Auditor Independence, Non-Audit Services, and Restatements: Was the U.S. Government Right?*

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ABSTRACT

Do fees for non-audit services compromise auditor’s independence and result in reduced quality of financial reporting? The Sarbanes-Oxley Act of 2002 presumes that some fees do and bans these services for audit clients. Also, some registrants voluntarily restrict their audit firms from providing legally permitted non-audit services. Assuming that restatements of previously issued financial statements reflect low-quality financial reporting, we investigate detailed fees for restating registrants for 1995 to 2000 and for similar nonrestating registrants. We do not find a statistically significant positive association between fees for either financial information systems design and implementation or internal audit services and restatements, but we do find some such association for unspecified non-audit services and restatements. We find a significant negative association between tax services fees and restatements, consistent with net benefits from acquiring tax services from a registrant’s audit firm. The significant associations are driven primarily by larger registrants.

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1. Introduction

This study addresses the empirical question of whether, from 1995 through 2000, fees for non-audit services (NAS) provided by a publicly held company’s audit firm are associated with restatement 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 services and NAS to the same publicly held company. The Securities and Exchange Commission (SEC) speculates that these relationships may impair investor confidence in auditor independence and lead to declining confidence in public capital markets. For example, then-SEC Chairman Levitt states, “The audit function is simply being used as a springboard to more lucrative consulting services” (Levitt [2000]).

As support for its concerns about auditor independence, the SEC emphasizes the increased number of restatements of previously issued audited (or reviewed) financial statements during the latter half of the 1990s, a period over which audit firms’ NAS fees increased at a higher rate than did audit fees.¹ The SEC does not document cases for which NAS fees demonstrably compromise auditor independence.² The apparent presumption of a causal relation between NAS fees and restatements and the lack of empirical evidence to confirm or deny the presumption form the primary basis for our empirical work.

The SEC’s revised rules on auditor independence are a response to these NAS concerns (SEC [2000]). The revised rules limit the circumstances under which an audit firm can provide financial information system design and implementation (FISDI) services and set monetary limits on fees for internal audit services. The revised rules also require that registrants’ proxy statements disclose all fees paid to their auditing firm for (1) audit, (2) FISDI, and (3) all other services. The “all other” classification includes in a single category audit-related, internal audit, tax, and any remaining services that we refer to as unspecified services. The proxy disclosure rules are intended by the SEC to permit outsiders to monitor the types and magnitudes of fees paid by registrants to their audit firms. According to then-SEC Chief Accountant Lynn Turner, another purpose of the

¹ For a summary, see M. McNamee and P. Dwyer ["Where Levitt’s Plan Falls Short," Business Week, September 27, 2000, p. 172], Panel on Audit Effectiveness [2000], and SEC [2000]. For evidence on the time series of restatements, see Moriarty and Livingston [2001], Palmrose and Scholz [2004], and Turner et al. [2001].

² In publicizing completion of an enforcement action following the November 2000 independence rules revision, SEC Acting Chairman, Laura Unger, indicates 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 [2001]). However, the Legal Conclusions in the related AAER No. 1405 do not include allegations of lack of independence even though the SEC conducted a lengthy probe of possible relations (see also M. Schroeder, “SEC Probes Andersen for Conflict of Interest—Waste Management Consulting Case Is Focus of Agency,” Wall Street Journal, August 25, 2000, p. C1; and J. Weil and J. Tannebaum, “Big Companies Pay Audit Firms More for Other Services,” Wall Street Journal, April 10, 2001, p. C1).
SEC’s mandated fee disclosures by registrants is to provide a basis for research on “any relationships between the magnitude of audit and non-audit fees and those companies who do or do not have restatements” (Turner [2001]).

Following events related to Enron, WorldCom, and the collapse of Andersen, Congress, via the Sarbanes-Oxley Act of 2002 (SOX), banned audit firms from providing any FISDI, internal audit, and “certain other services” to their audit clients. Certain other services include bookkeeping; appraisal, valuation services, and fairness opinions; actuarial services; management functions and human resources; broker-dealer, investment adviser, and investment banking; legal and expert services unrelated to the audit; and any other services that the Public Company Accounting Oversight Board determines should be restricted. SOX also requires prior approval by a registrant’s independent audit committee of any NAS allowed by law.

Thus, regulators and legislators apparently presume that providing certain NAS impairs auditor independence, leads to lower quality audits and reviews, and increases the likelihood of financial reporting that violates generally accepted accounting principles (GAAP). Empirically, some of these GAAP violations are revealed through restatements of previously issued audited or reviewed financial statements. The regulators’ and legislators’ reasoning suggests the existence of a positive association between NAS fees and restatements, and particularly lucrative NAS fees. Yet, we know of no systematically obtained empirical evidence from before the SEC and Congressional actions that documents a positive association between NAS fees and restatements.4

The purpose of our study is to provide evidence about the empirical association between NAS fees and restatements using data from before SEC rule making and passage of SOX. We consider the presumption of the SEC and Congress of a positive causal association between various types of NAS fees and restatements. NAS may also be negatively associated with restatements because NAS by the audit firm may increase the information available to the auditor, thus improving audit quality and reducing the ex ante possible basis for restatement (e.g., Panel on Audit Effectiveness [2000], Simunic [1984], Dopuch, King, and Schwartz [2003]). Also, registrants wishing to improve their financial reporting by minimizing the ex ante probability of restatement may purchase reporting-related NAS, including services offered by their audit firm. Therefore, we consider the possibility of a negative

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3 Some SEC registrants restate financial statements to reflect GAAP to GAAP accounting changes and changes in reporting entities. These restatements are not the focus of regulators’ and legislators’ concerns, and we exclude these types of restatements from our sample. Our sample is limited to restatements indicating correction of materially misstated financial statements for GAAP violations.

4 Only a few registrants voluntarily disclosed audit firm fees before the SEC-mandated proxy fee disclosures for 2000 (see Menon and Williams [2001]).
association. Our empirical tests reflect the net effects of any causal factors that are positively or negatively related to restatements.  

We identify restatements involving GAAP violations announced from January 1, 1995, through December 31, 2000. Each restating registrant is matched by selecting a nonrestating registrant for the same period, from the same industry, with the same audit firm, and nearest to the restating registrant in revenues. We intend the matching procedure to hold other things equal, thus reducing the idiosyncratic effects of period, industry, and registrant size, as well as audit firm-specific technology, practices, and policies (including audit partner compensation). Fee data are from each of the seven largest U.S. auditing firms detailed into six fee categories: audit, FISDI, audit-related, internal audit, tax, and unspecified services. Services in each of these six fee categories follow the SEC [2000] definitions, although the last four categories are combined in the SEC’s all other services for registrant reporting in 2000–2003 proxy statements.

Comparing distributions of sample fees detailed in our six categories, we find that the average of fees for FISDI, internal audit, and other possible services banned by SOX aggregate to, at most, 6.4% of total audit firm fees for our sample, and that 95% of sample registrants purchase zero FISDI or internal audit services from their audit firm. Furthermore, for the six categories, the difference in frequencies and fees for restating and nonrestating registrants are relatively small, and their direction and significance varies across service and sample partitions. The only exceptions are tax fees, which are almost always lower for restating companies, and unspecified fees, which are almost always higher.

Multivariate logistic regression models of restatement based on audit firm fees also yield significant negative coefficients for tax services and significant positive coefficients for unspecified services. For tax services, these results hold for the overall sample and for subsamples of matched pairs, annual report (Form 10-K) restatements, material misstatements, fees of $1 million or more, and larger registrants. For unspecified services, the results hold across the same partitions, with the exception of two analyses limited to Form 10-K restatements. The multivariate results are consistent with tax services

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5 As elaborated in the next section, 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-value by 2 or use 1 minus the reported p-value divided by 2, depending on the direction favored.

6 Our audit and FISDI categories are identical to those of the SEC’s proxy requirements, and our remaining four categories aggregate to the SEC’s all other category. Thus, our data provide finer information that allows separate assessment for categories of the proxy statements’ all other services as defined by the SEC.

7 These effects approximately offset each other when tax and unspecified services fees are combined, as in all other fees in the SEC’s 2000–2003 proxy disclosure rules, suggesting that the SEC’s January 2003 rule making that revised the proxy statement disclosures to require audit firm fees in four categories—audit, audit related, tax, and all other—will yield potentially useful details about fees. Our other two categories (FISDI and internal audit services) are now banned by SOX.
provided by a registrant’s audit firm having net benefits to registrants and investors whereas unspecified services yield net detriments.

The remaining sections of this study are organized as follows. Section 2 provides background on the issues that guide our research design, data collection, and analyses. Section 3 describes our sample and provides descriptive statistics, and section 4 presents statistical results. Finally, section 5 provides a brief summary and concluding remarks.

2. Background: The Debate, Prior Research, and Our Approach

2.1 THE NAS DEBATE

The NAS debate recognizes that income from NAS could make an audit firm economically dependent on an audit client. This dependence might reduce the auditor’s willingness to challenge possible misstatement of a client’s financial statements. The auditor’s lack of independence could result in an unqualified audit opinion on reported earnings that do not comply with GAAP. Thus, there could be an empirical association between NAS income as a measure of economic dependence and lower financial reporting quality.

