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Fraud Type and Auditor Litigation: An Analysis of SEC Accounting and Auditing Enforcement Releases

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ABSTRACT: This study examines whether certain types of financial reporting fraud result in a higher likelihood of litigation against independent auditors. We expect that auditors are more likely to be judged responsible for failing to detect commonly occurring frauds or those that stem from fictitious transactions. We examine companies with SEC Accounting and Auditing Enforcement Releases and designate whether each fraud present in their financial statements is common and/or arises from fictitious transactions. We then examine whether these types of fraud are related to auditor litigation in analyses that control for various client, auditor and case characteristics. Our results provide some support for our two primary hypotheses—auditors are more likely to be sued when the financial statement frauds are of a common variety or when the frauds arise from fictitious transactions.

Key Words: *Auditor litigation, Fraud, SEC enforcement actions, Auditor responsibility.*

Data Availability: *The data used in this study are available from public sources.*

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I. INTRODUCTION

This study examines whether financial statement frauds that commonly occur within the population of fraud schemes and those that involve fictitious transactions and events result in a higher incidence of litigation against independent auditors. We expect that juries and judges are more likely to hold auditors responsible for failing to detect frauds of these types. Further, we expect that attorneys filing lawsuits against auditors would anticipate such behavior. To address these issues, we document the frauds present in the financial statements of companies that were the subject of Accounting and Auditing Enforcement Releases (AAERs) by the Securities and Exchange Commission (SEC) from 1982 to 1995, designate each fraud as commonly occurring and/or as arising from fictitious transactions,¹ and examine the association of these fraud types with litigation against auditors in multivariate analyses.

This study makes several contributions. It is the first to examine whether the type of fraud matters in the occurrence of litigation against auditors. Previous research indicates simply that the existence of any type of fraud is a significant factor in auditor litigation (e.g., Carcello and Palmrose 1994; Palmrose 1987; St. Pierre and Anderson 1984). Detecting and disclosing fraud is a significant element in the supply of audit services and litigation is a possible consequence for auditors who fail to fulfill their responsibilities in this regard. Consequently, it is important to understand more about whether different types of fraud differentially affect the likelihood of litigation. Further, as illustrated by the issuance of Statement on Auditing Standards (SAS) No. 82, *Consideration of Fraud in a Financial Statement Audit* (AICPA 1997), and the provisions related to fraud contained in The Private Securities Litigation Reform Act of 1995 (the 1995 Reform Act), fraud continues to be an important topic to auditors and regulators.

By examining litigation in the context of SEC enforcement actions,² this study also provides evidence on the intersection of regulatory enforcement and private civil litigation against auditors and others.³ We compare three groups of companies with SEC enforcement actions—those with auditor litigation, those with financial reporting and disclosure litigation not involving auditors (other litigation) and those with no reporting and disclosure litigation. While the primary focus of this study is on the role of the type of fraud, we also discuss client, auditor and other case characteristics that distinguish among companies with auditor, other and no litigation.

We find some support for the hypothesized higher incidence of auditor litigation when a company's financial statements contain a fraud that is commonly occurring or that involves fictitious transactions and events. These factors are hypothesized to affect juries' and

¹ We use the terms "fictitious transaction frauds" and "fictitious transaction and event frauds" interchangeably.

² Research involving SEC enforcement actions includes: Beneish's (1997) comparison of GAAP violators (primarily companies with SEC enforcement actions) to aggressive accruals to identify differences between detected and undetected earnings managers; Dechow et al.'s (1995) evaluation of the performance of alternative models at detecting earnings management; Dechow et al.'s (1996) examination of the causes and consequences of earnings manipulation; and Feroz et al.'s (1991) examination of the financial and market effects of SEC enforcement actions.

³ Because of the SEC's limited resources, the public policy debate over legal reform often gives private civil litigation a central role (1) in deterring material omissions and misstatements in financial reporting and disclosures and (2) in compensating users for losses therefrom. Nonetheless, the SEC's enforcement activities may facilitate private civil litigation, even though enforcement actions can conclude in AAERs long after the filing (resolution) of private lawsuits. Previous research reports significantly higher likelihoods of auditor litigation (Carcello and Palmrose 1994) and of securities class action litigation (Jones and Weingram 1996b) for companies that are the subject of SEC enforcement actions. Also, auditor litigation rates in this setting are more than twice those found in other settings (e.g., Carcello and Palmrose 1994). These findings are consistent with the importance of fraud in litigation against auditors and others, and/or SEC enforcement actions facilitating private civil litigation.

judges' beliefs about auditors' responsibility for detecting fraud through specific reasoning processes. Our results suggest that the occurrence of litigation against auditors may reflect anticipation of judges' and juries' reasoning processes by plaintiff attorneys.

While we focus on two types of fraud based on behavioral concepts, we recognize the potential relevance of accounting and auditing concepts for determining an auditor's responsibility for fraud. However, additional analyses rule out various accounting and auditing explanations for the results. For example, the results cannot be primarily explained by whether the fraud involves (1) important accounts (i.e., revenues, receivables and inventory), (2) revenues, (3) assets, (4) overstatements (rather than understatements) of assets and/or income, (5) disclosures, or (6) related parties.

Overall, these results are of interest to audit firms in that they establish that certain types of fraud result in a higher incidence of litigation against auditors. The insights this study provides on auditor litigation and fraud may prove useful to audit firms in revising practices to improve the detection of fraudulent financial reporting.

The remaining sections of the paper are organized as follows. Section II provides the rationale for using SEC enforcement actions. Section III outlines the hypotheses regarding the effects of common and fictitious transaction frauds on auditor litigation; section IV explains the taxonomy we developed to document types of fraud. Section V describes the variables in the multivariate model for examining the role of types of fraud in auditor litigation. Section VI describes the sample selection process and sample. Section VII presents the tests of hypotheses and analyses to rule out alternative explanations. Section VIII provides a summary and concluding remarks.

II. SEC ENFORCEMENT ACTIONS

We use the issuance of an AAER as a proxy for fraud. This is consistent with extant research on auditor litigation (Carcello and Palmrose 1994) and securities class action litigation (Jones and Weingram 1996b). This proxy is intended to capture circumstances at the fraud end of an errors-to-fraud continuum. We recognize, however, that AAERs differ as to their severity and control for this in our analyses.

A focus on SEC enforcement actions has both advantages and limitations. One significant advantage is that SEC enforcement actions are an objective criterion for identifying companies with fraudulent financial reporting. Feasible, objective criteria for identifying companies with fraudulent financial reporting but no litigation are especially limited. Furthermore, SEC enforcement actions appear to capture the majority of fraudulent financial reporting for companies with auditor litigation. For example, based on Carcello and Palmrose (1994), over 80 percent of bankrupt public companies with fraud and auditor litigation have SEC enforcement actions.⁴ Finally, the SEC often describes in an AAER the nature of the fraud. These descriptions are not extensively available through other sources and are necessary for identifying and classifying fraud schemes.

We considered the possibility of selection bias as a potential limitation of using SEC enforcement actions. Enforcement actions may reflect specific SEC agendas; if so, enforcement actions may not produce a representative sample of frauds. We reviewed a number of articles on the SEC's enforcement activities for evidence of agendas. For example, Pincus et al. (1988) and Feroz et al. (1991) discuss the sources of leads and the SEC's process for pursuing them whereby a subset result in enforcement actions. We found some examples

⁴ In Carcello and Palmrose (1994), companies with auditor litigation and fraud (but not SEC enforcement actions) had criminal convictions of management for fraudulent financial reporting, internal investigations that confirmed fraudulent financial reporting, and/or enforcement actions by regulators other than the SEC.

of specific accounting and auditing concerns of the SEC such as client opinion shopping and auditor peer review. However, there were no indications of any SEC agenda that is correlated with the specific types of fraud in which we are interested. Also, as we note later, we compare the frequencies of frauds in our sample to those in a sample not based on enforcement actions (Loebbecke et al. 1989); for the most part, frequencies are quite similar.

III. HYPOTHESES DEVELOPMENT

Our overall hypothesis is that the presence of certain types of fraud increases the likelihood of litigation against auditors, given the presence of fraudulent financial reporting. This hypothesis is based on the idea that characteristics of fraud affect the strength of the case. Certain types of fraud possess characteristics that make it easier for a plaintiff's attorney⁵ to argue that the auditor should be held responsible for detecting the fraud and, correspondingly, more difficult for the auditor's attorney to defend that they should not.⁶ In effect, plaintiff attorneys anticipate how judges and juries reason about auditor responsibility for detecting fraud. Standard texts on trial techniques specifically discuss the reasoning processes of judges and juries and urge lawyers to consider them in developing their cases (e.g., Mauet 1996; Tanford 1993).⁷ We hypothesize that certain characteristics matter in these processes and that whether the types of fraud present in financial statements possess these characteristics is considered by plaintiff attorneys in their decisions to initiate litigation. Litigation against the auditor will be more likely the greater the plaintiff attorney's belief that the judge or jury will hold the auditor responsible for detecting the fraud.

