The Cost of Cooking the Books

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Abstract

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JEL classification: G38; K22; K42; M41

Keywords: Financial reporting violations, fraud, financial disclosure, reputation cost.

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Abstract

From 1978 through 2002, federal regulators brought 585 enforcement actions for financial misrepresentation by publicly traded companies, naming 2,310 individuals and 657 firms as potentially liable parties. The legal penalties imposed on individuals and firms are substantial. For example, individuals were assessed \$15.9 billion in fines and civil penalties, and 190 managers received jail sentences for financial reporting violations. Companies were assessed an additional \$8.4 billion in fines and damages via class action lawsuits. As large as the legal penalties are, however, the reputational penalties are even larger. Our point estimate of the reputational penalty is twelve *times* the sum of all penalties imposed through legal and regulatory processes. This evidence belies a widespread view that financial misrepresentation is disciplined lightly. To the contrary, the SEC historically has pursued many enforcement actions for financial misconduct, resulting in substantial legal penalties but even higher reputational penalties.

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The Cost of Cooking the Books

I. Introduction

What happens to firms, and their managers, who cook their financial books? Too little, according to recent calls for new regulations. "Enough is enough," cried *Fortune* magazine about financial misrepresentation. "They lie, they cheat, they steal and they've been getting away with it for too long."[1] Politicians agree. Senator John McCain cited "... a climate of lax regulation" as the primary motive for the Sarbanes-Oxley Act, which passed both houses of the U.S. Congress by near-unanimous margins following the revelation of inflated earnings at Enron Corp. in 2001 and WorldCom Inc. in 2002.[2] Paul Volcker and Arthur Levitt, Jr. also agree. Defending Sarbanes-Oxley, they argue, "For too long, too many companies have lacked adequate internal controls." New laws to encourage better financial disclosure are a "... response to the breakdown in corporate checks and balances." They are necessary to create "more robust and trusted markets" (Volcker and Levitt, 2004).

The view that financial misconduct is punished lightly has a large effect on public policy. It has helped motivate new investigations into the investment banking and mutual fund industries, as well as potential changes in corporate voting rules and the regulation of hedge funds.[3] A problem with this view, however, is that there is little evidence to back it up. In this paper we examine the evidence. In particular, we examine the consequences to individuals and firms involved in Securities and Exchange Commission (SEC) and Department of Justice (DOJ) enforcement actions for financial misrepresentation. Our unique sample includes detailed data on all administrative, civil, and criminal penalties imposed on individuals and firms who are implicated in the <u>universe</u> of enforcement actions for financial misrepresentation from 1978 through 2002. We find that:

(i) Federal regulators have acted frequently to discipline financial misrepresentation, initiating 585 enforcement actions involving 657 companies from 1978 through 2002. The frequency of the agency's actions has grown over time, with these increases happening well before the Enron Corp. and WorldCom

[1] *Fortune* magazine, March 18, 2002 cover and accompanying story headline.
[2] *The N.Y. Times*, July 8, 2002.
[3] E.g., see http://www.sec.gov/rules/proposed/34-48626.htm.

Inc. scandals.[4]

(ii) A total of 2,310 individuals were implicated in financial misrepresentation enforcement actions. Over one-third (830) of these former managers or professionals were censured, barred as officers and directors, or suspended from practice in public firms. A total of 501 individuals were indicted on criminal charges. Of these indictments, only three of the 341 individuals whose trials concluded by June 30, 2004 were acquitted. Sentencing information is available for 210 of the concluded cases. These 210 cases led 190 individuals to be incarcerated for an average of 4.2 years and probation or supervised release for 90 individuals (not mutually exclusive arrangements).

(iii) Total monetary penalties exceeding $13.3 billion were assessed against individuals involved in financial misrepresentations. An additional $2.6 billion in settlements were levied against perpetrators of financial fraud through shareholder class action or derivative lawsuits.

(iv) To date, the 585 sample firms have accrued a total of 781 non-monetary sanctions, primarily permanent injunctions. Remedial actions often were ordered as well. In 23 cases the SEC revoked the registration of the firm's securities, permanently ending the firm's ability to trade as a public company. Monetary penalties were imposed on 43% of the firms, totaling $3.6 billion in fines and an additional $4.7 billion in class action and derivative lawsuit settlements.[5]

(v) The losses imposed on firm shareholders are huge. The average one-day abnormal return upon the first announcement of federal involvement in a financial reporting investigation is -13.09%. This is in addition to an average loss of 25.24% associated with the prior announcement of the event – such as an accounting restatement or change in auditor – that triggers the investigation. Altogether, over $157 billion in shareholder value vanished when the reporting improprieties of the corporations were exposed.

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[4] We refer to each observation in which federal regulators investigate a firm for financial misrepresentation as an *enforcement action*. As documented below, most enforcement actions involve multiple administrative, civil, or criminal *proceedings*. This nomenclature is not universal. In the SEC's "Report Pursuant to Section 704 of the Sarbanes-Oxley Act of 2002," for example, each observation is an "enforcement matter" that involves multiple "actions."

[5] Should civil or criminal penalties even be imposed on firms instead of individuals? That is, does it make sense to penalize shareholders for managers' actions? The answer can be yes – if corporate monitoring controls managers' activities at lower cost than through direct government oversight. If, however, monitoring through the corporate structure offers no advantages over direct government monitoring, direct penalties on individual managers is optimal (for discussions, see Polinsky and Shavell (1993); Arlen 1994). In this paper we take an agnostic view toward this debate, and instead focus on documenting the size and nature of the penalties imposed on individuals and firms.

(vi) Legal penalties explain 5.3% of the market value lost by firms targeted by enforcement actions. We devise a method to estimate the correction in firm value as investors learn that the firm's books were in error. Such financial statement corrections explain an additional 28.8% of the lost firm value. The remaining 65.9% is a measure of the reputational penalty from financial misrepresentation. In other words, the reputational penalty – which reflects the present value of the firm's higher cost of capital or lower cash flows from its misconduct – is more than 12 times the sum of all financial penalties imposed by the legal and regulatory process.

Thus, contrary to conventional wisdom, the evidence shows that the SEC actively disciplined financial misrepresentation long before the Sarbanes-Oxley Act was enacted in July 2002. Between 1978 and 2002, federal regulators assessed large legal penalties against both firms and individuals. Even larger than any legal penalties, however, are the reputational penalties reflected in the firms' value losses. As Becker (1968), Karpoff and Lott (1993), and others have argued, ignoring reputational penalties when setting federal and state penalties for corporate misbehavior results in over deterrence and the consequent suboptimal allocation of resources. This is because overly large legal penalties discourage corporations from investing in reputation, and because regulatory penalties involve administrative and enforcement costs that are imposed indiscriminately upon both fraudulent and legitimate firms.

This paper is organized as follows. Section II describes the universe of enforcement actions for financial misrepresentation initiated from 1978 through 2002. Section III describes the enforcement process. Section IV reports on the types and sizes of the legal penalties imposed on individuals and firms, and in section V we measure the reputational losses. Section VI discusses our results in light of prior research and the current regulatory environment. We argue that new regulations are likely to result in suboptimal penalties if they do not take into account the actual legal and reputational penalties that firms incur when they are caught cooking the books. Section VII concludes the paper.

II. Data Description

Our investigation is based on all enforcement actions initiated by the SEC or DOJ from 1978 through 2002 under the accounting provisions of the Foreign Corrupt Practices Act (FCPA) of 1977 and preceding the implementation of new powers granted by the Sarbanes-Oxley Act.[6] An understanding of the FCPA's historical context is necessary to appreciate our sample's potential and limitations. Before 1977, federal powers to prosecute financial misrepresentation relied exclusively on the fraud statutes of the 1933 and 1934 Securities Acts. Enforcing these statutes proved difficult because they required proof of intent (*scienter*). The FCPA granted powers to prosecute financial misrepresentation without demonstrating intent. Consequently, all financial misrepresentation actions since 1978 include charges under the FCPA's accounting provisions. Thus, our sample is the universe of federal enforcement actions for financial misrepresentation. Other possible screens, such as the release of an Accounting and Auditing Enforcement Release (AAER), do not capture all charges for financial misrepresentation, as AAERs were issued in only 83.76% of the events in our sample.

Most (95%) of the enforcement actions in our sample incorporate other charges, including insider trading, civil and criminal fraud, racketeering, and tax evasion. We document all such charges, and also track all related class action and derivative lawsuits connected with these actions. But since our screen is for federal actions relating to financial misrepresentation, our sample is an incomplete and potentially biased survey of these other types of charges.