Conceptually, the appropriate measure of economic dependence on a particular client is the abnormal audit firm profit from that client. Because abnormal profits are not observable, audit firm revenues (fees) are generally assumed to be a reasonable indicator of economic dependence (e.g., Antle et al. [2002], Simunic [1984], SEC [2000]). However, NAS fees are believed by many to yield higher profit rates than do audit fees. For example, Levitt [2000] uses the phrase lucrative consulting contracts in characterizing NAS and the phrase appears frequently in the financial and popular press. Regulators also express concern that some audit fees are too low because auditors may lowball audit fees to obtain lucrative consulting contracts (SEC [2001]).

Actions of regulators, Congress, and others to restrict or ban NAS are consistent with specific empirical predictions about the association between audit firm fees in various categories and lower quality financial reporting. In particular, there should be a positive association between audit firm fees for FISDI, internal audit, and perhaps unspecified services and low quality financial reporting, other things equal. These effects should be most pronounced for the subset of registrants with large NAS fees and perhaps larger registrants in general. However, because fees from audit, audit-related, and

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8 Another argument is that NAS might cause investors to perceive an economic dependence that would lower perceptions of financial reporting quality. This argument does not predict that actual financial reporting quality would be lowered.

9 As examples of editorial positions, The Economist [“Unresolved Conflicts,” The Economist, October 18–24, 2003, p. 14] states that regulators “should bar auditors from providing all non-audit services to audit clients,” and Consumer Reports [“Accounting Reform: Watching the Watchdogs,” Consumer Reports, March 2003, p. 6] 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).

10 DeAngelo [1981] presents a model consistent with auditors lowballing the audit fee.
tax services are not limited by the government, no association or a smaller positive association would be expected for these fees, other things equal.\textsuperscript{11}

There are at least three bases for predicting a negative association between NAS fees and lower quality financial reporting. First, the Panel on Audit Effectiveness [2000] and some scholars (e.g., Simunic [1984]) suggest that some NAS improve audit effectiveness through a knowledge spillover. For example, knowledge of a client’s computer system and tax accounting could spill over to the audit and improve audit quality that, in turn, would increase financial reporting quality. Second, Dopuch, King, and Schwartz [2003] present an analytic model suggesting that, for high-quality clients for which material misstatement risk (and therefore restatement likelihood) is low ex ante, NAS provided by the audit firm may increase the audit firm’s reputation capital. In turn, reputation capital increases incentives for audit thoroughness and independence in audit reporting decisions. Third, high-quality registrants may seek more expert computer system and tax advice, internal audit services, and audit-related transaction services, and they may choose their audit firm as the preferred supplier of NAS either because of quality or cost.\textsuperscript{12} To the extent that any of these scenarios are generally applicable, there would be a negative association between NAS fees and low-quality financial reporting.

To summarize, the economic dependence argument suggests a positive relation between fees and poor quality financial reporting, whereas audit quality enhancement from information spillover, improved internal systems and controls, and tax advice suggest a negative relation, as does the view that high-quality registrants purchase more NAS to improve the quality of reporting or to lower costs.\textsuperscript{13} Therefore, interpretation of empirical tests of the association between particular NAS fees and measures of low-quality financial reporting should recognize that observable data reflect the joint or net effect of factors that may be related to quality in opposite directions.

2.2 PRIOR RESEARCH

Most recent U.S.-based research relating NAS fees to lower financial reporting quality uses post-1999 fee data from registrants’ proxy disclosures.

\textsuperscript{11} Regulators seem not to be concerned that audit fees might be too high or that the audit fee itself might establish economic dependence for the auditor. Turner [2002] says, “Some have tried to divert attention from consulting fees by arguing it is the audit fee as much as the consulting fees that impacts independence. I beg to differ. Independent judgment and integrity are the hallmark of this profession. If someone lacks the ability to make professional judgments because of who is paying them, then they have a bigger problem. They should not be in the profession at all.”

\textsuperscript{12} Because of the alternative predictions about the direction of association, we report \( p \)-values for two-sided tests.

\textsuperscript{13} For NAS unrelated to the quality of financial statements, business measurement, internal control, and taxes (such as audit firm consulting on plant location), there may be no basis for predicting an offsetting negative association with restatements. In our study, unspecified services may include some of these services.
to examine the association of fees (audit, FISDI, all other NAS). These studies use various measures of financial reporting quality. Some research assumes earnings management is an indicator of low-quality financial reporting and uses abnormal accruals or the propensity to meet earnings benchmarks such as analyst forecasts as surrogates for earnings management (Antle et al. [2002], Frankel, Johnson, and Nelson [2002], Reynolds, Deis, and Francis [2004], Ashbaugh, LaFond, and Mayhew [2003], Chung and Kallapur [2003], Francis and Ke [2003], Larcker and Richardson [2004]).

Other research uses restatements (Agrawal and Chadha [2003], Raghunandan, Read, and Whisenant [2003]), SEC enforcement actions (Rapoport [2003]), or shareholder class actions (Bajaj, Gunny, and Sarin [2003]) as the financial reporting quality measure. Some studies (e.g., Ashbaugh, LaFond, and Mayhew [2003], Chaney and Philipich [2002]) include evidence on market reactions. Still other research focuses on audit quality and uses the propensity to issue going-concern opinions (DeFond, Raghunandan, and Subramanyam [2002]) or examines the use of relationship disclosures rather than rules that restrict audit firm services (Gaynor [2002]).

The results of studies using accounting accruals to measure reporting quality are mixed. Frankel, Johnson, and Nelson [2002] report some evidence consistent with a significant and positive association between the ratio of NAS fees to total fees and surrogates for lower financial reporting quality. However, Antle et al. [2002], Ashbaugh, LaFond, and Mayhew [2003], Chung and Kallapur [2003], Francis and Ke [2003], and Reynolds, Deis, and Francis [2004] find no consistent evidence of a statistically significant association when the magnitude of NAS fees or total fees are used as the independent variable. Larcker and Richardson [2004] find that the positive association between the ratio of NAS fees to total fees and accruals observed by Frankel, Johnson, and Nelson [2002] is limited to a small subset of smaller, management-controlled companies.

In a study that uses SEC enforcement actions as a measure of poor earnings quality, Rapoport [2003] finds no evidence of high NAS fees for 64 registrants that faced SEC actions in 2002. Based on 2000 and 2001 restatements, Raghunandan, Read, and Whisenant [2003] find no significant difference in unexpected NAS fees (and fee ratios) between the restatement \( (n = 116) \) and control companies, and similarly, Agrawal and Chadha [2003] report

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14 In some countries other than the United States, NAS fees have long been a required disclosure and the subject of research. For example, using 1994 and 1996 Australian data, Craswell, Stokes, and Laughton [2002] find no evidence that the ratio of client audit or NAS fees to audit firms' total national (or office) fees affects auditor propensity to qualify audit opinions.

15 Although there is some evidence of a positive association between NAS fees and abnormal accruals, Ashbaugh, LaFond, and Mayhew [2003] find that the association is due to the subset of income-decreasing abnormal accruals. Because these accruals may reflect conservative rather than opportunistic GAAP application, they question whether this result implies lower quality financial reporting that generally would be of concern to regulators and legislators.
no NAS fee differences between 172 pairs of restatement and control companies based on either the ratio of NAS to total fees or the frequency of NAS fees over $1 million.\textsuperscript{16}

In industry- and size-matched comparisons of companies with (without) shareholder litigation, Bajaj, Gunny, and Sarin [2003] find no audit firm fee differences in their overall sample, but higher NAS fees for 33 companies with the largest decreases in market capitalization over class periods covering shareholder allegations of securities law violations that include allegations of non-GAAP accounting. They also find that audit, NAS, and total fees do not differ for a subset of restating companies with (without) litigation. Frankel, Johnson, and Nelson [2002] report a negative association between NAS fees and share values on the date the fees are disclosed, although the effect is small in economic terms and not consistent with evidence in Ashbaugh, LaFond, and Mayhew [2003]. Furthermore, based on cumulative mean abnormal returns around Enron-related announcements for all of Andersen’s S&P 1500 clients, Chaney and Philipich [2002] find no evidence that investors questioned Andersen’s independence as measured by the amount of audit or NAS fees charged.

Finally, in studies not focusing on financial statement amounts, DeFond, Raghunandan, and Subramanyam [2002] find no consistent evidence of an association between fees and audit quality as measured by auditors’ propensity to issue going-concern opinions for distressed clients. Also, based on two experiments using experienced MBA students as investor surrogates, Gaynor [2002] finds that disclosure of audit firm–client relationships and fees not only complements independence rules that prohibit or restrict auditor behavior but may be a substitute for the rules.

To summarize the prior research, there is some scattered evidence of a modest positive association between some NAS fee measures and surrogates for reduced financial reporting quality. However, existence of the positive association that regulators and legislators presume remains largely undocumented for the post-1999 period.

2.3 OUR APPROACH

Our study complements and extends existing research in several ways. First, almost all of our data are from before publicity about the SEC’s concerns regarding the NAS fee–financial reporting quality relation. This difference is potentially important because the weak evidence supporting an association between NAS fees and poor quality financial reporting after 1999 could be due to changes in auditor and company actions after or contemporaneous with the rule making and legislation.

