

# Where Do Companies Attempt Earnings Management, and When Do Auditors Prevent It?

Mark W. Nelson\*  
mwn2@cornell.edu

John A. Elliott\*  
jae9@cornell.edu

Robin L. Tarpley\*\*  
rtarpley@gwu.edu

Current Draft: October 22, 2000  
First Draft: June 9, 2000

*\*Cornell University; \*\*George Washington University. We appreciate comments from Rob Bloomfield, Tom Dyckman, Karl Hackenbrack, Susan Krische, Bob Libby, John Lyon, Tom Lys, and workshop participants at Cornell University and Northwestern University. We also appreciate financial support provided by Cornell's Johnson Graduate School of Management, and the access to audit partners and managers provided by an anonymous Big-5 firm.*

## Where Do Companies Attempt Earnings Management, and When Do Auditors Prevent It?

### Abstract

Research about earnings management (“EM”) is sometimes criticized as insufficiently useful to standard setters (e.g., Healy and Whalen 1999). Because prior studies necessarily focus on those areas of EM that have resulted in SEC enforcement actions or for which empirical tests are most powerful, little is known about EM with respect to many accounts. Also, relatively little research has examined factors that limit EM. For example, because prior studies focus on post-audit financial statements, they cannot separate managers' *attempts* to manage earnings and auditors' decisions to *waive* adjustment of earnings-management attempts.

Our study complements prior research by constructing a database of 526 earnings-management attempts (“EMAs”) that span the issues regulated by SFAS's 1-132 and their precursors. We obtain EMAs by surveying audit partners and managers from one Big-5 firm and eliciting specific experiences they have had with audit clients who they believe were attempting earnings management. This database allows us to examine how managers' decisions to attempt EM and auditors' decisions to waive EMAs are affected by financial-accounting-standard precision, transaction structuring, current-year-income effect, materiality, and/or client size. We also assess the relative frequency of EMAs in various accounts, as well as the relative frequency with which EMAs are waived by auditors to become EM in the audited financial statements.

Regarding managers' EMAs, analyses indicate that transaction structuring is infrequent, and tends to occur with respect to precise standards. Of those EMAs that affect current-period income, 60% are income increasing. EMAs are more likely to increase current-period income when standards are precise and/or transactions have been structured. Regarding auditors' waive decisions, analyses indicate that auditors are more likely to waive adjustment of an EMA when it decreases current-year income, is governed by an imprecise standard, is structured (particularly to meet a precise standard), is considered by the auditor to be immaterial, or is attempted by a large client.

In our database, EMAs occur most frequently with respect to reserves, followed by, in order of frequency, revenue recognition, business combinations, intangibles, fixed assets, investments, leases, compensation, and many other areas. While revenue-recognition EMAs are second most frequent, auditors infrequently waive them, so they are the third most frequent category of EM. Auditors require adjustment of 43% of EMAs. They waive adjustment of 22% because they conclude the EMA is allowed by GAAP, 18% because the auditor has no convincing evidence that their client's position is incorrect, and 17% for another reason (usually, immateriality).

At the conclusion of our paper we discuss limitations and implications of our results for earnings-management research, audit practice, and financial-accounting and auditing regulation.

# Where Do Companies Attempt Earnings Management, and When Do Auditors Prevent It?

## I. Introduction

Regulators (e.g., Levitt 1998) have voiced concern that companies are engaging in (and auditors are allowing) earnings management<sup>1</sup> (“EM”). In response, additional regulations have already been issued,<sup>2</sup> and further changes are being contemplated (e.g., Panel on Audit Effectiveness 2000). To help guide these efforts, research needs to provide further evidence about where EM is attempted by managers, which standards are most vulnerable to EM, and the role that auditors play in limiting EM (Healy and Whalen 1999; SEC Call for Research 1999). Our study provides evidence with respect to these questions.

