RE-EVALUATING THE EFFECTIVENESS OF AUDITING STANDARD NO. 2: LONGITUDINAL ANALYSIS OF RESTATEMENTS AND THE OUTCOME OF AUDITOR LITIGATION IN LAWSUITS FILED FROM 1996 TO 2009

Sebahattin Demirkan*, Ross D. Fuerman**

Abstract

We provide evidence of the impact of Auditing Standard No. 2 ("AS 2"), issued pursuant to the Sarbanes-Oxley Act of 2002 ("SarBox"), on the outcome of auditors in financial reporting litigation. Specifically, we focus on the existence of financial restatements and how and why they affected the outcome of the auditor in the financial reporting lawsuits. Our longitudinal method subjected to year-by-year regression analysis 2,059 financial reporting lawsuits filed from 1996 to 2009. Our results indicate that restatements are positively associated with more severe outcomes for the auditor in lawsuits filed in 2002 and in the years after 2004. However, restatements are not significant in lawsuits filed in 2003 and 2004. Pressure from SarBox Section 906 criminal penalties and Section 302 requirements to disclose material weaknesses, coupled with a lack of guidance to distinguish material weaknesses from significant deficiencies, temporarily and indirectly caused the issuance of a large number of restatements that were not material or comprehensible to participants in the legal system. Thus, they were temporarily unable to use the restatements to inform their litigation behavior. However, after the June 17, 2004, release of AS 2, participants in the legal system were again able to use the restatements to inform their behavior. This suggests that AS 2, notwithstanding its inefficiency, necessitating its subsequent superseding by Auditing Standard No. 5 ("AS 5"), increased audit effectiveness and financial reporting quality by facilitating more accurate identification of material weaknesses.

Keywords: Auditing Standard No. 2, Effectiveness, Sarbanes-Oxley Act

* *Assistant Professor, Sawyer Business School, Department of Accounting, 8 Ashburton Place, Boston, MA 02108-2770*
Email: sdemirkan@suffolk.edu
** *Associate Professor, Suffolk University, Sawyer Business School, Department of Accounting, 8 Ashburton Place, Boston, MA 02108-2770*
Phone: (617) 573-8615 (Suffolk University)
Email: rfuerman@suffolk.edu
Corresponding author. *We thank research assistants Fang Liu, Jing Liu, Chris Zhang, and Mia Zhou for their help in data collection.*

1. Introduction

Restatements of previously issued audited annual financial statements are associated with the outcome of the auditor in financial reporting litigation (Fuerman 1997). Multivariate analyses—which control for factors other than the annual restatement—have consistently confirmed this in studies that analyze long, multiyear time periods. However, we do not know from these whether there have been year-to-year changes in the relationship between annual restatements and auditor litigation. Analysis of long, multiyear time periods cannot reveal such changes because the individual years' results are averaged. Thus, because auditor lawsuits have not been examined longitudinally since the Kothari et al. (1988) study of auditor lawsuits filed during the 1960 to 1985 period, this study is needed.

It would be unsurprising if a longitudinal study were to reveal changes in the relationship between annual restatements and auditor litigation, as we have recently passed through several dramatic events. In law, the Private Securities Litigation Reform Act ("PSLRA") was passed in late 1995, and the Securities Litigation Uniform Standards Act ("SLUSA") was passed in late 1998. In financial reporting and auditing, the Sarbanes-Oxley Act ("SarBox") became law on July 30, 2002, with critically important administrative implementation occurring in 2003 and 2004.

Multivariate, one-year-at-a-time results suggest that the typical, presumed pattern of restatements always being associated with the outcome of the

auditor in lawsuits was twice disrupted. The first disruption was caused by a combination of three things: 1) the delayed application of the PSLRA, via the SLUSA; 2) the decrease in the proportion of revenue recognition restatements; and 3) the increase in the number of overall annual restatements. As a result, there was a change after 1998. In the 1999–2001 lawsuit filings, annual restatements were temporarily not a significant factor, even though they were each year before 1999.

The second disruption had two causes: 1) a further increase in restatements and 2) a further decrease in their materiality compared to traditional standards of materiality. Both of these causes were motivated by the combination of Sections 302 (certification by principal executive and financial officers) and 906 (criminal penalties) of SarBox. These SarBox provisions increased the pressure upon companies and auditors to identify material weaknesses at a time when authoritative identification guidance was lacking. Restatements were therefore used to justify assertions of the identification of material weaknesses, making restatements much less meaningful. Thus, there was another change after 2002. In the 2003 and 2004 lawsuit filings, annual restatements were again not a significant factor, even though they were in the 2002 lawsuit filings. This also was a temporary phenomenon. After the 2004 release of AS 2, which clarified the identification of material weaknesses and concomitantly made restatements meaningful again, annual restatements once more became a significant factor in the outcome of the auditor in financial reporting litigation. Restatements continued in each year to be a significant factor in the outcome of the auditor in financial reporting litigation.

This paper is organized as follows. In the second section are found discussions of the prior literature on auditor litigation, restatements, and the important events during the 1996 - 2009 period of the study. These are developed into theory that leads to the statement of the hypotheses. In the third section, the nature of the data and data collection are described. The empirical analysis is detailed in the fourth section. In the last section, the empirical analysis is summarized and interpreted, and its implications are discussed.

2. Literature, Theory, and Hypothesis Development

To set the framework for this research, it is important to consider the following: auditor litigation and its prior research, restatements and their prior research, and the events that occurred from 1996 to 2009 that are most likely to have had an impact on the relationship between restatements of annual financial statements and auditor litigation.

2.1 Auditor litigation

Attorneys representing users of a company's financial reporting will file a lawsuit if, based on their perception of the likely facts and the applicable law, they have a reasonable likelihood of prevailing - and prevailing substantially enough that the case is economically viable for themselves and the investors that they represent (Koprowski et al. 2009). Of course, the auditors, who often have substantial resources or malpractice liability coverage or both, can enhance the economic viability of a case. However, that is not initially a primary consideration for several reasons. First, there cannot be liability with regard to the auditing without a finding of liability with regard to the financial reporting. Thus, auditing liability is preconditioned on the existence of financial reporting liability. Prior to discovery, it is often difficult to make an informed judgment even as to whether financial reporting liability exists, let alone whether auditing liability exists. Second, there are usually substantial alternative non-auditor resources available for economic recovery: the company, the management, the board of directors, the directors' and officers' insurance coverage, and the resources, in some cases, of other parties (e.g., underwriters and transaction attorneys) and their insurance coverage. Thus, auditors are named as defendants in private actions a mean of six months after commencement of the lawsuit, if at all (Fuerman 2000).

Since auditor liability risk is preconditioned on the prior or concurrent commencement of a financial reporting lawsuit, it makes sense to collect all the available financial reporting lawsuits, determine which of these name the auditor a defendant, and analyze what factors are associated with the auditor having been named a defendant. However, alternative empirical approaches exist. The motivation for some of the alternative approaches is that the differences between the financial reporting lawsuits in which the auditor is included as a defendant and the financial reporting lawsuits in which the auditor is not included as a defendant are subtle. Thus, generating sufficient statistical power to find these differences requires onerous data collection. The collection is onerous partly because the task is massive and partly because it requires a level of knowledge of institutional detail that is not always available.

