

# **Fraudulent Financial Reporting: 1987-1997**

## **An Analysis of U.S. Public Companies**

Research Commissioned by the

**Committee of Sponsoring Organizations  
of the Treadway Commission**

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The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is very pleased to have sponsored the study, *Fraudulent Financial Reporting: 1987-1997*. The study provides a comprehensive analysis of fraudulent financial reporting occurrences investigated by the SEC since the issuance of the 1987 *Report of the National Commission on Fraudulent Financial Reporting* (the “Treadway Commission” Report).

We believe the research results will be extremely useful to investors, regulators, stock exchanges, boards of directors, and external auditors. For the first time, we have a clear understanding of the who, why, where and how of financial reporting fraud. This knowledge, properly applied, should help to further reduce the frequency and severity of the fraud problem in the United States.

Some of the more critical insights of the study are:

- The companies committing fraud generally were small, and most were not listed on the New York or American Stock Exchanges.
- The frauds went to the very top of the organizations. In 72 percent of the cases, the CEO appeared to be associated with the fraud.
- The audit committees and boards of the fraud companies appeared to be weak. Most audit committees rarely met, and the companies’ boards of directors were dominated by insiders and others with significant ties to the company.
- A significant portion of the companies was owned by the founders and board members.
- Severe consequences resulted when companies committed fraud, including bankruptcy, significant changes in ownership, and delisting by national exchanges.

The study results highlight the need for an effective control environment, or “tone at the top.” The risk of fraud is much higher in small companies. A strong CEO, with significant share ownership in a small organization, needs an experienced, independent board to insure objectivity.

COSO’s mission is to improve the quality of financial reporting through internal controls, governance, and ethics. This study validates the need for continued focus on all three areas. We believe the study will provide a platform for those responsible for financial reporting to improve their effectiveness.

**John J. Flaherty**  
COSO Chairman

## Preface

This project was commissioned by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). COSO is a private sector initiative, jointly sponsored and funded by the following organizations:

American Accounting Association (AAA)  
American Institute of Certified Public Accountants (AICPA)  
Financial Executives Institute (FEI)  
Institute of Management Accountants (IMA)  
The Institute of Internal Auditors (IIA)

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# ***Fraudulent Financial Reporting: 1987-1997***

## ***An Analysis of U.S. Public Companies***

### **I. Executive Summary and Introduction**

Fraudulent financial reporting can have significant consequences for the organization and for public confidence in capital markets. Periodic high profile cases of fraudulent financial reporting raise concerns about the credibility of the U.S. financial reporting process and call into question the roles of auditors, regulators, and analysts in financial reporting.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) sponsored this research project to provide an extensive updated analysis of financial statement fraud occurrences. While the work of the National Commission on Fraudulent Financial Reporting in the mid-1980s identified numerous causal factors believed to contribute to financial statement fraud, little empirical evidence exists about factors related to instances of fraud since the release of the 1987 report (NCFRR, 1987). Thus, COSO commissioned this research project to provide COSO, and others, with information that can be used to guide future efforts to combat the problem of financial statement fraud and to provide a better understanding of financial statement fraud cases.

This research has three specific objectives:

- To identify instances of alleged fraudulent financial reporting by registrants of the U.S. Securities and Exchange Commission (SEC) first described by the SEC in an Accounting and Auditing Enforcement Release (AAER) issued during the period 1987-1997.
- To examine certain key company and management characteristics for a sample of these companies involved in instances of financial statement fraud.
- To provide a basis for recommendations to improve the corporate financial reporting environment in the U.S.

We analyzed instances of fraudulent financial reporting alleged by the SEC in AAERs issued during the 11 year period between January 1987 and December 1997. The AAERs, which contain summaries of enforcement actions by the SEC against public companies, represent one of the most comprehensive sources of alleged cases of financial statement fraud in the United States. We focused on AAERs that involved an alleged violation of Rule 10(b)-5 of the 1934 Securities Exchange Act or Section 17(a) of the 1933 Securities Act given that these represent the primary antifraud provisions related to financial statement reporting. Our focus was on cases clearly involving financial statement fraud. We excluded from our analysis restatements of financial statements due to errors or earnings management activities that did not result in a violation of the federal antifraud statutes.

Our search identified nearly 300 companies involved in alleged instances of fraudulent financial reporting during the 11 year period. From this list of companies, we randomly selected approximately 200 companies to serve as the final sample that we examined in detail. Findings reported in this study are based on information we obtained from our reading of (a) AAERs related to each of the sample fraud companies, (b) selected

Form 10-Ks filed before and during the period the alleged financial statement fraud occurred, (c) proxy statements issued during the alleged fraud period, and (d) business press articles about the sample companies after the fraud was disclosed.

### Summary of Findings

Several key findings can be generalized from this detailed analysis of our sample of approximately 200 financial statement fraud cases. We have grouped these findings into five categories describing the nature of the companies involved, the nature of the control environment, the nature of the frauds, issues related to the external auditor, and the consequences to the company and the individuals allegedly involved.

#### Nature of Companies Involved

- **Relative to public registrants, companies committing financial statement fraud were relatively small.** The typical size of most of the sample companies ranged well below \$100 million in total assets in the year preceding the fraud period. Most companies (78 percent of the sample) were not listed on the New York or American Stock Exchanges.
- **Some companies committing the fraud were experiencing net losses or were in close to break-even positions in periods before the fraud.** Pressures of financial strain or distress may have provided incentives for fraudulent activities for some fraud companies. The lowest quartile of companies indicate that they were in a net loss position, and the median company had net income of only \$175,000 in the year preceding the first year of the fraud period. Some companies were experiencing downward trends in net income in periods preceding the first fraud period, while other companies were experiencing upward trends in net income. Thus, the subsequent frauds may have been designed to reverse downward spirals for some companies and to preserve upward trends for other companies.

#### Nature of the Control Environment (Top Management and the Board)

- **Top senior executives were frequently involved.** In 72 percent of the cases, the AAERs named the chief executive officer (CEO), and in 43 percent the chief financial officer (CFO) was associated with the financial statement fraud. When considered together, in 83 percent of the cases, the AAERs named either or both the CEO or CFO as being associated with the financial statement fraud. Other individuals named in several AAERs include controllers, chief operating officers, other senior vice presidents, and board members.
- **Most audit committees only met about once a year or the company had no audit committee.** Audit committees of the fraud companies generally met only once per year. Twenty-five percent of the companies did not have an audit committee. Most audit committee members (65 percent) did not appear to be certified in accounting or have current or prior work experience in key accounting or finance positions.

- **Boards of directors were dominated by insiders and “grey” directors with significant equity ownership and apparently little experience serving as directors of other companies.** Approximately 60 percent of the directors were insiders or “grey” directors (i.e., outsiders with special ties to the company or management). Collectively, the directors and officers owned nearly 1/3 of the companies’ stock, with the CEO/President personally owning about 17 percent. Nearly 40 percent of the boards had not one director who served as an outside or grey director on another company’s board.
- **Family relationships among directors and / or officers were fairly common, as were individuals who apparently had significant power.** In nearly 40 percent of the companies, the proxy provided evidence of family relationships among the directors and / or officers. The founder and current CEO were the same person or the original CEO / President was still in place in nearly half of the companies. In over 20 percent of the companies, there was evidence of officers holding incompatible job functions (e.g., CEO and CFO).

### **Nature of the Frauds**

- **Cumulative amounts of frauds were relatively large in light of the relatively small sizes of the companies involved.** The average financial statement misstatement or misappropriation of assets was \$25 million and the median was \$4.1 million. While the average company had assets totaling \$533 million, the median company had total assets of only \$16 million.
- **Most frauds were not isolated to a single fiscal period.** Most frauds overlapped at least two fiscal periods, frequently involving both quarterly and annual financial statements. The average fraud period extended over 23.7 months, with the median fraud period extending 21 months. Only 14 percent of the sample companies engaged in a fraud involving fewer than twelve months.
- **Typical financial statement fraud techniques involved the overstatement of revenues and assets.** Over half the frauds involved overstating revenues by recording revenues prematurely or fictitiously. Many of those revenue frauds only affected transactions recorded right at period end (i.e., quarter end or year end). About half the frauds also involved overstating assets by understating allowances for receivables, overstating the value of inventory, property, plant and equipment and other tangible assets, and recording assets that did not exist.

### **Issues Related to the External Auditor**

- **All sizes of audit firms were associated with companies committing financial statement frauds.** Fifty-six percent of the sample fraud companies were audited by a Big Eight/Six auditor during the fraud period, and 44 percent were audited by non-Big Eight/Six auditors.

- **All types of audit reports were issued during the fraud period.** A majority of the audit reports (55 percent) issued in the last year of the fraud period contained unqualified opinions. The remaining 45 percent of the audit reports issued in the last year of the fraud departed from the standard unqualified auditor's report because they addressed issues related to the auditor's substantial doubt about going concern, litigation and other uncertainties, changes in accounting principles, and changes in auditors between fiscal years comparatively reported. Three percent of the audit reports were qualified due to a GAAP departure during the fraud period.
- **Financial statement fraud occasionally implicated the external auditor.** Auditors were explicitly named in the AAERs for 56 of the 195 fraud cases (29 percent) where AAERs explicitly named individuals. They were named for either alleged involvement in the fraud (30 of 56 cases) or for negligent auditing (26 of 56 cases). Most of the auditors explicitly named in an AAER (46 of 56) were non-Big Eight/Six auditors.
- **Some companies changed auditors during the fraud period.** Just over 25 percent of the companies changed auditors during the time-frame beginning with the last clean financial statement period and ending with the last fraud financial statement period. A majority of the auditor changes occurred during the fraud period (e.g., two auditors were associated with the fraud period) and a majority involved changes from one non-Big Eight/Six auditor to another non-Big Eight/Six auditor.

### **Consequences for the Company and Individuals Involved**

- **Severe consequences awaited companies committing fraud.** Consequences of financial statement fraud to the company often include bankruptcy, significant changes in ownership, and delisting by national exchanges, in addition to financial penalties imposed. A large number of the sample firms (over 50 percent) were bankrupt/defunct or experienced a significant change in ownership following disclosure of the fraud. Twenty-one percent of the companies were delisted by a national stock exchange.
- **Consequences associated with financial statement fraud were severe for individuals allegedly involved.** Individual senior executives were subject to class action legal suits and SEC actions that resulted in financial penalties to the executives personally. A significant number of individuals were terminated or forced to resign from their executive positions. However, relatively few individuals explicitly admitted guilt or eventually served prison sentences.

### **Summary of Implications**

The research team analyzed the results to identify implications that might be relevant to senior managers, board of director and audit committee members, and internal and external auditors. The implications reflect the judgment and opinions of the research team, developed from the extensive review of information related to the cases involved. Hopefully the presentation of these implications will lead to the consideration of changes that can promote higher quality financial reporting. The following implications are noted:

## **Implications Related to the Nature of the Companies Involved**

- The relatively small size of fraud companies suggests that the inability or even unwillingness to implement cost-effective internal controls may be a factor affecting the likelihood of financial statement fraud (e.g., override of controls is easier). Smaller companies may be unable or unwilling to employ senior executives with sufficient financial reporting knowledge and experience. Boards, audit committees, and auditors need to challenge management to ensure that a baseline level of internal control is present.
- The national stock exchanges and regulators should evaluate the tradeoffs of designing policies that might exempt small companies, given the relatively small size of the companies involved in financial statement fraud. A regulatory focus on companies with market capitalization in excess of \$200 million may fail to target companies with greater risk for financial statement fraud activities.
- Given that some of the fraud firms were experiencing financial strain in periods preceding the fraud, effective monitoring of the organization's going-concern status is warranted, particularly as auditors consider new clients. In addition, the importance of effective communications with predecessor auditors is highlighted by the fact that several observations of auditor changes were noted during the fraud period.

## **Implications Related to the Nature of the Control Environment (Top Management and the Board)**

- The importance of the organization's control environment cannot be overstated, as emphasized in COSO's *Internal Control – Integrated Framework* (COSO, 1992). Monitoring the pressures faced by senior executives (e.g., pressures from compensation plans, investment community expectations, etc.) is critical. The involvement of senior executives who are knowledgeable of financial reporting requirements, particularly those unique to publicly-traded companies, may help to educate other senior executives about financial reporting issues and may help to restrain senior executives from overly aggressive reporting. In other cases, however, board members and auditors should be alert for deceptive managers who may use that knowledge to disguise a fraud.
- The concentration of fraud among companies with under \$50 million in revenues and with generally weak audit committees highlights the importance of rigorous audit committee practices even for smaller organizations. In particular, the number of audit committee meetings per year and the financial expertise of the audit committee members may deserve closer attention.
- It is important to consider whether smaller companies should focus heavily on director independence and expertise, like large companies are currently being encouraged to do. In the smaller company setting, due to the centralization of power in a few individuals, it may be especially important to have a solid monitoring function performed by the board.

- An independent audit committee's effectiveness can be hindered by the quality and extent of information it receives. To perform effective monitoring, the audit committee needs access to reliable financial and non-financial information, industry and other external benchmarking data, and other comparative information that is prepared on a consistent basis. Boards and audit committees should work to obtain from senior management and other information providers relevant and reliable data to assist them in monitoring the financial reporting process.
- Investors should be aware of the possible complications arising from family relationships and from individuals (founders, CEO / board chairs, etc.) who hold significant power or incompatible job functions. Due to the size and nature of the sample companies, the existence of such relationships and personal factors is to be expected. It is important to recognize that such conditions present both benefits and risks.

### **Implications Related to the Nature of the Frauds**

- The multi-period aspect of financial statement fraud, often beginning with the misstatement of interim financial statements, suggests the importance of interim reviews of quarterly financial statements and the related controls surrounding interim financial statement preparation, as well as the benefits of continuous auditing strategies.
- The nature of misstatements affecting revenues and assets recorded close to or as of the fiscal period end highlights the importance of effective consideration and testing of internal control related to transaction cutoff and asset valuation. Based on the assessed risk related to internal control, the auditor should evaluate the need for substantive testing procedures to reduce audit risk to an acceptable level and design tests in light of this consideration. Procedures affecting transaction cut-off, transactions terms, and account valuation estimation for end-of-period accounts and transactions may be particularly relevant.

