Non-Audit Fees, Audit Tenure & Auditor Independence: Evidence from Going Concern Opinions

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Comments welcome.

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Abstract

This study investigates the relation between the magnitude of non-audit fees and auditor independence. Regulators often express concern that higher non-audit fees may weaken auditor independence. Prior research suggests that the number of years of auditor engagement (auditor tenure) may also affect auditor independence.

We find no significant relation between non-audit fees and auditors' willingness to issue a going concern opinion, our proxy for auditor independence. These results do not change when we interact the relation between non-audit fees and going concern opinion with auditor tenure or examine the relation before and after SOX. Our analysis controls for potential interrelations among audit fees, non-audit fees, and audit opinion that could bias the results. These results, therefore, challenge the view of regulators and others that non-audit fees and auditor tenure constitute threats to auditor independence.

Keywords: Auditor independence, non-audit fees, auditor tenure, going concern opinion, Sarbanes-Oxley.

JEL Classification: C30, K22, L80, M40, M41

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1 Introduction

Certain types of non-audit fees concern regulators because they potentially threaten auditor independence. The corporate collapses of Enron, WorldCom, HIH, and others heightened these concerns, and several countries moved to pass legislation to curtail or eliminate many auditor-provided non-audit services.[1] Such fee restrictions, however, can raise the cost to an auditor of expressing an independent opinion. Were such regulators' actions justified? This study examines the relation between non-audit fees and a proxy for auditor independence, including an analysis of the relation before and after the passage of the Sarbanes-Oxley Act of 2002 (hereafter, SOX). We base our proxy for independence on auditors' willingness to issue a going concern modified opinion (explained in section 3).

We also examine whether auditor tenure (the number of years of engagement) might interact with the link between non-audit fees and auditor independence. Implicit in section 203 of SOX (on audit partner rotation) is the notion that longer auditor tenure could impair auditor independence. However, the recovery of audit start-up costs over a shorter tenure could also affect independence; and the empirical evidence generally supports this latter view–that shorter tenure may weaken independence (Dopuch et al. 2001, Geiger and Raghunandan 2002, Johnson et al. 2002). Overall, our analysis is designed to shed light on the reasonableness of regulators' putative contention in SOX and similar legislation that, by removing potential threats to auditor independence, curtailment of non-audit services and restrictions on auditor tenure should enhance the quality of audit assurance.

[1] These countries include Australia (Corporate Law Economic Reform Program Act of 2004), Canada (Bill 198), France (LSF), Japan (Financial Instruments and Exchange Law), Italy (L262/2005), and U.S. (SOX).

To increase the likelihood that our tests reveal a relation if one is, in fact, present, we examine the link between non-audit fees and going concern opinions for financially-distressed companies only. Auditors are required to issue a going concern modified opinion when they believe "substantial doubt" exists that the client will continue as a going concern (SAS No. 59)[2]. Because the consequences of a qualified opinion can be substantial for these companies (e.g., bankruptcy or covenant violation triggered by a qualified opinion), auditors of distressed companies in general face greater threats to independence than auditors of non-distressed clients; and research documents that auditors of financially-distressed companies are indeed more likely to opine in favor of their clients (Craswell 1999, DeFond et al. 2002). Further, if the curtailment of non-audit fees as a result of SOX effectively reduces independence threats for distressed companies, then we should observe a stronger relation between non-audit fees and auditor independence after than before the passage of the Act. We also test whether audit tenure might moderate this relation, reasoning that auditors with shorter tenure may depend more on non-audit fees to recoup start-up costs or that those with longer tenure may be more bound financially to the client.

We contribute three principal findings to the literature. First, consistent with prior research (DeFond et al. 2002, Geiger and Rama 2003, Lim and Tan 2008), we find no support for regulators' concerns that auditors' willingness to issue a going concern modified opinion (our proxy for auditor independence) decreases in the magnitute of non-audit fees. This relation is no different before and after SOX. Second, contrary to regulators' concerns, we document a significant positive association between audit fees and willingness to issue a going concern modified opinion, which is also unafffected by SOX. This latter result supports the view that the issuance of a going concern modified opinion associates more with

[2] AU 341. No. 59 Statement of Auditing Standard (SAS), the American Institution of Public Certified Accountants.

the fees from additional audit effort and risk rather than those from non-audit services that, arguably, might reduce an auditor's willingness to issue such opinion (Simunic 1980, Palmrose 1986, Francis and Simon 1987). Some additional audit effort, however, could also be directed at independence issues. Third, we find that audit tenure has no bearing on the link between non-audit fees and the issuance of a going concern modified opinion.

Our study proceeds as follows. Section 2 reviews the relevant literature. Section 3 develops the hypotheses, and section 4 outlines the research methods and data collection. Section 5 presents the key results. Section 6 covers robustness tests. Section 7 concludes and discusses limitations and future directions.

2 Literature Review

Auditor independence in its most general form allows external auditors to reduce agency costs between corporate managers and shareholders (Ng 1978, Watts and Zimmerman 1983). Definitions of auditor independence include "the conditional probability of reporting a discovered breach" (DeAngelo 1981), "the ability to resist client pressure" (Knapp 1985), and "the joint probability of detecting and reporting material financial statement errors" (Watts and Zimmerman 1986). Regulators such as the Securities and Exhange Commission (SEC) write detailed rules to ensure an appropriate level of independence for external auditors. Auditors also have market-based incentives to ensure independence, because a signal that an auditor lacks independence can cause significant reputation loss and litigation cost (Watts and Zimmerman 1981). Auditors further argue that the supply of additional (non-audit) services strengthens their independence through better knowledge of the client, hereafter, knowledge spillover (Simunic 1984, Beck et al. 1988a). However, the collapse of Enron and other major companies in the United States challenged the "knowledge spillover" view; and the

governance legislation that followed curtailed and prohibited auditors from providing certain types of non-audit services to their audit clients.[3]

Despite regulators' concerns, prior studies of a possible link between non-audit fees and proxies of auditor independence offer only mixed evidence. Some studies show a negative relation between non-audit fees and the likelihood of issuing a qualified audit opinion (Wines 1994) though most others do not (Barkess and Simnett 1994, Craswell 1999, DeFond et al. 2002, Geiger and Rama 2003). Prior research also shows that auditor's face a higher probability of losing clients after a going concern opinion (Mutchler 1984). Additionally, Geiger et al. (2002) document that the likelihood of a financially-distressed company receiving a going concern modified report declined in the U.S. during the 1990s, and conjecture that the significant increase of non-audit fees during the same period might explain this phenomenon.[4]

Three related streams of research are also relevant. First, non-audit fees cannot be viewed in isolation with audit fees. For example, auditors may not issue a going concern modified opinion to clients who pay abnormally high audit fees, as those clients provide an important source of income. Thus, we might expect a negative relation between the magnitude of audit fees and a going concern opinion (DeFond et al. 2002, Geiger and Rama 2003). Second, the audit fee pricing literature indicates that audit effort (client size and client complexity) and audit risk largely explain audit fees (Simunic 1980, Palmrose 1986, Francis

[3] SOX prohibits nine types of non-audit service, including (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; and (9) any other service that the Board determines, by regulation, is impermissible. The SEC (2003) requires such fees be partitioned into audit-related, tax, and other fees.

[4] Other studies have used discretionary accruals or restatements as a proxy for auditor independence, also with differing results. Frankel et al. (2002), Ashbaugh et al. (2003), and Chung and Kallapur (2003) find no evidence of a positive association between the magnitude of non-audit fees and discretionary accruals, whereas Kinney et al. (2004) document a zero or negative relation between non-audit fees and a subsequent restatement.

and Simon 1987). These factors need to be held controlled in an analysis of a potential link between audit fees and a going concern opinion regarding auditor independence.

