

Auditor Independence and Non-audit services:

What do Restatements Suggest?

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ABSTRACT

Do audit firm fees for financial information systems design and implementation (FISDI), internal audit, and certain other services provided to an audit client lead to lax enforcement of generally accepted accounting principles? The answer is important because the Sarbanes-Oxley Act of 2002 presumes so, banning these audit client services, and some registrants now voluntarily restrict other services (such as tax services) by their audit firm. Using detailed confidential fee data for 432 registrants announcing restatements from 1995-2000 and 512 similar registrants without restatements, we find no consistent evidence of positive association between audit firm fees for FISDI or internal audit services and restatements. However, we find some evidence of positive association between “other” services fees and restatements, and a consistent *negative* association between tax services and restatements. These results hold for a subsample of “lucrative” service fees of more than \$1,000,000.

Auditor Independence and Non-Audit Services: What Do Restatements Suggest?

1. Introduction

This study addresses whether fees from various non-audit services provided by an SEC registrant's auditor are associated with restatements of previously issued financial statements. It is motivated by the long-standing public policy debate about whether an audit firm should be allowed to provide both audit and non-audit services (NAS) to the same publicly-held company.¹ The debate has resulted in two major interventions by the federal government – the SEC's revised auditor independence rules and registrant proxy disclosures in November 2000, and Congress' banning of some audit firm services to its audit clients via the Sarbanes-Oxley Act (SOA) in July 2002.

The Securities and Exchange Commission (SEC) under Chairman Arthur Levitt, renewed the debate in the late 1990s by questioning whether some types of NAS supplied by a registrant's audit firm compromise, or might appear to compromise, the "independence" of the auditor. The SEC appeared to base its concerns on an increased number of restatements of previously audited (or reviewed) financial statements during a period in which audit firms' NAS fees increased at a higher rate than did audit fees.²

In a major speech, Levitt stated ". . . the audit function is simply being used as a springboard to more lucrative consulting services" (Levitt 2000). The SEC chairman speculated that these relationships might impair investor confidence in auditor independence, and lead to declining confidence in public capital markets. Neither Levitt nor others at the SEC cited

¹ For historical perspectives on the NAS debate see Previtts (1985), Public Oversight Board (1993), and Panel on Audit Effectiveness (2000). Palmrose and Saul (2001) discuss the issues and events surrounding the SEC's 2000 rule-making for NAS.

² For a summary, see McNamee and Dwyer (2000), Panel on Audit Effectiveness (2000), and SEC (2000). For evidence on the time-series of restatements see Moriarty and Livingston (2001), Palmrose and Scholz (2002), and Turner et al. (2001).

instances or a particular instance in which NAS fees demonstrably compromised auditor independence.³

In response to these concerns, in November 2000, the SEC issued revised rules on auditor independence that restricted NAS for audit clients by limiting the circumstances under which an audit firm could provide financial information system design and implementation (FISDI) services, and set monetary limits on fees for internal audit services to its audit clients. The SEC also required that registrants' proxy statements disclose all fees paid to their auditing firm for (a) audit, (b) FISDI, and (c) "all other" services (including audit-related, internal audit, tax, and still "other" services in a single category). The proxy disclosure rules were intended to provide fee data that would permit outsiders to monitor the magnitudes of various audit firm fees from their audit clients.⁴

Then, following events related to Enron, WorldCom, and the collapse of Andersen, Congress, via the Sarbanes-Oxley Act of 2002 (SOA), banned audit firms from providing FISDI, internal audit, and certain other services to their audit clients. Other unlawful services include bookkeeping; appraisal, valuation services and fairness opinions; actuarial services; management functions and human resources; broker-dealer, investment adviser, and investment banking; legal

³ In publicizing completion of an enforcement action following the November 2000 independence rules revision, SEC Acting Chairman, Laura Unger, indicated a connection between restatements and an audit firm's fees for management advisory services for a particular registrant – Andersen for Waste Management, Inc. (see Unger June 2001). However, the Legal Conclusions in the related AAER No. 1405 did not include allegations of lack of independence even though the SEC had conducted a lengthy probe of possible relations (see also Schroeder August 2000, and Weil and Tannebaum April 2001).

⁴ Another purpose of the SEC's mandated disclosure of fees paid to audit firms was to provide a basis for research on "any relationships between the magnitude of audit and nonaudit fees and those companies who do or do not have restatements" (Turner 2001).

and expert services unrelated to the audit; and any other services that the Public Company Accounting Oversight Board determines should be restricted.⁵

From the perspective of financial reporting quality, a lack of independence by the auditor could evidence itself through an auditor's decision to accept a client's reporting choices that violate generally accepted accounting principles (GAAP). An accounting restatement is evidence that registrant management, their auditor, or the SEC believe that a material financial misstatement (GAAP violation) has occurred. Thus, restatements may indicate that the auditor's work may have been compromised, possibly by "lucrative" NAS fees paid to the auditor's firm.

Yet, we know of no systematically obtained empirical evidence from prior to the SEC and Congressional actions that supports the premise of a positive association between NAS fees and restatements. Unfortunately, the SEC-mandated proxy statement fee disclosures for 2000 and 2001 follow rather than precede the period of the alleged relationship that led to the rule-making and legislation.⁶ Also, the proxy disclosures *combine* in "all other services," services that are alleged to compromise auditor independence (internal audit and some "other" services) with those that are not so alleged and not proscribed (audit-related and tax services).

The purpose of our study is to provide evidence about the potential empirical association between NAS fees and restatements using data from prior to SEC rule-making and the SOA. We consider the presumption of the SEC and Congress of positive association between NAS and restatements. Also, because there is a basis for presuming that NAS by the audit firm may

⁵ The SOA bans even \$1 of these services and requires prior approval by a registrant's independent audit committee of all audit firm services. Also, neither the SEC nor self-regulatory bodies had previously proscribed some of these "other" services such as "expert service unrelated to the audit."

⁶ A few registrants voluntarily disclosed audit firm fees from the 1970s through the 1990s (see Menon and Williams 2001).

increase audit quality and reduce the likelihood of restatement *ex ante*, we consider the possibility of a negative association.⁷

We obtained a large sample of restatements announced contemporaneously with Chairman Levitt's rising concerns about their possible relation to NAS fees. Specifically, we identified restatements announced from January 1, 1995 through December 31, 2000. Also, in an attempt to hold "other things equal," we selected for each restatement company and time period, a company from the same time period, from the same four-digit SIC code, having the same audit firm, and nearest to the restatement company in revenues. The matched company selection should reduce idiosyncratic effects of time period, industry, and registrant size, as well as audit-firm specific technology, practices, and policies (including audit partner compensation). We negotiated a confidentiality agreement to obtain detailed fee data from each of the seven largest auditing firms in the United States. We provided each audit firm a list of clients and dates for which each firm collected the fee data in six categories: audit, audit-related, FISDI, internal audit, tax, and other services.

We have four major findings. First, comparing distributions of fees detailed in our six categories with the SEC's three categories, we find that the SEC's post-1999 proxy statement disclosure fee classification scheme considerably *understates* the extent of apparently "acceptable" audit firm services to registrants. In particular, our detailed data show fees allowed by the SEC and the SOA (audit, audit-related, and tax services) comprise 78.4% of total fees from audit clients and the average ratio of these allowed fees to total fees is .936. In contrast, for the same sample, the SEC's proxy disclosure classification, which separately identifies only one "acceptable" service (audits, narrowly defined by the SEC to exclude some defined "audited-

⁷ For example, see Panel on Audit Effectiveness (2000) and Simunic (1984).

related” services many believe are synonymous with an audit) constitute only 33.1% of the average fee and the average audit fee to total fees ratio is .575.⁸

Second, the great majority of registrants (95.0% and 95.6%) purchase *zero* FISDI and internal audit services from their audit firm and most (72.2%) spend zero on “other” services. Thus, banning FISDI and internal audit services affects a small number of registrants. In addition, the numbers of registrants who paid audit and non-audit fees that might be considered “lucrative” are relatively small. As examples, only 18% of the registrants in our sample, whether restating or not, had *total* fees of more than \$1,000,000 while only 6.5%, 4.5%, and 2.8%, respectively, had audit, tax, and “other” NAS fees of more than \$1,000,000 each.