We focus on two types of fraud—commonly (frequently) occurring frauds and fictitious transaction frauds—and expect that these types will result in a higher likelihood of auditor litigation. Frauds that possess these characteristics make a plaintiff attorney's case easier to argue because they are similar to factors considered by individuals when attributing responsibility for a negative event.⁸ A large body of research shows that judges and juries reason very similarly to the "common man" making everyday decisions.⁹ In particular,

⁵ The vast majority of our litigation observations involve class actions. In securities class actions, entrepreneurial attorneys decide whether to sue and the parties to include as defendants (Coffee 1986).

⁶ The general premise that a plaintiff's attorney would consider specific characteristics of a case is consistent with legal-economic models of the decision to sue based on estimates of the expected value of a case (e.g., Alexander 1991; Jones and Weingram 1996a; Palmrose 1991b; Priest and Klein 1984). For example, Priest and Klein (1984) describe the decision to litigate or settle in terms of the plaintiff's minimum settlement demand and the defendant's maximum settlement offer; the demand and offer are based on the plaintiff's and defendant's respective estimates of the probability of a plaintiff verdict, the expected stakes should a verdict be rendered for the plaintiff, and the estimated costs of litigating and settlement. Because the expected value is a function of both the expected amount of losses that will be recovered and the strength of the case (i.e., the probability of recovery), attorneys consider specific characteristics related to auditor responsibility that affect the strength of the case against auditor defendants (Kinney 1993).

⁷ A few large firms act as plaintiff counsel and these firms are expected to have knowledge about the reasoning processes of judges and juries in such cases.

⁸ We focus on these two characteristics because of their apparent link to hypothesized reasoning processes of judges and juries. Other characteristics of fraud seem not to have this link. For example, accounting and auditing dimensions of fraud clearly may be important in determining an auditor's responsibility for detecting a fraud, although they do not appear to relate to these reasoning processes, *per se*. Therefore, we focus on frequent and fictitious transaction frauds and use additional analyses to rule out some accounting and auditing dimensions as explanations for our results.

⁹ For example, see Boyll (1991), Feigenson (1995), Gold (1986), Jackson (1986), Landsman and Rakos (1994), Moore (1989), Pennington and Hastie (1990), Reyes et al. (1980) and Saks and Kidd (1980–1981). Although some believe that judges possess special expertise, several articles have shown that judges and juries reason in similar ways (e.g., Jackson 1986; Landsman and Rakos 1994).

when making judgments about a person's responsibility for a negative event (here, the failure to detect fraud), judges' and juries' behavior (and that of other individuals) is consistent with the predictions of attribution theory (Arrington et al. 1985; Boyll 1991; Feigenson 1995; Jennings et al. 1993; Karlovac and Darley 1988). Attribution theory indicates that people assess the extent to which the person rather than external circumstances is responsible for some event by considering how comparable persons would have acted under the circumstances (Kelley 1967, 1972, 1973; Nisbett et al. 1982; Ross and Anderson 1982; Weiner 1974). As described below, it is hypothesized that judges and juries would expect the average auditor to be more likely to detect frequently occurring and fictitious transaction frauds than other types of fraud. An auditor who does not detect such frauds, then, would be more likely to be considered acting unusually and more likely to be held responsible for the failure to detect the fraud.

Fraud can be perpetrated in a variety of ways, with some fraud schemes occurring more frequently than others. For example, revenue frauds are more common than accounts payable frauds (Loebbecke et al. 1989). We expect that auditors would be held more responsible for failing to detect the more common frauds based on the simple notion that auditors ought to know more about and be better at detecting events that occur more frequently. Research indicates that people believe that the more frequently something occurs, the more others ought to know about it (e.g., Stein 1997). Articles about the auditor's responsibility for detecting fraud have advocated the same idea (e.g., Berton 1992).¹⁰ In summary, we predict that judges and juries would believe that the average auditor would be more likely to detect a frequently occurring fraud than a less common fraud. This translates into their attributing a higher degree of responsibility for failure to detect more frequent frauds. Assuming plaintiff attorneys anticipate this reasoning, we propose the following hypothesis:

H1: There is a higher incidence of litigation against auditors when the frauds committed by a company include one that occurs frequently than when the frauds committed do not include one that occurs frequently.

Frauds also vary as to whether they involve either the direct falsification of transactions and events or the intentional early (delayed) recording of transactions that eventually occur. We expect that auditors would be held more responsible for failing to detect fictitious transaction frauds because they may be viewed by judges and juries as more egregious methods of committing fraud. For example, intentionally overstating sales by creating phony invoices may be considered to be a more egregious fraud than intentionally overstating sales using otherwise legitimate shipments after the end of the period. The business press gives disproportionate attention to fictitious transaction frauds and this attention reinforces perceptions of fictitious transaction frauds as more egregious.¹¹ This disproportionate attention also may make people believe these frauds occur more frequently than they actually

¹⁰ We assume that, on average, plaintiffs' attorneys are informed about the relative frequencies of types of fraud. This assumption seems reasonable given that a small number of sophisticated law firms handle the majority of securities class actions. For example, one study reports that nine law firms were involved as plaintiff counsel in 70 percent of securities class actions (O'Brien and Hodges 1993). Over 80 percent of the auditor litigation observations for which we were able to identify the plaintiff attorneys included these firms.

¹¹ Based on our reading of disclosures for selected cases of auditor litigation (Palmrose 1991a), we found that frauds involving fictitious transactions and events are mentioned far more frequently than those not involving fictitious items, and disproportionately more than their actual frequency of occurrence.

do; if so, fictitious transaction frauds could be viewed as frequently occurring frauds even if they are not.¹²

Fictitious transaction schemes also are unambiguously fraudulent. Frauds not involving fictitious transactions frequently represent premature recognition of transactions and events that eventually occur, so they may be perceived as involving smaller departures from generally accepted accounting principles (GAAP); they may even be perceived (incorrectly) as falling within the realm of judgment allowed by GAAP (Kiernan 1997). In this case, it may be more difficult for auditors who fail to detect fictitious transaction frauds to argue convincingly that their audits complied with generally accepted auditing standards (GAAS) (and, thus, had a high probability of detecting material violations of GAAP). For all these reasons, it is expected that judges and juries would believe the average auditor more likely to detect a fictitious transaction fraud than one not involving fictitious transactions. Again, assuming plaintiff attorneys anticipate this sort of reasoning, we propose the following hypothesis:

H2: There is a higher incidence of litigation against auditors when the frauds committed by a company include one that involves fictitious transactions than when the frauds committed do not include one that involves fictitious transactions.

IV. FRAUD TAXONOMY

To identify the fraud schemes present in companies' financial statements and to classify these frauds according to their type, we developed a fraud taxonomy. We developed the taxonomy, in part, to overcome some limitations of extant taxonomies, in particular, their incompleteness. In addition, we wanted a taxonomy that would better link with audit practice and facilitate designing substantive tests to improve the detection of fraud.¹³

We developed the taxonomy in several steps. First, we read most of the existing research and practitioner literature including books, articles and training materials on fraud. Sources that present fraud taxonomies include academic articles, practitioner articles and talks, a resource book for attorneys and the training materials of both one Big 6 firm and the National Association of Certified Fraud Examiners (NACFE) (Beneish 1997; Coglitore and Berryman 1988; Diacont 1994; Elliott and Willingham 1980; Kellogg and Kellogg 1991; Loebbecke et al. 1989; NACFE 1992; Schilit 1993).¹⁴ From these sources, several iterations of taxonomies were created; at each stage of development, we tested the taxonomy in some way.¹⁵ The final taxonomy includes the categories most common to all the other taxonomies (e.g., premature revenue recognition), along with those mentioned frequently by practitioners (e.g., related party transactions). Within each category, we listed all the fraud types (schemes) included in the sources we reviewed. Finally, we created a few additional types

¹² This phenomenon is known as the "availability bias" (e.g., Tversky and Kahneman 1973). Highly salient media coverage of events leads people to overestimate the frequencies of those events vis-à-vis events that are not covered as much (Lichtenstein et al. 1978).