Third, a potential link between audit tenure and independence also needs to be considered. While some regulations implicitly assume that longer audit tenure may lead to impaired auditor independence,[5] the most empirical studies find no link between longer audit tenure and impaired auditor independence (Geiger and Raghunandan 2002, Ghosh and Moon 2005, Gul et al. 2007, Myers et al. 2008). However, auditor independence may be impaired in the first year of the auditor engagement because of low-balling (Dye 1991). Gul et al. (2007) also argue that the newly-engaged auditors are unfamiliar with their clients' accounting system and companies' characteristics and hence more vulnerable to independence concerns. Others relate shorter tenure to potential reputation loss if the auditor dismisses too early (Geiger and Raghunandan 2002). Auditor tenure has also been shown to relate to other variables as well, possibly associated with auditor independence; namely abnormal accruals and financial statement quality (Johnson et al. 2002, Myer et al. 2003), perceptions of earnings quality (Ghosh and Moon 2005), and bankruptcy risk (Geiger and Raghunandan 2002). However, despite these studies, the question of whether and how audit tenure relates to auditor independence remains largely unsolved. For example, is it best viewed as a direct relation or an interaction with a more salient variable such as the magnitude of non-audit fees? To the best of our knowledge, Gul et al. (2007) is the only study to test the joint effect of audit tenure and non-audit fees on auditor independence, but their proxy is discretionary accruals, not auditors' willingness to issue a going concern modified opinion, as we study here.

[5] Section 203 of SOX requires partner rotation every five years. Rotation is required in Austria (every six years) and Italy (every nine years). Greece requires rotation every six years for public sector companies, and banks incorporated in Singapore must rotate every five years.

3 Hypotheses, Data, Variables & Models

3.1 Hypotheses

Following the earlier discussion, our first hypothesis (in the alternative form) is:

H1a: The magnitude of non-audit fees associates negatively with the audit opinion received by a financially-distressed company.

However, prior researchers argue that non-audit fees and audit fees should be examined concurrently (Abdel-Khalik 1990, Firth 2002, Abbot et al. 2003). We, therefore, posit that the magnitude of audit fees should associate positively with a going concern audit opinion because auditors charge higher audit fees to cover the additional audit effort and audit risk associated with a modified audit opinion (Simunic 1980, Francis 1984, Francis and Simon 1987). Our second hypothesis (in the alternative form) is:

H1b: The magnitude of audit fees associates positively with the audit opinion received by a financially-distressed company.

Ashbaugh et al. (2003) document that total fees should be used while investigating auditor independence, as such measure best captures the explicit economic bond between the auditors and their clients. Since audit fees represent the majority of total fees[6], we argue the potential positive association between audit fees and audit opinion plays a dominant role in determining the relation between total fees and audit opinion. Higher audit fees, also, may partially compensate the auditor in the resolution of independence issues. Consistent with Lim and Tan (2007), we also posit a positive association between total fees and going concern audit opinions. This leads to the third hypothesis (in the alternative form):

[6] In this study, audit fees count for 63% of total fees.

H1c: The magnitude of total fees associates positively with the audit opinion received by a financially-distressed company.

Regulators have expressed concern that the relative level of non-audit fees to audit fees may threaten auditor independence. Sharma and Sidhu (2001) argue if auditors receive proportionately more non-audit fees than audit fees, they will tend to report more favorably for their clients in order to preserve the more lucrative future non-audit fees. In addition, a higher percentage of non-audit fees to the total fees also may have a negative impact on the perception of independence held by the general public. Taken together, we suggest a negative relation between the fee ratio and a going concern opinion. This leads to a fourth hypothesis (in the alternative form):

H1d: The proportion of non-audit fees to total fees associates negatively with the audit opinion received by a financially-distressed company.

Regulators (SEC 2000a, 2000b) have also expressed concern that auditors may impair their independence by charging low fees to attract clients to earn future non-audit fees. This concern may be especially relevant for engagements with shorter audit tenure (Johnson et al. 2002, Myer et al. 2003). Hence, we examine whether audit tenure conditions the relation between non-audit fees and auditor independence and contend, specifically, that non-audit fees should impair auditor independence for shorter rather than longer tenure. Our fifth hypothesis (in the alternative form) is:

H2: The expected negative relation between non-audit fees and the audit opinion received by a financially-distressed company (*H1a*) is increasing in auditor tenure.

3.2 Data

The initial sample consists of 77,627 U.S. publicly listed companies from *Audit Analytics* from 2000 to 2006. We require other financial statement variables from *Compustat*, which

reduces our sample reduces to 48,524 observations. Matching this file to *CRSP*/*Eventus* reduces the sample further to 28,228 observations. We then restrict the sample to financially-distressed companies, and this decreases the sample to 8,409 observations. We classify a company as financially distressed if it exhibits either negative earnings or negative operating cash flows during the current fiscal year. After eliminating 270 companies with multiple-year going concern modified opinions, 627 financial and insurance institutions, and 419 companies with missing values, we obtain a final sample of 7,093 company-year observations over 2000-2006. This final sample of financially-distressed companies includes 310 companies with a first-time going concern modified opinion (also obtained from from *Audit Analytics*).

3.3 Fee variables

We use four fee variables (*FEE*): non-audit fees, audit fees, total fees, and fee ratio. We measure audit fees as the dollar amount paid to auditors for audit services during the year, and non-audit fees as the dollar amount paid to the incumbent auditor for other services performed during the year. Consistent with previous studies, we transform non-audit, audit, and total fees into natural logarithm form. Fee ratio reflects non-audit fees to total fees paid to the incumbent auditor.

3.4 Auditor tenure variable

We derive auditor tenure from *Compustat* and then compare such with the auditor change information from *Audit analytics*. We observe 233 observations with inconsistent information in the two databases and manually correct these based upon the DEF14A proxy statement. We use a three year cut-off point to define tenure length (Geiger and Raghunandan 2002, Gul et al. 2007), and so audit tenure equals one if tenure ≤ 3, zero otherwise. In the sensitivity tests, we also examine different cut-off points.

3.5 Control variables

We control for contrary factors (going concern opinion more likely) and mitigating factors (going concern opinion less likely). As contrary factors, we include financial distress based on the probability of bankruptcy score (*ZSCORE*) and *AGE* of firm because older companies have a stronger ability to survive therefore are less likely to receive a going concern opinion (Dopuch et al. 1987, Knechel and Vanstraelen 2007). Following Dopuch et al. (1987), we include three market-based contrary factors, namely, *BETA*, *RETURN* and *VOLATILITY*. Companies with larger beta should be more risky and, therefore, more likely to receive a modified audit opinion. We expect *RETURN* to be negatively related to the possibility of issuing a going concern modified opinion. In contrast, we expect *VOLATILITY* to have a positive relation with audit opinion. Chen and Church (1992) also suggest a positive relation between the likelihood of a going concern modified opinion and debt covenant violation. We use leverage (*LEV)* and change in leverage (*CLEV*) to proxy for potential covenant violation. We include prior year loss (*LLOSS*) and operating cash flow (*OP CASH FLOW)* as contrary factors. We also include audit reporting lag (*REPORT LAG*). This variable measures the number of days between the fiscal year-end and the earnings announcement date (Sharma and Sidhu, 2001). Lastly, we use a dummy variable to control for audit reporting lag, specifically one if the number of days from the end of the fiscal year to the auditor's signature is greater than median days to signature of the sample population, zero otherwise.