Third, the mean differences between fees for registrants with and without restatements are relatively small, and their direction and significance varies across services and by the scaling factor used. The only exceptions are tax services that are consistently *lower* for restatement firms, FISDI services that are also *lower* for restatement firms in all but one comparison, and other services that are *higher* for restatement firms in all but one comparison. Differences in means for both tax and other services have p-values < .20 (two-sided) for six of our eight tests and four of these have p-values < .10 (two-sided).⁹

Fourth, multivariate logistic regressions with “restatement” as the dependent variable, audit firm fees (scaled by the square root of total assets) as independent variables, and the presence of corporate acquisition(s) as a control variable showed the same pattern as the frequency and means tests. The logistic regressions for the overall sample and the “lucrative

⁸ This finding is consistent with the SEC’s January 2003 rule-making that revised the proxy disclosures to require audit firm fees in *four* categories: audit, audit-related, tax, and all other. Our two other categories (FISDI and internal audit services) are now banned by the SOA.

⁹ As elaborated in the next section and unless stated otherwise, we report p-values for two-sided tests because of alternative arguments about the expected direction of association. Those favoring a one-sided alternative hypothesis should divide the reported p-values by two.

fees” sample have p-values $< .10$ (two-sided) for audit, tax, and other services (with tax services having p-values $< .05$ (two-sided)). As with our univariate tests, the tax services coefficient is negative and the other two are positive. When registrants without matches are excluded, coefficients are approximately unchanged and the probability of all fee coefficients rise, with no coefficients having p-values $< .20$ (two-sided) except for tax and other services.

Overall, our results do not support existence of a positive relation between the two now banned NAS provided by registrants’ auditors and increased likelihood of restatement. In fact, the association for FISDI is typically negative, although not statistically significant. Further, we find tax services consistently negatively associated with likelihood of restatement, and usually statistically significant. This consistency can be seen in the frequency analyzes, the various means tests including those restricted to “lucrative” fee magnitudes, and the logistic regressions. Regarding “other” services, we find a positive relation with restatements in all tests but one, and as with tax services, association is usually statistically significant.

The remaining sections of this study are organized as follows: Section II provides background on the issues that guided our data collection and analyses. Section III describes our sample and provides descriptive statistics, while Section IV presents preliminary statistical results. Finally, Section V provides a brief summary.

II. Background and Method

The debate over NAS recognizes that such services may create an economic dependence of the audit firm on a client, and that the dependence may increase the likelihood for compromising the auditor’s “independence,” or increase the auditor’s willingness to accept lax

compliance with GAAP, and perhaps, client reporting that does not “fairly present.”¹⁰ In turn, the lax GAAP compliance could decrease financial reporting quality and investor’s perceptions of reporting quality.

Conceptually, abnormal profit to the audit firm is the mechanism for assessing the degree of any such economic dependence. However, abnormal profits are not observable. Thus, audit firm revenues (fees) are generally assumed to be a reasonable, observable proxy for the strength of any economic dependence. Also, while debate has focused on the NAS portion of audit firm fees, economic dependence arguments, at least conceptually, can apply to fees from all types of services, whether audit, audit-related, or NAS. Therefore, in this study we use audit firm fees as observable measures of economic dependence on their clients. Then, we address the government’s presumption that, other things equal, a positive association of fees with client restatements is evidence of compromised auditor independence. We approximate other things equal through our matching procedure and data on registrant-specific factors.

Figure 1 diagrams the conceptual relations and their empirical counterparts that underlie our research design. In Figure 1, arrow 1 is the conceptual link assumed by the economic dependence argument, arrows 2 and 3 are our operationalizations of the two conceptual constructs, and arrow 4 controls for other causal factors. Finally, arrow 5 locates the test for empirical association between the operational measures of the constructs.

Insert Figure 1 Here

¹⁰ Dopuch, King, and Schwartz (2003) present an analytic model suggesting that, for high quality clients (where material misstatement risk is low), audit firm-provided NAS may increase the audit firm’s reputational capital that, in turn, increases the audit firm’s ability to be thorough in the audit and to be independent in reporting decisions.

The SEC and scholarly research recognizes that audit fees can be so low as to suggest that the audit firm might compromise its independence to recover the loss on the audit through “lucrative consulting contracts.”¹¹ But, audit fees could also be so high as to create an economic dependence via excess audit payments to an auditor compliant with management’s wishes. For example, Simunic’s audit pricing model using total assets (Simunic 1980) and the 2000 proxy statement audit fee data yields an expected audit fee for Enron for 2000 of about \$4 million. The \$21 million “unexpected” portion of Andersen’s \$25 million audit fee may have been due to extra audit work to limit audit risk, or to fee measurement error (e.g., Enron may have included audit-related fees or internal audit fees with audit fees). Alternatively it may have been due to an attempt to create an economic dependence for Andersen through a “lucrative” *audit* fee.

Recent U.S.-based research has used 2000 and later fee data from registrants’ proxy disclosures to examine the association of fees (NAS, audit, and total, measured as magnitudes, ratios, and ranks) to variables proxying for either audit quality or financial reporting quality.¹² Some research focuses on earnings management as an indicator of low quality financial reporting, where abnormal accruals or the propensity to meet earnings benchmarks such as analyst forecasts are presumed to be surrogates for earnings management (Antle et al. 2002, Ashbaugh et al. 2002, Chung and Kallapur 2002, Francis and Ke 2003, Frankel et al. 2002, Reynolds et al. 2002). Other research uses the propensity to issue going concern opinions as the quality measure (DeFond et al. 2002).

The results of these studies using 2000 data are somewhat mixed. Frankel et al. (2002) report some evidence consistent with a significant and positive association between NAS fees

¹¹ DeAngelo (1981) presents a model consistent with auditors “low balling” the audit fee.

¹² Based on two experiments using experienced MBA students as investor surrogates, Gaynor (2002) finds that disclosure of audit firm/client relationships is not only a complement to independence rules that prohibit and restrict auditor behavior, but may be a substitute for those rules.

(measured by the ratio of NAS Fees to total fees) and lower financial reporting quality (measured by discretionary accruals and certain benchmarks). Antle et al. (2002), Ashbaugh et al. (2002), Chung and Kallapur (2002), and Reynolds et al. (2002) find no consistent evidence of a statistically significant association when using NAS and total fees in various alternative research designs. Similarly, in a survey Rapoport finds no evidence of high NAS fees for 64 registrants that were the subject of SEC actions in 2002 (Rapoport 2003). Finally, DeFond et al. (2002) find no consistent evidence of an association between fees and audit quality as measured by auditors' propensities to issue going concern opinions on distressed clients.

Our study differs from the studies cited above in three important ways. First, we use restatements of publicly issued audited (or reviewed) financial statements as a measure of poor financial reporting quality whereas the others use abnormal accruals, benchmark achievement, and modified audit reports as indicators of possible earnings manipulation or poor audit reporting.¹³ Second, we use a four-way partitioning of the SEC's *all other services* fees to better measure fees that the SEC suggests *cause* auditor independence to be compromised. And third, we use data from *before* publicity about the SEC's and Congressional charges concerning the NAS fee/financial reporting relation. We also use a precision matching research design intended to provide more power by holding "other things equal."