The differences are unsubtle between the lawsuits with auditor defendants and the observations in which there occurred no financial reporting lawsuit at all.[8] Thus, small samples can generate sufficient

[8] For example, using a bankruptcy sample, Carcello and Palmrose (1994) used the same variables in two multiple logistic regression models. Using the approach of comparing lawsuits with an auditor defendant to bankruptcies in which no lawsuit was filed, they found that three of their variables were significant at .003 or better. Using the approach of comparing lawsuits with an auditor defendant to lawsuits without an auditor defendant, only one of their variables was significant at .05 or better.

statistical power to find superficially impressive high *p*-values, which would signify importance but for the fact that such research designs conflate financial reporting with auditing (Bell et al. 2012). These are two different constructs: Accountants account for things. Auditors perform audit procedures to provide reasonable assurance that things were accounted for in a materially correct manner. This present research avoids conflation and directly measures auditor liability by collecting all the available financial reporting lawsuits, determining which name the auditor a defendant, and analyzing what factors are associated with the outcome of the auditor in the financial reporting litigation.

The prior research that has been performed by collecting all the available financial reporting lawsuits, determining which name the auditor a defendant, and analyzing what factors are associated with the outcome of the auditor in the financial reporting litigation has repeatedly and consistently found four factors to be highly significant: bankruptcy, class period length, fraud, and restatement of annual financial statements.

Bankruptcy of the entity that is allegedly liable for legally deficient financial reporting is positively associated with the outcome of the auditor in the financial reporting litigation (Bonner et al. 1998) because bankruptcy increases the need for economic resources to make a lawsuit economically viable for the plaintiff and the plaintiff's lawyer. The auditor, along with the auditor's malpractice insurance coverage, provides economic resources.

Class period length is positively associated with the outcome of the auditor in the financial reporting litigation because it seems increasingly plausible, as a class period lengthens, that the auditor should have detected and disclosed the legally deficient financial reporting (Fuerman 1997). For example, a CPA firm that performed several consecutive annual audits, *ceteris paribus*, is expected to be more likely to have detected and disclosed the legally deficient financial reporting than a CPA firm that performed only one audit.

Fraud - or, more precisely, evidence of fraud (since we cannot know how much fraud occurs that is undetected [ACFE 2012]) - is also positively associated with the outcome of the auditor in the financial reporting litigation (Carcello and Palmrose 1994). First, if there is evidence of fraud, it seems possible that auditor fraud may have occurred (even if it was not detected). Second, if there is evidence of fraud, this sometimes suggests that the auditor should have more easily detected the legally deficient financial reporting compared to legally deficient financial reporting due to errors unknown to anyone.

Thoughtful readers may question the fraud construct and its measure (the presence of a government enforcement action or prosecution), but this construct is entirely different from the others in this research. Unlike with bankruptcy, class period, or restatement, it is never certain whether fraud occurred. Indeed, until a decade ago, researchers (for example, Carcello and Palmrose 1994) used the presence of an SEC Accounting and Auditing Enforcement Release ("AAER") as the equivalent measure. Now, researchers expand the measure to include all government enforcement actions and prosecutions. Some go further and include the presence of internal corporate investigations in an even broader measure of fraud (Hennes et al. 2008). This is too broad. First, you can only determine whether there was a corporate investigation for entities that have substantial information available about them, such as the companies included in COMPUSTAT to which Hennes et al. (2008) limited themselves. The entities are broader in this paper, including nonprofits, the financial services industry, foreign registrants, and for-profit corporations that are not registered with the SEC (and hence are not in the SEC EDGAR database).[9] Second, when there is a corporate investigation, it is difficult to determine whether it is motivated by a suspicion of fraud or by a desire to scapegoat recently ousted executives in order to distance other executives or board members from responsibility for a scandal.

The above discussion has focused on the factors (in addition to restatements) associated with the outcome of the auditor in the financial reporting litigation. The discussion now shifts to the dependent variable. Francis (2011) notes that measuring auditor litigation as 1 if the auditor was a defendant and 0 if not is possibly misleading: "Engagement-level audit failures can be unambiguously identified when there is successful civil litigation against auditors or criminal prosecution (which is very rare) and assuming, of course, that court decisions are correct. The dichotomous view of audit quality has limitations. Audit quality is more likely a continuum that can range from very low quality (audit failures) to very high quality." Thus, a measure of auditor litigation consistent with the continuum theorized by Francis (2011) is used in this paper.

The literatures of business misconduct, law, and suit-versus-settlement are used to construct a five-level measure. The first two categories discussed are the observations in which the evidence most strongly suggests that an audit failure occurred (dependent variable coded 4 or 3). The latter three categories discussed are the observations in which the evidence least strongly suggests that an audit failure occurred (dependent variable coded 2, 1, or 0).

The number 4 is assigned to the dependent variable of each observation in which the auditor is a defendant in a criminal prosecution. The government only prosecutes auditors under criminal law for the

[9] The financial services industry sector and/or other industry sectors have been excluded from many empirical studies on litigation (e.g., Stice 1991; Francis et al. 1994) and restatements (e.g., Abbott et al. 2004; Hennes et al. 2008), which makes it unclear whether their findings are valid for all litigation and restatements.

most culpable, harmful, and wrongful perpetrations of misconduct (Green 2006). Only the government can choose to seek a criminal conviction, and only a criminal conviction can result in incarceration. Unlike in the civil law system, for cases in the criminal law system, the government must demonstrate that "willful intent" has occurred and must prove its assertions "beyond a reasonable doubt."

The number 3 is assigned to the dependent variable of each observation in which the auditor is named (often by the SEC pursuant to its Rule No. 102(e) in the United States, or by its foreign equivalent abroad) a defendant or respondent in a government civil lawsuit or administrative proceeding. These are instances of "white-collar crime" that government entities could possibly have prosecuted in the criminal legal system. Sutherland (1940) defined such cases of white-collar crime in sociological and criminological terms, asserting that "business classes" use social power to pay civil fines in lieu of serving criminal prison sentences (Sutherland 1945).

The number 2 is assigned to the dependent variable of each observation in which the auditor is a defendant in a private action and must pay in order to settle the case. In the United States and Canada, private actions (especially securities class actions) comprise most of the economically significant financial reporting litigation cases, possibly attributable to the economic rewards granted to attorneys who work on contingencies (Eisenberg and Miller 2004).

The number 1 is assigned to the dependent variable of each observation in which the auditor is a defendant in a private action and avoids making a payment in order to end the case against him. Shavell (1982), Cooter and Rubinfeld (1989), and Hay and Spier (1997) all suggest that the time, effort, and cost required to settle any private action justifies categorizing number 2 as a relatively higher indication and probability of an audit failure, and number 1 as a relatively weaker indication and lower probability of an audit failure.

The number 0 is assigned to the dependent variable of each observation in which, even though the client company and/or its management were named as a defendant, the auditor is not named a defendant in any private (or government) action. There is no audit failure associated with such cases, again based on Shavell (1982), Cooter and Rubinfeld (1989), and Hay and Spier (1997), as well as Carcello and Palmrose (1994).