### **Implications Regarding the Roles of External Auditors**

- There is a strong need for the auditor to look beyond the financial statements to understand risks unique to the client's industry, management's motivation towards aggressive reporting, and client internal control (particularly the tone at the top), among other matters. As auditors approach the audit, information from a variety of sources should be considered to establish an appropriate level of professional skepticism needed for each engagement.
- The auditor should recognize the potential likelihood for greater audit risk when auditing companies with weak board and audit committee governance.

## Overview of Report

The remainder of this report is organized as follows. Section II provides a description of the approach we took to identify the sample cases of fraudulent financial reporting and contains a summary of the sources we used to gather data related to each sample case. Section III contains a summary of the results from our detailed analysis of approximately 200 cases of fraudulent financial reporting.

The detailed analysis of findings from this examination of fraudulent financial reporting violations produced numerous insights for further consideration. Section IV highlights those insights that have implications applicable to senior managers, board of director and audit committee members, and internal and external auditors. Section V provides a historical perspective on efforts related to financial statement fraud that have occurred since the issuance of the Treadway Commission's 1987 report (NCFRR, 1987). That section highlights numerous efforts by a variety of organizations related to the roles of external auditors, management, boards of directors, and audit committees.

Section VI provides an overview of significant findings from academic research that has been conducted since the late 1980s. This overview provides a summary of key insights coming from academic literature that provide additional perspective on the financial statement fraud problem. The study concludes with Section VII, which contains a brief description of the research team conducting this study.

We are confident that this report, *Fraudulent Financial Reporting: 1987-1997*, will prove helpful to parties concerned with corporate financial reporting. We hope it will stimulate greater awareness of new opportunities for improvements in the corporate financial reporting process.

## II. Description of Research Approach

The first step in this research project involved the identification of all alleged instances of fraudulent financial reporting captured by the SEC in an AAER issued during the period 1987-1997. In order to obtain detailed publicly-available information about company-wide and management characteristics of companies involved, the focus of this study is on instances of fraudulent financial reporting allegedly committed by SEC registrants that ultimately led to the issuance of an AAER.<sup>1</sup>

To identify instances of fraudulent financial reporting investigated by the SEC in the period 1987-1997, we read all AAERs issued by the SEC between January 1987 and December 1997. From our reading, we identified all AAERs that involved an alleged violation of Rule 10(b)-5 of the 1934 Securities Exchange Act (the Exchange Act), Section 17(a) of the 1933 Securities Act (the Act), or other antifraud statutes. We focused on violations of these securities laws given that these sections of the 1933 Act and 1934 Exchange Act are the primary antifraud provisions related to financial statement reporting. Because these securities provisions generally require the intent to deceive, manipulate or defraud, they more specifically indicate alleged instances of financial statement fraud than do other provisions of the securities laws.<sup>2</sup>

The AAERs represent one of the most comprehensive sources of alleged, discovered cases of financial statement fraud in the United States. However, such an approach does limit the ability to generalize the results of this study to other settings. Because the identification of fraud cases is based on review of AAERs, the findings are potentially biased by the enforcement strategies employed by the staff of the SEC. Because the SEC is faced with constrained resources, there is the possibility that not all cases of identified fraud occurring in the U.S. are addressed in the AAERs. There may be a heavier concentration of companies contained in the AAERs where the SEC assesses the probability of successful finding of financial statement fraud as high. In addition, the cases contained in the AAERs represent instances where the SEC alleged the presence of financial statement fraud. In most instances, the company and/or individuals involved admitted no guilt. To the extent that enforcement biases are present, the results of this study are limited. However, given no better publicly-available source of alleged financial statement fraud instances, this approach is optimal under the circumstances.

For purposes of this report, the term “fraudulent financial reporting” represents the intentional material misstatement of financial statements or financial disclosures or the perpetration of an illegal act that has a material direct effect on the financial statements or financial disclosures. The term financial statement fraud is distinguished from other causes of materially misleading financial statements, such as unintentional errors and other corporate improprieties that do not necessarily cause material inaccuracies in financial statements. Throughout this report, references to fraudulent financial reporting are all in the

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<sup>1</sup> Publicly-traded partnerships, broker-dealers, and unit investment trusts were excluded from this study.

<sup>2</sup> We did not include frauds whose only consequence gave rise to a potential contingent liability (e.g., an “indirect effect illegal act” such as a violation of Environmental Protection Agency regulations).

context of *material* misstatements. Our study excludes restatements of financial statements due to errors or earnings management activities that did not result in a violation of the federal antifraud securities provisions.

Our reading of AAERs during this period allowed us to develop a comprehensive list of companies investigated by the SEC during 1987-1997 for alleged financial statement fraud. We read over 800 AAERs, beginning with AAER #123 and ending with AAER #1004. From this process, we identified nearly 300 companies involved in alleged instances of fraudulent financial reporting. For each of these companies, we accumulated information about the specific security law violation to ensure that the AAER involved an alleged violation of Rule 10(b)-5 or Section 17(a) or other federal antifraud statutes.

SEC Accounting and Auditing Enforcement Releases issued from 1987-1997 address nearly 300 instances of fraudulent financial reporting.
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Using the listing of alleged cases of fraudulent financial reporting during the period 1987-1997, we randomly selected approximately 200 companies to serve as the final sample to be examined in detail as a part of this study. For each of the sample companies, we collected extensive information to create a comprehensive database on company and management characteristics surrounding instances of financial statement fraud from our reading of (a) AAERs related to the alleged fraud, (b) selected Form 10-Ks filed before and during the period the alleged financial statement fraud occurred, (c) proxy statements issued during the alleged fraud period, and (d) business press articles written about the sample companies after the fraud was revealed.

### **Data Obtained from AAERs**

We read all AAERs issued during 1987-1997 related to the alleged financial statement fraud for each of the sample companies. In many cases, several AAERs related to a single fraud at one company. From our reading, we attempted to capture the following information:

1. A list of the specific annual (Form 10-Ks) or quarterly financial statements (Form 10-Qs) fraudulently misstated and other filings with the SEC (e.g., S-1 registration statements) that incorporated fraudulently misstated financial statements. From this, we were able to determine the length of time the alleged fraud occurred. In many cases, we were also able to identify the auditor and the national stock exchange where company stock traded.
2. A brief description of the nature of the fraud allegations including a description of how the fraud was allegedly perpetrated.
3. The dollar amounts of the fraud and the primary accounts affected.
4. Identification of types of personnel and outsiders involved in the fraud.

5. An indication of the alleged motivation for committing the fraud.
6. The industry in which the company operates.
7. The geographic location of the business unit where the alleged fraud occurred.
8. An indication of any internal control weaknesses that presented the opportunity for the financial statement fraud to occur.
9. A summary of the reported outcome of the SEC's investigation, including disciplinary action against senior management personnel.

### **Data Obtained from Audited Financial Statements**

We also obtained copies of annual financial statements filed in a Form 10-K with the SEC. We specifically obtained copies of two different sets of financial statements. The first set of financial statements represented the audited financial statements included in the Form 10-K filed with the SEC for the fiscal period *preceding* the first known instance of fraudulently misstated financial statements for each of the sample companies ("last clean financial statements"). The second set of financial statements represented the audited financial statements in the Form 10-K filed with the SEC for the last fiscal year in which the alleged instance of the financial statement fraud occurred ("last fraud financial statements").

We read the last clean financial statements to identify the auditor responsible for auditing the financial statements before the first set of fraudulently misstated financial statements was issued. In addition to obtaining information about the auditor, we reviewed these Form 10-Ks to determine which national exchange the company's stock was listed on prior to the fraud. We also obtained copies of the balance sheet and income statement to have benchmark information about specific account balances (i.e., net sales, net income, total assets, and stockholder's equity) before the fraud occurred. We reviewed the last fraud financial statements to identify the name of the auditor in place and the nature of the audit opinion in the last period in which the financial statement fraud was allegedly in process.

### **Data Obtained from Proxy Statements**

We obtained copies of the last (or the one available closest to the last) proxy statement sent to shareholders during the period in which the alleged financial statement fraud was in process. We reviewed these proxy statements to gather information about the characteristics of the board of directors and audit committee (composition, number of meetings, etc.).

### **Data from Business Press Articles**

To obtain information about consequences for the company and for senior management subsequent to the revelation of the financial statement fraud, we performed an

extensive search using the Lexis/Nexis database of financial press articles. For each of the sample companies, we performed a search of the “General Business and Financial Sources” and the “Major Newspapers” databases at Lexis/Nexis for the period beginning with the date of the last set of financial statements fraudulently misstated and ending two years after the date of the last AAER issued by the SEC in relation to the financial statement fraud under investigation. We generated a listing of all articles in these databases issued during the time period described. We used that listing to obtain approximately 50 abstracts of articles published in selected business press sources during that time for each sample company, if available. We first generated abstracts of articles appearing in *The Wall Street Journal* and *The New York Times*. For companies not appearing regularly in one of these two newspapers, we also obtained abstracts of articles appearing in *Reuters Financial Service* and *PR Newswire* to generate a sufficient number of article abstracts. For some companies, there was a limited number of articles included in these databases due to minimal press coverage. Thus, the number of article abstracts reviewed was less than 50 in those cases.

We reviewed the article abstracts to capture any information related to consequences of the financial statement fraud. We captured information about whether the company had experienced financial difficulty to the point of being placed in bankruptcy, in liquidation or conservatorship, or had been sold (including the sale of significant portions of assets). We also reviewed the articles to determine if the company was delisted from one of the national stock exchanges and to determine if the company was the defendant in litigation related to the alleged financial statement fraud. We also reviewed the articles to obtain information about the consequences of the revelation of the alleged fraud for senior management. We captured information disclosing the resignation or termination of senior management and information disclosing indictments, fines, or sentencing of senior management in relation to the alleged fraud. Finally, we captured information about whether senior management was named as a defendant in lawsuits related to the alleged instance of financial statement fraud.

### **Data Limitations**

Readers should recognize that, despite our best efforts to collect complete data for all sample companies, the data sources used were often incomplete. For example, AAERs were uneven in their level of disclosure, and other sources (e.g., Form 10-Ks, etc.) often were not available.

In addition to data availability issues, readers should also recognize that a great deal of professional judgment was necessary as we collected and synthesized the data. We believe that we have been reasonable and consistent in our judgments, but the research approach is limited by the quality of our judgments.

### **III. Detailed Analysis of Instances of Fraudulent Financial Reporting: 1987-1997**

We analyzed instances of fraudulent financial reporting reported by the SEC in AAERs issued between January 1987 and December 1997. After reading over 800 AAERs, we identified nearly 300 companies involved in alleged instances of fraudulent financial reporting.<sup>3</sup> From this list of companies, we randomly selected 220 companies to examine in detail. However, because of significant data limitations, we were unable to include 16 of those companies in our analysis. Thus, the final sample examined in this study involves 204 fraud companies. In most instances, these fraud cases represent allegations of financial statement fraud made by the SEC without the company and/or individuals named in the AAER admitting guilt.

This section contains a summary of the key findings from our reading of (a) AAERs related to each of the 204 companies, (b) Form 10-Ks filed before and during the period the alleged financial statement fraud occurred, (c) proxy statements issued during the alleged fraud period, and (d) business press articles written about the sample companies after the fraud was disclosed.

#### **NATURE OF COMPANIES INVOLVED**

##### **Financial Profile of Sample Companies**

We were able to obtain the last clean financial statements for 99 of the 204 sample companies. Table 1 highlights selected financial statement information for these 99 companies.<sup>4</sup>

The sample companies are relatively small in size. While total assets, total revenues, and stockholder's equity averaged \$533 million, \$233 million, and \$86 million, respectively, the median of total assets was only \$15.7 million, the median of total revenues was only \$13 million, and the median of stockholder's equity was only \$5 million in the period ending before the fraud began. Given third quartiles of total assets of \$74 million, total revenues of \$53 million, and stockholder's equity of \$17 million, most of the sample companies operated well under the \$100 million size range.

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<sup>3</sup> Generally there are multiple AAERs related to the fraud at a single company.

<sup>4</sup> Our primary source of previously issued financial statements is the Q Fiche database, which is a microfiche database of selected SEC filings. Because public companies voluntarily submit their SEC filings for inclusion in the Q Fiche database, financial statements for the particular period of interest were often not available in the Q Fiche files. Thus, we were unable to obtain financial statements for all sample fraud companies. We then contacted Disclosure Inc., which is the official repository of SEC documents, to request copies of financial statements we could not locate on Q Fiche. Disclosure Inc. provided what they had available, but we were still unable to locate all financial statements identified. The last clean financial statements were generally not available because (1) all financial statements filed with the SEC were fraudulent (fraud began before going public), (2) some companies actually never filed financial statements with the SEC, or (3) other miscellaneous reasons that restricted availability.

Most companies had assets and revenues less than \$100 million preceding the fraud.

Some of the sample companies were financially stressed in the period preceding the fraud period. The median net income was only \$175,000, with the lowest quartile of companies facing net losses. The third quartile of companies had net income just over \$2 million in the year before the fraud allegedly began.