We document 526 experiences that Big-5 audit partners and managers have had with clients attempting earnings management. Included in our survey data for each experience is a description of the specific earnings-management attempt (“EMA”), the financial-accounting standard(s) relevant to that EMA, and the eventual disposition of the EMA by the auditor (e.g., the auditor could require that their client adjust the EMA, or could waive adjustment because the EMA fell within GAAP or was immaterial). Some participants were directed to focus on specific areas of financial accounting (e.g., leases,

---

<sup>1</sup> Numerous definitions of EM exist (see, e.g., Schipper 1989; Healy and Whalen 1999; Panel on Audit Effectiveness 2000). For purposes of this paper we consider earnings management to include the continuum of behavior that is undertaken intentionally to make the financial statements appear different from how they would appear if financial-statement effects were not being considered. Thus, we include behavior that is clearly consistent with GAAP, such as decreasing expenditures to avoid losses or structuring leases to avoid capitalization with respect to SFAS 13, as well as behavior that is clearly fraud, such as recording fictitious sales or intentionally overstating inventory, as well as a broad range of behavior in between these two extremes.

<sup>2</sup> Examples include SAB 99 regarding materiality judgments (issued 8/99), SAB 100 regarding revenue recognition (issued 11/99), SAB 101 regarding restructuring and impairment charges (issued 12/99), and SAS’s 89 (issued 12/99) and 90 (issued 12/99) regarding auditors’ responsibility to communicate with audit committees about uncorrected misstatements and quality of earnings.

revenue recognition) to ensure complete coverage of accounting topics; others were not directed to focus on specific areas to facilitate estimation of relative frequencies. Data collection occurred in Fall 1998.

Consistent with our predictions, several factors affect where EMAs occur and whether they are waived by the auditor. For each EMA, we determined whether the key financial-accounting standards give precise, objective guidance (e.g., SFAS 13) or imprecise, subjective guidance (e.g., SFAS 5) about the appropriate treatment. We also determined whether the EMA involved structuring a transaction with respect to a financial-accounting standard (e.g., structuring a lease transaction to avoid capital-lease treatment; timing sales of assets to allow gain recognition in a particular period).

Analyses indicate that managers tend not to structure EMAs, but when they do so, they tend to structure for precise standards. Auditors are more likely to waive an EMA that is structured, particularly when it is structured for a precise standard, but are less likely to waive EMAs in general when standards are precise. Auditors are more likely to waive EMAs that they consider to be immaterial. Auditors are more likely to waive EMAs that are attempted by large clients, even after controlling for whether or not the EMA is considered material.

Further analyses indicate that, of the 429 EMAs for which we could identify an effect on current-year net income, 60 percent increase income in the current year. Structured EMAs are more likely to increase current-year income than to decrease current-year income. Auditors are more likely to waive EMAs that decrease current-year income, in part because they tend to consider them immaterial.

To consider how precision of standard, transaction structuring and current-year-income effect differ between account areas, we compared EMAs that are reserve-related (the most frequently occurring EMAs in our database) with EMAs that are not reserve-related.<sup>3</sup> Of the 429 EMAs for which we could identify an effect on current-year income, 133 are reserve-related, and 296 are not. Reserve-related EMAs are never structured, tend to decrease current-year income ( $96/133 = 72$  percent), and tend to be waived by auditors ( $83/133 = 62$  percent waived). In contrast, non-reserve-related EMAs are sometimes structured ( $66/341 = 19\%$  structured), tend to increase current-year income ( $219/296 = 74$  percent), and are less likely to be waived ( $146/296 = 49$  percent).

At a finer level of detail, EMAs involving reserves occur most frequently in our sample, followed by revenue recognition, business combinations, intangibles, fixed assets, investments, leases, compensation, accounting for large investments (i.e., consolidations and equity v. cost method), transfers of receivables, accounting changes, employee retirement benefits, and others. Counter to evidence provided by studies of SEC Accounting and Auditing Enforcement Releases (“AAERs”), which focus on the most egregious instances of earnings management, revenue recognition is not the most frequently occurring EMA or EM in our sample.

