Is audit quality influenced by prospective non-audit service fees?

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1. Introduction

Auditor independence is key to maintaining high quality audits and investor confidence in the financial reporting process. As a result extensive regulatory attention has focused on ensuring that the auditor remains independent when making judgments about the reliability of their clients' financial reports. Regulators, including the PCAOB and State Boards of Public Accountancy influence General Accepted Auditing Standards (GAAS), ethical standards, and legal liability to collectively provide a framework that regulates auditor behavior. However, clients directly engage and compensate their auditor. This creates concerns as to whether auditors can maintain their independence when faced with potentially powerful economic incentives. This is especially the case when the auditor obtains lucrative consulting contracts from the audit client.

Historically, regulators have been concerned that fees obtained from the provision of non-audit services would be detrimental to audit quality (DeAngelo 1981, Simunic 1984, Levitt 2000, SOX 2002). Driven in part by the scandalous affairs at Enron which revealed that it paid large fees to their auditor for consulting work, regulators have aggressively adopted policies that curb economic bonding between clients and their auditors. The Sarbanes Oxley Act of 2002 (SOX) embeds strict rules which ban auditors from providing most types of non-audit services (NAS) to their audit clients. The basic premise for the ban is that NAS are highly lucrative and provide a strong economic incentive for an auditor to acquiesce to client requests for more lenient treatment of reporting issues.

Despite these valid concerns, empirical research does not substantiate the link between NAS fees and audit quality (Ashbaugh et al. 2003; Larcker and Richardson 2004; Reynolds et al. 2004; Kinney et al. 2004).[1] More specifically, prior empirical research tests whether companies that pay high NAS fees to their auditor are more likely to experience poor audit quality where audit quality is measured using various proxies of earnings management (Frankel et al. 2002; Ashbaugh et al. 2003; Lim and Tan 2008), earnings conservatism (Ruddock et al. 2005), instances of earnings restatements (Kinney et al. 2004; Bloomfield and Shackman 2008), the non-issuance of going concern opinions (DeFond et al. 2002), and earnings response coefficients (Francis and Ke 2006). For the most part, the findings suggest that NAS fees do not seem to have an adverse impact on audit quality (Habib 2009; Defond and Francis 2005).

We extend this line of research by focusing on another aspect of the business relationship between an auditor and its client: the prospect of future lucrative NAS contracts that a client might use to reward an auditor who is willing to accept questionable financial reporting choices. Auditors whose compensation and promotion depend on how much business they bring to the audit firm find themselves under significant pressure to obtain NAS fees. Importantly, the pressure can come from any client, not simply the clients that already pay high NAS fees. By simply comparing clients with low versus those with high NAS fees, current research methods do not acknowledge that even the low-NAS clients can exert pressure on the auditor simply by promising future business. As Kinney and Libby (2002) note, "...more insidious effects on the economic bond may result from unexpected audit and non-audit service fees that more accurately be likened to attempted bribes." Consistent with this view, we argue that an important threat to

[1] There is some evidence that auditor-provided NAS is associated with poor financial reporting quality including Frankel et al. (2002), Hoitash et al. (2005) and Srinidhi and Gul (2007). Moreover, Francis and Ke (2006) find that market perception of audit quality is negative when auditor provides NAS to its audit clients. Nevertheless, the majority of findings suggest no link between auditor-provided NAS and audit quality.

independence is from economic incentives related to the potential future business that an auditor might wish to obtain from the current audit client, more so than by NAS fees already obtained from the client. Referring to the conflict of interest that might arise from future NAS fees Coffee (2006) states that "…the real conflict lies not in the actual receipt of high fees, but in their expected receipt. Even the client currently paying low consulting revenues to its auditor might reverse this pattern if the auditor proved more cooperative."

We use Self-Determination Theory (SDT) as the basis to argue that economic incentives arising from the pressure to obtain profitable consulting engagements negatively affect auditor judgment, leading to reduced audit quality. SDT proposes that individuals can be motivated to act in accordance with the norms and standards of their reference group. That is, the individual assimilates the group norms, identifies with these norms and behaves accordingly – referred to as identified motivation.[2] Individuals can also be extrinsically motivated if they work to attain tangible rewards which are contingent on the individual's behavior. In many cases, extrinsic motivation rewards behavior that is in direct conflict with the individual's identified norms. The relative salience of identified versus extrinsic motivation determines the ultimate action chosen.

SDT suggests that interpersonal context in which the rewards are administered and whether the individual expects to be rewarded will affect which type of motivation prevails and ultimately the action adopted by the individual. When rewards are administered in a high pressure context, they are more likely to induce the individual to undertake the rewarded behavior even if the latter conflicts with the norms of the individual's reference group. Moreover, tangible extrinsic rewards such as money can be used to control behavior as long as these rewards are expected and their receipt requires the individual to engage in the activity. In

[2] It is said that the individual internalizes the norms.

other words, individuals engage in the behavior because they expect to be rewarded (Deci, Koestner and Ryan 2001).

Auditors are part of a profession that holds them to a high moral standard and requires them to exercise independent judgment on whether a client's financial reports are free of material error. Auditors are guided by several rules and standards in order to maintain independence when performing their audit work (AICPA 2008; PCAOB Rule 3520). However, auditors are also in the business of selling their services and sometimes the business objective may conflict with their professionalism. We argue that when auditors are pressured into increasing the level of business with their audit clients, the business objective of maximizing revenue becomes relatively more salient than the objective of maintaining independence and professionalism. Consistent with the proposition of SDT that expected rewards can control behavior we argue that when clients favor a particular financial reporting outcome, they may be able to pressure the auditor into accepting this outcome if they promise monetary rewards.

Consistent with SDT we argue that the pressure arising from potential future consulting engagements has important implications for audit quality. Prior to Sarbanes Oxley, audit firms were under pressure to grow their businesses. It is reported that at Arthur Andersen, audit partners were expected to double the revenues obtained from their audit clients by cross-selling NAS (Brown and Dugan 2002). Consulting seemed to be the most promising area to target as audit fee growth is constrained by competition. In many cases, the audit was viewed as a commodity with limited prospects for growth and many firms may have used the audit as a loss leader to more aggressively pursue growth opportunities in the area of non-audit services (Levitt 2000). Audit partners were incentivized to bring new consulting business from their audit clients. Coffee (2006) suggests that compensation and promotions policies were used to reward partners

who were able to cross-sell non-audit services. In many cases, partners who successfully attracted large NAS contracts through their salesmanship abilities replaced those audit partners with technical skills, but who were not able to entice clients to purchase additional NAS. At a speech at the American Accounting Association Annual Meeting in 2003, Arthur Wyatt, a former FASB and IASB board member and former senior partner at Arthur Andersen stated that "Cross-selling of a range of consulting services to audit clients became one of the most important criteria in the evaluation of audit partners. Those with the technical skills previously considered so vital to internal firm advancement found themselves with relatively less important roles."