**Table 1 – Financial Profile of Sample Companies (n=99 companies)  
Last Financial Statements Prior to Beginning of Fraud Period**

	(in 000's)			
	<u>Total Assets</u>	<u>Revenues</u>	<u>Net Income (Loss)</u>	<u>Stockholders' Equity (Deficit)</u>
Mean	\$532,766	\$232,727	\$8,573	\$86,107
Median	\$15,681	\$13,043	\$175	\$5,012
Minimum Value	\$0	\$0	(\$37,286)	(\$4,516)
1 <sup>st</sup> Quartile	\$2,598	\$1,567	(\$448)	\$1,236
3 <sup>rd</sup> Quartile	\$73,879	\$53,442	\$2,164	\$17,037
Maximum Value	\$17,880,000	\$11,090,000	\$329,000	\$2,772,000

We also analyzed income statements for the last two years before the year of the last clean financial statements. Net income increased in the one-year period from the year before the last clean financial statements to the year of the last clean financial statements for 49 of the 99 companies. Of these 49 companies, net income for 30 companies increased for two years in a row. Net income decreased in the one-year period from the year before the last clean financial statements to the year of the last clean financial statements for 43 of the 99 companies. Of these 43 companies, net income for 22 companies decreased two years in a row. We were unable to observe any trends for 7 of 99 companies because they were in their first year of operations or represented development stage companies with no meaningful income statement results. To summarize, it appears that 22 companies experienced a downward trend in net income preceding the first year of the fraud, while 30 companies experienced an upward trend. This suggests that the subsequent frauds may have been designed to reverse downward spirals for some companies and to preserve upward trends for other companies.

## National Stock Exchange Listings

We reviewed the AAERs and the “last clean financial statements” to identify the national stock exchange where each of the companies’ stock traded. We were able to identify the stock exchange listing for 134 of the 204 sample companies. As indicated in Table 2, most (78%) were traded in Over-the-Counter Markets.<sup>5</sup> Approximately 15 percent of the companies’ stock traded on the New York Stock Exchange, and approximately 7 percent of the companies’ stock traded on the American Stock Exchange.

**Table 2 – Sample Companies’ National Stock Exchange Listing**

<u>National Stock Exchange</u>	<u>Number of Companies</u>	<u>Percentage of Companies</u>
New York Stock Exchange	20	15%
American Stock Exchange	10	7 %
Over-the-Counter Markets	<u>104</u>	<u>78%</u>
Number of Sample Companies With Available Stock Exchange Information	134	100%

## Industries for Companies Involved

We reviewed the information included in the AAERs to determine the primary industry in which the fraud companies operated. We were unable to identify the primary industry for 36 of the 204 sample companies. For the 168 companies where we were able to identify the primary industry, the industries affected most frequently included computer hardware and software (12 percent), other manufacturing (12 percent), financial services (11 percent), and healthcare/health products (9 percent). Of course, other industries could be more prevalent if different time periods were examined. See Table 3.

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<sup>5</sup> Over-the-Counter Markets include stocks traded on the NASDAQ National Market System, the NASDAQ Small-Cap Market, electronic bulletin boards, pink sheets, and other situations where investors contact dealers (brokers) when they want to buy or sell a security.

**Table 3 – Primary Industries of Sample Companies**

<u>Industry Classification</u>	<u>Number of Fraud Companies in Industry</u>	<u>Percentage of Fraud Companies</u>
Computer hardware/software	25	12%
Other manufacturers	25	12%
Financial service providers	23	11%
Healthcare and health products	19	9%
Retailers/Wholesalers	14	7%
Other service providers	14	7%
Mining/Oil and gas	13	6%
Telecommunication companies	10	5%
Insurance	6	3%
Real estate	5	3%
Miscellaneous	14	7%
Not available	<u>36</u>	<u>18%</u>
	204	100%

**Geographic Location of Sample Companies**

We reviewed the AAERs to identify the geographic location of the companies involved in committing the financial statement fraud. Most of the frauds were committed at or directed from the companies’ headquarters locations. Table 4 contains information about the frequency of cases for states in which at least four of the 204 sample companies were located. The states where most of the sample companies were located are California (16 percent of the fraud cases), New York (11 percent of the fraud cases), Florida (8 percent of the fraud cases), Texas (6 percent of the fraud cases) and New Jersey (5 percent of the sample fraud cases). This pattern is consistent with centers of business activity in the United States.

**Table 4 – Locations of Sample Companies**

<b><u>States Containing at Least Four Sample Company Headquarters</u></b>	<b><u>Number of Sample Companies in State</u></b>	<b><u>Percentage of Sample Companies in State</u></b>
California	33	16%
New York	23	11%
Florida	17	8%
Texas	12	6%
New Jersey	10	5%
Colorado	6	3%
Nevada	5	3%
Ohio	5	3%
Pennsylvania	5	3%
Arizona	4	2%
Massachusetts	4	2%
States with less than 3 sample fraud companies	<u>80</u>	<u>38%</u>
	204	100%

**NATURE OF THE CONTROL ENVIRONMENT  
(TOP MANAGEMENT AND THE BOARD)**

**Individuals Named in the AAERs**

From our reading of the AAERs related to the 204 sample companies, we captured information about the types of company representatives and outsiders named in an AAER related to each instance of alleged fraudulent financial reporting. We captured all individuals listed in any of the AAERs related to an instance of fraudulent financial reporting, whether these individuals were charged with fraud or charged with other lesser violations. We were able to obtain information about the types of individuals named for 195 of the 204 fraud companies. Even though these individuals were named in an AAER, there is no certain evidence that all the named participants violated the antifraud statutes. In addition, most of the named participants admitted no guilt of any kind.

Using the highest managerial title for an individual, we summarized the typical employee positions involved. For example, if one individual had the titles of chief financial officer (CFO) and controller, we report that as involving strictly the CFO position in our reporting in Table 5 below. As noted in Table 5, the senior executive most frequently named in an AAER was the chief executive officer (CEO). The CEO was named as one of the parties involved in 141 of 195 sample companies, representing 72 percent of the sample companies with available information. The second most frequently identified senior executive named was the CFO. The CFO was named in 84 of the 195 sample companies,

which represents 43 percent of the companies involved. When considered together, the CEO and/or CFO were named in 162 of the 195 (83 percent) company frauds.

The CEO and/or CFO were named in an AAER for 83 percent of the sample fraud companies.

The company controller was named in 41 of the 195 frauds, representing 21 percent of the fraud instances. The chief operating officer (COO) was named in 7 percent of the frauds (13 of 195), and other vice presidents were named in 35 of the 195 frauds (18 percent of the cases). Lower level personnel were named in 10 percent of the cases (19 of 195 fraud instances). Recall that our classification scheme tracked the highest named position for an individual. Thus, the noted percentages associated with less senior positions may be understated. In addition, because of the relatively small size of many of the fraud firms in this sample, some of the noted positions (e.g., chief operating officer) may not have been filled. Finally, SEC enforcement actions may target top executives more frequently than lower level employees. These factors may contribute to the lower percentages noted for these positions.

**Table 5 – Types and Frequencies of Individuals Named**

<b><u>Individual's Relation to Company</u></b>	<b><u># of Companies</u></b>	<b><u>Percentage of Fraud Cases<sup>6</sup></u></b>
Chief executive officer (CEO)	141	72%
Chief financial officer (CFO)	84	43%
Either or both CEO or CFO involved	162	83%
Controller	41	21%
Chief operating officer (COO)	13	7%
Other vice president positions	35	18%
Board of Director (non-management)	21	11%
Lower level personnel	19	10%
Outsiders (e.g., auditors, customers)	74	38%
No titles given	30	15%
Other titles	24	12%

Note: We used the highest managerial title for an individual. For example, if a person served as CFO and controller, we classified that person as CFO when presenting results in this table. This classification scheme may contribute to the lower percentages associated with less senior positions in the firm. In addition, due to the relatively small size of fraud companies, many of the positions, such as chief operating officer, were not in existence at these companies, thus reducing the noted percentages for these less common positions.

Individuals named in the AAERs extended beyond company executives. In 21 of the 195 fraud companies (11 percent of the cases), non-management board of director members

<sup>6</sup> This represents the percentage of the 195 companies with individuals named for each of the positions highlighted in this table.

were named. In 38 percent of the fraud cases (74 of the 195 fraud cases), other outsiders were named, including the external auditor, customers, and promoters of the company's stock.

### **Alleged Motivation for the Fraud**

In several instances, the AAERs provided some discussion of the alleged motivation for why company representatives committed the fraud. The most commonly cited reasons include committing the fraud to –

- Avoid reporting a pre-tax loss and to bolster other financial results;
- Increase the stock price to increase the benefits of insider trading and to obtain higher cash proceeds when issuing new securities;
- Cover up assets misappropriated for personal gain; and
- Obtain national stock exchange listing status or maintain minimum exchange listing requirements to avoid delisting.

### **Audit Committee Characteristics**

We gathered information on the audit committee and board of directors from the proxy statements, which were available for 96 of the sample fraud companies. The proxies used were those closest to the end of the fraud period, so as to capture the nature of the board and audit committee during the fraud period.

Throughout this section, the following definitions are used:

- Inside director – Officer or employee of the company or a subsidiary; officer of an affiliated company.
- Grey director – Former officers or employees of the company, a subsidiary, or an affiliate; relatives of management; professional advisors to the company; officers or owners of significant suppliers or customers of the company; interlocking directors; officers or employees of other companies controlled by the CEO or the company's majority owner; owners of an affiliate company; those who are creditors of the company.
- Outside director – No disclosed relationship (other than stock ownership) between the director and the company or its officers.

As reported in Table 6, 75 percent of the fraud companies ostensibly had an audit committee. These audit committees generally had three members, and they were typically composed of outside directors. On average, outside directors represented over 65% of the audit committee members, and nearly 70 percent of the companies had no inside directors on

the audit committee. Nearly 40 percent of the companies had audit committees composed entirely of outside directors. Overall, the audit committees appear to be reasonably independent.

The average number of audit committee meetings per year was 1.8, with a median of 1.0. Only 44 percent of the companies with an audit committee had a committee that met at least twice during the year. Some may question whether audit committees that meet only one or two times per year are functioning effectively. In addition, 12 companies had audit committees that did not meet at all, a clear sign of audit committees existing in name only.

Most of the audit committee members (65 percent) did not appear to be experts in accounting or finance. On an average basis, only 35 percent (median 33 percent) of the audit committee members were certified as a Certified Public Accountant (CPA) or Certified Financial Analyst (CFA) or had current or prior work experience in serving as a CFO, VP of finance, controller, treasurer, auditor, banker, investment banker, financial consultant, investment manager, or venture capitalist.

Finally, the audit committee disclosures provided evidence of an internal audit function approximately 20 percent of the time. Such a percentage appears reasonable in light of the small size of the sample companies.

Most of the fraud companies either had no audit committee or had an audit committee that met less than twice per year.
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**Table 6 - Audit Committee Profile**

<u>Item</u>	<u># of Companies With Information</u>	<u>Result</u>
Existence of audit committee	96	75% had audit committee
Number of audit committee members	71	Mean = 3.0
<u>Type of audit committee member:</u>	71	
Insider		Mean = 11%
Grey		Mean = 21%
Audit committees with no insiders	71	69%
Audit committees composed entirely of outside directors	71	38%
Percentage of audit committee members with accounting or finance expertise	71	Mean = 34.5% Median 33.3%
Number of audit committee meetings per year	66	Mean = 1.8 Median = 1.0
Audit committees meeting at least twice per year	66	44%
Audit committee disclosures provide evidence of an internal audit function	63	19% mentioned internal audit function

### **Board Characteristics**

As shown in Table 7, the average board of directors was composed of seven members. Unlike the audit committees, the boards tended to be dominated by insiders and grey directors (60 percent on average). The most common types of grey directors were former company officers, company legal counsel, consultants, officers of significant customers or suppliers, and relatives of management. The outside directors most commonly were employed as senior executives of other companies.

On average, the board members were approximately 50 years old and had served on the fraud company's board for about five years. The directors of these companies rarely served as outside or grey directors of other companies (mean other directorships of 0.5 per board). In fact, almost 40 percent of the fraud companies had boards where not one member served as an outside or grey director on another board. Overall, the directors appear to have limited experience as corporate monitors.

The directors and officers typically had a significant financial stake in the company. The directors and officers' stock ownership of the companies averaged 32%, with a median of 27 percent. The two largest individual stockholders who serve on the board or as an officer own an average of 26 percent (20 percent median) of the stock of the company. When considering these two findings together, about 80 percent of the ownership held by officers and directors is concentrated in the hands of the two largest stockholders serving on the board or serving as an officer. On an average (median) basis, the CEO/President personally owned 17 percent (12 percent) of company shares outstanding.

Finally, the boards generally met six or seven times per year. Over half of the boards met between four and six times.

The boards generally were dominated by insiders or grey directors with significant equity ownership and apparently little experience serving as directors of other companies.
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**Table 7 - Board of Directors Profile**

<u>Item</u>	<u># of Companies With Information</u>	<u>Result</u>
Number of board members	96	Mean = 7.1
<u>Type of board member:</u>	96	
Insider		Mean = 43%
Grey		Mean = 17%
<u>Types of grey directors:</u>	68	
Former company officer		22%
Company legal counsel		17%
Consultant to company		16%
Officer of significant customer		13%
Officer of significant supplier		12%
Relative of management		9%
<u>Positions held by outside directors:</u>	96	
Senior executive of another company		47%
Retired / former executive		8%
Attorney		7%
Consultant		7%
Director age	92	Mean = 51 years
Director tenure with board	90	Mean = 5.4 years
Other outside or grey directorships held by any member of the board	95	Mean = 0.5 per board member
Boards where not one member served as an outside or grey director on another board	95	39%
Percentage stock ownership by directors and officers	96	Mean = 32% Median = 27%
Percentage of stock ownership by CEO or President	96	Mean = 17% Median = 12%
Percentage stock ownership by two largest individual holders also serving on the board or as a corporate officer	96	Mean = 26% Median = 20%
Number of board meetings per year	93	Mean = 6.8

## **Director and Officer Relationships and Personal Factors**

We also examined the proxy statements for evidence of personal relationships among the directors and officers, as well as potentially conflicting job duties. As reported in Table 8, and consistent with the small size of the sample companies, family relationships among various directors and / or officers were disclosed for nearly 40 percent of the companies. When present, there generally were two such relationships per company.