Our model includes the following mitigating factors. We include a size variable, defined as *Log(ASSETS)*. Mutchler et al. (1997) conclude that auditors have more confidence in larger companies to weather their own financial difficulties. We control for company liquidity because auditors do not generally issue going concern modified opinions to companies that have the ability to raise cash quickly; measured as short and long-term

investment securities (*INVESTMENTS)*. We control for companies' ability to obtain future finance (*FUTURE FINANCE)* as companies that can generate new finance by either issuing new debts or equities in the subsequent years are more capable of overcoming their financial difficulties. We also control for auditor size (*BIG 4)* (Mutchler et al. 1997) and auditor specialization (*AUDITSPEC)* (Lim and Tan 2007). Our model also includes auditor resignation (*RESIGN)* and dismissal (*DISMISS)*. Auditor resignation typically signals higher audit risk (Griffin and Lont 2007, Griffin et al. 2008), whereas an auditor dismissal may be more routine and relatively less risky for an incoming auditor. We recognize, however, the potential for association among *RESIGN, DISMISS* and *AUDITTENURE* in that *RESIGN* and *DISMISS* companies in the year of the event are essentially those that have audit tenure of one year; which is also simultaneously captured by *AUDITTENURE.*[7]

4 Models

We divide companies into two groups, those that receive a first time going concern modified opinion (*GC* companies) and financially-distressed companies that did not receive a going concern modified opinion (*NGC* companies). We first use univariate analysis to calculate the differences in both mean and median values of the key variables across the two groups. Given a discrete dependent variable (*GC* or *NGC*), we use logistic regression to test our hypotheses.

We state the model as follows (firm and time subscripts are omitted for convenience):

$$OPINION = \beta_0 + \beta_1 ZSCORE + \beta_2 Log(ASSETS) + \beta_3 AGE + \beta_4 BETA + \beta_5 RETURN + \beta_6 VOLATILITY + \beta_7 LEV + \beta_8 CLEV + \beta_9 LLOSS + \beta_{10} INVESTMENTS + \beta_{11} FUTURE\ FINANCE + \beta_{12} BIG\ 4 + \beta_{13} OP\ CASH\ FLOW + \beta_{14} REPORT\ LAG + \beta_{15}\ DISMISS + \beta_{16} RESIGN + \beta_{17} AUDITSPEC + \beta_{18} FEE + \Sigma\beta_{19...24} YRDUM_{0\text{-}5} + \hat{e} \quad (1)$$

[7] To test whether this has a significant impact on our results, we removed companies with auditor changes and re-performed our analysis. Unreported analysis shows similar results.

The second hypothesis examines whether the association between the provision of non-audit fees and audit opinion is moderated by the length of audit tenure. We add a dummy variable *AUDITTENURE* and an interaction term (*FEE* AUDITTENURE).*

We use the following logistic model to test hypothesis H2:

$$OPINION = \beta_0 + \beta_1 ZSCORE + \beta_2 Log(ASSETS) + \beta_3 AGE + \beta_4 BETA + \beta_5 RETURN + \beta_6 VOLATILITY + \beta_7 LEV + \beta_8 CLEV + \beta_9 LLOSS + \beta_{10} INVESTMENTS + \beta_{11} FUTURE\ FINANCE + \beta_{12} BIG\ 4 + \beta_{13} OP\ CASH\ FLOW + \beta_{14} REPORT\ LAG + \beta_{15} DISMISS + \beta_{16} RESIGN + \beta_{17} AUDITSPEC + \beta_{18} FEE + \beta_{19} {*}AUDITTENURE + \beta_{20} FEE{*}AUDITTENURE + \Sigma\beta_{21...26} YRDUM_{0\text{-}5} + \hat{e} \quad (2)$$

We define the variables as follows and, where appropriate, are for the current fiscal year:

Variables		Definition	Sources
OPINION	=	Going concern audit opinion=1, otherwise 0	AA
ZSCORE	=	Altman's (1968) Z Score	
Log(ASSETS)	=	Natural logarithm of total assets	Comp
AGE	=	Number of years of the company data available on *Compustat* since 1984	Comp
BETA	=	Firm's market model beta	Eventus
RETURN	=	Firm's stock return over the fiscal year	*CRSP*
VOLATILITY	=	Variance of market model residual over fiscal year	Eventus
LEV	=	Ratio of total liabilities to total assets	Comp
CLEV	=	Absolute change in *LEV* during the year	Comp
LLOSS	=	Negative Net Income (Loss) for previous year=1, otherwise 0	Comp
INVESTMENTS	=	Ratio of short -and long-term investment securities (including cash and cash equivalents) to total assets	Comp
FUTURE FINANCE	=	Firm issues equity or debt in subsequent fiscal year=1, otherwise 0	Comp
BIG 4	=	Big 4 auditor=1, otherwise 0	Comp
OP CASH FLOW	=	Ratio of operating cash flows to total assets	Comp
REPORT LAG	=	Number of days between fiscal year-end and earnings announcement date	AA
DISMISS	=	Auditor dismissal in incoming year=1, otherwise 0	Comp, AA
RESIGN	=	Auditor resignation in incoming year=1, otherwise 0	Comp, AA
AUDITSPEC	=	Auditor industry specialist=1, otherwise 0	Comp
FEE	=	Fee metrics, as defined below	AA

FEERATIO	=	Ratio of non-audit fees to total fees paid to incumbent auditor	AA
Log(TOTAL FEE)	=	Natural logarithm of the sum of audit and non-audit fees paid to incumbent auditor	AA
Log(AUDIT FEE)	=	Natural logarithm of the sum of audit fees paid to incumbent auditor	AA
Log(NON-AUDIT FEE)	=	Natural logarithm of the sum of all non-audit fees paid to incumbent auditor	AA
Log(AudRelated)	=	Natural logarithm of the sum of audit-related fees paid to incumbent auditor	AA
Log(TAX)	=	Natural logarithm of the sum of tax fees paid to incumbent auditor	AA
Log(OtherNonAud)	=	Natural logarithm of the sum of other non-audit fees paid to incumbent auditor	AA
AUDITTENURE	=	Audit tenure ≤ 3 years=1, otherwise 0	Comp, AA
YRDUM	=	Fiscal years 2000 to 2005 = 1, otherwise 0	Comp, AA

5 Results

5.1 Descriptive statistics

Table 1 presents the descriptive statistics for the going concern sample. Mean and median values of total fees are $1,233,588 and $408,702, and the mean and median values of audit fees are $771,186 and $269,800, while non audit fees mean and median values are respectively $462,402 and $81,828. Four percent of our final sample received first time going concern modified audit opinions, significantly lower than in prior studies (DeFond et al. 2002[8], Lim and Lan 2007). The mean and median of *ZSCORE* are 5.04 and 2.26, respectively. *ASSETS* has mean and median values of $1,000,917 and $101,190, and *Log(ASSETS)* has mean and median values of 2.09 and 2.01. The mean and median values of *AGE* are 10.47 and 10.00, respectively. The mean and median values of *BETA, RETURN, VOLATILITY, LEV, CLEV, LLOSS, INVESTMENTS, FUTURE FINANCE, BIG 4,* and *OP CASH FLOW* are all comparable to the earlier research (DeFond et al. 2002). *REPORT LAG* has mean and median values of 69 and 66. We report nine percent of our sample experiences

[8] We obtain a similar result when we restrict our sample to that used by DeFond et al. (2002) source their data.

DISMISS, whereas 2 percent of our sample experiences *RESIGN*. The mean value of *AUDITTENURE* is 6.20 years, which is lower than prior research (Geiger and Raghunandan, 2002).