We collect our data from the Lexis-Nexis FEDSEC:SECREL database library, which contains public releases on all SEC securities enforcement actions. Since September 19, 1995, these enforcement actions also have been posted on the SEC's website at http://www.sec.gov. The Department of Justice provided DOJ enforcement data that we supplemented by searching Lexis-Nexis' FEDSEC:CASES. Releases issued by the firm pertaining to the enforcement action and related class action and derivative lawsuits were gleaned from Lexis-Nexis' Academic Business News and General News categories.

The SEC and DOJ initiated a total of 585 enforcement actions from 1978 through 2002. Table 1 reports the distribution of the sample by the year of the first legal or administrative charges against the firm.

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[6] The 1977 Foreign Corrupt Practices Act introduced two new accounting provisions to the 1934 Securities Exchange Act. Section 13(b)(2)(A) (15 U.S.C. § 78m(b)(2)(A)), referred to as the books and records provision, requires issuer firms (companies subject to Exchange Act reporting requirements) to keep detailed books and records that accurately reflect corporate payments and transactions. Section 13(b)(2)(B) (15 U.S.C. § 78m(b)(2)(B)), known as the internal controls provision, requires companies to devise and maintain a system of internal accounting controls to assure management's control over the company's assets. Two rules were also added to the Code of Federal Regulations to aid in enforcement of the Acts' provisions: 13b2-1 (17 C.F.R. 240 13b2-1) and 13b2-2 (17 C.F.R. 240 13b2-2).

The number of enforcement actions has grown over time, from an average of 7.6 per year from 1978-84, to 16.4 per year from 1985-93, and to 38.6 per year from 1994 to 2002. The 2002 spike in enforcement actions does not reflect the new prosecutorial powers bestowed by the July 30, 2002 ratification of the Sarbanes-Oxley act. We examined the records of all completed cases in the sample and determined that none have implemented Sarbanes-Oxley powers. The sample does include two open cases whose violation periods extend beyond Sarbanes-Oxley's ratification. It appears unlikely that the new powers will be invoked for either case, because the violation period overlaps the ratification date by one day in one case and by one month in the other.

The sample, of course, consists only of those firms that were charged with books and records or internal controls violations. We do not claim to provide insight on the apprehension rate of corporate financial misrepresentation. Nevertheless, to provide some basis of comparison, Table 1 reports the number of firms that are listed on the CRSP database for each year of the sample. On average, the annual number of enforcement actions represents 0.32% of all CRSP-listed firms.[7]

Table 1 also reports on the yearly numbers of firms that restated their earnings or assets, as reported in Wu (2004). This is a useful comparison because all firms subjected to financial misrepresentation actions restate their earnings at least once. On average, the annual number of enforcement actions represents 41% of the number of firms restating their financial statements. Ignoring the non-synchronicity between enforcement actions and restatements, this number implies that roughly 41% of firms that restate their earnings are subject to enforcement actions.

Table 2 classifies the sample by industry and firm size. Manufacturing firms comprise 48% of the sample. An additional 19% of the firms are in the services industry, followed by finance, insurance and real estate (10%), wholesale firms (6%), retail firms (5%), and transportation, communication, electric, gas and sanitary service firms (4%).

The smallest decile of firms experienced the most (65) enforcement actions. However, there is no statistically discernable tendency for the enforcement actions to be directed toward either large or small firms. The average market value of equity of firms in the smallest decile is \$3.4 million (the median is \$2.4 million). The average size of the 46 firms in the largest decile is \$16.3 billion (the median is \$5.8 billion).

III. The Enforcement Process

Figure 1 depicts the typical sequence of events surrounding a federal securities investigation. Two-thirds of the sample enforcement actions follow a conspicuous announcement by the firm that drew the regulator's scrutiny. Such events, which we label *trigger events*, are firm-initiated press releases of potential problems. Key trigger events include self-disclosures, restatements, auditor departures, and unusual trading. Investigations by other federal agencies such as the Department of Defense and Environmental Protection Agency are another source of trigger events, along with delayed SEC filings, management departures, whistleblowers, and routine reviews by the SEC. Our collection process back-fills the trigger events based on references found in subsequent federal filings. This explains why one-third of the trigger events are missing. The trigger event often is a symptom of underlying accounting irregularities. For example, a change in auditors or delay in filings may result from a disagreement between managers and auditors regarding the firm's financial reports.

Following a trigger event, the SEC performs an informal inquiry to gather additional information. The SEC uses this information to determine whether a formal investigation is warranted. During this time the targeted firm may issue a press release indicating that it is the target of an informal SEC inquiry or a formal investigation. We label such announcements *investigation events*. There are 278 such events in our sample – 80 inquiry announcements and 178 investigation announcements. Since some firms issue both types of announcements, the 278 investigation events cover 253 unique enforcement actions.

After an investigation, the SEC either drops the case or proceeds through one of three formal means. Because the SEC does not report dropped cases, we exclude them from our analysis. If the SEC proceeds, it chooses between taking administrative action, filing civil charges, or referring the case to the DOJ for criminal prosecution. We label such SEC and DOJ actions as *federal proceedings*, and they form the basis of our sample.

Each enforcement action has at least one federal proceeding event. In the case of concluded actions, the initial federal proceeding may also be the final, or *resolution disclosure*. Most enforcement actions, however, have multiple federal proceedings. Disclosures of SEC actions appear as Administrative

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[7]A publicly traded firm's likelihood of being reviewed by the SEC was estimated to be 8% in 2000. Alix

Releases (Securities Act Releases and Exchange Act Releases) or Litigation Releases. When the SEC deems one of these releases to be of particular importance to the accounting profession, they assign it an Accounting and Auditing Enforcement Release (AAER) number. DOJ-initiated proceedings do not follow a similarly formal process. Rather, they usually occur in the form of a press conference at the enforcement action's resolution.

An average of 4.17 federal proceeding events occur per action; however, this number varies with the scope and complexity of each enforcement action. The number of federal proceedings per action varies from a minimum of one to a maximum of 36 (for Enron) as of June 30, 2004. To examine the market response to the timing of such events, we separate out the proceedings that constitute *initial disclosures* of the SEC's or DOJ's charges, and those that constitute disclosure of the *resolution* of such charges.[8]

Table 3 reports the number and average frequency of all federal proceedings associated with the 585 enforcement actions in the sample. The 585 initial enforcement actions unleashed a total of 1,035 administrative proceedings and 1,157 civil litigation proceedings from the SEC, and 248 criminal charges from the DOJ. Thus, the typical enforcement action led to 1.77 administrative proceedings, 1.98 civil litigation proceedings, and 0.42 criminal charges. A total of 1,361 AAERs were issued, for an average of 2.33 per enforcement action. The 585 sample actions implicated 2,310 individuals and 657 firms. Administrative proceedings were launched against 800 individuals and 297 firms. Civil proceedings named 1,681 individuals and 429 firms, and the DOJ brought criminal charges against 501 individuals and 38 firms.

Table 4 documents the complex nature of cases brought for financial misrepresentation. There are two sections under which charges of financial misrepresentation can be brought. Section 13(b)(2)(A) (15 U.S.C. § 78m(b)(2)(A)), referred to as the books and records provision, requires issuer firms (companies subject to Exchange Act reporting requirements) to keep detailed books and records that accurately reflect corporate payments and transactions. Section 13(b)(2)(B) (15 U.S.C. § 78m(b)(2)(B)), known as the internal controls provision, requires companies to devise and maintain a system of internal accounting

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Nyberg, "Calling Off the Dogs," CFO Magazine, December 2001.

[8] The mean period between the first and last federal proceeding is 27.4 months for enforcement actions whose initial proceeding was not also a resolution disclosure, and the median is 20.4 months.

controls to assure management's control over the company's assets. Most of the 585 enforcement actions (463) cite violations of both the books and records and the internal controls provisions.

These financial reporting violations often are invoked in conjunction with other charges: 452 of the enforcement actions include fraud charges brought under the auspices of the 1933 Securities Act and the 1934 Securities Exchange Act. The targeted firm, or at least one related individual, faced civil fraud charges in 312 sample events, and 140 sample events included charges of criminal fraud. In 275 sample events, fraud charges were made under sections 17(a) or 17(b) of the 1933 Securities Exchange Act, and in 448 sample events, fraud charges were brought under sections 10(a) or 10(b) of the 1934 Securities Exchange Act.[9] Fraud charges invoked both the 1933 and 1934 Acts in 271 of the sample enforcement actions. Fraud is often linked to financial reporting violations because failure to keep accurate books and records frequently coincides with intent to mislead, thus triggering charges of fraud.