¹³ Our taxonomy identifies schemes for perpetrating fraud and, in categorizing these schemes, considers how auditors conduct substantive testing. For example, auditors simultaneously test interrelated financial statement elements for overstatement and understatement. Further, auditors conduct different types of tests to detect different types of misstatements (e.g., fictitious inventory vs. pricing errors in inventory). We recognize these factors by grouping together fraud schemes both by type of manipulation (e.g., fictitious transactions or premature recognition of transactions) and by interrelated accounts (e.g., frauds that overvalue assets and undervalue expenses), rather than, for example, grouping together all schemes that affect an individual account.

¹⁴ The Big 6 firm is not named; its materials are proprietary.

¹⁵ Tests included interviews with practicing auditors, card-sorting tasks with practicing auditors, and reading a few AAERs to determine the applicability of the taxonomy.

within some categories to reflect fraud schemes found in AAERs several times, but not originally included in the list.

The taxonomy has 12 general categories of fraud. These are as follows: (A) fictitious revenues, (B) premature revenue recognition, (C) misclassifications, (D) fictitious assets and/or reductions of expenses/liabilities, (E) overvalued assets and undervalued expenses/liabilities, (F) omitted or undervalued liabilities (affecting expenses or assets), (G) omitted or improper disclosures, (H) equity frauds, (I) related party transactions, (J) frauds going the “wrong way” (those understating income and/or assets), (K) illegal acts and (L) miscellaneous (including consolidation issues). Each category contains multiple individual fraud schemes.¹⁶ Subsequent discussions of the test variables are based on this taxonomy.

V. MULTIVARIATE FRAMEWORK AND MEASUREMENT OF VARIABLES

Introduction

We use a multivariate model to examine whether frequent frauds or those involving fictitious transactions lead to increased litigation against auditors:

$$\text{auditor litigation} = f(\text{test variables for frequent and fictitious transaction frauds}; \\ \text{control variables for client, auditor and case characteristics}).$$

The model takes two forms. The first form has (1) auditor litigation or (0) no litigation as the dependent variable. The second form has (1) auditor litigation or (0) other litigation as the dependent variable. The model takes two forms to recognize that different variables may be significant in explaining suits against auditors depending on whether the comparison group contains firms with no litigation or whether the comparison group contains firms involved in litigation, but the litigation is not against auditors.¹⁷ For example, some no litigation companies may have expected recoverable user losses of insufficient magnitude to make litigation worthwhile, especially for class action attorneys working on a contingent-fee basis. We would expect control variables that proxy for this effect, e.g., client size, would be significant in analyzing auditor vs. no litigation, but not necessarily in auditor vs. other litigation.¹⁸

The independent variables consist of the test variables and control variables. The test variables for frequent frauds and fictitious transaction frauds are described in the next section. The following section discusses the control variables.

Test Variables

Each test variable is an indicator variable for the presence (1) or absence (0) of the type of fraud. We obtained these data by using our taxonomy to code the frauds discussed by the SEC for each company named in an AAER.

For testing H1, we use two different measures of the most frequent types of fraud. The first measures frequent frauds at the category level and is based on the frauds encountered by 121 KPMG Peat Marwick audit partners (Loebbecke et al. 1989). This measure has the advantage of being determined outside of our sample. We reconciled our taxonomy to the

¹⁶ Due to space limitations, we have not included the complete taxonomy that lists all schemes within each category. It is available on request.

¹⁷ Other litigation defendants include the company, officers, directors and underwriters. The vast majority of lawsuits against auditors likewise have these types of parties as additional defendants.

¹⁸ However, we expect that the sign of the coefficient for significant variables would be the same regardless of the form of the model.

Loebbecke et al. (1989) classifications of financial reporting fraud both by type of deceptive action and account (as reported in their tables 4 and 6). Based on this reconciliation, we identified three categories in our taxonomy as the most frequent types of fraud. These were (A) fictitious revenues, (B) premature revenue recognition and (E) overvalued assets and undervalued expenses/liabilities.¹⁹

Because individual fraud schemes within categories differ greatly as to their frequencies, we also measure the more frequent frauds at the individual scheme level. Loebbecke et al. (1989) do not provide enough information to determine the most frequent individual schemes. Thus, the second measure of frequent frauds is based on the most frequent schemes from within our sample of AAERs, even though our sample may not be entirely representative of the population of frauds. The most frequent schemes using our fraud taxonomy turned out to be (A1) fictitious sales not based on firm orders to buy, (E1) undervalued allowance for bad debts or loan losses, (G10) omitted or improper disclosures regarding accounting policies and (I4) related party disclosure problems.²⁰

For testing H2, determining which types of fraud involve fictitious transactions or events is straightforward based on our taxonomy. Fictitious transaction frauds are (A) fictitious revenues, (D) fictitious assets and/or reductions of expenses/liabilities and (I1) fictitious related party sales. As noted, in each instance (H1 and H2), the test variable is an indicator variable denoting the presence (absence) of any of the specified fraud categories or schemes. Finally, because the variables for frequent and fictitious transaction frauds both include either category A (frequent frauds, measure 1) or scheme A1 (frequent frauds, measure 2), the model also includes a variable to indicate the presence (absence) of the category (scheme) that is common to both test variables.

Control Variables

The control variables relate to client characteristics (client size, public status, exchange, client bankruptcy, client industry and initial public offering [IPO]), auditor characteristic (type of audit firm) and case characteristics (the number of years of fraud, the type of SEC settlement, the existence of an SEC enforcement action against the auditor and SEC actions that focus only on interim [unaudited] financial information).²¹ The remainder of this section explains these variables. Data on additional client (stock price returns), auditor (audit deficiencies) and case (amount of fraud) characteristics that may be associated with litigation against auditors are available for much-reduced numbers of observations in our sample; these variables are discussed in section VII.

¹⁹ Clearly, the mapping of fraud schemes from our taxonomy to Loebbecke et al. (1989) involved some subjectivity. Therefore, we also used three alternative codings for more frequent frauds: (1) A, B, D and E; (2) A, B, D, E and F; and (3) A, B, E and F. These alternative codings produced similar results. Further, anecdotal evidence supports designating categories A, B and E as higher frequency frauds (Steinberg and Walker 1997).

²⁰ This choice likewise involved some subjectivity. Again, we employed two additional codings for higher frequency schemes: (1) the two highest frequency schemes—A1 and E1, and (2) the seven highest frequency schemes (A1, E1, E2 [overvalued inventory], G8 [operating data disclosure problems], G10, I2 [premature or overvalued non-arm's-length transactions], and I4). Results were essentially unchanged.

²¹ We attempted to measure several other control variables, such as whether management lied to the auditor, whether collusion was involved, the specific office of the auditing firm primarily responsible for the client, and the importance of the client to the audit firm. There simply was not enough information on any of these variables to have meaningful measures. Also, we deleted a variable for criminal actions against auditors because it rarely occurred.

Client Characteristics

Client size is consistently associated with financial reporting and disclosure litigation when comparing companies with and without litigation against auditors (Carcello and Palmrose 1994; Lys and Watts 1994; Schultz and Gustavson 1978; Stice 1991) and when comparing companies with and without litigation against others (Francis et al. 1994a, 1994b; Jones and Weingram 1996a, 1996b, 1996c). This association may occur because larger companies are more likely to have resources, including adequate officers' and directors' insurance, available to pay plaintiffs and their attorneys (Dunbar et al. 1995). Firm size and litigation also may be linked through estimated damages. For example, Simmons (1997) reports correlations of over 50 percent between client size (ln total assets) and estimated damages. Finally, client size may affect the exposure to litigation because larger clients have more disclosures (Francis et al. 1994b). The model includes (ln) total assets to control for client size; it is measured as total assets at the end of the last year allegedly misstated.²² We expect client size to be positively related to auditor litigation and to be significant in distinguishing between companies with auditor and no litigation. However, consistent with Carcello and Palmrose (1994), for companies with litigation, client size may not be significant in distinguishing between those with and without auditors as defendants.

SEC enforcement actions can involve either public or non-public companies. Examples of the latter are some broker-dealers. St. Pierre and Anderson (1984) document a higher auditor litigation rate for public companies, so the model includes an indicator variable for public status (1 = yes, 0 = no). The model also includes a variable to indicate companies listed on the New York Stock Exchange (NYSE) (1 = yes, 0 = no), although Carcello and Palmrose (1994) find a similar variable not significant. Nonetheless, Simonetti and Andrews (1994) report 1 of every 8 companies on the NYSE, 1 of every 18 companies on the American Stock Exchange and 1 of every 20 companies on the NASDAQ have recent involvement in securities litigation. The exchange variable may also reflect client size.

Client bankruptcy is a common characteristic of lawsuits against auditors (Carcello and Palmrose 1994; Lys and Watts 1994; Palmrose 1987; St. Pierre and Anderson 1984). The model includes a variable to indicate clients declaring bankruptcy within three years of the last year of the allegedly misstated financial statements (1 = yes, 0 = no).

