The SEC's Enforcement Record against Auditors

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Abstract:

We investigate the effectiveness of regulatory oversight exercised by the SEC against auditors over the years 1996-2009. The evidence suggests that the SEC is significantly less likely to name a Big N auditor as a defendant, after controlling for both the severity of the violation and for the characteristics of companies more likely to be audited by Big N auditors. Further, when the SEC does charge Big N auditors, the SEC (i) is less likely to impose harsher penalties on the Big N; and (ii) is less likely to name a Big N audit firm relative to individual Big N partners. Moreover, the SEC relies overwhelmingly on administrative proceedings, instead of the tougher civil proceedings, against auditors. One interpretation of these patterns is that the SEC's enforcement against auditors is relatively mild. Other interpretations of these results are also discussed. Though private litigation against auditors is associated with a loss of market share for the auditor, there is no evidence of such product market penalty subsequent to SEC action.

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The SEC's Enforcement Record against Auditors

1. Introduction

Given the high incidence of financial misrepresentation over the past two decades, there is continued interest in understanding the contribution of different gatekeepers in deterring and detecting financial misrepresentation. However, there is little agreement on the role and responsibility of these gatekeepers, especially that of the auditor. On the one hand, the audit industry asserts that it is not possible for the auditor to detect intentional fraud by company executives. On the other hand, is the view exemplified by Steven M. Cutler following the collapse of Enron: "while I believe the causes of this phenomenon [seemingly unprecedented corporate fraud] are multiple, a significant contributing factor was the laxity of the so-called gatekeepers — the accountants, lawyers. Perhaps foremost among these is the auditor."[1]

Investors rely on the auditor's attestation of the financial statements. Hence, the auditor's effort or lack thereof in flagging reporting concerns has the potential to impact confidence in the capital markets and the financial system. A key motivation for the auditor to detect financial misrepresentation is the possibility of regulatory action by the SEC and private litigation. In this paper, we examine the SEC's record of enforcement against the auditor. We supplement that analysis by investigating the disciplinary role of private litigation.

Our sample consists of 533 SEC enforcement actions, over the years 1996 to 2009, against companies that have allegedly engaged in accounting misrepresentation and for whom we can find an associated audit firm that has signed off on the allegedly irregular financial statements. Using this dataset, we investigate several questions. We assess the propensity of the

[1] Steven M. Culter, Director of the SEC's Division of Enforcement, on Dec 12, 2002.

SEC to charge auditors, especially the Big N audit firms. We find that the auditor who signed off on the misrepresented financial statements is charged by the SEC in 17% (93/533) of the cases. As auditors are unlikely to be complicit in all cases of misconduct, it is difficult to ascertain whether 17% represents an appropriate level of enforcement against auditors.

Regardless of the SEC's enforcement rate against auditors in general, one can investigate whether the SEC is equally likely to charge Big N or non-Big N audit firms. The data show that the SEC is significantly less likely to name a Big N auditor as a defendant. Of course, this could simply imply that Big N firms provide better quality audits and their client firms are less likely to misrepresent their financial statements (e.g., DeAngelo 1981; Francis 2004). However, the incidence of misreporting among companies audited by Big N auditors is proportional to the representation of Big N clients in the population of firms in COMPUSTAT. Further, in multivariate regressions that explain the likelihood of an auditor being charged by the SEC, after controlling for (i) the severity of the fraud; and (ii) the nature of clients that are likely to choose a non-Big N auditor, we find that Big N audit firms are less likely to be named by the SEC. Interestingly, this tilt is not observed when the experiment is repeated with class action lawsuits. That is, class action lawyers are equally likely to pursue Big N or other auditors.

Having decided to charge an auditor, the SEC faces three key choices when it initiates an enforcement action: (i) whether to name the individual partner or the audit firm; (ii) whether to pursue an administrative or civil action; and (iii) what kind of penalty to impose on the auditor? With respect to the first question, the data show that the SEC tends to favor charging individual partners, as opposed to the audit firm. Of the 93 cases where an auditor is charged, in 69% of the instances, only the partner was named as opposed to 5% of the cases where only the audit firm

was charged.[2] In multivariate analyses that control for the severity of the misreporting and the nature of the violations with which the SEC charges the auditor (such as unethical or unprofessional conduct or charges under antifraud provisions), we observe that the SEC is less likely to name a Big N audit firm.

The second dimension of SEC enforcement relates to whether to bring an administrative proceeding or a more onerous civil litigation, or both against the auditor. Administrative proceedings are heard by an administrative law judge who issues a decision that includes recommended sanctions. In contrast, in a civil action, the SEC files a complaint with a U.S. District Court and asks the court for a sanction. We find that the SEC overwhelmingly relies on administrative actions against auditors. In 78% of the 93 cases where the auditor is charged by the SEC, the auditor/audit firm was subject to an administrative proceeding only. This is significantly higher than the usage of administrative proceedings by the SEC in related enforcement against corporate offenders. Specifically, only 15% of the 533 client firms charged by the SEC for misreporting were subject to administrative action.

Conditional on being charged by the SEC, we examine the severity of the penalties imposed by the SEC on auditors. We find some evidence that the penalties imposed on Big N auditors are milder than those imposed on other auditors. This is despite the absence of a statistical difference in the frequency and type of violations that Big N and other auditors are charged with.

Finally, we examine the efficacy of private enforcement against the auditor via the product market. We investigate whether auditors who are charged by the SEC subsequently lose

[2] In the remaining 26% of the cases, both the partner and the audit firm were charged.

market share. We find no evidence suggesting that clients defect in significantly large numbers after the audit firm is charged by the SEC. Moreover, the clients that do defect are not the bigger and the more visible ones, limiting the reputational damage stemming from such defection. This evidence is inconsistent with the reputational penalties suffered by culpable managers when they are accused of filing fraudulent financial statements (e.g., Srinivasan 2005; Desai Hogan, and Wilkins 2006). In contrast to the evidence of lack of reputation consequences from SEC actions, there is some evidence that audit firms lose clients when their tainted clients are sued by class action lawyers.

Our work contributes to the relatively sparse academic literature on the disciplinary actions taken by regulators against auditors (e.g., Feroz, Park and Pastena 1991) and the literature on the effectiveness of public regulators relative to private enforcement via class action lawsuits (e.g., Coffee 2002; Cox, Thomas and Kiku 2003; Siegel 2005; La Porta, Lopez-de-Silanes & Shleifer 2006; Jackson and Roe 2007).

We found four related references in the literature that examine SEC actions against auditors (Campbell and Parker 1992, Rollins and Bremser 1997, Bonner, Palmrose and Young 1998, and a monograph by Beasely, Carcello, Hermanson, and Neal 2013).[3] However, these papers focus primarily on the nature of audit quality deficiencies identified by the SEC against the audit firm (e.g., which GAAS standard was violated in the audit). Bonner, Palmrose and Young (1998) also investigate SEC AAERs but their interest lies in documenting which types of fraud committed by culpable companies, as alleged in the SEC AAER, are more likely to attract litigation against auditors. Rollins and Bremser (1997) is similar in emphasis to Bonner et al.

[3] In addition, we found two other related monographs - Beasely, Carcello, and Hermanson (1999) and Beasely, Carcello, Hermanson, and Neal (2010). These monographs focus on fraudulent financial reporting by SEC registrants rather than SEC enforcements against auditors.

(1998), except they are interested in assessing which type of fraud attracts SEC sanction. Based on SEC AAERs against auditors between 1982 and 1991, they conclude, largely via univariate data, that larger auditors are less likely to be penalized by the SEC.

Unlike such work, we provide extensive multivariate analyses for SEC's enforcement record against auditors for the most recent period of 1996-2009. As noted before, we document four sets of results. First, auditors, relative to culpable companies, are significantly more likely to be subject to the milder SEC enforcement. Second, among the auditors, the Big N are significantly less likely to be named as a defendant by the SEC. Further, the SEC is more likely to name the audit partner rather than the firm in enforcement actions. Third, though Big N and other auditors do not differ in the violations they are charged with, Big N firms are subject to milder SEC penalties. Finally, we find no evidence suggesting auditors experience loss of clients following SEC enforcement actions.

We acknowledge that evaluating the SEC's enforcement record against auditors is inherently complex and our evidence should be viewed as suggestive not definitive. This is especially because we do not observe the entire stream of interaction between the SEC with the auditors. In particular, we have no access to data on (i) the SEC's private investigations; (ii) unsuccessful sanctions against auditors; or (iii) the SEC's inability to make a strong case against the auditor, despite the knowledge that the audit was deficient. Moreover, it is hard to assess what the optimal level of SEC enforcement against auditors ought to be. Auditors often claim their primary role is not to prevent fraud. However, AU section 10 and AU 316 of the PCAOB standards indicate that the auditor is responsible for considering the possibility of fraud and for designing the audit to detect material frauds. Moreover, in numerous enforcement actions, class action lawsuits and press articles, the SEC, private lawyers and the investing public have

countered that the auditor should have detected certain types of frauds. On account of these thorny issues, we view our evidence as a starting point for the literature to comprehensively assess the SEC's leanings, one way or the other, towards auditors.

The remainder of the paper is organized as follows. Section 2 discusses the background and conjectures we expect to see borne out by the data. Section 3 outlines the research design. Section 4 describes the data and presents the evidence. Section 5 studies the potential loss of reputation and consequent discipline by the audit market. Section 6 examines the role of other agencies in monitoring auditors. Section 7 concludes.

2.0 Background

Individual investors rely on auditors to ensure that financial statements were, in fact, produced and audited in accordance with Generally Accepted Accounting Principles (GAAP) and Generally Accepted Accounting Standards (GAAS), respectively. All else constant, if managers engage in misreporting or malfeasance and the audit firm is deficient at identifying such behavior, it seems reasonable to expect that the SEC and other regulatory institutions will effectively protect investors by bringing regulatory action against such audit firms. Moreover, even if the SEC is less able or willing to pursue auditors vigorously, we might expect private class action litigation to act as a deterrent to audit firm negligence.

Indeed, a large literature examines SEC enforcement actions against public firms (e.g., Feroz et al. 1991; Dechow, Sloan and Sweeney 1996) and the consequences of such actions on boards (e.g., Srinivasan 2005) and culpable managers (e.g., Desai et al. 2006). However, little attention has been paid to studying the enforcement patterns of the SEC against audit firms, who constitute arguably one of the most important gatekeepers in financial reporting (e.g. Feroz et al. 1991). We provide systematic empirical evidence on (i) the SEC's enforcement practices against

auditors; and (ii) supplementary evidence on private enforcement against auditors via class action lawsuits.

Critics have alleged that the enforcement of securities laws by the SEC against audit firms is less aggressive than desirable for two key reasons: (i) the revolving door phenomenon; and (ii) the "too-big-to-fail" phenomenon. A widely cited report published by the Project on Government Oversight (POGO) finds that, for the period 2006-2010, the three top accounting firms were among the 11 most frequent employers of ex-SEC staff.[4] Of the 131 recruiters from the SEC that were identified by POGO, Deloitte and Ernst &Young (E&Y) rank as the second and the third most frequent recruiters. Moreover, ex-SEC officers from Deloitte and E&Y were the most active in representing clients before the SEC, as evidenced by the number of post-employment conflict of interest letters filed by ex-SEC employees.

The second reason for the SEC's alleged laxity is the contention that Big N accounting firms have become too big to fail. The GAO (2003) found that Big N firms audit over 78% of all U.S. public companies and 99% of all public companies, when the sales of such companies are considered. Cunningham (2006) points to the government's decision to not pursue a criminal indictment against KPMG in the 2005 case involving illegal tax shelters despite evidence to suggest that KPMG was guilty of misconduct. The regulators were allegedly worried about disrupting the audit market if a large audit firm were to dissolve on account of a criminal indictment.

It is important to clarify that we cannot directly test the conjecture that the SEC's enforcement record is affected by the "revolving door" or the "too big to fail" phenomenon. We

[4] Over this period, Deloitte and Touche hired nine officers, Ernst and Young hired eight officers and KPMG five officers. As reported in Appendix B, the number of SEC enforcement actions against individual accounting firms is too small to allow a serious empirical analysis for any specific audit firm.

rely on the alleged existence of these phenomena as the motivation to at least document the SEC's enforcement record against auditors.[5] We also acknowledge that the enforcement record we document is interpretable in several plausible ways. We discuss these interpretations at the appropriate points in the paper.