IV. Legal Penalties Imposed on Individuals and Firms

Both individuals and firms can be assessed penalties for financial reporting violations. Details on the types of penalties imposed are provided in the appendix. Table 5 summarizes the type and extent of penalties imposed on individuals (penultimate column) and on firms (last column) as of June 30, 2004. At that time, 560 of the 585 sample enforcement actions were complete.

IV. A. Penalties Imposed on Individuals

Individuals can be ordered to pay fines or civil monetary penalties, or to disgorge any personal monetary gains that resulted from the illegal activity. They can be prohibited from serving as officers or directors of registered companies. Professionals such as lawyers, accountants, and dealer/brokers can be censured, suspended, or barred from practicing before the SEC either temporarily or permanently. In addition, individual investors can sue the company or its managers seeking monetary damages through class action or derivative lawsuits.

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[9] Section 17 of the Securities Act prohibits by the use of any means or instruments of transportation or communication in interstate commerce or by use of the mails, fraudulent interstate transactions in connection with securities offerings. Section 10 of the Exchange Act prohibits the use of manipulative and deceptive devices to effect the purchase or sale in any security.

The SEC enforces minor violations through administrative proceedings. More significant violations can prompt the SEC to file civil charges. And when criminal fraud or intent is suspected, the SEC can refer the matter to the DOJ for criminal prosecution. Criminal penalties for individual managers include fines and prison sentences.

As reported in table 3, a total of 2,310 individuals were named in a total of 585 federal proceedings, so roughly four individuals were named per action. Panel A of Table 5 reports the types and number of non-monetary sanctions imposed on these 2,310 individuals. The SEC imposed a total of 3,311 administrative and civil sanctions, an average of 1.43 sanctions per individual or 5.66 sanctions per enforcement action. Roughly three of every four actions are administrative cease and desist orders or injunctive actions issued by the civil courts. The remaining sanctions clearly exceed the proverbial slap on the wrist. A total of 382 executives were barred from serving as officers or directors of public corporations, and 426 individuals were suspended or barred from future work as financial professionals or lawyers in SEC-related filings and matters. In total, 830 individuals (35.6% of the 2,310 individuals named) were barred, suspended, or censured for their involvement in the financial violations.

More significantly, 501 of the 2,310 individuals named in these actions (21.7%) were indicted on criminal charges. As of June 30, 2004, 338 of these individuals had pleaded or been found guilty (while 160 still were awaiting trial). Of the 210 individuals for whom we have sentencing data, 190 were incarcerated for an average of 4.2 years. Ninety individuals received probationary sentences, including some who received jail sentences. In total, 805 years of incarceration and 260 years of probation were imposed for book cooking violations.

Panel B of Table 5 shows that individual monetary penalties were imposed in 282 of the 585 actions (48.2%). The mean monetary penalty imposed in these actions is $47.2 million. Omitting the $10.8 billion judgment against Charles Keating, Jr. in the Lincoln Savings & Loan (American Continental Corp.) scandal reduces this mean to $8.9 million (the median is $270,500).

Panel C of Table 5 shows that class action suits resulted in monetary penalties for individuals in 208 of the 585 actions (35.6%). The mean settlement awarded in these suits is $4.5 million. The median settlement for individuals of $0 reflects the prevalence of directors & officers insurance, which indemnifies these individuals and results in insurance companies and the firm paying most class action settlements.

Lott (1992) reports that legal penalties for corporate malfeasance account for only a small fraction of the total impact on managers' personal wealth, as the managers also experience reputational losses that adversely affect their abilities to earn wages in the future. Even ignoring reputational penalties, however, the SEC imposed 3,311 sanctions on 2,310 individuals involved in these actions. One in four of the individuals were barred or suspended. One in five was indicted on criminal charges and only three individuals were exonerated. In addition, individuals were assessed regulatory monetary penalties in 48.2% of the 585 actions and class action and derivative lawsuits settlements in 35.6% of the actions.

IV. B. Penalties Imposed on Firms

IV.B.1. Legal penalties

Firms, like individuals, are subject to administrative cease-and-desist orders and civil injunctions. At the other end of the SEC's spectrum of potential non-monetary penalties for firms are trading suspensions and registration revocations. Also like individuals, firms can be assessed monetary penalties or sued by individual investors.

The last column of table 5 summarizes both non-monetary and monetary legal penalties imposed on firms caught cooking the books between 1978 and 2002. Panel A shows that non-monetary sanctions are common. A total of 781 non-monetary sanctions were assessed against firms implicated in 585 financial enforcement actions. Most (93.0%) of the 781 non-monetary actions were cease-and-desist orders or permanent injunctions. On the surface, the SEC's predominant use of these sanctions might be interpreted as "wrist-slapping." However, the SEC's alternative non-monetary sanctions terminate the targeted firm from public trading. In fact, only two firms of the 32 firms whose trading was suspended by the SEC ever traded again in the public markets. In addition, over half of the sample firms delist before charges are filed, thus rendering sanctions that terminate trading moot.[10]

The number of monetary penalties assessed against firms also may be affected by this high attrition rate. Panel B of Table 5 shows only 43 federally imposed monetary penalties against the 585 firms in our sample. While this appears to be a small percentage of the sample enforcement actions, it represents

[10] CRSP data are available for 486 sample firms at the beginning of their violation periods. This availability falls to 216 firms at the charges filed date because 266 sample firms were delisted between the

20% of the 216 firms that were still trading when charges were filed. The mean fine of $84.3 million reflects the influence of a $2.25 billion fine imposed upon WorldCom Inc. in July 2003 for overstating its income by a cumulative amount of $7.2 billion. Omitting this outlier, the mean fine is $32.8 million.

Class action lawsuits result in monetary penalties more frequently than do federal enforcement actions. This difference reflects the speed at which private suits are filed (on average one day after the trigger announcement). In the legal process governing class action suits, discovery follows the filing of the suit. In contrast, discovery precedes the filing of charges in the regulatory process. As a result, many target firms are no longer listed by the time regulators are prepared to file charges. Summary statistics on the amounts of the payments are reported in Panel C of Table 5. In a total of 208 class action lawsuits, the mean settlement is $22.7 million. The largest award of $2.83 billion is from a class action suit brought against Cendant Corp. (formerly CUC International) involving 12 years of systematic accounting manipulation.[11] Omitting this large settlement, the mean settlement falls to $9.2 million.

To summarize, these data indicate that substantial monetary and non-monetary legal penalties were assessed for financial reporting violations long before the financial reporting scandals that prompted the Sarbanes-Oxley legislation. A host of administrative, civil, and criminal sanctions have been imposed on both perpetrators and their firms. At first glance, the number of penalties against firms appears small, but this is an artifact of the high mortality rate for firms implicated for cooking their books. Such penalties typically are awarded through civil class action lawsuits rather than through federal agencies.[12]

IV.B.2. Share Value Effects of Financial Misrepresentation Enforcement Actions

In this section we examine the valuation effects of financial reporting enforcement actions.[13]

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two dates. Only 23 of these 266 delistings are the result of acquisitions. The remainder reflects poor stock performance and failure to meet listing requirements.

[11] See the SEC's Administrative Proceeding File No. 3-10255 and AAER No. 1272 released June 14, 2000.

[12] Again, at this point we do not engage the debate on the optimality of a penalty process that imposes costs on shareholders for managers' actions, or that permits transfers among shareholders based on civil judgments. Rather, our focus is on documenting the sizes and types of penalties imposed.

[13] Several researchers have examined the share value impacts of news releases that firms violated financial reporting rules or had to restate earnings (see Feroz, Park, and Pastena (1991), Karpoff and Lott (1993), Dechow, Hutton, and Sloan (1996), Bonner, Palmrose, and Young (1998), Beneish (1999), and Palmrose, Richardson, Scholz (2004)). These papers have not, however, attempted a systematic examination of the legal and market penalties imposed on individuals and firms for financial reporting violations. Furthermore, by relying on such sources as *The Wall Street Journal Index* or the appearance of an SEC

Table 6 reports the abnormal returns associated with the events illustrated in Figure 1: the trigger, the investigation, and federal proceedings. Investigation events are disclosures made by the firm, whereas proceeding events are formal announcements by the SEC or DOJ.