2.2 Restatements

When an entity issues financial statements for a period or periods that were covered by previously issued statements and the numbers are now different, the accounting standards (AICPA 1971; FASB 2005) call this "retrospective application," whether the prior numbers were incorrect when issued (and the entity's accountants should have known at the time they were incorrect) or it is only now possible to know that the original numbers were incorrect. Examples during the 1990s of causes for retrospective application that would not qualify as a restatement include (though not all of these exist today, since accounting standards have changed over time) adoptions of new accounting standards, pooling of interests mergers, sales of divisions, and stock splits. Since December 1999, retrospective application that is not a restatement (as understood by the investing public and the participants in the legal system) has typically been the result of ambiguous areas of shifting GAAP as the accounting standard setters have issued new clarifications—e.g., SAB 101, the SEC's 2005 letter to the AICPA regarding leases, and guidance from the Emerging Issues Task Force. When the term "restatement" is used in this paper, then, what is meant is that, at the time the financial statements were originally issued, they were clearly contrary to GAAP, and therefore a restatement was subsequently required?

Jones and Weingram (1996) first applied multivariate analysis to restatements to analyze why some companies whose stock experiences a large drop also experience a financial reporting lawsuit. They noted that companies "correct prior accounting statements only if they contained material errors. . . . Correcting past financial reports is effectively an admission that past disclosures were inaccurate." They found a significant association of restatements with companies experiencing a financial reporting lawsuit. They also found that a company (or its management) that experienced an AAER had a significant association with experiencing financial reporting lawsuits. There was a positive correlation between restatements and AAERs. Fuerman (1997) found a significant association between restatements of annual financial statements and naming the auditor a defendant.[10]

Thus, from the beginning, it was clear that researching auditor litigation and restatements would be challenging because restatements are positively associated with both financial reporting lawsuits and naming the auditor a defendant in a lawsuit, and because AAERs (later to be part of the measure for the fraud construct) and restatements are positively correlated. This suggests a need to avoid conflation of financial reporting litigation risk and auditing litigation risk by using the research design described in this paper.

The positive correlation between fraud and restatements must be considered by academic researchers; however, fraud and restatements are different constructs, and both need to be studied as

[10] Conversely, Fuerman (1999) found a lack of a significant association between restatements of quarterly financial statements and naming the auditor a defendant.

such (Graham et al. 2008). Empirical research must be grounded in meaningful constructs, and variables must flow from the constructs. In auditing, the distinction between fraud and error is clearly defined (though a material misstatement, whether it stems from fraud or error, requires a restatement), and there are specific auditing procedures required in every audit to attempt to detect financial reporting fraud (AICPA 2010). In law, there is one specific federal statute aimed at fraudulent financial reporting (Securities Exchange Act of 1934) and a different federal statute aimed at financial reporting that is not fraudulent but is materially incorrect (Securities Act of 1933).

The research on restatements is vast, but it has evolved slowly, due in part to the difficulty of clearly observing restatements. In the early 1990s, many public companies' financial statements - and restatements - were available in COMPUSTAT, but others were not. Some that were missing from COMPUSTAT could be found in the LEXIS NEXIS database. Others could only be found in Laser D.[11] Early studies disagreed with regard to how many restatements had occurred (Moriarty and Livingston 2001; Richardson et al. 2002; GAO 2002; Huron 2003). Also, there was a lack of consensus as to which scenarios (involving companies doing a retrospective application of their accounting numbers) qualified as "restatements" in the sense understood by the investing public and legal community. Gradually, the visibility of restatements increased, along with the consensus of researchers (Palmrose and Scholz 2004; Scholz 2008). Today, restatements are more visible. They can be accessed on Audit Analytics for all U.S. companies that are registered with the SEC beginning with 2001, and for foreign companies that are registered with the SEC beginning November 4, 2002, when the SEC began requiring foreign registrants to file using the SEC EDGAR database (SEC 2002a).

During the 1990s, restatements changed (Scholz 2008). Also, the relationship between restatements and financial reporting lawsuits changed. As depicted in Figure 1, the number of restatements slowly increased in the middle of the 1990s. The increase accelerated in the late 1990s, and it further accelerated in the first half of the 2000s. After peaking in 2006, the number of restatements began decreasing. Conversely, while there were mild dips in the number of financial reporting lawsuits in 2006 and 2009, their numbers remained fairly stable over the years of the study. 1999 was the first year that there were more restatements than lawsuits. In 2006, there were almost 21 times as many restatements as lawsuits. Also, the percentage of restatements that included revenue recognition issues decreased as follows: 1997 (41%), 1998 (47%), 1999 (25%), 2000 (44%), 2001 (25%), 2002 (24%), 2003 (25%), 2004 (21%), 2005 (15%), 2006 (11%), 2007 (13%), 2008 (12%), 2009 (11%) (Scholz 2008 for 1997 through 2006; Audit Analytics 2012 for 2007 through 2009). This is important, because the restatements involving revenue recognition are the ones most strongly associated with naming the auditor a defendant in a financial reporting lawsuit (Palmrose and Scholz 2004).

2.3 Important events during the period of the study (1996–2009)

The first important event to have an impact on auditor litigation was the passage of the PSLRA on December 22, 1995. Fuerman (1998) found that the percentage of financial reporting lawsuits that included an auditor defendant increased, albeit insignificantly. This was the opposite of the decrease that was widely expected, since the PSLRA substituted, for most scenarios, proportionate liability, replacing joint/several liability. Also, changes in the legal standards for deciding pre-trial motions and changes in the discovery rules (no discovery allowed until after the court's decision on the motion to dismiss) were intended to make it more difficult for plaintiffs to prevail and recover economic damages, especially against auditors. What happened is that many plaintiffs avoided the PSLRA by filing class actions (which comprise the bulk of the financial reporting lawsuits, in economic recovery terms) in the state courts. Congress reacted by passing the SLUSA on November 3, 1998. Now the state courts were closed to all but small intrastate class actions, and the PSLRA could not be avoided.

The combined effect of the PSLRA and SLUSA made it more difficult for plaintiffs to persuade courts that the auditor was liable based solely on the occurrence of a restatement of audited annual financial statements. Auditors were especially affected by the PSLRA's more stringent pleading standards and the prohibition on discovery prior to the court deciding on the motion to dismiss. For example, courts have become more reluctant to find scienter present with auditors, compared to other defendants (e.g., *Ley. v. Visteon*, 543 F.3d 801 [6th Cir. 2008]; see *contra*, *New Mexico State Investment Council v. Ernst & Young*, 641 F.3d 1089 [9th Cir. 2011]).[12] Also, audit documentation (work papers) is critically important evidence on the question of auditor liability, and, after the PSLRA, it cannot be obtained by the plaintiff until after the court decides the motion to dismiss.

Meanwhile, as depicted in Figure 1, the number of restatements kept increasing. In 1999, the percentage of restatements that involved revenue recognition decreased by half, compared to the previous year. The passage of the PSLRA and SLUSA, a massive increase in restatements, and a

[11] Laser D (also called LaserDisclosure), a CD-ROM database product of Disclosure, Inc., of Bethesda, Maryland, included the SEC filings of very small public companies that were not available in COMPUSTAT or LEXIS NEXIS.

[12] Scienter is a legal term that refers to intent or knowledge of wrongdoing. This means that an offending party has knowledge of the "wrongness" of an act or event prior to committing it.

dramatic shift away from revenue recognition restatements together yielded a lack of significance in the association of annual restatements with the outcome of auditors in the lawsuits. There was a decrease in the ability of plaintiff lawyers to use restatements to help determine when it made sense to file financial reporting lawsuits and which of those financial reporting lawsuits should have auditor defendants.[13] Also, courts became more skeptical that an auditor was liable just because a restatement of audited annual financial statements had occurred. The foregoing discussion leads to the first hypothesis:

H_1: In the financial reporting lawsuits filed in 1999, 2000, and 2001, restatements of annual financial statements will not be a significant factor in the outcome of the auditor in the financial reporting litigation, but they will be a significant factor each year before 1999.