\textsuperscript{16} Agrawal and Chadha [2003] examine 17 corporate governance variables and find only two that significantly differ between restating and control companies: the portion of independent board or audit committee members with a background in accounting or finance and the presence of the CFO on the audit committee are negatively related to the likelihood of restatements.
Second, to measure poor quality financial reporting, we use restatement of previously issued and independently audited (Form 10-K) or reviewed (Form 10-Q) financial statements that are materially misstated under GAAP. Because audits are more intensive and carry more legal and regulatory responsibilities than do reviews, we analyze our data both including and excluding restatements limited to Form 10-Q.

Third, we use a four-way partitioning of the SEC’s “all other” services fees to separately consider the two SOX-proscribed services—FISDI and internal audit—as well as audit-related, tax, and unspecified NAS. Unspecified NAS may include some SOX-banned tax, and unspecified NAS. Unspecified NAS may include some SOX-banned services (e.g., expert services unrelated to the audit). To facilitate comparing our results with research that relies on fees disclosed in proxy statements, each fee category in our study is defined in accordance with SEC [2000] guidelines, and the fees in our four-way partition sum to the SEC’s all other category.

Finally, we assess sensitivity of our results to various size factors. We examine the association between large dollar magnitudes of fees and restatements because the association may be important to arguments favoring monetary or percentage limits on audit firm fees (as opposed to outright bans on certain services). We also consider the relative absolute magnitude of restatement, or restatement “materiality,” and the effect of registrant size by splitting our sample at $200 million total assets as the SEC mandated in its internal audit fee rules (SEC [2000]).

3. Sample and Descriptive Statistics

3.1 SAMPLE SELECTION AND DATA

We attempt to identify all interim and annual restatements announced from January 1, 1995, through December 31, 2000, based on public sources that include Lexis-Nexis News and Form 8-K library files. Our search uses key word searches for restatements such as “restat,” “revis,” “adjust,” and “error,” as well as phrases such as “responding to guidance from the SEC.” Finally, we add some restating companies mentioned in other sources discussing restatements such as Securities Class Action Alert.

We include all GAAP violation restatements of U.S. companies that file one or more amended Form 10-K, amended Form 10-Q, or Form 10-Q restatements included in a Form 10-K. Also, for a few companies we use their amended S-1, and for a few that ceased business before completing an amended filing, we use restatement information from press releases. We exclude restatements that reflect only GAAP-to-GAAP accounting changes.

Combined, our sources identify 713 companies that announced restatements over the six-year period. We eliminate 96 companies not audited by one of the largest seven U.S. audit firms because the smaller firms typically do not have more than one client in a particular industry. This leaves 617 restating registrants, and because some of the restatement announcements have multiple year effects, a total of 979 fee-years are affected by restatement.
Each restating company is matched with another company that does not restate its financial statements at any time during 1995 through 2000. For each restating company, we locate registrants having the same (four- or two-digit) SIC code that are audited (or reviewed) by the same independent audit firm as the restating company. Then, we choose the company that is closest in total revenue to the restating company for the last year reported before the restatement announcement. Average revenue for the combined potential sample for the matching year is $790 million, with the mean for restating companies $6.7 million higher (two-sided \( p = .815 \) for paired \( t \)-test of mean revenue difference).

The largest seven U.S. auditing firms provide the fee data for client registrants identified by us, subject to a confidentiality agreement regarding matters such as not disclosing the identities of particular audit firms and clients. In 1999, these firms collectively audit about 80% of U.S. registrants (Panel on Audit Effectiveness [2000]).

Our detailed fees are classified into the following six categories (denoted the “detailed format”): (1) audit and review services; (2) financial information systems design and implementation services; (3) audit-related services, other assurance services, and certain business advisory services; (4) internal audit services; (5) income tax services (other than those directly related to the audit of the income tax accrual); and (6) unspecified services. The appendix presents our data-collection form and data definitions.

### 3.2 SAMPLE ATTRITION AND REPRESENTATIVENESS

Table 1, panel A shows the sample attrition from the 979 restating registrant fee-years and 979 nonrestating (matched) registrant fee-years initially solicited from the participating audit firms. Our obtained sample of 432 restating company fee-years and 512 nonrestating fee-years 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 no longer exists—about 18% of all restating registrants for 1995 to 2000 eventually file for bankruptcy or are delisted (see Palmrose and Scholz [2004]). Other registrants’ fees are unavailable

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17 Because of limited clients for a particular audit firm in some industries, we use a two-digit SIC code in about 15% of our cases.
18 Tests for revenue differences for responses obtained show similar differences and \( p \)-values. Tests for earnings differences are also insignificant, although the restating sample shows significant earnings declines from the match year to the restatement year. Thus, even though earnings originally reported by restating registrants are generally overstated, profitability is declining relative to the matched registrants (see Kinney and McDaniel [1989] for a similar finding).
19 Consistent with SEC guidance for proxy disclosures, this category includes fees for statutory audits not required by generally accepted auditing standards (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.
TABLE 1
Descriptive Statistics on Sample Composition, Attrition, and Representativeness of Fee Data Requested from Largest Seven U.S. Audit Firms

Panel A: Sample composition and attrition

<table>
<thead>
<tr>
<th></th>
<th>Restated</th>
<th>Not Restated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee-years requested(^b)</td>
<td>979</td>
<td>979</td>
<td>1958</td>
</tr>
<tr>
<td>Less nonresponses</td>
<td>547</td>
<td>467</td>
<td>1014</td>
</tr>
<tr>
<td>All fee-years obtained sample (all available data)</td>
<td>432</td>
<td>512</td>
<td>944</td>
</tr>
<tr>
<td>Less nonpaired fee-years</td>
<td>143</td>
<td>223</td>
<td>366</td>
</tr>
<tr>
<td>Paired fee-years</td>
<td>289</td>
<td>289</td>
<td>578</td>
</tr>
<tr>
<td>Less years 2 to 5 restatements</td>
<td>102</td>
<td>102</td>
<td>204</td>
</tr>
<tr>
<td>First restatement fee-year pairs sample</td>
<td>187</td>
<td>187</td>
<td>374</td>
</tr>
</tbody>
</table>

Panel B: Comparison of fee-years requested and obtained by year and industry

<table>
<thead>
<tr>
<th>Year Restated</th>
<th>Fee-Years Requested</th>
<th>Fee-Years Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Restating</td>
<td>Not Restating</td>
</tr>
<tr>
<td>1995</td>
<td>102</td>
<td>35</td>
</tr>
<tr>
<td>1996</td>
<td>135</td>
<td>49</td>
</tr>
<tr>
<td>1997</td>
<td>186</td>
<td>77</td>
</tr>
<tr>
<td>1998</td>
<td>273</td>
<td>132</td>
</tr>
<tr>
<td>1999</td>
<td>189</td>
<td>99</td>
</tr>
<tr>
<td>2000</td>
<td>94</td>
<td>49</td>
</tr>
<tr>
<td>Total</td>
<td>979</td>
<td>432</td>
</tr>
</tbody>
</table>

Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Fee-Years Requested</th>
<th>Fee-Years Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, mining, and construction</td>
<td>32</td>
<td>19</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>296</td>
<td>134</td>
</tr>
<tr>
<td>Technology</td>
<td>245</td>
<td>102</td>
</tr>
<tr>
<td>Transportation</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Communication</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>Utilities</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>Wholesale and retail</td>
<td>91</td>
<td>31</td>
</tr>
<tr>
<td>Financial services</td>
<td>130</td>
<td>53</td>
</tr>
<tr>
<td>Services</td>
<td>115</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>979</td>
<td>432</td>
</tr>
</tbody>
</table>

\(^a\)Fee data requested from largest seven audit firms in the United States for audit clients restating previously audited or reviewed financial statements from January 1, 1995, through December 31, 2000, and matched registrants without restatements for the same year, audited by same audit firm, in same industry, and nearest in revenues.

\(^b\)We identify 979 Form 10-K and Form 10-Q restatement fee-years. A restatement fee-year is a year for which year-end financial statements are restated or financial statements for one or more quarters are restated.

\(^c\)Net from 1,070 requests—979 original matches plus 91 replacement nonrestating firms requested. Thus, 512 of 1,070 is a 48% overall response rate for nonrestating firms.

because of mergers within the Big 5 or because of audit firm legal counsel restrictions, and some 1995 fee data are unavailable because of some audit firms’ data retention policies.

In an attempt to increase the number of industry, audit firm, and size-matched pairs, we identify the second best revenue match for 91 restating registrants with fee data but without fee data for the best match. We then
request fee data for these alternative nonrestating registrants (thus, there are 1,070 potential fee-years for nonrestating registrants rather than 979). Overall, our procedures yield 289 matched pairs of fee-years, with 187 of these for first-year restatements and 102 for second-, third-, and fourth-year restatements when a restatement includes more than one fiscal year.

Table 1, panel B compares our data requests with data obtained by year and by industry. The period comparison shows that the distribution of response rates is higher for the second half of the sample period, consistent with greater difficulty obtaining data in earlier periods. Comparisons of the requested and obtained data show differences of 4% or less, and differences between restating and nonrestating registrants are 2% or less. The response rates and differences across industries are also small, and the distribution across industries is comparable to statistics cited in Frankel, Johnson, and Nelson [2002] and Ashbaugh, LaFond, and Mayhew [2003] for their samples of company proxy statement fee disclosures of about 3,000 registrants in the year 2000. Thus, our response rates seem to suggest the sample is reasonably representative of the population for both restating and nonrestating registrants.