As previously noted, some sample firms were never listed on CRSP and others delisted during their enforcement period; therefore, the number of returns is not uniform across all event dates. For the 585 enforcement actions, the first row of Panel A shows that we identified 371 trigger events of which 328 have returns data on CRSP. Similarly, the first row of Panel B shows that we identified 278 investigation events of which 230 have returns data available. Similarly, the 585 enforcement actions prompted 1,953 separate federal proceedings, but returns data are available for only 586 of these proceedings. The sharp decline in the proportion of events with available returns reflects the sample's high delisting rate. Our estimates understate the true valuation losses for these firms because firms that delist or have trading suspensions tend to be those with poor stock performance and our method captures only market value changes explicitly linked with the enforcement disclosures.

Abnormal returns are calculated as the raw return of the firm's equity minus the contemporaneous return on the value-weighted CRSP index. Parametric t-statistics for the mean abnormal returns use the standard error of the cross-section of abnormal (market-adjusted) returns. We also report median abnormal returns and statistical significance based on the Wilcoxon rank-sum test.

As reported in Panel A, the mean abnormal one-day stock return for the 328 trigger events is –25.24%. Fully 98.5% of these abnormal returns are negative, and both the t-statistic and Wilcoxon rank sum test statistic are significant at the 0.001 level. Thus, trigger announcements that attract federal enforcement actions are significant events for shareholders. This point can be illustrated with examples from our sample. First Merchants Acceptance Corp.'s shares fell 51% when it announced irregularities in the company's financial records. The company fired its president, launched a special investigation to determine the cause of the accounting irregularities, and announced a potential restatement of the previous year's net earnings. Platinum Software's shares fell 64% when it announced the departure of four top officers and its simultaneous need to restate previously issued financial results.

Accounting and Auditing Enforcement Release (AAER) to collect their samples, these papers miss many of the disciplinary actions initiated by the SEC.

Like the examples above, more than half of all trigger events are self-disclosures by the firm. The market reacts similarly to trigger events whether or not they are self-disclosures. We break out other common trigger events, and the abnormal return for each subgroup is significantly negative.

As reported in Panel B, the mean abnormal return for all 230 investigation events is -14.41%. Most (97.4%) of these abnormal returns are negative, both test statistics are significant at the 0.001 level. Further, the market appears to respond similarly to both informal inquiries and formal investigation announcements by the targeted firm.

The mean abnormal return for 586 federal disclosures is -6.56%. The majority (88.7%) of these abnormal returns is negative, and both the t-statistic and Wilcoxon rank sum test statistic are significant at the 0.001 level. Predictably, the market reaction to the initial federal disclosure of an enforcement action (–9.60%) is significantly more negative than the reaction to a federal proceeding that resolves the enforcement action (–4.90%).

Although class action lawsuits are omitted from Figure 1, they are significant events in their own rights. Most class actions are filed soon after their associated trigger announcements, but some are filed much later, even after the federal disclosure of a resolution. The mean abnormal return for the 272 announcements of class action lawsuits is –7.00% (91.9% are negative). As expected, filing announcements result in significantly larger losses (-8.85%) than settlement announcements (-4.04%).

Panel C of Table 6 reports on the market reaction to the initial revelation of federal involvement. Such revelation can come from announcements made by the firm (investigation events), or from the initial proceeding in the enforcement action. The market reacts similarly to initial disclosures made by the firm whether the disclosure is of an informal inquiry (-15.84%) or of a formal investigation (-13.20%). When the initial disclosure comes from the SEC or DOJ, the share value change is -14.99%. However, when the initial disclosure comes from the SEC or DOJ and the announcement indicates that the case has been resolved, the abnormal change in share value is only -6.71%. It seems likely that initial proceedings events that also resolve enforcement actions involve infractions that are less serious in scope, or that they leave investors less uncertain about future repercussions.

Overall, the results in Table 6 indicate that the events that trigger investigations of financial misrepresentation, and the investigations themselves, are associated with large drops in share values. Large losses in share values occur at the event that triggers an investigation and at the announcement that an investigation has begun. There are further share value losses upon follow-up announcements relating to the specific charges filed against the firm, and the resolution of those charges.

V. The Sizes and Sources of Share Value Loss

V.A. The total valuation effect

In this section we consider possible explanations for the decline in firm value associated with the enforcement actions, with the intent of estimating the percentage of the decline that can be attributed to reputation loss. We begin by calculating the combined valuation impact for all enforcement events associated with a single enforcement action. Thus, for each enforcement action, j, the cumulative abnormal return is

$$CAR_j = \sum_{t=1}^{n} AR_{jt} \ ,$$

where AR_{jt} is the one-day abnormal stock return for enforcement action, j, on announcement date t; t=1 is the initial event of the enforcement action and t=n is the final event. The number of events varies with the scope and complexity of individual enforcement actions.

Our rationale for this measure is that all enforcement events convey information about the violation and/or the cost to the firm. The trigger event, for example, reveals unfavorable information about the firm's earnings, asset values, or management. It also increases the likelihood that the firm will be the target of an SEC or DOJ enforcement inquiry or action. The investigation announcement confirms that the firm is the target of such an action. Yet it also frequently reveals further information about the firm's earnings, asset values, and management. Likewise, additional information about the firm and the cost of the enforcement action is revealed during federal proceedings.

Because reputation is not directly measurable, we use a residual approach to estimate reputation loss. This approach is a refinement to the method used by Jarrell and Peltzman (1985) and Karpoff and Lott (1993). After estimating the total value lost, we subtract all legal penalties, class action settlements, and accounting adjustments. As discussed in the previous section, many firms delist over the course of an enforcement action, so returns data are unavailable for many of the enforcement events. As a result, our estimates of total loss inevitably underestimate the true value lost in enforcement actions. Because the other loss components are directly observable, underestimates of the total loss causes our estimates of reputation loss to be similarly understated.[14]

Panel A of Table 7 reports the magnitude of the total valuation effect for the 414 accounting enforcement actions for which CRSP and Compustat data are available. We convert the valuation effect to dollars by multiplying each CAR_j by the firm's market capitalization one day before the corresponding announcement date. The mean (median) valuation effect is -41.08% (-30.26%). In dollar terms, this translates into a total loss of $157.6 billion. The mean and median loss per enforcement action is $380.7 million ($20.4 million).

V.B. The sources of loss

Panel B of Table 7 partitions the $157.6 billion total loss into four categories. The first three categories (*legal penalty effect, class action effect, and accounting write-off effect*) are relatively, though not perfectly, observable. By measuring and subtracting the valuation effect of these categories from our estimate of the full valuation loss, we arrive at an estimate of the fourth category: the *reputation effect*.

The *legal penalty effect* is the portion of the share value loss that is attributable to investors' expectations of monetary sanctions against the firm. To measure this effect, we collect from SEC and court records all monetary fines, penalties, and disgorgement eventually imposed on the firm because of the enforcement action. If investors' expectations are rational, the actual penalty imposed is an unbiased estimate of the legal penalty reflected in the share price reaction to accounting-related announcements. We apply similar reasoning and methodology to estimate the *class action effect*.

The *accounting write-off effect* estimates the valuation loss directly attributable to the financial misstatement. To illustrate the importance of this effect, consider the hypothetical example of an all-equity firm that has book value of assets equal to $100 and a market-to-book ratio of 1.5. The market value of the firm's assets, and its shares, is $150. Assume the company then issues a misleading financial statement that

[14] It is possible that the delistings indicate that many firms cooking their books are not financially viable in the first place, in which case our estimation procedure may attribute too much of the share value losses to lost reputation. (See Maksimovic and Titman (1991) for a discussion of firms' incentives to commit fraud.) To test this conjecture, we conducted our tests using data only on the firms that survive the enforcement process. The estimates of the reputational loss are similar.

overstates its asset values by $10. If the firm's market-to-book ratio stays the same, its share values will increase temporarily by ($10 x 1.5) to $165. But when the financial misrepresentation is discovered, the book value will be restated by $10, back to $100. If there is no other impact, the market value will fall by $15, back to $150. Thus, a $10 restatement in the firm's books implies a $15 change in the market.