In total, auditors required adjustment of 225 EMAs (43 percent). Auditors waived adjustment of 112 EMAs (22 percent) because they concluded that the EMA was consistent with GAAP, waived adjustment of 89 EMAs (17 percent) because they believed they had no convincing evidence that the company’s position was incorrect, and

---

<sup>3</sup> Similar to the Panel on Audit Effectiveness, we use the term “reserve” to refer to allowances for estimated losses that are disclosed either as liabilities or as reductions of assets.

waived adjustment of 91 EMAs (18 percent) for some other reason. For 66 of those 91 EMAs, the auditor's stated reason for waiving the EMA was that it was immaterial.

Overall, we predict and find that several general factors affect where managers attempt EM and/or when auditors waive EMAs. These factors influence the frequency with which EMAs occur and are waived in various accounts, and therefore affect the frequency with which EM is observed in audited financial statements. These results can help regulators, auditors and other participants in the financial-reporting process predict where EMAs and EM will occur, and to predict the effects of regulatory changes that influence the underlying factors we examine. Since we collected data, some additional regulatory guidance relative to these factors has already been issued (e.g., SAB 99 and SAS 89 with respect to materiality). Other guidance is currently being considered (e.g., rules designed to reduce client importance by restricting provision of non-audit services). Our results can serve as a baseline for assessing the effectiveness of recent regulatory changes, as well as serving as an indicator for future changes in regulations or audit methodologies.

The rest of this paper proceeds as follows. In section 2 we relate our study to prior research that has examined earnings management and auditors' disposition of proposed financial-statement adjustments, and make predictions about factors that we believe affect where EM is attempted and whether EMAs are waived by auditors. In section 3 we describe our method. In section 4 we describe analyses and results. In section 5 we summarize our findings, discuss implications and limitations, and suggest directions for future research.

## **II. Background and Predictions**

### **Relating Our Approach to Prior Studies of EM and Audit Adjustments.**

The typical EM study identifies circumstances where a researcher perceives an incentive to manage earnings and specifies an expectations model to estimate what earnings would have been without any EM. EM is inferred if actual earnings differ from expected earnings in the direction favored by the identified incentive (see, e.g., Jones 1991; Dechow, Sloan and Sweeney 1995; Kang and Sivaramakrishnan 1995). A variation of this approach is to examine the distribution of earnings for characteristics that suggest it differs in some incentive-compatible way from what would be expected in the absence of EM (see, e.g., Hayn 1995; Burgstahler and Dichev 1997; Burgstahler and Eames 1998; Degeorge, Patel and Zeckhauser 1999). Other studies document the types of accounting abuses identified in SEC Accounting and Auditing Enforcement Releases (“AAER’s”) (e.g., Dechow, Sloan and Sweeney 1996; Beneish 1997; Bonner, Palmrose and Young 1998; Panel on Audit Effectiveness 2000).

Our approach of eliciting very experienced auditors’ experiences with EMAs complements these approaches by addressing some of their limitations. First, “unexpected earnings” studies potentially lack power due to the difficulty inherent in identifying EM through large-sample empirical analysis (Healy and Whalen 1999). EM is defined in terms of intent, and intent is difficult to evaluate using archival techniques (Dechow and Skinner 2000). These studies face the criticism that any EM they identify actually may be a result of an omitted variable, and that any EM they fail to identify could be detectable with a more refined earnings expectation model or a better proxy for intent (Bernard and Skinner 1996; Guay, Kothari and Watts 1996; Dechow, et al. 1995;

Kang and Sivaramakrishnan 1995). Our study elicits EMAs from auditors who are aware of management's incentives and the normal disclosure policies, operating history and other factors that are particular to their client's situation. These auditors are well positioned to identify instances of EMA.

Second, prior studies focus on circumstances for which empirical researchers believe they have the best archival data and/or the most powerful tests. Many studies that examine earnings or accrual proxies cannot identify the specific account(s) in which EM occurs. As a consequence, for many accounts and financial-accounting standards, relatively little evidence is available regarding EM, and little is known about the relative frequency with which EM occurs (Healy and Whalen 1999). AAER studies provide relative-frequency information, but they focus on only the most egregious instances of non-GAAP EM where revenue-recognition problems are particularly likely, and thus cannot address the full continuum of EM behavior. Asking auditors to identify EMAs across the range of issues covered by accounting standards allows us to test the extent to which EMAs are affected by general factors like financial-accounting-standard precision, ability to structure transactions, and current-year-income effects. Identifying such general factors helps us understand the EMAs that occur presently, and helps us predict EMA in response to future regulations or transactions. Our approach also allows us to estimate the relative frequency with which EMAs and EMs occur in various accounts.

