Accounting Review* (April): 429-448.
- Francis, J.R., D. Stokes, and D. Anderson. 1999. City markets as a unit of analysis in audit research and the re-examination of Big Six market shares. *Abacus* 35 (June): 185-206.

_____, K. Reichelt and D. Wang. 2005a. The pricing of national and city-specific reputations for industry expertise in the U.S. audit market. *The Accounting Review*. (January): 113-136.

_____, K. Reichelt and D. Wang. 2005b. Is earnings quality higher when auditors are city-specific industry leaders? Unpublished working paper.

Francis, J., and J. Krishnan. 1999. Accounting accruals and auditor reporting conservatism. *Contemporary Accounting Research* 16 (Spring): 135-165.

Frankel, R., M. Johnson, K. Nelson. 2002. The relation between auditors' fees for nonaudit services and earnings management. *The Accounting Review* 77 (Supplement), 71-105.

Klein, A., 1998. Firm performance and board committee structure, *The Journal of Law & Economics* 41, 275-303.

Klein, A. 2002. Audit Committee, Board of Director Characteristics, and Earnings Management. *Journal of Accounting and Economics* 33 (3), 375-400.

Larcker, D. F., and S. A. Richardson. 2004. Fees paid to audit firms, accrual choices, and corporate governance. *Journal of Accounting Research* 42 (3): 625-656. Kim, M., and W. Kross. 2005. The ability of earnings to predict future operating cash flows has been increasing—not decreasing. *Journal of Accounting Research* 43 (5): 753-80.

Kinney, W.R. and R.D. Martin. 1994. Does auditing reduce bias in financial reporting? A review of audit related adjustment studies. *Auditing: A Journal of Practice and Theory* 13 (1): p. 149-156.

Krishnan, G.V. 2004. Are audit and nonaudit services associated with the delayed recognition of bad news? Paper presented at the Annual Meeting of the American Accounting Association, Orlando.

_____. 2005a. Did Houston clients of Arthur Andersen recognize publicly available bad news in a timely fashion? *Contemporary Accounting Research* (Spring): 165-93.

_____. 2005b. The association between Big 6 auditor industry expertise and the asymmetric timeliness of earnings. *Journal of Accounting, Auditing & Finance* (Summer): 209-28.

Ruddock, C.M., S.J. Taylor, and S.L. Taylor. 2006. Non-audit services and earnings conservatism: Is auditor independence impaired? Forthcoming *Contemporary Accounting Research* (Autumn).

Ryan, S.G. 2006. Identifying conditional conservatism. *European Accounting Review* (December).

Wallman, S. 1996. The future of accounting, part III: Reliability and auditor independence. *Accounting Horizons* (10): 76-97.

Watts, R. 2003a. Conservatism in accounting, Part I: Explanations and implications. *Accounting Horizons* 17:3 (September); 207-221.

_____ 2003b. Conservatism in accounting, Part II: Evidence and research opportunities. *Accounting Horizons* 17:4 (December); 287-301.

Table 1
Sample Selection Criteria and Frequency of Observations Across Industries and Years

Panel A:

| | |
|--|--------------|
| Firms with necessary Compustat and Audit fee data for 2000-2004 | 16,719 |
| Less: firms with a non-Big N auditor | 2,319 |
| Less: firms for which the Francis et al. measure of industry leadership cannot be calculated | 4,229 |
| Less: firm without sufficient data to calculate unexpected fees following Ashbaugh et al. (2003) | 2,577 |
| Less: top and bottom 1% of firms for cash flows and accruals | 195 |
| Total | <u>7,399</u> |

Panel B:

| Industry | Number | Percent |
|--|--------------|----------------|
| Agriculture, Forestry, and Fishing | 5 | 0.07% |
| Mining | 302 | 4.08% |
| Construction | 72 | 0.97% |
| Manufacturing | 3,917 | 52.94% |
| Transportation | 123 | 1.66% |
| Communications | 210 | 2.84% |
| Electric, Gas, and Sanitary Services | 270 | 3.65% |
| Wholesale Trade | 268 | 3.62% |
| Retail Trade | 433 | 5.85% |
| Finance, Insurance, and Real Estate Services | 40 | 0.54% |
| Total | <u>1,759</u> | <u>23.77%</u> |
| | <u>7,399</u> | <u>100.00%</u> |