The audit firm fee data for this study are hand collected by personnel at each of the seven largest audit firms. Because manual data collection is an error-prone process and because the audit firms may have had an interest in the outcome of the study, we evaluate the reliability of our data to the extent feasible. There is no public information on audit firm fees for the sample firms for 1995 through 1999, but data from the audit firms’ clients in SEC proxy statements are available for 2000. Even though the proxy amounts are prepared by registrant managements rather than by their audit firms, these data provide an opportunity for comparison with our detailed fee data.

As table 1, panel B indicates, we have year 2000 fee data for 40 restating and 51 nonrestating companies. A search of the SEC’s EDGAR database and Compustat yields fiscal year 2000 proxy disclosure information for 46 of the 91 companies, 20 restating companies and 26 nonrestating companies. Of the 45 companies without 2000 fee disclosures, 27 are not required to disclose 2000 fees because of their fiscal year-ends, 10 terminate their registrations with the SEC, 1 is acquired before filing a proxy statement for 2000, and 7 had neither proxy statements nor Compustat disclosures available.

For total fees, there are zero differences in our audit firm data and proxy disclosure data for 24 of the 46 registrants, and of the 22 nonzero differences, 11 are positive (audit firm fee amount minus registrant fee amount per proxy statement) and 11 are negative. The average ratio of the difference divided by fees per proxy statement for audit, FISDI, all other, and total fees are $-0.009$, $0.045$, $-0.004$, and $0.032$, respectively, and are not statistically different between restating and nonrestating registrants. The entire difference for FISDI fees is due to 2 restating registrants, and the

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20 Differences in response rates by nature and discovery of misstatements (not reported) are similar.
same 2 registrants explain most of the difference in total fees. For the 2 registrants, FISDI fees supplied by audit firms are positive but proxy disclosures provided by registrant managements show zero FISDI fees. For both registrants, the proxy statements show larger amounts for audit and all other fees, with one summing to the same total, and for the other the audit firm shows substantially larger total fees. Thus, with the exception of the two FISDI amounts, the differences are fairly small in percentage terms and do not show evidence of understatement of NAS fees by the audit firms.

To assess the bivariate association between the two sources of data, we calculate Pearson correlation coefficients between the SEC proxy disclosures and our detailed format for audit, FISDI, all other, and total fees. The four correlations are 0.994, 0.981, 0.990, and 0.998, respectively, indicating a high association. Finally, following Aboody, Barth, and Kasznik [2003], we regress the audit firms’ fees against proxy disclosure fees for the three categories plus their total. In all cases, the hypothesis that the intercept and the hypothesis that the difference between the slopes for the restating and nonrestating firms are zero cannot be rejected at conventional probability levels. Thus, for the year 2000, there are relatively few and mostly small differences in the data even though the data are collected by different parties for different purposes.

4. Results

4.1 UNIVARIATE AND BIVARIATE RESULTS

Table 2 presents the mean fee and mean ratio of each fee type to total fees per sample registrant using various groups of fees. The mean total fee across our 944 sample restating and nonrestating registrants is slightly more than $1 million, with 1.3% coming from FISDI and 41.2% from all other services (panel A). However, the detailed fee classification shows that audit-related and tax fees, both of which are allowed under SOX, typically constitute most of all other services fees and 36.2% (18.9% + 17.3%) of the total fee.

Panel B regroups the panel A results into SOX-allowed (audit, audit-related, and tax), SOX proscribed (FISDI and internal audit), and SOX-indeterminate (unspecified) services. This panel shows that the mean ratio of SOX-allowed services is 93.6% of total fees, and that even if all unspecified services are proscribed by SOX, the mean fees lost would be 6.4% of the total. Thus, the SEC’s three-way classification for proxy disclosures

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21 Forty-four of the 46 FISDI differences are zero: 40 have zero FISDI fees reported by both the audit firms and registrants, and 4 have positive FISDI fees that are identical between audit firms and the proxy disclosures.

22 For the latter registrant we could not locate proxy data for 2000 on EDGAR, although fee amounts are reported on Compustat. We are unable to determine the cause of the difference between the Compustat amounts and our data, but we note that this registrant appears not to conform with the SEC guidelines in its disclosure of 2002 and 2003 fees in its 2003 proxy statements.
### TABLE 2
Audit Firm Fees and Fee Ratios per Sample Registrant for Restating and Nonrestating Registrants’ Fee-Years from January 1, 1995, through December 31, 2000

Panel A: Fees using SEC proxy disclosure vs. detailed format (n = 944)

<table>
<thead>
<tr>
<th></th>
<th>Proxy Disclosure Format</th>
<th>Detailed Format</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Fee</td>
<td>Mean Ratio</td>
</tr>
<tr>
<td>Audit</td>
<td>$349.4</td>
<td>0.575</td>
</tr>
<tr>
<td>FISDI</td>
<td>53.5</td>
<td>0.013</td>
</tr>
<tr>
<td>All other</td>
<td>650.7</td>
<td>0.412</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Audit related</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal audit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tax</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

Panel B: Fees grouped by Sarbanes-Oxley Act allowed, proscribed, and indeterminate services (n = 944)

<table>
<thead>
<tr>
<th></th>
<th>Mean Fee</th>
<th>Mean Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed (Audit, audit related, tax)</td>
<td>$826.1</td>
<td>0.936</td>
</tr>
<tr>
<td>Proscribed (FISDI, internal audit)</td>
<td>60.1</td>
<td>0.018</td>
</tr>
<tr>
<td>Indeterminate (Unspecified)</td>
<td>167.4</td>
<td>0.046</td>
</tr>
<tr>
<td>Total</td>
<td>$1,053.6</td>
<td></td>
</tr>
</tbody>
</table>

Panel C: Fees greater than zero (n = various)

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Percent of Total n</th>
<th>Mean Fee</th>
<th>Mean Ratio</th>
<th>Mean Audit Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit</td>
<td>944</td>
<td>100.0</td>
<td>$349.4</td>
<td>0.575</td>
<td>$349.4</td>
</tr>
<tr>
<td>FISDI</td>
<td>47</td>
<td>5.0</td>
<td>1,073.6</td>
<td>0.271</td>
<td>888.8</td>
</tr>
<tr>
<td>All other</td>
<td>885</td>
<td>92.7</td>
<td>694.1</td>
<td>0.439</td>
<td>365.5</td>
</tr>
<tr>
<td>Audit related</td>
<td>699</td>
<td>74.0</td>
<td>334.7</td>
<td>0.255</td>
<td>412.5</td>
</tr>
<tr>
<td>Internal audit</td>
<td>42</td>
<td>4.4</td>
<td>147.3</td>
<td>0.098</td>
<td>714.1</td>
</tr>
<tr>
<td>Tax</td>
<td>746</td>
<td>79.0</td>
<td>289.6</td>
<td>0.219</td>
<td>394.7</td>
</tr>
<tr>
<td>Unspecified</td>
<td>262</td>
<td>27.8</td>
<td>603.3</td>
<td>0.164</td>
<td>638.4</td>
</tr>
</tbody>
</table>

*a* All dollars are in thousands (000).

*b* Detailed format partitions the “all other” proxy disclosure category into audit related, internal audit, tax, and unspecified services fees.

*c* Ratio = Category fees/Total fees.

*d* Audit fees = fees for financial statement audit and review services performed by the auditor that are customary under generally accepted auditing standards or that are customary for the purpose of rendering an opinion or review report on the financial statements including 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. FISDI (financial information systems design and implementation) fee = fees for 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; all other fees = all fees other than audit fees and FISDI fees (also the sum of audit-related, internal audit, tax, and unspecified fees); audit-related fees = fees for other assurance services, and certain business advisory services including those for statutory audits not required by generally accepted auditing standards (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; internal audit fees = fees for internal audit services; tax fees = fees for income tax services other than those directly related to the audit of the income tax accrual; unspecified fees = fees for any other consulting and all other service fees billed to the audit client other than fees for audit, FISDI, audit-related, internal audit, and tax services.

**e** “All other” is the SEC’s category that combines all audit firm fees other than audit and FISDI fees.

*f* Includes some services now proscribed by the Sarbanes-Oxley Act of 2002.
(SEC [2000]) tends to overstate the average proportion of fees from services causing concern that are now restricted or proscribed.

Because some NAS fees are zero for many registrants, panel C repeats the calculations in panel A but excludes registrants purchasing zero NAS of each type and, for comparison, shows the mean audit fee for these same registrants. If NAS are purchased, the amounts can be large; for example, the mean FISDI fee ($1,073.6) is more than the mean audit fee for the same registrants ($888.8) and averages 27.1% of total fees. However, panel C also shows that less than 50 sample registrants purchase FISDI and internal audit services from their audit firm.

Table 3 continues our analyses of frequencies. Panel A partitions our sample by restating and nonrestating registrants and shows the percentages with zero NAS fees in each category (all have audit fees). It is apparent that fee distributions differ across services and that some are highly skewed. The median fee is zero for FISDI, internal audit, and unspecified services, and zero for the 90th percentile registrant for the first two services. Almost 80% of the sample companies purchase audit-related or tax services from their auditor, whereas less than 30% purchase unspecified services, and 5% or fewer purchase FISDI or internal audit services.

