

FRAUDULENT AUDITED ANNUAL FINANCIAL STATEMENTS IN POST-PSLRA PRIVATE SECURITIES CLASS ACTIONS: DETERMINANTS OF AUDITOR LITIGATION

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ABSTRACT

Our two stage comprehensive investigation of financial disclosure-related private securities class actions begins with the enactment of the Private Securities Litigation Reform Act of 1995 on December 22, 1995, and ends when the Securities Litigation Uniform Standards Act of 1998 became law on November 3, 1998. We focus on accounting fraud, the naming of auditors as defendants, and the relationships between the two. We find, in the first investigative stage, that the risk of an auditor being named a defendant is de minimis unless fraudulent audited annual financial statements are alleged. In the second stage multivariate analysis we find, as our hypothesis adapted from Young (2000) predicts, that the occurrence of fictitious transaction frauds is a determinant of the auditor being named a defendant. We also find that omitted disclosures, bankruptcy, government prosecution, and non-routine restatement of audited annual financial statements are positively associated with naming the auditor a defendant.

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INTRODUCTION

Financial disclosure that is accurate and unbiased is essential to facilitate securities market efficiency and low cost of capital, and the outside accountant occupies a special gatekeeping role (Bushman and Smith 2000). The outside accountant is interposed between investors and management in order to play a watchdog role. How well that role is played is a function of the existing incentives. The outside accountant is a reputational intermediary and thus has an incentive to safeguard his valuable reputation (Kraakman 1986). Also, the self-regulatory mechanisms of public accounting motivate high quality attestation.

Additional incentives are provided by litigation. Litigation includes criminal prosecution by the United States Attorney and state prosecutors, civil prosecution by the Securities and Exchange Commission (“SEC”), and private civil prosecution. It is the role of auditors in this last genre of litigation, specifically financial disclosure-related private securities class actions, that we focus on in this study.

There is a concern that auditors may have insufficient incentives to motivate them to perform their gatekeeping role well (Coffee 2001) and are no longer doing enough to prevent the issuance of fraudulent financial statements:

“We must face reality. When on a weekly basis there are press reports on alleged financial frauds among members of corporate America with household names such as Sunbeam, Waste Management, Rite Aid, Lucent and Xerox; when the public challenges the role of corporate governance and audit committees in these events; when it becomes all too common that Chief Financial Officers are being convicted of cooking the books and sentenced to jail terms; and when people ask where were the auditors... let us act with accountability and responsibility...”(Turner 2001, p. 2).

The purpose of our study is to analyze the financial disclosure-related private securities class actions of the early (through November 3, 1998) post-Private Securities Litigation Reform Act of 1995 (“PSLRA”) period. We apply new technology in order to understand, in a depth and breadth not previously possible, the nature of the accounting fraud. We believe that the kinds of frauds that occurred during this period suggest why the outside accountant was named a defendant in some of these private securities class actions, but not in others.

The remainder of the paper is organized as follows. The next section discusses prior literature. The third section provides a theoretical and empirical basis for the research design. The fourth section develops the study’s hypothesis. The fifth section explains the method of data analysis. Univariate analysis is reported in the sixth section. The empirical model is presented in the seventh section. In the eighth section the results of the multivariate testing are presented. In the final section, conclusions, implications, limitations and the need for further research are discussed.

PRIOR RESEARCH

This study generally relates to the empirical auditor litigation research literature, which has been surveyed by Palmrose (1997), Cloyd et al. (1998) and Latham and Linville (1998). More specifically, though, this study is an extension of two niches within the empirical auditor litigation research field. The first niche related to this study investigates the association of different kinds of accounting fraud with auditors being named defendants in some private securities lawsuits but not in others. The second of these niches comprehensively investigates why auditors are named defendants in some private securities class actions but not in others.

Bonner et al. (1998) analyzed accounting fraud in companies that experienced an SEC Accounting and Auditing Enforcement Release (“AAER”). Their analyses were based on their

fraud taxonomy of twelve Categories which were aggregations of as many as nineteen Schemes within each category. Their fraud taxonomy is the most meaningful for our research. It is uniquely successful in avoiding the double counting of fraud schemes.¹ It groups together fraud schemes both by type of manipulation and by interrelated accounts rather than by grouping together all schemes that affect an individual account.

One of the Bonner et al. (1998) analyses compared the private securities lawsuits with auditor defendants versus the private securities lawsuits without auditor defendants. In univariate analysis, they found, inter alia, that when Categories A (Fictitious or overvalued revenues and assets), B (Premature revenue recognition), D (Fictitious assets and/or reductions of expenses/liabilities) or E (Overvalued assets and undervalued expenses/liabilities), or Scheme I1 (Fictitious sales to related parties (totally made up)) were present, the auditor tended to be named a defendant.

In a multiple logistic regression, Bonner et al. (1998) aggregated Categories A and D, as well as Scheme I1, into one explanatory variable that they called Fictitious Transaction Frauds. They created a second explanatory variable, Frequent Frauds, by aggregating Categories A, B and E. A third explanatory variable that they included in their multiple logistic regression was Category A by itself, in the apparent belief that this would mitigate the Category A overlap and clarify what exactly it was that they measured in their multiple logistic regression. Caveats aside, Fictitious Transaction Frauds were significant (i.e. when present, the auditor tended to be named a defendant) in both of their model specifications and Frequent Frauds were significant in one model specification but not the other. Other significant (at a ten percent level) findings were that when bankruptcy was present, when the auditor was charged by the SEC with wrongdoing, when

¹ A typical accounting fraud involves one false debit and one false credit. In our view, this is one scheme, not two schemes, and a fraud taxonomy ideally should classify this as one scheme.

the SEC took relatively severe action against management or the auditor, or when annual (instead of just quarterly) financial statements were alleged by the SEC to be misstated, the auditor tended to be named a defendant.

In a majority of the private securities class actions with auditor defendants, an AAER was not issued (Fuerman 1997b, 1999). Thus, a better research design, in terms of generalizability, for investigating why auditors are named defendants in some private securities class actions but not in others, is to draw a comprehensive sample of private securities class actions. Fuerman (2000) analyzed all of the financial disclosure-related private securities class actions reported in *Securities Class Action Alert* (“SCAA”) that commenced after the PSLRA but before the Securities Litigation Uniform Standards Act of 1998 (“SLUSA”).² These 468 lawsuits commenced January 19, 1996 through November 2, 1998.

In multiple logistic regression, the issuance of an AAER was positively associated with naming the auditor a defendant. Bankruptcy was positively associated with naming the auditor a defendant. Big Six³ auditors were negatively associated with naming the auditor a defendant. Plaintiff class period length was positively associated with naming the auditor a defendant.⁴ Fuerman (2000) also found that restatement of audited annual financial statements, in

² Levine and Pritchard (1998) comprehensively discuss the provisions of the SLUSA and its legislative history.

³ As of the July 1, 1998 merger of Coopers & Lybrand and Price Waterhouse, the Big Six are now the Big Five. With respect to the performance of the audits, the largest public accounting firms were the Big Six during the period of this study and thus are referred to as the Big Six throughout the paper.

⁴ The class period refers to the time period that defines which investors may be included as plaintiffs in a securities class action. It begins with the issuance of the first false statement that allegedly inflated the security’s price and it ends when the security’s price is alleged to reflect the corrected information

non-routine circumstances, was positively associated with naming the auditor a defendant. Such a restatement is a tacit admission of management culpability.⁵

Thus, when an AAER, a bankruptcy, a non-routine circumstance restatement of audited annual financial statements, a non-Big Six auditor, or a long class period was present, the auditor tended to be named a defendant. These characteristics were positively correlated with each other (Fuerman 1997c). An AAER was present in 48% and 49% of the lawsuits with auditor defendants (Fuerman 1997b,1999). Bankruptcy occurred in 17%, 20%, 19% and 23% of the lawsuits with auditor defendants (Fuerman 1997b, 1997c, 1999, 2000). A non-routine circumstance restatement of audited annual financial statements occurred in 45%, 44%, 46% and 45% of the lawsuits with auditor defendants (Fuerman 1997b, 1997c, 1999, 2000).