Annual restatements would have regained persistent significance after a few years but for SarBox, which became law on July 30, 2002. One requirement that became effective for all public companies was that, beginning with 10-Qs and 10-Ks filed after August 29, 2002, the principal executive officer and the principal financial officer had to certify that they had "identified for the registrant's auditors any material weaknesses in internal controls" (SEC 2002b). At least 261 firms disclosed material weaknesses from the date Section 302 became effective to November 2004 (Ge and McVay 2005). Many of these material weaknesses in internal control over financial reporting ("ICFR") were first reported concurrently with the initial announcement of a restatement of financial statements (Jonas et al. 2007; Audit Analytics 2007; Glass, Lewis & Co. 2008).

The reason why so many restatements were associated with the early years' disclosures of material weaknesses was that executives felt pressure to disclose material weaknesses even if there was doubt as to whether the material weaknesses existed. The pressure to disclose material weaknesses came from the SarBox Section 906 criminal penalties for noncompliance with Section 302. The doubt came from the fact that there was a very high level of uncertainty among companies and their auditors as to when a particular internal control problem should be regarded as a material weakness. One thing that was certain is that, logically, if a company restated its financials, there must have been at least one material weakness that caused the restatement. Thus, Sections 302 and 906 of SarBox contributed to the increase in restatements, including restatements that were no longer meaningful in terms of what materiality traditionally meant (Logue 2005). Audit Analytics (2005) reported that 80% of companies that reported a material weakness previously had either a material year-end adjustment (of the pre-audit financial statements) by their auditor or announced a restatement of their financial statements.

In 2002, the authoritative source of guidance on the definition of a material weakness was SAS No. 60 (AICPA 1988). However, the guidance provided in SAS No. 60 was for the purpose of pre-SarBox auditors communicating to the audit committee material weaknesses and significant deficiencies (in the aggregate called "reportable conditions") that "the auditor may become aware of." This was very different from the new tasks mandated by SarBox. SarBox required the management and the auditor of public companies, *inter alia*, to affirmatively search for material weaknesses and to communicate them to the investing public in SEC filings. Paragraph 15 of SAS No. 60 included a brief definition of material weakness. No examples were provided in SAS No. 60 to distinguish a material weakness from a significant deficiency.

Companies and their auditors struggled for years to develop proficiency in identifying material weaknesses and to wean themselves from the habit of jointly identifying material weaknesses and deciding that a restatement was needed. Regulators tried to help them, but they also struggled. In 2003, the SEC issued guidance to management on how to do their management report on ICFR. With regard to the problems of insufficient definition and absence of examples of material weaknesses, the SEC passed the buck: "For purposes of the final rules, the term 'material weakness' has the same meaning as in the definition under GAAS and attestation standards," it stated (SEC 2003), referring to SAS No. 60.

On June 17, 2004, pursuant to SEC Release No. 34-49884, AS 2 (PCAOB 2004) became effective for U.S. accelerated filers for fiscal years ending on or after November 15, 2007. Glover et al. (2009) criticized the PCAOB and AS 2, asserting the following:

The meanings of critically important but ambiguous new terms such as "deficiency", "significant deficiency", "material weakness", "auditor's direct evidence", "making up a significant portion of the evidence", "using the work of others", "evaluation of deficiencies", and the particularly vague "more than inconsequential", were unclear. The profession repeatedly sought to obtain clarity from the PCAOB while at the same time attempting to learn, train, incorporate, and implement the standard. In many instances, practitioners' questions clearly pointed to important practice and conceptual matters that the PCAOB staff had not adequately considered in the formulation of the standard.

[13] Although some restatements occur after the commencement of a financial reporting lawsuit, others occur prior to the lawsuit or at least prior to naming the auditor a defendant. Thus, they are sometimes a heuristic, or rule of thumb, helping plaintiff attorneys make decisions under uncertainty. What happened after 1998, and then again after 2002, is that restatements of annual financial statements became a less useful heuristic.

The fact that AS 2 was superseded three years later by Auditing Standard No. 5 (PCAOB 2007) indicates that it was an imperfect standard. Nonetheless, Glover et al. (2009) do not address the historical context. Prior to the assumption of audit standard setting by the PCAOB, the Auditing Standards Board had not developed meaningful guidance on how to identify the existence of a material weakness. This task was left to the PCAOB. AS 2 was a giant leap forward for companies and auditors. For the first time, it was clarified that each of the following eight scenarios is "a strong indicator that a material weakness in internal control over financial reporting exists" (PCAOB 2004, par. 140):

- A restatement (due to error or fraud) of previously issued financial statements;
- A material misstatement in the pre-audit financial statements requiring an adjustment by the auditor;
- Ineffective oversight of financial reporting and internal control by the audit committee;
- Ineffective internal audit or risk assessment function at a company that needs such a function to be effective;
- Ineffective regulatory compliance function at a company that needs such a function to be effective;
- Fraud of any magnitude on the part of senior management;
- Significant deficiencies that, despite having been communicated to the management and audit committee, remain uncorrected after a reasonable period of time;
- Ineffective control environment.

In addition, Appendix D of AS 2 provided an additional seven detailed scenarios of hypothetical internal control problems at a company, along with advice as to which of them should be classified as significant deficiencies and which of them should be classified instead as material weaknesses.

Thus, after 2004, the uncertainty as to how to decide whether a particular internal control problem was a material weakness subsided substantially. One of the consequences of this reduction in uncertainty was the concomitant increase in the proportion of restatements that were truly meaningful in terms of what materiality traditionally meant. This allowed restatements of annual financial statements to resume their traditional relevance as an important factor in the outcome of auditor litigation. The foregoing discussion leads to the second hypothesis:

H_2: In the financial reporting lawsuits filed in 2003 and 2004, restatements of annual financial statements will not be a significant factor in the naming of the auditor as a defendant or in the outcome of the auditor in the financial reporting litigation, but they will be a significant factor in 2002, and they will again be a significant factor each year after 2004.

3. The Data

The sample (see Table 1) is comprised of 2,059 financial reporting lawsuits commenced from 1996 through 2009. Most of the lawsuits were found in Securities Class Action Services ("SCAS"), an MSCI, Inc., online database, or its predecessor, the newsletter *Securities Class Action Alert*.

To obtain the sample, 2,490 lawsuits were found in SCAS or its predecessor. The 443 lawsuits that concerned auditors other than the Big X firms were eliminated, leaving 2,047 lawsuits. Those 443 lawsuits were potential confounders of the analysis; because the characteristics of companies audited by smaller CPA firms are different from the characteristics of companies audited by the Big X firms (Lawrence, et al. 2011). An additional 12 lawsuits (that were not private actions) with auditor defendants were obtained from AAERs and other government prosecutions, bringing the total sample to 2,059 financial reporting lawsuits.

The financial reporting data - total assets and restatements - were obtained primarily from LEXIS NEXIS and Laser D, for the years before 2001. For the years beginning with 2001, these data were mostly obtained from Audit Analytics, except for a few entities not in the SEC EDGAR database. These included foreign registrants (SEDAR was used for Canadian companies and LEXIS NEXIS and company websites for other foreign companies) before November 4, 2002, and nonpublic entities.