The pressure to obtain future business potentially makes the auditor more vulnerable to accepting future NAS in exchange for complacency. As Coffee (2006) puts it: "The auditor's independence was compromised not by the threat that existing consulting revenues from the audit client would be withdrawn, but by the *anticipation* [emphasis added] that additional consulting revenues were obtainable – if the auditor cultivated management and acquiesced to it." Following SDT, this suggests that future expected rewards in the form of NAS engagements would be likely to impair auditor independence as now auditor's judgments are based more on client rewards expected than on audit or ethical standards. We therefore predict that the pressures created to expand and increase future consulting engagements are associated with reduced audit quality in the current period.

We investigate this expectation using data from the time period before the passage of the Sarbanes Oxley Act of 2002, a time period when NAS were permitted. We test whether future expected consulting engagements are associated with current audit quality. We use two measures of audit quality: (1) earnings management measured as the absolute value of the discretionary portion of current accruals (Ashbaugh et al. 2003; and Lim and Tan 2008) and (2) earnings

response coefficient on quarterly earnings surprises (Francis and Ke 2006). Our goal is to identify engagements in which partners were under significant pressure to obtain NAS fees from their audit client and were actually in the process of negotiating future NAS fees. We argue that auditors whose NAS fees from their audit client were relatively low in a given year are under significant pressure to obtain NAS fees in the future. Therefore, we measure the auditor's pressure as firm-year observations where the level of non-audit services fees in year t was below the 25th percentile of such fees among the audit firm's clients in the same 2-digit SIC industry or in the same city. However, being under pressure is a necessary but not a sufficient condition for impaired judgment. According to SDT, the auditor is likely to lose independence if he expects to be rewarded. Our proxy for the expected reward is engagements that experienced an increase in non-audit service fees in the following year (year t+1). Our variable of interest is the interaction between engagements that had low NAS fees in year t, and those that experienced an increase in NAS fees year t+1. We label the interaction variable as future realized NAS fees.

We find that the future realized NAS fees are positively and significantly associated with earnings management even after controlling for the existing level of NAS fees paid to the auditor. We also find that the future realized NAS fees are negatively associated with market perception of audit quality as evidence by reduced returns surrounding the earnings announcement at a time when the market learns of the existence of future NAS fees. As a benchmark, we also test the hypothesis by using data after SOX, a time period when the pressure to obtain NAS fees from audit clients was reduced and therefore we expect no significant relationship between expected future NAS fees and audit quality. Our results confirm this expectation.

Our findings provide important contributions to the literature on whether auditor-provided NAS are detrimental to audit quality. First, we use a new theoretical basis to put forward the argument that future expected rewards in the form of NAS fees can lead to compromised auditor independence. Our findings are consistent with the predictions generated from SDT. Our results hold even after we control for the level of NAS paid to the auditor in the current year which we show to be insignificantly related to audit quality, consistent with prior research. Third, our study arrives at a critical time for the accounting profession. Our evidence is more consistent with the view espoused by the regulators and the current provisions of SOX which ban auditor-provided NAS.

The remainder of the paper is organized as follows: section 2 describes the research design and section 3 reports the main results. Section 5 concludes the paper.

2. Research Design and Sample

Regression Models

We test for a relationship between future realized NAS fees and audit quality. Models (1) and (2) below are used to test the hypothesis:

$$\begin{aligned} ADCA_t = {} & \alpha_0 + \alpha_1 PFEE_t + \alpha_2 NY\_PCT_t + \alpha_3 \left(PFEE \times NY\_PCT\right)_t + \alpha_4 LNNASF_t + \\ & \alpha_5 TENURE80_t + \alpha_6 CFO_t + \alpha_7 LEV_t + \alpha_8 LITIG_t + \alpha_9 MB_t + \alpha_{10} MV_t + \alpha_{11} LOSS_t + \\ & \alpha_{12} FIN_t + \alpha_{13} LCA_t + \alpha_{14} SPEC_{t-1} + \alpha_{15} Y(0) + \varepsilon \end{aligned} \quad (1)$$

ADCA is our proxy for audit quality measured as the absolute value of discretionary accruals as specified in Lim and Tan (2008). Specifically, we generate discretionary accruals using a cross-sectional performance-matched Jones model (see Kothari, Leone, and Wasley 2005). We first use all COMPUSTAT companies available in our sample years with available data. Required data items include current accruals, equal to income plus depreciation, minus operating cash

flows ($CA_t = IBC_t + DPC_t - OANCF_t$), change in sales ($SALE_t - SALE_{t-1}$), lagged income before extraordinary items (IB_{t-1}), and lagged total assets (AT_{t-1}). We winsorize all variables at the one percent tails before estimating the following regression within years and within 2-digit SIC codes (excluding industries with less than six members).

$$\frac{CA_t}{AT_{t-1}} = \lambda_1 \frac{1}{AT_{t-1}} + \lambda_2 \frac{\Delta SALE_t}{AT_{t-1}} + \lambda_3 \frac{IB_{t-1}}{AT_{t-1}} + \varepsilon$$

Discretionary accruals (DCA) are equal to the residual values from estimating this regression model as described above. Absolute discretionary accruals (ADCA) are equal to the absolute value of DCA. Consistent with prior studies, we eliminate observations with ADCA greater than one.

The motivation for choosing earnings management as a proxy for audit quality comes from the regulators perspective that auditors were allowing their clients to engage in the aggressive management of earnings (Levitt 1998). For example, in his speech at NYU in 1998, titled "The Numbers Game" Levitt states that: "Too many corporate managers, auditors, and analysts are participating in a game of nods and winks. In the zeal to satisfy consensus earnings estimates and project a smooth earnings path, wishful thinking maybe winning the day over faithful representation". Moreover, one of the primary goals of SOX was to limit earnings manipulations because this is where the regulators believed that auditors were becoming more lax in their monitoring (SEC 2003). In addition, incentives to maintain independence such as concern for reputation or litigation costs are least powerful when considering earnings management because of the flexibility and subjectivity inherent in GAAP. Therefore, if auditor independence is compromised, earnings management would be the most likely metric to manifest the impairment.

PFEE is our proxy for the pressure to obtain non-audit fees. We provide two different measures for PFEE: the first measure, PrAUSIC, which is industry-specific, equals one if a client's non-audit service fees to the auditor are below the 25th percentile of those paid by clients of the company-year auditor in the same 2-digit SIC industry and zero otherwise; the second measure, PrAUCITY, which is a city-specific measure of pressure, is a dummy variable equal to one if the company's non-audit service fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same city and zero otherwise. NY_PCT is the percentage change in non-audit service fees from year t to year t+1. The interaction term, PFEE*NY_PCT is our independent variable of interest which measures the expected future non-audit service fees that were actually realized or the realized future NAS fees. The interaction term captures auditors that experienced high pressure to obtain non-audit service (PFEE) fees and were already negotiating to obtain these fees as evidenced by the eventual increase in non-audit fees (NY_PCT). The hypothesis predicts that the coefficient on the interaction term is positive (α_3>0) suggesting that expected rewards in the form of future NAS fees are detrimental to audit quality.