3.0 Research Design

An empirical evaluation of the SEC's regulatory oversight against auditors is complicated. This is because we cannot observe the counter-factual; i.e., in how many cases did the SEC pass on prosecuting the auditors despite knowing of their negligence or wrongdoing? So, we benchmark the SEC's enforcement against audit firms by comparing (i) the SEC's activity against corporate firms and managers on the same underlying cases of misreporting; and (ii) the incidence of class action lawsuits, which represents a private mode of enforcement. In particular, we examine several enforcement decisions taken by the SEC: (i) whether they name an auditor, and if yes, a Big N auditor (section 3.1); (ii) do they charge the audit firm or the partner (section 3.2)?; (iii) do they pursue an administrative or a more stringent civil action (section 3.3)?; and (iv) do they impose stiff penalties and sanctions (section 3.4)? A detailed discussion follows.

3.1 Naming the auditor

We begin by investigating the likelihood that an audit firm, in general, and a Big N audit firm in particular, is named by the SEC. An obvious concern with our test is that if Big N auditors provide higher quality audits (DeAngelo 1981; Francis 2004), then the Big N is likely to

[5] A direct test of the revolving door phenomenon is difficult for several reasons. We cannot link the audit partners who worked for the SEC to the names of the clients, whose audit reports they signed or for whom they lobbied at the SEC. This is because (i) the names of the clients the auditors advocate for are redacted in the statements (known as CFR Title 17 letters) that the SEC requires former employees to file when they expect to appear before the agency on behalf of outside parties; and (ii) partners' names do not appear on audit reports in the U.S.

be charged by the SEC. As we do not have data on the alleged negligent work of the auditor, it is hard to examine this claim directly. However, we can investigate this issue indirectly. After taking into account the nature of financial misrepresentation and the differences between clients of Big N and other auditors, we evaluate whether the clients of Big N auditors will be more or less likely to be targeted by the SEC for financial misrepresentation. We provide empirical evidence on this question from multivariate tests that control for (i) the characteristics of clients that choose Big N versus other auditors; and (ii) the severity of the misconduct perpetrated by the client firm.

3.2 Corporate or individual liability

The SEC has the discretion to bring enforcement actions against individual partners for their role in financial misrepresentation or against their employers, the audit firm, or against both the partner and the audit firm. On the one hand, actions against an individual partner can be considered aggressive enforcement because (i) personal liability has arguably higher deterrent effects (e.g., Arlen and Carney 1992; Coffee 2007; Klausner 2009; Gadinis 2012); (ii) sanctioning the whole firm can result in penalizing other clients and colleagues who are not culpable (Margolis 1978); and (iii) penalizing an individual partner in a local audit firm with one or two partners is tantamount to sanctioning the entire firm.

On the other hand, one could counter argue that an aggressive enforcement policy should target the audit firm because: (i) targeting the individual partner, who is likely to have fewer resources to fight the SEC compared to the audit firm, enables the SEC to record more wins to appease the public and Congress; (ii) naming individuals, rather than the firm, allows audit firms to potentially scapegoat a few "bad apples" and thus isolate the audit firm from reputational damage; and (iii) as SEC Commissioner Stephen Cutler (2002) points out, "audit work supplied

by an accounting firm is very much a product of that firm's culture, personnel, systems, training, supervision, and procedures. If that product is defective, the causes may well be found in the firm." These arguments point towards the importance of naming the audit firm in the SEC enforcement action.

3.3 Court action or administrative action

When the SEC initiates a regulatory action against the firm, it can choose to bring an administrative proceeding or a civil litigation, or both. Administrative proceedings are heard by an administrative law judge, who is independent of the SEC and issues a decision that includes recommended sanctions. In contrast, in a civil action, the SEC files a complaint with a U.S. District Court and asks the court for a sanction. Stronger sanctions are more likely to need civil actions (Gadinis 2012). Further, if the SEC decides to initiate administrative proceedings, it can close the matter quickly as any proposed settlement does not need the approval of the administrative law judge. In civil proceedings, any settlement needs the judge's approval. This implies that administrative proceedings not only take less time but also involve less negative publicity for the defendant firm. In summary, civil actions suggest stronger enforcement by the SEC against auditors. Hence, we test whether the SEC's use of administrative versus civil proceedings differs between Big N audit firms and others.[6]

3.4 Nature of violations and penalties imposed

Another observable outcome of the enforcement process relates to the nature of the penalty imposed by the SEC, conditional on the SEC charging the auditor. The SEC can seek

[6] Of course, this statement assumes that we account for the nature of the violations between Big N and non- Big N firms before testing for a similar frequency of civil actions between Big N and non-Big N firms. We do not find major differences in the nature of the violations levied against the Big N and non-Big N firms in Table 5 Panel A (discussed later).

three main types of penalties against auditors: (i) orders prohibiting similar violations in the future; (ii) monetary sanctions, such as fines, disgorgement orders, and interest penalties; and (iii) orders suspending or expelling defendants from the auditing industry. In theory, all sanctions are available against both audit firms and individual audit partners. The SEC, via an administrative action, can also impose cease-and-desist orders, which largely represents a reprimand for the auditor's conduct. The SEC can also seek an undertaking by the defendants to introduce reforms in their compliance process. In a court action, the SEC can seek to obtain an injunction prohibiting the defendant from violating securities laws in the future. To control for differences in the underlying fraudulent reporting, we benchmark the penalties imposed on Big N and non-Big N auditors against the nature of violations with which the SEC charges them.

4.0 Data

Our initial sample comprises of all enforcement actions related to financial reporting violations, initiated by the SEC and Department of Justice (DOJ) from January 1, 1996 to September 30, 2009.[7] We access these enforcement actions on the SEC's website and collect information on whether the audit firm and/or auditors are also named in the SEC action.[8] Our sample consists of 533 enforcement actions for which we are able to obtain information on the identity of the auditor. Of these, in 93 cases (about 17%), the audit firm and/or the auditor are also named in the SEC enforcement action.[9] The sample selection process is summarized in

[7] We are grateful to Jonathan Karpoff, Scott Lee and Gerald Martin (KLM) for graciously sharing their SEC enforcement data. We begin in 1996 as this is the first year that AAER information is accessible from the SEC website. We end in 2009 as this is the last year of the KLM data that we received.

[8]We do not examine the factors that determine SEC decision to initiate enforcement action against a firm. The focus of the study is to examine the SEC's decision to name the auditor, given that its client firm has been charged of financial misrepresentation.

[9] Usually named individuals associated with an audit firm are engagement partners on the audit. However, there are some cases in which an employee of the audit firm, other than the engagement partner, is named as a defendant. We collectively refer to all named individuals as partners. It is also worth noting that during our sample period, we identified 26 auditor independence related AAERs in which an auditor is named as a defendant. Out of these 26 AAERs, 12 cases are included in our sample of 93cases as they were accompanied with SEC actions against the

Table 1. Appendix A presents a frequency table of SEC enforcement actions against client firms cross-referenced against their respective audit firms. PWC, followed by Ernst and Young, had the maximum number of client firms that were subject to SEC enforcement. Appendix B reports a frequency table of cases where the SEC specifically pursued auditors. PWC again reported the maximum number of cases in which the firm or its partners were named as defendants.

4.1 SEC actions against auditors and Big N audit firms

We begin by examining the auditor choice of all firms with available data on COMPUSTAT over the 1996 to 2009 period.[10] As expected, Big N audit firms have a large market share – they audit 97,224 of the total 133,880 firm years in our sample, giving them a market share of about 73% (see Table 2, panel A). Referring back to the SEC sample discussed in Table 1, of the 533 SEC actions against corporations, 78% of them happen to be audited by Big N auditors. Interestingly, corporations audited by Big N firms are as likely to misreport as their share of the population. One would have expected corporations audited by Big N auditors to be under-represented in the sample of misreporting firms identified by the SEC. But, client companies audited by Big N audit firms are usually larger and more visible than companies audited by small audit firms. Hence, one can plausibly argue that SEC personnel, who are constrained from allocating their limited enforcement resources to every company equally, may be motivated to focus on "catching the big fish" (bigger companies) to send a powerful message to the market. Thus, even if Big N audit firms provide higher-quality audits, one could argue that the SEC has another motivation to target Big N clients more than non-Big N clients.

clients as well. We have not included the other 14 cases (six against Big N auditors and eight against non-Big N auditors) in our sample as they do not have an accompanying client that was also named as a defendant in SEC actions. We need data on corresponding clients for our empirical tests. Hence, the exclusion. However, we report these cases here in the footnote for completeness.

[10] We stop in 2009 because that is the last year for which the Karpoff, Lee and Martin data on AAERs is available for public use.

However, if resource constraints are indeed a key motivator, we would expect the SEC to pursue auditors that have greater deterrent value to prevent negligent behavior among other auditors, consistent with optimal deterrence theory (Becker 1968). Given that Big N firms collectively audit a substantial portion of corporate America, actions against them, as opposed to those against a small CPA firm, would be expected to have greater deterrent effects. The data are not consistent with this conjecture. As seen in panel A, the SEC pursues a Big N auditor specifically in only 46% of its cases filed against all auditors. Thus, non-Big N auditors attract a disproportionate share of the SEC action against auditors.

Of course, culpability of client firms does not necessarily involve willful negligence by the auditor. If a firm's management commits fraud and attempts to cover up the evidence of such activity, it is difficult for the auditor to detect misrepresentation. Consequently, it is difficult to say in what fraction of the cases the auditor is responsible and should also be named as a defendant. Although we cannot estimate the optimal level of the SEC's enforcement levels against auditors, we can compare the incidence of enforcement action against Big N auditors to other auditors. As seen in Table 2, panel A, when we compare the SEC's actions against auditors relative to the SEC's action against corporate offenders, the Big N are charged in 10.39% of the cases when the client firm misrepresents (43/414) whereas the non-Big N are charged in 42.02% of the cases (50/119). This difference between the Big N and other auditors is significant at the 1% level. The fact that non-Big N auditors are charged at a rate that is four times as large as the Big N, especially when there is no evidence of a major difference in the rate at which Big N clients are charged with misreporting relative to non-Big N clients, is

noteworthy.[11] Below, we supplement this univariate evidence with multivariate analysis that controls for the severity of the violation along with characteristics of the client firms.[12]

4.2 Multivariate analysis

In our analysis thus far, we have not controlled for confounding factors that influence whether an auditor is named in the SEC enforcement action. In this section, we discuss relevant factors that point to the potential culpability of the auditor and control for them. Specifically, we estimate a probit regression where the dependent variable, referred to as AUDITOR_NAMED, is an indicator variable that takes on the value of one when the auditor is named in the SEC enforcement action. The variable, AUDITOR_NAMED, is set to zero for SEC enforcement actions against corporate offenders where the auditor has not been specifically named as a culpable party by the SEC.

In line with the univariate analysis, the variable of interest is a BIG N indicator variable that takes the value of one if the firm was audited by one of the Big N audit firms, and zero otherwise. The lower rate at which the SEC charges Big N in the univariate analysis suggests the coefficient of BIG N should be negative and significant. We also include an indicator variable, referred to as POST SOX, for regulatory action initiated after July 30, 2002 to control for the change in the regulatory regime.

Next we attempt to control for the characteristics of the violation that are likely to capture failure on the part of the auditor.

[11] Another potential area of inquiry is to investigate Wells' notices, which represent letters sent by the SEC to firms or individuals against whom the SEC is planning to bring an enforcement action. Unfortunately, Wells notices are not publicly available. We have filed a FOIA (Freedom of Information Act) request with the SEC to obtain these notices and we await the SEC's action in this regard. As an aside, we were told that the SEC did not have a formal process of tracking such notices before the year 2011. Hence, we are unlikely to obtain these notices in a timely manner to allow a meaningful analysis.

[12] Alternatively, the SEC has been unsuccessful at proving that Big N auditors were negligent in audits or were complicit in the misreporting by the client. However, if the SEC is systematically less successful at implicating Big N auditors, it could simply suggest that the Big N can out-spend the SEC in their defense.