Client industry is a factor in the occurrence of litigation (e.g., see Francis et al. 1994b; Jones and Weingram 1996c; Martin et al. 1996). In both auditor litigation (Palmrose 1988) and securities class actions (under Section 10(b) and Rule 10b-5 of the Securities Exchange Act of 1934), technology and financial services companies appear to have higher litigation rates. The model includes two indicator variables to control for clients in these two industries (1 = yes, 0 = no). The technology indicator variable is set to 1 for firms with SIC codes in the 357s and 737s (computers) and the financial services indicator variable is set to 1 for firms with codes in the 600–639s and 670s.

The professional literature focuses on IPOs as high litigation risk engagements (e.g., AICPA 1995; Arthur Andersen et al. 1992). However, empirical evidence suggests litigation rates may not be higher on IPOs; also, the evidence documents a decline in auditor litigation rates on IPOs during the 1990s (Bunsis and Drake 1995). In spite of these ambiguities, the

²² If the last year was unavailable, we used the nearest year for which information was available. Because this study does not focus on predicting litigation against auditors, independent variables are not measured at dates prior to auditors' client acceptance/retention decisions.

model includes an indicator variable for companies with IPOs within three years of the first year of the fraud (1 = yes, 0 = no).²³

Auditor Characteristic

The model includes a variable for type of auditor (1 = Big 6, 0 = non-Big 6).²⁴ While the type of auditor may influence the likelihood of litigation, predictions are ambiguous. One argument is that, because Big 6 firms have greater resources, they are more likely to be litigation targets than other audit firms. On the other hand, Palmrose (1988) reports a higher litigation rate for non-Big 8 firms. This result suggests that litigation rates reflect quality differences among auditors and that Big 6 firms are of higher quality.²⁵ Because her study includes only the largest non-Big 8 firms, her sample is relatively homogeneous as to resources. Stice (1991) likewise has an indicator variable for type of auditor (Big 8 vs. non-Big 8); his variable is not significant.

Case Characteristics

Finally, the model includes four control variables to recognize case-specific circumstances. The first control variable measures the number of years with allegedly misstated financial information (partial years are counted to the nearest quarter—e.g., $\frac{1}{4}$). We expect auditors to be more responsible for misstatements the longer they occur.

The second case-specific control variable captures the fact that SEC enforcement actions differ in their severity (Dechow et al. 1996; Feroz et al. 1991). Each observation is assigned a value for severity between 1 and 4 as follows: (1) accounting disputes identified as Exchange Act Releases and administrative proceedings, (2) actions for more than negligent violations of reporting and record keeping provisions (i.e., gross negligence or recklessness without scienter), (3) actions for injunctive relief under fraud provisions of the 1934 Act (i.e., with scienter) and (4) actions *only* against auditors (neither the company nor individuals—directors, officers, employees, related parties—are the subject of enforcement actions). These values are ranked from least severe to most severe from the auditor's perspective. Companies involved in multiple enforcement actions are coded according to the most severe one received. We expect that auditor litigation likelihood increases with severity.

The third case-specific control variable is an indicator variable to identify companies where the audit work resulted in enforcement actions against the companies' auditors (1 = yes, 0 = no). These observations should be more likely to have auditor litigation. This variable recognizes that many companies with enforcement actions for financial reporting (and, thus, with a 1, 2 or 3 for the severity variable) likewise have SEC actions against their auditor. (Note that observations with a 4 for the severity variable [SEC actions only against the auditor] automatically have a 1 for this variable.)

Finally, the fourth case-specific control variable indicates companies that have only interim (unaudited) financial statements subject to enforcement actions. We expect these

²³ We do not include a variable for seasoned equity offerings. Jones and Weingram (1996b) found that companies with seasoned equity offerings in the year before a major stock price fall are no more likely to be sued. We do not include an insider trading variable. Jones and Weingram (1996b) report that insider trading appears to have no effect on litigation risk. Dechow et al. (1996) likewise report insider trading did not significantly differ between their SEC enforcement and control companies. We do note, however, that Summers and Sweeney (1998) find an association between insider selling activity and the existence of fraudulently misstated financial statements.

²⁴ We use the Big 6 (non-Big 6) designation to likewise refer to the Big 8 (non-Big 8). We originally coded second-tier firms separately. However, there was such a small number (a total of 23) that meaningful analysis was not possible.

²⁵ However, Palmrose (1988) discusses the limitations of auditor litigation rates as quality surrogates.

companies to be less likely to have auditor litigation. (Note that the variable is coded 1 = yes [audited] and 0 = no [only unaudited statements].)

In summary, the multivariate analyses use a logistic regression model with the occurrence of auditor litigation (either 1 = yes, 0 = no litigation; or 1 = yes, 0 = other litigation) as the dependent variable and with independent variables consisting of a test variable for frequent frauds (two different measures) and for fictitious transaction frauds, a variable to control for frauds common to the frequent and fictitious transaction fraud measures and control variables for client, auditor and case characteristics. As previously discussed, due to data limitations, we separately analyze reduced samples with additional control variables for stock price returns, audit deficiencies and fraud size.

VI. SAMPLE SELECTION AND DESCRIPTION

Sample Selection

The sample is selected from the set of 390 companies that were the subject of SEC AAER Numbers 2 through 675.²⁶ The SEC filed these enforcement actions between 1982 and 1995. From the total set of 390 companies with enforcement actions, we deleted 129 companies for the following reasons: 24 companies with audit problems, but no alleged financial reporting problems (for example, some enforcement actions allege that auditors lack independence); 6 companies with forged audit opinions (these companies have no real auditor); 17 companies with actions involving some issue other than financial misstatements, e.g., misleading press releases; 27 companies with no information about fraud types in either the AAERs or other publicly available sources; 10 companies with no information about the misstated financial statement dates (for these companies, we are unable to measure various control variables); and 45 companies for which no financial statement information, in particular information on total assets, could be located.

Sample Description

The analyses use the remaining sample of 261 companies with SEC enforcement actions. Of these companies, 110 (42 percent) have no litigation, 98 (38 percent) have auditor litigation,²⁷ and 53 (20 percent) have other litigation.²⁸ Tables 1 and 2 provide descriptive statistics about the sample firms by category of litigation (table 1), the fraud categories in the taxonomy (table 2, panel A), specific fraud schemes included in the test variables (table 2, panel B) and the test variables (table 2, panel C). The tables describe four groups—the total sample and the three subsamples with no litigation, auditor litigation and other litigation.

The descriptive statistics (table 1, panel A) reveal, as expected, that companies with litigation are larger. However, the mean (median) total asset amounts are much greater for companies with other litigation than auditor litigation (\$7,273 [\$165] vs. \$1,977 [\$81]). The auditor-litigation subsample is distinguished by the highest average mean (median) for

²⁶ We exclude AAER number 1 as it refers to companies previously cited by the SEC in ASRs. We use AAERs beyond 675 that involve the set of 390 companies to update or add information about the variables.

²⁷ The determination of whether auditor litigation did or did not take place is made by reference to a sample of over 1,200 incidences of lawsuits against Big 6 and non-Big 6 firms (see Palmrose 1994); it includes but is not limited to observations in the auditor litigation database (Palmrose forthcoming). A few instances of auditor litigation were located (mostly for non-Big 6 firms) by using company names as key words (for all companies without auditor litigation) and searching over legal cases in LEXIS and disclosures in Dow Jones News Retrieval and LEXIS-NEXIS News Library and by reviewing company disclosures, as available, in annual reports and 10-Ks.

²⁸ Other litigation is identified from *Investor Class Action Monitors* and *Securities Class Action Alert* (1988 to 1997), legal notices in the *Wall Street Journal* (1985 to 1997), Dow Jones News Retrieval, LEXIS-NEXIS News Library, and company footnote disclosures. The latter is based on annual reports and 10-Ks available in published databases (e.g., LEXIS-NEXIS/NAARS) and on microfiche in libraries at USC and UCLA.