The bankruptcy and AAER data were obtained from LEXIS NEXIS and from the website for AAERs maintained by the SEC. The class period length was obtained from the settlement notice, stipulation of settlement, or last operative complaint (since many lawsuits do not settle), retrieved from SCAS, the Stanford Securities Class Action Clearinghouse, or Public Access to Court Electronic Records.

4. The Empirical Analysis

The empirical analysis is based on a multivariate model, applied to the financial reporting lawsuits on a year-by-year basis. In other words, year 1996 lawsuit filings were analyzed, followed by year 1997 lawsuit filings, until completion of the analysis of the fourteenth year of the study, which is 2009. This year-by-year analysis reveals the trend in the relationship between restatements of annual financial statements and auditor litigation over the years of the study.

The model is a polytomous regression model, which is sometimes called a cumulative logit or proportional odds model. It has five ordinal categories in its dependent variable, from the least severe experience of the auditor in the financial reporting lawsuit (not even named a defendant) to the most severe experience (criminally prosecuted). This is

discussed above and detailed in Table 2.[14] The five independent variables, also discussed above and detailed in Table 2, are the natural log of the total assets of the company, bankruptcy of the company, class period length, financial reporting fraud, and restatement of the annual financial statements (with a period of restatement overlapping the class period). Also, as discussed above, the only kinds of restatement considered were those where the originally issued financial statements were contrary to GAAP at their time of issuance and the company should have known at that time that they were not in conformance with GAAP.

Restatement of audited annual financial statements is the test variable, and the other variables exert control over potentially confounding factors. All but one of the control variables have consistently been shown in prior research to be significant, as discussed above. The natural log of total assets is used in all auditor litigation research to help control for the differences in size among companies, even though it has not consistently been found to be a significant variable in prior research.

In Table 3, the frequency distribution of observed OUTCOME of auditors in the lawsuits is shown. There is, overall, a perfectly monotonic decrease as one proceeds from OUTCOME=0 (auditor not named a defendant in the lawsuit) to OUTCOME=4 (auditor criminally prosecuted). However, in some years there is not a perfectly monotonic decrease. For example, in several years there were more observations of OUTCOME=2 (auditor paid to settle private litigation) than OUTCOME=1 (auditor was named a defendant in private litigation but avoided making a payment). Also, in 2001 there were just as many observations of OUTCOME=4 (auditor criminally prosecuted) as OUTCOME=3 (auditor civilly prosecuted by the government).

Table 4 shows the descriptive statistics, one year at a time, for each of the five independent variables. Their univariate association with the ordinal five-category dependent variable for the polytomous regression, OUTCOME, is also shown.

Moving to the right, in the third through sixth columns of Table 4, the variable ASSETS, in billions of U.S. dollars, is described. For the regressions, the natural log of total assets was used. Total assets were used to calculate the mean and median for each year. Mean ASSETS were fairly level from 1996 through 2001, increased to a fluctuating higher level from 2002 through 2006, and then dramatically increased for the last three years of the study (see also Figure 2). This is due in part to lawsuits against very large companies in the financial services industry sector, which are included in this study. Such lawsuits filed in 2008 and 2009 included Royal Bank of Scotland, Deutsche Bank, JP Morgan Acceptance, Societe Generale, Credit Suisse, Fortis, Goldman Sachs, American International Group, Morgan Stanley, Fannie Mae, Merrill Lynch, Freddie Mac, Wachovia, Lehman Brothers, Bear Stearns, Bank of America, ING Groep, Wells Fargo, and Barclays Bank. In simple polytomous regression, ASSETS is not a significant factor in the OUTCOME of the auditor in the financial reporting lawsuits most years. However, ASSETS is significant at 5% (the assumed level of significance throughout this paper) in 2001, 2002, 2007, and 2009.

In the seventh through tenth columns of Table 4, BANKRUPT is described. Bankruptcies ranged from a low of 1 in 2006 to a high of 32 in 2002. The percentage of lawsuits in which company bankruptcy was present ranged from 1% in 2006 to a high of 19% in 2001 (see also Figure 3). BANKRUPT, in simple polytomous regression, is a significant factor in the OUTCOME of the auditor in the financial reporting lawsuits in 9 out of 14 years. This is perhaps surprising, given the consistent finding of statistical significance for BANKRUPT in prior studies. However, this is the first time a year-by-year longitudinal study has been conducted, with less available statistical power, particularly in years 2006 (87 observations) and 2009 (85 observations). No statistical analysis of BANKRUPT was performed for 2006, as there was only one observation in which BANKRUPT was present.

In the eleventh through fourteenth columns of Table 4, CLASS (length of class period in months) is described (see also Figure 2). CLASS was in the low teens from 1996 through 2001, followed by an increase generally to the high teens or twenties from 2002 to 2009. In simple polytomous regression, CLASS is significant every year except 2009.

In the fifteenth through eighteenth columns of Table 4, FRAUD is described. FRAUD ranged from a low of 7 occurrences in 2009 to a high of 59 occurrences in 2002. The percentage of lawsuits in which FRAUD was present ranged from a low of 8% in 2009 to a high of 31% in 2002 (see also Figure 3). FRAUD is a significant factor in simple polytomous regression every year.

In the four farthest-right columns of Table 4, the test variable RESTATE is described. Restatements of audited annual financial statements ranged from a low of 12 occurrences in 1996 to a high of 87 occurrences in 2002. As shown in Figure 1, the total number of restatements (most of which are unrelated to a lawsuit) monotonically increased after 2000 until it peaked in 2006 at 1,790 restatements. Thereafter, the number monotonically decreased. The percentage of lawsuits in which RESTATE was present ranged from a low of 11% in 1996 to a high of 47% in 2006 (see also Figure 3). In simple polytomous regression, RESTATE is significant every year except 2003.

Multicollinearity is something to consider before reviewing the results of the multivariate models, as excessive multicollinearity has the effect of creating

[14] Allison (1999) explains the theory and practice of polytomous regression.

large standard errors, which cause the probability values on certain variables to be higher than they otherwise would be. One way to gauge multicollinearity is with Pearson correlations, which are shown in Table 5. The highest Pearson correlation is .6, between FRAUD and RESTATE, in 1997.

In Table 6, the other two multicollinearity diagnostics are shown. One of these is the condition index, which indicates serious multicollinearity when it exceeds 30. Its highest level is in 1997, at 2.4. Although there is no strict variance inflation factor cutoff, Allison (1999) begins "to get concerned" when it exceeds 2.5. The highest variance inflation factor is 1.81, in 1997, on RESTATE. Thus, multicollinearity is probably not a serious concern.

The results of the hypothesis testing, using multivariate polytomous regression are shown in Table 6 (see also Figure 4). ASSETS are significant only in years 2007, 2008, and 2009. BANKRUPT is significant in every year except 1996, 1997, 2001, 2008, and 2009. No computation was performed for 2006, since only one bankruptcy was observed among that year's lawsuit filings. CLASS is significant in every year except 1998, 2006, 2008, and 2009. FRAUD is significant in every year except 2006, 2007, 2008, and 2009.

The test variable RESTATE is significant in hypothesis testing in years 1996, 1997, and 1998. It is not significant in years 1999, 2000, and 2001. Thus, the evidence supports the first hypothesis. RESTATE is significant in 2002. RESTATE is not significant in 2003 and 2004. RESTATE is significant each year after 2004. Thus, the evidence also supports the second hypothesis.