Panel A of Table 3 reports descriptive statistics of the variables included in the multivariate analysis. First, we include the length of the violation period (VIOLENGTH) as identified by the SEC in the enforcement action. The greater the violation period, the longer was the fraud perpetrated by the defendant firm. Inability to detect longer lasting violations points to a greater likelihood of auditor culpability. We expect the coefficient of VIOLENGTH to be positive and significant. The average VIOLENGTH in our sample is about 36 months. Second, a restatement associated with the discovery of the violation suggests that the original financial statements were not in accordance with GAAP and a potentially higher likelihood of the auditor's culpability. To capture this, we include an indicator variable TARGET_RESTATE that takes the value of one if the target firm restates its financial statements, and zero otherwise. The incidence of restatement is high in our sample as 77% of the cases involve a restatement by the target firm. We include two proxies for the severity of the violation as they also indicate a higher likelihood of auditor culpability. Specifically, we include an indicator variable, referred to as TARGET_LIT that takes the value of one if the SEC enforcement action against the client firm was accompanied by class action litigation, and zero otherwise. About 65% of the SEC actions were accompanied by class action litigation. We also include an indicator variable, referred to as TARGET_COURT that takes the value of one if the SEC enforcement action involves court or civil proceedings by the SEC, and zero otherwise. As discussed later, these are more likely when then violation is egregious.

Finally, we interact these variables with POST SOX to capture any changes in how these variables impact the likelihood of the auditor being named after the passage of SOX. Enforcement actions initiated before July 30, 2002 (i.e., the enactment date of SOX) are classified as pre SOX and those issued after that date are classified as post SOX.

The results are displayed in Panel B of Table 3. As seen in model 1, the coefficient of Big N is negative and significant (coefficient = -1.0676, p-value = < .01). Thus, Big N auditors are less likely to be subject to an SEC enforcement even after we take into account the severity of the violations. VIOLENGTH is positive and significant (coefficient = 0.0129, p-value = <.01) suggesting that the auditor is more likely to be charged when the client firm misrepresents its books for a longer period of time. However, length of violation is less important after the passage of SOX as the interaction of VIOLENGTH and POST SOX is negative and significant. Note that the interaction of TARGET_LIT and POST SOX is positive and significant (coefficient = 0.7422, p-value = 0.03) suggesting that post-SOX, an auditor is more likely to be named in SEC actions if a class action lawsuit accompanies the SEC action against the target firm.[13]

In model 1, we have not controlled for the possibility that certain firms choose Big N auditors. Matching our data with Compustat leads to a reduction in the number of sample firms from 533 to 369. However, some of these omitted client firm characteristics may account for the significance of the Big N coefficient. In model 2, we control for these firm characteristics, measured prior to the violation period. Specifically, in line with Lawrence et al. (2011) who find that firm size (SIZE), asset turnover (SALES/AT), current ratio (CA/CL), leverage (DEBT/AT), and performance (NI/AT) are likely to explain a company's choice of a Big N auditor, we include these variables in our estimation as control variables.[14] As seen in model 2, controlling for these firm characteristics does not qualitatively impact our inferences. The coefficient on

[13] The interpretation of the partial effects of interaction terms in non-linear models such as the probit model used here has been subject to debate (Ai and Norton 2003). To address this potential concern, we estimate probit regressions separately for the pre and the post SOX period without including interaction terms for the analyses reported in Panel B of Table 3 and Panel C of Table 4. Our un-tabulated inferences remain unchanged.

[14] The client firm characteristics are winsorized at the 1st and 99th percentile to control for outliers and data errors.

BIG N continues to be negative and significant at the 1% level (coefficient = -0.9306, p-value = <.01). The results with respect to the length of violation are qualitatively similar as well. However, the coefficients on the interaction of TARGET_LIT and TARGET_RESTATE with POST SOX, respectively, lose significance.

A remaining concern with model 2 is that the significance of the Big N variable is influenced by the correlation between Big N and firm size. Note that SIZE is insignificant in model 2. The un-tabulated correlation of Big N and SIZE is 0.51. To assess the impact of such correlation, we exclude Big N from model 2 and re-estimate the regression. The coefficient on SIZE is, however, insignificant in this un-tabulated sensitivity check.

Of course, the negative coefficient on BIG N in model 2 cannot constitute direct evidence on the "favorable treatment" of Big N auditors. A few alternate explanations are possible. First, we cannot observe SEC investigations that were settled or resolved without the need for SEC action as these are not publicly observable. Hence, it is possible that the SEC was harsher on Big N firms but a greater number of such investigations did not result in an AAER against the Big N auditor relative to a non-Big N auditor.

Second, although we have attempted to control for the characteristics of companies that choose to buy Big N audits and for the severity of the financial misrepresentation undertaken by the client, we cannot rule out the possibility that Big N auditors provide relatively higher audit quality than the non-Big N auditors and are hence better able to defend themselves when investigated.

Third, Big N auditors have a larger pool of financial and legal resources to defend themselves. These large auditors have their in-house legal experts, and they are able to hire reputable lawyers to represent them. Ex-ante the legal outcome depends on the resources

endowed with the defendants, and the SEC knows this and will name Big N auditors only when the SEC is fairly certain about the wrong doing on the part of the Big N auditors.

Fourth, it may be more difficult for the SEC to bring cases against the Big N auditors because the primary role of the auditors is not to prevent fraud, whereas the officers of the company are primarily responsible for the misconduct. Hence, the SEC is perhaps more likely to pursue the officers rather than the auditors unless there is substantive evidence that auditors are deeply implicated. In other words, the threshold for naming auditors, compared to the officers, is potentially higher.

4.3. Private legislative action

Private litigation can be viewed as a way to benchmark the SEC's enforcement record. Auditors can be privately sued in class action litigation for their complicity in the company's misconduct. However, there are several additional complexities associated with benchmarking SEC enforcement against auditor lawsuits. First, while private lawyers are likely more vigorous than the SEC, they are likely to be influenced by the size of the loss to investors (larger companies, greater stock price reactions to the loss generating event) and the deep pockets of Big N defendants. Second, whereas the SEC can bring actions for auditor negligence, the private lawyers can only sue for fraud, which requires at least recklessness on the part of the auditor. Third, the auditor's liability in private class action lawsuits is limited to the auditor's own statements.

Four and perhaps most important, legal changes in the 1990s have made private litigation against secondary defendants such as auditors significantly harder during our sample period. Coffee (2002), among others, has argued that the Private Securities Litigation Reform Act (PSLRA) passed in 1995 made it more difficult for class action plaintiffs to sue public firms for

accounting abuses. Moreover, the Securities Litigation Uniform Standards Act of 1998 abolished state court class actions alleging securities fraud, increasing plaintiffs' difficulty in suing accounting firms. Honisberg, Rajgopal and Srinivasan (2016) review several Supreme Court decisions, especially that in Tellabs v. Makor (2007) that have made it hard for plaintiffs to sue auditors. In summary, subject to these comments, lawyers may have a greater incentive to sue auditors, especially the Big N, as they have greater ability to pay damages but they face legal obstacles.

Subject to these caveats, we report evidence benchmarking public enforcement via the SEC with private enforcement by class action lawyers. The data on class action litigation, and the parties charged, are obtained from the Stanford Class Action Clearinghouse Database for the period January 1st 1996 to September 30th, 2009. Over this period, there are 728 cases that the Stanford Clearing Houses classifies as stemming from alleged GAAP violations. Information about the audit firm is available for 603 cases.

Panel A of Table 4 reports little evidence that Big N clients were less likely to misrepresent their financial statements, consistent with data on SEC enforcement actions. In particular, 90% of the companies pursued by lawyers alleging financial misrepresentation are audited by Big N auditors. However, unlike the SEC, class action lawyers aggressively pursue Big N auditors such that 85% of lawsuits against auditors are targeted at Big N auditors. We also examine whether the passage of SOX has an impact on the lawyers propensity to pursue Big N auditors. To do so, we classify class action lawsuits filed before (after) July 30, 2002 as pre (post) SOX. The results are reported in Panel B of Table 4. We do not find any significant differences in the likelihood of lawyers pursuing Big N auditors in the pre- versus post-SOX period.

Next, we estimate a multivariate probit regression to investigate whether, similar to that in SEC actions, there is any tilt in favor or against the Big N being named as a defendant in class action lawsuits. The variable AUDITOR_DEFENDANT equals one when an auditor is named as a defendant in a class action lawsuit, and zero for all other class actions in the sample. Our main variable of interest is an indicator variable, BIG N, that equals one when the sued firm is audited by a Big N auditor, and zero otherwise. As before, we include an indicator variable, POST SOX, that takes the value of one for all class actions filed after July 30, 2002, and zero otherwise.

We include two proxies for the severity of the underlying violation. Specifically, we include the length of the class period (VIOLENGTH) and whether the lawsuit alleges violation of the Generally Accepted Auditing Standards (GAAS_VIOLATION) as control variables along with the interaction of these variables with the POST SOX dummy. These proxies could not be included in the probit regression in Panel B of Table 3 because not all AAERs, the subject of Table 3, are accompanied by a lawsuit. Similarly, because not all firms subject to class action lawsuits were also sanctioned by the SEC, we do not include TARGET_COURT (court proceedings by the SEC against the defendant corporation) in our model.[15]

As seen in Panel C, the coefficient of BIG N is not significant. This suggests that there is no preference for or against Big N auditors in class action litigation. As before, the coefficient on the length of the violations is positively associated with the likelihood of an auditor being named in the lawsuit. GAAS violations are also associated with a greater likelihood of the auditor being named. We also control for firm characteristics and the results, reported in column 2, are qualitatively similar. There continues to be no evidence that Big N auditors are treated

[15] Due to unavailability of restatement data before 2000, we are unable to control for whether a firm that is sued also restated its financial statements.

differently relative to non-Big N auditors. In conclusion, the evidence suggests that there is no tilt in favor or against Big N auditors being named as defendants in class action lawsuits. This contrasts with the evidence from SEC enforcement actions where we find that SEC is significantly less likely to charge Big N auditors. Our finding of a lack of bias in favor of Big N auditors in class action lawsuits also builds on the evidence in Bonner et al. (1998) who investigate whether certain types of financial reporting frauds are associated with a higher likelihood of litigation against the auditors.

4.4 Nature of the violations

Panel A of Table 5 lists the nature of the violations against auditors in the 93 cases in which auditors were named. As auditors can be charged with multiple violations, the total number of violations is 127. The most common violation, accounting for 57% of the cases, stems from unethical or improper professional conduct (73 of 127). Appendix C provides a detailed description of what the violations entail. The other common violation, accounting for about 16% of the cases relates to anti-fraud provisions (20 of 127). We examine whether there are differences in the incidence of being charged with unethical conduct or with anti-fraud provisions, between Big N and non-Big N auditors. We find no significant differences between Big N and other auditors in the nature of the violations they are charged with.

4.5 Actions against individuals or firms

We collect and report the incidence of charges filed against the audit firm or individual partners in panel B of Table 5. The SEC has a preference for naming the individual partner instead of naming the audit firm. While 69% of the SEC cases name only partners (64/93), only 5% of the cases (5/93) name only the audit firm. With respect to differences between Big N and other auditors, the SEC names a Big N audit firm in 30% of the cases (13/43 cases) as opposed to

32% of the cases for non-Big N audit firms (16/50 cases). These are not statistically different suggesting that the SEC does not appear to discriminate between Big N and non-Big N auditors in choosing between corporate liability and individual partner liability. In contrast, Gadinis (2012) finds that the SEC discriminates between big and small broker dealers.[16]

We also estimate a multivariate probit regression that examines the determinants of an audit firm being named as a defendant, controlling for the severity and the nature of the violation. The dependent variable is an indicator variable that takes the value of one if the auditor firm, as opposed to the individual partner, was named as a defendant, and zero otherwise. As before, we include the BIG N and POST SOX dummies to capture differences attributable to Big N auditors and the post SOX time period. The variables that capture severity of the violation are length of the violation, indicator variables for whether the SEC enforcement is accompanied by litigation, a restatement, and whether the SEC case is associated with civil proceedings against the client corporation.