TABLE 1
Characteristics of 261 Firms Subject to SEC Enforcement Actions 1982–1995

	<i>Total Sample (n = 261)</i>	<i>No Litigation (n = 110)</i>	<i>Auditor Litigation (n = 98)</i>	<i>Other Litigation (n = 53)</i>
<i>Panel A: Selected Characteristics</i>				
Total Assets (in millions)				
Mean	\$2,817	\$1,419	\$1,977	\$7,273
Standard Deviation	12,500	9,124	6,326	22,520
Median	34	9	81	165
Years of Fraud				
Mean	2.06	1.93	2.39	1.74
Standard Deviation	1.68	1.98	1.43	1.33
Median	1.75	1.50	2.00	1.25
Severity of SEC Action (1–4)				
Mean	2.54	2.47	2.79	2.25
Standard Deviation	0.86	0.88	0.71	0.98
Median	3.00	3.00	3.00	3.00
Public Companies	96%	95%	97%	98%
NYSE	21%	9%	25%	40%
Bankrupt	26%	6%	54%	17%
Technology	9%	4%	14%	11%
Financial Services	25%	23%	24%	34%
IPOs	35%	27%	46%	30%
Big 6 Auditor	60%	38%	75%	77%
SEC Enforcement Action Against Auditors	39%	53%	34%	19%
Interim Statements Only	17%	15%	9%	34%
<i>Panel B: Client Industries</i>				
Agriculture, Mining, and Construction	11	6	2	3
Manufacturing	99	45	36	18
Transportation, Comm., and Utilities	14	6	6	2
Wholesale and Retail Trade	31	13	12	6
Finance, Insurance, and RE	69	26	25	18
Services	35	12	17	6
Other	<u>2</u>	<u>2</u>	<u>0</u>	<u>0</u>
Total	261	110	98	53

TABLE 2
Classification of Firms Subject to SEC Enforcement Actions by Fraud Category, Selected Fraud Schemes, Test Variables for Fraud Type, and Litigation Status

	<i>Total Sample (n = 261)</i>	<i>No Litigation (n = 110)</i>	<i>Auditor Litigation (n = 98)</i>	<i>Other Litigation (n = 53)</i>
<i>Panel A: Fraud Categories</i>				
(A) Fictitious Revenues	39%	36%	50%	26%
(B) Premature Revenue Recognition	33%	32%	40%	23%
(C) Misclassifications	8%	5%	13%	4%
(D) Fictitious Assets and/or Reductions of Expenses /Liabilities	13%	10%	19%	8%
(E) Overvalued Assets and Undervalued Expenses/ Liabilities	38%	30%	45%	43%
(F) Omitted or Undervalued Liabilities	15%	10%	20%	15%
(G) Omitted or Improper Disclosures	40%	33%	42%	51%
(H) Equity Frauds	11%	17%	4%	9%
(I) Related Party Transactions	20%	23%	20%	11%
(J) “Wrong Way” Frauds	10%	8%	10%	11%
(K) Illegal Acts	7%	10%	5%	6%
(L) Miscellaneous	2%	0%	2%	8%
<i>Panel B: Selected Fraud Schemes</i>				
(A1) Fictitious Sales Not Based on Firm Orders to Buy	18%	10%	30%	15%
(E1) Undervalued Allowance for Bad Debts or Loan Losses	19%	14%	22%	23%
(G10) Omitted or Improper Accounting Policy Disclosures	16%	15%	12%	23%

(Continued on next page)

TABLE 2 (Continued)

	<i>Total Sample (n = 261)</i>	<i>No Litigation (n = 110)</i>	<i>Auditor Litigation (n = 98)</i>	<i>Other Litigation (n = 53)</i>
(I1) Fictitious Related Party Sales	2%	2%	3%	0%
(I4) Related Party Disclosure Problems	17%	20%	16%	11%
<i>Panel C: Test Variables for Fraud Type</i>				
Frequent Frauds (H1), Measure 1: Categories A, B, E	76%	74%	81%	70%
Frequent Frauds (H1), Measure 2: Schemes A1, E1, G10, I4	51%	39%	62%	53%
Fictitious Transaction Frauds (H2): Categories A, D; Scheme I1	46%	42%	60%	28%

number of years of fraud (2.39 [2.00]) and for SEC action severity (2.79 [3.00]); the highest rates of bankrupt companies (54 percent), technology companies (14 percent) and IPOs (46 percent); and the lowest rate of interim-only statements (9 percent).²⁹ The other-litigation subsample has the highest rate of interim-only statements (34 percent) and the highest concentration of financial services firms (34 percent). Surprisingly, the no-litigation subsample has the highest rate of companies with SEC enforcement actions against auditors (53 percent). The no-litigation companies, in addition to being smaller (on average) and not bankrupt, tend not to have Big 6 auditors (38 percent Big 6). The auditor-litigation and other-litigation companies tend to have Big 6 auditors (75 percent and 77 percent, respectively). Panel B of table 1 gives a breakdown by industry of the total sample and each subsample. As mentioned above, the other litigation subsample has a higher concentration of financial services firms than the auditor-litigation and no-litigation subsamples, but there are no other remarkable differences in industry concentrations across subsamples.

Panel A of table 2 summarizes the overall and subsample frequencies for each category of fraud in the taxonomy (frequencies are the percentage of companies with some kind of fraud in the category). Overall, (G) omitted or improper disclosures occur most frequently in our sample (40 percent), closely followed by (A) fictitious revenues (39 percent), (E) overvalued assets and undervalued expenses/liabilities (38 percent) and (B) premature revenue recognition (33 percent). Note that, with the exception of disclosure frauds, the most frequent frauds in our sample are similar to those reported by Loebbecke et al. (1989). It is not surprising that the SEC would focus relatively more on disclosure issues than would be the case based on their frequency of occurrence. Consistent with this, two of the four most frequent individual schemes are related to disclosures about accounting policies and related party transactions (see table 2, panel B).

²⁹ Litigation can encompass statements and periods beyond those that are the subject of SEC enforcement actions.

In the auditor-litigation subsample, the most frequent fraud category is (A) fictitious revenues (50 percent); the auditor-litigation subsample has the highest frequencies for each of the categories A through F. On the other hand, over half (51 percent) of the other-litigation subsample has omitted or improper disclosures (G); it is this subsample's most frequent category.

Panel B of table 2 summarizes the overall and subsample frequencies for the individual fraud schemes included in the test variables. The auditor-litigation subsample has the highest frequencies for schemes A1 (fictitious sales not based on firm orders to buy) and I1 (fictitious related party sales). Panel C presents the overall and subsample frequencies for the test variables, i.e., companies having frequent frauds (H1) (both measures) and fictitious transaction frauds (H2). As predicted, the auditor-litigation subsample has the highest percentages of companies with frequent frauds (both measures) and fictitious transaction frauds.

VII. MULTIVARIATE ANALYSES

Full Sample: Tests of Hypotheses

This section presents the results of the multivariate analyses using the test and control variables for the full sample of 261 companies. Table 3 presents the correlations among the independent variables.³⁰ As expected, client size is significantly positively correlated with variables such as public status, exchange and Big 6 auditor. Also, it is notable that the two measures of frequent frauds are not significantly correlated; this is consistent with fraud schemes within categories varying substantially as to their frequency of occurrence.

Table 4 reports the logistic regression results.³¹ Panel A of table 4 presents the results of the regressions over the auditor-litigation and no-litigation subsamples; panel B presents the results of the regressions over the auditor-litigation and other-litigation subsamples. Each panel has two regressions; one with frequent frauds (measure 1) and fictitious transaction frauds as test variables and the other with frequent frauds (measure 2) and fictitious transaction frauds as test variables. The discussion of the results first focuses on the control variables, then on the test variables in each regression.

In the regressions over the auditor-litigation and no-litigation subsamples (table 4, panel A), coefficients of four control variables are significant at the .10 level or less in both regressions. They are (ln) total assets, bankruptcy, technology and severity of SEC action. The Big 6 auditor variable is significant in one regression. In the regressions over the auditor-litigation and other-litigation subsamples (table 4, panel B), coefficients of four control variables are significant at the .10 level or less in both regressions. They are bankruptcy, severity of SEC action, SEC action against auditor and annual (rather than interim) statements. The control variable for (ln) total assets is significant in one regression. All coefficients are positive as predicted; these variables increase the likelihood of auditor litigation.

As shown in panel A of table 4, the significant test variable for the auditor-litigation and no-litigation comparison is the second measure of frequent frauds (H1). This means that, for the auditor-litigation and no-litigation subsamples, more frequently occurring frauds increase the likelihood of litigation when considered at the individual scheme level

³⁰ Variance inflation factors (VIFs) indicated that multicollinearity was not a problem in these analyses. No VIF was over 10 and the average of the VIFs was between 1 and 2 for all analyses.

³¹ We also ran the regressions using OLS. The results were substantially similar and are not reported. Adjusted R²s were about .47 for the auditor/no-litigation and .25 for the auditor/other-litigation analyses. Outliers identified by OLS were dropped and analyses rerun; results were unchanged for test variables and substantially similar for control variables.