Table 3, panel B (using all available data) reports statistical tests based on the cross-classification of zero and nonzero fees with restatements. The $2 \times 2$ results (zero fees vs. positive fees) show that the hypothesis of no association between NAS fees and restatements cannot be rejected at $p < .20$ for FISDI, internal audit, tax, and unspecified services. However, the sum of the four components of the SEC’s all other services shows a positive association at $p = .137$, although only 6% have zero all other fees. Tests restricted to our matched-pair first-restatement-only sample (not shown) yield the same pattern of results, with higher $p$-values due to the smaller sample sizes.

To see whether relative magnitudes of fees are associated with restatement frequencies, we divide the positive NAS fee companies into those with fees less than or equal to the sum of audit plus audit-related fees (denoted AAR in table 3) and those that are greater. The $2 \times 3$ results (zero fees vs. two categories of positive fees) show $p > .20$ for FISDI services, but tax services fees show $p = .059$ with fewer restatements among the large fee companies. Finally, for unspecified services the hypothesis of independence with restatements can be rejected at $p = .121$ with more restatements among the large fee companies.

Table 4 reports four sets of mean fees, fee difference, and $t$-tests for restating and nonrestating registrants.\textsuperscript{23} The panels report results for all

\textsuperscript{23} As with the frequency data, we repeat the means tests using the first-restatement-only matched pairs. The pattern of results is similar to that of the entire sample but with higher $p$-values. Scaling by total assets yields quantitatively similar results. Also, to conserve space, we omit results for the ratio of each fee to total fees (sometimes called the fee ratio). As noted in other studies, the fee ratio results are erratic as to direction and sometimes statistically significant, and are difficult to interpret (see Kinney and Libby [2002]).
<table>
<thead>
<tr>
<th>Panel A: Audit firm fees—percentage zero fees</th>
<th>Matched Pairs, First Restatement Only&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Available Data (n = 432, 512)</td>
<td>First Restatement Only (n = 187, 187)</td>
</tr>
<tr>
<td>Restating</td>
<td>Nonrestating</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Audit&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0%</td>
</tr>
<tr>
<td>FISDI</td>
<td>94%</td>
</tr>
<tr>
<td>Audit related</td>
<td>22%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>95%</td>
</tr>
<tr>
<td>Tax</td>
<td>20%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>70%</td>
</tr>
</tbody>
</table>

| Panel B: Cross-classification of restatements with AAR fee ratio<sup>c</sup>—all available data | |
|-----------------------------------------------|---|---|---|---|
| | AAR Fee Ratio | ²χ | Prob.| |
| | 0 | 0 < Ratio < 1 | Ratio ≥ 1 | Total |
| FISDI | ²χ<sup>d</sup> | | | |
| Nonrestating | 489 (54.5%) | 15 (44.1%) | 8 (61.5%) | 512 (54.2%) |
| Restating | 408 (45.5%) | 19 (55.9%) | 5 (38.5%) | 432 (45.8%) |
| Total | 897 | 34 | 13 | 944 |
| Internal audit | 490 (54.3%) | 22 (55.0%) | 0 (0%) | 512 (54.2%) |
| Restating | 412 (45.7%) | 18 (45.0%) | 2 (100%) | 432 (45.8%) |
| Total | 902 | 40 | 2 | 944 |
| Tax | 111 (56.1%) | 359 (52.5%) | 42 (67.7%) | 512 (54.2%) |
| Restating | 87 (43.9%) | 325 (47.5%) | 20 (32.3%) | 432 (45.8%) |
| Total | 198 | 684 | 62 | 944 |
| Unspecified | 377 (55.5%) | 125 (53.4%) | 10 (35.7%) | 512 (54.2%) |
| Restating | 305 (44.7%) | 109 (46.6%) | 18 (64.3%) | 432 (45.8%) |
| Total | 682 | 234 | 28 | 944 |
| All other<sup>f</sup> | 38 (64.4%) | 375 (53.3%) | 99 (54.4%) | 512 (54.2%) |
| Restating | 21 (35.6%) | 328 (46.7%) | 85 (45.6%) | 432 (45.6%) |
| Total | 59 | 703 | 182 | 944 |

<sup>a</sup>Sample limited to matched pairs, first (or only) fee year with a Form 10-K or Form 10-Q restatement announcement from January 1, 1995, through December 31, 2000.

<sup>b</sup>All fee types are defined in footnotes to table 2.

<sup>c</sup>AAR fee ratio = Category fee/(Audit fees + Audit-related fees).

<sup>d</sup>Two-sided probability; ²χ<sup>2</sup> = 2 restatement × {0, 0 < ratio < 1, ratio ≥ 1}; ²χ<sup>2</sup> = 2 restatement × {0 vs. > 0} fees.

<sup>e</sup>Omitted because two expected cell sizes < 5.

<sup>f</sup>“All other” is the SEC’s category that combines all audit firm fees other than audit and FISDI fees.

registrants (panel A), registrants with fees > 0 (panel B), material restating registrants (panel C), and fees greater than $1 million (panel D). Over all observations (panel A), unspecified and audit-related services have p-values < .20, but when companies paying zero NAS fees are excluded (panel B), the
<table>
<thead>
<tr>
<th>Difference</th>
<th>Restating</th>
<th>Nonrestating</th>
<th>Restating–Nonrestating</th>
<th>t-statistic</th>
<th>Probability(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Fees (n = 432, 512)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit(^c)</td>
<td>$371.9</td>
<td>$330.4</td>
<td>$41.5</td>
<td>0.943</td>
<td>0.346</td>
</tr>
<tr>
<td>FISDI</td>
<td>42.0</td>
<td>63.1</td>
<td>−21.1</td>
<td>−0.681</td>
<td>0.496</td>
</tr>
<tr>
<td>All other(^d)</td>
<td>722.6</td>
<td>590.1</td>
<td>132.5</td>
<td>0.888</td>
<td>0.375</td>
</tr>
<tr>
<td>Audit related</td>
<td>284.9</td>
<td>216.5</td>
<td>68.4</td>
<td>1.347</td>
<td>0.178</td>
</tr>
<tr>
<td>Internal audit</td>
<td>5.2</td>
<td>7.7</td>
<td>−2.5</td>
<td>−0.624</td>
<td>0.533</td>
</tr>
<tr>
<td>Tax</td>
<td>199.5</td>
<td>253.6</td>
<td>−54.1</td>
<td>−0.973</td>
<td>0.331</td>
</tr>
<tr>
<td>Unspecified</td>
<td>233.0</td>
<td>112.2</td>
<td>120.8</td>
<td>1.551</td>
<td>0.121</td>
</tr>
<tr>
<td>Total fees</td>
<td>1,136.5</td>
<td>983.6</td>
<td>152.9</td>
<td>0.809</td>
<td>0.418</td>
</tr>
<tr>
<td><strong>Panel B: Fees &gt; 0</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit (n = 432, 512)</td>
<td>371.9</td>
<td>330.4</td>
<td>41.7</td>
<td>0.943</td>
<td>0.346</td>
</tr>
<tr>
<td>FISDI (n = 24, 23)</td>
<td>756.2</td>
<td>1404.9</td>
<td>−648.7</td>
<td>−1.193</td>
<td>0.238</td>
</tr>
<tr>
<td>All other (n = 411, 474)</td>
<td>759.6</td>
<td>637.4</td>
<td>122.2</td>
<td>0.765</td>
<td>0.442</td>
</tr>
<tr>
<td>Audit related</td>
<td>376.4</td>
<td>298.1</td>
<td>78.4</td>
<td>1.163</td>
<td>0.245</td>
</tr>
<tr>
<td>Internal audit</td>
<td>111.5</td>
<td>179.8</td>
<td>−68.3</td>
<td>−0.841</td>
<td>0.405</td>
</tr>
<tr>
<td>Tax (n = 345, 401)</td>
<td>249.9</td>
<td>323.8</td>
<td>−73.9</td>
<td>−1.059</td>
<td>0.290</td>
</tr>
<tr>
<td>Unspecified</td>
<td>792.5</td>
<td>425.4</td>
<td>367.1</td>
<td>1.387</td>
<td>0.167</td>
</tr>
<tr>
<td>Total fees (n = 127, 135)</td>
<td>1,136.5</td>
<td>983.6</td>
<td>152.9</td>
<td>0.809</td>
<td>0.418</td>
</tr>
<tr>
<td><strong>Panel C: Material restatements(^e) (n = 333, 512)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit</td>
<td>314.1</td>
<td>330.4</td>
<td>−16.3</td>
<td>−0.417</td>
<td>0.667</td>
</tr>
<tr>
<td>FISDI</td>
<td>35.4</td>
<td>63.1</td>
<td>−27.7</td>
<td>−0.863</td>
<td>0.388</td>
</tr>
<tr>
<td>All other</td>
<td>500.5</td>
<td>590.1</td>
<td>−89.5</td>
<td>−0.646</td>
<td>0.518</td>
</tr>
<tr>
<td>Audit related</td>
<td>211.7</td>
<td>216.6</td>
<td>−4.8</td>
<td>−0.102</td>
<td>0.918</td>
</tr>
<tr>
<td>Internal audit</td>
<td>2.2</td>
<td>7.7</td>
<td>−5.5</td>
<td>−1.752</td>
<td>0.080</td>
</tr>
<tr>
<td>Tax</td>
<td>129.6</td>
<td>253.6</td>
<td>−124.0</td>
<td>−2.580</td>
<td>0.010</td>
</tr>
<tr>
<td>Unspecified</td>
<td>157.0</td>
<td>112.2</td>
<td>44.8</td>
<td>0.554</td>
<td>0.580</td>
</tr>
<tr>
<td>Total fees</td>
<td>850.1</td>
<td>983.6</td>
<td>−135.5</td>
<td>−0.776</td>
<td>0.438</td>
</tr>
<tr>
<td><strong>Panel D: Lucrative fees (fee ≥ $1 million)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit (n = 32, 29)</td>
<td>2,024.3</td>
<td>2,551.2</td>
<td>−526.9</td>
<td>−1.303</td>
<td>0.198</td>
</tr>
<tr>
<td>FISDI (n = 4, 9)</td>
<td>3,739.2</td>
<td>3,168.4</td>
<td>570.8</td>
<td>0.390</td>
<td>0.704</td>
</tr>
<tr>
<td>All other (n = 60, 44)</td>
<td>4,044.7</td>
<td>5,249.0</td>
<td>−1,204.3</td>
<td>−1.042</td>
<td>0.310</td>
</tr>
<tr>
<td>Audit related (n = 26, 22)</td>
<td>2,732.0</td>
<td>3,200.1</td>
<td>−468.1</td>
<td>−0.832</td>
<td>0.409</td>
</tr>
<tr>
<td>Internal audit (n = 1, 1)</td>
<td>1,100.0</td>
<td>1,200.0</td>
<td>−100.0</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Tax (n = 17, 26)</td>
<td>2,742.2</td>
<td>3,544.1</td>
<td>−801.9</td>
<td>−0.953</td>
<td>0.346</td>
</tr>
<tr>
<td>Unspecified (n = 17, 9)</td>
<td>4,897.3</td>
<td>4,832.6</td>
<td>64.7</td>
<td>0.031</td>
<td>0.976</td>
</tr>
<tr>
<td>Total fees (n = 94, 77)</td>
<td>4,005.5</td>
<td>4,948.3</td>
<td>−942.8</td>
<td>−1.056</td>
<td>0.293</td>
</tr>
</tbody>
</table>