Restatements involve admission by registrant management (and their audit firm) of non-GAAP financial reporting. Management announces that their previously issued and independently audited or reviewed financial statements were materially misstated. Thus, the independent audit or review may have failed to detect or correct material misstatement(s) on a

¹³ Based on a sample of 116 companies with 2000 and 2001 restatements, Raghunandan et al. (2002) find no significant difference in unexpected NAS fees (and fee ratios) between the restatement and control companies.

timely basis.¹⁴ Restatements were the primary evidence supporting the SEC's and the Congress' concerns about the quality of financial reporting. Also, restatements avoid some, but not all, of the problem elements of accruals and earnings benchmarks as surrogates for measuring earnings management (see Kinney and Libby 2002).

SEC officials and apparently the Congress believe that FISDI, internal audit, and some "other" services fees impair auditor independence. On the other hand, these same parties do not believe that other audit-related services fees and tax services fees impair independence. Furthermore, while the SEC has expressed concern that auditors may sometimes "low-ball" audit fees in order to obtain "lucrative consulting contracts," we have not seen concerns expressed about audit fees that may be so high that the audit fee itself might establish an economic dependence for the auditor. By their actions, regulators, the Congress, and others apparently believe that NAS fees can be too high but not too low, while audit fees can be too low, but not too high.¹⁵

Proponents of restrictions of NAS for audit clients frequently use the phrase "lucrative consulting contracts" to describe NAS by audit firms. The phrase was prominent in Chairman Levitt's speech at NYU (Levitt, 2000), and appears frequently in the financial press as well as the popular press.¹⁶ Thus, the association of large dollar magnitudes of fees to restatements may be important to arguments favoring upper limits on the monetary amounts or percentage limitations of audit firm fees.

¹⁴ During our sample period, interim reviews could be either pre-issuance (timely reviews) or during the year-end audit. The SEC did not require that auditors conduct quarterly reviews before companies file their 10-Q's (timely reviews) until late 1999. Even so, in part, because of internal policies by the larger audit firms specifying timely reviews on public company audit clients, interim reviews were timely for many and perhaps most of our matched and restatement sample companies. But, because timely reviews are seldom observable (see Ettredge et al. 1994), we cannot determine which of our sample companies had them.

¹⁵ For an example from regulators, see SEC (2001).

¹⁶ For example, *Consumer Reports* (March 2003) states "Congress should close the loopholes in the Sarbanes-Oxley Act that permit publicly held companies to pay their auditors for many types of *lucrative non-audit services*." (emphasis added).

The SEC's concerns and the explicit or implicit motivation for provisions of the Sarbanes-Oxley Act of 2002 lead to some rather specific empirical predictions about the association between audit firm fees in various categories and the presence of materially misstated financial statements as evidenced by restatements. In particular, if these concerns are valid, then there should be a positive association between restatements and audit firm fees for FISDI, internal audit, and perhaps other services to audit clients, other things equal. Also, if the SEC and Congress are correct, no association would be expected for fees from audit, audit-related, and tax services, again, other things equal.

There are at least two alternative predictions. First, the Panel on Audit Effectiveness (2000) and some scholars (e.g., Simunic 1984) suggest that audit effectiveness is improved by certain NAS due to a "knowledge spillover." For example, knowledge of a client's computer system and tax accounting could "spillover" to the audit and improve the audit's quality. This audit quality enhancement could result in a negative association between some NAS and restatements. Second, high quality registrants (those less likely to require restatements) may seek expert computer system and tax advice, and may choose their audit firm as the (perhaps lowest cost) supplier, while low quality registrants may not seek such advice from any source. If this scenario is correct, then there would also be a negative association between NAS fees to the audit firm and restatements.

We conduct a series of bivariate and multivariate tests of the association between and among both the frequencies and magnitudes of fees from various NAS and audit services, and restatements of financial statements filed with the SEC. Because there is support for both a positive and a negative association between some of the fees and restatements and for convenience, we report all probabilities for two-sided tests. Thus, for those believing that

directional tests are appropriate, the p-values should be divided by two or divided by two and .50 added, depending on sign.

III. Sample and Descriptive Statistics

Sample Selection and Data

We attempted to identify all interim and annual restatements announced in 1995 through 2000. Then, we selected for each restatement firm, a non-restatement client audited by the same auditor, in the same industry and, nearest to the restatement firm in size as measured by revenues for the year prior to the first restatement period.

The restatement sample was identified from public sources including Lexis-Nexis News Library, Lexis Disclosure of other corporate events, and Form 8-K's on Lexis using key-word searches for restatements (e.g., terms such as "restat," "revis," "adjust," and "error" were each used in turn) as well as for specific accounting issues (e.g., in process research and development). Also, we expanded our key-words to recognize that some companies describe restatements in other ways (so, e.g., we used phrases such as "responding to guidance from the SEC"). Finally, we added some companies mentioned in the financial press and other sources (e.g., *Securities Class Action Alert*) discussing restatements, specific accounting issues, or the SEC's earnings management initiatives.

We included restatements of U.S. companies for which the first disclosure that the company may (will) restate occurred between January 1, 1995 and December 31, 2000, and for which the company filed with the SEC amended Form 10-K(s), amended Form 10-Q(s), or in a few cases amended S-1(s) covering reporting periods during 1995-2000. For a few companies

that went out of business prior to completing an amended filing, we obtained restatement information from press releases.

Combined, our sources identified 713 companies that announced and filed restatements of previously issued financial statements during 1995 to 2000. We eliminated 96 companies audited by small non-Big Seven firms not participating in this study (and which do not typically have more than one client in a particular industry). This left 617 potential restatement registrants and a total of 979 restated quarterly (10-Q) or annual (10-K) financial statements, and a potential 979 fee-years for the restatement sample.

Each restatement company was matched with another company that did not restate its financial statements at any time during 1995 through 2000. Our matching procedure required that each matched company had been audited (reviewed) by the same independent audit firm as the restatement company and that it had the same (4-digit or 2-digit) SIC code.¹⁷ Then, we chose the company that was closest in total revenue to the restatement company for the last year reported prior to the restatement announcement.

We obtained cooperation from the largest seven auditing firms in the United States over the summer of 2001. All seven agreed to provide the requested information for firms identified by us, subject to a confidentiality agreement. These firms were the largest audit firms during the sample period, and in 1999, they collectively audited about 80% of U.S. registrants (Panel on Audit Effectiveness 2000). The first firm provided fees in November 2001, and the last reported in January 2003.

We obtained fees for each of the following categories: (a) audit and review services, (b) financial information systems design and implementation services, (c.1) audit-related services,

¹⁷ Due to limited clients for a particular audit firm in some industries, we used a two digit SIC code in about 15 % of our cases.

other assurance services, and certain business advisory services,¹⁸ (c.2) internal audit outsourcing services, (c.3) income tax services (other than those directly related to the audit of the income tax accrual), and (c.4) other consulting and all other services. The definition of fees in category (a) coincides with the SEC’s definition of “audit fees” used for proxy disclosures. Likewise coinciding with the SEC’s definition is category (b). The other categories, namely (c.1), (c.2), (c.3), and (c.4), all fall within the SEC’s definition of “all other fees” in the proxy disclosures. Note: c.1 through c.4 fees are combined in the SEC-mandated proxy disclosures for 2000 and 2001. Figure 2 shows our data collection form for each registrant and data definitions. One form was required for each restatement and matched (non-restatement) firm-year.

Insert Figure 2 here

Our overall sample is considerably less than the possible 979 restatement and 979 matched firm-years for several reasons. For some registrants, client files are unavailable from the audit firm because the client has ceased to exist (about 18% of all restatement firms for the 1995-2000 period eventually filed for bankruptcy or were delisted (see Palmrose and Scholz 2002). Other fees are unavailable due to mergers within the Big Five, and still other data were unavailable due to audit firm legal counsel restrictions. Finally, some 1995 fee data were unavailable due to some firms’ data retention policies.