TABLE 3
Full Sample
Correlation Matrix for Independent Variables^a

	Public Status	NYSE	Bankrupt	Technology	Financial Services	IPO	Big 6 Auditor	Years of Fraud	Severity of Action	SEC Action Auditor	Annual Statements	Common Frauds 1	Common Frauds 2	Freq. Frauds 1	Freq. Frauds 2	Fictitious Tr. Frauds
Total Assets (1n)	.13 (.03)	.61 (.00)	.08 (.19)	-.04 (.52)	.35 (.00)	-.14 (.02)	.50 (.00)	.01 (.89)	-.31 (.00)	-.30 (.00)	-.10 (.11)	-.13 (.04)	-.15 (.01)	.05 (.43)	-.05 (.40)	-.12 (.06)
Public Status		.10 (.10)	-.02 (.77)	.06 (.31)	-.07 (.28)	.02 (.74)	.20 (.00)	-.05 (.40)	-.11 (.09)	-.21 (.00)	-.04 (.56)	.04 (.55)	.09 (.13)	.21 (.00)	.01 (.91)	.02 (.70)
NYSE			-.07 (.29)	.00 (.99)	.16 (.01)	-.25 (.00)	.34 (.00)	.00 (.94)	-.19 (.00)	-.21 (.00)	-.15 (.02)	-.08 (.20)	-.14 (.02)	.01 (.93)	-.13 (.03)	-.09 (.14)
Bankrupt				-.04 (.54)	.00 (.95)	.19 (.00)	.15 (.02)	.05 (.45)	.19 (.00)	-.06 (.34)	.03 (.58)	.06 (.32)	.12 (.05)	-.05 (.45)	.14 (.03)	.10 (.11)
Technology					-.19 (.00)	.10 (.10)	.07 (.25)	-.06 (.36)	.05 (.47)	-.14 (.02)	-.03 (.59)	.15 (.01)	.23 (.00)	.12 (.05)	.02 (.80)	.13 (.03)
Financial Services						-.13 (.04)	.06 (.30)	.00 (.99)	-.22 (.00)	.03 (.67)	-.09 (.14)	-.25 (.00)	-.23 (.00)	-.18 (.00)	.09 (.17)	-.31 (.00)
IPO							.04 (.49)	.02 (.72)	.24 (.00)	-.05 (.39)	.07 (.25)	.19 (.00)	.19 (.00)	.06 (.32)	.16 (.01)	.23 (.00)
Big 6 Auditor								-.06 (.30)	-.19 (.00)	-.52 (.00)	-.22 (.00)	-.02 (.80)	.03 (.67)	.10 (.12)	-.07 (.24)	.02 (.75)
Years of Fraud									.15 (.01)	.09 (.14)	.36 (.00)	.04 (.56)	.10 (.10)	-.09 (.13)	.12 (.05)	.10 (.09)
Severity of Action										.16 (.01)	.08 (.18)	.25 (.00)	.21 (.00)	.02 (.76)	.17 (.01)	.32 (.00)
SEC Action Auditor											.29 (.00)	-.06 (.37)	-.13 (.03)	-.04 (.51)	.09 (.14)	-.05 (.38)
Annual Statements												.07 (.28)	.08 (.19)	-.09 (.15)	.12 (.06)	.11 (.08)

(Continued on next page)

TABLE 3 (Continued)

	Public Status	NYSE	Bankrupt	Technology	Financial Services	IPO	Big 6 Auditor	Years of Fraud	Severity of Action	SEC Action	Annual Statements	Common Frauds 1	Common Frauds 2	Freq. Frauds 1	Freq. Frauds 2	Fictitious Tr. Frauds			
Common Frauds 1												.59	(.00)	.46	(.00)	.18	(.00)	.86	(.00)
Common Frauds 2												.27	(.00)	.46	(.00)	.51	(.00)	.51	(.00)
Frequent Frauds 1														.07	(.24)	.35	(.00)	.35	(.00)
Frequent Frauds 2																.11	(.09)	.11	(.09)

^a The first number listed is the correlation; the number in parentheses is the significance level.

TABLE 4
Full Sample
Logistic Regression Results

Panel A: Dependent Variable: Auditor Litigation (1) vs. No Litigation (0) (n = 208)

<i>Independent Variable</i>	<i>Predicted Relation</i>	<i>With Frequent Frauds Measure 1</i>		<i>With Frequent Frauds Measure 2</i>	
		<i>Estimated Coefficients</i>	<i>p-value</i>	<i>Estimated Coefficients</i>	<i>p-value</i>
Intercept		-14.32	.01*	-14.46	.01*
Total Assets (ln)	+	.49	.01*	.51	.01*
Public Status	+	.75	.71	.54	.82
NYSE	+	-.42	.57	-.35	.64
Bankrupt	+	2.99	.01*	2.77	.01*
Technology	+	2.21	.01*	2.22	.01*
Financial Services	+	-.42	.51	-.62	.34
IPO	?	.19	.67	.18	.71
Big 6 Auditor	+/-	.80	.14	.93	.09*
Years of Fraud	+	.11	.28	.09	.47
Severity of Action	+	.84	.01*	.76	.02*
SEC Action Auditor	+	-.21	.67	-.13	.79
Annual Statements	+	1.24	.11	1.06	.19
Frauds Common to Frequent (Meas. 1) and Fictitious Trans. Frauds	?	.32	.70		
Frauds Common to Frequent (Meas. 2) and Fictitious Transaction Frauds	?			.60	.42
Freq. Frauds (Meas. 1)	+	.12	.84		
Freq. Frauds (Meas. 2)	+			.95	.07*
Fict. Trans. Frauds	+	-.09	.91	-.10	.86
Model Summary Statistics					
-2 Log Likelihood		155.276		147.900	
Chi-Square for Model (15 df)		132.380		139.757	
p-value		.0001		.0001	
Percentage Correctly Classified		83.7%		83.2%	

* Significant at the .10 level or less (two-tailed).

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TABLE 4 (Continued)

Panel B: Dependent Variable: Auditor Litigation (1) vs. Other Litigation (0) (n = 151)

<u>Independent Variable</u>	<u>Predicted Relation</u>	<u>With Frequent Frauds Measure 1</u>		<u>With Frequent Frauds Measure 2</u>	
		<u>Estimated Coefficients</u>	<u>p-value</u>	<u>Estimated Coefficients</u>	<u>p-value</u>
Intercept		-8.97	.01*	-9.35	.01*
Total Assets (ln)	+	.19	.17	.25	.07*
Public Status	+	.40	.84	.87	.65
NYSE	+	-.36	.61	-.71	.31
Bankrupt	+	1.91	.01*	1.80	.01*
Technology	+	.61	.36	.60	.38
Financial Services	+	.20	.76	-.10	.88
IPO	?	.41	.41	.30	.55
Big 6 Auditor	+/-	.42	.52	.51	.42
Years of Fraud	+	.05	.79	.05	.78
Severity of Action	+	.57	.06*	.57	.06*
SEC Action Auditor	+	1.19	.09*	1.20	.08*
Annual Statements	+	1.55	.01*	1.45	.02*
Frauds Common to Frequent (Meas. 1) and Fictitious Trans. Frauds	?	2.00	.16		
Frauds Common to Frequent (Meas. 2) and Fictitious Transaction Frauds	?			-.09	.91
Freq. Frauds (Meas. 1)	+	1.17	.07*		
Freq. Frauds (Meas. 2)	+			-.20	.70
Fict. Trans. Frauds	+	2.91	.04*	1.39	.03*
<u>Model Summary Statistics</u>					
-2 Log Likelihood		135.509		139.371	
Chi-Square for Model (15 df)		60.205		56.343	
p-value		.0001		.0001	
Percentage Correctly Classified		76.8%		75.5%	

* Significant at the .10 level or less (two-tailed).

but not at the category level. Whether frauds involve fictitious transactions does not appear to matter in distinguishing between situations having no litigation and those having auditor litigation.

Turning to the results from the comparison of the auditor-litigation and other-litigation subsamples, the significant test variables are for frequent frauds at the category level (measure 1) (H1) and fictitious transaction frauds (H2) (table 4, panel B); the coefficients are positive as expected. Both of the hypotheses find support in regressions using the auditor-litigation and other-litigation subsamples. This means that, given that litigation occurs, auditors are more likely to be included as defendants on lawsuits that involve more frequent frauds or fictitious transaction frauds.

Additional Analyses: Alternative Accounting and Auditing Explanations

Because the types of fraud included in the test variables differ on multiple characteristics, it is possible that the results for frequent and fictitious transaction frauds do not reflect anticipation of judges' and juries' reasoning processes. Instead, they could reflect anticipation of a focus on important accounting or auditing dimensions of the frauds. While there is no known link between accounting and auditing characteristics and judges' and juries' reasoning processes, these elements of the frauds could be relevant to a plaintiff attorney when attempting to establish whether GAAP and GAAS were followed. We conducted additional analyses to rule out some of these alternative explanations.