\(^a\)All dollars are in thousands (000).

\(^b\)Two-sided probability.

\(^c\)All fee types are defined in footnotes to table 2.

\(^d\)“All other” is the SEC's category that combines all audit firm fees other than audit and FISDI.

\(^e\)Restatement is deemed material if absolute value of difference in restated net income and net income originally reported scaled by net income originally reported is greater than or equal to 0.05.
only \( p < .20 \) is for unspecified services. Mean fees for restating registrants exceed those for nonrestating for all three comparisons.

To assess the effect of relative size of misstatement, we define a misstatement (correction to net income) as quantitatively material if its absolute size is greater than or equal to 5% of the absolute value of the net income or loss originally reported. By definition, each nonrestating company has zero correction, and we use the nonrestating sample as reported in table 4, panel A. For material restatements, the restating companies have significantly lower internal audit and tax services fees, at \( p \)-values \( = .08 \) and \( .01 \), respectively (panel C). Thus, for larger relative misstatements, these NAS fee differences are significantly and negatively associated with restatement.

To assess possible differences due to lucrative consulting contracts or lucrative NAS fees, we partition our data on the dollar magnitude of fees of various types. Because neither the SEC nor the popular press defines the characteristics of a lucrative NAS contract, we restrict our sample for each fee category (including total fees) to fees equal to or greater than \$1 million as a conservative approximation of fee amounts that might be considered lucrative. Although this cutoff is arbitrary, it seems less likely that, for a large audit firm, a fee of less than \$1 million would provide profit potential sufficient to compromise the auditor’s integrity or independence. Panel D shows the relatively small proportion of registrants with fees greater than \$1 million. Only 18\% (or \((94 + 77)/944\)) have total fees greater than \$1 million, 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 unspecified services with 2.7\%. FISDI and internal audit services are about 1.4\% and 0.2\%, respectively.

Although the percentages of registrants with potentially lucrative fees are small, the dollar magnitudes are relatively large. On the other hand, only one service (audit) exhibits \( p < .20 \) for dollar magnitude differences, with nonrestating companies having larger mean fees. Thus, the lucrative fees do not show a clear pattern of differences that would support the argument that large fee magnitudes for any particular service bias auditors’ decisions toward poorer quality financial reporting.

### 4.2 Multivariate Results

In this section we report results of multivariate tests on our sample by estimating logistic regression models of restatements. \( RESTATE \) indicates a restating company and equals 1 if the company restated a Form 10-K or Form 10-Q, and 0 otherwise. The regressions account simultaneously for possible relation to restatements of each of the six fees, scaled by the square root of total assets,\(^{24}\) and the presence of a corporate acquisition

\(^{24}\) The scaling follows Simunic [1980] to linearize the relation between fees and size, and to reduce heterogeneity of variance due to size.
during the restatement year.\textsuperscript{25} $ACQUIS$ indicates an acquisition and equals 1 if the company had an acquisition or acquisitions during the year, and 0 otherwise.\textsuperscript{26}

Acquisitions may increase the probability of a restatement due to new, difficult, or contentious accounting issues, and possible business integration problems. Acquisitions may also increase the need for tax, systems, additional investigation, or business advice, leading to increased fees for tax, system, audit-related, internal audit, and perhaps other, unspecified, services. For our sample, more than 40% of restating companies have acquisitions during the restatement year, but only 26% of nonrestating companies have acquisitions during the same period.

Table 5 presents Pearson correlations for our scaled fee variables and the dichotomous $ACQUIS$ and $RESTATE$ variables. Among the 15 fee with fee correlations, 8 have $p < .20$, all of which are positive, and there are some significant and positive correlations between $ACQUIS$ and fees. However, only 5 of the 21 bivariate correlations between the control and fee variables are above .10, and the highest $R^2$ (not shown) is 0.075, with the rest less than 0.025, and more than two-thirds of the $R^2$s are less than 0.01. Thus, it appears that correlations between pairs of right-hand-side variables are small.

Table 6, panel A shows results of four logistic regressions of $RESTATE$ on scaled fee variables and $ACQUIS$. The full sample (leftmost column set) includes all available data, that is, all registrants, single- and multiple-year restatements, and restated 10-Qs as well as 10-Ks. After controlling for acquisitions, fees for audit, tax, and unspecified services are significantly associated with $RESTATE$ at $p < .05$, with the tax association negative and the other two positive. The second set of columns restricts the sample to matched pair, first restatement year 10-Q and 10-K observations. This set shows coefficients of the same signs as the full sample, with $p < .20$ for only tax and unspecified services. The third and fourth sets of columns report results for Form 10-K restatements reflecting the outcomes for year-end audits, with the third set of columns reporting all available data and the fourth set reporting matched sample results. The pattern of results is the same as for all restatements.\textsuperscript{27}

\textsuperscript{25} To include specific factors other than industry, audit firm, and registrant size that might affect the likelihood of restatement, we collect data on other potential control variables, including auditor tenure, initial public offerings, and institutional stockholdings. Unfortunately, there are many missing observations because many of our sample companies are too small to be in Compustat and other data sources. Furthermore, when the limited observations are included in our logistic regressions, explanatory power is typically reduced. Therefore, we report results for only $ACQUIS$ as a nonfee control variable.

\textsuperscript{26} Most of our data for $ACQUIS$ are obtained from the footnote code for Compustat (AFTNT1) using any code combination that includes the code AA (data reflect an acquisition (purchase and/or pooling) or AB (data reflect a significant merger/acquisition whereby the effects on the prior years’ sales constitute 50% or more of the reported sales for that year). For companies not on Compustat, we read 10-K footnotes for similar disclosures.

\textsuperscript{27} We find qualitatively similar results (not shown) for a matched sample restricted to annual first restatements, but with higher $p$-values.
### Table 5

Correlations Between Various Audit Firm Fees/Square Root of Total Assets, ACQUIS, and RESTATE Using All Available Data