A limitation of the Fuerman (2000) research design is that in over 82% of the private securities class actions the auditor was not named a defendant. All of the private securities class actions were financial disclosure-related. Nonetheless, it may be that in some of the private securities class actions there was only a trivial probability that the auditor would be named a defendant. In other words, in some of the lawsuits auditor litigation risk was *de minimis*. A better research design would focus on the lawsuits where auditor litigation risk was real and not *de minimis*.

The above research statistically inferred from samples of auditor litigation to estimate what would be found were it possible to study the entire population of auditor litigation. Such inference is logical only if there is a sound basis to believe that the sample is representative of

⁵ The restatement of previously issued audited annual financial statements is required by APB No. 20 (AICPA 1971) to apply certain new accounting standards, and sometimes for pooling of interests mergers, sales of divisions, stock splits, stock dividends, and similar routine purposes. However, a restatement for other reasons is a tacit admission of culpability for the originally issued materially misstated financial statements.

the population (Snedecor and Cochran 1989). For example, in 1948, Dewey was incorrectly predicted the winner over Truman because of statistical inference based on a sample that was not representative of the population of voters. Telephone polling was used to draw the sample. In 1948, voters who owned telephones tended to be Dewey supporters. Thus, the sample was not representative (Wallace 1991).

Palmrose (2000) is a database of Big Six auditor litigation commenced 1960-1995. It, in part, is the source for the Bonner et al. (1998) auditor litigation data. SCAA is our source for Big Six auditor litigation commenced April 20, 1992 to December 31, 1995. The Palmrose (2000) data and the SCAA data are compared in Table 1. Palmrose (2000) omitted fourteen private securities class actions where the Big Six auditor was named a defendant. It cannot be determined whether these fourteen private securities class actions were entirely undetected, the fact that the auditor was named a defendant in these fourteen lawsuits was missed, or some of both errors were made. Also, Palmrose (2000) includes eight private securities class actions not reported in SCAA. Due to the low statistical power, there is a significant (less than one percent) difference between the Palmrose data and the SCAA data only with regard to the lag from the date that the lawsuit commenced until the auditor was named a defendant.

There are errors in the SCAA data as well as in the Palmrose (2000) data. SCAA has several sections in its monthly newsletter. One of these, "New Cases," is where lawsuits filed in the past month are described. If a lawsuit is not reported in New Cases, it may be reported months or years later in the "Settlements" section after attorneys have mailed settlement notices to the investors and publicized the settlement in the media. However, if the lawsuit never settles (for example, it may be dismissed), no settlement notice will be mailed and no related publicity will appear in the media. Since comprehensive and accurate data collection is difficult, we

believe that a disproportionately large number of the lawsuits not reported in New Cases that are dismissed (and therefore never settled) never get reported at all in SCAA.

From 26% to 32% of the 1992 (beginning April 20) to 1995 lawsuits eventually reported in SCAA were not reported in the New Cases section (Figure 1). Of the 1996 lawsuits, only 6% of the lawsuits eventually reported in SCAA were not reported in the New Cases section⁶. We infer from this that cases commenced before 1996 that were subsequently dismissed were disproportionately excluded from SCAA. We further infer from this analysis of sample representativeness that the findings of all studies based, even partly, on pre-1996 private securities litigation data, should be regarded as tentative.

THEORETICAL AND EMPIRICAL BASIS FOR THE RESEARCH DESIGN

A focus on the lawsuits alleging fraud is one of the two prerequisites to gaining a better understanding of why auditors are named defendants in some private securities class actions but not in others. In Table 2, it can be seen that in every lawsuit naming the auditor a defendant the plaintiff alleged fraud in at least one of the complaints. In contrast, among the private securities class actions without an auditor defendant, 25 had no allegation of fraud. Of the 25 no-fraud lawsuits, 24 are lawsuits in which there was no allegation that audited annual financial statements were misstated.⁷ There may be a substantive reason for no-fraud lawsuits to not include auditor defendants. However, this phenomenon may simply be driven by the fact that almost all of the no-fraud lawsuits contain no allegation that audited annual financial statements were misstated.

⁶ Depiction of more recent data would not be meaningful since some of the more recent lawsuits will likely settle in the future.

⁷ The sole no-fraud lawsuit that alleged that audited annual financial statements were misstated is *Electroscope Inc.*, (*Gart v. Electroscope Inc. et al.*, 24 F. Supp. 2d 969, D. Minn. 1998).

The second prerequisite to gaining a better understanding of why auditors are named defendants in some private securities class actions but not in others is to focus on the lawsuits alleging misstated audited annual financial statements. The lawsuits alleging misstated audited annual financial statements should be focused on because of the judicial and legislative changes in recent years in the legal environment that reduced public accountants' legal responsibility for securities-related financial disclosure. This reduction began with *Central Bank of Denver v. First Interstate Bank of Denver*, 511 U.S. 164 (1994)⁸. In this case, the United States Supreme Court abrogated the implied liability theory of aiding and abetting under Section 10(b) of the Securities Exchange Act of 1934 ("Exchange Act"). That legal theory had been the most frequent basis of claims against accountants in private securities lawsuits for a generation.

On December 22, 1995, the United States Congress passed the PSLRA. Its provisions gave relief to all defendants.⁹ Accountants were obviously aided by the substitution, in most scenarios, of joint/several liability with proportionate liability. However, the most important pro-public accountant provisions of the PSLRA are the stricter pleading standards, which make it more difficult for plaintiffs to withstand a motion to dismiss, and the prohibition on discovery prior to the court ruling on the motion to dismiss. Without such discovery, claims against the outside accountant are often dismissed, even if those against the company and its management are not, because substantiation of additional allegations is required to withstand the outside

⁸ Some contractions of outside accountant liability for securities-related financial disclosure preceded *Central Bank of Denver*. For example, *Lampf, Pleva, Lipkind, Prupis & Petigrow v. Gilbertson*, 501 U.S. 350 (1991) imposed a short statute of limitations (one year after discovery of the fraud, three years after occurrence of the fraud) in federal securities fraud lawsuits. Nonetheless, the recent contraction of outside accountant liability for securities-related financial disclosure began with *Central Bank of Denver*. Further contractions of outside accountant liability for securities-related financial disclosure occurred after (and thus are irrelevant to) the period of this study.

⁹ Phillips and Miller (1996) comprehensively discuss the provisions of the PSLRA and its legislative history.

accountant's motion to dismiss. Because of the one year statute of limitations applicable in most of these lawsuits, plaintiffs cannot wait until discovery against other defendants becomes available to name the outside accountant a defendant. Discovery, if it occurs at all, often does not commence until eighteen months or two years after the commencement of the litigation and the concomitant (in the opinion of some courts) start of the running of the one year clock.

Counsel for plaintiffs who name the outside accountant a defendant risk not only having the claim dismissed. The PSLRA requires courts to scrutinize pleadings for compliance with Rule 11 of the Federal Rules of Civil Procedure. This requirement, along with the PSLRA's presumption that the appropriate sanction for noncompliance is an award of all attorneys' fees and costs incurred by the defendants in the action, uniquely handicap counsel for private securities class action plaintiffs (15 USC 77z-1(c), 78u-4(c) (1994 & Supp 1995)).¹⁰

Evidence of a reduction in the scope of auditor legal responsibility is shown in Table 3. The table compares the pre-*Central Bank of Denver* data of Bonner et al. (1998, p. 514) with our post-PSLRA data. In the pre-*Central Bank of Denver* (April 19, 1994) period it was unusual for accountants to be named defendants in securities lawsuits in the absence of an allegation of misstated audited annual financial statements. However, in the early post-Reform Act period through November 3, 1998, it was *extremely* unusual for accountants to be named defendants in

¹⁰In civil litigation generally, the court is not required (in the absence of a motion of a party) to scrutinize pleadings for compliance with Rule 11 of the Federal Rules of Civil Procedure. Also, in civil litigation generally, courts may decide to impose no sanctions even if they find noncompliance with Rule 11. Rule 11 requires attorneys to only file claims warranted by existing law or by a nonfrivolous argument for the extension, modification, or reversal of existing law or the establishment of new law. The claims must be based on allegations that have evidentiary support or are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery (USCS Fed Rules Civ Proc R 11 (2001)). The problem for counsel for the plaintiffs in the pre-discovery phase of a private securities class action is that they often lack sufficient information to name the auditor a defendant without risking Rule 11 noncompliance.

securities lawsuits if none of the complaints alleged misstated audited annual financial statements. The proportion of lawsuits without such an allegation decreased from nine percent in the pre-*Central Bank of Denver* period to three percent in the post-PSLRA period. The decrease is significant at a probability value of less than ten percent.