Finally, we collected data on the nature of the restatement (including the presence of fraud or an SEC enforcement action), who discovered the misstatement, and the presence of mergers and acquisitions during the period of the restatement (that may affect fees or the

¹⁸ This category includes fees for statutory audits not required by GAAS, work performed in connection with registration statements such as due diligence procedures or issuance of comfort letters, audits of employee benefit plans, due diligence procedures performed in connection with merger and acquisition procedures, internal control advisory services outside the scope of the GAAS audit, and risk management advisory services.

likelihood of restatement). Data on these variables are from public sources including Compustat and individual company filings with the SEC on Edgar.

Descriptive Statistics

Descriptive statistics (other than fees for services) for our overall restatement sample are presented in Table 1. Panel a shows the sample attrition from the 713 restatement events (registrant announcement of a 10-Q or 10-K restatement) through deletion of registrants audited by smaller or unknown audit firms, and gives the responses of restatement firms and their matched companies. As shown, 979 restatement registrants and 979 non-restated matched registrants were initially solicited from the participating audit firms. To supplement the matched firms, we requested an additional 60 firm-year fees for the second best match for restatement registrants whose fee data were received, so the non-restated total potential was 1039 rather than 979. Thus, the non-response rate for the matched companies is only slightly higher than that of the restated registrants.

Insert Table 1 here

Table 1, Panel b. shows that the distribution of restatement announcements is skewed toward the end of the period, consistent with the SEC's rising concerns over the period. The distribution across industries is somewhat concentrated in manufacturing and technology, and comparable to the statistics cited in Frankel et al. (2002) and Ashbaugh et al. (2002) for their populations of about 3,000 registrants in the year 2000. Finally, Table 1 panel b. shows that management, the auditor, and the SEC each discovered about one-quarter of the restatements with no attribution for the remaining quarter. Comparison of the requested fee-year data with that obtained shows small differences (2% or less) for all except the "fraud or AAER" category,

for which there was a somewhat lower response for restated firms than for their matches. With this one possible exception, the response rates seem consistent with the sample being reasonably representative of the population.

Table 2 shows average fees per client for various classifications of fees. Panel a. shows that the average total fee is slightly above \$1 million, with a third from audits, narrowly defined. However, audit plus audit-related fees comprise 56.7% of the total (panel c.), and SEC-allowed services (audit, audit-related, and tax services) comprise 78.4% (panel d.). Thus, the SEC's three-way classification (SEC 2000) tends to *overstate* the average proportion of fees from now restricted or proscribed services by audit firms. Similar overstatements are shown in the average ratio of fee categories to total fees. Panel b. shows the average of non-zero fees for all services. These averages remove the effects of registrants purchasing zero NAS. Panel b. shows that, if NAS *is* purchased, the amounts can be large – for example, on average, positive other services fees are 170% of the related audit fee. On the other hand, Panel a. vs. Panel b. differences for audit-related and tax services are small because, as discussed below, more than 70% of the sample firms purchase each of these services from their audit firm.

Insert Table 2 here

Table 3, Panel a. presents frequency results for restatement and non-restatement companies by detailing the number of registrants that paid zero fees in any of the categories (all companies paid audit fees). It is apparent that fee distributions differ among services and some are highly skewed to the right – two have 95% of firms with zero fees. To summarize the frequency data, almost 80% of the sample companies purchased audit-related or tax services

from their auditor, while less than 30% purchased “other” services, and 5% or fewer purchased FISDI or internal audit services.

Insert Table 3 here

Table 3 Panel b. (using all available data) and Panel c. (using the matched, first restatement only sample) shows statistical tests based on the cross classification of zero and non-zero fees with restatements. The 2 x 2 results (for zero fee vs. positive fees) show that the hypothesis of no association of NAS fees with restatements cannot be rejected at conventional levels for any of the four NAS categories. To provide a companion test that considers whether the *magnitudes* of services fees are associated with restatements, we divided the positive NAS fee firms into those with fees less than or equal to the sum of audit plus audit-related fees, and those that exceed these fees. For all four fee categories, some companies have NAS fees larger than the audit plus audit-related fees, and for tax and “other” services the larger fees are associated with considerably fewer and more restatements, respectively. The 2 x 3 results (for zero fee vs. two categories of positive fees) do not show consistently significant p-values. Thus, even high relative fees for the two now banned services (FISDI and internal audit) do not have significant association with restatements. The “other” fees category, which is ambiguous as to legality under the SOA, allows rejection of independence with restatements at $p < .20$ for both the overall sample (Panel b.) and the matched, first restatement sample (Panel c.) when large fee magnitudes are segregated. Finally, tax services show p-values of .059 and .718, and is associated with fewer restatements.

Overall, the frequency data suggest that the SEC’s concerns about the effects of FISDI and internal audit fees on auditor independence are, at best, limited to about 5% of the registrant

population, although fees for some NAS services are very large for some registrants. And while other consulting services are purchased by less than 30% of the registrants, differences in frequency of non-zero fees for restatement and non-restatement firms are small for all three of these categories.

IV. Analyses

In this section we report results of tests on our sample. We begin with simple means tests comparing restatement and non-restatement firms for the six categories of service, and end with a logistic regression model of restatements. Throughout this section, we report comparative statistics for two partitions of our sample. These are: (a) our full sample of all observations received whether or not the restatement or non-restatement firm has a match, and including all years and quarters that are restated (i.e., one firm may appear up to five times in the sample), (b) a sample restricted to first-year only restatements for matched pair observations. Other partitions (not reported) show qualitatively similar results.

Table 4's left side columns compare mean fees for partition (a) above, while the right side uses the first restatement only matched observations (partition (b)). Panel a. shows raw fees, Panel b. shows fees-scaled by total assets for the restatement year, and Panels c. and d. show fees scaled by total fees with the latter limited to fees > 0 . Panel a. also shows revenues and earnings for the year of restatement (as originally reported) and for the year prior. As shown, revenue and earnings differences between restatement and matched companies are small for both years – the p-values all exceed .20. However, for earnings, the sign of the difference changes between the year prior to restatement and the restatement year. In particular, for the year prior, restatement firms show earnings greater than that of their matches, but for the restatement year earnings are

smaller. Tests of the change in revenues and earnings show that the earnings change p-value for restatement firms is $< .01$ for both the whole sample and the matched first restatement sample, while all other p-values on change are $> .20$. Thus, earnings for the restating firms are down in the (first) restatement year---even including the misstatements that typically overstate earnings.¹⁹

Insert Table 4 here

Panel a. of Table 4 shows means of fees in dollars (unscaled) for the six categories of fees plus total fees. The signs of differences of restated and non-restated firms are consistent for both the full sample and the matched pairs samples for raw fees. Other services has p-values $< .20$ for both the overall sample and the matched pairs, while tax services has $p < .20$ for matched pair sample (all p-values throughout this paper are two-sided unless otherwise indicated). Panel b. of Table 4 adjusts raw fees for size through scaling by total assets. In these tests, two fee categories have $p < .10$ (internal audit services have a positive difference and tax services a negative difference).

Panel c. presents fees scaled by total fees from the audit client. It should be noted that this measure reflects “relative fee dependence” on an audit client rather than “economic dependence” in monetary terms, and therefore, is less meaningful as a surrogate measure of “economic dependence.” We present Panel c. for comparison to other studies and as a descriptive statistic. In Panel c. four of the six means tests for the whole sample have p-values less than $.05$, while two of the matched sample have $p < .10$ and one with $p < .20$. Thus, total fees as the scale factor may induce statistically significant differences even though it measures

¹⁹ Tests for changes for the whole sample are not meaningful because “prior year” data for multiple restatement firms include restated data.

relative dependence on the particular fee rather than magnitude of economic dependence on the client.²⁰

Finally, to assess the importance of NAS fees greater than zero, Panel d. repeats Panel c. scaling by total fees for registrants with positive fees in each category. As would be expected, the proportions of total fees from FISDI, internal audit, and other services are substantially higher in Panel d. than they are in Panel c., while the percentages increase less for audit-related and tax services reflecting the smaller percentage of zero services for the latter two. However, none of the signs of differences changes between Panel c. and Panel d., and five of the six t-statistics have $p < .05$ for the overall sample, and three have $p < .10$ for the matched pairs analysis (one with $p < .05$).