This $15 drop in market value is what we seek to capture with the *accounting write-off effect*. We estimate the write-off effect by measuring the book value of assets that each firm writes off during its enforcement period and multiplying this amount by the firm's industry average market-to-book ratio. The firm's market-to-book ratio plunges during this period reflecting revised expectations of future operations and foregone reputation. Therefore, we use the median market-to-book multiple for all firms listed in Compustat in the same two-digit SIC code for the year corresponding to the write-off. (Using firm-specific market-to-book ratios, estimated before the enforcement period, yields qualitatively similar results to those reported here.)

The book value of the asset write-off is calculated as the sum of accounting changes (Compustat item 183), net charge offs (item 349), and special items (item 17) cumulated over the entire enforcement period. This procedure overstates the accounting write-off effect because these items include many charges that are unrelated to the firms' accounting deceptions. For example, special items include non-trivial unrelated restructuring charges and losses on sales of subsidiaries. When net charge offs include the monetary penalties imposed by the SEC, DOJ, or through civil lawsuits, we subtract these amounts to avoid double counting. Nevertheless, our estimate of asset write-offs is a generous upper bound on the assets written off because of misleading accounting practices. Despite such an upper bound estimate, the accounting write-off effect remains small when compared to the reputation effect, as discussed below.

As reported in Table 7, the 414 firms with sufficient accounting and returns data had a total of $3.6 billion in legal penalties imposed. This represents 2.3% of the $157.6 billion total dollar loss associated with the enforcement period in Panel A. Total class action settlements are $4.7 billion, or 3.0% of the total dollar loss. Stated differently, only 5.3% of the total dollar loss associated with the enforcement period can be attributed to legal penalties and class action settlements. This leaves 94.7% of the total value loss to be split between the write-off and reputation effects.

The sample firms wrote down the book values of their assets by a cumulative amount of $28.9 billion during their enforcement periods. Multiplying each firm's write-down by its industry median market to book ratio (the sample industry median multiple is 1.57), our estimate of the accounting write-off effect is $45.4 billion. This is our estimate of the amount by which these firms' market values were inflated due to their misleading financial statements. Despite our generous upper bound estimate of this write-off effect, this estimate can justify no more than 28.8% of the $157.6 billion total dollar loss associated with the enforcement period.

Combining the 28.8% attributed to the write-off effect with the 5.3% attributed to legal penalties and class action suits leaves 65.9% – $103.8 billion of the total dollar loss associated with the enforcement period – unaccounted for. We attribute this remainder to the *reputation effect*.

As discussed by Klein and Leffler (1981), Jarrell and Peltzman (1985), and others, the reputation effect is the present value of losses expected to accrue because the firm is revealed to have violated financial reporting rules. Such losses can arise if current managers are required to divert time and energy to the investigation rather than attending to company business. The revelation of financial reporting problems could force the firm to adopt new monitoring and control policies that increase its cost of operations. Most significantly, the revelation of misconduct can affect the firm's cost of capital and operating cash flows. As Karpoff and Lott (1993) argue, diminished reputation can increase the firm's cost of raising capital, receiving trade credit, or contracting with suppliers. It also can result in lower future revenues if customers doubt the quality of the firm's guarantees to support warranties or supply compatible services or parts in the future. We group all such influences into the reputation effect.

Our results provide insight into the cost to firms for being caught cooking their books. Dividing the total $157.6 billion market loss by the 414 firms in the sample provides an average cost per firm for each category. Thus, the average cost per firm is $380.7 million. Of that amount, average legal penalties are $8.7 million, class action settlements are $11.4 million, accounting write-offs are $109.7 million, and the reputational loss is $250.8 million. Notice that the reputational loss is more than 12 times the sum of all legal penalties. This indicates that, as significant as the legal penalties can be, they are dwarfed by the reputational loss.

VI. Discussion

VI.A. Related literature

The preceding point estimates of the sources of loss are, of course, very rough. Nonetheless, they are consistent with the argument that reputational effects help discipline financial misrepresentations – indeed, our evidence indicates that market-imposed reputational losses are of *primary* importance. This evidence is consistent with previous attempts to measure reputational losses for other types of corporate misconduct. In particular, reputational losses are significant for false advertising (Peltzman 1981), product recalls (Jarrell and Peltzman 1985), air safety disasters (Mitchell and Maloney 1989), frauds of private parties (Karpoff and Lott 1993), investigations of IPO underwriters (Beatty, Bunsis, and Hand 1998), and defense procurement fraud (Karpoff, Lee, and Vendrzyk 1999). Importantly, the market does not dole out reputational losses uniformly. Reputational penalties are insignificant for technical regulatory violations (Karpoff and Lott 1993) and for environmental violations (Karpoff, Lott, and Wehrly 2004), in which firms injure parties other than those with whom they have ongoing business relationships.

Our results also are consistent with theoretical arguments about the importance of reputational effects in disciplining corporate misconduct. Klein and Leffler (1981) show how reputation deters fraudulent representations, and Karpoff and Lott (1993) argue that the reputational penalties for some types of corporate wrongdoing should be larger than for other types. We would expect the reputational penalties for financial misrepresentations to be particularly large, because they undermine the firm's credibility with investors, and possibly also with suppliers, employees, and customers. Such a large reputational effect is illustrated anecdotally by the rapid meltdown of the Enron Corp. after revelation of financial problems in October 2001 (for a discussion, see Palepu and Healy 2003). Our evidence indicates that large reputational losses for financial misrepresentation are the rule rather than the exception.

VI.B. Implications for Corporate Governance

Our results have direct bearing on the standard of care required of corporate directors in acting to prevent financial malfeasance. As established in the Delaware Chancery Court's *Caremark* decision, Delaware corporate law imposes an affirmative duty on board members to establish mechanisms to assure legal compliance when failure to comply exposes the firm to large penalties.[15] Failure to do so exposes board members to personal liability. The *Caremark* decision bases its high standard of care on the fact that noncompliance exposes the firm's shareholders to large legal penalties.[16] Our evidence indicates that the cost of financial misrepresentation is extremely high, particularly when the reputational cost is included. If the *Caremark* standard is applied to financial misrepresentation, our evidence implies that directors (of firms incorporated in Delaware, at least) will be held to extremely high standards of care in working to prevent financial misrepresentation in their firms.

Our results also are consistent with Jensen's (2004) argument about the agency costs of overvalued equity. Jensen proposes that overvaluation of shares in financial markets encourages some managers to engage in value-destroying activities as they try to maintain the high share values. One such value-destroying activity is to violate financial reporting rules. The evidence in our paper indicates that such violations, when caught, trigger extremely high costs. Thus, financial manipulation can have large adverse consequences for the real allocation of firm resources.

VI.C. Implications for Public Policy

Zingales (2004) notes that regulatory analyses frequently are "framed as an alternative between complete laissez-faire and government intervention," and argues that policy analyses should account for conditions under preexisting rules. Such an argument applies directly to the Sarbanes-Oxley Act, which increases legal penalties for financial misrepresentation. At the very least, the data reported in this paper establish a benchmark for any analysis of the effects of Sarbanes-Oxley, since it documents the types and sizes of penalties before Sarbanes-Oxley was implemented.[17]

Our findings also are consistent with criticisms of the Sarbanes-Oxley Act. As Klein and Leffler (1982), Jarrell and Peltzman (1983), and Karpoff and Lott (1993) argue, an increase in legal penalties tends to only partially crowd out reliance on reputational penalties. Therefore, a new law that increases legal

[15] See 698 A.2d 959 (Delaware Chancery Court 1996).
[16] E.g., see Id. at page 970: "Any rational person attempting in good faith to meet an organizational governance responsibility would be bound to take into account ... the enhanced penalties..." For an analysis of the *Caremark* decision, see Elson and Gyves (2004).
[17]To promote continued exploration of these issues, our proprietary database will be posted on the web upon publication of the paper.

penalties for financial misrepresentation, such as Sarbanes-Oxley, increases the total penalty. As Becker (1968) points out, large penalties can lead to overdeterrence and a consequent misallocation of resources. For example, even firms that do not violate financial reporting rules incur costs to comply with new reporting rules and to avoid false accusation of wrongdoing.

Such concerns fuel current criticisms of the Sarbanes-Oxley Act. For example, Zingales (2004) argues that "there is very little in the Sarbanes-Oxley rules that would have contributed to avoiding such scandals as Enron, WorldCom and Tyco," and Romano (2004) calls for Sarbanes-Oxley's "quack" corporate governance guidelines to be stripped of their mandatory force. Our evidence lends support to such arguments because it documents large penalties for financial misrepresentation even before Sarbanes-Oxley rules took effect. Most importantly, our finding that most of the penalty for cooking the books reflects lost reputation implies that it is a mistake to consider only the legal penalties in making business decisions or setting public policy.