As indicated in Table 2, there were three lawsuits with auditor defendants that alleged fraud but did not allege that audited annual financial statements were misstated. In *Kaye Kotts Associates Inc.*, (*Adair v. Kaye Kotts Associates, Inc.*, 1998 U.S. Dist. LEXIS 3900; Fed. Sec. L. Rep. (CCH) P90,192), a February 22, 1996 IPO prospectus did not contain annual financial statements for the fiscal year ended December 31, 1995. The prospectus contained only unaudited financial statements for the first three quarters of 1995. The plaintiffs alleged that auditor Feldman Radin was liable for the nondisclosure of massive fourth quarter losses. The plaintiffs argued that Feldman Radin knew or should have known of these losses and had a duty to update its audit report that was included along with the fiscal year 1994 annual financial statements in the prospectus.

In *Pepsi-Cola Puerto Rico Bottling Company*, nine private securities class action complaints were filed in August 1996. Eight of these were consolidated. Prior to consolidation, the ninth and only complaint naming auditors KPMG Peat Marwick and KPMG Finsterbusch Pickenhayn Sibille defendants (*Rivera Pomaes, et al. v. Pepsi-Cola Puerto Rico Bottling Company, et al.*, 96-cv-1997, District of Puerto Rico), was voluntarily dismissed by the plaintiff. This poorly drafted complaint does not articulate a coherent basis for the auditors' liability.

In *Unison Healthcare Corporation*, litigation, including a private securities class action, occurred in federal court in Arizona and in state courts in California and Colorado. Ernst & Young was named a defendant in a direct action in *Filkoski et al. v. Unison Healthcare*

Corporation, et al., 98-cv-4270 (District Court, City and County of Denver, State of Colorado). Plaintiffs articulated a negligent misrepresentation theory of liability. Ernst & Young reviewed the second quarter 1996 (ending June 30, 1996) financial statements. Ernst & Young knew or should have known that they were fraudulent, partly because of an April 10, 1996 reportable conditions letter to Unison, and that Filkoski would rely upon them.

All three of these lawsuits were dismissed.¹¹ The Kay Kotts and Unison courts rejected plaintiffs' arguments on several grounds, including the fact that there was no allegation that audited annual financial statements were misstated. This suggests that such cases are weak and unlikely to be filed in the future. This also suggests that securities-related financial disclosure lawsuits without an allegation that audited annual financial statements were misstated pose only de minimis risk to the auditor of being named a defendant and thus can be excluded from the detailed analysis with little loss of generalizability.

HYPOTHESIS DEVELOPMENT

We know of only one post-PSLRA private securities class action with an auditor defendant that has been tried. Michael Young was lead trial counsel for BDO Seidman, which won a verdict of acquittal in *In re Health Management Inc.*, 96-CV-889, Eastern District of New York. His description of the nature of accounting fraud in Young (2000) is, we believe, the most credible, because of his obvious expertise as well as the compelling logic of his description.

Young (2000) describes accounting fraud as typically starting with a small response to pressure to meet financial performance goals. One or two participants exploit perceived ambiguities with regard, for example, to the appropriate time for revenue or expense

¹¹Some of the lawsuits analyzed in this study are still pending. Thus, the outcome of these lawsuits is generally outside the scope of this study.

recognition, or for the establishment or adjustment of reserves. These exploitations permit attainment of immediate financial performance goals but concurrently make it, *ceteris paribus*, more difficult to attain the next period's financial performance goals.

As time passes, it becomes increasingly difficult to meet a period's financial performance goals because the company has already borrowed from Peter to pay Paul. Increasingly blatant and egregious measures are needed. The perpetrators must resort to fictitious transactions, for example, the creation of phantom inventory or the recording of phony shipments. The materiality of the fraud increases. Increasing numbers of personnel need to be apprised of the fraud to continue its implementation. It becomes increasingly difficult to conceal that a fraud is being perpetrated. It also becomes more likely that competent auditing will detect the fraud. It also becomes more likely that a failure to detect the fraud is a result of auditors failing to meet their legal responsibility to users who rely upon the audited annual financial statements. This leads to the following (in the alternative form) hypothesis:

H: The allegation of a Fictitious Transaction Fraud is positively associated with naming the auditor a defendant.

Multivariate analysis requires additional control variables. Therefore, we include, to the extent feasible, the explanatory variables used in Fuerman (2000) and Bonner et al. (1998), as well as those found significant at a twenty percent level in univariate analysis in this study.

METHOD OF DATA ANALYSIS

The sample of securities class actions was taken from the February 1996 through June 2001 issues of SCAA. All of the lawsuits concerned allegedly deficient financial disclosure by companies. For example, securities lawsuits that solely concerned oppression of minority shareholders, unfair merger terms, or unfair tactics used during takeovers, were excluded. All of

the lawsuits are private (i.e. not SEC enforcement actions) securities class actions. Also, all of the lawsuits were commenced (the initial complaint was filed) January 19, 1996 through November 3, 1998 in federal or state courts in the United States.¹²

We chose to investigate this specific period because, framed by the PSLRA and the SLUSA, it appears to represent a relatively distinct legal regime for private securities class actions. In addition, this specific period is characterized by a dramatic improvement in securities litigation data quality, as depicted in Figure 1. Were data from this period and the period preceding it analyzed, it would be unclear to what extent observed differences were due to substance versus differences in litigation data quality.

The apparent post-1995 improvement in litigation data quality depicted in Figure 1 can be attributed to a convergence of technological and legal developments. Palmrose (1991) provided the first evidence of the impact of sample nonrepresentativeness on empirical auditor litigation research. By visiting courthouses, and by other means, she collected a sample of 761 lawsuits with auditor defendants. A minority of her lawsuits was reported in the *The Wall Street Journal*. *The Wall Street Journal* subset was not representative of her total sample because it disproportionately involved companies that were publicly held, that experienced bankruptcy or other financial distress, and that were the subject of SEC enforcement actions or criminal inditements.

During the 1990's, it became possible to access court dockets electronically via dial-up modem or the Internet using PACER (Public Access to Court Electronic Records, found at <http://pacer.psc.uscourts.gov/>). PACER became available for the collection of litigation data

¹²ABS Industries was the first complaint filed, on January 19, 1996, after the PSLRA became effective on December 22, 1995. Several securities class action complaints were filed in Canadian provincial courts, but none was the first filed in a particular body of litigation. The SLUSA became effective with complaints filed after November 3, 1998.

from the United States District Court for the Northern District of California in September 1995. Now, 91 of the 94 United States District Courts can be accessed electronically.¹³

Docket sheets provide important information needed to conduct auditor litigation research: litigants and their counsel, lawsuit commencement and termination dates, and the date the auditor was named a defendant. However, the complaints are also indispensable for performing auditor litigation research. Often there are a dozen or more complaints filed at the commencement of the lawsuit, and a consolidated complaint is generally filed a few months to a year later. Sometimes subsequent amended consolidated complaints are also filed, generally with more and better specificity of the factual and legal allegations, as well as the background of the litigants. Beginning in 1996, it became possible to access gradually increasing numbers of complaints via the Internet¹⁴ and, by the end of the century, via PACER. The aggregate result of these technological developments has been a significant improvement in litigation data quality, including sample representativeness.