Overall in Table 4, we find the signs of the differences consistently negative for both FISDI and tax services, and in all tests except one, other services had positive differences. Thus, differences due to lack of a match, to scaling factor, and presence of zero fees are not sufficient to change the overall sign of the differences in the tax services relation to restatements. It is also clear that the scaling factor affects p-values, and that choice of scaling factor is important for statistical as well as conceptual reasons.

To assess possible differences due to “lucrative consulting contracts” or “lucrative NAS fees,” we partitioned our data on the dollar magnitude of fees of various types. Unfortunately, neither Chairman Levitt nor the popular press defines the characteristics of a contract that would be “lucrative.” Furthermore, we do not have data on service line profitability. Therefore, we partitioned our data on fees equal to or greater than \$1,000,000 as a conservative approximation of fee amounts that might be considered “lucrative.” That is, it seems unlikely that, for a large

²⁰ For example, for a given client, other fees of \$10 and audit fees of \$5 yields the same “other fees to total fees ratio” as \$10,000,000 other fees and \$5,000,000 audit fees, yet economic dependence on the particular clients differ.

audit firm, a service fee of less than \$1,000,000 would provide profit potential sufficient to effectively compromise the auditor's integrity or "independence." Table 5 reports the results.

Insert Table 5 here

Table 5 reports the mean fee, fee ratio (ratio of the particular fee to total fees), and the number of firms in the category for both restatement and non-restatement firms. The main focus is NAS, but we include audit fees for comparison. A striking feature of the data in Table 5 is the relatively small proportion of firms that have fees above \$1,000,000. Only 18% have total fees greater than \$1,000,000, with audit fees having the largest proportion at only about 6.5%, audit-related fees are second with 5%, followed by tax with 4.5%, and "other" services with 2.8%. FISDI and internal audit services have less than 1.4% and about .2%, respectively.

Although the percentages of firms with potentially "lucrative" fees are small, the dollar magnitudes are relatively large. For the 13 firms with FISDI fees greater than \$1,000,000, the dollar magnitudes are considerably greater than the audit fees. The same is true for audit-related services, tax services, and especially other services. On the other hand, only one service (audit) exhibits $p < .20$ for dollar magnitude differences, and for the fee ratio, only other services has $p < .20$ and only audit-related services has $p < .05$. Thus, the "lucrative fees" do not show a clear pattern of differences that would support the argument that large fee magnitudes bias auditors' decisions.

Finally, we conduct logistic regressions to account simultaneously for possible effects of all categories of fees and a registrant-specific factor that, *a priori*, seems likely to be related to either professional services fees or the probability of restatement and that may not be reflected in

the precision matching. In particular, we estimate logistic regressions with the presence of a corporate acquisition or acquisitions during the restatement year (obtained from Compustat). Acquisitions may be related to either the probability of a restatement due to new, difficult, or contentious accounting issues and possible business problems, or lead to increased need for tax, systems, or business advice or for auditing transactions (related to other services, tax services, and audit-related fees as well as internal auditing). For our sample, more than 40% of restatement firms had acquisitions during the restatement year and only 26% of non-restatement firms had acquisitions during the same period. The independent variables are each of the six fee amounts scaled by the square root of total assets. The scaling follows Simunic (1982) to linearize the relation between fees and size, and to reduce heterogeneity of variance due to size.

Table 6 shows three logistic regressions of restatement on the fee and control variables. The full sample (left columns of Table 6) shows that, after controlling for acquisitions, audit, tax, and other services are significantly associated with restatements at $p < .05$, with the tax association negative and the other two positive. The middle columns of Table 6 show a similar pattern of results for the sample restricted to matched pairs and first restatement observations, although the probability levels are considerably higher with $p < .20$ for tax and other services, and audit fees are insignificant. The rightmost columns of Table 6 report results for the sample limited to registrants with total fees greater than \$1,000,000 (i.e., fees that may be deemed “lucrative”). These latter results show the same pattern with $p < .10$ for audit and other fees, and $p < .05$ for tax services fees. Again, audit and other services are positively associated with restatements, and taxes, as in all of our analyses, are negatively associated.²¹ Thus, even the “lucrative” fees show the same pattern as smaller fees.²²

²¹ To assess the influence of extreme values, we sorted the data to identify the largest tax and other fees scaled by total assets. Seven registrants’ “other” fees divided by the total fees were greater than .5 and six of the seven were

Insert Table 6 here

V. Summary

Recent studies of audit firm fees and financial reporting quality in the U. S. use proxy disclosures fees for services during and subsequent to the SEC's 2000 rule-making activities and attendant publicity. Therefore, fees obtained from proxy statements may reflect effects of these events.²³ Our study relies on private fee data for restatements prior to the SEC's rule-making as well as the events preceding passage of the Sarbanes-Oxley Act of 2002. Specifically, we use data for 432 registrants announcing restatements during 1995 through 2000 and 512 similar registrants without restatements

The SEC's 2000 rule-making required proxy statement disclosure of audit firm fees in only three categories: (a) fees for the basic audit, (b) financial information systems design and implementation fees, and (c) fees for all other services. Because category (c) combines fees for audit-related and other assurance services with fees for internal audit, tax, and all "other" services, the proxy disclosures confound fee data necessary to examine a number of auditor independence issues including any association between particular NAS fees and restatements.

We obtained our data consistent with the SEC's three broad categories, but with four subcategories, dividing the SEC's "all other" services into audit-related, internal audit, tax, and the remaining "other" services. We then separately analyzed fees for audit-related and tax

for restatement firms. On the other hand, twenty-six firms had tax services fees comprising greater than 50% of the total but only eleven of these twenty-six were restatement firms and the largest seven (comparable to the other fees), were all non-restatement firms.

²² In a separate logistic regression, we estimated the model substituting "lucrative" total fees scaled by the square root of total assets for the individual fees. This analysis showed a coefficient estimate for total fees of 0.000 and a p-value of .880. Thus, after controlling for acquisitions, lucrative total fees have no association with restatements.

²³ These events also may have affected financial reporting and audit quality and, thus, the likelihood and nature of restatements.

services (services not the focus of former chairman Levitt’s concerns) in addition to fees for FISDI, internal audit, and the remaining “other” services.

One finding is that SEC proxy data definitions substantially *overstate* the proportion of audit firm fees that are categorized by the SEC (and possibly members of Congress) as being of concern. Using the SEC definitions, FISDI and “all other” services comprise about two-thirds of the total fee, but when using the more detailed categories, the two banned services and other services comprise only about twenty-two percent of the total.

A second finding is that FISDI, internal audit, and other services appear to be purchased by relatively few companies. About 95% of sample companies purchase *no* FISDI or internal audit services. Furthermore, the rates of non-purchasers are about the same for restatement and non-restatement companies. Thus, banning FISDI and internal audit services affects few companies and does not differentially affect the restatement and non-restatement subpopulations. Also, about 72% of our sample purchased *no* other services, again with little difference in rates between restatement and non-restatement companies.

Third, across analyses, scaling factors, and sample partitions, we find no consistent, statistically significant positive association between FISDI or internal audit services and restatements. In particular, we find no consistent evidence supporting the contention that these services are positively associated with restatement of previously issued audited or reviewed financial statements.

In contrast to FISDI and internal audit services, we find tax services fees are consistently negatively associated with restatements and that other services are typically positively associated with restatements. Also, the association of each of these two service categories with restatements is often statistically significant. Furthermore, the statistical associations are

particularly strong for the largest magnitudes of fees – those greater than the sum of audit plus audit-related fees as well as those “lucrative services” fees greater than \$1,000,000.