VII. Conclusions

Scandals involving Enron Corp., WorldCom, Inc., and other U.S. corporations helped create a widespread presumption that penalties for financial misrepresentation are *de minimus*. This presumption lies behind proposals to change the ways companies report their earnings and to increase penalties for misrepresentation. The evidence in this paper, however, undermines this presumption. We document the enforcement actions taken by the SEC under powers it has had since 1978 to discipline financial misrepresentations. From 1978-2002, the SEC brought 585 such enforcement actions, at an annual rate that grew substantially during this period.

Legal penalties related to these actions can be substantial. A total of 830 individuals have been censured, suspended from professional practice, or barred from service as officers or directors of public corporations; 282 enforcement actions have resulted in monetary penalties for individuals with a median value of $270,500. Criminal indictments have been issued against 501 individuals with only three individuals being exonerated. To date, 190 individuals have received jail sentences that average 4.2 years.

The monetary penalties paid by firms also have been substantial. While only 43 firms have been fined directly by the SEC or DOJ, with a median fine of $750,000, over half of the sample firms were delisted before the SEC commenced legal proceedings. Another 208 firms paid an average of $22.7 million to settle class-action lawsuits arising from the misrepresentations and 23 corporations had their registrations revoked.

Although the legal penalties can be large, the market penalties imposed on firm shareholders are huge. The initial announcement of a federal enforcement action is associated with an average decline in the target firm's stock value of 13%. This is in addition to a 25% decrease upon a prior announcement that triggered the federal investigation. The legal penalties and class action lawsuits explain a small portion – an average of 5% – of the market value losses. A larger fraction of the loss in share values is due to asset write-downs as these firms are forced to correct misrepresentations in their financial statements. Our best estimate of the size of this accounting write-off effect equals 29% of the loss in share value, on average. These results imply that a large portion of the market value losses – 66% – is due to expectations of impaired operations and decreased future earnings.

Previous research (e.g., Jarrell and Peltzman, 1985) indicates that a principle component of such operating losses is lost reputation. Our results therefore are consistent with the argument that financial reporting violations bring large market penalties because they impose large losses on investors, and possibly also such other parties as suppliers and customers. Just as firms that cheat their customers lose future sales, we should expect firms that cheat their investors to face higher financing costs. Our point estimates indicate that, for every misrepresented dollar on a firm's books, the firm loses that dollar, as well as 17¢ in legal penalties and losses to class action suits, and $2.28 in lost reputation. Thus, despite an active federal enforcement regime, the market's reputational penalties constitute a much larger deterrent to financial misrepresentation than do the remedies of our legal and regulatory system.

Overall, our evidence indicates that financial misrepresentation has been penalized, even before the implementation of the Sarbanes-Oxley provisions. Legal penalties can be substantial. But market penalties – and in particular, lost reputation – constitute a large share of these penalties. A focus on purely legal penalties therefore would miss the most important cost to shareholders of firms that misrepresent their financial statements. And it would miss the important role that reputation plays in handing out different penalty levels for different types of corporate misconduct.

Such reputational costs have been all but ignored in recent policy debates over new guidelines and penalties for financial misconduct. Yet optimal penalty theory, as in Becker (1968), implies that ignoring such reputational penalties leads to suboptimal, and even perverse, legal penalties.

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Table 1. SEC and DOJ Enforcement Actions, 1978-2002

Annual distribution of SEC and Department of Justice enforcement actions for financial misrepresentation under 15 U.S.C. §§ 78m(b)(2) and (5), and 17 C.F.R. 240 13b2-1 and 13b2-2. This represents the universe of enforcement actions for books and records and internal controls financial reporting violations. The column labeled "CRSP Firms" reports the total number of firms listed on NYSE/AMEX/NASDAQ in CRSP. "Firms with Restatements" reports the number of accounting restatements reported by Wu (2004).

Year	Enforcement Actions	CRSP Firms	% of CRSP Firms	Firms with Restatements	% of Restatements
1978	2	4,822	0.04%	2	100.00%
1979	4	4,782	0.08%	1	400.00%
1980	4	4,925	0.08%	5	80.00%
1981	10	5,328	0.19%	3	333.33%
1982	8	5,459	0.15%	6	133.33%
1983	12	6,055	0.20%	14	85.71%
1984	13	6,269	0.21%	41	31.71%
1985	17	6,258	0.27%	27	62.96%
1986	16	6,548	0.24%	30	53.33%
1987	35	7,108	0.49%	26	134.62%
1988	20	6,917	0.29%	32	62.50%
1989	19	6,748	0.28%	34	55.88%
1990	20	6,675	0.30%	32	62.50%
1991	17	6,736	0.25%	48	35.42%
1992	20	6,870	0.29%	50	40.00%
1993	21	7,600	0.28%	32	65.63%
1994	35	8,128	0.43%	56	62.50%
1995	33	8,348	0.40%	47	70.21%
1996	54	8,960	0.60%	58	93.10%
1997	38	9,041	0.42%	59	64.41%
1998	23	8,634	0.27%	96	23.96%
1999	31	8,300	0.37%	204	15.20%
2000	34	8,102	0.42%	153	22.22%
2001	39	7,410	0.53%	153	25.49%
2002	60	6,994	0.86%	224[†]	26.79%
Total	585			1,433	40.82%

[†] Estimate based upon 112 restatements through June 30, 2002.

Table 2: Distribution of Enforcement Actions by Industry and Firm Size

Distribution of books and records and internal controls enforcement actions from 1978 - 2002 partitioned by the SIC-based industry and size decile of the firm at which the alleged violation occurred. SIC codes are taken first from COMPUSTAT if available then from CRSP in the fiscal year at the end of the violation period identified in SEC proceedings. The size decile is based on the firm's market value of equity relative to NYSE, AMEX, and NASDAQ firms in the CRSP database.

2-digit SIC Brackets	Industry	Total Firms	Sized-Based Deciles: Larger Firms 10	9	8	7	6	5	4	3	2	Smaller Firms 1	Not Listed†
01-09	Agriculture, Forestry & Fishing	1	-	-	1	-	-	-	-	-	-	-	-
10-14	Mining	17	1	-	-	2	1	2	1	2	3	3	2
15-17	Construction	11	-	-	1	2	1	4	-	-	1	2	-
20-39	Manufacturing	283	14	9	15	32	16	21	26	32	19	26	73
40-49	Transportation, Communication, Electric, Gas & Sanitary Services	24	5	3	1	3	1	3	2	2	-	3	1
50-51	Wholesale Trade	36	2	1	3	3	2	3	2	5	6	7	2
52-59	Retail Trade	31	3	1	4	-	6	3	4	2	4	4	-
60-67	Finance, Insurance, & Real Estate	59	12	8	6	5	7	1	1	3	3	13	-
70-89	Services	113	9	10	8	14	12	9	9	11	16	7	8
	Unclassified	10	-	-	-	-	-	-	-	-	-	-	10
	Total	585	46	32	39	61	46	46	45	57	52	65	96

† Firms that cannot be classified into size deciles because they are not listed in the 2003 CRSP database.

Table 3: Releases and Proceedings Stemming from Enforcement Actions

Number of SEC public releases and legal proceedings in 585 financial reporting enforcement actions under the SEC's books and records and internal controls provisions (15 U.S.C. §§ 78m(b)(2) and (5), and 17 C.F.R. 240 13b2-1 and 13b2-2). The SEC issues a public release when formal action is taken in an enforcement action. Administrative proceedings refer to actions taken by the SEC through powers granted in the 1933 and 1934 Securities Acts. Civil and criminal proceedings refer to charges that are brought in federal district courts. Whenever an enforcement action provides information pertinent to the accounting and auditing profession, an AAER (Accounting and Auditing Enforcement Release) may be issued with an administrative or litigation release.