Panel C:

| Year | Number | Percent |
|--------------|--------------|----------------|
| 2000 | 913 | 12.34% |
| 2001 | 1,563 | 21.12% |
| 2002 | 1,674 | 22.62% |
| 2003 | 1,677 | 22.67% |
| 2004 | 1,572 | 21.25% |
| Total | <u>7,399</u> | <u>100.00%</u> |

Table 2
Descriptive Statistics for Selected Variables

| Variable | N | Mean | Std. | Median | P25 | P75 |
|----------------|-------|----------|-----------|---------|---------|----------|
| Acc | 7,399 | -0.082 | 0.114 | -0.065 | -0.119 | -0.025 |
| CFO | 7,399 | 0.049 | 0.192 | 0.080 | 0.007 | 0.146 |
| Assets | 7,399 | 3038.211 | 19395.251 | 359.159 | 107.089 | 1364.529 |
| Tfee | 7,399 | 0.003 | 0.003 | 0.002 | 0.001 | 0.004 |
| Afee | 7,399 | 0.002 | 0.003 | 0.001 | 0.000 | 0.002 |
| Nfee | 7,399 | 0.001 | 0.001 | 0.001 | 0.000 | 0.001 |
| Total Fees | 7,399 | 2.204 | 5.930 | 0.713 | 0.324 | 1.755 |
| Audit Fees | 7,399 | 1.118 | 2.741 | 0.390 | 0.185 | 0.959 |
| Non Audit Fees | 7,399 | 1.087 | 3.963 | 0.243 | 0.081 | 0.715 |
| UnexpTot | 7,399 | 0.020 | 0.663 | 0.028 | -0.402 | 0.450 |
| UnexpAud | 7,399 | -0.006 | 0.714 | -0.016 | -0.473 | 0.467 |
| UnexpNonAud | 7,399 | 0.042 | 1.088 | 0.130 | -0.596 | 0.767 |
| CITY | 7,399 | 0.488 | 0.500 | 0.000 | 0.000 | 1.000 |
| NATL | 7,399 | 0.311 | 0.463 | 0.000 | 0.000 | 1.000 |
| JNT | 7,399 | 0.212 | 0.409 | 0.000 | 0.000 | 0.000 |

Variable definitions:

| | | |
|----------------|---|--|
| Acc | = | Accruals scaled by total assets; |
| CFO | = | cash flow from operations scaled by total assets; |
| Assets | = | total assets; |
| Tfee | = | total fees paid to the auditor scaled by total assets; |
| Afee | = | audit fees paid to the auditor scaled by total assets; |
| Nfee | = | Tfee less Afee; |
| Total Fees | = | total fees paid to the auditor (in millions); |
| Audit Fees | = | audit fees paid to the auditor (in millions); |
| Non Audit Fees | = | Total Fees-Audit Fees |
| UnexpTot | = | Unexpected total fees estimated as following Ashbaugh et al. (2003); |
| UnexpAud | = | Unexpected audit fees estimated as following Ashbaugh et al. (2003); |
| UnexpNonAud | = | Unexpected non-audit fees estimated as following Ashbaugh et al. (2003); |
| CITY | = | 1 if the auditor is classified as a city leader, and zero otherwise; |
| NATL | = | 1 if the auditor is classified as a national leader, and zero otherwise; |
| JNT | = | 1 if the auditor is a city leader and a national leader, and zero otherwise. |

TABLE 3
Regression of Accruals on Cash Flow from Operations and City and National Audit Specialists

$$ACC_t = \beta_0 + \beta_1 DCFO_t + \beta_2 CFO_t + \beta_3 DCFO_t * CFO_t + \beta_4 SPCL + \beta_5 DCFO_t * SPCL + \beta_6 CFO_t * SPCL + \beta_7 DCFO_t * CFO_t * SPCL + \beta_8 SIZE + \beta_9 DCFO_t * SIZE + \beta_{10} CFO_t * SIZE + \beta_{11} DCFO_t * CFO_t * SIZE + \varepsilon_t$$