5.2 Univariate Analysis

We partition the sample into two groups according to opinion type, and use *t*-tests (Mann Whitney *Z*-scores) to assess whether the means (medians) of going concern (*GC*) companies and non-going concern (*NGC*) companies differ statistically from each other. Table 2 reveals significant differences in all fee variables between the two samples. While this could be interpreted as consistent with non-audit services impairing auditor independence, this analysis does not control for the effects of company size on audit and non audit fees (mean values of total assets for *NGC* companies and *GC* companies are $1,028,124 and $376,608, respectively). Table 2 also shows significantly lower mean values of *ZSCORE, AGE, RETURN, LLOSS* , and *OP CASH FLOW* for *GC* companies, and significantly higher mean values of *VOLATILITY, LEV, CLEV,* and *REPORT LAG.* However, we find no significant difference in *BETA*. The findings generally support our expectation that companies that receive going concern modified opinions are in poor financial status, evidenced by negative returns, volatile beta, close-to-breach covenants, multiple year losses, poorer cash positions, and a longer audit. Consistent with prior research, *NGC* companies have higher *INVESTMENTS* and *FUTURE FINANCE*, suggesting that liquidity and the ability to raise new finance reduces the chances of modified audit opinion. We also observe significantly different mean values of *BIG 4* for *GC* companies (0.74) and *NGC* companies (0.64). We find no differences based on auditor dismisals (DISMISS) but audit resignations (*RESIGN)* are statistically different for *GC* versus *NGC* companies, suggesting auditors are more likely to resign from clients with going concern modified opinions. Lastly, we find

AUDITTENURE is significantly greater for *NGC* companies (6.25 years) versus *GC* companies (5.15 years). Mann-Whitney (non-parametric) tests confirm these results.

5.3 Multivariate Analysis

This section summarizes the results of the logistic regressions.[9] For each independent variable, we report the regression coefficient followed by the *p* – value.

5.3.1 Hypotheses 1a-1d

We use several fee measures to examine the first four hypotheses. In table 3, the results for model 1summarize a basic model with no fee variables. Models 2-4 then present the alternative forms including different combination of fee metrics. These models show pseudo R^2s of approximately 29 percent.

Model 1's coefficients for *ZSCORE, Log(ASSETS), RETURN, VOLATILITY, LEV, CLEV, LLOSS, INVESTMENTS, FUTURE FINANCE, OP CASH FLOW, REPORT LAG,* and *AUDITSPEC* are all significant and in line with predictions. Consistent with prior research, we do not find significance in *AGE* and *BETA*. The coefficients of *BIG, RESIGN* and *DISMISS* are also not significant.

Models 2-4 report the results for our experimental variables. All control variables have consistent coefficients and significance to those obtained from the model 1. The results in models 2 and 3 show positive and significant coefficients for *Log(TOTAL FEE)* and *Log(AUDIT FEE)*, which supports *Hypotheses 1b* and *1c*. On the other hand, the insignificant coefficient estimates for *Log(NON-AUDIT FEE)* in model 3 and *FEERATIO* in model 4

[9] Multicollinearity can inflate the variances of the parameter estimates in logistic regressions. In unreported analysis, the highest correlation are between *Log(ASSETS)* and *Log(AUDIT FEE)* at 0.753 and *Log(ASSETS)* with *Log(NON-AUDIT FEE)* at 0.688. All other correlation coefficients are significantly lower than the threshold of 0.8 specified by Judge et al. (1988). All VIFs are under the acceptable level of 10 (Kleinbaum et al. 1998). SIZE has the largest VIF score of 3.795. Logistic regressions further assume sufficient cases to estimate variables, adequacy of expected frequencies and power, absence of outliners in the solution, and independence of errors. Except for the need to transform our independent variables to meet the linearity assumption, these assumptions were reasonably met.

indicate no relation between the provision of non-audit service and audit opinion, hence rejecting *Hypotheses 1a* and *1d.*[10] In sum, we find a positive relation between audit fees or total fees and going concern audit opinions, consistent with previous audit fee studies (Simunic 1980, Palmrose 1986, Geiger and Rama 2003, Lim and Lan, 2007). However, we do find no support for a significant negative association between non-audit fees and audit opinion.

5.3.2 Hypothesis 2

This section examines whether audit tenure might moderate the relation between non-audit fees and audit opinion. The coefficient for *Fee*AUDITTENURE* shows the incremental effect of fee on audit opinion when audit tenure is short. As per the prior literature, a negative coefficient for this interactive term would support rejection of the hypothesis. Table 4 reports the results. First, we run our model with the moderating variable alone (with no interaction with *Fee*); the coefficient estimate for *AUDITTENURE* is negative but insignificant. The coefficient signs and significance of all control variables are consistent with the earlier findings. The results for models 3- 5 also indicate that the coefficients for *AUDITTENURE* and the interaction variable *Fee*AUDITTENURE* are insignificant in all cases. In addition, we run separate regressions on companies with short and long audit tenure, and find consistent results. Our tests, therefore, reject *Hypothesis 2* (stated in the alternative form.[11]

[10] We further control for (1) client size effect by using median asset size to split the samples into subgroups of large and small clients, (2) auditor size effect by examining Big 4 versus Non Big 4, and (3) significance of non-audit fee effect by further limiting our sample to those who pay higher than median non-audit fees. The results remain unchanged.

[11] Client size effects, auditor size effect, and significance of non-audit fees effects are also examined. Similar results are obtained.

6 Robustness Tests and Additional Analysis

6.1 Unexpected Fees

To examine whether auditor independence is influenced by abnormally higher fees rather than fees per se, we re-run our analyses controlling for expected fees. We draw on models in the prior literature to extract the unexpected portion of fees (Hay et al. 2006). We state the models as follows:

$$Log(AUDIT\ FEE) = \beta_0 + \beta_1 Log(ASSETS) + \beta_2 SQSEGS + \beta_3 FOROPS + \beta_4 INVERC + \beta_5 ROA + \beta_6 LOSS + \beta_7 QUICK + \beta_8 LEV + \beta_9 BIG4 + \beta_{10} INITIAL\ YEARS + \beta_{11} REPORT\ LAG + \Sigma\beta_{12...17} YRDUM_{0\text{-}5} + \hat{e} \quad (3)$$

$$Log(NON\text{-}AUDIT\ FEE) = a0 + \beta_1 Log(ASSETS) + \beta_2 SQSEGS + \beta_3 QUICK + \beta_4 LEV + \beta_5 ROA + \beta_6 LOSS + \beta_7 NEW_FIN + \beta_8 RETURN + \beta_9 AUDITSPEC + \beta_{10} BOOK\ TO\ MKT + \Sigma\beta_{11...16} YRDUM_{0\text{-}5} + \hat{e} \quad (4)$$

where:

SQSEGS	Square root of the number of segments	Comp
FOROPS	Foreign operations=1, otherwise 0 (Compustat #150)	Comp
INVERC	Ratio of inventory plus accounts receivable to total assets	Comp
ROA	Ratio of operating income to total assets	Comp
LLOSS	Negative Net Income (Loss)=1, otherwise 0	Comp
QUICK	Ratio of current assets less inventories to current liabilities	Comp
INITIAL YEARS	Initial two years of the audit engagement=1, otherwise 0	Comp
NEW_FIN	Firm issues equity or long-term debt in the current or subsequent fiscal year	Comp
BOOK TO MKT	Book-to-market ratio on the last day of the fiscal year	Comp

and the remaining variables are the same as those defined for models 1 and 2.

Consistent with Frankel et al. (2002), we estimate *FEERATIO* is by the non-audit fee model as it essentially measures the same construct. We estimate *Log(TOTAL FEE)* by combining independent variables in model (3) and (4) into a single equation. Table 5 presents the results. The adjusted R^2s range between 35.2 percent and 75.1 percent, and most of the coefficients are significant and in the expected direction. This suggests that our fee models have reasonable explanatory power.