The CEO and board Chair were the same person in 66 percent of the cases. The board Chair was a non-company executive in 16 percent of cases. The company founder and the current CEO were the same person or the original CEO/President was still in place in 45 percent of the companies.

We examined the officers' titles for evidence of any incompatible job functions held by one individual. For example, authorization, asset custody, and recordkeeping should be kept separate when possible to maintain proper segregation of duties. In over 20 percent of the cases, it appeared that senior executives held incompatible job functions (e.g., CEO and CFO, or COO and Controller).

It does not appear that the sample companies represent tightly-held family businesses given that the number of common shares held by non-officers or non-directors averaged 8.5 million shares (median of 4.3 million shares).

Family relationships among directors and / or officers were fairly common. Also, the founder was on the board or the original CEO / President was still in place in nearly half of the companies.
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**Table 8 - Director and Officer Relationships and Personal Factors**

<u>Item</u>	<u># of Companies With Information</u>	<u>Result</u>
Family relationships among directors and / or officers were disclosed	96	38%
If present, number of family relationships	36	Mean = 2.3
CEO / President and board Chair were same person	96	66%
Non-company executive was board Chair	96	16%
Founder and current CEO were same person or the original CEO/ President was still in place	96	45%
Evidence of incompatible job functions held by officers (e.g., CEO and CFO, or COO and Controller)	96	21%

During our review of the proxy statements, we also noted the following miscellaneous events that may provide some indication of a higher likelihood for fraud:

- Officers and directors faced prior or current legal/regulatory actions against them personally in eight percent of the cases (8 out of 96 companies).
- At least one board member or officer had resigned within the prior two years in nine percent of the cases (9 out of 96 companies). In seven of those nine cases, the resignations involved multiple officers and directors.
- Information about the CFO's background was provided for 44 companies (where we also had the name of the audit firm). In 5 of 44 companies (11 percent), the CFO had previous experience with the company's audit firm immediately prior to joining the company.
- Material loans from the company to officers or directors outside the normal course of business occurred for three percent of the companies (3 of 96 companies).

## NATURE OF THE FRAUDS

### Total Amount of the Fraud

In an attempt to obtain a judgmental measure of the typical size of the financial statement frauds, we accumulated information from the AAERs that provided some indication of the amounts involved. In many cases, the AAERs did not disclose the dollar amounts involved. As a result, we were only able to obtain some measure of the dollar amounts involved for 148 of the 204 sample companies. As reported in Table 9, on an overall cumulative basis, the average fraud involved \$25 million of cumulative misstatement or misappropriation over the fraud period, while the median fraud involved \$4.1 million. The smallest fraud was \$20,000 while the largest totaled \$910 million. The first and third quartiles of cumulative misstatements or misappropriations were \$1.6 million and \$11.76 million, respectively.<sup>7</sup>

On an overall cumulative basis, the average fraud was \$25 million, while the median fraud was \$4.1 million.

**Table 9 – Cumulative \$ Amount of Fraud for a Single Company**

	<b># of Sample Companies With Information</b>	<b>Mean Cumulative Misstatement or Misappropriation (in \$ millions)</b>	<b>Median Cumulative Misstatement or Misappropriation (in \$ millions)</b>
<b>Cumulative Amount of Fraud for a Single Company</b>	148	\$25.0	\$4.1
Minimum = \$20,000			
Maximum = \$910 million			
1 <sup>st</sup> quartile = \$1.6 million			
3 <sup>rd</sup> quartile = \$11.76 million			

Unfortunately, the AAERs do not consistently report the dollar amounts involved in each fraud. In some instances, the AAERs report the dollar amounts of the fraud by noting the extent that assets were misstated. In other cases, the AAERs report the amounts that either revenues, net income, or pre-tax income were misstated. We used the type of fraud and the nature of the data presented in the AAER to develop the most appropriate measure of

<sup>7</sup> Ideally, we would report misstatement information in percentage rather than dollar terms. However, we are unable to report percentages for most companies due to the limited amount of information provided in the AAERs about dollar misstatements and the lack of available financial statements for all fraud periods (which reflect misstated values anyway) for those companies with related AAERs reporting misstatement information.

the fraud amount (e.g., asset frauds expressed as misstatements of assets, etc.). Information about the amounts involved by fraud type for 143 companies is provided below in Table 10.

**Table 10 – Amount of \$ Misstatements by Fraud Type**

<u>Misstatement Type</u>	<u># of Sample Companies</u>	<u>Mean Cumulative Misstatement (in \$ millions)</u>	<u>Median Cumulative Misstatement (in \$ millions)</u>
Asset Misstatements	38	\$39.4	\$4.9
Revenue or Gain Misstatements	32	\$ 9.6	\$4.4
Net Income Misstatements	31	\$16.5	\$2.3
Pre-tax Income Misstatements	30	\$ 9.2	\$5.4
Misappropriations of Assets	12	\$77.5	\$2.0

Note: See Table 1 for the typical size of the companies involved.

Asset misstatements averaged \$39.4 million, with a median of \$4.9 million. The average misstatements of revenues, pre-tax income, and net income ranged from \$9.2 million to \$16.5 million, with medians ranging from \$2.3 million to \$5.4 million. The average misappropriation of assets was \$77.5 million, while the median misappropriation of assets was \$2.0 million.

While Tables 9 and 10 provide information about the average and median cumulative effects of the fraud over the entire fraud period, Table 11 provides an overview of the largest income misstatement in a single year. For each of the companies where the related AAERs reported misstatement information as a function of pre-tax income or net income, we identified the largest single-year or single-quarter misstatement over that company's fraud period. For the AAERs providing misstatement information relative to pre-tax income (48 companies), the average of the largest pre-tax misstatement in a single period was \$7.1 million, with a median single period pre-tax misstatement of \$3.2 million. For AAERs reporting misstatements as a function of net income (41 companies), the average largest single period misstatement of net income was \$9.9 million with median single period net income misstatement of \$2.2 million.

**Table 11 – Largest Single Period Income Misstatement**

<b><u>Description</u></b>	<b><u># of Sample Companies</u></b>	<b><u>Mean Largest Single Year or Quarter Misstatement (in \$ millions)</u></b>	<b><u>Median Largest Single Year or Quarter Misstatement (in \$ millions)</u></b>
Information reported as a function of pre-tax income	48	\$7.1	\$3.2
Information reported as a function of net income	41	\$9.9	\$2.2

**Timing of Fraud Period**

For the 204 instances of fraudulent financial reporting included in our final sample, the related fraudulently misstated financial statements were issued in calendar years beginning in 1980 and extending through 1997. No clear trend is apparent across the period of this study.

**Typical Length of Fraud Period**

The financial statement frauds generally involved multiple fiscal periods. Information to determine the number of months from the beginning of the first fraud period to the end of the last fraud period was available for 197 of the 204 sample companies. For those 197 companies, the number of months from the beginning of the first fraud period to the end of the last fraud period averaged 23.7 months with a median of 21 months. Most of the fraud periods overlapped a portion of two fiscal years by either misstating the annual or quarterly financial statements in at least two fiscal periods. Many of the frauds began with misstatements of interim financial statements that were continued in annual financial statement filings. Only 27 of the 197 companies (14 percent) issued fraudulent financial statements involving a period less than twelve months. The longest fraud period extended to six years (72 months) for one of the sample companies.

Financial statement fraud tends to involve multiple fiscal periods.

**Methods of Fraudulently Reporting Financial Statement Information**

Based upon information included in the AAERs, we made our best attempt at identifying the methods used to fraudulently report the financial statement information. As

noted in Table 12, the two most common techniques used to fraudulently misstate financial statement information involved improper revenue recognition techniques to overstate revenues and improper techniques to overstate assets. Fifty percent of the 204 sample companies recorded revenues inappropriately primarily by recording revenues prematurely or by creating fictitious revenue transactions.

Fifty percent of the 204 sample companies overstated assets by overvaluing existing assets, recording fictitious assets or assets not owned, or capitalizing items that should have been expensed.<sup>8</sup> Eighteen percent of the 204 companies' financial statements were misstated through the understatement of expenses or liabilities. Most of the financial statement fraud instances involved intentionally misstating financial statement information, with only 12 percent of the fraud cases involving misappropriation of company assets. This is consistent with the finding in the 1987 *Report of the National Commission on Fraudulent Financial Reporting* that 13 percent of the cases against public companies involved misappropriations of assets (p. 112).

Fraudulent misstatement of financial statements frequently involves the overstatement of revenues and assets. Intentional misstatement of financial statements is noted much more frequently than misappropriation of assets.

Eight percent of the 204 sample companies issued statements or press releases with inappropriate disclosures (without financial statement line item effects). There were a variety of other miscellaneous fraud techniques used, including inappropriate accounting for acquisition transactions, misstating capital or surplus accounts, forging audit opinions, and engaging auditors who are not CPAs or public accountants. Because the financial statement frauds at the sample companies often involved more than one fraud technique, the sum of the percentages reported exceeds 100 percent.

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<sup>8</sup> To avoid double-counting, the information about the overstatement of assets does not include overstatements of accounts receivable due to the revenue recognition frauds.

**Table 12 – Common Financial Statement Fraud Techniques**

<u>Methods Used to Misstate Financial Statements</u>	<u>Percentage of the 204 Sample Companies Using a Fraud Method</u>
Improper Revenue Recognition: <sup>a</sup>	50%
Recording fictitious revenues – 26%	
Recording revenues prematurely – 24%	
No description/ “overstated” – 16%	
Overstatement of Assets (excluding accounts receivable overstatements due to revenue fraud): <sup>a</sup>	50%
Overstating existing assets – 37%	
Recording fictitious assets or assets not owned – 12%	
Capitalizing items that should be expensed – 6%	
Understatement of Expenses/Liabilities:	18%
Misappropriation of Assets:	12%
Inappropriate Disclosure (with no financial statement line item effects):	8%
Other Miscellaneous Techniques:	20%
<sup>a</sup> Note: The subcategories such as premature revenues or fictitious revenues and assets do not sum to the category totals due to multiple types of fraud employed at a single company.	

As noted above, half of the sample companies overstated revenues. The revenue misstatements were primarily due to recording revenues prematurely or fictitiously by employing a variety of techniques that include the following:

- **Sham sales.** To cover the fraud, company representatives often falsified inventory records, shipping records, and invoices. In some cases, the company recorded sales for goods merely shipped to another company location. In other cases, the company pretended to ship goods to appear as if a sale occurred and then hid the related inventory, which was never shipped to customers, from company auditors.
- **Premature revenues before all the terms of the sale were completed.** Generally this involved recording sales after the goods were ordered but before they were shipped to the customer.

- **Conditional sales.** These transactions were recorded as revenues even though the sales involved unresolved contingencies or the terms of the sale were amended subsequently by side letter agreements which often eliminated the customer's obligation to keep the merchandise.
- **Improper cutoff of sales.** To increase revenues, the accounting records were held open beyond the balance sheet date to record sales of the subsequent accounting period in the current period.
- **Improper use of the percentage of completion method.** Revenues were overstated by accelerating the estimated percentage of completion for projects in process.
- **Unauthorized shipments.** Revenues were overstated by shipping goods never ordered by the customer or by shipping defective products and recording revenues at full, rather than discounted, prices.
- **Consignment sales.** Revenues were recorded for consignment shipments or shipments of goods for customers to consider on a trial basis.

In several instances, the fraud was not detected by external auditors because company representatives were able to falsify confirmation responses directly or indirectly by convincing third parties to alter the confirmation response.

Half of the sample companies misstated the financial statement information by overstating assets. Table 13 highlights the typical asset accounts overstated by sample companies. Even excluding the effects of misstating accounts receivable due to the revenue recognition frauds, the two most common asset accounts misstated were inventory and accounts receivable. Other asset accounts misstated included cash, investments, patent accounts, and valuations of oil, gas, and mineral reserves.

Asset misstatements frequently involve

- Understating receivable allowances
- Inflating existing asset values by using higher market versus cost values
- Recording non-existent assets

**Table 13 – Asset Accounts Frequently Misstated**

<b><u>Asset Accounts Typically Overstated</u></b>	<b><u># of Sample Companies Involved</u></b>
Inventory	24
Accounts Receivable (other than revenue fraud)	21
Property, Plant, & Equipment	15
Loans/Notes Receivable	11
Cash	7
Investments	7
Patents	7
Oil, Gas, & Mineral Reserves	7

## **ISSUES RELATED TO THE EXTERNAL AUDITOR**

### **Auditors Associated With Fraud Companies**

We reviewed the last set of audited financial statements issued during the fraud period to identify the auditor responsible for issuing an audit opinion on those fraudulently misstated financial statements. We were able to obtain the auditor's report for the last fraudulently issued financial statements for 141 of the 204 sample fraud companies. In addition to reading the auditor's report, we were able to identify the auditor associated with the fraud period from information contained in the AAERs for an additional 26 sample fraud companies. Based on our review of the auditor's report for the last set of fraudulent statements (supplemented by information contained in related AAERs), we were able to identify the auditor for 167 of the 204 sample companies.

As reported in Table 14, we found that the Big Eight/Six audited 56 percent of the sample fraud companies (94 of the 167 companies) in the last year of the fraud period, with the remaining 44 percent (73 of the 167 companies) audited by a non-Big Eight/Six auditor. Based on a supplemental analysis (not reported in the tables), there is some evidence that the Big Eight/Six share of the fraud-related audits dropped slightly over the time period examined in this study, which may be reflective of their efforts to retain fewer risky clients.