Third, prior studies focus on EMAs that auditors either did not detect or did detect but did not prevent (i.e., that became EM in the audited financial statements). However,

presumably many EMAs are prevented by auditors.<sup>4</sup> For the many studies that seek to infer a link between managers' incentives and their actions, the EMA decision is of interest, and a focus on EM introduces noise from auditors' decisions about whether or not to waive adjustment. For studies that seek to evaluate the extent to which auditors mitigate EM (e.g., Bradshaw, Richardson and Sloan 1999), the waive decision is of interest, and a focus on EM understates audit effectiveness by ignoring those EMAs that auditors prevent. Our data allow us to assess the frequency and circumstances in which auditors prevent EM, and to examine the role of financial-accounting-standard precision, ability to structure transactions, current-year-income effect, materiality and client size in determining which detected EMAs are waived to become EMs. Audit firms may be able to use our results to anticipate EMA in preaudited financial statements, to evaluate their approach to dealing with EMAs that have been discovered, and to train inexperienced auditors, thereby helping them to fulfill their responsibilities to consider inherent risk (SAS 47), identify fraud (SAS 82) and report to audit committees concerning client's quality of earnings (SAS 90).

Studies of auditors' proposed financial-statement adjustments provide some insight into auditors' waive decisions. Kinney and Martin (1994) identify 18 archival audit-adjustment studies as of 1994, and more have been done since (e.g., Wright and Wright 1997). However, audit-adjustment studies include not only EMAs, but also

---

<sup>4</sup> What is an auditor's responsibility to detect and prevent EMAs? An unqualified audit opinion indicates that the financial statements are presented fairly in all material respects; i.e., are free of material misstatements. A misstatement is material if knowledge of it would affect a decision of a reasonable user of the financial statements (SFAC No. 2). To the extent a material misstatement exists, the financial statements should be adjusted or the auditor should modify the audit opinion. Proposed adjustments that are eventually determined to be immaterial or to not violate GAAP can be waived by the auditor (Arens and Loebbecke 1997). However, recently standards have added requirements that uncorrected immaterial

unintentional errors that are not EMAs (e.g., Wright and Wright [1997] consider errors that are due to mechanical bookkeeping mistakes). Also, many EMAs would not be proposed as audit adjustments, because they are clearly within GAAP (e.g., timing sales of operating assets to occur in particular periods, or structuring leases to obtain particular accounting effects). Because we focus on EMAs and waive decisions, we can examine factors that specifically affect EMAs and EM.

The primary limitation of our approach is that it depends on the validity and nature of the data that participating auditors provided when responding to our survey. Because auditors participated anonymously and in response to instructions by their firm, we do not believe they intentionally biased their responses. However, our approach does limit our study in other ways. First, while we believe auditors are in a good position to identify EMAs, our analyses do omit any EMAs that auditors didn't identify or couldn't remember. Such omissions would affect our analyses of general factors less than they would affect the frequencies of individual EMAs that we report. Second, we only have observations of transactions that auditors considered to be EMAs. Therefore, we cannot examine auditors' identification of EMAs (but only whether they waived those that they identified), and we cannot examine managers' decisions about whether or not to make an EMA (but only the EMAs they made, conditional on them deciding to make some type of EMA). Third, audit-client-confidentiality conditions prohibit our knowing the identity of the companies in our sample. Therefore, we cannot link our results to stock market performance or to any firm-specific or market variables that we did not elicit. These and other limitations of our study are discussed further in the last section of the paper.

---

violations of GAAP be reported to the client's audit committee (SAS 89), and that the auditor report to the

## Predictions

We draw on prior EM and audit-adjustment research to identify variables that might affect the EMA and waive decisions. Our predictions are summarized in Table 1.