We then use the error terms in models 3 and 4 to proxy for the unexpected portion of the fee variable, replace the fee variables used in table 3 by the unexpected portion of fee variable, and repeat the analysis Table 6 presents the results. Model 1 shows the benchmark analysis in table 3, while models 2-4 provide alternative forms of the model. Table 6 shows essentially the same results as those presented in Table 3, suggesting there is no relation between unexpected non-audit services and audit opinion. Overall, our results support *Hypotheses 1b and 1c,* but reject *Hypotheses 1a and 1d.*

Table 7 reports the results for *Hypothesis 2* using the unexpected fee variables. Similar to table 6, model 1 shows the benchmark analysis in table 3, while models 2-5 provide alternative forms of the model. The estimated coefficients on both *AUDITTENURE* (models 2-5) and the interactive term *AUDIT TENURE* times the unexpected fee variable (models 3-5) are insignificant in all cases. This offers further evidence to conclude that audit tenure does not moderate the relation between non-audit fees and going concern opinion.

6.2 Other Tests

The following briefly describes numerous unreported tests to check the sensitivity of the results to alternative procedures and variable definitions.[12] Overall, based on these tests, our results are highly robust to alternatives. First, following Geiger and Rama (2003), we control for endogeneity by substituting the fitted *Log(AUDIT FEE)* and *Log(NON-AUDIT FEE)* calculated from model 5 and 6 into our going concern models. We find similar results, indicating that our results are robust to a potential "simultaneous equations bias" induced by endogeneity. Second, we evaluate whether audit tenure, non-audit fee and going concern opinion are affected by industry specialist auditors. We find when the audit tenure is short, the coefficients of non-audit fee are insignificant for both subgroups. Third, we investigate

[12] Results of all unreported analyses are available on request.

whether investors perceive audit-related fees differently from other non-audit fees (Mishra et al. 2005, Huang et al. 2007). We find that different types of non-audit fees do not have different impacts on the auditors' decision-making process. Fourth, we examine the impact of SOX. Myers et al. (2008) posit and find that auditors are more likely to issue going concern opinions to financially-distressed clients post SOX compared to pre-SOX. However, we obtain similar results when the pre- and post-SOX analysis is re-performed, based not only on the full sample but, also, based on sub-samples of large and small companies, and companies with Big 4 versus non-Big 4 auditors. Fifth, we also use an alternative definition for financially-distressed companies. Following Geiger and Rama (2003), we classify a company as being financial distressed if at least one of the following financial stress signals is met: (1) negative working capital at the end of the year, (2) negative retained earnings at the end of the year, and (3) bottom line loss for the year. We re-run the regressions and obtain similar results, suggesting our findings are not sensitive to this alternative definition of financially-distressed companies.

Sixth, we test whether our results are robust to our sample restrictions. For example, we use a distressed sample that includes multiple-year going concern opinions. We also use all available companies (i.e., not only just distressed companies) including first multiple-year going concern opinions only, and those with multiple-year going concern opinion. Overall, these tests provide consistent results with our main analysis. Seventh, we repeat all tests on data for each year separately to reduce the bias from pooling correlated observations and find consistent but weaker results compared to our pooled sample. Eighth, we use various cut-off points to partition the sample based on audit tenure. We use cut-offs of two, three, four, five and six years for identifying the companies with short and long audit tenure. The results of these tests are similar to the results for the three-year cut-off, with all the coefficients of audit tenure and the interactive variables being insignificant. We also partition audit tenure into

two groups, specifically, audit tenure equals one if tenure is equal to or is less than three years, or greater than or is equal to nine years, zero otherwise. Overall, these findings support our results that the relation between non-audit fees and auditor independence is not conditional on auditor tenure.

Ninth, to determine whether our results are driven by outliers, we re-perform the analysis using three restricted sample sets. First, we remove the top and bottom one percent of the empirical distribution for each variable, second, we winsorize the top and bottom one percent of the empirical distribution for each variable, and third, we omit the observations with standardized residuals greater than 2.58. The results obtained from using all three additional data sets are qualitatively similar to our main results. Tenth, we perform several sensitivity analyses by using alternative measures for z-score, size, beta, volatility, reporting lag, and auditor specialization. Specifically, consistent with Lim and Lan (2007), we transform Z score to a categorical variable to control for the effect of extreme values.[13] We also use log of sales as an alternative size measure. Alternative beta and volatility are calculated using weekly data. We further measure reporting lag as the difference between days from end of fiscal year to auditor's signature and sample median days to signature. We also calculate auditor specialization using five alternatives: (1) client sales, (2) number of clients, (3) the amount of audit fees, (4) the amount of non-audit fees, and (5) the amount of total fees. The results remain essentially the same as those presented earlier.

[13]Z-score is coded 2 if the score is less than 1.81, 1 if the score is between 1.81 and 3, and 0 if the score is more than 3.

7 Summary and Future Directions

7.1 Summary

This study examines the association between non-audit fees and auditor independence, as proxied by auditors' willingness to issue a going concern opinion for a financially-distressed company. Consistent with prior studies, we do not find a significant association between non-audit fees and the likelihood of a company receiving a going concern modified opinion. Unlike DeFond et al. (2002), however, our results show that total fees and audit fees associate positively with a going concern opinion. We reason that troubled companies are riskier and require more audit effort, which induces higher audit fees. Such fees from increased audit effort may also help auditors resolve costly independence issues. In addition, our study investigates whether audit tenure moderates the association between non-audit fee and auditor independence. We find that it does not. Nor does industry specialization by an auditor and the different types of non-audit services have any bearing on the association between non-audit fees and auditor independence. Our study also examines whether SOX might have affected the association between non-audit fees and auditor independence, as regulators intended section 203 of the Act to strengthen auditor independence by placing restrictions on the provision of non-audit services to an audit client. Our analysis reveals no evidence of a shift in the non-audit fee/independence relation before and after SOX.

7.2 Future Directions

A critical limitation derives from the use of a modified going concern opinion to infer a relation about auditor independence. While we follow earlier research in the definition of and motivation for our independence proxy, we still have no independent verification of the accuracy of the mapping from the proxy to the underlying variable. Our logistic regressions estimate the likelihood of a going concern opinion, and our results show no association with

non-audit fees. But even if the association between non-audit fees and going concern opinion were negative, such relation does not unambiguously imply a lack of independence. Rather, it simply means that distressed companies with higher non-audit fees associate more with distressed companies that do not receive a going concern opinion that, *potentially*, might have received a going concern opinion but did not due to independence considerations.

Another limitation is that we focus only on the final audit reporting decision of troubled companies and, thus, ignore the subsequent consequences of the auditing decision, such as a type one error (a going concern modified opinion issued for a client that is subsequently viable) and a type two error (an unqualified opinion issued for a client that subsequently fails). Future research could explore this aspect further by examining how the provision of non-audit services might influence the two types of errors. Finally, our results, which are based on U.S. data, may not generalize to other countries with different institutional settings and regulatory requirements.

Table 1: Descriptive Statistics for Financially-Distressed Companies

Full Sample (*n=7,093)*					
Variables	Mean	Median	Std Deviation	Maximum	Minimum
Total Fees ($000)	1,233.59	408.70	3,567.42	90,153.52	0.00
Audit Fees ($000)	771.19	269.80	2,203.46	83,334.00	0.00
Total Non Audit Fees ($000)	462.40	81.83	2059.96	80000.00	0.00
FEE RATIO	0.28	0.24	0.23	0.98	0.00
Log(TOTAL FEE)	5.67	5.61	0.54	7.95	4.00
Log(AUDIT FEE)	5.50	5.44	0.52	7.92	3.70
Log(NON-AUDIT FEE)	5.02	4.98	0.73	7.90	2.48
OPINION	0.04	0.00	0.20	N/A	N/A
ZSCORE	5.04	2.26	31.35	2089.66	-136.27
ASSETS ($ millions)	1,000.92	101.19	4,725.55	208,504.00	0.80
Log(ASSETS)	2.09	2.01	0.81	5.32	-0.10
AGE	10.47	10.00	4.59	19.00	0.00
BETA	1.18	1.18	0.59	2.00	0.00
RETURN	0.09	-0.11	1.00	23.93	-0.99
VOLATILITY	0.003	0.002	0.00	0.10	0.00
LEV	0.48	0.43	0.36	6.81	0.00
CLEV	0.26	0.06	1.43	56.74	-0.99
LLOSS	0.69	1.00	0.46	N/A	N/A
INVESTMENTS	0.34	0.25	0.30	N/A	N/A
FUTURE FINANE	0.79	1.00	0.41	N/A	N/A
BIG 4	0.74	1.00	0.44	N/A	N/A
OP CASH FLOW	-0.12	-0.03	0.32	0.69	-5.88
REPORT LAG	69.18	66.00	53.64	1143.00	0.00
DISMISS	0.09	0.00	0.28	N/A	N/A
RESIGN	0.02	0.00	0.14	N/A	N/A
AUDITSPEC	0.21	0.00	0.41	N/A	N/A
AUDITTENURE	6.20	5.00	4.50	19.00	0.00