**Table 14 – Size of Audit Firms Issuing Reports on  
Fraudulent Financial Statements**

<u>Auditor Type</u>	<u>Number of Sample Companies With Auditor Information Available</u>	<u>Percentage of Sample Companies With Auditor Information Available</u>
Big Eight/Six Auditor	94	56%
Non-Big Eight/Six Auditor	<u>73</u>	<u>44%</u>
	167	100%

We also reviewed the auditor’s opinion on the last set of financial statements that were fraudulently misstated to determine whether the auditor’s report contained any modifications or qualifications. For the 141 sample fraud companies where we were able to review the auditor’s report, we determined that 78 of those 141 audit reports (55 percent) contained unqualified auditor opinions (“clean” opinions). The remaining reports (45 percent) departed from the standard unqualified report for a variety of reasons (in some cases more than one reason caused the modification). Nineteen of the 141 audit reports (13 percent) contained auditor reports that were modified or qualified due to going concern issues and eighteen (13 percent) were modified or qualified due to litigation or other uncertainties.<sup>9</sup> An additional 15 of 141 audit reports (11 percent) were modified due to a change in accounting principle and 20 (14 percent) were modified due to different auditors being involved with current and prior year financial statements presented comparatively. Four of the 141 (3 percent) audit reports were modified due to GAAP departures, and only four of the 141 (3 percent) audit reports included disclaimers of opinion. See Table 15.

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<sup>9</sup> The form of reporting for uncertainties changed as a result of the issuance of the expectation gap Statements on Auditing Standards in 1988. Thus, the form of reporting (modifications versus qualifications) varied across the years involved.

**Table 15 – Types of Auditor Reports on Last Fraud Financial Statements**

<u>Type of Auditor Report</u>	<u>Number of Reports by Type</u>	<u>Percentage of Audit Reports by Type</u>
Unqualified Opinions	78	55%
Modified or Qualified Reports	59	42%
Going concern – 19 reports		
Litigation uncertainties – 9 reports		
Other uncertainties – 9 reports		
Change in accounting principle – 15 reports		
Change in auditor across		
Comparative reporting periods – 20 reports		
GAAP Departures – 4 reports		
<p>Note: The above do not sum to equal the 59 modified or qualified reports because some of the reports addressed more than one modification/qualification issue.</p>		
Disclaimers of Opinion	<u>4</u>	<u>3%</u>
Number of Auditor Reports Available for Review	141	100%

### **Alleged Auditor Involvement in the Fraud**

In 29 percent of the cases (56 of 195 cases), the external auditor was named in an AAER. Out of the 56 cases where the auditor was named, the auditor was charged in 30 cases with either violating Rule 10(b)-5 of the 1934 Securities Exchange Act or charged with aiding and abetting others in a violation of Rule 10(b)-5. Of those 30 cases, 29 involved non-Big Eight/Six auditors with only one involving a Big Eight/Six auditor.

In the remaining 26 of 56 cases where the auditor was named, the auditor was accused of performing a substandard audit. Out of these 26 cases, 17 involved non-Big Eight/Six auditors and nine involved Big Eight/Six auditors. See Table 16.

**Table 16 – Types of Auditors Named in AAERs**

<u>AAERs Name Auditor For</u>	<u>Number of AAERs Naming Big Eight/Six Auditors</u>	<u>Number of AAERs Naming Non-Big Eight/Six Auditors</u>
Apparent Involvement (n=30)	1	29
Substandard Audit (n=26)	9	17
Total Number of AAERs Naming Auditor	10	46

The external auditor was named in an AAER for 29 percent of the sample companies. Most of those auditors named were non-Big Six auditors.

### **Auditor Changes During Fraud Period**

We gathered data to be able to compare the name of the auditor associated with the last fraudulent financial statements to the name of the auditor who issued an audit report on the last clean financial statements. We were able to make that comparison for 88 sample fraud companies. We found that 23 (26 percent) of the 88 companies changed auditors between the period that the company issued the last clean financial statements and the period the company issued the last set of fraudulent financial statements. Of those switching auditors, one company switched from one Big Eight/Six firm to another Big Eight/Six firm, four switched from a Big Eight/Six firm to a non-Big Eight/Six firm, six switched from a non-Big Eight/Six firm to a Big Eight/Six firm, and twelve switched between non-Big Eight/Six firms. We also reviewed the timing of the auditor switch and found that just over half of those companies changed auditors during the fraud period (e.g., two audit firms were associated with the fraud period). Nine companies changed auditors at the end of the last clean financial statement period (e.g., just before the fraud period began).

Most auditor switches occurred during the fraud period (versus before the fraud period) and involved changes among non-Big Eight/Six audit firms.

## **CONSEQUENCES FOR THE COMPANY AND INDIVIDUALS INVOLVED**

### **Consequences for the Company**

We attempted to identify consequences for companies that resulted from the commission of the financial statement fraud. First, we noted consequences described in the AAERs for each of the 204 sample companies. Then, we performed extensive searches of electronic databases of business press articles written during the period from the date of the last fraudulent financial statement through two years after the SEC issued the last AAER

related to the fraud. We were able to locate business press articles appearing in that time frame for 167 of the 204 sample companies.<sup>10</sup>

We identified 73 (36 percent) of the 204 sample companies that either filed for Chapter 11 bankruptcy, were described as “defunct” in the AAER, or were taken over by a state or federal regulator after the fraud occurred. We also found that an additional 31 companies (15 percent) either sold a large portion of their assets (6 companies), merged with another company (15 companies), or had a new controlling shareholder (10 companies) following the occurrence of the financial statement fraud. Thus, approximately 50% of the companies were no longer in existence or were under a substantially different form of ownership and existence following the fraud period. We identified 42 companies (21 percent) whose stock was delisted from the national stock exchange where the stock was traded. See Table 17.

Thirty-six percent of the sample companies went bankrupt/defunct or were taken over by a regulator. Twenty-one percent were delisted by a national stock exchange.

**Table 17 – Status of Companies After Fraud Disclosed**

<u>Company Status Subsequent to the Fraud</u>	<u>Number of Sample Companies Affected</u>	<u>Percentage of Sample Companies Affected</u>
Bankrupt, defunct	73	36%
Changed ownership		
- Sold large portion of assets	6	3%
- Merged with another company	15	7%
- Experienced change in controlling shareholders	<u>10</u>	<u>5%</u>
Total	31	15%
Delisted from national stock exchange	42	21%

<sup>10</sup> Frequencies of consequences reported in this section are inherently understated given that we were only able to identify consequences explicitly noted in an AAER or in business press articles. Given that the business press often does not cover smaller or otherwise less visible companies, there are likely to be many consequences that occurred that we were unable to identify for our sample firms (which tend to be relatively small).

## Financial and Other Consequences to Companies and Individuals Involved

In addition to the injunctions and disgorgements frequently associated with SEC actions, we also tried to identify other consequences for companies and individuals. We found 49 companies (24 percent) that were sued and/or settled with shareholders or bondholders, generally as a part of class action lawsuits filed subsequent to the disclosure of the fraud.<sup>11</sup> We identified the amount of fines and settlements paid by the company for 30 of these 49 companies. The cumulative amount of fines and settlements paid by all sample companies was \$348 million. The average fine or settlement paid by a single company was \$12 million, and the median was \$4 million. We also identified 35 companies whose senior executives paid fines related to actions taken by the SEC against them personally. The cumulative amount of fines paid by senior executives of those 35 companies totaled \$193 million. The average fine paid by senior executives was \$5.5 million, with a median fine of \$456,000. To put these fines and settlements in perspective, the average cumulative misstatement reported earlier in Table 9 was \$25 million with a median cumulative misstatement of \$4.1 million. See Table 18.

**Table 18 – Fines and Settlements**

<b>Description of <u>Fine</u></b>	<b>Number of Companies <u>Identified</u></b>	<b>Cumulative Fine/Settlement Paid by All <u>Companies</u></b>	<b>Mean Fine/ Settlement Paid by a Single <u>Company</u></b>	<b>Median Fine/ Settlement Paid by a Single <u>Company</u></b>
Fines and settlements paid by the company	30	\$348 million	\$12 million	\$4 million
Fines and settlements paid by senior executives related to SEC actions	35	\$193 million	\$5.5 million	\$456,000

In addition to direct financial penalties, senior executives were penalized in other ways as highlighted in Table 19. We identified 76 companies (37 percent) whose CEO or President was forced to resign or was terminated as a result of the fraud. We found that 47 companies (23 percent) terminated or forced the CFO or controller to resign and 32

<sup>11</sup> This finding is lower than the finding of 58 percent reported in the study conducted by Bonner, Palmrose, and Young (1998). Our result is likely understated given it is based on our extensive search of business publications, while the Bonner et al. result is based on analysis of litigation databases, which are not necessarily readily available in public sources. See Section VI for more discussion about the Bonner et al. study.

companies (16 percent) experienced the termination or resignation of the COO or another senior executive as a result of the fraud. Again, the frequencies of resignations and terminations are likely understated given the lack of consistent reporting of such events in the business press for all sample companies. Senior executives of 54 companies (26 percent) were barred for a period of time, and in some cases permanently, from serving as an officer or director of another registrant of the SEC. Thirty-one companies' executives (15 percent) were criminally prosecuted for the financial statement fraud. We identified 27 senior executives who were jailed as a result of their involvement in the fraud.

**Table 19 – Other Consequences to Executives and Companies**

<u>Description of Outcome</u>	<u>Number of Companies Affected</u>	<u>Percentage of Companies Affected</u>
Resignations or Terminations of		
- CEO or president	76	37%
- CFO or controller	47	23%
- COO or another senior executive	32	16%
Senior Executive(s) barred from service as officer or director of another SEC registrant for period of time	54	26%
Company executives criminally prosecuted for fraud	31	15%

The business press reported stock price declines following the public announcement of the fraud for 20 of the sample companies. For those 20 companies, the stock price dropped an average of 58 percent following the public disclosure of the fraud.

## IV. Implications of the Study

One of the objectives of this study is to evaluate the findings for implications regarding the corporate financial reporting process. This section highlights several implications developed by the research team based on the descriptive analysis of characteristics associated with the 204 sample fraud companies examined in this study.

Our attempt to draw implications from the findings in this study is designed to assist others in the identification of potential improvements to the existing financial reporting system. In doing so, we recognize that the presence of financial statement fraud is relatively infrequent, making the task of fraud detection extremely difficult. We acknowledge the tremendous benefit of hindsight evaluation of known cases of financial statement fraud as we present these implications. Furthermore, some of the implications reflect our judgments and opinions that developed from the extensive analysis of the sample cases. In any event, hopefully the implications noted in this section will spawn useful consideration of changes that can promote higher quality financial reporting.

### IMPLICATIONS RELATED TO THE NATURE OF COMPANIES INVOLVED

#### Strained Resources of Smaller Companies Pinch Internal Controls

Because fraud companies were relatively small (generally less than \$100 million in assets) when compared to many publicly-traded companies in the U.S., many of these companies may be unable or unwilling to implement effective internal controls, particularly adequate segregation of key duties. The lack of ideal internal control may create opportunities for senior management to override existing controls. In addition, smaller companies may not be able to or may even be unwilling to employ executives with expertise in financial reporting processes, particularly those individuals knowledgeable of the legal requirements for publicly-traded companies. Thus, boards of directors, audit committees, external and internal auditors may need to closely examine the effects of these types of resource constraints on the likelihood of financial statement improprieties for the entities they serve.

Some companies may not be able to cost effectively justify effective internal controls due to their size. Other companies may be unwilling to invest necessary resources to implement strong controls.
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#### Small Size of Fraud Companies Has Implications for Regulators and Exchanges

In certain cases, companies below a certain size threshold are exempted from many of the listing requirements of the national stock exchanges and other regulations, for valid reasons (primarily cost concerns). As an example, many of the recommendations contained in the *Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees* (BRC, 1999) explicitly exempt smaller companies (e.g., market capitalization of \$200 million or below). As a result, certain regulatory provisions may fail to target companies with an increased likelihood for financial

statement fraud. The national stock exchanges and regulators should carefully evaluate the tradeoffs of designing policies that occasionally exempt small companies.

Certain regulatory provisions may exempt companies with an increased likelihood for financial statement fraud.

### **Going Concern Needs Close Monitoring**

Pressures for survival and pressures to meet earnings expectations can create obvious strains on senior executives. Given that many of the sample fraud companies were in a net loss position or were on the brink of a net loss position in periods leading up to the fraud period, boards of directors, audit committees, and both internal and external auditors may want to develop systems or procedures for regularly monitoring these financial pressures, particularly as financial health appears to be deteriorating.

The presence of financial distress for some companies in periods before the alleged fraud period highlights the importance of effective monitoring of going concern. Given observations of auditor changes during the fraud period, close screening of going concern indicators and effective communications with predecessor auditors when evaluating potentially new clients are particularly important.

The financial stress of many fraud companies highlights the importance of effective monitoring of going concern.

## **IMPLICATIONS RELATED TO THE NATURE OF THE CONTROL ENVIRONMENT (TOP MANAGEMENT AND THE BOARD)**

### **Thorough Assessments of Top Management Pressures and Integrity Warranted**

The overwhelming percentage of senior executives named in the AAERs highlights the importance of a detailed and continuous analysis of issues affecting the organization's control environment (e.g., the "tone at the top"), as emphasized in COSO's *Internal Control – Integrated Framework* (COSO, 1992). The frequency of CEO and CFO involvement highlights the importance of assessing key performance pressures faced by senior executives. Boards of directors and audit committees need to consider the potential for these pressures when designing executive compensation plans for their key executives. Board of director and audit committee members need to exercise professional skepticism when evaluating top management actions. Boards and audit committees may also look for pressures from outside the organization for meeting key company performance targets. Monitoring perceived pressures from the investment community to meet stated performance expectations, for example, may be warranted for boards, audit committees, and auditors.

Boards of directors, audit committee members, and auditors need to consider the potential for pressures on management resulting from compensation plans and expectations from the investment community.

The involvement of senior executives, such as the CEO, CFO, and COO, highlights the importance of effective monitoring by boards and audit committees of opportunities and incentives for management override of existing policies and procedures. Not only does financial statement fraud occur because of the presence of opportunities for override, but fraud also exists because there are managers who are willing to manipulate information inappropriately. The fact that misstatements are generated by executives willing to act inappropriately highlights the importance of effective screening of the integrity and reputations of potential executives.