The legal catalyst that improved litigation data quality, including sample representativeness, was the passage of the PSLRA on December 22, 1995. The PSLRA has a notice provision that requires the first attorney to file a private securities class action to provide notice of the claims alleged and the purported class period in a widely circulated business

¹³PACER for the Western District of Arkansas can be accessed via the court's website at <http://www.arwd.uscourts.gov/caseinfo.html>. The District of Idaho has its own electronic access via its website at http://www.id.uscourts.gov/wconnect/wc.dll?usdc_racer~main. The Southern District of Indiana provides its own electronic access via its website at <http://www.insd.uscourts.gov/caseinfo.htm>. 88 courts are directly accessible via PACER. Guam, Nevada, and the Northern Mariana Islands still do not provide electronic access to their court records.

¹⁴Private securities class action complaints can be accessed at the Securities Class Action Clearinghouse (<http://securities.stanford.edu>), Milberg Weiss (<http://securities.milberg.com>), Weiss & Yourman (<http://wyca.com>), Wolf Haldenstein (<http://www.whafh.com>), and PricewaterhouseCoopers (<http://www.10b5.com>). These are the best sites that we know of.

publication (Phillips and Miller 1996). This notice, which may consist of a wire, electronic or computer service, effectively notifies, in addition to investors, litigation researchers as well.

The litigation data were collected from SCAA, PACER, LEXIS NEXIS, and the Internet. The accounting, auditing and bankruptcy data were obtained from all the above sources except PACER. In addition, LASER D was used, as well as contacts with courts and attorneys. Complaints that could not be obtained from the Internet or from attorneys were purchased. Stock prices for computing shareholder returns and other data needed to determine estimated damages to the plaintiff class were gathered from the Center for Research on Security Prices (“CRSP”) tapes.

As Table 2 indicates, the total number of private securities class actions was 492. Due to incomplete data, as well as some lawsuits involving companies whose annual financial statements were unaudited, the final sample was reduced to 453. Consistent with the experimental design for this study, 25 lawsuits were excluded due to the absence of an allegation of fraud in any of the complaints.¹⁵ Also, 258 lawsuits were excluded because there was no allegation of misstated audited annual financial statements in any of the complaints.

The effect of the data screens is shown in Table 4. The most dramatic difference between the 170 lawsuits studied in the detailed analyses and the excluded lawsuits is that in the 170 lawsuits the auditor was named a defendant 50% of the time. This compares to 1% of the time in the excluded lawsuits. Bankruptcy, plaintiff class period length and parallel proceedings (concurrent federal and state nonderivative lawsuits) are positively associated with the 170

¹⁵Of these 25 no-fraud lawsuits, 24 would have been excluded anyway due to the absence of any allegation of misstated audited annual financial statements in any of the complaints.

lawsuits. Total assets and state court-only lawsuits are negatively associated with the 170 lawsuits selected for detailed analysis.

UNIVARIATE ANALYSIS

Univariate analysis based on the Bonner et al. (1998) fraud taxonomy is presented in Table 5. There are twelve individual fraud Categories (A through L). Also, there are two composite explanatory variables, one of which, Fictitious Fraud Transactions, is the experimental variable of this study. As hypothesized, Fictitious Fraud Transactions are positively associated with naming the auditor a defendant. This is the strongest result shown in Table 5. As discussed in the prior literature section, Fictitious Fraud Transactions is a composite of Category A (Fictitious or overvalued revenues and assets), Category D (Fictitious assets and/or reductions of expenses/liabilities) and Scheme I1 (Fictitious sales to related parties). In other words, if Category A or Category D or Scheme I1 is present, Fictitious Fraud Transactions is coded as present. Each of these is, as one would expect, positively associated with naming the auditor a defendant.

The other composite explanatory variable in Table 5, Frequent Frauds, is (at a ten percent level) not associated with naming the auditor a defendant, and neither are any of its components, except for Category A (recall that Category A is an overlap - it appears in both the Fictitious Transaction Frauds composite explanatory variable and the Frequent Frauds composite explanatory variable). Neither Category B (Premature revenue recognition) nor Category E (Overvalued assets and undervalued expenses/liabilities) is associated with naming the auditor a defendant. Categories C (Misclassified revenues and assets), G (Omitted disclosures) and I (Related party transactions) are positively associated with naming the auditor a defendant.

For comparison purposes, and for the benefit of forensic accountants who may be more familiar with the fraud taxonomy of the Association of Certified Fraud Examiners (ACFE 1998), this alternative fraud taxonomy is presented in Table 6. No category is associated with naming the auditor a defendant. Some subcategories in the ACFE (1998) fraud taxonomy are associated with naming the auditor a defendant, however. These include A1 (Fabricating revenues), and D3 (Management fraud), which are positively associated with naming the auditor a defendant, and C1 (Omission of warranty and product liability), which is negatively associated with naming the auditor a defendant.

Litigation includes criminal prosecution by the United States Attorney and state prosecutors, civil prosecution (including administrative proceedings) by the SEC, and private civil litigation. In the past, researchers have focused on court and administrative proceedings by the SEC. However, as Table 7 shows, there are significant numbers of other governmental prosecutions.

It is rare for the SEC to charge the auditor, in addition to the management, in an AAER (AAERJOINT), but in each of the cases where this occurred, the auditor was named a defendant, as in Fuerman (1997b, 1999). The SEC typically charges only the company and its management with wrongdoing (AAERMGT). AAERMGT is positively associated with naming the auditor a defendant, as in Fuerman (1997b, 1999).¹⁶ When the SEC litigates the AAER in federal court (AAERCOURT), this is also positively associated with naming the auditor a defendant. All the various types of AAER's (AAER) are positively associated with naming the auditor a defendant, as in Fuerman (2000).

¹⁶Here, and throughout this paper, unless stated otherwise, findings reported in other research papers are with regard to multivariate analysis.

The strongest and, in our view, most interesting result shown in Table 7 is that in each of the cases where a criminal indictment related to the financial reporting of the private securities class action was obtained by the United States Attorney or by a state prosecutor (CRIMINAL), the auditor was named a defendant. This is not a rare event. It occurs in 18% of the 85 private securities class actions with auditor defendants. Interestingly, there also is an AAER associated with each CRIMINAL case.

A financial reporting-related civil prosecution by a foreign government (FOREIGN) is extremely rare.¹⁷ When AAER or FOREIGN occurs and no criminal indictment is obtained (CIVIL) there is a positive association with naming the auditor a defendant, but less strong than CRIMINAL. Finally, if CIVIL or CRIMINAL is present (GOVERNMENT), there is a positive association with naming the auditor a defendant.

After the PSLRA became effective, there was a large migration of private securities class actions from the federal courts to the state courts. Also, there was a large increase in parallel proceedings (i.e. concurrent court proceedings in federal and state court). Congress passed the SLUSA and President Clinton signed the legislation on November 3, 1998. During the debate over this legislation, which put an end to almost all of the significant litigation of financial disclosure-related private securities class actions in the state courts, there was a great deal of controversy as to the extent of the migration. As indicated in Table 8, in the sample of 170 lawsuits subjected to detailed analysis, 71% of the private securities class actions were litigated solely in federal court (FEDERAL), 29% were litigated in both fora concurrently (PARALLEL), and less than 1% were litigated in state court (STATE). However, most of the STATE lawsuits

¹⁷The Ontario Securities Commission issued a Notice of Hearing to Philip Services Corporation related to the financial reporting of the private securities class action. This seems to be somewhat equivalent to the SEC issuing an AAER.

were screened out due to data availability problems and due to the fact that they tend disproportionately to be no-fraud lawsuits. There is no association between the type of forum and naming the auditor a defendant.

Also in Table 8 are shown the types of fraud claims alleged. The vast majority (95%) of private securities class actions with fraud claims include, *inter alia*, claims based on Section 10(b) of the Exchange Act. The remaining private securities class actions allege common law fraud and/or fraud based on state securities, corporation or consumer protection statutes. There is no association between the type of fraud claim alleged and naming the auditor a defendant.