| | Panel A | | Panel B | | Panel C | | Panel D | | Panel E | |
|----------------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|
| | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat |
| <i>Intercept</i> | -0.05 | -11.98 *** | -0.05 | -11.46 *** | -0.05 | -11.27 *** | -0.05 | -11.85 *** | -0.05 | -10.48 *** |
| <i>DCFO</i> | -0.02 | -4.91 *** | -0.03 | -4.65 *** | -0.02 | -4.10 *** | -0.02 | -4.72 *** | -0.03 | -3.88 *** |
| <i>CFO</i> | -0.37 | -22.16 *** | -0.35 | -15.18 *** | -0.36 | -17.62 *** | -0.36 | -18.83 *** | -0.35 | -13.64 *** |
| <i>DCFO*CFO</i> | 0.49 | 23.91 *** | 0.43 | 15.51 *** | 0.47 | 19.37 *** | 0.47 | 20.50 *** | 0.42 | 14.01 *** |
| <i>SIZE</i> | 0.02 | 4.02 *** | 0.02 | 3.32 *** | 0.02 | 3.97 *** | 0.02 | 3.77 *** | 0.02 | 3.34 *** |
| <i>SIZE*DCFO</i> | 0.00 | 2.23 * | 0.00 | 1.90 | 0.00 | 1.99 * | 0.00 | 2.02 * | 0.00 | 1.68 |
| <i>SIZE*CFO</i> | 0.00 | 0.65 | 0.00 | 0.62 | 0.00 | 0.63 | 0.00 | 0.59 | 0.00 | 0.61 |
| <i>SIZE*DCFO*CFO</i> | 0.00 | 2.14 * | 0.00 | 2.02 * | 0.00 | 1.82 | 0.00 | 2.02 * | 0.00 | 1.73 |
| <i>CITY</i> | | | 0.01 | 2.24 * | | | | | 0.01 | 1.55 |
| <i>CITY*DCFO</i> | | | 0.01 | 1.56 | | | | | 0.01 | 1.06 |
| <i>CITY*CFO</i> | | | -0.04 | -1.27 | | | | | -0.03 | -0.64 |
| <i>CITY*DCFO*CFO</i> | | | 0.17 | 4.13 *** | | | | | 0.15 | 2.95 ** |
| <i>NATL</i> | | | | | 0.00 | 0.66 | | | 0.00 | -0.23 |
| <i>NATL*DCFO</i> | | | | | 0.00 | 0.05 | | | -0.01 | -0.68 |
| <i>NATL*CFO</i> | | | | | -0.02 | -0.63 | | | 0.01 | 0.19 |
| <i>NATL*DCFO*CFO</i> | | | | | 0.10 | 2.12 * | | | 0.04 | 0.59 |
| <i>JNT</i> | | | | | | | 0.01 | 1.43 | 0.00 | 0.37 |
| <i>JNT*DCFO</i> | | | | | | | 0.01 | 1.03 | 0.01 | 0.60 |
| <i>JNT*CFO</i> | | | | | | | -0.04 | -1.15 | -0.04 | -0.49 |
| <i>JNT*DCFO*CFO</i> | | | | | | | 0.16 | 2.98 ** | 0.02 | 0.16 |
| Adj R-Sq | 0.084 | | 0.088 | | 0.085 | | 0.085 | | 0.088 | |
| N | 7,399 | | 7,399 | | 7,399 | | 7,399 | | 7,399 | |

*, **, *** denote two-tailed significance at the 0.05, 0.01, and 0.001 levels respectively.

Table 4
Determinants of Fee Metrics

$$FEE = \alpha + \beta_1 BIG5 + \beta_2 MVE + \beta_3 MERGER + \beta_4 FIN + \beta_5 MB + \beta_6 LEV + \beta_7 ROA \\ + \beta_8 ARIN + \beta_9 NROA + \beta_{10} SPI + \sum_{i=1}^{13} \text{Industrydummies}_i + \varepsilon$$