Auditors also benefit from extensive consideration of the integrity and attitudes towards financial reporting of senior executives, particularly as auditors evaluate risks associated with a potential new client. Effective pre-engagement screening of potential risks, particularly the impact of management's integrity and ethical values, may lead to better considerations of overall audit risk, particularly the risk of financial statement fraud. Routine performance of private investigations of the potential new client's management team may warrant special consideration by auditors to help them obtain an evaluation of these engagement factors.

Employment decisions and client acceptance procedures may need to involve explicit consideration of the integrity and ethical reputations of senior executives.

The frequency of non-accountant executives' (e.g., CEOs and COOs) involvement in financial statement fraud may be in part due to a lack of understanding of the severity of the consequences of violating financial reporting requirements, particularly legal statutes applicable to financial reporting matters for publicly-traded companies. Their involvement highlights the importance of effective education of CEOs and COOs in basic financial reporting requirements. Their involvement also highlights the need for the participation of other qualified individuals in financial reporting processes. The involvement of individuals with financial reporting expertise, such as controllers, general counsels, internal and external auditors, may help to educate non-accountant executives less familiar with the requirements of financial reporting in publicly-traded companies. The involvement of knowledgeable individuals may also help restrain senior executives who continue to be overly aggressive in financial reporting matters. Board members and auditors should also be alert for managers who use their knowledge of financial reporting matters to cover a fraud.

Involvement of individuals knowledgeable of financial reporting issues can help educate other less knowledgeable senior executives about risks associated with financial reporting.

### **Audit Committee Diligence is Critical for Companies of all Sizes**

The analysis of proxy data indicated that most of the fraud companies either had no audit committee or an audit committee that met less than twice per year. In such an

environment, the external auditors may have had little support or oversight from the board, and company executives may have been in a better position to commit fraud. In the absence of an effective audit committee, typical audit committee functions such as financial oversight, risk analysis, and assessment of management integrity may suffer.

The concentration of fraud among companies with under \$50 million in revenues and with generally weak audit committees highlights the importance of questioning whether more rigorous audit committee practices should be followed by smaller organizations. In particular, the number of audit committee meetings per year and the financial expertise of audit committee members may deserve closer attention. Audit committees meeting less than twice per year or those composed of non-experts may have no reasonable chance of functioning effectively.

The audit committee's effectiveness also is restricted by the quality and extent of information it receives. To perform effective monitoring, the audit committee needs access to reliable financial and non-financial information, industry and other external benchmarking data, and other comparative information that is prepared on a consistent basis. Boards and audit committees should work to obtain from senior management and other information providers relevant and reliable data to assist them in the financial reporting monitoring process.

### **Board Independence and Expertise are Important for Companies of all Sizes**

The proxy analysis suggested that the fraud companies' boards generally were neither independent (dominated by insiders and grey directors) nor expert (little if any board experience elsewhere). A board's effective monitoring of management relies on independent experts devoting sufficient time and energy to their task. If the directors are neither independent nor expert, the board may have no reasonable chance of functioning as a vigorous monitor of management.

While the small size of many of the fraud companies likely accounts for the apparent lack of director independence and expertise, it is important to consider whether smaller organizations should focus more heavily on director independence and expertise. In the smaller company setting, due to the centralization of power in a few individuals, it may be especially important to have a solid monitoring function performed by the board.

### **Relationships and Personal Factors May Increase Risk**

The proxy analysis provided evidence of various relationships and personal factors that may indicate greater risk. Investors should be aware of the possible complications arising from family relationships and from individuals (founders, CEO / board Chairs, etc.) who hold significant power or incompatible job functions. Due to the size and nature of the sample companies, the existence of such relationships and personal factors is to be expected. It is important to recognize that such conditions present both benefits and costs.

## **IMPLICATIONS RELATED TO NATURE OF FRAUDS**

### **Close Scrutiny Over Interim Financial Reporting**

From our readings of the AAERs, we observed that many frauds allegedly were initiated in a quarterly Form 10-Q, with the first manipulation sometimes at relatively small amounts. After observing that the fraud was undetected in initial attempts, the fraud scheme was repeated in subsequently issued quarterly or annual financial statements, with the fraud amount often increasing over time and generally stretching over two fiscal years.

These observations highlight the importance of active review of quarterly financial statements by audit committees and external auditors. Close scrutiny of quarterly financial information and a move toward continuous auditing strategies may increase opportunities for earlier detection of financial statement improprieties.

These observations also have implications for management and internal auditors who may want to examine existing processes and controls surrounding the preparation of interim financial statements. In particular, the presence of some financial statement frauds involving strictly interim periods suggests that processes and controls related to interim reporting may be unduly less rigorous than those controls surrounding annual financial reporting.

Policies and procedures surrounding preparation of interim financial statements may need to be examined.
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### **Procedures Needed for Revenue Recognition and Asset Valuation**

The frequency of recording sales prematurely or fictitiously suggests the importance of both external and internal auditor consideration of existing company processes and controls designed to ensure compliance with revenue recognition principles. The recording of sales before customer order or customer shipment suggests a particular need for close examination by managers and auditors of evidence documenting satisfaction of transaction terms, particularly for transactions near period end. Focusing on the control environment, particularly an assessment of the likelihood of management override, may provide useful insights as to the possibility for inappropriate accounting for revenue transactions.

In addition to focusing on processes and controls related to recording sales transactions, the misstatements due to improper cutoffs of sales transactions, overstated percentage of completion estimates, and subsequent modifications to terms of sales through side agreements all highlight the benefits of properly executed tests of controls and substantive procedures that focus closely on end-of-the-period transactions. Procedures designed to evaluate transaction cutoff and to examine estimates generated by management may have an impact on identifying potential misstatements surrounding revenue recognition issues. Also, testing to identify the presence of side agreements that modify transaction terms may need to be addressed with customers directly through confirmation procedures. However, there were instances where confirmation recipients were participants in the fraud. Thus, sending confirmations may not always reduce audit risk to a desirable level. When the

risk of potential fraud is assessed as high, auditors may want to consider delaying the completion of the audit until sufficient cash receipts have been received for the transactions in question.

Misstatements due to asset overstatements also highlight the importance of effective procedures surrounding valuation of asset accounts. Many of the asset overstatements involved manipulation of sensitive estimates of allowances for doubtful receivables and valuations of unusual assets such as patents, mineral reserves, and unique inventory and property, plant, and equipment items. Obtaining evidence to substantiate key judgments made by company managers in the valuation process may identify overly aggressive and improper valuation techniques employed. In addition, the identification of misstatements due to the recording of fictitious assets highlights the importance of substantive testing techniques, particularly physical examination, to ensure compliance with the existence assertion.

Findings suggest a continued need for evaluating and testing controls related to recording key end-of-period accounts and transactions and the importance of the design and performance of effective substantive procedures in light of the knowledge obtained about internal controls .

## **IMPLICATIONS REGARDING THE ROLES OF EXTERNAL AUDITORS**

The collective implications about the nature of the companies involved, the role of the control environment, and specific characteristics of the fraud suggest the need for the auditor to look beyond the financial statements to understand risks unique to the client’s industry, management’s motivation towards aggressive reporting, and client internal control, among other matters. In particular, auditors may benefit greatly by focusing closely on the control environment, starting with the board and audit committee and including an extensive assessment of the integrity and financial reporting knowledge and ability of senior management. Auditors should recognize the potential for greater audit risk when auditing companies with weak board and audit committee governance. As auditors approach the audit, information from a variety of sources should be considered to establish an appropriate level of professional skepticism needed for each engagement.

Auditors need to look beyond the financial statements to understand risks associated with the client’s industry, management’s financial reporting incentives, and internal control, with particular emphasis on the strength of board and audit committee governance.

The next section titled, “The Focus on Fraudulent Financial Reporting,” is provided for those interested in gaining a perspective on the significant efforts since the issuance of the Treadway Commission’s 1987 report by various organizations to address the financial

reporting problem. Numerous significant changes have been implemented throughout the 1990s affecting various parties in the financial reporting process. Section V summarizes these actions. In addition to these efforts, academic research has been conducted to better understand issues affecting fraudulent financial reporting instances. Section VI titled, “Overview of Findings from Academic Research,” contains a summary of findings from research that provides additional insights to those interested in improving corporate financial statement reporting.

## V. The Focus on Fraudulent Financial Reporting

In October 1987, the National Commission on Fraudulent Financial Reporting issued a landmark report titled, *Report of the National Commission on Fraudulent Financial Reporting*, in response to a major effort to highlight concerns about fraudulent financial reporting (NCFFR, 1987). It had a major impact in re-focusing the business community on the problem of fraudulent financial reporting and provided a significant update as to the problem of fraudulent financial reporting throughout much of the 1980s. Earlier efforts such as *The Commission on Auditor's Responsibilities: Report, Conclusions, and Recommendations* (commonly referred to as the Cohen Commission Report) issued in 1978 previously highlighted the growing gap between auditor performance and financial statement user expectations. In particular, the Cohen Commission's Report primarily targeted the development of conclusions and recommendations regarding the appropriate responsibilities of independent auditors, including the auditor's responsibility for the detection of fraudulent financial reporting (AICPA Commission on Auditors' Responsibilities, 1978).

While not only serving as an update to earlier reports such as the Cohen Commission's Report, the Treadway Commission's study of incidents of financial statement fraud focused on a broader range of parties playing a vital role in the financial reporting process. Given that consequences of fraud, while infrequent, can be widespread, the report expanded beyond a focus on auditor responsibilities and included 49 extensive recommendations that embraced the roles of top management and boards of directors of public companies, independent public accountants and the public accounting profession, the SEC and other regulatory and law enforcement bodies, and the academic community. The Treadway Commission's report developed many of its recommendations based on the Commission's identification of numerous causal factors that can lead to financial statement fraud, which are described in the Treadway Commission's report.

Throughout the 1990s there have been numerous efforts designed to improve the effectiveness of auditors, managers, boards of directors and audit committees in preventing financial statement fraud.

In the decade following the issuance of the *Report of the National Commission on Fraudulent Financial Reporting*, there have been numerous efforts building upon the Treadway Commission's findings designed to minimize incidents of fraudulent financial reporting. These efforts have particularly focused on the roles auditors, managers, boards of directors, and audit committees play in the financial reporting process.

### **Efforts Related to the Role of Auditors**

The independent auditor of financial statements plays a vital role in the detection of (material) fraudulent financial reporting. The investing public and creditors look to the independent audit process to gain assurance and confidence in the reliability of financial statements they rely upon to make significant business decisions. Numerous efforts have

been made by the auditing profession to improve its performance in the detection of material misstatements in financial statements due to fraud. Several of those efforts have originated since the issuance of the Treadway Commission's 1987 report.

**SAS No. 53.** Soon after the issuance of the Treadway Commission's report, the AICPA's Auditing Standards Board (ASB) issued Statement on Auditing Standards No. 53, *The Auditor's Responsibility to Detect and Report Errors and Irregularities* (AICPA, 1988). The ASB issued SAS No. 53 to strengthen the auditor's responsibility related to the detection of instances of material fraudulent financial reporting. SAS No. 53 modified the auditor's responsibility to require the auditor to "design the audit to provide reasonable assurance of detecting errors and irregularities." SAS No. 53 was designed to narrow the expectation gap between the assurances auditors provide and what financial statement users expect regarding the detection of fraudulent financial reporting. SAS No. 53 required the auditor to provide reasonable assurance that material irregularities would be detected, which extended the auditor's responsibility beyond what was required by SAS No. 53's predecessor – SAS No. 16, *The Independent Auditor's Responsibility for the Detection of Errors and Irregularities*.

**Public Oversight Board's 1993 Special Report.** Subsequent to the issuance of SAS No. 53, the Public Oversight Board of the AICPA SEC Practice Section (the POB) issued in March 1993 a Special Report titled, *In the Public Interest: Issues Confronting the Accounting Profession* (AICPA POB, 1993). That report was primarily in response to continuing signs of failing public confidence in public accountants and auditors, particularly the widespread belief that auditors have a responsibility for detecting management fraud which many viewed auditors as not meeting. Based on the POB's belief that the integrity and reliability of audited financial statements are critical to the U.S. economy, the POB's Special Report contained, among others, specific recommendations for improving and strengthening the accounting profession's performance by enhancing its capacity and willingness to detect fraud and improve the financial reporting process. The POB's Special Report called for improved guidance beyond that in SAS No. 53 to assist auditors in assessing the likelihood of fraud, a strengthening of the process to ensure auditor independence and professionalism, and changes in the corporate governance process. The POB made several recommendations directed at putting in place mechanisms to analyze audit failures in order to ferret out their causes, the symptoms related to those causes, and the actions that might be taken to avoid their recurrence. The POB was especially interested in enhancing the auditing profession's potential for detecting management fraud.

**AICPA Board of Director's 1993 Report.** Also in 1993, the AICPA's Board of Directors issued its report, *Meeting the Financial Reporting Needs of the Future: A Public Commitment from the Public Accounting Profession* (AICPA Board of Directors, 1993). In that report, the AICPA Board of Directors expressed its determination to keep the United States' financial reporting system the best in the world, supported the recommendations and initiatives of others to assist auditors in the detection of material misstatements in financial statements resulting from fraud, and encouraged every participant in the financial reporting process – management, their advisors, regulators and independent auditors – to share in this responsibility.