An important feature of the model is its ability to account for the possibility that the type of violation has a bearing on the SEC's decision to name the audit firm, rather than individuals, in its enforcement actions. Specifically, we include an indicator variable, UNETHICAL that takes the value of one for violations that involve unethical and improper professional conduct, and zero otherwise. We also include an indicator variable, ANTIFRAUD, that takes the value of one when violations involve antifraud provisions, and zero otherwise. OTHER VIOLATIONS is

[16] Gadinis (2012) reports that SEC, in regulating the financial industry, is more likely to name a big broker relative to a small broker.

sum of all other type of violations excluding UNETHICAL and ANTIFRAUD that an auditor is charged with in SEC actions. [17]

As seen in Panel C of Table 5, we find that the coefficient of BIG N is negative and significant i.e., the SEC is less likely to name Big N audit firms as defendants in their enforcement actions (coefficient = -0.6673, p-value = 0.08) even after controlling for the severity and the nature of the underlying violation. An aggressive interpretation of this result is that the SEC prefers to avoid charging Big N firms because charging a Big N audit firm, as opposed to individual partners, raises the possibility of a disruption in the audit market. An alternate explanation is that the standard of evidence required for pursuing an audit firm, and not just the audit partner, is significantly higher. For instance, it is plausible that the SEC can only defend the claim that a specific audit partner, as opposed to the entire audit firm, misapplied GAAP in a particular audit.

As an aside, though the severity of the violation has little influence on whom to charge, the nature of the violations is significant. In particular, the audit firm is less likely to be charged in cases related to violations of antifraud provisions but is more likely to be charged if the number of violations is high.

4.6 Administrative or court actions

Details on whether the SEC chooses administrative or civil action against auditors are provided in Panel A of Table 6. About 80% of the cases (i.e., 73 out of 93) against the auditors involve only administrative proceedings. We benchmark this proportion with SEC actions against client firms. For client firms, about 15% of the cases (i.e., 78 out of 533) involve only

[17] Defendant firm characteristics used in prior estimations are not included because they severely shrink the sample size to only 45. And, an attempt to estimate the probit model after including defendant firm characteristics in the reduced sample results in quasi-complete separation of data.

administrative actions. The greater use of civil proceedings against client firms relative to auditors is highly significant suggesting that the SEC appears to go easier on auditors relative to corporate defendants. This evidence is partly understandable as corporate defendants are likely to be the main perpetrators of the alleged fraud. However, it is unclear whether this consideration can entirely explain the overwhelming preference in favor of administrative actions against auditors (78% v/s 15%).

Although SEC enforcement for auditors appears to be milder relative to those against client firms, there is no significant difference in such enforcement between Big N and non-Big N auditors in our univariate comparison of the means. To confirm this assessment, we also estimate a multivariate probit model. The dependent variable is CIVIL_PRCD that takes the value of one if the auditor is subject to civil proceedings, and zero otherwise. Like before, we control for the severity of the violation and the nature of the violations that the auditor is charged with. As can be seen in model 1, Panel C of Table 6, there is no evidence that the incidence of civil proceedings differs between Big N and non-Big N auditors (coefficient on BIG N = 0.9111, p-value = 0.12). We find evidence that the nature of the violations impacts the choice of civil proceedings. Violations that involve antifraud provisions and cases with a greater number of other violations are more likely to be associated with civil proceedings.

4.7 Nature of the penalties

Next, we examine the nature of the penalties imposed by the SEC against the auditors. Even though the SEC is likely to overwhelmingly use administrative proceedings against auditors, they could potentially employ tougher penalties which might differ between Big N versus non-Big N auditors. Panel B of Table 6 lists the different penalties imposed by the SEC,

and the distribution of these penalties across Big N auditors relative to other auditors. A detailed description of the penalties can be found in Appendix D.

The data reveal interesting patterns. Temporary denial of privilege is the most popular penalty in administrative proceedings as it accounts for about 75% of penalty events (69 out of 92) sought under administrative proceedings. The SEC imposes the more onerous permanent denial of privilege in only 22% of the cases (20 out of 92). Cease and desist orders are the next most frequently found penalty (27 out of 92). Another potential penalty is a disgorgement award that forces the defendant to give up profits obtained by acts deemed illegal or unethical. There are only nine instances in total of disgorgement awards - five imposed under administrative proceedings and four under civil proceedings. Un-tabulated analysis indicates that disgorgement award is less than $100,000 in five out of the nine instances. That is, the SEC rarely imposes disgorgement awards against auditors and when imposed, it is usually a slap on the wrist.

Column 2 and 3 of Panel B also report the distribution of penalties for Big N versus non-Big N auditors. Temporary denial of privilege is the most commonly imposed penalty on both Big N and non-Big N auditors. However, for Big N auditors, the next most frequently imposed penalty is censure (15 out of 42), which is relatively mild and constitutes an expression of strong disapproval or harsh criticism. In contrast, non-Big N auditors are more likely to face stricter penalties in the form of cease and desist orders (18 out of 50) and permanent denial of privilege to appear or practice before the Commission as an accounting professional (12 out of 50).

To provide more systematic evidence on whether the penalty structure differs between Big N and other auditors, we compute an index of the strength of the penalties imposed. This index, referred to as PEN_SCORE, represents the weighted average penalty score assigned to every audit where the weight represents the severity of the penalty. This structure becomes

necessary because the same auditor can be subject to multiple penalties for one audit. We focus primarily on the four types of penalties that are commonly used, i.e., denial of privilege (temporary and permanent), cease and desist order and a censure. In particular, we assign a score of three if the auditor was denied the privilege to practice auditing given that this is the most severe penalty the SEC can impose in administrative proceedings. Cease and desist order is assigned a score of two, censure is assigned a score of one and the rest of the penalties are assigned a score of zero. These scores are aggregated for every audit and divided by six, as PEN_SCORE can attain a maximum value of six.

We then estimate a Tobit model where the dependent variable is PEN_SCORE in sample of firms subject to administrative proceedings the SEC. We ignore civil and criminal proceedings prosecuted by the courts because we are estimating the strength of penalties under the most frequently used administrative proceedings. As before, we control for the severity and the nature of the violation. Results from the Tobit estimation are presented in model 2, panel C of Table 6. The coefficient on BIG N is negative and significant (coefficient = -0.1129, p-value = 0.04) suggesting that after controlling for the severity of the underlying misreporting and the specific violations with which the auditor is charged, Big N auditors are likely to face less severe penalties. As expected, the severity of the penalties increases in the length of the violation period and whether the client firm restates. We also find that violations involving unethical conduct and antifraud provisions are associated with more severe penalties.

In summary, the evidence suggests that SEC enforcement actions are less burdensome against Big N auditors. The SEC is less likely to pursue Big N audit firms relative to the smaller audit firms, even after controlling for the severity of the fraud and the inherent firm characteristics of firms that choose to buy audits from Big N firms. In contrast, there is no such

preference towards Big N firms in class action lawsuits. When the SEC sanctions a Big N auditor, the evidence suggests that the enforcement is milder. Specifically, the SEC is (i) less likely to name an audit firm, relative to naming individual partners, when the charged party is a Big N audit firm, and (ii) less likely to impose harsher penalties on Big N auditors despite the fact that there are no significant differences in the violations they are charged with. While the evidence is suggestive of Big N auditors receiving favorable treatment by the SEC, it is more difficult to say whether its enforcement of *all* auditors is low. Finally, the SEC is disproportionately more likely to pursue relatively lenient administrative proceedings rather than the more onerous civil proceedings when auditors are sanctioned.

5.0. Reputation based enforcement

5.1. Loss of clients following SEC actions

In this section, we turn to an evaluation of whether the market penalizes audit firms by taking away their business if they or their client firms are subject to SEC enforcement. Prior work has reported little evidence consistent with such a reputation hypothesis in the context of U.S firms.[18] This is partly because it becomes difficult to empirically disentangle (i) whether clients stay with a tainted auditor, especially a Big N firm, because the reputation hypothesis does not work or; (ii) whether the client prefers to stay with the Big N auditor because the threat of litigation against such an auditor ensures a higher quality audit ("insurance hypothesis").[19] We believe our setting has more power ex ante to identify reputational effects, should they exist, as the SEC, the apex monitoring body in the U.S., has directly charged the auditor with

[18] For example see Johnson and Lys (1990), Wilson, Jr. and Grimlund (1990), Menon and Williams (1994), Baber et al. (1995), Shu (2000), Chaney and Philipich (2002), Barton (2005), Brown, Shu and Trompeter (2008), and Landsman, Nelson and Rountree (2009).

[19] Authors have had greater success in documenting evidence in favor of the reputation hypothesis from the litigation hypothesis abroad where the risk of the client getting sued is negligible (e.g., Lennox 1999, Weber et al. 2008; Skinner and Srinivasan 2012).

negligence. Hence, one would think that the ability of that tainted auditor to insure the client against the risk of litigation has been compromised, thereby rendering the insurance cover against litigation relatively less effective.

To shed light on the reputational losses, if any, we evaluate whether enforcement activity against an audit firm or against a client leads to greater loss of clients for that tainted audit firm using multivariate ordered logistic regressions. We measure the loss of clients in the year following the announcement of the SEC action against auditors, our dependent variable. This variable, referred to as SIGNΔCLIENTS, is a discrete variable that equals -1 if the number of clients of the audit firm decreased, 0 if there was no change, and +1 if there was an increase in the number of clients.[20] In un-tabulated analyses, we have also estimated our model with an alternative dependent variable defined as the net change in the number of clients divided by the number of clients at the beginning of the year but we found similar inferences. The key variable of interest is the number of SEC actions in which an audit firm or its partner is named as a defendant by the SEC in the previous year (SEC AUDITORS). As auditors are likely to be also tainted by association with a culpable company, we include the variable, SEC CLIENTS, which equals the number of clients of the auditor that had a SEC action issued against them in the previous year. We also introduce the lagged dependent variable as a control.

To control for re-assignment of client portfolios following the passage of SOX, we add an indicator variable for the post SOX period that takes the value of one for the years 2003 and later, and zero otherwise. BIG N, the indicator variable for Big N audit firms, is added to examine the possibility that such firms are differently impacted by SEC action relative to the

[20] To accommodate the possibility that news of the SEC AAER against auditors might have leaked before it's public announcement, we also estimate our model assuming the AAER against the auditor was announced in the year before. Our inferences remain unchanged.

smaller audit firms. As reputational losses and the resulting change in clients are larger for more severe violations, we control for the nature of the violation. We also include VIOLENGTH, the average length of the violation period of all SEC enforcements issued against the auditor's client firms in the previous year, CLIENT LIT, the number of auditor's clients that were subject to both SEC enforcement and class action litigation, and CLIENT RESTATE, the number of auditor's clients that were subject to SEC action and had to restate their financial statements.

The results are displayed in Table 7. As seen in model 1, the coefficient on both SEC_CLIENT and SEC_AUDITOR is not statistically significant, implying no loss in market share after clients or auditors are subject to SEC action. To examine whether the loss in clients occurs only when the frequency with which clients or auditors are named is extreme, we create a variable labeled SEC_90 that takes the value of one if the sum of the number of clients that are subject to SEC action in the previous year and the number of cases in which the auditor was named in the previous year is in the top 10% over our sample period. We also include a variable referred to as SEC_500, defined as the number of auditor's clients that are members of the S&P 500 index that are subject to SEC actions in the previous year, to capture the differential impact of high profile and visible clients facing charges of financial misrepresentation. As can be seen in model 2, inclusion of SEC_90 and SEC_500 does not change the results – there continues to be no evidence of a loss of market share after clients or the auditing firm is subject to SEC enforcement action.

The years 2001 and 2002 were special given that the demise of Arthur Anderson caused a lot of Anderson clients to leave and join other audit firms. This turmoil potentially caused patterns in gain and loss of clients to be different during these years (Barton 2005). However, eliminating these years from the sample is not conceptually straightforward as the loss of

Anderson's clients potentially constitutes a powerful test of the reputation hypothesis. Nevertheless, as a sensitivity check, we repeat our analysis after excluding the years 2001 and 2002. As seen in models 3 and 4, we continue to find no evidence that audit firms lose market share after an audit firm is subject to SEC enforcement actions. In summary, there is no evidence of a loss in market share for audit firms that, along with their client firms, experienced a high incidence of SEC enforcement actions.