Table 1 (cont). Definitions of the variables

Variables	Definition	Source
Total fees	Total audit and non audit fees ($000)	AA
Audit fees	Total audit fees ($000)	AA
Total Non Audit Fees	Total non audit fees ($000)	AA
FEERATIO	Ratio of non-audit fees to total fees paid to incumbent auditor	AA
Log(TOTAL FEE)	Natural logarithm of the sum of audit and non-audit fees paid to incumbent auditor	AA
Log(AUDIT FEE)	Natural logarithm of the sum of audit fees paid to incumbent auditor	AA
Log(NON-AUDIT FEE)	Natural logarithm of the sum of all non-audit fees paid to incumbent auditor	AA
OPINION	Going concern audit opinion=1, otherwise 0	AA
ZSCORE	Altman's (1968) Z Score	Comp
Assets	In millions of dollars	Comp
Log(ASSETS)	Natural logarithm of total assets	Comp
AGE	Number of years of the company data available on *Compustat* since 1984	Comp
BETA	Firm's market model beta	Eventus
RETURN	Firm's stock return over the fiscal year	*CRSP*
VOLATILITY	Variance of market model residual over fiscal year	Eventus
LEV	Ratio of total liabilities to total assets	Comp
CLEV	Change in *LEV* during the year	Comp
LLOSS	Bottom-line loss for previous year=1, = otherwise 0	Comp
INVESTMENTS	Ratio of short -and long-term investment securities (including cash and cash equivalents) to total assets	Comp
FUTURE FINANCE	Firm issues equity or debt in subsequent fiscal year=1, otherwise 0	Comp
BIG 4	Big 4 auditor=1, otherwise 0	Comp
OP CASH FLOW	Ratio of operating cash flows to total assets	Comp
REPORT LAG	Number of days between fiscal year-end and earnings announcement date	AA
DISMISS	Auditor dismissal in incoming year=1, otherwise 0	Comp, AA
RESIGN	Auditor resignation in incoming year=1, otherwise 0	Comp, AA
AUDITSPEC	Auditor industry specialist=1, otherwise 0	Comp
FEE	Fee metrics, as defined below	AA
FEERATIO	Ratio of non-audit fees to total fees paid to incumbent auditor	AA
AUDITTENURE	Audit tenure ≤ 3 years=1, otherwise 0	Comp, AA

Table 2: Comparison of Mean and Median Values for Financially-Distressed Companies, (including 310 Companies with Going Concern Opinions)

	Full Sample (n=*7,093)*							
Variables	Mean				Median			
	NGC	*GC*	t - Test		*NGC*	*GC*	Mann-Whitney	
	n= 6783	*n=310*	P-Value		*n= 6783*	*n=310*	Z score	
Total Fees ($ 000)	1,257.02	720.85	5.45	***	420.00	229.15	-7.32	***
Audit Fees ($ 000)	783.04	511.79	3.72	***	275.00	161.75	-6.47	***
Total Non Audit Fees ($000)	473.98	209.06	6.06	***	84.00	49.10	-5.93	***
FEE RATIO	0.29	0.25	2.98	**	0.24	0.21	-2.40	*
Log(TOTAL FEE)	5.68	5.49	5.88	***	5.63	5.41	-6.52	***
Log(AUDIT FEE)	5.50	5.35	5.05	***	5.44	5.22	-5.64	***
Log(NON-AUDIT FEE)	5.03	4.85	4.29	***	4.99	4.78	-4.08	***
OPINION	N/A	N/A	N/A		N/A	N/A	N/A	
ZSCORE	5.47	-4.29	5.37	***	2.39	-1.33	-17.75	***
ASSETS ($ millions)	1,029.35	378.87	4.34	***	107.22	27.47	-12.61	***
Log(ASSETS)	2.12	1.53	12.68	***	2.03	1.44	-12.61	***
AGE	10.50	9.92	2.19	*	10.00	10.00	-2.15	*
BETA	1.18	1.13	1.52		1.18	1.15	-1.39	
RETURN	0.11	-0.29	5.43	***	-0.09	-0.50	-12.86	***
VOLATILITY	0.00	0.01	-6.69	***	0.00192	0.00433	-12.51	***
LEV	0.47	0.76	-7.96	***	0.42	0.65	-11.01	***
CLEV	0.23	1.00	-3.10	**	0.06	0.29	-10.52	***
LLOSS	0.68	0.82	-6.29	***	1.00	1.00	-5.24	***
INVESTMENTS	0.34	0.23	7.28	***	0.26	0.12	-6.66	***
FUTURE FINANCE	0.79	0.70	3.39	**	1.00	1.00	-3.78	***
BIG 4	0.75	0.65	3.60	***	1.00	1.00	-3.93	***
OP CASH FLOW	-0.10	-0.53	8.46	***	-0.03	-0.24	-11.60	***
REPORT LAG	68.19	90.75	-7.27	***	65.00	86.00	-13.91	***
DISMISS	0.09	0.11	-1.52		0	0	-1.71	
RESIGN	0.02	0.05	-2.30	*	0	0	-3.38	**
AUDITSPEC	0.21	0.20	0.69		0.00	0.00	-0.69	
AUDITTENURE	6.25	5.15	4.72	***	5.00	4.00	-4.28	***

*** = less than 0.001

** = less than 0.01

* = less than 0.05

Notes to table 2.

1. See table 1 for definitions of the variables.
2. Financial distress is defined as loss or negative operating cash flow in the current year. All *p*-values are two-tailed.
3. Tests of significance: *** = less than .001, ** = less than .001, * = less than 0.05
4. *NGC* refers to companies who received a non-going concern audit opinion. *GC* refers to companies who receive a going concern audit opinion.

Table 3: Analysis for Hypotheses 1a, 1b, 1c, and 1d (using Going Concern Model 1 with Fee Variables)