5. Discussion, Conclusions, and Implications

Restatements of audited annual financial statements were a significant factor in the outcome of auditor litigation in the years before 1999, but not in 1999, 2000, and 2001. These results, supporting the first hypothesis, are theorized to be due to the combination of three things: the PSLRA (via the SLUSA) finally impacting financial reporting litigation, the sudden large decrease compared to the previous years in the proportion of restatements that involved revenue recognition, and the large increase compared to the prior years in the number of restatements.

Restatements of audited annual financial statements were again a significant factor in the outcome for the auditor in the financial reporting lawsuits filed in 2002. They were not a significant factor in the outcome for the auditor in the lawsuits filed in 2003 and 2004. After 2004, and continuing to the present, restatements of audited annual financial statements returned to relevance. They became and have continued to be a significant factor in the outcome of the auditor litigation.

These results, supporting the second hypothesis, are theorized to be due to a further increase in restatements and a further decrease in their materiality compared to traditional standards of materiality, motivated by the combination of Sections 302 (certification by principal executive and financial officers) and 906 (criminal penalties) of SarBox and the concomitant substantial partial reliance upon restatements to justify assertions of the existence of material weaknesses. This caused participants in the legal system to lose the ability to interpret the meaning of a restatement of annual financial statements.

However, this was a temporary phenomenon. Auditors and companies faced great pressure to disclose material weaknesses but were highly uncertain about how to identify whether a particular internal control problem should be classified as a material weakness. Until the issuance of AS 2 in June of 2004, there was insufficient authoritative guidance available on how to distinguish a material weakness from a significant deficiency. After guidance became available, auditors and companies became more confident that they could do this correctly. They stopped the practice of jointly deciding the existence of both a material weakness and a need for a restatement.

This reduced the issuance of restatements that were not material in the sense that participants in the legal system had understood them to be. This caused the restatements that were issued to be relied on more strongly by participants in the legal system to perform their traditional role in financial reporting litigation, which has been, first, to help signal to plaintiff lawyers the probability of the potential lawsuit being viable (in other words, whether a court would find liability) and, second, in a particular lawsuit, to help signal the probability of the auditor being a viable defendant (again, whether a court would find liability). In the lawsuits in which the auditor was actually named a defendant, the restatements helped judges make their decisions and helped counsel for plaintiffs and auditors decide their negotiation strategies.

An implication of the results of this research is that criticisms of the PCAOB and AS 2, while not unfounded with regard to audit efficiency, should be reconsidered with regard to audit effectiveness. This research provides evidence, from the behavior of participants in the legal system, that the difficult task of clarifying the identification of material weaknesses, in the face of a lack of apposite extant auditing standards, was performed competently enough to increase audit effectiveness and financial reporting quality, causing restatements to become meaningful again in the context of auditor outcomes in financial reporting litigation.

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Table 1. Sample selection

Financial reporting lawsuits in SCAS filed 1996–2009	2490
Less: Entities whose auditor was not Big 6, 5, or 4	–443
Big X lawsuits from SCAS filed 1996–2009	2047
Plus: Government prosecutions of Big X auditors	12
Sample size for polytomous (proportional odds model) regression, 1996–2009	2059

Table 2. Variable Definitions

Dependent variable for the polytomous (proportional odds model) regression:
OUTCOME: The auditor experienced less severe litigation outcomes in the lower categories, more severe litigation outcomes in the higher categories.
0: The auditor was not a defendant in litigation.
1: The auditor was a defendant in a private action but paid nothing.
2: The auditor paid to settle a private action.
3: The auditor was a defendant in a government civil lawsuit or proceeding.
4: The auditor was criminally prosecuted.
Independent variables for the polytomous (proportional odds model) regression:
ASSETS: Total assets in billions of U.S. dollars. Natural log is used for regression analysis.
BANKRUPT is equal to "0" when the audited entity did not file for bankruptcy within a year before or after lawsuit commencement and is equal to "1" when the audited entity filed for bankruptcy within a year before or after lawsuit commencement.
CLASS: Number of months that allegedly illegal financial reporting occurred.
FRAUD is a dummy variable that is equal to "0" when the entity or its management did not experience AAER or financial reporting criminal prosecution and is equal to "1" when the entity or its management experienced AAER or financial reporting criminal prosecution.
RESTATE is an indicator variable that is equal to "0" when there is no restatement of audited annual financial statements, and it becomes "1" when there is restatement of audited annual financial statements.

Table 3. Distribution of OUTCOME of Auditors in Lawsuits Filed 1996–2009

Lawsuit Filed	Outcome 0	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Total
1996	89	12	4	0	0	105
1997	114	6	17	2	0	139
1998	163	18	19	5	0	205
1999	135	7	18	8	0	168
2000	139	19	18	5	0	181
2001	116	15	9	3	3	146
2002	121	33	20	13	1	188
2003	124	23	10	4	1	162
2004	143	23	8	2	1	177
2005	121	8	10	2	1	142
2006	65	13	7	2	0	87
2007	109	7	7	2	0	125
2008	122	20	5	2	0	149
2009	68	15	1	0	1	85
Total	1629	219	153	50	8	2059

Table 4. Descriptive Statistics and Univariate Results (Association with OUTCOME)

		ASSET				BANKRUPT				CLASS				FRAUD				RESTATE			
Year	**n**	**Mean**	**Med.**	**Coef.**	***p***	**Freq.**	**Perc.**	**Coef.**	***p***	**Mean**	**Med.**	**Coef.**	***p***	**Freq.**	**Perc.**	**Coef.**	***p***	**Freq.**	**Perc.**	**Coef.**	***p***
1996	105	.396	.165	–.12	.473	10	9.5%	.87	.251	11	9	.07	.001	12	11.4%	3.57	.000	12	11.5%	5.47	.000
1997	139	3.116	.187	–.06	.556	11	7.9%	1.13	.084	12	11	.14	.000	17	12.2%	3.41	.000	21	15.1%	2.22	.001
1998	205	2.521	.164	.09	.325	23	11.2%	2.01	.000	13	11	.09	.000	28	13.7%	2.41	.000	34	16.6%	2.17	.000
1999	168	5.632	.309	.08	.377	14	8.3%	1.95	.000	14	10	.10	.000	22	13.1%	2.79	.000	30	17.9%	1.25	.004
2000	181	6.819	.275	–.01	.926	28	15.5%	1.61	.000	14	11	.09	.000	37	20.4%	1.58	.000	36	19.9%	1.51	.000
2001	146	4.19	.457	.26	.010	28	19.2%	.98	.031	13	10	.10	.000	33	22.6%	2.55	.000	45	30.8%	1.75	.000
2002	188	23.583	1.906	.14	.027	32	17%	.38	.322	22	18	.04	.000	59	31.4%	2.34	.000	87	46.3%	1.31	.000
2003	162	11.918	.656	–.01	.903	24	14.8%	1.45	.001	24	20	.04	.000	30	18.5%	1.69	.000	52	32.1%	.31	.432
2004	177	20.598	.624	.14	.072	11	6.2%	2.55	.000	22	15	.05	.000	31	17.5%	2.34	.000	74	41.8%	1.12	.005
2005	142	8.171	.674	.15	.174	9	6.3%	2.07	.002	18	12	.06	.000	21	14.8%	3.42	.000	44	31%	2.3	.000
2006	87	22.654	1.042	.01	.919	1	1.1%	N/A	N/A	30	27	.04	.004	18	20.7%	1.48	.001	41	47.1%	1.96	.001
2007	125	59.053	1.523	.33	.001	7	5.6%	1.95	.013	17	12	.06	.000	17	13.6%	2.16	.000	23	18.4%	1.95	.001
2008	149	183.32	3.832	.11	.12	17	11.4%	1.51	.005	19	14	.03	.000	19	12.8%	2.09	.000	18	12.1%	1.61	.002
2009	85	147.91	4.557	.28	.008	11	12.9%	.04	.960	18	12	.02	.153	7	8.2%	2.02	.011	14	16.5%	1.58	.011

Note: Definition of the variables is provided in Table 2.