Our findings for tax and other services may suggest to some that, rather than an outright ban on all NAS, monetary or percentage limits could be set on NAS fees. For example, some might interpret our results to suggest limiting fees for other services to \$1,000,000 per year, or say, 100% of audit plus audit-related fees. On the other hand, the tax services results are not consistent with such a view. In particular, for our sample, companies that spent large amounts on tax services from their audit firm typically had *fewer* restatements than those who spent small amounts or zero.

Our tax services results do not support the view that substantial tax services fees to the auditor’s firm create an economic dependence on the client that necessarily leads to lax GAAP enforcement by the auditor. Rather, our results are consistent with the view that either tax services improve audit quality, or high quality registrants (those with low restatement probabilities *ex ante*) tend to purchase substantial tax services from their audit firm.

Finally, our tax results are consistent with the SEC’s January 2003 ruling allowing independent audit committees to decide how to trade-off possible auditor independence impairment with the value added by tax and some other NAS provided by their auditor’s firm. The findings are also consistent with the SOA that allows audit firms to provide their audit clients some types of NAS if the services are pre-approved by the client’s independent audit committee.

Figure 1
Research Design

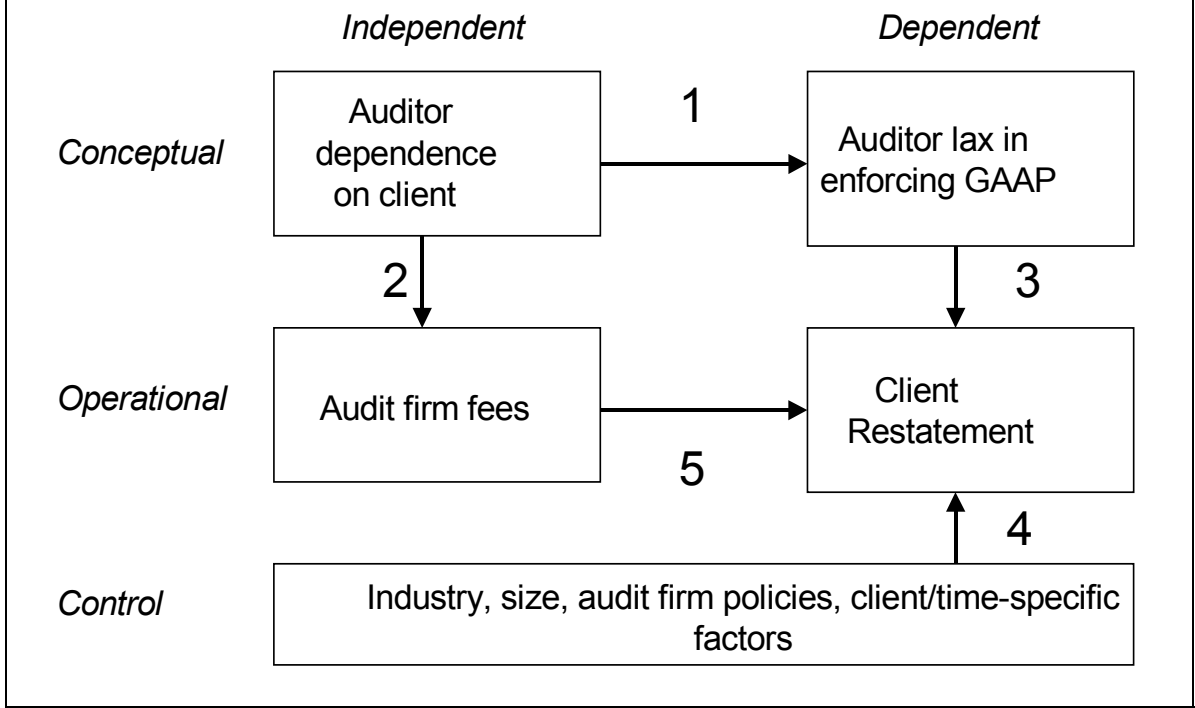


Figure 2
Confidential Data Collection Form
(Kinney, Palmrose, Scholz)

REGISTRANT:

Name (ticker symbol)	.xxxx (xxxx)
Unique number	xxxx
Fiscal year ended	xx/xx

PROFESSIONAL FEES ANALYSIS (unique number xxxxx): **

<i>a. Audit fees</i>		\$ _____ *
<i>b. Financial information systems design and implementation fees</i>		_____ *
<i>c. All other fees</i>		
<i>c.1 Audit-related services, other assurance services, and certain business advisory services</i>	\$ _____	*
<i>c.2 Internal audit services</i>	_____	*
<i>c.3 Income tax services</i>	_____	*
<i>c.4 Other consulting and all other services</i> ***	_____	*
<i>All other fees - total</i>		_____ *
TOTAL FEES		\$ _____ *

* To be entered by firm personnel (all dollars in thousands).
** Using **Data Definitions for Professional Fees** (attached).
*** Any breakdown of fees for *Other consulting and all other services* or explanations that you believe would be useful to us can be added on the back of this form.

Data Definitions for Professional Fees^a

- a. **Audit fees** – This category should include only fees for financial statement audit and review services performed by the auditor that are customary under generally accepted auditing standards (GAAS) or that are customary for the purpose of rendering an opinion or review report on the financial statements. The primary services are those for planning and conducting the GAAS-based financial statement audit and/or reviews for the indicated fiscal year. Other examples of professional services the fees for services which should be included in this category are:
- Attendance at audit committee meetings at which matters related to the audit or reviews are discussed.
 - Consultation on audit or accounting matters that arise during or as a result of an audit or review.
 - Preparation of a “management letter.”
 - Time incurred in connection with the audit of the income tax accrual.
- b. **Financial information systems design and implementation fees** – These services include designing or implementing a hardware or software system that aggregates source data underlying the financial statements or generates information that is significant to the audit client’s financial statements taken as a whole.
- c. **All other fees** –
- c.1 Audit-related services, other assurance services, and certain business advisory services including those for
- Statutory audits not required by GAAS.
 - Work performed in connection with registration statements such as due diligence procedures or issuance of comfort letters.
 - Audits of employee benefit plans.
 - Due diligence procedures performed in connection with merger and acquisition procedures.
 - Internal control advisory services outside of the scope of the GAAS audit.
 - Risk management advisory services.
- c.2 Internal audit services
- c.3 Income tax services other than those directly related to the audit of the income tax accrual.
- c.4 Other consulting and all other service fees billed to the audit client.

Notes:

- Monetary amounts for *Audit fees* should be those billed or expected to be billed for the audit of the registrant's financial statements for the fiscal year indicated and the review of financial statements for any interim period within that year.
- Monetary amounts for *Financial information systems design and implementation fees* and *All other fees* should be those billed or expected to be billed for the fiscal year indicated.
- "Out-of-pocket" costs incurred in connection with providing the professional service and billed to the registrant should be included as part of the aggregate fee for the service to which they apply.
- Only fees billed by the principal accountant need to be disclosed. If the principal accountant's billings or expected billings include fees for the work performed by others (such as where the principal accountant hires someone else to perform part of the work), then such fees should be included in the fees disclosed for the principal accountant.

^aBased on *SEC Final Rule: Revision of the Commission's Auditor Independence Requirements*, November 21, 2000 (33-7919), and *SEC, Office of the Chief Accountant: Application of Revised Rules On Auditor Independence-Frequently Asked Questions*, January 16, 2001.