Variables		Model 1		Model 2		Model 3		Model 4	
	Predicted	None		Total Fee		Audit Fee and Non-Audit Fee		Fee Ratio	
	Sign	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Intercept		-2.687	0.00	-5.623	0.00	-5.983	0.00	-2.646	0.00
ZSCORE	-	-0.013	0.04	-0.012	0.06	-0.018	0.01	-0.013	0.04
Log(ASSETS)	-	-0.663	0.00	-1.006	0.00	-0.981	0.00	-0.629	0.00
AGE	-	0.003	0.83	0.004	0.78	0.006	0.71	0.002	0.92
BETA	+	-0.182	0.14	-0.218	0.08	-0.197	0.14	-0.190	0.13
RETURN	-	-0.605	0.00	-0.587	0.00	-0.529	0.00	-0.600	0.00
VOLATILITY	+	44.880	0.00	44.410	0.00	47.964	0.00	44.866	0.00
LEV	+	0.680	0.00	0.595	0.00	0.598	0.00	0.637	0.00
CLEV	+	0.083	0.00	0.086	0.00	0.093	0.00	0.084	0.00
LLOSS	+	0.477	0.01	0.439	0.01	0.345	0.06	0.453	0.01
INVESTMENTS	-	-2.948	0.00	-2.976	0.00	-2.860	0.00	-2.937	0.00
FUTURE FINANCE	-	-0.743	0.00	-0.697	0.00	-0.780	0.00	-0.679	0.00
BIG 4	+	0.225	0.16	0.205	0.21	0.174	0.33	0.270	0.10
OP CASH FLOW	-	-1.774	0.00	-1.718	0.00	-1.706	0.00	-1.810	0.00
REPORT LAG	+	0.004	0.00	0.003	0.00	0.004	0.00	0.004	0.00
DISMISS	-	0.001	1.00	0.066	0.76	-0.020	0.93	0.033	0.88
RESIGN	+	0.531	0.10	0.529	0.10	0.410	0.28	0.543	0.09
AUDITSPEC	+	0.350	0.04	0.280	0.11	0.340	0.06	0.299	0.09
Log(AUDIT FEE)	+					0.696	0.01		
Log(TOTAL FEE)	+			0.65	0.01				
Log(NON-AUDIT FEE)	-					0.02	0.87		
FEERATIO	-							-0.42	0.24
Year00		0.571	0.05	0.635	0.03	0.900	0.01	0.557	0.06
Year01		0.711	0.01	0.805	0.00	1.011	0.00	0.745	0.01
Year02		0.506	0.06	0.548	0.05	0.669	0.03	0.478	0.09
Year03		0.457	0.12	0.532	0.07	0.544	0.10	0.471	0.11
Year04		0.255	0.41	0.244	0.44	0.317	0.35	0.224	0.47
Year05		0.571	0.19	0.323	0.27	0.412	0.19	0.344	0.24
Pseudo R^2 %		29.8%		29.1%		29.3%		28.9%	

Notes to table 3

1. See table 1 for a definition of the variables

Table 4: Analysis for *Hypothesis 2* (using Going Concern Model 2 with Fee Variables and Audit Tenure)

Variables		Model 1		Model 2		Model 3		Model 4		Model 5	
	Predicted	None		Audit Tenure alone With No Fee Measures		Total Fee		Audit Fee and Non-audit fee		Fee Ratio	
	Sign	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Intercept		-2.687	0.00	-2.68	0.00	-4.838	0.00	-5.699	0.00	-2.571	0.00
ZSCORE	-	-0.013	0.04	-0.013	0.04	-0.012	0.05	-0.018	0.01	-0.014	0.03
Log(ASSETS)	-	-0.663	0.00	-0.664	0.00	-0.997	0.00	-0.980	0.00	-0.622	0.00
AGE	-	0.003	0.83	0.003	0.83	0.004	0.79	0.007	0.68	0.002	0.89
BETA	+	-0.182	0.14	-0.182	0.14	-0.220	0.08	-0.202	0.13	-0.193	0.12
RETURN	-	-0.605	0.00	-0.605	0.00	-0.589	0.00	-0.530	0.00	-0.598	0.00
VOLATILITY	+	44.880	0.00	44.891	0.00	44.783	0.00	48.174	0.00	45.257	0.00
LEV	+	0.680	0.00	0.680	0.00	0.593	0.00	0.616	0.00	0.649	0.00
CLEV	+	0.083	0.00	0.083	0.00	0.086	0.00	0.092	0.00	0.081	0.00
LLOSS	+	0.477	0.01	0.477	0.01	0.434	0.01	0.338	0.07	0.444	0.01
INVESTMENTS	-	-2.948	0.00	-2.948	0.00	-2.931	0.00	-2.859	0.00	-2.925	0.00
FUTURE FINANCE	-	-0.743	0.00	-0.743	0.00	-0.697	0.00	-0.782	0.00	-0.678	0.00
BIG 4	+	0.225	0.16	0.223	0.17	0.195	0.24	0.156	0.39	0.258	0.12
OP CASH FLOW	-	-1.774	0.00	-1.774	0.00	-1.718	0.00	-1.700	0.00	-0.678	0.00
REPORT LAG	+	0.004	0.00	0.004	0.00	0.003	0.00	0.004	0.00	0.004	0.00
DISMISS	-	0.001	1.00	0.007	0.98	0.109	0.65	0.013	0.96	0.049	0.84
RESIGN	+	0.531	0.10	0.537	0.11	0.554	0.10	0.463	0.24	0.581	0.09
AUDITSPEC	+	0.350	0.04	0.348	0.05	0.279	0.11	0.332	0.07	0.853	0.09
Log(AUDIT FEE)	+							0.771	0.02		
Log(TOTAL FEE)	+					0.516	0.06				
Log(NON-AUDIT FEE)	-							-0.113	0.53		
FEETAIO	-									-0.802	0.09
AUDITTENURE	-			-0.01	0.95	-1.731	0.24	-0.737	0.64	-0.223	0.34
*AUDITTENURE * Log(TOTAL FEE)*						0.305	0.25				

Table 4, continued

*AUDITTENURE * Log(AUDIT FEE)*							-0.175	0.61		
Table 4 (continued)										
*AUDITTENURE * Log(NON-AUDIT FEE)*							0.334	0.20		
*AUDITTENURE * FEERATIO*									0.832	0.20
Year00	0.571	0.05	0.571	0.05	0.627	0.04	0.906	0.01	0.566	0.06
Year01	0.711	0.01	0.710	0.01	0.793	0.00	1.022	0.00	0.767	0.01
Year02	0.506	0.06	0.506	0.06	0.541	0.05	0.686	0.03	0.495	0.08
Year03	0.457	0.12	0.457	0.12	0.540	0.07	0.562	0.09	0.483	0.10
Year04	0.255	0.41	0.255	0.41	0.251	0.42	0.326	0.33	0.227	0.47
Year05	0.571	0.19	0.383	0.19	0.323	0.27	0.416	0.19	0.347	0.23
Pseudo R^2 %	29.8%		29.8%		29.20%		28.70%		28.90%	

Notes to table 4.

1. See table 1 for a definition of the variables.

Table 5: Results of Fee Expectation Models

	Predicted Sign	*Log(AUDIT FEE)* n=7093		*Log(NON-AUDIT FEE)* n=7093		*FEE RATIO* n=7093		*Log(TOTAL FEE)* n=7093	
		Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Constant		3.85	0.00	3.52	0.00	0.18	0.00	4.01	0.00
Log(ASSETS)	+	0.48	0.00	0.62	0.00	0.07	0.00	0.55	0.00
SQSEGS	+	0.06	0.00	0.05	0.00	-0.01	0.10	0.05	0.00
FOROPS	+	0.13	0.00					0.13	0.00
INVERC	+	0.24	0.00					0.23	0.00
ROA	?	-0.15	0.00	-0.10	0.00	-0.01	0.20	-0.16	0.00
LOSS	+	0.09	0.00					0.09	0.00
QUICK	-	0.01	0.00	0.01	0.26	0.00	0.78	0.01	0.01
LEV	+	0.10	0.00	0.09	0.00	-0.03	0.00	0.05	0.00
BIG 4	+	0.14	0.00					0.11	0.00
INITIAL YEARS	-	0.01	0.46					-0.003	0.72
REPORT LAG	+	0.00	0.00					0.00	0.00
NEW FINANCE	+			0.10	0.00	0.03	0.00	0.06	0.00
RETURN	-			-0.001	0.88	-0.0002	0.95	0.00	0.80
AUDITSPEC	+			0.02	0.17	-0.01	0.23	0.03	0.00
BOOK TO MKT	-			0.00	0.25	-0.001	0.38	-0.003	0.04
Year 00		0.04	0.01	0.20	0.00	0.11	0.00	0.06	0.00
Year 01				0.09	0.00	0.09	0.00	-0.01	0.34
Year 02		0.06	0.00					-0.02	0.20
Year 03		0.14	0.00	-0.10	0.00	-0.07	0.00		
Year 04		0.31	0.00	-0.16	0.00	-0.14	0.00	0.13	0.00
Year 05		0.39	0.00	-0.25	0.00	-0.19	0.00	0.18	0.00
Year 06		0.41	0.00	-0.27	0.00	-0.20	0.00	0.19	0.00
Adjusted R^2			74.70%		51.80%		35.20%		75.10%

Notes to table 5.