The control variables included in the models are obtained from prior research (Ashbaugh et al. 2002; Lim and Tan 2008). We include LNNASF measured as the natural log of non-audit service fees paid to the auditor in the current year; TENURE80 which is auditor tenure in years; CFO equals to operating cash flow scaled by total assets; LEV which is total liabilities scaled by lagged total assets; LITIG which is a dummy variable equal to one if the company-year is in a high litigation industry including those with SIC codes: 2833-2836, 3570-3577, 3600-3674, 522-5961, 7370-7474 and zero otherwise; MB is the market-to-book ratio; MV is the natural log of the market value of equity at fiscal year-end; LOSS is a dummy variable that equals one if net income is less than zero, zero otherwise; FIN is a dummy variable indicating new financing and

equals one if COMPUSTAT footnote SALE_FN equals “AB”, or the percentage change in long-term debt is greater or equal to 20 percent, or the percentage change in common shares outstanding (adjusted for stock splits, etc.) is greater or equal to 10 percent, zero otherwise; LCA is the absolute value of lagged total accruals; SPEC is a dummy variable that equals one if the company-year’s audit firm has the greatest market share in the company’s 2-digit SIC code, zero otherwise. Y(0) is the yearly dummy variable.

We use model (2) below to test for the association between future realized NAS fees and the perceived level of audit quality.

$$\begin{aligned} CAR_q = {} & \beta_0 + \beta_1 UE_q + \beta_2 PFEE_q + \beta_3 NY\_PCT_q + \beta_4 \left(UE_q \times PFEE_q\right) + \\ & \beta_5 \left(UE_q \times NY\_PCT_t\right) + \beta_6 \left(UE_q \times PFEE_q \times NY\_PCT_q\right) + \beta_7 LNNASF_q + \\ & \beta_8 \left(UE_q \times LNNASF_q\right) + \beta_9 GRW_q + \beta_{10} \left(UE_q \times GRW_q\right) + \beta_{11} VOL_q + \beta_{12} \left(UE_q \times VOL_q\right) + \\ & \beta_{13} LEVQ_q + \beta_{14} \left(UE_q \times LEVQ_q\right) + \beta_{15} MVQ_q + \beta_{16} \left(UE_q \times MVQ_q\right) + \beta_{17} LOSSQ_q + \\ & \beta_{18} \left(UE_q \times LOSSQ_q\right) + \beta_{19} RESTR_q + \beta_{20} \left(UE_q \times RESTR_q\right) + \beta_{21} SPEC_{t-1} + \\ & \beta_{22} \left(UE_q \times SPEC_{t-q}\right) + \beta_{23} Y(0)_q + \beta_{24} \left\{UE_q \times Y(0)_q\right\} + \varepsilon \end{aligned} \qquad (2)$$

CAR is the dependent variable which proxies for investors’ perception of audit quality measured the cumulative abnormal return equal to the three-day cumulated raw return over days -1, 0, and 1 around the earnings announcement date that follows disclosure of audit and NAS fee proxy information, less the three-day cumulated CRSP value-weighted market return over the same period. Investor perception of audit quality is important because a negative perception threatens the viability of the audit in the capital markets.

In model (2) UE is the earnings surprise measured as the difference between actual EPS and the most recent median earnings forecast for the quarter immediately after disclosure of fee information, scaled by stock price at the beginning of the quarter. GRW is the sum of the market value of equity and the book value of total liabilities, scaled by total assets, at quarter-end. The

variable of interest is the three-way interaction UE*PFEE*NY_PCT which measures the differential reaction of investors to earnings upon discovery of the realized future NAS fees. The hypothesis predicts that the coefficient on the three-way interaction term is negative (β_3<0) suggesting that investors perceive that future NAS fees likely impair auditor independence.

The control variables are based on prior literature (Lim and Tan 2008). VOL is the standard deviation of daily stock returns over a 90-day window ending seven days prior to the earnings announcement date; LEVQ is total liabilities scaled by current total assets; MVQ is the natural log of market value of equity at fiscal-quarter-end; LOSSQ is a dummy variable that equals one if quarterly net income is less than zero, zero otherwise; RESTR is a dummy variable indicating restructuring and equals to one if the special items scaled by total assets is less than or equal to negative 5 percent, zero otherwise. All other variables are defined as in equation (1).

Sample

We obtain data on audit and non-audit fees from Audit Analytics, data on client characteristics from COMPUSTAT, data on stock returns from CRSP, and forecast and actual earnings per share data from IBES. All continuous control variables are winsorized at the top and bottom 1 percent to remove extreme values. We eliminate company-years in SIC industry codes 6000 through 6999. In our tests, we report the results separately for two periods: 2000-2001 and 2002-2007. Presentation of the results for the period 2002-2007 provides an important benchmark to our main results because of the regulatory ban on most auditor-provided NAS which removed the pressure to negotiate and obtain NAS service engagements from the auditor.

Table 1, panel A summarizes the sample size by year for each of the models. Model (1) uses 3.640 firm-year observations for years 2000-2001 and 10,534 firm-year observations for years

2002-2007. Model (2) uses 1,972 firm-year observations for years 2000-2001 and 5,413 firm-year observations for years 2002-2006. Panel B summarizes frequency distribution by industry.

3. Results

The effect of the expected non-audit service fees on earnings management

Descriptive Statistics

Table 2 presents descriptive statistics (Panel A) and correlation coefficients of the variables (Panel B) in the accruals model (1). For completeness, we present the descriptive statistics in Panel A separately for the pre-SOX (2000-2001) and post-SOX periods (2002-2007), but we restrain our comments to the descriptive pertaining to 2000-2001 which is our period of interest. The mean (median) value of ADCA is 0.09 (0.07) which are similar to the values reported in Lim and Tan (2008). The mean value of NY_PCT is 0.25 indicating that non-audit fees increased on average by 25 percent in 2001 compared to year 2000, suggesting that audit firms were actively pursuing NAS fees just prior to SOX. On average, about 16 (15) percent of firms prior to SOX had non-audit fees below the 25^{th} percentile for the 2-digit SIC industries (cities), as measured by PrAUSIC and PrAUCITY respectively. In Panel B Pearson correlations show that in years 2000-2001, PrAUSIC and PrAUCITY are positively and significantly correlated with ADCA providing some evidence that pressure to obtain fees may reduce audit quality, measured by higher absolute value of discretionary accruals. There seems to be no correlation between NY_PCT and ADCA. The correlation coefficient between PrAUSIC and PrAUCITY is positive (0.54) and significant suggesting that these two variables capture common theoretical constructs. In addition, PrAUSIC and PrAUCITY are positively and significantly correlated with NY_PCT indicating that firms that have low NAS fees in year 2000 (PrAUCITY and PrAUSIC) are likely to increase their fees in the following year (NY_PCT).