Accounting and auditing characteristics are shown in Table 9. The restatement of audited annual financial statements in non-routine circumstances (RESTATE) is positively associated with naming the auditor a defendant, as it was in Fuerman (1997a, 1997b, 1997c, 1998, 1999 and 2000). Each RESTATE concerns revenue recognition, operating expense adjustments, inventory adjustments, property plant & equipment and/or investment adjustments and thus would be what Palmrose and Scholz (2000) call economic restatements. A subcategory of RESTATE, those restatements that concern revenue recognition (RESTATEREV), is also positively associated with naming the auditor a defendant. The final accounting characteristic, Total Assets of the defendant company (TA), is negatively associated with naming the auditor a defendant. Finally, the presence of a Big Six auditor is, as in Fuerman (2000), negatively associated with naming the auditor a defendant.

Financial and securities market characteristics are shown in Table 10. The first of these characteristics is bankruptcy of the defendant company (BANKRUPT). Bankruptcy has been found positively associated with naming the auditor a defendant in many studies, including Fuerman (1997a, 1997b, 1997c, 1998, 1999, 2000) and Bonner et al. (1998). Plaintiff class

period length (CLASS) also has been found positively associated with naming the auditor a defendant in many studies, including Fuerman (1997a, 1997b, 1997c, 1998, 1999, 2000).

Class period length is one factor in determining the estimated damages to the plaintiff class of investors who relied on allegedly fraudulent securities-related financial disclosure (DAMAGES). Percentage decline in the company's stock price is another. Instead of using these, or other rough heuristics of the estimated economic damages, we use a proportional decay model adapted from Dyl (1999). DAMAGES are not associated with naming the auditor a defendant in a private securities class action. Support has been found in some prior research for the proposition that an initial public offering (IPO) or public offerings generally (OFFERING), are positively associated with naming the auditor a defendant (Palmrose and Scholz (2000) and Gilbertson and Avila (1999), respectively). As Table 10 indicates, only an IPO is positively associated with naming the auditor a defendant.

THE EMPIRICAL MODEL

The hypothesis was tested using a multiple logistic regression model. The model is as follows:

$$\text{NAMED} = \beta_0 + \beta_1 \text{BANKRUPT} + \beta_2 \text{BIGSIX} + \beta_3 C + \beta_4 \text{CLASS} + \beta_5 \text{FICTITIOUS} \\ + \beta_6 G + \beta_7 \text{GOVERNMENT} + \beta_8 \text{IPO} + \beta_9 \text{RESTATE} + \beta_{10} \text{TA} + e$$

The variables are defined as follows:

NAMED. 1 if auditor named defendant; 0 otherwise. This is the response variable.

BANKRUPT. 1 if defendant company bankruptcy within one year before or after filing of the lawsuit; 0 otherwise. This is a control variable, necessary because in Fuerman (2000) and other prior literature it was associated with naming the auditor a defendant.

BIGSIX. 1 if Big Six auditor; 0 otherwise. This is a control variable, necessary because in Fuerman (2000) it was associated with naming the auditor a defendant.

C. 1 if Category C of Bonner et al. (1998) fraud taxonomy (Misclassified revenues and assets); 0 otherwise. This is a control variable, necessary because in univariate analysis in this research it was found associated with naming the auditor a defendant.

CLASS. Plaintiff class period in months. This is a control variable, necessary because in Fuerman (2000) and other prior literature it was associated with naming the auditor a defendant.

FICTITIOUS. 1 if one of the following present: Fictitious or overvalued revenues and assets (Category A), Fictitious assets and/or reductions of expenses/liabilities (Category D) or Fictitious sales to related parties (Scheme I1) (Bonner et al. (1998) fraud taxonomy); 0 otherwise. This is the experimental variable of the study.

G. 1 if Category G of Bonner et al. (1998) fraud taxonomy (Omitted disclosures); 0 otherwise. This is a control variable, necessary because in univariate analysis in this research it was found associated with naming the auditor a defendant.

GOVERNMENT. 1 if SEC AAER or foreign government civil prosecution (but not criminal inditement); 2 if US or state criminal inditement; 0 otherwise. This is a control variable, necessary because AAER in Fuerman (2000) and various permutations of AAER in Bonner et al. (1998) were associated with naming the auditor a defendant. However, given the importance of including in the model information regarding the severity of the government prosecution (Bonner et al. 1998), given the increased severity associated with a criminal inditement compared to a civil governmental prosecution, and given the apparently increasingly active criminal prosecution of fraudulent securities-related financial disclosure (refer to Table 7), we prefer this measure of governmental prosecution of fraudulent securities-related financial disclosure.

IPO. 1 if initial public offering during the class period or immediately preceding the class period; 0 otherwise. This is a control variable, necessary because it was positively associated with naming the auditor a defendant in Palmrose and Scholz (2000). Also, in univariate analysis in this research it was found associated with naming the auditor a defendant.

RESTATE. 1 if nonroutine circumstance restatement of audited annual financial statements; 0 otherwise. This is a control variable, necessary because in Fuerman (2000) and other prior literature it was associated with naming the auditor a defendant.

TA. Natural log of total assets. This is a necessary control variable in order to meaningfully measure the Big Six auditor variable, since Big Six auditors typically audit larger companies than non-Big Six auditors.

In our study, we perform univariate analysis on far more variables than can be accommodated within a multiple logistic regression. The variables chosen to function as control explanatory variables have, in other studies of private securities lawsuits, generally been associated with naming the auditor a defendant. One exception is Category G in the Bonner et al. (1998) fraud taxonomy (Omitted disclosures). We chose to include G as a control explanatory variable because of its association, at a twenty percent level, with naming the auditor a defendant, in this study's univariate analysis.¹⁸ We include Category C in the Bonner et al. (1998) fraud taxonomy (Misclassified revenues and assets) for the same reason. We do not include redundant characteristics as control explanatory variables. For example, we do not include AAER or any of its permutations because we include GOVERNMENT as a control explanatory variable. We do

¹⁸Rollins and Bremser (1997), in their analysis of the SEC charging the auditor with wrongdoing in some AAER's but not others, find "inadequate disclosure" (they seem to mean the financial statement footnotes but do not expressly define "inadequate disclosure") positively associated with the SEC charging the auditor with wrongdoing. We believe their study is interesting but not strongly analogous to our inquiry into why the auditor is named a defendant in some private securities class actions but not others.

not include Categories D or I in the Bonner et al. (1998) fraud taxonomy because FICTITIOUS (Fictitious Transaction Frauds) is our experimental explanatory variable. We considered the addition of FREQUENT (Frequent Frauds) and Category A, as Bonner et al. (1998) did, but this creates multicollinearity so severe as to cast doubt on the accuracy of all of the computed parameter estimates and probability values (Greene 1993).¹⁹

With respect to the study's hypothesis, it is predicted that β_5 FICTITIOUS is positively associated with naming the auditor a defendant.

THE MULTIVARIATE RESULTS

Table 11 presents the results of the multiple logistic regression. Fictitious Transaction Frauds (FICTITIOUS) are positively associated with naming the auditor a defendant, consistent with the study's hypothesis. Among the control variables, defendant company bankruptcy (BANKRUPT) and Category G of the Bonner et al. (1998) fraud taxonomy (Omitted disclosures) are positively associated with naming the auditor a defendant at a one percent level. Civil prosecutions or criminal indictments (GOVERNMENT) are positively associated with naming the auditor a defendant at a five percent level. Nonroutine circumstance restatements of audited annual financial statements (RESTATE) are positively associated with naming the auditor a defendant almost at a five percent level.

¹⁹Judge et al. (1988) state that severe multicollinearity may be present when there is a variance inflation factor of 5 or more, or when there is a correlation coefficient greater than 0.8 or 0.9. When FREQUENT and Category A (Fictitious or overvalued revenues and assets) are added to the model, the resulting variance inflation factors are over 7 and the correlation (between FICTITIOUS and Category A) coefficient is over 0.9. In addition, Category A appears strongly negatively associated with naming the auditor a defendant. Fictitious Transaction Frauds are positively associated with naming the auditor a defendant, consistent with the study's hypothesis, in this twelve explanatory variable model, as well as in the study's ten explanatory variable model.