Table 1
Summary Statistics for All Annual and Interim Restatement Fee-years
(1/1/95 through 12/31/00)

Panel A: Sample attrition and composition

Total restatement events ²⁴ identified - 1995-2000	713
Audited by other than largest 7 or unknown audit firm	96
Largest 7 audit firm clients' restatements (979 fee-years)	617

	<u>Restated</u>	Not <u>Restated</u>	<u>Total</u>
Fee-years requested	979	979	1958
Less non-responses	547	467	1014
All available data	432	512	944
Less non-paired fee-years	143	223	366
Paired fee-years	289	289	578
Less years 2 to 5 of restated	102		187
Annual restatement pairs	187		
Less quarter-only matches	111		111
First restatement year pairs	76		76

Panel B: Comparison of restatements requested and sample characteristics

	Fee-years requested		Fee-years obtained	
Year Announced				
1995	28	3%	13	3%
1996	50	5%	17	4%
1997	126	13%	51	12%
1998	170	17%	67	16%
1999	343	35%	158	37%
2000	262	27%	126	29%
Total	979	100%	432	100%
Industry				
Agriculture, mining and construction	32	3%	19	4%
Manufacturing	296	30%	134	31%
Technology	245	25%	102	24%
Transportation	23	2%	11	3%
Communication	27	3%	9	2%
Utilities	20	2%	13	3%
Wholesale and retail	91	9%	31	7%
Financial services	130	13%	53	12%

²⁴ Includes 10-Q and 10-K restatements and multiple period restatements announced concurrently.

Services	115	12%	60	14%
Total	979	100%	432	100%
Management acknowledged fraud or AAER issued by SEC	215	22%	75	17%
Discovery attributed to:				
SEC	239	24%	98	23%
Auditor	245	25%	123	28%
Company	266	27%	111	26%
Unattributed	229	23%	100	23%
Total	979	100%	432	100%

Table 2
Audit Firm Fees per Client Registrant 1/1/95 to 12/31/00
All available data, restatement and non-restatement firms
n = 944²⁵

a. Fees using SEC Proxy Disclosure vs. Detailed Format (n = 944)

	Proxy Disclosure Format			Study Format		
	Average Fee	% of Total	Average Ratio ²⁶	Average Fee	% of Total	Average Ratio
Audit	\$ 349.4	33.1	0.575	\$ 349.4	33.10	.575
FISDI	53.5	5.1	0.014	53.5	5.10	.014
All Other	650.7	61.8	0.411			
Audit-related				247.8	23.9	0.189
Internal Audit				6.6	0.6	0.004
Taxes				228.9	21.8	0.173
Other				167.4	15.9	0.046
Total	\$1053.6	100.0		\$1053.6	100.0	

b. Fees greater than zero²⁷

	Average Fee	Average Ratio	Minimum	Maximum (rounded)	n	% of Total
Audit	\$349.4	0.575	\$6	\$10,200	944	100.0
FISDI	1,073.6	0.271	4	7,600	47	5.0
All Other	694.1	0.439	1	34,200	885	92.7
Audit-related	334.7	0.255	1	7,800	699	74.0
Internal Audit	147.3	0.098	1	1,200	42	4.4
Taxes	289.6	0.219	1	13,100	746	79.0
Other	603.3	0.164	1	22,700	262	27.8

c. Audit and Audit-Related Fees

	Average Fee	% of Total	Average Ratio
Audit and Audit-related	\$597.2	56.7	0.764
FISDI, Internal Audit, Taxes, Other	456.4	43.3	0.236
Total	\$1053.6	100.0	

d. Sarbanes-Oxley Proscribed vs. Allowed Services Fees

	Average Fee	% of Total	Average Ratio
Allowed (Audit, Audit-related, Taxes)	\$826.1	78.4	0.936
Proscribed (FISDI, Internal Audit)	60.1	5.7	0.018
Unknown ("Other" ²⁸)	167.4	15.9	0.046
Total	\$1053.6	100.0	

²⁵ Sample includes fee data for registrants with and without restatements of 10-Ks and/or 10-Qs, and some registrants appear in the sample more than once. All dollars are in thousands (000).

²⁶ Fee/total fees from registrants.

²⁷ Ratio of fee to total fees in parentheses.

²⁸ Includes some services now proscribed by the Sarbanes-Oxley Act of 2002.

Table 3
Frequency Analysis of Restatement and
Non-restatement Registrants' Audit Firm Fees

a. Audit Firm Fees – Percentage Zero Fees

	All available data (n=944)		Matched pairs/first restatement (n=374 (187 pair))	
	Restate	Not-Restd.	Restate	Not-Restd.
Audit	0%	0%	0%	0%
FISDI	94%	95%	94%	96%
Audit-related	22%	26%	20%	25%
Internal audit	95%	95%	96%	97%
Tax services	20%	23%	17%	22%
Other services	70%	72%	73%	72%

b. Cross Classification of Restatements with Fee Ratio²⁹

All available data (n=944)

	Fee Ratio			Total	χ^2 prob. ³⁰	
	0	Fee > 0			2x3	2x2
		Ratio < 1	Ratio > 1			
FISDI						
Not-Restated	489 (54.5%)	15 (44.1%)	8 (61.5%)	512 (54.2%)	.425	.293
Restated	408 (45.5%)	19 (55.9%)	5 (38.5%)	432 (45.8%)		
Total	897	34	13	944		
Internal Audit						
Not-Restated	490 (54.3%)	22 (55.0%)	0 (0%)	512 (54.2%)	.304	.933
Restated	412 (45.7%)	18 (45.0%)	2 (100%)	432 (45.8%)		
Total	902	40	2	944		
Tax						
Not-Restated	111 (56.1%)	359 (52.5%)	42 (67.7%)	512 (54.2%)	.059	.375
Restated	87 (43.9%)	325 (47.5%)	20 (32.3%)	432 (45.8%)		
Total	198	684	62	944		
Other						
Not-Restated	377 (55.3%)	125 (53.4%)	10 (35.7%)	512 (54.2%)	.121	.622
Restated	305 (44.7%)	109 (46.6%)	18 (64.3%)	432 (45.8%)		
Total	682	234	28	944		

²⁹ Fee Ratio = Fee/(audit fees + audit-related fees).

³⁰ Two-sided 2x3 = 2 restatement x {0, 0 < ratio < 1, ratio ≥ 1}; 2x2 = 2 restatement x {0 vs. > 0} fees.

c. Cross Classification of Restatements x Fee Ratio (*cont'd.*)

Matched pair sample (n = 374 (187 pair))

	Fee Ratio			Total	χ^2 prob.	
	0	Fee > 0			2x3	2x2
		Ratio < 1	Ratio >1			
FISDI						
Not-Restated	171 (50.1%)	7 (43.8%)	3 (60.0%)	187 (50.0%)		
Restated	176 (49.9%)	9 (56.3%)	2 (40.0%)	187 (50.0%)	.797	.822
Total	353	16	5	374		
Internal Audit						
Not-Restated	181 (50.1%)	6 (50.0%)		187 (50.0%)		
Restated	180 (49.9%)	6 (50.0%)	1 (100.0%)	187 (50.0%)	.606	.778
Total	361	12	1	374		
Tax						
Not-Restated	35 (49.3%)	137 (49.5%)	15 (57.7%)	187 (50.0%)		
Restated	36 (50.7%)	140 (50.5%)	11 (42.3%)	187 (50.0%)	.718	.895
Total	71	277	26	374		
Other						
Not-Restated	140 (50.2%)	45 (52.9%)	2 (20.0%)	187 (50.0%)		
Restated	139 (40.8%)	40 (47.1%)	8 (80.0%)	187 (50.0%)	.142	.905
Total	279	85	10	374		