Multivariate results

Table 3 presents the regression results of the accruals model separately for years 2000-2001 (Panel A) and years 2002-2007 (Panel B). In Panel A, two separate results are shown, each using a different measure for PFEE. The results when PFEE is equal to PrAUSIC (industry-based measure of pressure), or PrAUCITY (city-based measure of pressure) show an adjusted R-square equal to 23 percent, suggesting a reasonably good fit and comparable to prior research. The sign and significance of control variables is consistent with prior research.[3] We would like to point out that LNNAS is not significant which suggests that the current level of NAS obtained from the client does not affect audit quality. Another interesting result is the negative and significant coefficient on SPEC, suggesting that specialist auditors provide better audit quality (Balsam, Krishnan, and Yang 2003).

The coefficients on the primary variable of interest, PrAUSIC*NY_PCT, is positive and significant (α_3 = 0.007, t-statistic = 2.69), suggesting that when auditors are under significant pressure to obtain future NAS fees, they are likely to allow earnings management to a greater extent as they cultivate a relationship with the client that can potentially reward them with future NAS fees. We obtain a similar result when PFEE is equal to PrAUCITY (city-based measure of pressure). The coefficient on the interaction terms PrAUCITY*NY_PCT is positive and significant (α_3 = 0.008, t-statistic = 2.64), providing additional support for the hypothesis that auditors are more likely to allow earnings management when they expect to be rewarded.

In order to provide a benchmark to our main results, we also test whether the relationship between future realized NAS and audit quality holds during 2002-2007. Our rationale is that the pressure to obtain NAS fees from audit clients is greatly reduced after the implementation of

[3] For example, note that consistent with most prior research, LNNAS is not significant which suggests that the current level of NAS obtained from the client does not affect audit quality (see Ashbaugh et al. 2003; Habib 2009).

SOX. Here, clients are concerned with having the negative perception from using their auditor for NAS and also due to the significant restrictions on NAS allowed post-SOX.[4] We therefore expect an insignificant association between our variable of interest, PFEE*NY_PCT and ADCA. Indeed the results in Panel B show that the coefficient on PFEE*NY_PCT is not significant suggesting that in the absence of pressure to obtain fees, the auditor do not seem willing to compromise audit quality motivated by the expectation of future fees.

Overall, the results presented in table 3 are consistent with our prediction generated from SDT, which argues that expected rewards are more likely to be perceived as controlling in tasks that are contingent on performance. In our case, expected rewards are future non-audit service fees from consulting that clients may use to reward complacent auditors.

The effect of the expected non-audit service fees on ERC

Descriptive Statistics

Table 4 provides descriptive statistics of the sample used to test the ERC model (2). Recall that because of additional data requirements the ERC sample size is smaller than the one used in the accruals model. As before, statistics are presented separately for pre and post-SOX time periods. In the pre-SOX sample, the mean (median) CAR is 0.0 (0.0) percent which are slightly less than the values reported in Lim and Tan (2008). The mean NY_PCT is 0.18 suggesting an average 18 percent increase in the non-audit service fees in 2001 compared to 2000. The mean of PrAUSIC and PrAUCITY are both 0.10 suggesting that in about 10 percent of observations the pressure to obtain non-audit service fees is high. Panel B presents the Pearson correlations

[4] SOX prohibits bookkeeping, information systems design and implementation, appraisals or valuation services, actuarial services, internal audits, management and human resources services, broker/dealer and investment banking services, legal or expert services unrelated to audit services. Other non-audit related services (e.g., tax services) are still allowed if approved by the Board. In the pre-SOX period, information systems design and implementation and services regarding internal audit were the most lucrative.

between the variables in the ERC model (2). Similar to the correlations in table 2, there is a strong positive association between PrAUSIC and PrAUCITY, and these are both positively correlated with NY_PCT.

Multivariate results

Table 5 presents the results of the ERC regression for years 2000-2001 (Panel A) and years 2002-2007 (Panel B). Panel A shows separately the results depending on whether PrAUSIC or PrAUCITY is used. In both models, the adjusted R-square is 7 percent which is comparable to prior research (Lim and Tan 2008). The coefficient of interest is β_6 (UE x PFEE x NY_PCT), which measures the differential reaction of investors to unexpected earnings when firms reveal that they pay high NAS fees to their auditor, when auditors seem to be under high pressure to obtain fees, where pressure is measured at the industry level (PrAUSIC) or city level (PRAUCITY). Specifically, the coefficient on UE x PrAUSIC x NY_PCT is negative and significant (β_6 =-0.19, t-statistic = 2.14), suggesting that investors have a negative perception of audit quality upon discovery of future NAS fees to be obtained from audit clients when auditors have current NAS fees that are low for the industry in which they operate. Similarly, the coefficient on UE x PrAUCITY x NY_PCT is also negative and significant (β_6 =-0.20, t-statistic = 2.26) suggesting that investors also punish firms that reveal new NAS fees to their auditors when their auditors have low current NAS in the city in which they operate. Overall the results on the ERC model suggest that when investors learn that auditors were negotiating new NAS engagements they have a negative perception of audit quality, especially if auditors were considered to be under pressure to obtain NAS fees. The ERC result provides additional support for our hypothesis.

Panel B in table 5 presents the ERC results for the post-SOX time period. Because auditors are under reduced pressure to obtain future NAS fees during this time period we do not expect that investors would react abnormally to the revelation that the auditor had been negotiating a new NAS engagement (for those NAS that are allowed). As expected the coefficient on the interaction UE x PFEE x NY_PCT is not significant. The benchmark result in the post-SOX years provides more support for our main hypothesis.

4. Conclusion

We examine whether the prospect of future lucrative NAS contracts affects auditor judgment and leads to lower audit quality. According to Self-Determination Theory (SDT) rewards can be used to control the behavior of individuals as long as the individual expects to be rewarded and the rewards are administered in a high pressure environment. We use this finding of STD to argue that when auditors are promised rewards in the form of future NAS fees, they are more likely to agree with the client and allow earnings management. We expect this relationship to be more salient in a high pressured environment such as the period before SOX because according to anecdotal reports during this time many audit partners were effectively pressured by their firm's upper management to grow the NAS business. Therefore we test for an association between audit quality and future NAS fees for auditors that were under significant pressure to obtain NAS fees. By default we expect this association to be insignificant after SOX. The key difference between our setting and the prior literature is that we argue that the threat to independence is from the expectation of gaining future NAS fees, not NAS fees from existing clients. In contrast to prior literature we argue that *any* client, not only the clients that already

pay high NAS fees, can lure the auditor into being more lenient by simply promising a reward in the form of more NAS fees.