Table 12 shows the Pearson correlations. The magnitudes of the correlations are low, except that Fictitious Transaction Frauds (FICTITIOUS) and civil prosecutions or criminal indictments (GOVERNMENT) are positively correlated at $r=.49$. Also, nonroutine circumstance restatements of audited annual financial statements (RESTATE) and GOVERNMENT are positively correlated at $r=.45$. However, no variance inflation factor exceeded 1.8 and no condition number exceeded 2.5, suggesting that multicollinearity was not a problem (Judge, et al. 1988).

CONCLUSIONS AND LIMITATIONS

Given the occurrence of a financial disclosure-related private securities class action the risk of the outside accountant being named a defendant is real, not de minimis, only if two conditions are met: the allegation of fraud and the allegation of misstated audited annual financial statements. With regard to the latter condition (the allegation of misstated audited annual financial statements) this reflects a contraction of outside accountant liability, and results from judicial and legislative changes. These changes include the *Central Bank of Denver* decision by the United States Supreme Court on April 19, 1994, and the passage by the United States Congress of the PSLRA on December 22, 1995.

Securities litigation data quality is much better in the post-PSLRA period. This confounds attempts to definitively determine the nature and magnitude of changes in private securities litigation from the pre-PSLRA period to the post-PSLRA period. Thus, findings by researchers (including ourselves) on this matter should be viewed as tentative.

In our analysis of the financial disclosure-related private securities class actions in which the risk of the outside accountant being named a defendant is real, we find support for our study's hypothesis. When a Fictitious Transaction Fraud occurs, the auditor tends to be named a

defendant. We believe this is because the occurrence of a Fictitious Transaction Fraud typically is the last sequence of a process of financial statement fraud perpetration. By the time the financial statement fraud has escalated to this point it typically involves increasing numbers of personnel, has increased in materiality, is increasingly susceptible of detection by competent auditing, and increasingly suggests a failure on the part of the auditors to meet their legal responsibility to users of the audited annual financial statements.²⁰

The structure of this study is unique. Thus, none of its findings can be regarded as completely expected or unexpected. Nonetheless, the findings that when bankruptcy occurs, when a Fictitious Transaction Fraud occurs, or when a nonroutine circumstance restatement of audited annual financial statements occurs, the auditor tends to be named a defendant, is consistent with prior literature researching the question of why the auditor is named a defendant in some private securities class actions but not in others. The GOVERNMENT variable used in the multiple logistic regression is significant and deserves consideration by other researchers. It addresses the fact that severity of government prosecution can most effectively be measured via a civil versus criminal dichotomy. The different types of actions taken by the SEC relating to an AAER, if put into a taxonomy, can be simplistic rather than meaningful (Pitt and Shapiro 1990).

We do not have a good explanation why omitted disclosures are a genre of fraud positively associated with naming the auditor a defendant. The reasons why omitted disclosures are positively associated with the SEC charging the auditor with wrongdoing, that are asserted by Rollins and Bremser (1997), do not seem apt in the context of our study. This question should be addressed in future research. In the meantime, it is clear that omitted disclosures are a genre of

²⁰In the post-PSLRA period, with discovery stayed until after the Court decides the motion to dismiss, the plaintiff usually has no access to audit working papers, which of course would provide a better basis for an informed decision by the plaintiff.

fraud that practicing auditors and fraud examiners should focus on with regard to improving their ability to detect them, and the work of Wells (2001) and others should continue. Also, an investigation of the outcome of financial disclosure-related private securities class actions in which the risk of the outside accountant being named a defendant is real, would be informative.

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Table 1**Descriptive and Univariate Statistics - Palmrose Data versus SCAA Data - Private Securities Class Actions Commenced 4/20/92-12/31/95 with Auditor Defendants**

Variable and direction (+ or -) of association with <u>PALMROSE</u>	All Lawsuits (n=22) Mean or % (Std Dev)	Not Included in Palmrose data but Included in SCAA (n=14) Mean or % (Std Dev)	Included in Palmrose data but not in SCAA (n=8) Mean or % (Std Dev)	Likelihood Ratio <i>p</i> -value Exact Simple Logistic Regression
AAERMGT ¹ -	41% (.5)	50% (.5)	25% (.5)	.3802
BANKRUPT ¹ +	27% (.5)	21% (.4)	38% (.5)	.6244
CLASS +	26 (31)	21 (20)	34 (46)	.4714
LAG -	275 (344)	413 (364)	34 (68)	.0013
RESTATE ¹ -	14% (.4)	14% (.4)	13% (.4)	.9999
TA ^{2,3} -	2673 (8845)	3817 (11042)	385 (690)	.4102

¹ Dichotomous variable. First row indicates percentage having a value of 1.

² n=7 for Palmrose data.

³ Wald (asymptotic) simple logistic regression used to compute *p*-value.

PALMROSE. Observation included in Palmrose data (response variable).

AAERMGT. Management (but not auditor) defendants in AAER.

BANKRUPT. Bankruptcy one year before or after filing of lawsuit.

CLASS. Plaintiff class period in months.

LAG. Lag from lawsuit commencement to naming auditor a defendant (in days).

RESTATE. Non-routine restatement of audited annual financial statements.

TA. Millions of dollars of total assets (natural log transformation used to compute *p*-value).

Table 2**Description of Data Screens**

Securities disclosure lawsuits commenced post-Reform Act through 11/3/98	492
less: lawsuits with miscellaneous missing data	<u>16</u>
subtotal (auditor named defendant in 88 of these)	476
less: lawsuits with missing data re fraud and/or misstated audited annual f.s.	<u>23</u>
subtotal (auditor named defendant in 88 of these)	453
less: lawsuits in which fraud is not alleged	<u>25</u>
subtotal (auditor named defendant in 88 of these)	428
less: lawsuits in which misstated audited annual financial statements not alleged ¹	<u>258</u>
Fraudulent audited annual f.s. lawsuits (auditor named defendant in 85 of these)	<u>170</u>

¹The auditor was named a defendant in three of these lawsuits.

Table 3**Complaints Naming Outside Accountant a Defendant****Association Between Complaint Allegations and Period in which Lawsuit Commenced**

<i>Period</i>	<i>Complaint Allegations</i>		<i>Total</i>
	<i>Audited Annual Financial Statements Misstated</i>	<i>Not Misstated</i>	
Before <i>Central Bank of Denver</i>	89 (91%)	9 (9%)	98
After PSLRA	85 (97%)	3 (3%)	88
Total	174	12	186

Fisher's Exact Test p -value = .095

Table 4**Descriptive and Univariate Statistics - Effect of Data Screens**

Variable and direction (+ or-) of association with <u>INCLUDED</u>	All Lawsuits (n=476) Mean or % (Std Dev)	Not Included in Multivariate Analysis (n=306) Mean or % (Std Dev)	Included in Multivariate Analysis (n=170) Mean or % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
NAMED ¹ +	18% (.4)	1% (.1)	50% (.5)	.0001 ²
BANKRUPT ¹ +	10% (.3)	7% (.3)	16% (.4)	.0035
BIGSIX ¹ -	87% (.3)	88% (.3)	86% (.3)	.6508
CLASS +	12 (10)	9 (7)	18 (12)	.0001
TA -	2002 (13567)	2309 (16539)	1449 (4815)	.0099
PARALLEL ¹ +	25% (.4)	22% (.4)	31% (.5)	.0322
STATE ¹ -	6% (.2)	8% (.3)	1% (.1)	.0072

¹ Dichotomous variable. First row indicates percentage having a value of 1.

² Exact logistic regression likelihood ratio test used due to rare occurrence.

INCLUDED. Observation included in multivariate analysis (response variable).

NAMED. Auditor named defendant.

BANKRUPT. Bankruptcy one year before or after filing of lawsuit.

BIGSIX. Big Six auditor.

CLASS. Plaintiff class period in months.

TA. Millions of dollars of total assets (natural log transformation used to compute *p*-value).

PARALLEL. Parallel proceeding (non-derivative litigation in both federal and state courts).

STATE. State-only litigation.