"Decisive action is needed to bolster the public trust by strengthening the financial reporting system to meet the needs of the future." – Jake Netterville, AICPA Chairman, June 8, 1993

**AICPA SEC Practice Section Initiatives.** Soon after the issuance of the POB's Special Report and the AICPA's Board of Director's report, the AICPA undertook efforts related to improving the financial reporting process particularly through improved detection of fraudulent financial reporting. The AICPA's SEC Practice Section formed a Professional Issues Task Force that has since its creation published guidance about emerging or unresolved practice issues that surface through litigation analysis, peer review, or internal inspection. The SEC Practice Section also amended membership requirements to require that concurring partners provide assurance that those consulted on accounting and auditing matters are aware of all relevant facts and circumstances related to the consultation issue and to the auditee, to ensure that the conclusion reached is an appropriate one. Additionally, the AICPA SEC Practice Section created the Detection and Prevention of Fraud Task Force. That task force issued a document in 1994 titled, *Client Acceptance and Continuance Procedures for Audit Clients*. That document emphasized that understanding the components of engagement risk is critical to deciding whether to accept new clients, continue old ones, and in any event to manage the "audit risk" that accompanies those decisions. Related to these issues the AICPA's Auditing Standards Board ultimately issued in 1997 revised professional standards to provide guidance designed to improve understandings between client management and auditors (SAS No. 83, *Establishing an Understanding With the Client*, AICPA 1997b) and to improve communications between successor and predecessor auditors (SAS No. 84, *Communications Between Predecessor and Successor Auditors*, AICPA 1997c).

**New Fraud Standard: SAS No. 82.** With regard to auditing professional standards specifically related to the auditor's detection of material misstatements due to fraudulent financial reporting, the POB's 1993 Special Report highlighted that "Attacks on the accounting profession from a variety of sources suggested a significant public concern with the profession's performance. Of particular moment is the widespread belief that auditors have a responsibility for detecting management fraud which they are not now meeting" (AICPA POB, 1993, p. 1). That report called for the development of guidelines to assist auditors in assessing the likelihood of financial statement fraud and to specify additional auditing procedures when there is a heightened likelihood of management fraud. Even before the POB's Special Report recommendation for improved auditor guidance was issued, the AICPA had already convened a conference in 1992 of educators and practitioners, known as the Expectation Gap Roundtable, that also raised questions concerning whether SAS No. 53 had been successful in narrowing the expectation gap relating to the detection of material misstatements in financial statements resulting from fraud (AICPA, 1993).

Thus, in 1997 the AICPA responded to these calls for improved auditing guidance related to the detection of material misstatements due to fraudulent financial reporting by issuing SAS No. 82, *Consideration of Fraud in a Financial Statement Audit* (AICPA, 1997a). SAS No. 82 superseded guidance in SAS No. 53 in an effort to enhance auditor performance. The auditor's responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, did not change from the SAS No. 53 detection responsibility. However,

SAS No. 82 clarified the auditor's responsibility to detect material misstatements resulting from fraudulent financial reporting, changed the auditor's risk assessment process to require documentation of the auditor's assessment of the likelihood of financial statement fraud, and provided expanded operational guidance to assist auditors in meeting their already existing responsibility for the detection of material misstatements due to fraud.

In particular, SAS No. 82 significantly expanded the identification of risk factors known to be commonly linked to instances of fraudulent financial reporting. The ASB expanded the identification of risk factors beyond those in SAS No. 53 based on its belief that the most effective method to assess the risk of material misstatement due to fraud is to consider whether risk factors that might indicate the existence of fraud are present. SAS No. 82 expanded guidance designed to assist the auditor in developing the appropriate response to the presence of such risk factors. In addition to providing expanded operational guidance to assist auditors in the assessment of the potential for fraudulent financial reporting, SAS No. 82 also revised the authoritative literature relating to the concepts of due professional care, professional skepticism, and obtaining reasonable assurance.

**ASB's Call for Research.** While it is the ASB's hope that SAS No. 82 leads to improved detection of material misstatements due to fraud, the AICPA is committed to evaluating how well SAS No. 82 is meeting the ASB's objectives. This commitment was established in the exposure draft of SAS No. 82 whereby the ASB noted that it will "develop a process to obtain feedback on the new standard periodically to assess how well it is accomplishing its objectives and to identify further steps that need to be taken. This feedback process should be helpful in defining further research on fraud deterrence and detection." Accordingly, in October 1998 the AICPA issued a *Request for Research Proposals For an Assessment of SAS No. 82* (AICPA, 1998). The ASB is currently seeking research relevant to two broad objectives. The first objective is to provide research to assist the ASB in its assessment of the effectiveness of SAS No. 82. The second objective is to provide research to assist the ASB in its efforts to continually improve SAS No. 82 related guidance by addressing how emerging business and technology trends affect the process of detecting material misstatements due to fraud.

The Auditing Standards Board (ASB) is committed to developing a process to obtain feedback on the new standard periodically to assess how well it is accomplishing its objectives and to identify further steps that need to be taken.  
- ASB's Request for Proposal, October 1998

This *Report on Fraudulent Financial Reporting: 1987-1997* contains findings that should provide timely and relevant information to assist the ASB in this effort. Specifically, the ASB is interested in gathering information to assist them in evaluating how complete and discriminating the fraud risk factors currently in SAS No. 82 are. This study, which contains an extensive description of instances of fraudulent financial reporting addressed by AAERs issued during 1987-1997, should be useful to the ASB in evaluating SAS No. 82.

In addition to these changes in professional standards, other efforts have occurred that relate to auditors. For example, in 1988 the Association of Certified Fraud Examiners was established. This professional organization is dedicated to educating qualified individuals who are trained in the aspects of detecting, investigating, and deterring fraud and white-collar crime.

### **Efforts Related to the Roles of Management, Boards of Directors and Audit Committees**

While auditors play a vital role in the detection of instances of material fraudulent financial reporting, the Treadway Commission's 1987 report noted that the prevention and early detection of fraudulent financial reporting must start with the entity that prepares the financial statements. Every fraudulent financial statement for which the auditor has been held responsible was prepared by executives who were intentionally misstating financial information to deceive not only shareholders, investors, and creditors, but the auditor as well. Thus, the Treadway Commission's report contained numerous recommendations for public companies, particularly addressing responsibilities of top management, the board of directors and audit committee. In particular, the Treadway Commission's report called for all public companies to maintain internal controls that provide reasonable assurance that fraudulent financial reporting will be prevented or subject to early detection. To assist senior management and others, the Treadway Commission specifically called for the development of additional, integrated guidance on internal controls.

**COSO's 1992 Report.** In 1992, COSO issued *Internal Control – Integrated Framework* (hereinafter referred to as the COSO Report) in response to calls for better internal control systems to help senior executives better control the enterprises they run (COSO, 1992). In addition to noting that internal control can help an entity achieve its performance and profitability targets and prevent the loss of resources, COSO's Report also noted that internal control can significantly help an entity ensure reliable financial reporting. The COSO Report:

- Provided a high-level overview of the internal control framework directed to the chief executive and other senior officers, board members, legislators and regulators,
- Defined internal control, described its components and provided criteria against which managements, boards of directors and others can assess their internal control systems,
- Provided guidance to those entities that report publicly on internal control over the preparation of their published statements, and
- Contained materials that might be useful in conducting an evaluation of internal controls.

The issuance of COSO's Report provided a common framework for designing and implementing internal controls and is becoming widely accepted as the benchmark for evaluating internal controls for businesses and other entities – in the public or private sector, large or small, for profit or not. It is COSO's hope that effective implementations by senior

executives of such a framework would lead to improved financial reporting in the United States, including a reduction in the incidence of fraudulent financial reporting.

Ultimately, however, the responsibility for establishing an effective system of internal control rests with the board of directors. Shareholders delegate primary responsibility for the integrity of management and the financial statement reporting process to boards of directors. The COSO Report noted that a strong and active board, particularly when coupled with effective upward communications channels and capable financial, legal and internal audit functions, is often best able to identify and correct internal control weaknesses that enable a dishonest management to intentionally misrepresent financial results and cover its tracks.

**Audit Committee Requirements of Major U.S. Stock Exchanges.** Often the board assigns responsibility for oversight of the financial reporting process to an audit committee. In the United States, all three major securities markets – the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and National Association of Securities Dealer’s Automated Quotation System (NASDAQ) – have requirements addressing audit committee composition. The NYSE requires and the AMEX recommends that listed companies have audit committees made up entirely of outside directors. NASDAQ only requires that a majority of the audit committee consist of outside directors for companies trading on the National and Small Cap Markets. These audit committee requirements were generally in place by the time the Treadway Commission’s report was issued.<sup>12</sup> However, other regulatory actions were undertaken in the 1990s related to the corporate governance process. For example, the Federal Deposit Insurance Corporation implemented new audit committee composition requirements mandating the inclusion of independent directors who, for certain large depository institutions, must include individuals with banking experience.

**Institute of Internal Auditor’s Study on Audit Committee Effectiveness.** Several highly publicized financial reporting frauds have led to questions regarding how effectively boards and audit committees oversee the financial reporting process. For example, the *New York Times* reported that following an occurrence of material fraudulent financial reporting, the Leslie Fay Company announced the election of two additional outside members “to give its board a more independent character” (*New York Times*, April 30, 1993). As a result, throughout the 1990s there have been numerous calls for strengthening the effectiveness of the corporate governance function performed by boards of directors and audit committees.

To gain insight into the roles of audit committees in the corporate governance process, the Institute of Internal Auditors (IIA) issued a 1993 report, *Improving Audit Committee Performance: What Works Best*, that summarized a study conducted by Price Waterhouse on behalf of the IIA to determine current practices of audit committees and to gain insight as to how audit committees are likely to evolve (IIA, 1993). The purpose of the IIA report was to identify organizational and operational characteristics that not only describe how audit committees function, but how they function effectively. That report noted that the single most important finding and the key to audit committee effectiveness is that audit committee members must be provided with more background information and training to enable them to be more effective. The report noted that audit committee members can be

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<sup>12</sup> The audit committee requirements for the NASDAQ Small Cap Market did not become effective until 1997.

effective only if they thoroughly understand their responsibilities and how to meet them effectively.

*“Audit committee members must be provided with more background and training to enable them to be more effective.”*  
- Institute of Internal Auditors,  
*Improving the Audit Committee Performance: What Works Best*

**Public Oversight Board’s Advisory Panel Report.** Following the issuance of the IIA’s report, an Advisory Panel on Auditor Independence provided a report in 1994 to the POB titled, *Strengthening the Professionalism of the Independent Auditor* (AICPA POB, 1994b). The Advisory Panel’s report highlighted that “over the past decade the dominance of the process of corporate governance *by management* [emphasis added] has ebbed as boards of directors have assumed the long-acknowledged but seldom-practiced role as the ‘fulcrum of accountability’ in the corporate governance system” (AICPA POB, 1994b, p. 12). The Advisory Panel’s 1994 report summarized the view of many corporate governance experts that corporate governance in the United States is not functioning as designed primarily because too many boards of directors fail to make the system work the way it should. Lack of time, unwieldy board size, complexity of information, and lack of cohesiveness dilute boards’ effectiveness.

As a result of these views, the Advisory Panel encouraged boards of directors to play an active role in the financial reporting process and for the auditing profession to look to the board of directors – the shareholders’ representative – as its client. The Advisory Panel urged the POB and the SEC and others to encourage adoption of proposals such as increasing the representation of outsiders on the board and reducing board size to strengthen the independence of boards of directors and their accountability to shareholders. These recommendations were based on the Advisory Panel’s belief that stronger, more accountable boards will strengthen the professionalism of the outside auditor, enhance the value of the independent audit, and serve the investing public.

In addition to strengthening the role of the board of directors in the oversight of management, the Advisory Panel recommended that audit committees should expect auditors to be more forthcoming in communicating first with the audit committee and then with the full board to provide the auditor’s perspective of the company’s operations as well as the company’s financial reporting policies and practices. The Advisory Panel noted that audit committees should expect to receive and independent auditors should deliver forthright, candid, oral reports in a timely manner on the quality and not just the acceptability of a company’s financial reporting. It was the Advisory Panel’s objective to give directors a better basis for understanding and influencing corporate practices, which in turn should create a supportive climate leading toward more credible financial reporting.

**Public Oversight Board’s 1995 Report.** The POB stated in their 1995 publication *Directors, Management, and Auditors: Allies in Protecting Shareholder Interests*, that practices followed by well governed corporations should foster an environment where the

independent auditor, management, audit committee and board of directors play interactive and timely roles in the financial reporting process (AICPA POB, 1995). Having top management and the external auditor involved in extensive discussions of important financial reporting matters with the audit committee and in some cases the full board should enhance the corporate governance process and ultimately increase the credibility of financial reporting in the United States.

**The Independence Standards Board.** To help strengthen the role of the auditor as an independent assurer of credible financial information and a major source of information for the audit committee and board, the accounting profession and the SEC agreed in 1997 to establish a new private sector body – the Independence Standards Board (ISB) – to set independence rules and guidance for auditors of public companies. Part of the motivation for creating the ISB was initially based on comments in January 1994 by then SEC Chief Accountant Walter P. Schuetze where he expressed concern that “...auditors [are] not standing up to their clients on financial accounting and reporting issues when their clients take a position that is, at best, not supported in the accounting literature or, at worst, directly contrary to existing pronouncements” (as quoted in AICPA POB, 1994a). Based on the significance of his comments and the importance of auditor independence as a cornerstone of the auditing profession, efforts were taken to strengthen auditor independence as a means designed to strengthen the overall financial reporting process.

Despite these numerous efforts to improve the corporate governance process, the roles of corporate boards and audit committees continue to be criticized. For example, a recent article in *The Wall Street Journal* stated that “Too many audit committees are turning out to be toothless tigers. This corporate board committee supposedly reviews management’s financial actions and controls, as well as keep tabs on internal and outside auditors. But a flurry of accounting scandals...indicates that the audit panels in many cases aren’t doing their jobs” (Lublin and MacDonald, 1998).

*“Too many audit committees are turning out to be toothless tigers.” – The Wall Street Journal  
July 17, 1998*

**Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees.** In February 1999, the *Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Audit Committees* (BRC, 1999) was issued containing ten recommendations designed to improve the effectiveness of audit committees. The report, prepared on behalf of the New York Stock Exchange and the National Association of Securities Dealers, contains recommendations aimed at strengthening the independence of the audit committee and improving audit committee effectiveness by encouraging the inclusion of individuals who are financially literate, the development of formal written audit committee charters, and public reporting by the audit committee. In addition, the recommendations also address mechanisms for accountability among the audit committee, the outside auditors, and management.