We measure the future realized NAS fees as the interaction between current-year low NAS levels and next-year increase in NAS levels. Our goal is to capture both the pressure that auditors were under (as measured by low current-year NAS fees) and their aggressive pursuit of future NAS (as measured by next-year increase in NAS fees). Audit quality is measured using (1) the absolute value of performance-adjusted discretionary accruals and (2) earnings response on unexpected quarterly earnings. We find that future realized NAS fees are negatively related to both measures of audit quality. These results hold only for the pre-SOX period.

Overall, our results add to the discussion of whether NAS fees compromise auditor independence. Our unique approach extends the literature and provides evidence that supports the regulators perspective currently embedded in the SOX law, that NAS have the potential to impair auditor independence.

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TABLE 1
Sample Size and Industry Distribution

Panel A: Distribution of sample companies by year

Year	Accruals Model	ERC Model
2000	1,406	714
2001	2,234	1,258
2002	2,184	1,300
2003	2,028	1,309
2004	1,764	1,337
2005	1,629	1,230
2006	1,488	237
2007	1,441	-----
Total company-years	14,174	7,385
Total companies	3,413	2,062

Panel B: Distribution of sample companies by industry

	Accruals Model				ERC Model			
	2000 – 2001		2002 – 2007		2000 – 2001		2002 – 2006	
SIC Industry	N	%	N	%	N	%	N	%
13 Oil and gas extraction	157	4.31	414	3.93	73	3.70	182	3.36
20 Food and kindred prod.	78	2.14	301	2.86	46	2.33	152	2.81
28 Chemical and allied proc.	389	10.69	1,084	10.29	231	11.71	609	11.25
35 Industrial machinery/equip.	247	6.79	728	6.91	164	8.32	400	7.39
36 Electronic/other electric	310	8.52	864	8.20	241	12.22	659	12.17
37 Transportation equip.	112	3.08	321	3.05	60	3.04	151	2.79
38 Instruments and related	278	7.64	782	7.42	184	9.33	510	9.42
48 Communication	181	4.97	456	4.33	68	3.45	172	3.18
49 Electric/gas/sanitary serv.	190	5.22	638	6.06	41	2.08	119	2.20
50 Durable goods – whsl.	87	2.39	271	2.57	34	1.72	114	2.11
59 Miscellaneous retail	86	2.36	281	2.67	36	1.83	143	2.64
73 Business services/software	509	13.98	1,117	10.60	312	15.82	753	13.91
87 Enginering/mgmt. serv.	83	2.28	238	2.26	52	2.64	125	2.31
Other	933	25.63	3,039	28.82	430	21.81	1,324	24.46
Total	3,640		10,534		1,972		5,413	

TABLE 2

Descriptive Statistics and Correlation between Variables Used in the Accruals Model

Panel A: Descriptive statistics

	2000 – 2001					2002 – 2007				
Variable	Mean	SDT. Dev.	1st Qrtl.	Median	3rd Qtrl.	Mean	SDT. Dev.	1st Qrtl.	Median	3rd Qtrl.
ADCA	0.09	0.11	0.02	0.05	0.11	0.07	0.10	0.02	0.04	0.08
NY_PCT	0.25	1.44	-0.53	-0.13	0.43	0.30	1.51	-0.48	-0.10	0.39
PrAUSIC	0.16	0.37	0	0	0	0.13	0.33	0	0	0
PrAUCITY	0.15	0.35	0	0	0	0.08	0.27	0	0	0
LNNASF	12.65	1.76	11.43	12.54	13.79	12.36	1.66	11.31	12.41	13.46
TENURE80	9.23	6.46	4	7	13	9.84	7.27	4	8	14
CFO	0.04	0.2	-0.01	0.07	0.13	0.07	0.15	0.03	0.09	0.14
LEV	0.56	0.28	0.36	0.56	0.72	0.57	0.27	0.39	0.55	0.71
LITIG	0.33	0.47	0	0	1	0.32	0.46	0	0	1
MB	2.68	4.41	0.93	1.76	3.29	2.79	4.17	1.32	2.09	3.42
MV	5.78	2.17	4.21	5.81	7.20	6.56	1.96	5.28	6.60	7.84
LOSS	0.41	0.49	0	0	1	0.29	0.46	0	0	1
FIN	0.42	0.49	0	0	1	0.35	0.48	0	0	1
LCA	0.06	0.09	0.01	0.04	0.07	0.06	0.11	0.01	0.03	0.06
SPEC	0.27	0.44	0	0	1	0.32	0.46	0	0	1

Panel B: Pearson Correlations

(2000 – 2001 above diagonal; 2002 – 2007 below diagonal)

	ADCA	*NY_PCT*	*PrAUSIC*	*PrAUCITY*	*LNNASF*	*TENURE80*	*CFO*	*LEV*	*LITIG*	*MB*	*MV*	*LOSS*	*FIN*	*LCA*	*SPEC*
ADCA		-0.00	0.07**	0.08**	-0.16**	-0.16**	-0.34**	0.02	0.20**	0.08**	-0.20**	0.27**	0.17**	0.36**	-0.07**
NY_PCT	-0.00		0.25**	0.22**	-0.30**	-0.07**	0.01	-0.00	-0.02	-0.00	-0.06**	-0.04**	-0.03	0.01	0.02
PrAUSIC	0.08**	0.25**		0.54**	-0.56**	-0.08**	-0.14**	-0.03	0.06**	-0.03	-0.36**	0.10**	0.01	0.10**	-0.00
PrAUCITY	0.06**	0.22**	0.48**		-0.54**	-01.10**	-0.15**	-0.06**	0.05**	-0.01	-0.34**	0.09**	0.00	0.10**	-0.01
LNNASF	-0.13**	-0.32**	-0.56**	-0.47**		0.25**	0.22**	0.16**	-0.10**	0.06**	0.70**	-0.18**	0.01	-0.19**	0.12**
TENURE80	-0.12**	-0.09**	-0.10**	-0.09**	0.23**		0.20**	0.11**	-0.16**	0.02	0.24**	-0.25**	-0.11**	-0.13**	-0.00
CFO	-0.28**	-0.00	-0.11**	-0.11**	0.21**	0.09**		0.00	-0.22**	-0.03	0.28**	-0.51**	-0.25**	-0.24**	0.05**
LEV	0.06**	-0.03**	-0.07**	-0.05**	0.16**	0.00	-0.12**		-0.21**	-0.14**	-0.06**	0.04*	-0.01	0.04**	0.04*
LITIG	0.14**	0.00	0.00	0.03**	-0.09**	-0.05**	-0.16**	-0.15**		0.12**	-0.04**	0.22**	0.10**	0.16**	-0.06**
MB	0.05**	0.01	-0.03**	-0.03**	0.03**	0.02	0.06**	-0.08**	0.07**		0.25**	-0.03	0.04**	0.03*	-0.02
MV	-0.23**	-0.04**	-0.30**	-0.22**	0.56**	0.24**	0.33**	-0.03**	-0.06**	0.20**		-0.32**	0.01	-0.23**	0.10**
LOSS	0.27**	0.00	0.07**	0.09**	-0.16**	-0.14**	-0.54**	0.15**	0.18**	-0.06**	-0.38**		0.17**	0.20**	-0.04**
FIN	0.18**	-0.01	0.00	0.03**	-0.05**	-0.08**	-0.20**	0.04**	0.06**	0.03**	-0.08**	0.15**		0.11**	-0.01
LCA	0.46**	0.01	0.04**	0.04**	-0.11**	-0.12**	-0.22**	0.09**	0.13**	0.00	-0.25**	0.24**	0.11**		-0.04**
SPEC	-0.04**	-0.03**	-0.00	-0.05**	0.11**	0.03**	0.04**	0.02*	-0.06**	-0.01	0.11**	-0.06**	-0.03**	-0.03**	