For both measures of frequent frauds, the following alternative explanations exist. First, the accounts involved in the frequent frauds include accounts that are important to auditors because specific auditing standards exist for these accounts—revenues, receivables and/or inventory (SAS Nos. 1 and 67, AICPA 1973, 1991). The importance of these accounts could explain the results for frequent frauds. Second, the accounts involved in frequent frauds mostly relate to revenues and/or assets. Thus, two alternative explanations for the explanatory power of the frequent frauds variable are that it is related to whether the fraud involves assets or income and that judges or juries focus on the income statement (and revenues) or the balance sheet (and assets) when deciding to hold an auditor responsible for fraud. Third, most of the frequent frauds involve overstatements of assets and/or income as opposed to understatements. Because the conservatism convention recommends resolving uncertainties with understatements, the fact that most of these fraud types involve overstatements could account for the explanatory power of the frequent frauds variable.

For the second measure of frequent frauds, there are two additional confounds. First, two of the items (G10 and I4) relate to disclosures as opposed to transactions. If users (and judges and juries) make a distinction between items that affect financial statement totals and those that do not, results could simply reflect a relation between disclosure problems and litigation rather than between frequent frauds and litigation. Next, one of the items (I4) also involves related parties. Because there is a separate auditing standard covering related party issues (SAS No. 43, AICPA 1982), it is possible that auditors would be held more responsible for frauds involving these issues.

Many of these alternative explanations for the frequent frauds results also apply to the findings related to frauds involving fictitious transactions. Fictitious transaction frauds involve important accounts or just assets or revenues in general. Fictitious transaction frauds also involve overstatements of assets and/or income. Finally, one of the fictitious transaction frauds involves related parties.

To examine these alternative explanations, we constructed six dichotomous variables similar to the test variables to indicate the presence or absence of any fraud containing the six characteristics described above. For example, "important account" frauds include all

those in categories A and B and several schemes from categories C, D, E, F, G, I and J. If a company had any of these frauds, it would be assigned a 1 for the important account variable. As another example, for the overstatement vs. understatement variable, a company received a 0 if it only had frauds in category J (“wrong way” frauds); otherwise, it received a 1. Then, we ran logistic regressions comparing auditor litigation to no litigation and auditor litigation to other litigation, using the full sample of observations. Each regression included one of the alternative explanation variables and all the control variables used in the main analyses. These regressions did not include the test variables since they are highly correlated with the alternative explanation variables.

Table 5 presents the p-value for each of the alternative explanation variables in the no-litigation vs. auditor-litigation and other-litigation vs. auditor-litigation regressions, respectively (results for the control variables are similar to those in table 4 and are not reported). As shown in table 5, none of the accounting and auditing explanations significantly distinguishes between the auditor-litigation and no-litigation subsamples (first column) or the auditor-litigation and other-litigation subsamples (second column), with the exception of revenues in the auditor-litigation vs. other-litigation regression. Within the combined set of observations from the auditor-litigation and other-litigation subsamples, the revenue variable is highly correlated with the test variables both for frequent frauds (measure 1) and fictitious transaction frauds with correlations of .49 and .67, respectively. Further analysis supports the conclusion that it is not revenue frauds *per se* that are related to litigation; rather, consistent with our hypothesis, frequency of occurrence drives the results. For example, a Chi-square analysis of schemes within category A (fictitious revenues) by subsample indicates that the distribution across schemes is significantly different within the auditor-litigation and other-litigation subsamples ($X^2 = 4.97$, $.05 < p < .10$); this is due to higher than expected auditor litigation for the more frequent frauds and lower than expected auditor litigation for the less frequent frauds. Therefore, none of these alternative explanations appears to account for our results.³²

Additional Analyses: Reduced Samples

This section briefly discusses three additional control variables—stock returns, size of the fraud and audit deficiencies—which may affect the likelihood of auditor litigation. These data were available for less than half the sample observations (and the particular observations with data differed for each variable). While we ran logistic regressions adding each control variable (separately) to the model (see section V), most of the models were of questionable fit. Because of this, we do not report the logistic regression results. Even so, a primary purpose of considering these additional variables is to determine whether correlated omitted variables could affect the results. We provide information on the correlation of each of these variables—stock returns, size of the fraud and audit deficiencies—as they are discussed.

Research examines the proposition that large stock price declines attract lawsuits against auditors (e.g., Carcello and Palmrose 1994; Lys and Watts 1994; Stice 1991) and others (e.g., Francis et al. 1994a, 1994b; Jones and Weingram 1996a, 1996b, 1996c). The stock price change variable is a one-year return that begins six months before the date of

³² To focus on the cases that clearly involve fraud (i.e., those with recklessness akin to fraud and injunctive relief under the fraud provisions of the 1934 Act), we deleted observations that were originally coded as a (1) or a (4) for the severity variable (accounting disputes identified as Exchange Act Releases and administrative proceedings, and actions only against auditors, respectively). Our results are not sensitive to the analysis of just these cases; the test variables remain significant. Therefore, it is unlikely that our results are affected by the inclusion of cases that do not clearly involve financial reporting fraud.

TABLE 5
Full Sample
p-values and Signs of Coefficients for Alternative Accounting and Auditing Explanation
Variables from Logistic Regressions

	<i>Dependent Variable</i>	
	<i>Auditor- Vs. No- Litigation</i>	<i>Auditor- Vs. Other- Litigation</i>
Important Accounts (Revenue, Receivables, and Inventory Frauds)	.64 (-)	.75
Revenue Frauds	.55	.01
Asset Frauds	.45	.43 (-)
Overstatement vs. Understatement Frauds	.37	.83
Transaction vs. Disclosure Frauds	.27	.13 (-)
Related Party Frauds	.38	.80 (-)

the last financial statements cited by the SEC and ends six months after this date. Stock price data were available for only 114 companies in total. Table 6 (panel A) presents selected descriptive statistics for these observations. Although the auditor-litigation subsample has the largest stock price declines with mean (median) returns of -40 percent (-50 percent), none of the simple correlations between the test variables and stock returns is significant.

The likelihood of auditor litigation may increase with the size of the fraud (Kinney 1993). We determine the size of the fraud for each period based on its effect on net income, using both (ln) absolute dollars of the fraud and the percentage of net income misstated. The fraud dollars or percentage effect of the fraud is averaged over all the periods for which information was available. The amount of the fraud for each period was taken from the AAER, if possible. If the information was not available in the AAER, we used the difference between net income before and after restatement as reported on Compustat, if available. Otherwise, we searched LEXIS/NEXIS for disclosures related to restatement of the company's financial statements. Finally, we consulted company financial statements on microfiche (subsequent to the misstatements) for information about the misstatements.

Sufficient data on fraud dollars (percentages) were available for only 108 (118) of the 261 companies. Table 6 (panel B) provides descriptive data for the two measures of fraud size. The median, but not the mean, fraud dollars (percentage) is greatest for the auditor-litigation subsample. Further, fraud dollars is not significantly correlated with any of the test variables. However, fraud percentage is significantly negatively correlated with the test variable for frequent frauds (measure 2) in the combined auditor-litigation and no-litigation subsample and positively correlated with the test variable for fictitious transaction frauds in the combined auditor-litigation and other-litigation subsample. The negative correlation with the frequent frauds variable does not appear to account for our results and the positive correlation with the fictitious transactions fraud variable is based, in part, on only 19 other litigation companies.

Auditors may be held more responsible for certain types of audit deficiencies (Feroz et al. 1991; Kinney 1993; St. Pierre and Anderson 1984). To measure these deficiencies, we developed a taxonomy using the ten generally accepted auditing standards (GAAS) as categories (also see Campbell and Parker 1992).³³ We documented the types of audit deficiencies noted in AAERs for the subset of the sample (n = 112) in which auditors also were cited by the SEC. Table 6 (panel C) reports the frequencies for seven categories of audit deficiencies (all reporting violations are grouped together). The audit deficiency most often cited by the SEC is failing to acquire sufficient, competent evidence; 90 percent of

³³ The complete taxonomy includes several line items under each category and is available upon request.