Table 5. Pearson's Correlations Among the Independent Variables

Year	**n**	**Asset/ Bankrupt**	**Asset/ Class**	**Asset /Fraud**	**Asset / Restate**	**Bankrupt /Class**	**Bankrupt /Fraud**	**Bankrupt /Restate**	**Class/ Fraud**	**Class/ Restate**	**Fraud/ Restate**
1996	105	.0169	–.0693	–.0526	.0087	.2929*	.0874	.0874	.3302*	.2084*	.5296*
1997	139	–.1710*	.1113	–.0454	–.0547	.1381	.1346	.0252	.3274*	.3642*	.6396*
1998	205	.0438	.1757*	.0277	–.0558	.2341*	.0836	–.0754	.3006*	.3489*	.5865*
1999	168	–.0189	.0665	.0123	–.0027	.2966*	.2022*	–.0843	.3704*	.1923*	.1876*
2000	181	.0631	.1265	–.0055	.0680	.1908*	.0484	–.0601	.3106*	.4355*	.4682*
2001	146	.1320	.1985*	.1439	.0899	.1979*	–.0137	–.0237	.4450*	.3906*	.5614*
2002	188	–.0268	.2083*	.1643*	.0433	–.0515	–.0318	–.2500*	.2432*	.2108*	.3609*
2003	162	–.1198	.1614*	–.0274	.0636	.0316	.2485*	–.2495*	.2026*	.1977*	.1828*
2004	177	–.0311	.2770*	.1917*	.0461	.0220	.0661	–.0759	.4371*	.1949*	.3628*
2005	142	.0627	.1904*	.2372*	.0706	.2082*	.2173*	–.0493	.4242*	.3384*	.4072*
2006	87	N/A	–.0858	–.0396	.1887	N/A	N/A	N/A	.3696*	.4844*	.3136*
2007	125	.1575	.2840*	.1228	.0984	.0522	.1064	–.0259	.3595*	.4367*	.4139*
2008	149	–.0407	–.0023	.0216	–.2433*	.2766*	.4324*	–.133	.4142*	.2278*	.1053
2009	85	–.0054	–.1054	–.1168	–.2566*	.0658	.1395	–.0767	.1887	.3488*	.4439*

*Note: * indicates statistical significance at 5% level.*

Table 6. Multivariate Results: Polytomous (Proportional Odds Model) Regression Analysis

Year	N	Cons. 1 Coeff.	Cons. 2 Coeff.	Cons. 3 Coeff.	Cons. 4 Coeff.	ASSETS Coeff.	BANKRUPT Coeff.	CLASS Coeff.	FRAUD Coeff.	RESTATE Coeff.	Highest VIF	Largest Cond. Ind.	Max. Rescaled R-Square (%)
1996	105	–.95	–5.75	.00	.00	–.29	–.154	.08**	1.98**	5.74***	FRAUD(1.5)	2.02	71
1997	139	–2.35	–3.02	–7.32***	.00	–.18	.51	.14***	2.30***	1.73**	RESTATE(1.81)	2.37	56
1998	205	–4.32***	–5.27***	–7.51***	.00	.11	2.36***	.04*	1.25**	1.81***	RESTATE(1.71)	2.26	38
1999	168	–3.70***	–4.14***	–6.18***	.00	.04	1.41**	.07***	1.90***	.78	CLASS(1.28)	1.68	40
2000	181	–1.59	–2.60**	–4.64***	.00	–.12	1.64***	.07***	1.00**	.55	RESTATE(1.5)	2.01	33
2001	146	–5.09***	–6.46***	–8.08***	–8.94***	.14	.85	.07***	1.92***	.17	FRAUD (1.62)	2.16	41
2002	188	–3.52***	–4.80***	–6.07***	–8.95***	.06	1.17***	.03***	1.95***	.99***	RESTATE(1.25)	1.74	36
2003	162	–2.31	–3.71***	–5.12***	–6.81***	.05	1.28**	.04***	1.19***	.29	RESTATE(1.18)	1.62	25
2004	177	–3.83***	–5.68***	–7.38***	–8.67***	.02	3.31***	.04***	1.47***	.81	RESTATE(1.17)	1.88	38
2005	142	–2.86	–3.77**	–5.86***	–7.18***	–.10	1.90**	.03**	2.17***	1.64**	FRAUD(1.45)	1.98	46
2006	87	–2.14	–3.40	–5.04**	.00	–.04	N/A	.02	.66	1.48**	CLASS(1.45)	2	23
2007	125	–8.47***	–9.42***	–11.38***	.00	.28**	1.94**	.05**	1.28*	1.45**	CLASS(1.39)	1.93	41
2008	149	–6.65***	–8.50***	–9.85***	.00	.24***	1.35*	.01	1.08*	2.55***	FRAUD(1.41)	1.93	31
2009	85	–6.65***	–8.50***	–9.85***	.00	.24***	1.35	.01	1.08*	2.55***	RESTATE(1.48)	1.98	41

*Note: ***, **, and * indicate 1%, 5%, and 10% significance levels, respectively.*