Notes for Table 2

ADCA	=	Absolute value of discretionary accruals; observations with ADCA > 1.0 have been deleted.
NY_PCT	=	Percentage change in non-audit-services fees from year t to t+1; winsorized at the 99th percentile.
PrAUSIC	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same 2-digit SIC industry; zero otherwise.
PrAUCITY	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same MSA metropolitan area; zero otherwise.
LNNASF	=	Natural log of total non-audit-service fees.
TENURE80	=	Auditor tenure measured in years.
CFO	=	Operating cash flows scaled by lagged total assets .
LEV	=	Leverage; total liabilities scaled by current total assets.
LITIG	=	Dummy variable equal to one if the company-year is in a high litigation SIC code: 2833-2836, 3570-3577, 3600-3674, 5200-5961, 7370-7374; zero otherwise.
MB	=	Market-to-book ratio.
MV	=	Natural log of market value of equity at fiscal-year-end.
LOSS	=	Dummy variable equal to one if net income is less than zero; zero otherwise.
FIN	=	Dummy variable indicating new financing. Equal to one if COMPUSTAT footnote SALE_FN equals "AB", or the percentage change in long-term debt is greater or equal to 20 percent, or the percentage change in common shares outstanding (adjusted for stock splits, etc.) is greater or equal to 10 percent; zero otherwise.
LCA	=	Absolute value of lagged total accruals.
SPEC	=	Dummy variable equal to one if the company-year's audit firm has the greatest market share in the company's 2-digit SIC code; zero otherwise.

All continuous control variables are winsorized at the 1 percent tails.
** and * denote statistical significance at the 1 and 5 percent levels, respectively.

TABLE 3

Regression of Absolute Discretionary Accruals on Fee Variables and Controls

Panel A: Years 2000 - 2001

$$ADCA_t = \alpha_0 + \alpha_1 PFEE_t + \alpha_2 NY\_PCT_t + \alpha_3 (PFEE \times NY\_PCT)_t + \alpha_4 LNNASF_t + \alpha_5 TENURE80_t + \alpha_6 CFO_t + \alpha_7 LEV_t + \alpha_8 LITIG_t + \alpha_9 MB_t + \alpha_{10} MV_t + \alpha_{11} LOSS_t + \alpha_{12} FIN_t + \alpha_{13} LCA_t + \alpha_{14} SPEC_{t-1} + \alpha_{15} Y(0) + \varepsilon$$

PFEE Variable:	**PrAUSIC**		**PrAUCITY**	
Variable	**Estimated Coefficient**	**t-statistic**	**Estimated Coefficient**	**t-statistic**
Intercept	0.096	5.48	0.088	5.04
PFEE	-0.014	-2.23	-0.009	-1.41
NY_PCT	-0.003	-2.37	-0.003	-2.37
PFEE x NY_PCT	0.007	2.69	0.008	2.64
LNNASF	-0.002	-1.14	-0.001	-0.76
TENURE80	-0.001	-3.06	-0.001	-3.18
CFO	-0.105	-4.96	-0.105	-4.95
LEV	0.019	1.95	0.018	1.84
LITIG	0.020	4.70	0.020	4.63
MB	0.002	3.34	0.002	3.37
MV	-0.003	-2.06	-0.003	-2.12
LOSS	0.014	2.80	0.013	2.77
FIN	0.017	4.92	0.017	4.99
LCA	0.326	8.88	0.327	8.88
SPEC	-0.007	-2.00	-0.007	-2.10
Adjusted R^2	0.226		0.226	

Panel B: Years 2002 - 2007

$$ADCA_t = \alpha_0 + \alpha_1 PFEE_t + \alpha_2 NY\_PCT_t + \alpha_3 (PFEE \times NY\_PCT)_t + \alpha_4 LNNASF_t + \alpha_5 TENURE80_t + \alpha_6 CFO_t + \alpha_7 LEV_t + \alpha_8 LITIG_t + \alpha_9 MB_t + \alpha_{10} MV_t + \alpha_{11} LOSS_t + \alpha_{12} FIN_t + \alpha_{13} LCA_t + \alpha_{14} SPEC_{t-1} + \sum_{\tau=1}^{5} \alpha_{14+\tau} Y(2+\tau) + \varepsilon$$

PFEE Variable:	**PrAUSIC**		**PrAUCITY**	
Variable	**Estimated Coefficient**	**t-statistic**	**Estimated Coefficient**	**t-statistic**
Intercept	0.058	6.78	0.065	7.67
PFEE	0.006	1.75	0.005	1.14
NY_PCT	-0.002	-3.15	-0.001	-0.87
PFEE x NY_PCT	0.002	1.70	-0.001	-1.18
LNNASF	0.000	0.45	-0.000	-0.10
TENURE80	-0.000	-3.77	-0.000	-3.69
CFO	-0.071	-4.90	-0.071	-4.93
LEV	0.003	0.59	0.002	0.57
LITIG	0.009	4.20	0.009	4.13
MB	0.002	5.10	0.002	5.12
MV	-0.003	-4.74	-0.003	-4.76
LOSS	0.014	4.72	0.014	4.70
FIN	0.019	10.13	0.019	10.10
LCA	0.344	19.11	0.344	19.10
SPEC	-0.001	-0.55	-0.001	-0.35
Adjusted R^2	0.273		0.272	

Notes for Table 3

ADCA	=	Absolute value of discretionary accruals; observations with ADCA > 1.0 have been deleted.
NY_PCT	=	Percentage change in non-audit-services fees from year t to t+1; winsorized at the 99th percentile.
PrAUSIC	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same 2-digit SIC industry; zero otherwise.
PrAUCITY	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same MSA metropolitan area; zero otherwise.
LNNASF	=	Natural log of total non-audit-service fees.
TENURE80	=	Auditor tenure measured in years.
CFO	=	Operating cash flows scaled by lagged total assets .
LEV	=	Leverage; total liabilities scaled by current total assets.
LITIG	=	Dummy variable equal to one if the company-year is in a high litigation SIC code: 2833-2836, 3570-3577, 3600-3674, 5200-5961, 7370-7374; zero otherwise.
MB	=	Market-to-book ratio.
MV	=	Natural log of market value of equity at fiscal-year-end.
LOSS	=	Dummy variable equal to one if net income is less than zero; zero otherwise.
FIN	=	Dummy variable indicating new financing. Equal to one if COMPUSTAT footnote SALE_FN equals "AB", or the percentage change in long-term debt is greater or equal to 20 percent, or the percentage change in common shares outstanding (adjusted for stock splits, etc.) is greater or equal to 10 percent; zero otherwise.
LCA	=	Absolute value of lagged total accruals.
SPEC	=	Dummy variable equal to one if the company-year's audit firm has the greatest market share in the company's 2-digit SIC code; zero otherwise.
Y(n)	=	Yearly dummy variables.