5.2. Do better clients switch auditors?

In this section, we examine the nature of firms that leave the auditor versus those that decide to continue with them after the SEC sanctions. Our objective is to better understand which clients care about their auditors charged by the SEC. In particular, we investigate whether better quality companies – bigger, more profitable, or less risky – decide to change auditors, in the face of an SEC enforcement. If the reputation hypothesis were to be supported, we would expect better quality clients, who care most about their own reputations, to defect. Consistent with Choi et al. (2004), we compare the following characteristics of clients that change auditors versus those that continue with their tainted auditor following SEC actions against the auditor – total assets, current ratio, net profit margin, ratio of cash flows to liabilities, and Zmijewski's distress score. To support the reputation hypothesis, the departing firms ought to have better firm characteristics relative to the continuing clients in terms of size, current ratios, profit margin, cash flows and distress score. Overall, in Table 8, there does not appear to be much evidence that better quality clients impose significant penalties on auditors by switching away from tainted audit firms, when we consider Big N firms, one by one (panel A), or as a whole (panel B).

Our findings are somewhat consistent with those of Wilson, Jr. and Grimlund (1990) who document that Big 8 audit firms that were sanctioned by the SEC during the period 1976-1986 were more likely to lose market share in smaller client market segment. We would have found evidence suggesting defections by larger and less distressed companies, if loss of reputation were a driving factor. This evidence contrasts with the severe negative penalties for managers and directors associated with fraudulent financial statements documented by Srinivasan (2005) and Desai et al. (2006). Audit clients perhaps believe that switching auditors on reputational grounds is too costly given that they any Big N firm that they switch to is also likely to face similar likelihood of regulatory action.

5.3. Loss of clients following class action lawsuits

For comparison, we also examine the market share changes for auditors due to loss of reputation attributable to class action lawsuits. Similar to the SEC analysis, we examine the effect of class action lawsuits against auditors and their clients on the loss of clients using a multivariate ordered logistic regression. As before, the loss of clients is measured as SIGN(ΔCLIENTS) in the year after lawsuits is filed against the auditor or their clients and is defined as before. The main variables of interest are the number of GAAP related class action lawsuits where the auditor (CAL AUDITORS) or their client (CAL CLIENTS) is named as a defendant. The lagged dependent variable is included as a control.

The control variables are similar to those included in Table 7. In addition, we also control for GAAS VIOLATIONS, which is an indicator variable that equals one if the lawsuit allege violation of Generally Accepted Auditing Standards (GAAS). The results from estimating that regression are presented in Table 9. As seen in model 1, the coefficient on CAL CLIENTS is negative and statistically significant (coefficient = -0.422, p-value = 0.01), suggesting that a

higher number of lawsuits against the auditor's clients is associated with a decrease in the auditor's future clients. However, in contrast to our reputation hypothesis, we find that the coefficient of CAL AUDITORS is positive and significant. In panel B, we re-estimate our above models after excluding the years 2001 and 2002 to account for the turmoil in the auditing market after the failure of Arthur Andersen. As can be seen in column 1 of Panel B, the coefficient on CAL AUDITORS is no longer significant. But, we continue to find a negative significant coefficient for CAL CLIENTS.

To examine whether the loss of clients is more extreme when (i) the frequency with which clients and auditors are named in lawsuits is extreme; or (ii) more visible clients are named as defendants, we include CAL_90 and CAL_S&P500, respectively. CAL_90 is an indicator variable that equals one when the number of lawsuits brought against an auditor's clients and the auditor are in the top decile over the sample period, and zero otherwise. CAL_S&P500 is equal to the number of auditor's clients that were defendants in lawsuits during the year and belonged to the S&P 500 index. Though these are not significant in panel A, the coefficient of CAP_S&P500 is negative and significant in panel B when we remove observations in years 2001 and 2002.

In summary, we find no evidence that reputation penalties associated with SEC actions against auditors is associated with a significant loss of clients. Moreover, the clients that do leave the tainted auditors following SEC actions are not the higher quality clients. In contrast, we do find modest evidence of a loss in market share of auditors following class action lawsuit brought against their clients.

6. Other enforcement activity against auditors – PCAOB actions

The SEC is not the only regulatory body that can potentially bring disciplinary action against auditors. In this final section, we examine the role of other agencies and their record in monitoring auditors. Benston (2003) notes that the state accountancy boards and the American Institute of Certified Public Accountants (AICPA) can, but rarely do, discipline wayward auditors.[21] In particular, Benston (2003) claims that the AICPA closed the vast majority of ethics cases without taking disciplinary action or publicly disclosing the results, but instead issued confidential letters directing the offenders to undergo training. Moreover, he cites an investigative report by the Washington Post (2001) of a decade of SEC enforcement action which finds: "the state of New York, which had the most accountants sanctioned by the SEC, as of June had disciplined [only] 17 of 49 New York accountants." Consistent with these criticisms, Lennox and Pittman (2010b) find that PCAOB's inspection reports are not valuable in signaling audit quality and less is known about audit firm quality since the PCAOB began conducting inspections.

The PCAOB was set up by SOX to protect the interest of investors and further the public interest in the preparation of informative, accurate and independent audit reports (U.S. Congress 2002). Importantly, the PCAOB was expected to take up any regulatory slack left by the SEC in disciplining auditors.[22] To examine whether that is indeed the case, we collect data on PCAOB actions against auditors over the period May 24th, 2005 to September 30th, 2009. As seen in Table 10, Panel A, the PCAOB has initiated 26 cases against audit partners or their firms during this period. The pattern of the PCAOB's enforcement is similar to that of the SEC's

[21] AICPA is the national professional organization of Certified Public Accountants (CPAs) in the United States with more than 394,000 members. It sets the ethical standards for the profession and U.S. auditing standards for audits of private companies, non-profit organizations, federal, state and local governments.

[22] See Gilbertson and Herron (2009) and Herron and Gilbertson (2011) for detailed discussions about the PCAOB inspection process and enforcements.

enforcement in that they are predominantly against non-Big N auditors. In 21 instances, the PCAOB initiated an enforcement action against non-Big N auditors in contrast to only five cases against Big N auditors. Though the PCAOB is more likely to charge partners (24 cases) rather than firms (19 cases), it appears to be much less biased towards audit firms relative to the SEC. Specifically, based on Table 5, we find that only 31% of the SEC cases (29 out of 93 cases) charge an audit firm while 73% (19 out of 26 cases) of PCAOB enforcement events name the audit firm.

Panel B details the nature of the penalty imposed by the PCAOB. The vast majority of penalties fall in two categories of disbarment from practice: (i) revocation of the registration with the board; and (ii) barred from being an associated person of a registered public accounting firm. These industry bans constitute a very serious punishment for auditor misconduct. All the 13 revocations are imposed on non-Big N audit firms and 17 of the 21 partner bans are targeted at non-Big N partners. Six of the seven cases that involve censure, the third most frequent penalty, are targeted at non-Big N audit firms. However, in general, the data seem somewhat sparse to draw conclusions about the efficacy of the PCAOB in disciplining auditors.

7. Conclusions

Several recent developments such as the accounting scandals of the past decade, the demise of Arthur Andersen, and legal obstacles against suing auditors, have raised questions about the effectiveness of regulatory enforcement against auditors. Some critics are also worried that the revolving door between the SEC and Big N audit firms, in particular, could lead to a cozy relationship between the regulated and the regulator. Our paper offers an empirical account of the SEC's enforcement record against audit firms and audit firm partners.

The analysis shows that the SEC charges an auditor in 17% of the cases where the SEC files an enforcement action against the company or a manager. Conditioned on charging an auditor, the SEC is less likely to name a Big N auditor as a defendant relative to a non-Big N auditor, after controlling for both the egregiousness of the reporting fraud committed by the company and for the characteristics of companies more likely to be audited by Big N auditors. In contrast, class action lawyers do not appear to treat Big N auditors differently from other auditors. Further when the SEC does charge Big N auditors, the enforcement is milder. The SEC is significantly less likely (i) to name the audit firm if it is a Big N firm, and (ii) to impose harsher penalties when the auditor is a Big N auditor.

A closer look at the enforcement data suggests that the SEC overwhelmingly uses administrative proceedings, instead of the arguably tougher civil proceedings against auditors. The SEC also overwhelmingly charges individual partners rather than audit firms. This suggests milder treatment of auditors in general. There is no evidence to suggest that SEC actions against an auditor result in a loss of market share. Moreover, the clients that leave are not the bigger, better or more visible clients. However, lawsuits against clients do appear to be associated with a loss in the auditor's market share.

We view our findings as a starting point for a broader and deeper academic inquiry into the SEC's efficacy at monitoring one of the most important gatekeepers of capital markets - the auditors. We hope that future availability of data, such as the names of the auditors who worked at the SEC and those that signed off the audit reports, will allow a detailed investigation into the role of revolving doors in the audit industry.

Appendix A: Auditors of corporations that are subject to SEC enforcement actions in the sample

The table displays the number of SEC enforcement actions against the client firm of each auditor over the sample period of 1996 to September 2009. The year reflects the year of the first regulatory enforcement action issued by the SEC against the client firm.

	96	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**Total**
Arthur Andersen	2	4	1	2	5	4	6	12	8	3	5	9	4	1	66
Arthur Young	1														1
Coopers & Lybrand	6	4	1	3	2		5					2	1	1	25
Ernst & Young	4	1	3	4	4	6	5	12	3	6	11	12	4	9	84
Deloitte & Touche	2	3	3	8	2	6	7	8	8	5	10	5	5	3	75
KPMG	2	3	1	4	2	8	8	12	10	6	6	5	4	2	73
PWC	1	4	1	1	6	2	12	9	10	6	10	13	9	6	90
BDO Seidman			1	1	1		1		1			1		1	7
Grant Thornton	2	1				1		2		1					7
Laventhol & Horwath	1														1
Moore Stephens			1	1						1					3
Pannell Kerr Foster	1						1								2
Richard A. Eisner				1			1								2
Others	13	12	6	5	7	5	7	11	5	8	4	1	5	8	97
Total	35	32	18	30	29	32	53	66	45	36	46	48	32	31	533

Appendix B: Auditors that are named as defendants in SEC enforcement actions

The table displays the auditors that have been named as defendants in SEC enforcement action over the sample period of 1996 to September 2009. The year reflects the year of the first regulatory enforcement action issued by the SEC in which the auditor is named as a defendant.

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	96	97	98	99	00	01	02	03	04	05	06	07	08	09	Total
Arthur Andersen			1		2	2	3	4							12
Coopers & Lybrand	1														1
Ernst & Young					1	1	1	1				1			5
Deloitte & Touche						1	1	2			1				5
KPMG		1		1		1	1	1	1		1				7
PWC		1			1	1	3	1	2	2	2				13
BDO Seidman							1								1
Moore Stephens			1	1						1					3
Others	7	6	4	5	4	3	3	4	3	1	3		1	2	46
Total	8	8	6	7	8	9	13	13	6	4	7	1	1	2	93

Appendix C: Description of the violations charged by the SEC

Violation Type	Relevant Regulation and Rule	Description of the rule
Unethical or improper professional conduct	Rules 102(e)(1)(ii), 102(e)(2), and 102(e)(3)(i) of the Commission's Rules of Practice	Under Rule 102(e), the Commission can censure, suspend or bar professionals who appear or practice before it. Specifically, pursuant to the rule, the Commission can impose a sanction upon a professional whom it finds, after notice and an opportunity for hearing: (i) Not to possess the requisite qualifications to represent others; or (ii) To be lacking in character or integrity or to have engaged in unethical or improper professional conduct by violating applicable professional standards; or (iii) To have willfully violated, or willfully aided and abetted the violation of, any provision of the Federal Securities laws or the rules and regulations thereunder.
Periodic (annual and quarterly) filing provisions	Rules 13a-1 and 13a-13 under Section 13(a) of the Securities Exchange Act of 1934, and Rule 12b-20 promulgated thereunder	Rules 13a-1 and 13-13 require issuers with securities registered under Section 12 of the Securities Exchange Act to file quarterly and annual reports with the Commission to keep this information current, true and correct. Rule 12b-20 requires disclosure of such additional information as may be necessary to make the required statements not misleading.
Antifraud provisions	Rule 10b-5 under Section 10(b) of the Securities Exchange Act of 1934	Rule 10b-5 prohibits a person, in connection with purchase or sale of a security, from making an untrue statement of a material fact or from omitting to sate a material fact necessary to make statements made, in light of the circumstances under which they were made, not misleading. An auditor violates Rule 10b-5 if he/she prepares and certifies publicly-filed financial statements that he know, or is reckless in not knowing, are false or issues a false audit report.
Record keeping provisions	Section 13(b)(2)(A) of the Securities Exchange Act of 1934	Section 13(b)(2)(A) requires Section 12 of the Securities Exchange Act registrants to make and keep books, records, and accounts that accurately and fairly reflect the transactions and dispositions of their assets.
Fraudulent interstate transactions	Section 17(a) of the Securities Act of 1933	It shall be unlawful for any person in the offer or sale of any securities or any security-based swap agreement by the use of any means or instruments of transportation or communication in interstate commerce or by use of the mails, directly or indirectly— (1) to employ any device, scheme, or artifice to defraud, or (2) to obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; or (3) to engage in any transaction, practice, or course of business which operates or would operate as a fraud or deceit upon the purchaser.