Figure 1. Restatements and lawsuits (left scale) each year, 1996–2009

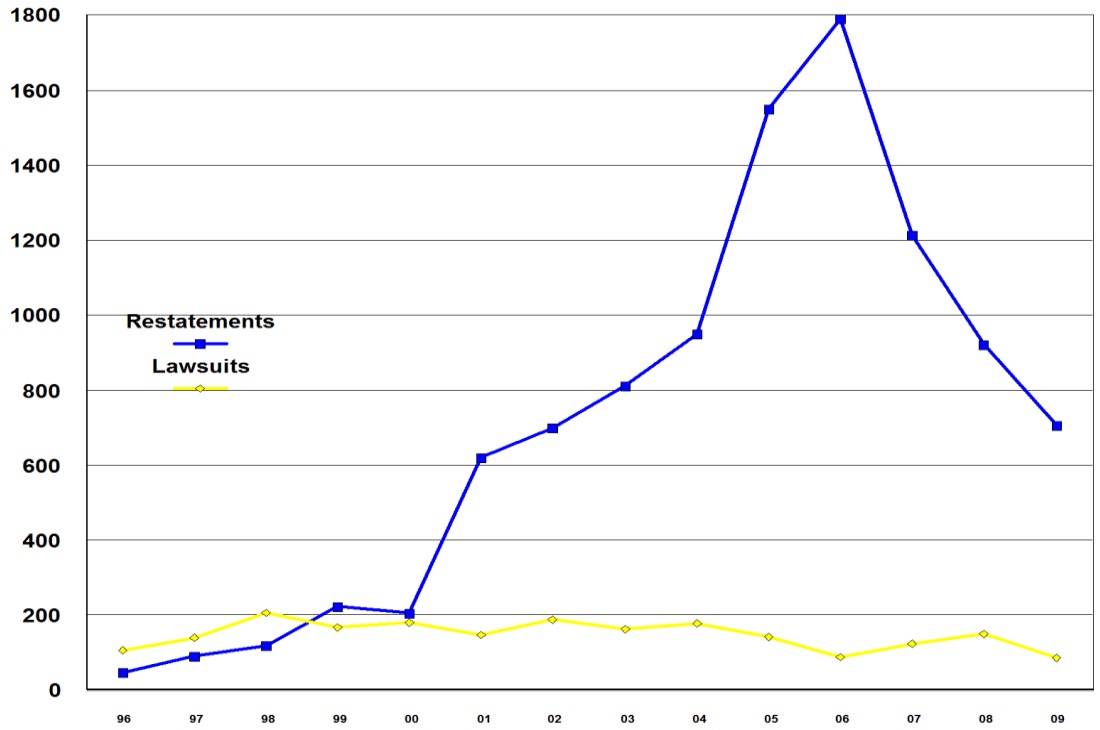

Figure 2. Mean and median total assets in billion dollars and class periods in months (left scale) each year, 1996–2009

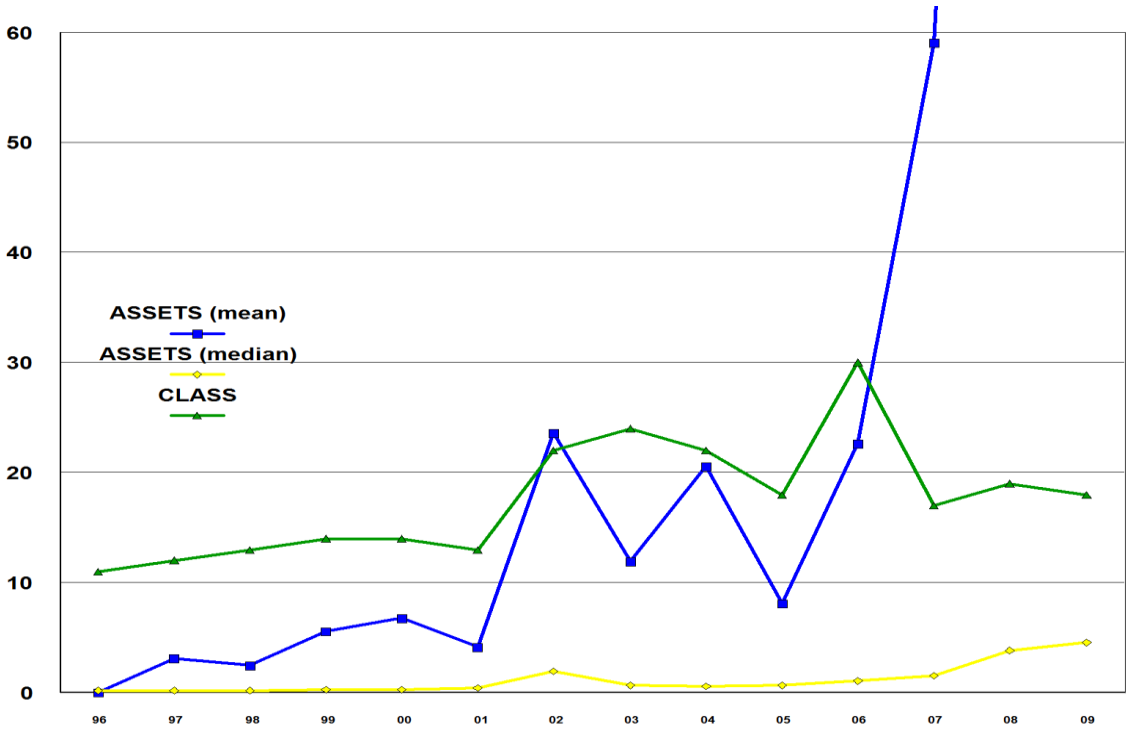

Figure 3. Percent of observations with restatements, bankruptcy, and fraud (left scale) each year, 1996–2009

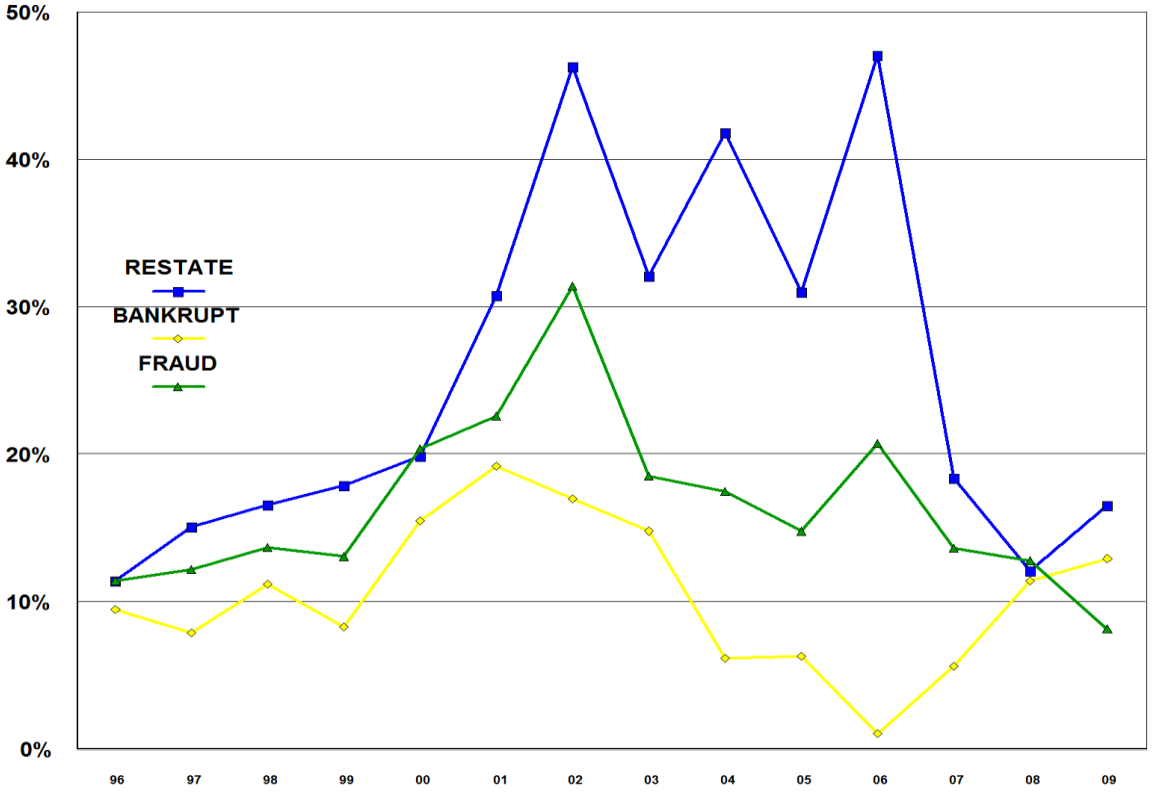

Figure 4. Multivariate probability values for variables RESTATE, ASSETS, CLASS, BANKRUPT, and FRAUD (left scale) each year, 1996–2009