All continuous control variables are winsorized at the 1 percent tails.

t-statistics are calculated based on the Huber-White method (Diggle et al. 1994)

TABLE 4

Descriptive Statistics and Correlation between Variables Used in the ERC Model

Panel A: Descriptive statistics

	2000 – 2001					2002 – 2007				
Variable	Mean	SDT. Dev.	1st Qrtl.	Median	3rd Qtrl.	Mean	SDT. Dev.	1st Qrtl.	Median	3rd Qtrl.
CAR	0.00	0.03	-0.01	0.00	0.02	0.00	0.03	-0.01	0.00	0.02
NY_PCT	0.18	1.30	-0.54	-0.14	0.40	0.28	1.50	-0.48	-0.12	0.38
PrAUSIC	0.10	0.31	0	0	0	0.12	0.32	0	0	0
PrAUCITY	0.10	0.30	0	0	0	0.08	0.26	0	0	0
LNNASF	12.94	1.65	11.85	12.86	13.98	12.38	1.62	11.36	12.43	13.45
GRW	2.28	1.59	1.25	1.74	2.70	2.22	1.42	1.30	1.75	2.63
VOL	0.04	0.02	0.02	00.03	0.05	0.03	0.01	0.02	0.02	0.03
LEVQ	1.16	2.80	0.26	0.70	1.59	1.26	2.97	0.32	0.75	1.49
MVQ	6.53	1.74	5.31	6.40	7.59	6.78	1.61	5.64	6.63	7.77
LOSSQ	0.39	0.49	0	0	1	0.26	0.44	0	0	1
RESTR	0.02	0.14	0	0	0	0.01	0.09	0	0	0
SPEC	0.28	0.45	0	0	1	0.30	0.46	0	0	1

Panel B: Pearson Correlations

(2000 – 2001 above diagonal; 2002 – 2007 below diagonal)

	CAR	*NY_PCT*	*PrAUSIC*	*PrAUCITY*	*LNNASF*	*GRW*	*VOL*	*LEVQ*	*MVQ*	*LOSSQ*	*RESTR*	*SPEC*
CAR		0.00	-0.02	0.00	-0.02	-0.04	0.03	-0.02	-0.04	-0.12**	-0.04	-0.02
NY_PCT	0.036**		0.25**	0.16**	-0.28**	0.01	-0.03	0.00	-0.02	-0.09**	-0.04	0.01
PrAUSIC	-0.01	0.32**		0.58**	-0.52**	0.00	0.09**	-0.05*	-0.30**	0.09**	-0.02	0.01
PrAUCITY	0.01	0.25**	0.49**		-0.52**	0.03	0.08**	-0.05*	-0.31**	0.08**	-0.04	0.01
LNNASF	0.01	-0.36**	-0.56**	-0.46**		-0.04	-0.24**	-0.16**	0.70**	-0.12**	0.01	0.09**
GRW	-0.01	0.05**	0.08**	0.05**	-0.13**		0.05*	-0.13**	0.29**	-0.06*	-0.04	-0.01
VOL	-0.00	0.02	0.10**	0.10**	-0.23**	0.03*		-0.12**	-0.40**	0.38**	0.18**	-0.05*
LEVQ	-0.01	-0.01	-0.04**	-0.05**	0.12**	-0.11**	-0.07**		0.09**	-0.06**	0.00	0.01
MVQ	-0.00	-0.06**	-0.24**	-0.21**	0.57**	0.21**	-0.49**	0.06**		-0.27**	-0.07**	0.05*
LOSSQ	-0.08**	-0.00	0.08**	0.10**	-0.20**	-0.04**	0.41**	-0.02	-0.37**		0.17**	-0.01
RESTR	-0.00	0.01	-0.02	0.02	0.00	0.04**	0.10**	-0.00	-0.04**	0.13**		-0.02
SPEC	0.01	-0.01	-0.01	-0.03*	0.12**	-0.05**	-0.04**	0.02	0.08**	-0.03*	-0.03*	

Notes for Table 4

CAR	=	Cumulative abnormal return equal to the three-day cumulated raw return over days -1, 0, and 1 around the earnings announcement date, less the three-day cumulated CRSP value-weighted market return over the same period.
NY_PCT	=	Percentage change in non-audit-services fees from year t to t+1; winsorized at the 99th percentile.
PrAUSIC	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same 2-digit SIC industry; zero otherwise.
PrAUCITY	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same MSA metropolitan area; zero otherwise.
LNNASF	=	Natural log of total non-audit-service fees.
GRW	=	Sum of the market value of equity and the book value of total liabilities, scaled by total assets, at quarter-end.
VOL	=	Volatility; standard deviation of daily stock returns over a 90-day window ending seven days prior to the earnings announcement date.
LEVQ	=	Leverage; total liabilities scaled by current total assets.
MVQ	=	Natural log of market value of equity at fiscal-quarter-end.
LOSSQ	=	Dummy variable equal to one if quarterly net income is less than zero; zero otherwise.
RESTR	=	Dummy variable indicating a restructuring, equal to one if special items scaled by total assets is than or equal to -5 percent; zero otherwise.
SPEC	=	Dummy variable equal to one if the company-year's audit firm has the greatest market share in the company's 2-digit SIC code; zero otherwise.

All continuous control variables are winsorized at the 1 percent tails.
** and * denote statistical significance at the 1 and 5 percent levels, respectively.