1. See table 1 for a definition of the variables.

Table 6: Analysis for *Hypotheses 1a, 1b, 1c*, and *1d* (Using Going Concern Model with Unexpected Fee Variables)

		Model 1 None		Model 2 Unexpected Total Fee		Model 3 Unexp AF & Unexp NAF		Model 4 Unexpected Fee Ratio	
	Pred. Sign	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Intercept		-2.69	0.00	-2.23	0.00	-2.12	0.00	-2.17	0.00
ZSCORE	-	-0.01	0.04	-0.02	0.00	-0.03	0.00	-0.03	0.00
Log(ASSETS)	-	-0.66	0.00	-0.82	0.00	-0.87	0.00	-0.84	0.00
AGE	-	0.003	0.83	-0.002	0.92	0.00	0.89	-0.003	0.88
BETA	+	-0.18	0.14	-0.23	0.11	-0.20	0.21	-0.20	0.16
RETURN	-	-0.61	0.00	-0.51	0.00	-0.45	0.00	-0.51	0.00
VOLATILITY	+	44.88	0.00	0.23	0.77	-0.25	0.78	0.17	0.82
LEV	+	0.68	0.00	0.52	0.00	0.62	0.00	0.53	0.00
CLEV	+	0.08	0.00	0.05	0.30	0.06	0.26	0.06	0.25
LLOSS	+	0.48	0.01	0.56	0.00	0.41	0.04	0.56	0.00
INVESTMENTS	-	-2.95	0.00	-3.41	0.00	-3.30	0.00	-3.39	0.00
FUTURE FINANCE	-	-0.74	0.00	-0.59	0.00	-0.59	0.01	-0.57	0.01
BIG 4	+	0.22	0.16	0.19	0.31	0.24	0.23	0.19	0.31
OP CASH FLOW	-	-1.77	0.00	-1.87	0.00	-1.80	0.00	-1.85	0.00
REPORT LAG	+	0.004	0.00	0.004	0.00	0.004	0.00	0.004	0.00
DISMISS	-	0.001	1.00	0.07	0.77	-0.09	0.74	0.02	0.94
RESIGN	+	0.53	0.10	0.46	0.22	0.29	0.51	0.47	0.20
AUDITSPEC	+	0.35	0.04	0.45	0.02	0.47	0.02	0.46	0.02
Unexpected Log(AUDIT FEE)	+					0.89	0.01		
Unexpected Log(TOTAL FEE)	+			0.54	0.06				
Unexpected Log(NON-AUDIT FEE)	-					-0.24	0.13		
Unexpected FEERATIO	-							-1.13	0.14
Year00		0.57	0.05	0.77	0.02	0.71	0.05	0.58	0.08
Year01		0.71	0.01	0.79	0.01	0.81	0.01	0.67	0.03
Year02		0.51	0.06	0.61	0.04	0.54	0.10	0.56	0.06
Year03		0.46	0.12	0.31	0.37	0.13	0.72	0.28	0.41
Year04		0.25	0.41	-0.01	0.99	0.01	0.98	-0.03	0.93
Year05		0.57	0.19	0.24	0.47	0.22	0.55	0.25	0.45
Pseudo R2 %		29.8%		28.9%		27.8%		29.2%	

Notes to table 6.

1.See table 1 for a definition of the variable.

Table 7: Analysis for Hypothesis 2 (using Going Concern Model with Unexpected fee Variables and Audit Tenure)

	Model 1 None		Model 2 *AUDITTENURE*		Model 3 Unexpected Total Fee		Model 4 Unexp AF & Unexp NAF		Model 5 Unexpected Fee Ratio	
	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Intercept	-2.69	0.00	-2.68	0.00	-2.20	0.00	-2.09	0.00	-2.15	0.00
ZSCORE	-0.01	0.04	-0.013	0.04	-0.02	0.00	-0.03	0.00	-0.03	0.00
Log(ASSETS)	-0.66	0.00	-0.664	0.00	-0.82	0.00	-0.87	0.00	-0.85	0.00
AGE	0.00	0.83	0.003	0.83	0.00	0.90	0.00	0.90	0.003	0.88
BETA	-0.18	0.14	-0.182	0.14	-0.23	0.11	-0.20	0.21	-0.20	0.16
RETURN	-0.61	0.00	-0.605	0.00	-0.51	0.00	-0.45	0.00	-0.52	0.00
VOLATILITY	44.88	0.00	44.891	0.00	0.24	0.76	-0.25	0.77	0.16	0.83
LEV	0.68	0.00	0.680	0.00	0.52	0.00	0.62	0.00	0.53	0.00
CLEV	0.08	0.00	0.083	0.00	0.05	0.32	0.06	0.25	0.06	0.24
LLOSS	0.48	0.01	0.477	0.01	0.56	0.00	0.42	0.04	0.56	0.00
INVESTMENTS	-2.95	0.00	-2.948	0.00	-3.41	0.00	-3.31	0.00	-3.40	0.00
FUTURE FINANCE	-0.74	0.00	-0.743	0.00	-0.59	0.00	-0.59	0.01	-0.57	0.01
BIG 4	0.22	0.16	0.223	0.17	0.18	0.33	0.23	0.24	0.19	0.31
OP CASH FLOW	-1.77	0.00	-1.774	0.00	-1.87	0.00	-1.80	0.00	-1.85	0.00
REPORT LAG	0.00	0.00	0.004	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DISMISS	0.00	1.00	0.007	0.98	0.11	0.68	-0.06	0.84	0.00	0.99
RESIGN	0.53	0.10	0.537	0.11	0.48	0.22	0.32	0.49	0.46	0.23
AUDITSPEC	0.35	0.04	0.348	0.05	0.45	0.02	0.47	0.02	0.46	0.02
Unexpected Log(AUDIT FEE)							0.86	0.04		
Unexpected Log(TOTAL FEE)					0.39	0.30				
Unexpected Log(NON-AUDIT FEE)							-0.19	0.35		
Unexpected FEETAIO									-0.95	0.08
AUDITTENURE			-0.01	0.95	-0.05	0.77	-0.04	0.83	-0.01	0.96
*AUDITTENURE * Unexpected Log(TOTAL FEE)*					0.36	0.53				
*AUDITTENURE * Unexpected Log(AUDIT FEE)*							0.07	0.91		
*AUDITTENURE * Unexpected Log(NON-AUDIT FEE)*							-0.12	0.70		
*AUDITTENURE * Unexpected FEERATIO*									-0.46	0.58
Year00	0.57	0.05	0.571	0.05	0.76	0.02	0.72	0.05	0.58	0.08
Year01	0.71	0.01	0.710	0.01	0.78	0.01	0.81	0.01	0.67	0.03
Year02	0.51	0.06	0.506	0.06	0.61	0.04	0.53	0.10	0.55	0.07
Year03	0.46	0.12	0.457	0.12	0.30	0.37	0.13	0.72	0.28	0.41
Year04	0.25	0.41	0.255	0.41	-0.01	0.98	0.02	0.96	-0.02	0.95
Year05	0.57	0.19	0.383	0.19	0.23	0.48	0.22	0.54	0.25	0.45
Pseudo R^2 %	29.8%		29.8%		29.0%		27.8%		29.2%	

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