Table 5**Descriptive and Univariate Statistics - Fraud Characteristics per Bonner et al. (1998)**

Variable and direction (+ or-) of association with response variable <u>NAMED</u>	All Lawsuits (n=170) % (Std Dev)	Auditor Not Named Defendant (n=85) % (Std Dev)	Auditor Named Defendant (n=85) % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
A +	25% (.4)	12% (.3)	38% (.5)	.0002
B +	43% (.5)	41% (.5)	45% (.5)	.6421
C +	4% (.2)	1% (.1)	7% (.3)	.0895
D +	10% (.3)	2% (.2)	18% (.4)	.0045
E -	52% (.5)	55% (.5)	48% (.5)	.3575
F +	19% (.4)	14% (.4)	24% (.4)	.1198
G +	16% (.4)	6% (.2)	26% (.4)	.0010
H +	6% (.2)	4% (.2)	8% (.3)	.2050
I +	15% (.4)	9% (.3)	20% (.4)	.0562
J +	5% (.2)	4% (.2)	6% (.2)	.4734
K (no direction)	11% (.3)	11% (.3)	11% (.3)	.9999
L (no direction)	9% (.3)	9% (.3)	9% (.3)	.9999

Table 5 (continued)**Descriptive and Univariate Statistics - Fraud Characteristics per Bonner et al. (1998)**

Variable and direction (+ or-) of association with response variable NAMED	All Lawsuits (n=170) % (Std Dev)	Auditor Not Named Defendant (n=85) % (Std Dev)	Auditor Named Defendant (n=85) % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
II +	3% (.2)	0% (0)	6% (.2)	.0588 ¹
FREQUENT +	81% (.4)	76% (.4)	86% (.4)	.1198
FICTITIOUS +	29% (.5)	13% (.3)	45% (.5)	.0001

¹ Exact logistic regression likelihood ratio test used due to lack of convergence.

NAMED. Auditor named defendant (response variable).

A. Fictitious or overvalued revenues and assets.

B. Premature revenue recognition.

C. Misclassified revenues and assets.

D. Fictitious assets and/or reductions of expenses/liabilities.

E. Overvalued assets and undervalued expenses/liabilities.

F. Omitted or undervalued liabilities.

G. Omitted disclosures.

H. Equity frauds.

I. Related party transactions.

J. Frauds going the “wrong way” (some of these involve intentionally setting up a “secret reserve” account; others do not).

K. Illegal acts.

L. Miscellaneous.

II. (Scheme within Category I) Fictitious sales to related parties (totally made up).

FREQUENT. Frequent Frauds (one of the following present: Categories A, B or E).

FICTITIOUS. Fictitious Transaction Frauds (one of the following present: Categories A or D or Scheme II).

Table 6

Descriptive and Univariate Statistics - Fraud Characteristics per ACFE (1998)

Variable and direction (+ or-) of association with response variable <u>NAMED</u>	All Lawsuits (n=170) % (Std Dev)	Auditor Not Named Defendant (n=85) % (Std Dev)	Auditor Named Defendant (n=85) % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
A1 +	21% (.4)	12% (.4)	31% (.5)	.0036
A2 -	25% (.4)	26% (.4)	24% (.4)	.7222
A3 +	16% (.4)	13% (.3)	19% (.4)	.2965
A +	48% (.5)	44% (.5)	54% (.5)	.1681
B1 -	46% (.5)	49% (.5)	44% (.5)	.4422
B2 +	12% (.3)	12% (.3)	13% (.3)	.8158
B -	52% (.5)	55% (.5)	49% (.5)	.4429
C1 -	42% (.5)	52% (.5)	33% (.5)	.0136
C2 (no direction)	1% (.1)	1% (.1)	1% (.1)	.9999 ¹
C -	43% (.5)	52% (.5)	34% (.5)	.2050
D1 -	16% (.4)	20% (.4)	12% (.3)	.1459
D2 -	1% (.1)	1% (.1)	0% (0)	.9999 ¹

Table 6 (continued)

Descriptive and Univariate Statistics - Fraud Characteristics per ACFE (1998)

Variable and direction (+ or-) of association with response variable NAMED	All Lawsuits (n=170) % (Std Dev)	Auditor Not Named Defendant (n=85) % (Std Dev)	Auditor Named Defendant (n=85) % (Std Dev)	Wald p-value Simple Logistic Regression
D3 +	15% (.4)	8% (.3)	21% (.4)	.0211
D4 +	8% (.3)	5% (.2)	12% (.3)	.1051
D5 +	1% (.1)	0% (0)	1% (.1)	.9999 ¹
D +	35% (.5)	33% (.5)	38% (.5)	.5211
E1 -	20% (.4)	25% (.4)	15% (.4)	.1280
E2 -	39% (.5)	41% (.5)	36% (.5)	.5292
E3 +	12% (.3)	11% (.3)	14% (.4)	.4857
E4 +	13% (.3)	9% (.3)	16% (.4)	.1753
E -	61% (.5)	67% (.5)	55% (.5)	.1166
F +	9% (.3)	6% (.2)	13% (.3)	.1238

¹ Exact logistic regression likelihood ratio test used due to lack of convergence or rare occurrence.

Table 6 (continued)**Descriptive and Univariate Statistics - Fraud Characteristics per ACFE (1998)**

- A1. Fabricating revenues.
- A2. Inadequate provisions for sales and return.
- A3. Sales with conditions.
- A. Fictitious revenues (one of the following present: A1, A2 or A3).
- B1. Early revenue recognition.
- B2. Recording expenses in the wrong period.
- B. Timing differences (one of the following present: B1 or B2).
- C1. Liability/expense omission.
- C2. Omission of warranty and product liability.
- C. Concealed liability and expenses (one of the following present: C1 or C2).
- D1. Liability omissions.
- D2. Significant events.
- D3. Management fraud.
- D4. Related-party transactions.
- D5. Changes in accounting policy.
- D. Improper disclosures (one of the following present: D1, D2, D3, D4 or D5).
- E1. Inventory.
- E2. Accounts receivable.
- E3. Fixed assets.
- E4. Business combinations.
- E. Improper asset valuation (one of the following present: E1, E2, E3 or E4).
- F. Other miscellaneous frauds.

Table 7

Descriptive and Univariate Statistics - Government Prosecution Characteristics

Variable and direction (+ or-) of association with response variable NAMED	All Lawsuits (n=170) % (Std Dev)	Auditor Not Named Defendant (n=85) % (Std Dev)	Auditor Named Defendant (n=85) % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
AAERJOINT +	2% (.2)	0% (0)	5% (.2)	.0603 ¹
AAERMGT +	18% (.4)	6% (.2)	29% (.5)	.0003
AAERCOURT +	18% (.4)	5% (.2)	32% (.5)	.0001
AAER +	22% (.4)	6% (.2)	38% (.5)	.0001
CRIMINAL +	9% (.3)	0% (0)	18% (.4)	.0001 ¹
FOREIGN +	1% (.1)	0% (0)	1% (.1)	.9999 ¹
CIVIL +	14% (.3)	6% (.2)	21% (.4)	.0061
GOVERNMENT +	22% (.4)	6% (.2)	38% (.5)	.0001

¹ Exact logistic regression likelihood ratio test used due to lack of convergence.

NAMED. Auditor named defendant (response variable).

AAERJOINT. Auditor and management defendants in AAER.

AAERMGT. Management (but not auditor) defendants in AAER.

AAERCOURT. AAER federal court action.

AAER. AAER issued by SEC.

CRIMINAL. Financial reporting-related US or state criminal indictment.

FOREIGN. Financial reporting-related foreign civil prosecution.

CIVIL. SEC AAER or FOREIGN (but not CRIMINAL).

GOVERNMENT. CIVIL or CRIMINAL.

Table 8**Descriptive and Univariate Statistics - Private Action Fora and Fraud Claims**

Variable and direction (+ or-) of association with response variable NAMED	All Lawsuits (n=170) % (Std Dev)	Auditor Not Named Defendant (n=85) % (Std Dev)	Auditor Named Defendant (n=85) % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
FEDERAL -	68% (.5)	71% (.5)	65% (.5)	.5102
PARALLEL +	31% (.5)	29% (.5)	35% (.5)	.5102
STATE +	1% (.1)	0% (0)	1% (.1)	.9999 ¹
SEA10B +	97% (.2)	95% (.2)	99% (.1)	.2132 ¹
OTHERFRAUD -	3% (.2)	5% (.2)	1% (.1)	.3675 ¹

¹ Exact logistic regression likelihood ratio test used due to lack of convergence or rare occurrence.