Table 4
Raw and Scaled Fee Means for all Available Data and First Year Only Matched Pairs
(n=944 and n = 187 pair)

a. Raw Fees	All Available Fee-Years					Matched Pairs, First Restatement Only				
	Restated <u>n = 432</u>	Not- restd. <u>n = 512</u>	<u>R-NR</u>	<u>t-stat.</u>	<u>prob.</u> ³¹	<u>Restated</u> <u>n=187</u>	Not- restd. <u>n=187</u>	<u>R-NR</u>	<u>t-stat.</u>	<u>prob.</u>
Fees (thousands):										
a. Audit	\$371.9	\$330.2	\$44.7	0.94	0.35	\$389.1	\$364.7	\$24.4	0.613	0.540
b. FISDI	42.0	63.1	-21.1	-0.68	0.50	57.2	63.3	-6.1	-0.124	0.901
c.1 Audit-related	284.9	216.5	68.4	1.35	0.18	270.6	211.7	58.9	0.908	0.365
.2 Internal Audit	5.2	7.7	-2.5	-0.62	0.53	1.8	7.0	-5.2	-1.147	0.253
.3 Tax services	199.5	253.6	-54.1	-0.97	0.33	211.2	330.6	-119.4	-1.438	0.152
.4 Other services	233.0	112.2	120.8	1.55	0.12	267.4	131.0	136.4	1.605	0.110
Total Fees	1,136.5	983.6	152.9	0.81	0.42	1,197.2	1,108.3	88.9	0.556	0.579
Financial Statistics (millions):³²										
Restate year - revenue	\$1,076.8	\$925.9	\$150.9	0.63	0.53	\$1,174.3	\$1,171.3	\$3.0	0.007	0.995
- earnings	24.8	37.7	-12.8	-0.75	0.45	30.9	31.8	-0.9	-0.027	0.979
Prior year - revenue	956.7	864.5	92.2	0.42	0.68	1,030.0	1,081.2	-51.2	-0.120	0.904
- earnings	42.9	34.0	8.9	0.55	0.58	56.1	31.8	24.3	0.712	0.477

³¹ Two-sided.

³² n slightly smaller for Restatement year Revenues and Earnings.

Table 4 cont'd.
Raw and Scaled Fee Means for all Available Data and First Year Only Matched Pairs

b. Fees scaled by total assets x 1000

	All Available Fee-Years					Matched Pairs, First Restatement Only				
	Restated <u>n = 428</u>	Not- restd. <u>n = 506</u>	<u>R-NR</u>	<u>t-stat.</u>	<u>prob.</u>	Restated <u>n=182</u>	Not- restd. <u>n=182</u>	<u>R-NR</u>	<u>t-stat.</u>	<u>prob.</u>
a. Audit	3.425	3.540	-0.115	-0.168	0.869	3.434	4.261	-0.827	-0.834	0.406
b. FISDI	0.089	0.150	-0.060	-0.627	0.531	0.046	0.108	-0.062	-0.748	0.456
c.1 Audit-related	1.130	1.161	-0.030	-0.095	0.924	1.051	1.494	-0.447	-1.075	0.284
.2 Internal Audit	0.039	0.005	0.033	1.747	0.081	0.023	0.002	0.021	0.971	0.333
.3 Tax services	0.677	0.795	-0.082	-0.870	0.385	0.680	1.014	-0.334	-1.928	0.055
.4 Other services	0.165	0.147	0.019	0.299	0.765	0.177	0.273	-0.094	-0.620	0.536
Total Fees	5.534	5.777	-0.246	-0.266	0.790	5.420	7.164	-1.744	-1.232	0.220

Table 4 cont'd.
Raw and Scaled Fee-Means for all Available Data and First Year Only Matched Pairs

c. Fees scaled by Total Fees	All Available Fee-Years					Matched Pairs, First Restatement Only				
	Restated n = 432	Not- restd. n = 512	R-NR	t-stat.	prob.	Restated n=187	Not- restd. n=187	R-NR	t-stat.	prob.
a. Audit	0.559	0.588	-0.029	-1.75	0.03	0.588	0.585	-0.003	-1.04	0.30
b. FISDI	0.012	0.015	-0.003	-0.59	0.55	0.012	0.016	-0.004	-0.47	0.64
c.1 Audit-related	0.209	0.172	0.037	2.74	0.01	0.202	0.163	0.039	1.91	0.06
.2 Internal Audit	0.005	0.004	0.001	0.61	0.54	0.003	0.004	-0.001	-0.31	0.76
.3 Tax services	0.156	0.188	-0.032	-2.87	0.00	0.171	0.199	-0.028	-1.58	0.12
.4 Other services	0.060	0.034	0.026	3.19	0.00	0.054	0.033	0.021	1.71	0.09

d. Fees > 0 scaled by Total Fees	All Available Fee-Years					Matched Pairs, First Restatement Only				
	Restated	Not- restd.	R-NR	t-stat.	prob.	Restated	Not- restd.	R-NR	t-stat.	prob.
a. Audit	0.559	0.588	-0.029	-1.750	0.03	0.588	0.585	-0.003	-1.04	0.30
n	(432)	(512)				(187)	(187)			
b. FISDI	0.211	0.334	-0.123	-1.542	0.01	0.202	0.298	-0.096	-0.821	0.42
n	(24)	(23)				(11)	(10)			
c.1 Audit-related	0.276	0.237	0.039	2.572	0.01	0.258	0.219	0.039	1.716	0.09
n	(327)	(372)				(146)	(139)			
.2 Internal Audit	0.109	0.088	0.021	0.568	0.57	0.072	0.113	-0.041	-0.531	0.61
n	(20)	(22)				(7)	(6)			
.3 Tax services	0.195	0.239	-0.044	-3.681	0.00	0.212	0.245	-0.033	-1.772	0.08
n	(345)	(401)				(151)	(152)			
.4 Other services	0.202	0.128	0.074	3.392	0.00	0.209	0.129	0.080	2.111	0.04
n	(127)	(135)				(48)	(47)			

Table 5
Means of “Lucrative” NAS Fees (Fees \geq \$1,000,000)
(potential n = 944)

	<u>Restated</u>	Not <u>Restated</u>	<u>R-NR</u>	<u>t-stat</u>	<u>prob.</u> ³³
Audit	\$2,024	\$2,551	-\$527	-1.303	0.198
Fee ratio ³⁴	0.463	0.392	0.071	1.199	0.235
n	32	29			
FISDI	\$3,739	\$3,168	\$571	0.390	0.704
Fee ratio	0.483	0.540	-0.057	-0.258	0.801
n	4	9			
Audit-related	\$2,732	\$3,200	-\$468	-0.832	0.409
Fee ratio	0.461	0.322	0.139	2.265	0.028
n	26	22			
Internal audit	\$1,100	\$1,200	-\$100	---	---
Fee ratio	0.041	0.034		---	---
n	1	1			
Tax	\$2,742	\$3,544	-\$802	-0.953	0.346
Fee ratio	0.360	0.408	-0.048	-0.819	0.417
n	17	26			
Other services	\$4,897	\$4,832	65	0.031	0.976
Fee ratio	0.459	0.314	0.145	1.579	0.128
n	17	9			
Total	\$4,006	\$4,898	-\$892	-1.030	0.304
n	94	78			

³³ Two-sided

³⁴ Fee / total fees.

Table 6
Logistic Regressions of Restate on Audit Firm Fees and Control Variable³⁵
(n = 925, 358, and 171)

Independent Variables	All available data (n = 925)		Matched sample first year (n=358)		“Lucrative” Total Fees (≥ \$1 million) (n= 171)	
	coef.	prob. ³⁶	coef.	prob.	coef.	prob.
Audit/SqrtTA	0.010	0.015	0.001	0.900	0.014	0.095
FISDI/SqrtTA	-0.005	0.360	-0.006	0.533	-0.006	0.278
Audit-Related/SqrtTA	0.004	0.328	0.003	0.642	0.004	0.487
Internal Audit/SqrtTA	0.050	0.252	0.053	0.535	---	--- ³⁷
Tax/SqrtTA	-0.014	0.039	-0.015	0.152	-0.019	0.035
Other/SqrtTA	0.020	0.017	0.018	0.158	0.018	0.071
Acquisition(s)	0.709	0.000	0.980	0.000	0.965	0.004
Constant	-0.582	0.000	-0.330	0.072	-0.474	0.199
Cox - Snell R-Square	0.048		0.064		0.116	
Nagelkerke R-Square	0.064		0.085		0.155	

³⁵ Restate coded “1,” if registrant restated a 10-Q or 10-K, coded “0” otherwise.

³⁶ Two-sided.

³⁷ Omitted due to n=2 for internal audit fees.

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