TABLE 5

Regression of Cumulative Abnormal Stock Returns on Unexpected Earnings and Interactions with Fee Variables and Controls

Panel A: Years 2000 - 2001

$$CAR_q = \beta_0 + \beta_1 UE_q + \beta_2 PFEE_q + \beta_3 NY\_PCT_q + \beta_4 \left(UE_q \times PFEE_q\right) + \beta_5 \left(UE_q \times NY\_PCT_t\right) + \beta_6 \left(UE_q \times PFEE_q \times NY\_PCT_q\right) + \beta_7 LNNASF_q + \beta_8 \left(UE_q \times LNNASF_q\right) + \beta_9 GRW_q + \beta_{10} \left(UE_q \times GRW_q\right) + \beta_{11} VOL_q + \beta_{12} \left(UE_q \times VOL_q\right) + \beta_{13} LEVQ_q + \beta_{14} \left(UE_q \times LEVQ_q\right) + \beta_{15} MVQ_q + \beta_{16} \left(UE_q \times MVQ_q\right) + \beta_{17} LOSSQ_q + \beta_{18} \left(UE_q \times LOSSQ_q\right) + \beta_{19} RESTR_q + \beta_{20} \left(UE_q \times RESTR_q\right) + \beta_{21} SPEC_{t-1} + \beta_{22} \left(UE_q \times SPEC_{t-q}\right) + \beta_{23} Y(0)_q + \beta_{24} \left\{UE_q \times Y(0)_q\right\} + \varepsilon$$

PFEE Variable:	**PrAUSIC**		**PrAUCITY**	
Variable	**Estimated Coefficient**	**t-statistic**	**Estimated Coefficient**	**t-statistic**
Intercept	0.005	0.60	-0.000	-0.06
UE	3.166	4.32	2.544	3.36
PFEE	-0.002	-0.56	0.002	0.79
NY_PCT	0.000	0.19	0.000	0.13
UE x PFEE	-0.339	-2.25	-0.116	-0.76
UE x NY_PCT	0.182	2.40	0.185	2.36
UE x PFEE x NY_PCT	-0.191	-2.14	-0.204	-2.26
LNNASF	0.000	0.66	0.001	1.19
UE x LNNASF	-0.219	-3.16	-0.161	-2.38
GRW	-0.000	-1.00	-0.000	-0.94
UE x GRW	0.050	0.87	0.055	0.94
VOL	0.076	1.35	0.077	1.36
UE x VOL	-7.577	-2.88	-7.484	-2.88
LEVQ	-0.000	-1.03	-0.000	-1.06
UE x LEVQ	-0.015	-1.25	-0.016	-1.38
MVQ	-0.011	-2.02	-0.002	-2.08
UE x MVQ	0.101	1.57	0.081	1.26
LOSSQ	-0.009	-5.10	-0.009	-5.24
UE x LOSSQ	0.106	0.45	0.014	0.06
RESTR	-0.004	-0.58	-0.004	-0.47
UE x RESTR	0.713	5.19	0.672	4.73
SPEC	-0.000	-0.32	-0.001	-0.57
UE x SPEC	-0.144	-1.03	-0.099	-0.69
Adjusted R^2	0.070		0.066	

Panel A: Years 2002 – 2006

$$CAR_q = \beta_0 + \beta_1 UE_q + \beta_2 PFEE_q + \beta_3 NY\_PCT_q + \beta_4 (UE_q \times PFEE_q) + \beta_5 (UE_q \times NY\_PCT_t) + \beta_6 (UE_q \times PFEE_q \times NY\_PCT_q) + \beta_7 LNNASF_q + \beta_8 (UE_q \times LNNASF_q) + \beta_9 GRW_q + \beta_{10} (UE_q \times GRW_q) + \beta_{11} VOL_q + \beta_{12} (UE_q \times VOL_q) + \beta_{13} LEVQ_q + \beta_{14} (UE_q \times LEVQ_q) + \beta_{15} MVQ_q + \beta_{16} (UE_q \times MVQ_q) + \beta_{17} LOSSQ_q + \beta_{18} (UE_q \times LOSSQ_q) + \beta_{19} RESTR_q + \beta_{20} (UE_q \times RESTR_q) + \beta_{21} SPEC_{t-1} + \beta_{22} (UE_q \times SPEC_{t-q}) + \sum_{\tau=1}^{4} \beta_{22+\tau} Y(2+\tau)_q + \beta_{23+\tau} \{UE_q \times Y(2+\tau)_q\} + \varepsilon$$

PFEE Variable:	**PrAUSIC**		**PrAUCITY**	
Variable	**Estimated Coefficient**	**t-statistic**	**Estimated Coefficient**	**t-statistic**
Intercept	0.005	1.12	0.002	0.46
UE	-0.444	-0.78	-0.232	-0.43
PFEE	-0.001	-0.70	0.001	0.86
NY_PCT	0.001	2.96	0.001	3.02
UE x PFEE	0.273	1.43	0.223	1.25
UE x NY_PCT	0.032	0.64	0.064	1.22
UE x PFEE x NY_PCT	0.081	0.92	-0.050	-0.45
LNNASF	0.000	1.18	0.001	1.87
UE x LNNASF	0.114	2.46	0.104	2.33
GRW	0.000	0.07	0.000	0.14
UE x GRW	0.130	2.58	0.112	2.77
VOL	-0.011	-0.24	-0.014	-0.29
UE x VOL	-5.948	-1.46	-6.458	-1.47
LEVQ	-0.000	-0.87	-0.000	-0.92
UE x LEVQ	-0.003	-0.27	-0.001	-0.07
MVQ	-0.001	-2.43	-0.001	-2.60
UE x MVQ	-0.016	-0.32	-0.021	-0.14
LOSSQ	-0.004	-4.35	-0.005	-4.33
UE x LOSSQ	-0.409	-1.93	-0.403	-1.85
RESTR	0.005	1.22	0.005	1.19
UE x RESTR	-0.198	-1.22	-0.254	-1.73
SPEC	0.000	0.69	0.000	0.61
UE x SPEC	-0.257	-2.11	-0.233	-2.01
Adjusted R^2	0.046		0.046	

Notes for Table 5

CAR	=	Cumulative abnormal return equal to the three-day cumulated raw return over days -1, 0, and 1 around the earnings announcement date, less the three-day cumulated CRSP value-weighted market return over the same period.
NY_PCT	=	Percentage change in non-audit-services fees from year t to t+1; winsorized at the 99th percentile.
PrAUSIC	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same 2-digit SIC industry; zero otherwise.
PrAUCITY	=	Dummy variable equal to one if the company's non-audit-services fees are below the 25th percentile of those paid by clients of the company-year's auditor in the same MSA metropolitan area; zero otherwise.
LNNASF	=	Natural log of total non-audit-service fees.
GRW	=	Sum of the market value of equity and the book value of total liabilities, scaled by total assets, at quarter-end.
VOL	=	Volatility; standard deviation of daily stock returns over a 90-day window ending seven days prior to the earnings announcement date.
LEVQ	=	Leverage; total liabilities scaled by current total assets.
MVQ	=	Natural log of market value of equity at fiscal-quarter-end.
LOSSQ	=	Dummy variable equal to one if quarterly net income is less than zero; zero otherwise.
RESTR	=	Dummy variable indicating a restructuring, equal to one if special items scaled by total assets is than or equal to -5 percent; zero otherwise.
SPEC	=	Dummy variable equal to one if the company-year's audit firm has the greatest market share in the company's 2-digit SIC code; zero otherwise.

All continuous control variables are winsorized at the 1 percent tails.