NAMED. Auditor named defendant (response variable).

FEDERAL. Federal-only (non-derivative) litigation.

PARALLEL. Parallel proceeding (non-derivative litigation in both federal and state courts).

STATE. State-only (non-derivative) litigation.

SEA10B. Fraud claims based, inter alia, on Section 10(b) of the Exchange Act.

OTHERFRAUD. Fraud claims on other grounds (but not Section 10(b) of the Exchange Act).

Table 9**Descriptive and Univariate Statistics - Accounting and Auditing Characteristics**

Variable and direction (+ or-) of association with response variable <u>NAMED</u>	All Lawsuits (n=170) Mean or % (Std Dev)	Auditor Not Named Defendant (n=85) Mean or % (Std Dev)	Auditor Named Defendant (n=85) Mean or % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
RESTATE ¹ +	34% (.5)	19% (.4)	48% (.5)	.0001
RESTATEREV ¹ +	28% (.4)	16% (.4)	39% (.5)	.0015
TA -	1449 (4815)	1942 (6173)	956 (2838)	.0044
BIGSIX ¹ -	86% (.3)	94% (.2)	79% (.4)	.0061

¹ Dichotomous explanatory variable. First row indicates percentage having a value of 1.

NAMED. Auditor named defendant (response variable).

RESTATE. Non-routine restatement of audited annual financial statements.

RESTATEREV. Non-routine revenue restatement of audited annual financial statements.

TA. Millions of dollars of total assets (natural log transformation used to compute *p*-value).

BIGSIX. Big Six auditor.

Table 10

Descriptive and Univariate Statistics - Financial and Market Characteristics

Variable and direction (+ or-) of association with response variable <u>NAMED</u>	All Lawsuits (n=170) Mean or % (Std Dev)	Auditor Not Named Defendant (n=85) Mean or % (Std Dev)	Auditor Named Defendant (n=85) Mean or % (Std Dev)	Wald <i>p</i> -value Simple Logistic Regression
BANKRUPT ¹ +	16% (.4)	7% (.3)	25% (.4)	.0030
CLASS +	18 (12)	16 (9)	21 (13)	.0018
DAMAGES ² +	375 (771)	356 (654)	402 (917)	.9510
IPO ¹ +	18% (.4)	11% (.3)	26% (.4)	.0121
OFFERING ¹ +	68% (.5)	66% (.5)	69% (.5)	.8048

¹ Dichotomous explanatory variable. First row indicates percentage having a value of 1.

² n=133 observations overall; 78 auditor not named defendant, 55 auditor named defendant.

NAMED. Auditor named defendant (response variable).

BANKRUPT. Bankruptcy one year before or after filing of lawsuit.

CLASS. Plaintiff class period in months.

DAMAGES. Estimated millions of dollars of damages to the plaintiff class (natural log transformation used to compute *p*-value).

IPO. Initial public offering during or immediately prior to beginning of the class period.

OFFERING. Initial or secondary public offering during or immediately prior to beginning of the class period.

Table 11

Multiple Logistic Regression Results

Response Variable: Auditor Named Defendant (1) versus Auditor not Named Defendant (0)

Explanatory Variable	Parameter Estimate	Standard Error	Wald Chi-Square	Probability Value	Odds Ratio
Intercept	-.2520	1.5025	.0281	.8668	
BANKRUPT	1.6001	.5811	7.5808	.0059	4.953
BIGSIX	-1.1029	.7026	2.4645	.1164	.332
C	.2281	1.4231	.0257	.8727	1.256
CLASS	.0331	.0213	2.4142	.1202	1.034
FICTITIOUS	1.0242	.4853	4.4536	.0348	2.785
G	1.7447	.6325	7.6085	.0058	5.724
GOVERNMENT	1.2741	.5816	4.7987	.0285	3.576
IPO	.8849	.5661	2.4439	.1180	2.423
RESTATE	.9778	.5036	3.7701	.0522	2.659
TA	-.0687	.1204	.3256	.5683	.934

NAMED. Auditor named defendant (response variable).

BANKRUPT. Bankruptcy one year before or after filing of lawsuit.

BIGSIX. Big Six auditor.

C. Misclassified revenues and assets (Bonner et al. (1998) fraud taxonomy).

CLASS. Plaintiff class period in months.

FICTITIOUS. Fictitious Transaction Frauds. One of the following present: Fictitious or overvalued revenues and assets (Category A); Fictitious assets and/or reductions of expenses/liabilities (Category D); or Fictitious sales to related parties (Scheme I1) (Bonner et al. (1998) fraud taxonomy).

G. Omitted disclosures (Bonner et al. (1998) fraud taxonomy).

GOVERNMENT. 1 if SEC AAER or foreign government civil prosecution (but not criminal inditement); 2 if US or state criminal inditement; 0 otherwise.

IPO. Initial public offering.

RESTATE. Non-routine restatement of audited annual financial statements.

TA. Millions of dollars of total assets (natural log transformation used to compute *p*-value).

Table 11 (continued)**Multiple Logistic Regression Results****Response Variable: Auditor Named Defendant (1) versus Auditor not Named Defendant (0)**

Number of Observations	170
-2 Log Likelihood	159
Chi-Square for Model (10 degrees of freedom)	77
<i>p</i> -Value	.0001
Percentage Correctly Classified (at .5 frequency naming auditors as defendants)	72%
Pseudo R ²	.3625
Pseudo Adjusted R ²	.4833

Table 12**Pearson Correlations for the Explanatory Variables Included in the Multivariate Analysis**

The first number listed is the pearson correlation coefficient. The number in parentheses is the two-tailed significance level.

<u>Variable</u>	<u>BIGSIX</u>	<u>C</u>	<u>CLASS</u>	<u>FICTITIOUS</u>	<u>G</u>	<u>GOVERNMENT</u>	<u>IPO</u>	<u>RESTATE</u>	<u>TA</u>
BANKRUPT	-.11 (.15)	.15 (.05)	.17 (.02)	.04 (.57)	.16 (.03)	.12 (.13)	.00 (.97)	-.10 (.18)	-.05 (.48)
BIGSIX		-.09 (.24)	-.13 (.09)	-.13 (.10)	-.20 (.01)	-.13 (.08)	.10 (.20)	.17 (.03)	.35 (.00)
C			.11 (.15)	.13 (.09)	-.01 (.91)	.28 (.00)	.06 (.47)	.23 (.00)	-.02 (.76)
CLASS				.17 (.03)	.25 (.00)	.29 (.00)	-.11 (.16)	.13 (.10)	.03 (.74)
FICTITIOUS					.04 (.58)	.49 (.00)	.14 (.08)	.26 (.00)	-.10 (.18)
G						.09 (.23)	.04 (.56)	-.10 (.18)	-.15 (.04)
GOVERNMENT							.13 (.09)	.44 (.00)	-.12 (.13)
IPO								.34 (.00)	-.28 (.00)
RESTATE									-.15 (.06)

BANKRUPT. Bankruptcy one year before or after filing of lawsuit.

BIGSIX. Big Six auditor.

C. Misclassified revenues and assets (Bonner et al. (1998) fraud taxonomy).

CLASS. Plaintiff class period in months.

FICTITIOUS. Fictitious Transaction Frauds. One of the following present: Fictitious or overvalued revenues and assets (Category A); Fictitious assets and/or reductions of expenses/liabilities (Category D); or Fictitious sales to related parties (Scheme I1) (Bonner et al. (1998) fraud taxonomy).

G. Omitted disclosures (Bonner et al. (1998) fraud taxonomy).

GOVERNMENT. US (federal or state) or foreign government criminal or civil prosecution.

IPO. Initial public offering.

RESTATE. Non-routine restatement of audited annual financial statements.

TA. Millions of dollars of total assets (natural log transformation used to compute *p*-value).

Figure 1: Lawsuits Not Reported in SCAA "New Cases" Section