**Blue Ribbon Commission on Audit Committees.** In addition, the National Association of Corporate Directors' *Blue Ribbon Commission on Audit Committees* is addressing audit committee effectiveness by taking a broad approach to identifying a number of issues that represent "best practices," with a particular focus on audit committees of smaller companies. It anticipates releasing its report later in 1999.

Part of the scope of the study underlying this report titled, *Fraudulent Financial Reporting: 1987-1997*, involved examining key characteristics associated with boards of directors, audit committees, and auditors for the companies investigated by the SEC during 1987-1997 for fraudulent financial reporting. This report contains summaries of many of those characteristics in an effort to shed additional light on corporate governance factors that may affect the likelihood of fraudulent financial reporting.

## VI. Overview of Findings From Academic Research

The academic community has been actively involved in conducting empirical research on the problem of fraudulent financial reporting during the period 1987-1998. Much of the motivation for such research can be attributed to the visibility of the problem generated by the release of the 1987 Treadway Commission Report, the issuance of SAS Nos. 53 and 82, and all the noted calls for improved fraud detection and prevention. While research on financial statement fraud existed prior to the late 1980s, that stream of research was in the early stages of development. This section highlights the results related to several of those research efforts.<sup>13</sup>

**Descriptive Research About Fraud.** Much of the research in the 1980s was primarily descriptive. That research focused heavily on identifying financial statement and non-financial characteristics of companies experiencing fraud (see for example, Elliott and Willingham, 1980; Albrecht et al., 1982; Merchant, 1987).<sup>14</sup> That research provided some of the basis for many of the fraud risk indicators included in SAS No. 53.

One of the limitations of prior research regarding fraud risk factors was the lack of a solid conceptual model describing the link between fraud risk factors and the likelihood of financial statement fraud. In addition, SAS No. 53 presented twenty-one factors that may contribute to the likelihood of either material errors or irregularities. One of the criticisms of SAS No. 53 was that its framework did not distinguish between factors more applicable to errors rather than fraud. The lack of any conceptual model was believed to add to the difficulty auditors faced in attempting to assess the likelihood of material misstatements due to fraud when selected fraud risk factors were found to be present.

**Fraud Risk Assessment Model.** In response to that concern, a conceptual model was proposed by Loebbecke and Willingham (1988) that described the probability of material misstatement due to fraud as a function of three factors: (1) the degree to which *conditions* are such that a material management fraud could be committed, (2) the degree to which the person or persons of authority and responsibility in the entity have a reason or *motivation* to commit management fraud, and (3) the degree to which persons in positions of authority and responsibility in the entity have an *attitude* or set of ethical values such that they would allow themselves to commit management fraud.

This conceptual model was first validated by Loebbecke et al. (1989). They surveyed partners in a Big Eight audit firm about characteristics surrounding audit engagements where material irregularities were found to be present. They found that fraud risk factors consistent with the conceptual fraud assessment model were present in a large portion of the cases involving material irregularities. One of their primary conclusions was that the fraud assessment model incorporated a reasoning process, rather than a checklist approach. They

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<sup>13</sup> This literature review is not all inclusive. We focused primarily on empirical/archival studies and identified projects related to financial statement fraud versus other internal fraud activities.

<sup>14</sup> In many cases the term “fraud” in those studies was broader than merely financial statement fraud.

were also one of the first to call for auditors to make separate assessments of the likelihood of financial statement fraud and the likelihood of material misstatements due to error.

Probability of F/S Fraud =  
Function of (Conditions allowing fraud to be committed, Motivation for management to commit fraud, and an Attitude or Ethical Values allowing management to commit fraud)  
-Loebbecke and Willingham, 1988

While earlier research identified numerous potential fraud risk indicators, relatively little research has empirically examined whether those factors are unique to firms experiencing financial statement fraud. With the exception of the work by Albrecht and Romney (1986), many of these earlier studies only included firms where financial statement fraud was alleged to be present and excluded firms where fraud was not present.

**Validation of Fraud Risk Factors.** Albrecht and Romney (1986), followed by Albrecht and Willingham (1993), report some of the first attempts to validate the signaling capabilities of factors believed to be indicative of financial statement fraud. Albrecht and Willingham (1993) report results from a KPMG survey of audit partners who served on seventy-seven fraud cases and 305 no-fraud cases. KPMG found that eight of the twenty-one fraud risk factors included in SAS No. 53 were not statistically different between the fraud and no-fraud cases. Additionally, they noted that there were an additional nine factors not included in SAS No. 53 that appeared to be strong indicators of financial statement related fraud.

Building upon the KPMG study, Bell and Carcello (1998) attempted to validate many of the fraud risk factors identified in prior research by empirically examining whether fraud risk characteristics differed significantly for firms experiencing financial statement fraud relative to no-fraud firms on a multivariate basis. They built a predictive model for assessing the likelihood of management fraud using logistic regression. The logit statistical model, derived from the Loebbecke and Willingham (1988) conceptual model, converts identified red flag indicators into an assessment of the likelihood of management fraud. They found that while many of the factors were significant on a stand-alone basis, many of the factors were not incrementally significant when considered together with other factors in the predictive logit model. Their research highlights the difficulties associated with considering the combination of numerous fraud risk factors when attempting to arrive at an assessment of the likelihood of financial statement fraud.

**Effectiveness of Audit Tools for Fraud Detection.** Other research performed in the late 1980s and early 1990s highlights difficulties auditors have in assessing the overall risk of material misstatements due to fraudulent financial reporting. Pincus (1989) found that auditors who did not use “red flag” checklists outperformed those who did in an experimental setting. In a separate study, Pincus (1990) focused on the effects of individual auditor characteristics on fraud detection. She found that auditors who can easily disembody pieces of

information and who cannot tolerate ambiguous situations were more likely to identify inventory misstatements due to fraud. Bernardi (1994) extended the Pincus (1990) study and found that client integrity and competence did not affect the auditor's fraud detection ability except for high-moral-development managers (i.e., those who are sensitive to ethical situations).

Hackenbrack (1993) found that auditors have different opinions about the amount of fraud risk indicated by specific "red flag" indicators. He concluded that one reason for this disagreement is that auditors with different client experience (e.g., large versus small clients) have systematically different perceptions of the importance of a selected "red flag" factor. Bloomfield (1997) conducted a laboratory experiment to see how an auditor's ability to assess fraud risk can be influenced by the auditor's incentives and the strength of client's internal controls. He found that the auditor's fraud risk assessment is difficult when the auditor faces high legal liability for audit failure and audits a firm with strong internal controls (i.e., the probability of unintentional error is low).

In an effort to assist auditors in their assessment of financial statement fraud, Eining and Dorr (1991) developed a prototype expert system based on the conceptual model in Loebbecke and Willingham (1988) that combines the red flag cues into an assessment of management fraud risk. Using this expert system as one decision aid, Eining et al. (1997) conducted a laboratory experiment with auditors using either the expert system or two other decision aids in their assessment of the likelihood of management fraud. In addition to the expert system, the other two decision aids examined in their study included a fraud risk factor checklist and a logit predictive model similar to an earlier version of the model examined by Bell and Carcello (1998). They found that the expert system allowed auditors to differentiate the risk of management fraud significantly better than auditors using the logit model. Auditors using the logit model discriminated the risk of management fraud significantly better than those using the checklist.

**Role of Corporate Governance.** Out of the work examining the signaling capabilities of various fraud risk factors, there is a consistent finding that the control environment of the entity under audit is important when assessing the likelihood of management fraud. For example, Loebbecke et al. (1989) noted that "our findings support the importance of the control environment...Where controls are weak, a significant condition exists that would allow either management fraud, defalcation, or an error to occur (p. 25)."

More recent studies have focused specifically on the role of corporate governance and the assessment of the likelihood of financial statement fraud. Beasley (1996) examined the relation between board of director characteristics and financial statement fraud. He found that boards of directors of fraud firms are significantly more likely to have smaller percentages of outside non-management directors on the board than boards of no-fraud firms, and the tenure of those outside directors is lower and the number of other directorships they hold is higher. Interestingly, Beasley (1996) found no association between the presence of an audit committee and the likelihood of financial statement fraud. Similarly, Dechow et al. (1996) found that firms committing financial statement fraud have boards dominated by insiders. They also found that those firms were significantly more likely to have the CEO

and Chairman of the Board positions held by the same individual with that individual often being the founder of the company. McMullen (1996) found that entities with more reliable financial reporting (e.g., the absence of material errors, irregularities, and illegal acts) are significantly more likely to have audit committees. Summers and Sweeney (1998) found that in the presence of fraud, insiders reduce their holdings of company stock through high levels of selling activity. Collectively, these studies provide some empirical evidence of the importance of the relation between effective corporate governance and the likelihood of financial statement fraud.

Boards of directors of fraud firms are more likely to be composed of smaller proportions of outside directors than boards of no-fraud firms.

**Effectiveness of SAS No. 82.** Recent studies have focused specifically on components of SAS No. 82. Zimbelman (1997) examined the possible effects of SAS No. 82 on auditor attention to fraud risk factors and audit planning. His results suggest that SAS No. 82 leads auditors to accept more responsibility by increasing the extent of audit testing irrespective of fraud risk and by paying greater attention to fraud risk indicators relating to possible financial statement fraud. DeZoort and Lee (1998) evaluated whether the perceptions of users related to the responsibility of the external auditor to detect fraud in financial statements is greater under SAS No. 82 relative to SAS No. 53. They found that users perceive a greater responsibility on the part of the auditor to detect financial statement fraud under SAS No. 82 than under SAS No. 53.

Several studies have focused on factors that impede the auditor's ability to detect instances of financial statement fraud. As noted by Loebbecke et al. (1989), findings by auditors of material instances of financial statement fraud are rare. As a result, they note that auditors must condition themselves so that performing audit after audit without encountering a material instance of fraudulent financial reporting does not make them so complacent that they fail to recognize one when it is encountered. Building upon this reality, Deshmukh et al. (1998) applied Signal Detection Theory to the problem of detecting management fraud. Their analysis indicates that the auditor must accept disproportionate false alarm rates in order to maintain audit effectiveness in the presence of management fraud. Green and Choi (1997) developed a neural network fraud classification model that employed financial statement related data within the revenue cycle. Their model incorporated financial statement account data that would be examined analytically in the planning phase to determine whether such data are indicative of an increased risk of material misstatement due to fraud. They found that the neural network models generated few false classifications in the absence of fraud and signaled to the auditor to perform more additional substantive testing when fraud was present.

*"...auditors must condition themselves so that performing audit after audit does not make them so complacent that they fail to recognize one [a financial statement fraud] when it is encountered."*

- Loebbecke, Eining, and Willingham, 1989

**Consequences of Financial Statement Fraud.** Other studies have focused on the consequences of financial statement fraud. Palmrose (1987) examined the relation between occurrences of management fraud and auditor litigation. She found that nearly half of all litigation against auditors involved management fraud, and management fraud litigation resulted in larger payments by audit firms. Palmrose's (1987) findings that the existence of fraud was a significant factor in auditor litigation are also documented by Carcello and Palmrose (1994) and St Pierre and Anderson (1984). Bonner et al. (1998) extended this analysis by examining whether financial fraud schemes that occur more frequently and whether those that involve fictitious transactions and events result in a higher incidence of litigation against independent auditors. They built their study under the expectation that juries and judges are more likely to hold auditors responsible for failing to detect frauds with these characteristics. They found some support for the hypothesis that there is a higher incidence of auditor litigation when fraud schemes are frequently occurring or involve fictitious transactions and events.<sup>15</sup>

“...auditors are more likely to be sued when the financial statement frauds are of a common variety or when the frauds arise from fictitious transactions.”  
-Bonner, Palmrose, and Young, 1998

As for consequences to the entity involved, Dechow et al. (1996) found a large stock price decline for firms when they first publicly disclose aggressive financial reporting practices. They also found a significant decline in the number of analysts following the firms and a reduction in the number of institutions holding the firm's common stock after aggressive reporting practices are revealed. Interestingly, Agrawal et al. (1998) found little systematic evidence that entities suspected or charged with fraud have unusually high turnover among senior management or directors. In univariate comparisons, there is some evidence that firms committing fraud have higher managerial turnover and inside director turnover. But, in multivariate tests that control for other firm attributes, the relations between turnover and fraud are not significant in the direction expected.

Even though additional research has been performed related to the problems of financial statement fraud since the late 1980s, there still remains a paucity of empirical evidence about the problem of financial statement fraud. Much of that limitation is due to the lack of available relevant data related to actual instances of financial statement fraud. Much of the needed data are not available in public documents, and access to confidential information is generally restricted due to the sensitive nature of fraud investigations and related litigation.

This research study sponsored by COSO provides additional information that may prove useful for future research. This report titled, *Fraudulent Financial Reporting: 1987-*

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<sup>15</sup> They also provided some evidence about the most common types of financial statement frauds. The most frequent fraud schemes involve omitted or improper disclosures, fictitious or overvalued revenues or assets, overvalued assets and undervalued expenses or liabilities, and premature revenue recognition. While their study was also based on a review of AAERs, there are some differences in findings reported in our study from those reported by Bonner et al. primarily because the time period of their examination and alternative sources of data used (particularly litigation related databases) differed from the approach we used. Most of the differences are relatively minimal. The notable difference in litigation rates against companies is highlighted in Section III.

*1997*, provides updated insights about company and management characteristics associated with known instances of financial statement fraud. These insights should hopefully help identify issues that can be addressed in future empirical examinations of the financial statement fraud problem.

## **VII. Description of Research Team Members**

This research was conducted on behalf of COSO by a team of three academic researchers: Mark S. Beasley, Joseph V. Carcello, and Dana R. Hermanson. All three team members are active researchers who have previously conducted research related to issues addressed in this study. All three are Ph.D.s and CPAs who have worked extensively as auditors with a large international accounting firm.

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