Appendix C: Description of the violations charged by the SEC (cont'd)

Internal control provisions	Section 13(b)(2)(B) of the Exchange Act of 1934	Every issuer with registered securities shall devise and maintain a system of internal accounting controls to ensure – 1) Transactions are executed in accordance with management's general or specific authorization 2) Transactions are recorded as necessary (I) to permit preparation of financial statements in conformity with GAAP or any other criteria application to such statements, and (II) to maintain accountability for assets; 3) Access to assets is permitted only in accordance with management's general or specific authorization; and 4)The recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.
Accountants' reports	Section 210.2-02 of Regulation S-X	This comprises (a) Technical requirements, (b) Representations as to the audit, (c) Opinion to be expressed, and (d) Exceptions.
Audit requirements	Section 10(A) of the Securities Exchange Act of 1934	In general, Section 10(A) details procedures that shall be included in in each audit of a registrant under the Securities Exchange Act by a registered public accounting firm and the required response to audit discoveries. Section 10(A) provides that each audit shall be conducted in accordance with generally accepted auditing standards, as may be modified or supplemented from time to time by the Commission.
Others		This includes violations under Prohibitions relating to interstate commerce and mails, Registration and regulation of broker dealers, Reporting provisions relating to forms 10-K and 10-Q, Anti-bribery provisions, Making false statements, Fraud by wire, radio or television, Falsification in federal investigations and bankruptcy, Money laundering, racketeering, conspiracy and racketeering conspiracy

Appendix D: Description of penalties imposed by the SEC

Penalties imposed under administrative proceedings	
Censure	An expression of strong disapproval or harsh criticism.
Cease-and-Desist Order	An order prohibiting a party from committing or causing any violations and future violations of an act or law.
Undertaking (policies and procedures)	An undertaking by the defendant to introduce reforms and changes in their policies and procedures.
Undertaking (monetary)	An undertaking by the defendant to pay a certain amount of money as a penalty.
Undertaking (temporary suspension of service)	An undertaking by the defendant to suspend service temporarily to implement undertakings concerning policies and procedures and not accept new engagements for public company audits during this time.
Disgorgement	Order forcing the giving up of profits obtained by acts deemed illegal or unethical.
Denial of Privilege	An order denying the subject the privilege to appear or practice before the Commission as an accounting. The denial of privilege maybe temporary (i.e., the subject can submit an application to be reinstated as an accountant) or permanent.
Penalties imposed under court proceedings	
Civil actions	
Disgorgement	Order forcing the giving up of profits obtained by acts deemed illegal or unethical.
Civil Monetary Penalty	A punitive fine imposed by a civil court on the defendant that has profited from illegal or unethical activity.
Permanent Injunction	A final order of a court that the defendant refrain from certain activities permanently (e.g., refrain from future violation of certain rules and laws).
Criminal Actions	
Special Assessment	An order requiring the defendant to pay a special fine or fee.
Fine	A monetary charge imposed on the defendant.
Probation	A period of supervision over the defendant ordered by the court.
Imprisonment	Order requiring the confinement of the defendant in a prison.

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Table 1: Sample selection

This table lists the sample selection procedure.

Total AAERs in the sample between January 1, 1996 and September 30, 2009	592
Less: AAERs with missing auditor information	(59)
Final Sample	533
AAERs in which either the audit firm, an audit partner (s), or both are named as defendants	93

Table 2: SEC enforcement actions

Panel A: This table presents the frequency of enforcement actions filed by the SEC against corporations and their auditors over the period January 1, 1996 to September 30, 1996, sorted by the type of the auditor. COMPUSTAT firm-years represent the total number of firm years when a firm had an audit in the COMPUSTAT database for the period 1996 to 2009. All percentages have been rounded off to the nearest whole percent. The t-statistic for the difference in means is presented in parentheses. *, **, *** - represent significance at 10%, 5% and 1% levels based on two-sided p-values.

	COMPUSTAT Firm-Years		**SEC Actions against Corporations**		**SEC Actions against Auditors**	
	Number of observations	Percentage (%)	Number of observations	Percentage (%)	Number of observations	Percentage (%)
Total	133,880	100	533	100	93	100
Audited by Big N Auditors	97,224	73	414	78	43	46
Audited by Non-Big N Auditors	36,656	27	119	22	50	54

Tests for the difference in means for the proportion of Big N auditors	
COMPUSTAT sample vs. SEC enforcement against corporations sample (73% vs. 78%)	-5% (-2.79)***
SEC actions against corporations sample vs. SEC actions against auditors sample (78% vs. 46%)	32% (5.71)***
Test for the difference between Big N versus non-Big N auditors	
SEC actions against auditors as a proportion of SEC actions against corporations (43/414 vs. 50/119 or 10% vs. 42%)	-32% (-6.61)***

Table 2: SEC enforcement actions (cont'd)

Panel B: This table presents the frequency of enforcement actions filed by the SEC against corporations and their auditors, sorted by auditor type, before and after the passage of the Sarbanes-Oxley Act (SOX). The enactment date of SOX is July 30th, 2002. COMPUSTAT firm-years represent the total number of firm years when a firm had an audit in the COMPUSTAT database. All percentages have been rounded off to the nearest whole percent. The t-statistic for the difference in means is presented in parentheses. *, **, *** - represents significance at 10%, 5% and 1% levels based on two-sided p-values.

PRE-SOX

	COMPUSTAT Firm-Years		**SEC Actions against Corporations**		**SEC Actions against Auditors**	
	Number of observations	Percentage (%)	Number of observations	Percentage (%)	Number of observations	Percentage (%)
Total	62,128	100	210	100	57	100
Audited by Big N Auditors	49,762	80	143	68	22	39
Audited by Non-Big N Auditors	12,366	20	67	32	35	61

Tests for the difference in means for the proportion of Big N auditors

Pre-SOX: COMPUSTAT sample vs. SEC actions against corporations sample (80% vs. 68%)	12% (3.72)***
Pre-SOX: SEC actions against corporations sample vs. SEC actions against auditors sample (68% vs. 39%)	29% (4.06)***

POST-SOX

	COMPUSTAT Firm-Years		**SEC Actions against Corporations**		**SEC Actions against Auditors**	
	Number of observations	Percentage (%)	Number of observations	Percentage (%)	Number of observations	Percentage (%)
Total	71,752	100	323	100	36	100
Audited by Big N Auditors	47,462	66	271	84	21	58
Audited by Non-Big N Auditors	24,290	34	52	16	15	42

Tests for the difference in means for the proportion of Big N auditors

Post-SOX: COMPUSTAT sample vs. SEC actions against corporations sample (66% vs. 84%)	-18% (-8.64)***
Post-SOX: SEC actions against corporations sample vs. SEC actions against auditors sample (84% vs. 58%)	26% (2.98)***
COMPUSTAT sample: Pre-SOX vs. Post-SOX (80% vs. 66%)	14% (58.49)***
SEC actions against corporations sample: Pre-SOX vs. Post-SOX (68% vs. 84%)	-16% (-3.75)***
SEC actions against auditors sample: Pre-SOX vs. Post-SOX (39% vs. 58%)	-19% (-1.72)*

Table 3: SEC's likelihood of naming the auditor in an enforcement action

Panel A: This table presents summary statistics for the sample of firms that were subject to SEC enforcement actions over the period 1996 to September 2009. AUDITOR_NAMED takes the value of one if an audit firm and/or audit partner are named as defendants in the SEC action, and zero otherwise. BIG N takes the value of one if the defendant corporation is audited by a Big N audit firm, and zero otherwise. POST SOX takes the value of one if the first regulatory action in the case was initiated after the passage of SOX (i.e., after July 30, 2002), and zero otherwise. VIOLENGTH is the length of violation period in months. TARGET_LIT takes the value of one if the defendant corporation is subject to class action litigation, and zero otherwise. TARGET_RESTATE takes the value of one if the defendant corporation restates its financial statements, and zero otherwise. TARGET_COURT takes the value of one if the defendant corporation is subject to SEC court proceedings, and zero otherwise. SIZE is the log of total assets. SALES/AT is prior year sales (year t-1) scaled by average total assets of year t-1. CA/CL is current assets in year t-1 scaled by current liabilities in year t-1. DEBT/AT is the long term debt plus debt in current liabilities in year t-1 scaled by average total assets in year t-1. NI/AT is net income of year t-1 scaled by average total assets in year t-1. SIZE, SALES/AT, CA/CL, DEBT/AT, and NI/AT are measured for the defendant corporation as of the last reporting date before the beginning of the violation period.

	Mean	Median	Min	Max	Std. Dev.	N
AUDITOR_NAMED	0.17	0	0	1	0.38	533
BIG N	0.78	1	0	1	0.42	533
POST SOX	0.61	1	0	1	0.49	533
VIOLENGTH	35.78	27	3	219	29.46	533
TARGET_LIT	0.65	1	0	1	0.48	533
TARGET_RESTATE	0.77	1	0	1	0.42	533
TARGET_COURT	0.85	1	0	1	0.35	533
SIZE	5.26	5.18	-6.91	12.53	2.89	467
SALES/AT	1.16	1.00	0	4.38	0.89	422
CA/CL	2.80	1.97	0.05	21.34	3.16	419
DEBT/AT	0.21	0.15	0	0.92	0.22	398
NI/AT	-0.08	0.03	-1.82	0.30	0.35	422

Table 3: SEC's likelihood of naming the auditor in an enforcement action (cont'd)

Panel B: This table reports the coefficients from a PROBIT regression where the dependent variable is AUDITOR_NAMED that takes the value of one when the auditor is named in the SEC action, and zero otherwise. The sample includes all corporations that were subject to SEC actions over the period January, 1996 to September, 2009 with available data. The independent variables are described in the prior table. *, **, *** represent significance at 10%, 5% and 1% levels based on two sided p-values.

	Model 1		**Model 2**	
	Estimate	**p-value**	**Estimate**	**p-value**
Intercept	-0.39	0.21	-0.52	0.26
BIG N	-1.07	<.01***	-0.93	<.01***
POST SOX	0.07	0.88	-1.15	0.13
Severity of the Violation				
VIOLENGTH	0.01	<.01***	0.02	<.01***
TARGET_LIT	-0.30	0.21	-0.01	0.97
TARGET_RESTATE	0.22	0.37	0.08	0.81
TARGET_COURT	0.13	0.63	-0.29	0.39
Interactions with SOX				
BIG N*POST SOX	0.09	0.78	0.39	0.43
VIOLENGTH*POST SOX	-0.01	0.01***	-0.02	<.01***
TARGET_LIT*POST SOX	0.74	0.03**	0.75	0.13
TARGET_RESTATE*POST SOX	-0.72	0.05**	-0.47	0.38
TARGET_COURT*POST SOX	-0.09	0.83	0.83	0.16
Firm Characteristics				
SIZE	-	-	0.03	0.53
SALES/AT	-	-	-0.06	0.61
CA /CL	-	-	0.03	0.30
DEBT /AT	-	-	-0.40	0.42
NI /AT	-	-	0.22	0.52
N	533		369	
N (Auditor_Named = 1)	93		49	
Pseudo-R^2	0.14		0.11	

Table 4: Likelihood of the auditor being named in Class Action Lawsuits

Panel A: The table reports summary statistics for class actions litigation (CALs) with GAAP violations over the period 1996 to September 30th, 2009, sorted by the type of auditor. COMPUSTAT firm-years represent the total number of firm years when a firm had an audit in the COMPUSTAT database for the period 1996 to 2009. All percentages have been rounded off to the nearest whole percent. The t-statistic for the difference in means is presented in parentheses. *, **, *** - represent significance at 10%, 5% and 1% levels based on two-sided p-values.