TABLE 6
Reduced Samples
Selected Descriptive Statistics

	<u>Total</u>	<u>No Litigation</u>	<u>Auditor Litigation</u>	<u>Other Litigation</u>
<i>Panel A: Stock Price Data</i>				
Number of observations	114	36	47	31
Stock Returns*				
Mean	-24%	2%	-40%	-29%
Standard Deviation	57	71	42	50
Median	-37	-13	-50	-27
Beginning Stock Price*				
Mean	\$15.03	\$ 8.86	\$15.19	\$21.96
Standard Deviation	13.64	11.53	9.30	17.83
Median	11.50	4.41	13.88	16.50
Ending Stock Price*				
Mean	\$10.82	\$ 9.23	\$ 9.02	\$15.41
Standard Deviation	13.18	11.76	10.47	17.17
Median	5.78	3.16	5.88	10.00
<i>Panel B: Size of the Fraud</i>				
Number of observations	108	39	50	19
Amount of Misstated Income (millions)				
Mean	\$12	\$ 7	\$12	\$22
Standard Deviation	34	32	25	54
Median	2	1	2	1
Number of observations	118	42	52	24
Percent of Misstated Income				
Mean	192%	288%	175%	67%
Standard Deviation	454	590	422	85
Median	79	80	82	52

(Continued on next page)

TABLE 6 (Continued)

	<u>Total</u>	<u>No Litigation</u>	<u>Auditor Litigation</u>	<u>Other Litigation</u>
<i>Panel C: Audit Deficiencies</i>				
Number of observations	112	56	44	12
Violations of General Standards				
(A1) Training and Proficiency	19%	23%	11%	25%
(A2) Independence	18	16	21	17
(A3) Due Care	47	48	48	42
Violations of Fieldwork Standards				
(B1) Planning and Supervision	73%	77%	71%	67%
(B2) Internal Control	16	13	18	25
(B3) Evidence	90	96	80	100
Violations of Reporting Standards				
(C) All	31%	29%	30%	50%

* Beginning price determined 6 months before the date of the last financial statements cited by the SEC, ending price determined 6 months after this date, return calculated as (ending price – beginning price)/beginning price.

the reduced sample has this deficiency. Although independence violations are relatively infrequent, independence is the only category for which auditor litigation has the highest rate. There are a few significant correlations of audit deficiencies with the significant test variables. In the combined auditor-litigation and no-litigation subsample, the second measure of frequent frauds is negatively correlated with evidence violations and positively correlated with reporting violations. In the combined auditor-litigation and other-litigation subsample, the first measure of frequent frauds is negatively correlated with planning violations. The positive correlation between frequent frauds and reporting violations seems more likely to be a spurious result than an alternative explanation for our findings. The negative correlations between the test variables and audit deficiencies do not explain our results.

To summarize, we considered three additional control variables—stock returns, size of the fraud and audit deficiencies—omitted from the models used to test the hypotheses because of data limitations. The omission of these variables from the analysis of the full sample does not appear to affect our results in a substantive way, but we cannot completely rule out this possibility.

VIII. CONCLUDING REMARKS

This study investigated whether fraud type is related to the likelihood of litigation against auditors.³⁴ The results provide some support for our two primary hypotheses—auditors are more likely to be sued over more frequent frauds and fictitious transaction frauds. The frequent frauds variable was significant at the scheme level in auditor-litigation vs. no-litigation analyses and at the category level in auditor-litigation vs. other-litigation analyses. Additionally, in auditor-litigation vs. other-litigation analyses, fictitious transaction frauds were more likely to involve auditors as defendants. Further analyses ruled out various alternative explanations for these findings. In particular, the results cannot be primarily explained by whether the fraud involved important accounts (i.e., revenues, receivables and inventory), revenues, assets, overstatements (rather than understatements) of assets and/or income, disclosures, or related parties.

This study makes several contributions. It documents that fraud type matters in auditor litigation and provides evidence on specific characteristics of fraud that are related to litigation against auditors. Documenting that fraud type matters is a necessary first step to better understand the role of fraud in auditor litigation. The results provide preliminary evidence of a more significant role for fraud type in explaining whether auditors are included as defendants given that financial reporting litigation occurs than in explaining whether any financial reporting litigation (with auditors as defendants) occurs. Still, given the importance of economic considerations in the latter, a finding that fraud type matters in any way is important.

Additionally, the control variables provide evidence on other factors that are related to auditor litigation when fraud is present; some of these factors have not been previously examined, e.g., annual (vs. interim) statements and severity of SEC enforcement actions. Consistent with prior research (e.g., Carcello and Palmrose 1994; Lys and Watts 1994; Palmrose 1988; St. Pierre and Anderson 1984; Stice 1991), for auditor-litigation vs. no-litigation analyses, client size, bankruptcy and client industry (technology) are consistently significant. Severity of the enforcement action also is significant. For auditor-litigation vs. other-litigation analyses, client bankruptcy, severity of action, SEC actions against the auditor and whether annual financial statements are involved are consistently significant. These findings extend extant research which finds client financial condition and the presence of SEC enforcement actions to be significant (e.g., Carcello and Palmrose 1994).

This study is the first to provide more than limited evidence on financial reporting and disclosure litigation for companies with SEC enforcement actions (see Dechow et al. 1996; Feroz et al. 1991). This evidence has some potential public policy implications. Recall that 42 percent of our sample has no litigation, in spite of severe enforcement actions (median of 3, i.e., injunctions) and SEC enforcement actions against auditors (53 percent). In part, no lawsuits may be due to the economics of litigation in this setting, especially for class-action attorneys on contingent fees (Alexander 1991). Importantly, the evidence that over 40 percent of the companies with SEC enforcement actions have no litigation suggests that litigation alone is not sufficient for deterrence of fraudulent financial reporting; both regulatory enforcement and litigation may be required.

³⁴ We attempted to examine litigation outcomes (resolutions) in addition to occurrences. However, there were only 73 observations with total resolution data. While 46 of the 73 involved auditors, we did not necessarily know the auditors' portion of the total resolution. We ran OLS regressions with (ln) total payments (including zero) as the dependent variable (payments were inflation-adjusted to December 1996 using the CPI-U); independent variables consisted of the control variables (section 5), a variable indicating auditor defendants, and test variables for H1 and H2. Consistently significant coefficients were (ln) total assets (positive), financial institutions (negative), and auditor defendants (positive); years of fraud was significant (negative) in one regression.

Additionally, this study is the first to examine the effects of fraud characteristics that affect the strength of a plaintiff attorney's case against an auditor and, thus, result in a higher likelihood of litigation against the auditor. Examining these variables explicitly recognizes that plaintiff attorneys may anticipate the behavior of judges and juries and include auditors as defendants when they believe judges and juries are more likely to hold the auditor responsible for not detecting a fraud. Because we use archival data, our statements regarding this process are indirect at best. However, the use of archival data allows for the examination of revealed decision behavior within the context of multiple economic and other factors that previous studies have found to be related to auditor litigation. Many of these factors would be difficult to incorporate into an experimental setting. Further, the finding that different types of fraud result in differential likelihoods of litigation in the complex "real world" setting reinforces the usefulness of the study of decision making in litigation settings.

Another benefit of our development of a taxonomy of fraud types is the documentation of the frequency of occurrence of different types of fraud schemes. This information is perhaps more important to practicing auditors in designing tests to detect fraud than knowledge of "red flags." Red flags only allow auditors to estimate the risk that fraud is present somewhere in the financial statements, while improved knowledge of frequencies could help auditors better focus their testing efforts.

This study is not without limitations. First, the use of companies subject to AAERs as a fraud sample raises concerns about a selection bias related to the SEC's agenda. Although we addressed this issue through a literature review and a comparison of our sample to other fraud samples, future research could strengthen our knowledge of the representativeness of this sample vis-à-vis the population of companies with fraudulent financial reporting.

Second, we do not develop a prediction model that audit firms could use for screening clients. Developing a model that would predict the probability a client will have a frequent or fictitious transaction fraud and/or recognizing the relevance of these variables in litigation prediction modeling would be useful avenues for future research. When developing such a model, researchers may want to consider further investigation of whether frequent frauds should be determined at the scheme or category level when there is variation of frequencies within categories, as was the case in this study.

Third, the use of archival data to examine factors that affect the strength of a case does not allow us to fully disentangle the effects of variables that are correlated in the environment or to make direct statements about the decision processes of plaintiff attorneys. Fourth, the use of dichotomous variables for frequent and fictitious transaction frauds may not capture the intricacies of judges' and juries' reasoning about auditor responsibility. An experiment could manipulate (or hold constant) correlated variables and systematically manipulate the types of fraud to better isolate variables' effects and make stronger statements about decision processes. Finally, we do not directly study the judgments of juries and judges, as do other studies in accounting (e.g., Anderson et al. 1995; Buckless and Peace 1993; Jennings et al. 1993; Kadous 1996). Rather, we infer something about plaintiff attorneys' decisions that are based on an anticipation of judges' and juries' behavior. Future research could further examine the factors that directly affect judges' and juries' attributions of auditor responsibility for fraud.

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