	N	**Per Enforcement Action**
SEC Enforcement actions	585	1.00
Individuals named	2,310	3.95
Companies named	657	1.12
SEC Administrative releases	1,035	1.77
SEC Litigation releases	1,157	1.98
Total SEC public releases	2,192	3.75
AAERs issued	1,361	2.33
SEC Administrative releases:		
Administrative proceedings	802	1.37
Individuals named	800	1.37
Companies named	297	0.51
SEC Litigation releases:		
Civil proceedings	660	1.13
Individual defendants	1,681	2.87
Company defendants	429	0.73
Corresponding DOJ prosecutions:		
Criminal proceedings	248	0.42
Individual defendants	501	0.86
Company defendants	38	0.06

Table 4: Types of Charges in Financial Reporting Enforcement Actions

Incidence of the specific charges brought in the 585 enforcement actions for financial misrepresentation and accompanying fraud charges. Books and records charges are brought under powers enumerated in 15 U.S.C. §§ 78m(b)(2) and 17 C.F.R. 240 13b2-1. Internal controls charges are brought under 15 U.S.C. §§ 78m(b)(5) and 17 C.F.R. 240 13b2-2. Fraud charges are brought under the 1933 Securities Act and the 1934 Securities Exchange Act.

Description	Count
Financial reporting provision cited:	
Books & records charges (no internal controls)	102
Internal controls charges (no books & records)	20
Both internal controls and books & records charges	463
Enforcement action categories:	
No fraud charges included	133
Fraud charges included	452
Civil fraud	*312*
Criminal fraud	*140*
Types of fraud charges brought under:	
1933 Securities Act	275
1934 Securities Exchange Act	448
• 1933 Securities Act *only*	4
• 1934 Securities Exchange Act *only*	177
• Both Securities Acts	271

Table 5: Sanctions for Financial Reporting Violations

Penalties imposed through federal sanctions and civil class action and derivative lawsuits relating to 585 enforcement actions for financial misrepresentation brought under 15 U.S.C. §§ 78m(b)(2) and (5), and 17 C.F.R. 240 13b2-1 and 13b2-2. Administrative sanctions refer to cease-and-desist and remedial actions ordered by the SEC. Injunctive sanctions refer to court ordered permanent injunctions against future violations. Officer and director bars refer to the prohibition of serving as an officer or director of a public firm. Other suspensions/bars are temporary or permanent suspension of practicing before the Commission. Censures are formal reprimands issued by the SEC to third parties such as auditors. Trading suspensions are 10-day trading suspensions ordered by the SEC, and registration revocations refer to the permanent termination of registration as a publicly traded company. Monetary penalties include fines, disgorgement and other forms of restitution. Class action lawsuits are brought by shareholders against the firm, officers, directors and other related parties, as a result of the financial reporting related charges named in federal enforcement actions. Derivative lawsuits are brought by shareholders against the officers and on behalf of the firm with awards and settlements being paid to the firm. Any amounts paid to firms as a result of derivative actions are netted out in the Firm's "Monetary Penalties" numbers. Only partial sanction and penalty information is presented for 60 actions whose proceedings were ongoing as of June 30, 2004.

Panel A: Non-Monetary Sanctions		Individuals	Firm
Administrative and Civil Sanctions			
Number of SEC administrative sanctions (cease and desist orders)		800	297
Number of injunctive sanctions issued by civil courts		1,681	429
Officer and director bars		382	
Other suspensions/bars		426	
Censures		22	
Trading suspensions			32
Registration revocations			23
Total number of non-monetary sanctions		3,311	781
Criminal Sanctions			
Number of people indicted on criminal charges		501	
Awaiting/in trial as of June 30, 2004		160	
Number guilty or settled		338	
Sentence unknown		47	
Sentence pending		64	
Died prior to sentencing		17	
Data on sentence available		210	
Incarceration (prison, home detention, halfway house)	N	190	
Years of sentence	Total	804.8	
	Mean	4.2	
	Median	2.9	
	Min	0.1	
	Max	35.0	
Probation (probation, supervised release)	N	90	
Years of sentence	Total	259.6	
	Mean	2.9	
	Median	3.0	
	Min	0.2	
	Max	6.0	

Panel B: Monetary Penalties		Individuals	Firm
Penalties per enforcement action ($000)	N	282	43
	Total	13,308,690.6	3,625,659.9
	Mean	47,193.9	84,317.7
	Median	270.5	750.0
	Min	2.9	0.0
	Max	10,805,550.2[††]	2,250,000.0[†]

Panel C: Class Action/Derivative Lawsuits		Individuals	Firm
Number of class action/derivative lawsuits	N	208	208
Payments ($000)	Total	2,640,839.8	4,727,912.8
	Mean	4,514.3	22,730.4
	Median	0.0	358.8
	Min	0.0	0.0
	Max[†††]	335,000.0	2,830,000.0

[†] A $2.25B penalty assessed against WorldCom although a lesser amount was actually paid in bankruptcy.
[††] Total criminal and civil penalties in American Continental Corp (Lincoln Savings & Loan).
[†††] $3.165B total class action settlement in Cendant Corp with firm paying $2.83B and other parties $335MM.

Table 6: Abnormal Returns for Enforcement Related Announcements

Average one-day market-adjusted returns for enforcement actions brought for financial misrepresentation. Announcement events are grouped by announcement type with abnormal returns measured relative to the value-weighted CRSP index. Trigger events are identified in the federal proceedings. Informal inquiries are announcements made by a firm that a federal agency has requested information. Formal investigation announcements reveal that the firm has been notified that it is the target of a federal investigation of securities violations. Federal proceedings are official administrative or litigative releases by the SEC or DOJ. Resolution disclosures are releases that resolve the enforcement action. Class actions are separate announcements that refer to parallel private lawsuits. #Ann reports the number of announcements for each category; #w/data is the number of announcements with returns data available on CRSP. % Neg is the percentage of negative abnormal returns. P > |t| are p-values for parametric t-tests and P > |s| are p-values for the Wilcoxon rank sum test.

Type of Announcement	#Ann	#w/data	% Neg	Mean	P > |t|	Median	P > |s|
Panel A (trigger events)							
All trigger events	371	328	98.5%	-25.24%	<.001	-17.57%	<.001
Self-disclosures	194	179	98.3%	-25.52%	<.001	-20.33%	<.001
Restatements	53	47	100%	-23.88%	<.001	-14.52%	<.001
Auditor departures	33	23	100%	-34.24%	<.001	-17.20%	<.001
Unusual trading	6	5	100%	-41.20%	0.074	-33.17%	0.063
Other†	85	74	97.3%	-21.57%	<.001	-11.90%	<.001
Panel B (initial and subsequent announcements of regulatory involvement)							
Investigation Events (announced by the firm)	278	230	97.4%	-14.41%	<.001	-9.65%	<.001
Informal inquiries	80	73	100%	-15.84%	<.001	-8.80%	<.001
Formal investigations (not mutually exclusive)	198	157	96.2%	-13.74%	<.001	-10.65%	<.001
All Federal Proceedings Events	1,953	586	88.7%	-6.56%	<.001	-2.76%	<.001
Initial disclosures††	585	256	90.6%	-9.60%	<.001	-3.43%	<.001
Resolution disclosures††	525	194	85.1%	-4.90%	<.001	-2.31%	<.001
Resolution disclosure = initial disclosure	162	87	85.1%	-5.79%	0.002	-2.06%	<.001
Resolution disclosure ≠ initial disclosure	363	107	85.1%	-4.18%	<.001	-2.35%	<.001
Class Action Events	354	272	91.9%	-7.00%	<.001	-4.14%	<.001
Filings††	200	167	94.0%	-8.85%	<.001	-5.27%	<.001
Settlements††	154	105	88.6%	-4.04%	<.001	-2.69%	<.001
Panel C (initial announcements of regulatory involvement only)							
All initial announcements	585	323	96.0%	-13.09%	<.001	-6.70%	<.001
Initial announcement *made by the firm* (Investigation Events):							
Informal inquiries	80	73	100%	-15.84%	<.001	-8.80%	<.001
Formal investigations (mutually exclusive)	173	133	96.2%	-13.20%	<.001	-9.61%	<.001
Initial announcement *made through a federal proceeding event:*							
Initial disclosure = resolution disclosure††	107	53	88.7%	-6.71%	0.023	-2.06%	<.001
Initial disclosure ≠ resolution disclosure††	225	64	96.9%	-14.99%	0.002	-4.88%	<.001

† Includes other federal investigations, delayed SEC filings, management departures, whistleblowers, periodic reviews, false information, specific accounting issues and bribery.
†† Pair-wise tests of equality indicate significant difference in both parametric t tests and non-parametric Wilcoxon tests.