| Variable | Fee Metric | | | | | |
|---------------------|------------|--------|---------|--------|------------|--------|
| | lnTotal | | lnAudit | | lnNonAudit | |
| | Coeff. | t-stat | Coeff. | t-stat | Coeff. | t-stat |
| <i>Intercept</i> | 9.62 | 73.33 | 9.71 | 71.60 | 7.61 | 35.45 |
| <i>BIG5</i> | 0.32 | 17.58 | 0.21 | 11.11 | 0.47 | 14.77 |
| <i>MVE</i> | 0.53 | 148.28 | 0.47 | 129.32 | 0.58 | 97.43 |
| <i>MERGER</i> | 0.15 | 9.48 | 0.03 | 2.02 | 0.33 | 12.78 |
| <i>FIN</i> | -0.05 | -3.56 | -0.09 | -5.93 | -0.02 | -0.78 |
| <i>MB</i> | -0.05 | -30.33 | -0.05 | -27.57 | -0.06 | -19.99 |
| <i>LEV</i> | 1.37 | 53.76 | 1.37 | 51.74 | 1.46 | 33.97 |
| <i>ROA</i> | -0.10 | -3.10 | -0.13 | -3.63 | -0.09 | -1.63 |
| <i>ARIN</i> | 0.59 | 15.24 | 0.58 | 14.51 | 0.66 | 9.97 |
| <i>NROA</i> | 0.17 | 10.43 | 0.14 | 8.03 | 0.17 | 6.26 |
| <i>SPI</i> | 0.30 | 23.52 | 0.29 | 22.01 | 0.30 | 14.25 |
| Adj. R ² | 0.742 | | 0.686 | | 0.570 | |

Variable definitions:

| | | |
|------------|---|--|
| lnTotal | = | natural logarithm of total fees; |
| lnAudit | = | natural logarithm of audit fees; |
| lnNonAudit | = | natural logarithm of the non audit fees; |
| BIG5 | = | 1 if the firm is audited by a Big 5 firm and 0 otherwise; |
| MVE | = | natural logarithm of market value of equity; |
| MERGER | = | 1 if the firm is engaged in a merger or acquisition and 0 otherwise; |
| FIN | = | 1 if Merger is not equal to 1 and number of shares outstanding increased by at least 10 percent, or long-term debt increased by at least 20 percent and 0 otherwise; |
| MB | = | market-to-book ratio; |
| LEV | = | total assets less book value divided by total assets; |
| ROA | = | return on assets; |
| ARIN | = | sum of receivables and inventory divided by total assets; |
| NROA | = | 1 if ROA is negative and 0 otherwise; |
| SPI | = | 1 if the firm reports special items and 0 otherwise. |

TABLE 5
 Regression of Accruals on Cash Flow from Operations and City and National Audit Specialists
 for High and Low Unexpected Fees

$$ACC_t = \beta_0 + \beta_1 DCFO_t + \beta_2 CFO_t + \beta_3 DCFO_t * CFO_t + \beta_4 SPCL + \beta_5 DCFO_t * SPCL + \beta_6 CFO_t * SPCL + \beta_7 DCFO_t * CFO_t * SPCL + \beta_8 SIZE + \beta_9 DCFO_t * SIZE + \beta_{10} CFO_t * SIZE + \beta_{11} DCFO_t * CFO_t * SIZE + \varepsilon_t$$