<table>
<thead>
<tr>
<th></th>
<th>FISDI/SqrtTA</th>
<th>Audit related/SqrtTA</th>
<th>Internal audit/SqrtTA</th>
<th>Tax/SqrtTA</th>
<th>Unspecified/SqrtTA</th>
<th>ACQUIS</th>
<th>RESTATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit/SqrtTA</td>
<td>0.003</td>
<td>0.158</td>
<td>0.007</td>
<td>0.163</td>
<td>-0.006</td>
<td>-0.001</td>
<td>0.080</td>
</tr>
<tr>
<td>FISDI/SqrtTA</td>
<td>-0.006</td>
<td>0.015</td>
<td>0.041</td>
<td>0.064</td>
<td>0.019</td>
<td>-0.024</td>
<td>-0.034</td>
</tr>
<tr>
<td>Audit related/SqrtTA</td>
<td>0.014</td>
<td>0.273</td>
<td>0.014</td>
<td>0.049</td>
<td>0.138</td>
<td>0.138</td>
<td>0.062</td>
</tr>
<tr>
<td>Internal audit/SqrtTA</td>
<td>(0.640)</td>
<td>(0.660)</td>
<td>(0.660)</td>
<td>(0.004)</td>
<td>(0.094)</td>
<td>(0.094)</td>
<td>(0.094)</td>
</tr>
<tr>
<td>Tax/SqrtTA</td>
<td>0.094</td>
<td>0.060</td>
<td>0.066</td>
<td>0.138</td>
<td>0.018</td>
<td>0.018</td>
<td>0.018</td>
</tr>
<tr>
<td>Unspecified/SqrtTA</td>
<td>-0.011</td>
<td>0.036</td>
<td>0.043</td>
<td>0.004</td>
<td>0.093</td>
<td>0.093</td>
<td>0.093</td>
</tr>
<tr>
<td>ACQUIS</td>
<td>0.164</td>
<td>0.072</td>
<td>0.029</td>
<td>0.090</td>
<td>0.164</td>
<td>0.164</td>
<td>0.164</td>
</tr>
</tbody>
</table>

\[ ACQUIS = 1 \text{ if registrant has an acquisition during the fee year, 0 otherwise}; \ RESTATE = 1 \text{ if registrant restates Form 10-K or Form 10-Q during the fee year, 0 otherwise}; \]

\[ \text{Audit/SqrtTA} = \text{audit fees divided by the square root of total assets}; \]

\[ \text{FISDI/SqrtTA} = \text{FISDI fees divided by the square root of total assets}; \]

\[ \text{Audit related/SqrtTA} = \text{audit-related fees divided by the square root of total assets}; \]

\[ \text{Internal audit/SqrtTA} = \text{internal audit fees divided by the square root of total assets}; \]

\[ \text{Tax/SqrtTA} = \text{tax fees divided by the square root of total assets}; \]

\[ \text{Unspecified/SqrtTA} = \text{unspecified fees divided by the square root of total assets}. \]

\[ b \text{Parentheses indicate two-sided probability; } n = 944 \text{ for all correlations except those with ACQUIS for which } n = 934 \text{ because of lack of information on ACQUIS for 10 registrants.} \]
**TABLE 6**

Logistic Models of RESTATE Regressed on Audit Firm Fees and ACQUIS\(^6\)

\[ \text{RESTATE} = \beta_0 + \sum_{i=1}^{6} \beta_i \left( \frac{\text{Fee}_i}{\text{SqrtTA}} \right) + \beta_7 \text{ACQUIS} \]

### Panel A: All restatements

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>All Available Data</th>
<th>Matched Sample First Restatement</th>
<th>All Available Data</th>
<th>Matched Sample First Restatement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 428, 506)</td>
<td>(n = 183, 183)</td>
<td>(n = 289, 332)</td>
<td>(n = 180, 180)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.582</td>
<td>0.000</td>
<td>-0.330</td>
<td>0.072</td>
</tr>
<tr>
<td>Audit/SqrtTA(^d)</td>
<td>0.010</td>
<td>0.015</td>
<td>0.001</td>
<td>0.900</td>
</tr>
<tr>
<td>FISDI/SqrtTA</td>
<td>-0.005</td>
<td>0.360</td>
<td>-0.006</td>
<td>0.533</td>
</tr>
<tr>
<td>Audit related/SqrtTA</td>
<td>0.004</td>
<td>0.328</td>
<td>0.003</td>
<td>0.642</td>
</tr>
<tr>
<td>Internal audit/SqrtTA</td>
<td>0.050</td>
<td>0.252</td>
<td>0.053</td>
<td>0.535</td>
</tr>
<tr>
<td>Tax/SqrtTA</td>
<td>-0.014</td>
<td>0.039</td>
<td>-0.015</td>
<td>0.152</td>
</tr>
<tr>
<td>Unspecified/SqrtTA</td>
<td>0.020</td>
<td>0.017</td>
<td>0.018</td>
<td>0.158</td>
</tr>
<tr>
<td>ACQUIS</td>
<td>0.709</td>
<td>0.000</td>
<td>0.980</td>
<td>0.000</td>
</tr>
<tr>
<td>Cox-Snell R(^2)</td>
<td>0.050</td>
<td>0.064</td>
<td></td>
<td>0.064</td>
</tr>
<tr>
<td>Nagelkerke R(^2)</td>
<td>0.067</td>
<td>0.085</td>
<td></td>
<td>0.063</td>
</tr>
</tbody>
</table>

### Panel B: Material restatements and lucrative fees

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Material Restatements(^e)</th>
<th>Total Fees and Registrant Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Available Data (n = 330, 506)</td>
<td>Total Fees ≥ $1 Million (n = 94, 78)</td>
</tr>
<tr>
<td></td>
<td>Form 10-K Data (n = 232, 332)</td>
<td>Fees &lt; $1 Million (n = 218, 290)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.915</td>
<td>-0.796</td>
</tr>
<tr>
<td>Audit/SqrtTA</td>
<td>0.014</td>
<td>0.001</td>
</tr>
<tr>
<td>FISDI/SqrtTA</td>
<td>-0.003</td>
<td>0.530</td>
</tr>
<tr>
<td>Audit related/SqrtTA</td>
<td>0.003</td>
<td>0.556</td>
</tr>
<tr>
<td>Internal audit/SqrtTA</td>
<td>0.046</td>
<td>0.330</td>
</tr>
<tr>
<td>Tax/SqrtTA</td>
<td>-0.021</td>
<td>0.009</td>
</tr>
<tr>
<td>Unspecified/SqrtTA</td>
<td>0.017</td>
<td>0.052</td>
</tr>
<tr>
<td>ACQUIS</td>
<td>0.857</td>
<td>0.000</td>
</tr>
<tr>
<td>Cox-Snell R(^2)</td>
<td>0.059</td>
<td>0.061</td>
</tr>
<tr>
<td>Nagelkerke R(^2)</td>
<td>0.080</td>
<td>0.085</td>
</tr>
</tbody>
</table>

\(^a\) RESTATE equals 1 if registrant restated Form 10-K or Form 10-Q for the year, and 0 otherwise.

\(^b\) n = restating sample size, nonrestating sample size.

\(^c\) Two-sided probability.

\(^d\) See table 5 for data definitions.

\(^e\) Restatement is deemed material if absolute value of difference in restated net income and net income originally reported scaled by net income originally reported is greater than or equal to 0.05.

\(^f\) Total fees ≥ $1 million.

\(^g\) Total assets ≤ $200 million.

To summarize panel A, the coefficients on tax and unspecified services are statistically significant at \(p < .20\) for all four models and \(p < .10\) for three models. Furthermore, the coefficient magnitudes are approximately equal across sample partitions (especially for tax services). In supplementary tests (not reported), we reestimate the models in table 6 but sum the audit-related, internal audit, tax, and unspecified services under the detailed format fee categories to yield the SEC’s all other category. In these
regressions none of the coefficients on all other services is significant at $p < .20$. On average, the effects of tax and unspecified services tend to cancel each other when the services fees are summed, indicating that aggregation of the fee categories can change the strength and direction of association.

Panel B of table 6 reports models with data limited to material restatements (first two sets of columns), lucrative fees (third set), and nonlucrative fees from smaller registrants (fourth set). For both the all-available-data and the Form 10-K samples, audit fees are significantly and positively related and tax services are significantly and negatively related to material restatements, but unspecified services are significant and positive only for the all-available-data sample.28

The third and fourth sets of columns in panel B show results for registrants with total fees $\geq$ $1$ million, and registrants with total fees $< $1 million and total assets $< $200 million, respectively. The third set reflects total fees deemed lucrative, and the fourth set reflects nonlucrative fees and the SEC’s total asset size for exempting registrants from internal audit fee regulations (SEC [2000]). For the lucrative total fees registrants, the coefficients and $p$-values are similar to those of the all-available-data sample.29 For the smaller registrant, nonlucrative total fees sample, the only $p < .20$ is for audit services. Thus, registrant size may be an important factor in understanding the relation of fees to restatements.

In table 7, we split the all-restatements and material-restatements samples at $200$ million in total assets to assess the sensitivity of our table 6 results to registrant size. For the all-available-data partition in panel A (i.e., both the all-restatements and material-restatements samples), the large registrant partition coefficients and $p$-values for tax and unspecified services are consistent with the size-pooled analysis (first set of columns in table 6, panels A and B). The same results hold for the Form 10-K partitions in table 7, panel B. Also, in all four larger registrant analyses in table 7, the coefficient on internal audit services is negative, with $p < .20$ in three of the four analyses. In contrast, the small registrant partitions show no significant coefficients other than those of audit fees, for which three of the four are positive.

Table 7, panel B includes Form 10-K restatements. It shows the same pattern of results for larger registrants’ tax and unspecified services, with $p < .20$ for tax services in all four analyses and in three of four analyses for unspecified services. For smaller registrants, audit services also have larger

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28 As with the data in panel A, for regressions substituting all other fees, the negative relation of tax services tends to overcome the positive relation of unspecified services to yield coefficients for all other services, with no $p$-values $< .20$.