	COMPUSTAT Firm-Years		**Class Actions against Corporations**		**Class Actions with Auditor Defendants**	
	Number of observations	Percentage (%)	Number of observations	Percentage (%)	Number of observations	Percentage (%)
Total	133,880	100	603	100	121	100
Big N Auditors	97,224	73	540	90	103	85
Non-Big N Auditors	36,656	27	63	10	18	15

Tests for the difference in means for the proportion of Big N auditors	
COMPUSTAT sample vs. All CAL sample (73% vs. 90%)	-17% (-13.52)***
All CAL sample vs. CALs with auditor defendants (90% vs. 85%)	5% (1.27)

Table 4: Likelihood of the auditor being named in Class Action Lawsuits (cont'd)

Panel B: This table reports summary data for class action litigation with GAAP violations against corporations and their auditors, sorted by the type of auditor, before and after the passage of Sarbanes-Oxley Act (SOX). The enactment date of SOX is July 30th, 2002. COMPUSTAT firm-years represent the total number of firm years when a firm had an audit in the COMPUSTAT database. All percentages have been rounded off to the nearest whole percent. The t-statistic for the difference in means is presented in parentheses. *, **, *** - represents significance at 10%, 5% and 1% levels based on two-sided p-values.

PRE-SOX	**COMPUSTAT Firm-Years**		**Class Actions against Corporations**		**Class Actions with Auditor Defendants**	
	Number of observations	Percentage (%)	Number of observations	Percentage (%)	Number of observations	Percentage (%)
Total	62,128	100	292	100	54	100
Big N Auditors	49,762	80	266	91	47	87
Non-Big N Auditors	12,366	20	26	9	7	13
Compustat sample vs. Class Action with GAAP violations (80% vs. 91%)						-11% (-6.56)***
All CAL sample vs. CALs with Auditor Defendants (91% vs.87%)						4% (0.83)

POST-SOX	**COMPUSTAT Firm-Years**		**Class Actions against Corporations**		**Class Actions with Auditor Defendants**	
	Number of observations	Percentage (%)	Number of observations	Percentage (%)	Number of observations	Percentage (%)
Total	71,752	100	311	100	67	100
Big N Auditors	47,462	66	274	88	56	84
Non-Big N Auditors	24,290	34	37	12	11	16
COMPUSTAT sample vs. Class Actions with GAAP Allegations (66 vs. 88%)						22% (-11.89)***
All CAL sample vs. CALs with Auditor Defendants (88% vs. 84%)						4% (0.92)

Table 4: Likelihood of the auditor being named in Class Action Lawsuits (cont'd)

Panel C: Determinants of Auditors being named Defendants

This table reports the coefficients from a PROBIT regression where the dependent variable is AUDITOR_DEFENDANT. AUDITOR_DEFENDANT equals one when the auditor is named in as a defendant in a GAAP-related class action lawsuit, and zero otherwise. The sample includes class action lawsuits filed between January 1, 1996 and September 30, 2009 with available data. BIG N equals one if the defendant corporation is audited by a Big N audit firm, and zero otherwise. POST SOX takes the value one if the lawsuit is filed after the passage of SOX on July 30, 2002, and zero otherwise. VIOLENGTH is the length of the class action period in months. GAAS_VIOLATION equals one if lawsuit alleges violation of the Generally Accepted Auditing Standards, and zero otherwise. SIZE is the log of total assets. SALES/AT is prior year sales (year t-1) scaled by average total assets of year t-1. CA/CL is current assets in year t-1 scaled by current liabilities in year t-1. DEBT/AT is the long term debt plus debt in current liabilities in year t-1 scaled by average total assets in year t-1. NI/AT is net income of year t-1 scaled by average total assets in year t-1. SIZE, SALES/AT, CA/CL, DEBT/AT, and NI/AT are measured for the defendant corporation as of the last reporting date before the beginning of the class violation period. *, **, *** represent significance at 10%, 5% and 1% levels based on two sided p-values.

	Model 1		**Model 2**	
	Estimate	**p-value**	**Estimate**	**p-value**
Intercept	-1.38	<.01***	-2.08	<.01***
BIG N	-0.28	0.35	-0.16	0.67
POST SOX	0.16	0.70	0.43	0.39
Severity of the Violation				
VIOLENGTH	0.03	<.01***	0.03	<.01***
GAAS_VIOLATION	1.92	<.01***	1.76	<.01***
Interactions with SOX				
BIG N*POST SOX	-0.28	0.48	-0.57	0.22
VIOLENGTH*POST SOX	-0.01	0.51	-0.00	0.69
GAAS_VIOLATION*POST SOX	-0.16	0.76	-0.09	0.88
Firm Characteristics				
SIZE	-	-	0.05	0.23
SALES/AT	-	-	0.08	0.42
CA /CL	-	-	0.03	0.34
DEBT /AT	-	-	0.13	0.66
NI /AT	-	-	-0.59	0.03**
N	603		472	
N (Auditor_Named = 1)	121		90	
Pseudo-R^2	0.17		0.17	

Table 5: Violations and individual versus corporate liability

Panel A tabulates the frequency of the type of violations committed by the defendant corporations. A description of the violations is provided in Appendix C. Panel B reports the number of SEC actions that named audit firms, partners and both. Panel C reports the results of multivariate PROBIT regressions where the dependent variable is an indicator variable, FIRM_NAMED, that takes the value of one if the audit firm was named as a defendant in an SEC action, and zero otherwise. The t-statistic for the difference in means is presented in parentheses. *, **, *** - represents significance at 10%, 5% and 1% levels based on two-sided p-values.

Panel A: Type of violations

Type of Violation	**Frequency**	**Type of Auditor**	
		Big N	Non-Big N
Unethical or improper professional conduct	73	30	43
Antifraud provisions [b]	20	6	14
Fraudulent interstate transactions	8	3	5
Accountants' reports	5	2	3
Audit requirements	5	2	3
Record keeping provisions	4	2	2
Internal control provisions	4	2	2
Periodic (quarterly and annual) filing provisions [a]	2	1	1
Others	6	3	3
Total	127	51	76
Tests for the difference in Big N vs. Non-Big N groups			
Incidence of Unethical or improper professional conduct (30/51 vs. 43/76)	0.02 (0.25)		
Incidence of antifraud provisions violation (6/51 vs. 14/76)	-0.07 (-1.04)		

Panel B: Individual vs. corporate liability

	Defendants: Audit partner, audit firm, or both			
	Partner only	Firm only	Both	Total
SEC actions against all auditors	64	5	24	93
SEC actions against Big N auditors	30	5	8	43
SEC actions against non-Big N auditors	34	0	16	50
Test for the difference in Big N vs. non-Big N groups				
Incidence of the audit firm being named in SEC actions ((5+8)/43 vs. (16+0)/50)	-0.02 (-0.18)			

Table 5: Violations and individual versus corporate liability (cont'd)

Panel C: Multivariate analysis

This table reports the coefficients from a PROBIT regression where the dependent variable is FIRM_NAMED that takes the value of one when the audit firm is named in the SEC action, and zero otherwise. BIG N takes the value of one if the defendant corporation is audited by a Big N audit firm. POST SOX takes the value of one if the first SEC action was initiated after the passage of the Sarbanes Oxley Act (i.e., after July 30, 2002). VIOLENGTH is the length of violation period in months. TARGET_LIT takes the value of one if the defendant corporation is subject to class action litigation. TARGET_RESTATE takes the value of one if the defendant corporation restates its financial statements, and zero otherwise. TARGET_COURT takes the value of one if the defendant firm is subject to SEC court proceedings, and zero otherwise. UNETHICAL equals one if the auditor named in SEC actions is charged with unethical and improper professional conduct, and zero otherwise. ANTIFRAUD equals one if the auditor named in SEC actions has violated antifraud provision, and zero otherwise. OTHERS is the sum of other type of violations excluding UNETHICAL and ANTIFRAUD that the auditor named in SEC actions is charged with. The sample includes all firms that were subject to SEC actions over the period January 1, 1996 to September 30, 2009 with available data.

	Estimate	**p-value**
Intercept	-1.19	0.05**
BIG N	-0.67	0.08*
POST SOX	0.18	0.57
Severity of the violation		
VIOLENGTH	0.00	0.93
TARGET_LIT	0.47	0.21
TARGET_RESTATE	0.48	0.20
TARGET_COURT	0.36	0.42
Type of Violation		
UNETHICAL	-0.12	0.74
ANTIFRAUD	-0.75	0.09*
OTHERS	0.62	<.01***
N	93	
N (DV = 1)	29	
R^2	0.15	

Table 6: Type of proceeding and the nature of penalties imposed by the SEC

Panel A: Type of Proceedings

This table presents the frequency with which the SEC launches administrative and civil proceedings. The column "Civil" includes SEC cases subject to civil proceedings, all of which except one are also subject to administrative proceedings.

	Proceedings: Administrative or civil		
	Administrative only	Civil	Total
SEC actions against defendant corporations	78	455	533
SEC actions against auditors	73	20	93
SEC actions against Big N auditors	32	11	43
SEC actions against non-Big N auditors	41	9	50
Test for differences in means			
Incidence of civil proceedings: Defendant corporations vs. auditors (455/533 vs. 20/93)	0.64 (<0.01)***		
Incidence of Civil Proceedings: Big N vs. non- Big N auditors (11/43 vs. 9/50)	0.08 (0.87)		

Panel B: Nature of Penalties against Auditors by the Type of Proceedings

This table reports the penalties imposed by the SEC on audit firms and their partners. Detailed descriptions of what the penalty entails can be obtained from Appendix D. Auditors can be charged with more than one type of penalty. Hence, the total number of penalties imposed does not add up to the number of SEC cases against auditors.

Type of Proceedings	Total	Big N Auditors	Non-Big N Auditors
Administrative Proceedings			
Denial of Privilege (temporary)	69	30	39
Cease and Desist Order	27	9	18
Denial of Privilege (permanent)	20	8	12
Censure	19	15	4
Undertaking (policies and procedures)	9	6	3
Disgorgement	5	2	3
Undertaking (monetary)	5	5	0
Total Cases	92	42	50
Civil Proceedings			
Civil actions			
Permanent Injunction	14	9	5
Civil monetary penalty	9	5	4
Disgorgement	4	2	2
Total Cases	18	10	8
Criminal actions			
Imprisonment	2	1	1
Probation	1	1	0
Special Assessment	1	1	0
Fine	1	1	0
Total Cases	2	1	1

Table 6: Type of proceeding and the nature of penalties imposed by the SEC (cont'd)

Panel C: Multivariate Analysis

Model 1 reports the coefficients from a PROBIT regression where the dependent variable is CIVIL_PRCD that takes the value of one when an auditor named in SEC actions is subjected to civil proceedings, and zero otherwise. Model 2 reports the coefficients from a TOBIT regression where the dependent variable is PEN_SCORE. PEN_SCORE is an index of the penalties in administrative proceedings. PEN_SCORE is computed by assigning a weight of 3 to denials of privilege (permanent or temporary), 2 to cease and desist orders, 1 to censures, and zero to all other penalties. The weighted sum of penalties in a case is divided by 6 (i.e., the highest possible score) to estimate PEN_SCORE. BIG N takes the value of one if the defendant corporation is audited by a Big N audit firm. POST SOX takes the value of one if the SEC action was initiated after the passage of Sarbanes Oxley Act (i.e., after July 30, 2002). VIOLENGTH is the length of violation period in months. TARGET_LIT takes the value of one if the defendant corporation is subject to class action litigation, and zero otherwise. TARGET_RESTATE takes the value of one if the defendant corporation restates its financial statements, and zero otherwise. TARGET_COURT takes the value of one if the defendant corporation is subject to SEC court proceedings, and zero otherwise. UNETHICAL equals one if the auditor named in SEC actions is charged with unethical and improper professional conduct, and zero otherwise. ANTIFRAUD equals one if the auditor named in SEC actions has violated antifraud provision, and zero otherwise. OTHERS is the sum of other type of violations excluding UNETHICAL and ANTIFRAUD that the auditor is charged with. The sample includes all firms that were subject to SEC actions over the period January 1, 1996 to September 30, 2009 with available data.