Table 7: Sources of Firms' Losses for Financial Reporting Violations

Size and sources of valuation effect for 414 firms undergoing federal enforcement actions for violations of the books and records or internal controls provisions (15 U.S.C.§§ 78m(b)(2) and (5), and 17 C.F.R. 240 13b2-1 and 13b2-2). To be included in this table, firms must have data available in COMPUSTAT and have at lease one return on any of the event dates in CRSP during the enforcement period. Cumulative abnormal returns are based on the value-weighted index of all stocks in CRSP. Total Dollar Value Impact is calculated as the change in total market capitalization due to abnormal returns across the announcement dates. Sources of Dollar Value Impact are legal penalties, class action settlements, and the dollar value of accounting write-off effect during the fiscal years of the enforcement action. Accounting write-off effect is calculated by summing special items (COMPUSTAT Item 17), accounting charges (Item 183), and charge offs (Item 349) from COMPUSTAT and multiplying by the industry median market-to-book assets ratio using two-digit SIC codes also calculated from COMPUSTAT. The Reputation Effect is the Total Dollar Value Impact minus the Legal Penalty, Class Action, and Accounting Write-off effects.

Panel A: Size of the Total Valuation Effect

	N	Mean	Median
Cumulative Abnormal Return	414	-41.08%	-30.26%
	Total		
Total Dollar Value Impact ($MIL)	-157,592.45	-380.66	-20.43

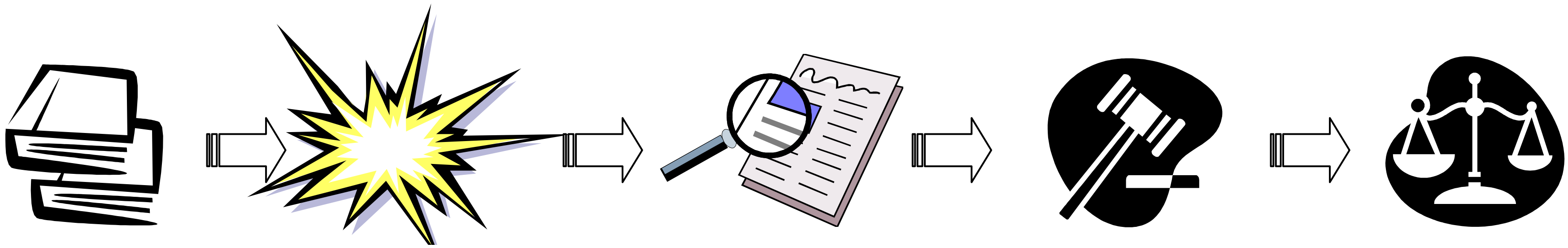
Panel B: Sources of the Dollar Value Impact

Sources ($MIL):	Total	Mean-based Percentage	Median-based Percentage
Legal Penalty Effect	-3,622.13	2.30%	0%
Class Action Effect	-4,709.11	2.99%	0%
Accounting Write-off Effect†	-45,426.44	28.83%	38.67%
Reputation Effect	-103,834.77	65.88%	61.33%

† Includes the average effect of an industry median market-to-book assets multiple of 1.57.

Figure 1. Definitions and Typical Progression of Events in an Enforcement Action

Violation Period | **Enforcement Period**



Filings and Reports

Period over which books and records are found to be in error

Trigger Event

- Self-disclosure
- Restatements
- Auditor departures
- Unusual trading
- Other federal investigations
- Delayed filings
- Management departures
- Whistleblowers
- Routine reviews
- False information
- Specific accounting issues
- Bribery

Investigation Event

- Press release by firm
  - Informal inquiry
  - Formal investigation

Federal Proceeding Events

- SEC Release
  - Litigation Release
  - Administrative Release
    - Securities Act Release
    - Exchange Act Release
    - Accounting and Auditing Enforcement Release (AAER)
- DOJ/Court Releases

Initial Disclosure

- First public release by federal agency of an enforcement action

Resolution Disclosure

- Final public release by federal agency of an enforcement action
  - Settlement terms
  - Trial result
  - Sanctions

Appendix: Federal Securities Proceedings in Enforcement Actions

Administrative Proceedings	
Subject, Activities and Basis for Enforcement Action	**Sanction**
Any individual or firm Violation of federal securities law.	Cease-and-desist order, which may also require remedial action and/or other compliance requirements; accounting and disgorgement of illegal profits.
Broker-dealer, investment adviser or associated person Willful violation of securities laws or rules; aiding or abetting violations; failure to supervise others; willful misstatement or omission in required filings; conviction or injunction against certain crimes or conduct	Censure or limitation on activities; revocation, suspension or denial of registration; bar or suspension from association. Civil penalty up to $110,000 for individuals or $550,000 for firms; accounting and disgorgement of illegal profits. Temporary cease-and-desist order (may be issued ex parte).
Principal of broker-dealer Officer, director, general partner, 10% owner or controlling person of a broker-dealer.	Bar or suspension from being or becoming associated with a broker dealer.
Person subject to Sections 12, 13, 14 or 15(d) of the Exchange Act Failure to comply with provisions; causing a failure by an act or omission that person knew or should have known would contribute thereto.	Order directing compliance or steps effecting compliance.
Attorney, accountant or other professional Lack of qualifications; lacking in character or integrity; unethical or improper conduct; willful violation of securities laws or rules or aiding and abetting such violation. Attorney suspended or disbarred by court; professional license revocation or suspension; conviction of a felony or of a misdemeanor involving moral turpitude. Securities violation in Commission-initiated action; finding of securities violation by Commission in administrative proceedings.	Permanent or temporary denial of privilege of appearing or practicing before the Commission (other bar). Automatic suspension from appearance or practicing before the Commission (other bar). Temporary suspension from practicing before the Commission; censure; permanent or temporary disqualification from practicing before the Commission (other bar).

Federal Securities Proceedings in Enforcement Actions

Civil Proceedings in Federal District Courts	
Any individual or firm	
Engaging in or about to engage in activities violating securities laws, rules or orders including those of self-regulatory organizations.	Injunction against the acts or practices constituting the violation (permanent injunction); other equitable relief under court's general equity powers (remediation).
Non-compliance with laws, rules or regulations under Securities Act, Exchange Act, or Holding Company Act; orders issued by Commission, self-regulatory organization or undertaking in a registration statement.	Writ of mandamus, injunction or order directing compliance (remediation).
Violating securities laws or a cease-and-desist order (excluding insider trading).	Civil penalty up to $110,000 for individuals or $550,000 for firms or, if greater, the gross gain to the defendant. Penalties are subject to other limitations dependent upon the nature of the violation.
Trading while in possession of material non-public information in a transaction on an exchange or from or through a broker-dealer; aiding and abetting or directly or indirectly controlling the person who engages in such trading (insider trading).	Maximum civil penalty: three times profit gained or loss avoided as a result of transaction.
Violating Securities Act Section 17(a) or Exchange Act section 10(b), when conduct demonstrates substantial unfitness to serve as an officer or director (civil fraud).	Prohibition from acting as an officer or director of any public company (officer & director bar).
Issuer subject to Section 12 or 15(d) of the Exchange Act; officer, director, employee or agent or stockholder acting on behalf of issuer	
Payment to a foreign official, foreign political party or official, or candidate for foreign political office, for purpose of seeking the use of influence in order to assist issuer in obtaining or retaining business for or with, or directing business to any person (civil foreign bribery).	Maximum civil penalty: $11,000.
Issuer subject to 15(d) of Exchange Act	
Failure to file required information, documents or reports.	Forfeiture of $110 per day.
Officer, director, member of advisory board, adviser, depositor, or underwriter of investment company	
Engage in an act constituting breach of fiduciary duty involving personal misconduct.	Injunction against acting in certain capacities for investment company and other appropriate relief (other bar).

Federal Securities Proceedings in Enforcement Actions

Criminal Proceedings By Department of Justice	
Any individual or firm Willful violation of securities laws or rules; willful misstatement in any document required to be filed by securities laws or rules; willful misstatement in any document required to be filed by self-regulatory organization in connection with an application for or association with membership (criminal fraud).	Maximum penalties: $1,000,000 fine and 10 years imprisonment for individuals, $2,500,000 fine for firms.
Issuer subject to Section 12 or 15(d) of the Exchange Act; officer, director, stockholder acting on behalf of issuer; employee or agent subject to the jurisdiction of the United States Payment to a foreign official, foreign political party or official, or candidate for foreign political office, for purpose of seeking the use of influence in order to assist issuer in obtaining or retaining business for or with, or directing business to any person (criminal foreign bribery).	Issuer - $2,000,000; officer, director, employee, agent or stockholder - $100,000 and 5 years imprisonment (issuer may not pay fine for others).