29 We sort the data to identify the largest tax and unspecified fees scaled by total assets. Seven registrants’ unspecified fees divided by the total fees are greater than .5, and 6 of the 7 are for restating firms. On the other hand, 26 firms have tax services fees constituting greater than 50% of the total, but only 11 of these 26 are restating firms and the largest 7 (comparable to the unspecified fees) are all nonrestating firms. Thus, our results for unspecified fees may be due to very large fees of restating registrants, but the results for tax services are not.
### Table 7
Logistic Models of RESTATE Regressed on Audit Firm Fees and ACQUIS: Sensitivity Analysis for Registrant Size and Material Restatements

\[ \text{RESTATE} = \beta_0 + \sum_{i=1}^{6} \beta_i (\text{Fee}_i / \text{SqrtTA}) + \beta_7 \text{ACQUIS} \]

#### Panel A: All available data

<table>
<thead>
<tr>
<th></th>
<th>All Restatements</th>
<th>Material Restatements&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Assets &gt; $200 Million</td>
<td>Total Assets ≤ $200 Million (n = 196, 211)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.484</td>
<td>-0.741</td>
</tr>
<tr>
<td>Audit/SqrtTA</td>
<td>0.007</td>
<td>0.011</td>
</tr>
<tr>
<td>FISDI/SqrtTA</td>
<td>-0.008</td>
<td>-0.004</td>
</tr>
<tr>
<td>Audit related/SqrtTA</td>
<td>0.006</td>
<td>0.004</td>
</tr>
<tr>
<td>Internal audit/SqrtTA</td>
<td>-0.142</td>
<td>0.206</td>
</tr>
<tr>
<td>Tax/SqrtTA</td>
<td>-0.018</td>
<td>0.002</td>
</tr>
<tr>
<td>Unspecified/SqrtTA</td>
<td>0.023</td>
<td>0.025</td>
</tr>
<tr>
<td>ACQUIS</td>
<td>0.816</td>
<td>0.654</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.525</td>
<td>0.035</td>
<td>-0.596</td>
<td>0.001</td>
</tr>
<tr>
<td>Audit/SqrtTA</td>
<td>0.009</td>
<td>0.517</td>
<td>0.006</td>
<td>0.238</td>
</tr>
<tr>
<td>FISDI/SqrtTA</td>
<td>-0.010</td>
<td>0.324</td>
<td>0.002</td>
<td>0.813</td>
</tr>
<tr>
<td>Audit related/SqrtTA</td>
<td>0.011</td>
<td>0.272</td>
<td>-0.006</td>
<td>0.445</td>
</tr>
<tr>
<td>Internal audit/SqrtTA</td>
<td>-0.777</td>
<td>0.133</td>
<td>0.165</td>
<td>0.430</td>
</tr>
<tr>
<td>Tax/SqrtTA</td>
<td>-0.019</td>
<td>0.131</td>
<td>-0.001</td>
<td>0.945</td>
</tr>
<tr>
<td>Unspecified/SqrtTA</td>
<td>0.015</td>
<td>0.146</td>
<td>0.006</td>
<td>0.798</td>
</tr>
<tr>
<td>ACQUIS</td>
<td>0.966</td>
<td>0.000</td>
<td>0.959</td>
<td>0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.929</td>
<td>0.001</td>
<td>-0.797</td>
<td>0.000</td>
</tr>
<tr>
<td>Audit/SqrtTA</td>
<td>0.007</td>
<td>0.643</td>
<td>0.007</td>
<td>0.197</td>
</tr>
<tr>
<td>FISDI/SqrtTA</td>
<td>-0.006</td>
<td>0.553</td>
<td>-0.006</td>
<td>0.711</td>
</tr>
<tr>
<td>Audit related/SqrtTA</td>
<td>0.013</td>
<td>0.220</td>
<td>-0.007</td>
<td>0.357</td>
</tr>
<tr>
<td>Internal audit/SqrtTA</td>
<td>-1.366</td>
<td>0.109</td>
<td>0.186</td>
<td>0.425</td>
</tr>
<tr>
<td>Tax/SqrtTA</td>
<td>-0.029</td>
<td>0.056</td>
<td>0.004</td>
<td>0.770</td>
</tr>
<tr>
<td>Unspecified/SqrtTA</td>
<td>0.015</td>
<td>0.227</td>
<td>0.010</td>
<td>0.688</td>
</tr>
<tr>
<td>ACQUIS</td>
<td>1.284</td>
<td>0.000</td>
<td>0.953</td>
<td>0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.109</td>
<td>0.050</td>
<td>0.145</td>
<td>0.053</td>
</tr>
<tr>
<td>Audit/SqrtTA</td>
<td>0.146</td>
<td>0.066</td>
<td>0.195</td>
<td>0.071</td>
</tr>
</tbody>
</table>

<sup>a</sup>See table 6 for definition of material restatement.<br>
<sup>b</sup>Two-sided probability.<br>
<sup>c</sup>See table 5 for data definitions.

*p*-values, with one slightly below .20 and one above. The results in panels A and B suggest that virtually all of the association with restatements of tax, unspecified, and perhaps internal audit fees is due to larger registrants and that any positive association of audit fees is due to smaller registrants.

Fees for audit services and unspecified services exhibit a positive association with restatements in all 16 of the logistic regressions in tables 6 and 7.\(^{30}\)

\(^{30}\)Audit-related fees are not significant in the logistic regressions that include ACQUIS even though they are significantly and positively correlated with both ACQUIS and RESTATE as shown in table 5. This is consistent with the view that acquisitions may increase both the demand for audit-related services and the likelihood of restatement.
Audit fees have $p < .20$ in 10 of the 16 analyses, with 3 of the nonsignificant exceptions from the large company partitions in table 7. This positive association of audit fees with restatements may reflect audit firm identification and pricing of ex ante misstatement risk or added audit effort for risky contexts, especially for smaller registrants (see Simunic and Stein [1996], Bell, Landsman, and Schakleford [2001]). Unspecified services have nine $p$-values $< .20$, with five of the seven nonsignificant exceptions from smaller registrant analyses (one in table 6, panel B, and all four small registrant analyses in table 7).

Finally, tax fees exhibit negative association with restatements for 13 of the 16 regressions in tables 6 and 7, with $p < .20$ for 11 of them. The 5 nonsignificant exceptions are all for small company partitions and include all three of the nominally positive associations. Thus, for smaller registrants the effects of economic dependence and financial reporting quality enhancement factors related to tax services tend to cancel each other with little overall effect. On the other hand, the association of tax fees with restatements is significant and negative for the larger firms, implying that financial reporting quality enhancement effects dominate any economic dependence effects.

5. Conclusion

This study uses detailed audit firm fees from a sample of registrants restating Form 10-K or Form 10-Q during calendar years 1995 through 2000 and a sample of similar registrants not restating financial statements for the same period. We address a presumption implicit in U.S. government actions of 2000 and 2002 that restrict or prohibit some NAS by audit firms to their audit clients. The presumption is: fees for FISDI, internal audit, and certain other NAS purchased from a registrant’s audit firm increase the probability of restatement of audited or reviewed financial statements.

We have three main findings. First, for our sample, we find no statistically significant positive association between fees for FISDI or internal audit services and restatements. These results may be due, in part, to the small sample sizes for registrants purchasing these services. We find that 5% or fewer restating or nonrestating registrants purchase any FISDI or internal audit services from their audit firm. Furthermore, on average, FISDI, internal audit, and all unspecified NAS (the banned and potentially banned services) constitute only 6.4% of total fees for our sample. Thus, banning FISDI, internal audit, and certain unspecified NAS may affect few companies and may not improve the quality of financial reporting.

Second, we find some evidence of a statistically significant positive association between audit fees, audit-related fees, and unspecified NAS fees and restatements. The audit fee association is primarily due to smaller registrants and may indicate either that audit firm pricing reflects the auditor’s ex ante risk or that more audit effort is undertaken for smaller, riskier clients. Audit-related services are significantly and positively correlated with restatements in our bivariate analyses, but including an indicator for acquisitions eliminates significance in multivariate models. Unspecified NAS fees are
positively associated with restatements, and the association is driven by the larger registrants. Although the nature of unspecified professional services is unknown to us, the observed association is consistent with the view that at least some unspecified NAS may create an economic dependence that leads to more restatements and that there are insufficient compensating financial reporting quality enhancements to offset the dependence.

Third, we find that tax services fees are typically negatively associated with restatements and that the association is usually statistically significant. The negative association is due to tax services purchased by larger registrants as well as those paying lucrative NAS fees and those with material misstatements. Thus, for our sample and the 1995–2000 period, larger registrants that spend large amounts on tax services from their audit firm typically have fewer restatements than do those who spend small amounts or zero. This implies that the effects of any economic dependence on a client are more than compensated by financial reporting quality benefits, or alternatively, that high-quality registrants choose their audit firm to provide tax advice. Therefore, banning or restricting tax services from a registrant’s audit firm may either reduce the quality of financial reporting or increase the cost of professional services to registrants without corresponding benefits from improved audit firm independence.

APPENDIX

Confidential Data Collection Form
(Kinney, Palmrose, Scholz)

REGISTRANT:
Name (ticker symbol) xxx (xxxx)
Unique number xxxx
Fiscal year ended xx/xx

PROFESSIONAL FEES ANALYSIS (unique number xxxx):**

a. Audit fees $\ldots$*

b. Financial information systems design and implementation fees \ldots*

c. All other fees
   c.1 Audit-related services, other assurance services, and certain business advisory services $\ldots$*
   c.2 Internal audit services \ldots*
   c.3 Income tax services \ldots*
   c.4 Other consulting and all other services*** \ldots*

All other fees—total \ldots*

TOTAL FEES $\ldots$*

*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. **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 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.

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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.

REFERENCES