	Model 1: DV = CIVIL_PRCD		**Model 2: DV = PEN_SCORE**	
	Estimate	**p-value**	**Estimate**	**p-value**
Intercept	-3.11	0.04**	0.33	<.01***
BIG N	0.91	0.12	-0.11	0.04**
POST SOX	0.35	0.39	-0.04	0.33
Severity of the violation				
VIOLENGTH	0.01	0.14	0.00	0.10*
TARGET_LIT	0.28	0.67	0.05	0.31
TARGET_RESTATE	-1.12	0.05**	0.09	0.08*
TARGET_COURT	1.39	0.29	0.06	0.33
Type of Violation				
UNETHICAL	-0.57	0.28	0.14	<.01***
ANTIFRAUD	1.49	<.01***	0.14	0.01***
OTHERS	0.97	<.01***	0.02	0.48
N	93		93	
R^2	0.37		-	
AIC			-5.95	
N (DV = 1)	20			

Table 7: Impact of SEC's actions on auditors' market share

This table reports the coefficients from an ordered logistic regression where the dependent variable is +1 if an audit firm experience a net client gain, 0 if no net change in clients, and -1 if there is a net client loss between year t and t+1. The sample period extends from January 1st, 1996 to September 30th, 2009. Column A includes observations for all years while Column B excludes years 2001 and 2002. SEC_CLIENTS is the number of clients of the auditor that had a SEC action issued against them in year t. SEC_AUDITORS is the number of SEC actions in which an audit firm/partner is named as a defendant in year t. SEC_90 is an indicator variable that equals one if the sum of the number of clients of the auditor that are named in SEC action and the number of SEC actions in which the auditor was named as a defendant in year t is in the top 10 percent over the sample period, and zero otherwise. SEC_S&P500 is the number of clients of the auditors that were subject to SEC actions in year t are members of the S&P 500 index. BIG N equals one if the auditor is a Big N firm, zero otherwise. POST SOX equals one for years 2003 and onwards, zero otherwise. VIOLENGTH is the average length of violation period in months for all client firms subject to SEC action in year t. CLIENT LIT is the number of client firms that were named in SEC action in year t that were also subject to class action litigation. CLIENT RESTATE is the number of client firms that were subject to SEC action in year t that restated their financials. SIGN($\Delta CLIENTS_t$) equals +1 if an audit firm experience a net client gain, 0 if no net change in clients, and -1 if there is a net client loss between year t-1 and t. *, **, *** - represents significance at 10%, 5% and 1% levels based on two-sided p-values.

	Column A		**Column B**	
	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept (1)	-0.1281	-0.1342	-0.1411	-0.1494
	(0.39)	(0.3685)	(0.38)	(0.35)
Intercept (0)	0.3786	0.3717	0.4036	0.3898
	(0.01)***	(0.01)***	(0.01)***	(0.02)**
SEC CLIENTS	-0.2383	-	-0.3744	-
	(0.30)		(0.21)	
SEC AUDITORS	-0.3464	-	-0.7410	-
	(0.49)		(0.30)	
SEC_90	-	1.0540	-	0.2665
		(0.23)		(0.81)
SEC_S&P500	-	-0.2467	-	0.0912
		(0.57)		(0.84)
BIG N	-0.5940	-0.8186	-0.7179	-1.0381
	(0.33)	(0.17)	(0.31)	(0.12)
POST SOX	0.0115	-0.2813	0.4603	0.0793
	(0.98)	(0.66)	(0.54)	(0.91)
VIOLENGTH	-0.0202	-0.0176	-0.0193	-0.0181
	(0.13)	(0.20)	(0.18)	(0.21)
CLIENT LIT	0.3777	0.1303	0.6111	0.2039
	(0.18)	(0.57)	(0.10)*	(0.45)
CLIENT RESTATE	-0.0422	-0.2881	-0.1759	-0.4618
	(0.87)	(0.23)	(0.60)	(0.14)
SIGN($\Delta CLIENTS_t$)	0.0684	0.0778	0.0662	0.0636
	(0.62)	(0.58)	(0.66)	(0.67)
N	252	252	216	216
R^2	0.13	0.13	0.16	0.15

Table 8: Financial characteristics of continuing clients versus clients that depart following SEC action against the auditor

Panel A: This table presents the financial characteristics of clients of each of the Big N audit firms that changed their auditor (departing clients) and those that continued with the same auditor (continuing clients) in the year following SEC action against an audit firm and/or partner of the audit firm. Averages are reported throughout. TA is the total assets. CR is the current ratio defined as the ratio of current assets to current liabilities. NPM is the net profit margin. CFTL is the ratio of cash flows to liabilities. ZMJ is Zmijewski's 1984 distress score. *, **, *** - Represent significance at 10%, 5% and 1% levels based on two-sided p-values. [a] The years 2001 and 2002 are not included in the sample for Arthur Andersen. [b] The year 1998 is not included in the sample for Coopers and Lybrand and PwC because there was a merger between Coopers and Lybrand and Price Waterhouse.

	Continuing Clients						Departing Clients						Difference (= Continuing – Departing)				
Auditor	**N**	**TA**	**CR**	**NPM**	**CFTL**	**ZMJ**	**N**	**TA**	**CR**	**NPM**	**CFTL**	**ZMJ**	**TA**	**CR**	**NPM**	**CFTL**	**ZMJ**
Arthur Andersen[a]	2,356	2,374	2.17	-1.06	-0.25	-1.19	359	2,394	1.99	-2.75	-0.64	1.77	-20	0.18	1.69***	0.39***	-2.96***
Ernst &Young	5,822	3,653	2.71	-1.93	-0.41	-1.28	779	1,486	2.32	-3.76	-0.61	2.17	2,166***	0.39***	1.83***	0.20***	-3.44***
Deloitte & Touche	3,500	5,297	2.20	-1.08	-0.22	-1.57	515	2,150	2.35	-3.19	-0.40	0.71	3,147***	-0.15	2.11***	0.18**	-2.28***
KPMG	6,143	4,121	2.40	-1.28	-0.30	-1.57	941	2,318	2.33	-3.19	-0.53	0.75	1,803***	0.07	1.91***	0.22***	-2.32***
PwC[b]	8,697	5,398	2.51	-1.27	-0.39	-1.66	1,437	2,591	2.40	-2.77	-0.49	-0.40	2,807***	0.11	1.50***	0.10**	-1.26***

Panel B: This table presents the financial characteristics of the clients of Big N audit firms that changed their auditor (departing clients) and those that continued with the same auditor (continuing clients) in the year following SEC action against the audit firm and/or partner of the audit firm. The data is presented considering all the Big N audit firms as a single, homogenous group. TA is the total assets. CR is the current ratio defined as the ratio of current assets to current liabilities. NPM is the net profit margin. CFTL is the ratio of cash flows to liabilities. ZMJ is Zmijewski's 1984 distress score. *, **, *** - Represent significance at 10%, 5% and 1% levels based on two-sided p-values.

	Continuing Clients						Departing Clients						Difference (= Continuing – Departing)				
Statistics	**N**	**TA**	**CR**	**NPM**	**CFTL**	**ZMJ**	**N**	**TA**	**CR**	**NPM**	**CFTL**	**ZMJ**	**TA**	**CR**	**NPM**	**CFTL**	**ZMJ**
MEAN	27,375	4,367	2.46	-1.38	-0.33	-1.51	4,167	2,221	2.32	-3.10	-0.53	0.68	2,146***	0.14***	1.72***	0.20***	-2.19***

Table 9: Impact of class action lawsuits on auditors' market share

This table reports the coefficients from an ordered logistic regression where the dependent variable is +1 if an audit firm experience a net client gain, 0 if no net change in clients, and -1 if there is a net client loss between year t and t+1. The sample period extends from January 1st, 1996 to September 30th, 2009. Column A includes observations for all years while Column B excludes years 2001 and 2002. CAL_CLIENTS is the number of clients of the auditor that had a class action lawsuit filed against them in year t. CAL_AUDITORS is the number of class action lawsuits in which an audit firm is named as a defendant in year t. CAL_90 is an indicator variable that equals one if the sum of the number of clients of the auditor that are named in lawsuits and the number of lawsuits in which the auditor was named as a defendant in year t is in the top 10 percent over the sample period, and zero otherwise. CAL_S&P500 is the number of clients of the auditor that were subject to class action lawsuits in year t are members of the S&P 500 index. BIG N equals one if the auditor is a Big N firm, zero otherwise. POST SOX equals one for years 2003 and onwards, zero otherwise. VIOLENGTH is the average length of the class period in months for all client firms subject to class action lawsuits in year t. GAAS VIOLATIONS is the number of lawsuits in year t which alleged violations of Generally Accepted Auditing Standards. SIGN($\Delta CLIENTS_t$) equals +1 if an audit firm experience a net client gain, 0 if no net change in clients, and -1 if there is a net client loss between year t-1 and t. *, **, *** - represents significance at 10%, 5% and 1% levels based on two-sided p-values.

	Panel A		**Panel B**	
	Model 1	**Model 2**	**Model 3**	**Model 4**
Intercept (1)	-0.0928	-0.1021	-1.079	-0.1161
	(0.54)	(0.50)	(0.51)	(0.48)
Intercept (0)	0.4350	0.4208	0.4666	0.4533
	(<.01)***	(<.01)***	(<.01)***	(<.01)***
CAL CLIENTS	-0.4243	-	-0.5492	-
	(0.01)***		(0.01)***	
CAL AUDITORS	0.7107	-	0.5531	-
	(0.08)*		(0.32)	
CAL_90	-	-1.4735	-	-0.7096
		(0.26)		(0.61)
CAL_S&P500	-	-0.2671	-	-0.9786
		(0.42)		(0.06)*
BIG N	1.0474	-0.2913	1.1545	-0.3875
	(0.19)	(0.63)	(0.23)	(0.58)
POST SOX	0.6578	0.6157	1.3698	1.3424
	(0.29)	(0.31)	(0.06)*	(0.06)*
VIOLENGTH	-0.0812	-0.0893	-0.0934	-0.1134
	(0.02)**	(0.01)***	(0.03)**	(<.01)***
GAAS VIOLATIONS	1.6678	1.2319	2.4539	1.7617
	(0.01)***	(0.03)**	(<.01)***	(0.01)***
SIGN($\Delta CLIENTS_t$)	0.0869	0.0667	0.0827	0.0449
	(0.55)	(0.64)	(0.60)	(0.78)
N	252	252	216	216
R^2	0.18	0.16	0.22	0.21

Table 10: PCAOB actions against auditors

Panel A: This table reports PCAOB enforcement actions against auditors over the period May 24, 2005 to September 30, 2009.

	Audit Partner	Audit Firm	Audit Partner and Firm	Total
Total	7	2	17	26
Type of Auditor				
Big N Auditor	4	1	0	5
Non-Big N Auditor	3	1	17	21

Panel B: This table reports the penalties imposed by the PCAOB in enforcement actions against auditor over the period May 24, 2005 to September 30, 2009

	Total	Big N Auditors	Non-Big N Auditors	Against Audit Firms	Against Audit Partners
Number of Cases	26	5	21	19	24
Penalty Type					
Barred from being an associated person of a registered public accounting firm	21	4	17	0	21
Revocation of the registration with the Board	13	0	13	13	0
Censure	7	1	6	5	2
Civil monetary penalty	3	3	0	1	2
Undertakings by audit firm	1	1	0	1	0