| | Panel A | | | Panel B | | | Panel C | | | Panel D | | | Panel E | | | Panel F | | |
|----------------------|---------------------------|----------------|-----|----------------------------|----------------|-----|-------------------------------|----------------|-----|--------------------------------|----------------|-----|---------------------------|----------------|-----|----------------------------|----------------|-----|
| | Low Unexpected Total Fees | | | High Unexpected Total Fees | | | Low Unexpected Non-Audit Fees | | | High Unexpected Non-Audit Fees | | | Low Unexpected Audit Fees | | | High Unexpected Audit Fees | | |
| | Coeff | <i>t</i> -stat | | Coeff | <i>t</i> -stat | | Coeff | <i>t</i> -stat | | Coeff | <i>t</i> -stat | | Coeff | <i>t</i> -stat | | Coeff | <i>t</i> -stat | |
| <i>Intercept</i> | -0.04 | -5.65 | *** | -0.06 | -9.12 | *** | -0.04 | -5.98 | *** | -0.06 | -8.89 | *** | -0.04 | -5.80 | *** | -0.06 | -9.03 | *** |
| <i>DCFO</i> | -0.03 | -3.15 | ** | -0.02 | -2.63 | ** | -0.04 | -4.31 | *** | -0.01 | -0.95 | | -0.03 | -3.03 | ** | -0.02 | -2.35 | * |
| <i>CFO</i> | -0.37 | -10.37 | *** | -0.32 | -8.82 | *** | -0.40 | -10.96 | *** | -0.30 | -8.23 | *** | -0.36 | -10.24 | *** | -0.33 | -8.70 | *** |
| <i>DCFO*CFO</i> | 0.49 | 11.48 | *** | 0.33 | 7.42 | *** | 0.45 | 10.85 | *** | 0.40 | 8.95 | *** | 0.45 | 10.60 | *** | 0.39 | 8.79 | *** |
| <i>SIZE</i> | 0.01 | 1.32 | | 0.02 | 3.12 | ** | 0.02 | 1.94 | | 0.02 | 2.72 | ** | 0.00 | 0.45 | | 0.03 | 4.47 | *** |
| <i>SIZE*DCFO</i> | 0.00 | 0.75 | | 0.00 | 1.11 | | 0.00 | 1.76 | | 0.00 | 1.00 | | 0.00 | 1.60 | | 0.00 | 0.74 | |
| <i>SIZE*CFO</i> | 0.00 | 0.71 | | 0.00 | 0.31 | | 0.00 | 0.18 | | 0.00 | 0.54 | | 0.00 | -0.03 | | 0.00 | 0.30 | |
| <i>SIZE*DCFO*CFO</i> | 0.00 | 0.75 | | 0.00 | 0.94 | | 0.00 | 1.22 | | 0.00 | 1.28 | | 0.00 | 1.81 | | 0.00 | 0.67 | |
| <i>CITY</i> | 0.01 | 0.94 | | 0.01 | 1.48 | | 0.00 | 0.03 | | 0.02 | 2.24 | * | 0.02 | 1.78 | | 0.00 | 0.52 | |
| <i>CITY*DCFO</i> | 0.01 | 0.77 | | 0.01 | 0.84 | | 0.02 | 1.33 | | 0.00 | 0.00 | | 0.02 | 1.14 | | 0.00 | 0.31 | |
| <i>CITY*CFO</i> | -0.03 | -0.44 | | -0.04 | -0.62 | | 0.04 | 0.72 | | -0.10 | -1.71 | | -0.05 | -0.81 | | -0.02 | -0.32 | |
| <i>CITY*DCFO*CFO</i> | 0.07 | 0.99 | | 0.27 | 3.94 | *** | 0.03 | 0.38 | | 0.29 | 4.00 | *** | 0.20 | 2.71 | ** | 0.12 | 1.73 | † |
| <i>NATL</i> | 0.00 | 0.04 | | 0.00 | -0.19 | | 0.00 | -0.12 | | 0.00 | -0.14 | | 0.00 | 0.05 | | 0.00 | -0.25 | |
| <i>NATL*DCFO</i> | -0.01 | -0.64 | | 0.00 | -0.15 | | 0.00 | -0.17 | | -0.01 | -0.71 | | -0.04 | -1.81 | | 0.02 | 1.15 | |
| <i>NATL*CFO</i> | 0.02 | 0.24 | | -0.02 | -0.21 | | 0.05 | 0.63 | | -0.03 | -0.43 | | 0.04 | 0.54 | | -0.05 | -0.68 | |
| <i>NATL*DCFO*CFO</i> | 0.11 | 0.97 | | 0.03 | 0.33 | | 0.11 | 1.02 | | 0.01 | 0.08 | | -0.11 | -1.11 | | 0.28 | 2.68 | ** |
| <i>JNT</i> | 0.00 | -0.05 | | 0.00 | 0.28 | | 0.01 | 0.85 | | -0.01 | -0.45 | | -0.01 | -0.28 | | 0.01 | 0.54 | |
| <i>JNT*DCFO</i> | 0.01 | 0.48 | | 0.01 | 0.35 | | 0.00 | 0.14 | | 0.02 | 0.60 | | 0.04 | 1.22 | | -0.01 | -0.47 | |
| <i>JNT*CFO</i> | -0.05 | -0.47 | | 0.02 | 0.17 | | -0.16 | -1.52 | | 0.10 | 0.98 | | -0.05 | -0.42 | | 0.02 | 0.23 | |
| <i>JNT*DCFO*CFO</i> | -0.07 | -0.46 | | 0.04 | 0.31 | | 0.09 | 0.66 | | -0.13 | -0.98 | | 0.06 | 0.47 | | -0.11 | -0.82 | |
| Adj R-Sq | 0.089 | | | 0.094 | | | 0.090 | | | 0.090 | | | 0.087 | | | 0.092 | | |
| N | 3,698 | | | 3,701 | | | 3,698 | | | 3,701 | | | 3,698 | | | 3,701 | | |

†, *, **, *** denote two-tailed significance at the 0.10, 0.05, 0.01, and 0.001 levels respectively.

Table 6
Descriptive Statistics for Pre- and Post- Sarbanes-Oxley Fee Data

| <u>Pre-SOX</u> | | | | | | |
|---------------------------|-------|-----------|-----------|---------|---------|-----------|
| | N | Mean | Std. Dev. | Median | P25 | P75 |
| Audit Fees | 2,476 | 665,470 | 1,865,379 | 243,586 | 131,700 | 530,000 |
| Audit Fees/Total Fees | 2,476 | 0.489 | 0.213 | 0.475 | 0.323 | 0.649 |
| Unexpected Total Fees | 2,476 | -0.081 | 0.687 | -0.083 | -0.526 | 0.337 |
| Unexpected Audit Fees | 2,476 | -0.364 | 0.610 | -0.349 | -0.765 | 0.021 |
| Unexpected Non-Audit Fees | 2,476 | 0.332 | 1.024 | 0.385 | -0.287 | 1.009 |
| <u>Post-SOX</u> | | | | | | |
| | N | Mean | Std. Dev. | Median | P25 | P75 |
| Audit Fees | 4,923 | 1,345,077 | 3,064,785 | 499,641 | 231,576 | 1,209,400 |
| Audit Fees/Total Fees | 4,923 | 0.673 | 0.198 | 0.696 | 0.537 | 0.832 |
| Unexpected Total Fees | 4,923 | 0.071 | 0.645 | 0.084 | -0.340 | 0.502 |
| Unexpected Audit Fees | 4,923 | 0.175 | 0.694 | 0.162 | -0.264 | 0.633 |
| Unexpected Non-Audit Fees | 4,923 | -0.104 | 1.090 | 0.005 | -0.736 | 0.646 |

Variable definitions:

- Total Fees = total fees paid to the auditor (in millions);
- Audit Fees = audit fees paid to the auditor (in millions);
- Non Audit Fees = Total Fees-Audit Fees
- UnexpTot = Unexpected total fees estimated as following Ashbaugh et al. (2003);
- UnexpAud = Unexpected audit fees estimated as following Ashbaugh et al. (2003);
- UnexpNonAud = Unexpected non-audit fees estimated as following Ashbaugh et al. (2003);

TABLE 7
Regression of Accruals on Cash Flow from Operations with Post Sarbanes-Oxley Interactions

$$ACC_t = \beta_0 + \beta_1 DCFO_t + \beta_2 CFO_t + \beta_3 DCFO_t * CFO_t + \beta_4 SPCL + \beta_5 DCFO_t * SPCL + \beta_6 CFO_t * SPCL + \beta_7 DCFO_t * CFO_t * SPCL + \beta_8 DCFO_t * CFO_t * SPCL * Post + \beta_9 SIZE + \beta_{10} DCFO_t * SIZE + \beta_{11} CFO_t * SIZE + \beta_{12} DCFO_t * CFO_t * SIZE + \varepsilon_t$$

| | Panel A | | Panel B | | Panel C | | Panel D | | Panel E | | Panel F | |
|---------------------------|---------------------------|--------|----------------------------|--------|-------------------------------|--------|--------------------------------|----------|---------------------------|---------|----------------------------|---------|
| | Low Unexpected Total Fees | | High Unexpected Total Fees | | Low Unexpected Non-Audit Fees | | High Unexpected Non-Audit Fees | | Low Unexpected Audit Fees | | High Unexpected Audit Fees | |
| | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat | Coeff | t-stat |
| <i>CITY*DCFO*CFO</i> | 0.04 | 0.28 | 0.20 | 1.70 † | -0.19 | -1.52 | 0.40 | 3.48 *** | 0.40 | 3.30 ** | -0.15 | -1.26 |
| <i>CITY*DCFO*CFO*Post</i> | 0.07 | 0.44 | 0.14 | 0.97 | 0.30 | 1.95 † | -0.15 | -1.00 | -0.26 | -1.72 † | 0.42 | 2.86 ** |
| Adj R-Sq | 0.105 | | 0.105 | | 0.105 | | 0.106 | | 0.102 | | 0.113 | |
| N | 3,698 | | 3,701 | | 3,698 | | 3,701 | | 3,698 | | 3,701 | |

Only the three-way and four-way interactions are presented. All other results are similar to those found in Table 5.

†, *, **, *** denote two-tailed significance at the 0.10, 0.05, 0.01, and 0.001 levels respectively.