### *Current-Year Income Effect (“CIE”)*

Whether a manager decides to attempt EM that increases or decreases current-year net income presumably depends on the managers’ incentives (Healy 1985). Investors generally prefer a time series of smoothly increasing income (Barth, Elliott and Finn 1999; DeFond and Jiambalvo 1993), so we predict that managers will tend to make EMAs that increase current-year income.

Auditors’ incentives are affected in part by their risk of litigation, which auditor-litigation studies suggest is highest for overstatements of income and equity. For example, auditors rarely if ever are sued when their clients report income or equity that is too low (St. Pierre and Anderson 1984). Also, auditors of firms subject to AAERs are more likely to be sued (Carcello and Palmrose 1994), and AAERs focus primarily on income overstatement. Therefore, auditing texts encourage an emphasis on detecting overstatements of current year’s net income and equity. For example, Arens and Loebbecke (1997, pp. 592) state:

“If equity investors, creditors, and other users determine subsequent to the issuance of the audited financial statements that owners’ equity was materially overstated, a lawsuit against the CPA firm is fairly likely. Since an overstatement of owners’ equity can arise either from an overstatement of assets or from an understatement of liabilities, it is natural for CPAs to emphasize those two types of misstatements. The probability of a successful lawsuit against a CPA for failing to discover an understatement of owners’ equity is far less likely.”

---

audit committee about their view of their client’s quality of earnings (SAS 90).

Audit-adjustment studies indicate that auditors tend to propose audit adjustments that reduce income and equity (Wright and Wright 1997; Kinney and Martin 1994). However, evidence with respect to auditors' waive decisions is less clear. Archival research finds no association between the likelihood of waiving proposed audit adjustments and the sign of their income effect (Wright and Wright 1997), but experimental evidence indicates that auditors are more likely to waive proposed audit adjustments that decrease income (Braun 2000). Given our understanding of auditors' incentives, we predict that auditors will be less likely to waive EMAs that are current-period-income increasing than they are to waive EMAs that are current-period-income decreasing.

### ***Financial-Accounting-Standard Precision***

Are managers more likely to attempt EM with respect to precise or imprecise standards? We have no data concerning the relative frequency of precise and imprecise standards that exist in current practice, or the extent to which managers attempt EM with respect to either type of standard. Therefore, we make no *ex ante* prediction as to the effect of precision on managers' EMA decisions (although as described later we do make predictions about interactions of precision with other variables).

Prior research provides more guidance with respect to the effect of precision on auditors' waive decisions. Audit-adjustment studies provide evidence that many adjustments are proposed in accounts that are subjective in nature (e.g., Houghton and Fogarty 1991; Wright and Wright 1997). However, this could occur because transactions in these accounts are less-systematically processed, and thus are more prone to error

(Houghton and Fogarty 1991) or because of disagreement between auditors and managers (Wright and Wright 1997), rather than because of intentional EMA by managers.

Several experimental studies provide evidence that auditors are more likely to allow their clients to take aggressive accounting positions as the subjectivity of the relevant standards and/or evidence increases (e.g., Nelson and Kinney 1997; Salterio and Koonce 1997; Mayhew, Schatzberg, and Sevcik 2000). As a result, auditors' waive decisions in these experiments are affected significantly by clients' incentives when auditors are dealing with imprecise standards (Hackenbrack and Nelson 1996; Kennedy, Kleinmuntz, and Peecher 1997; Kadous, Kennedy and Peecher 2000). Analytical research (Antle and Nalebuff 1991) and survey evidence from experienced auditors (Gibbins, Salterio and Webb 2000) both suggest that auditors negotiate contentious accounting issues with their clients. Accounting standards play an important role in those negotiations (Gibbins, et al. 2000).

Given the evidence above, we predict that auditors will be less likely to waive EMAs that are made with respect to precise standards.

### ***Structuring Transactions***

Managers can justify an EMA by interpreting data or standards aggressively, or by structuring transactions to comply with standards while producing their desired accounting outcome (Healy and Whalen 1999). We call the latter approach "transaction structuring", and include in it such actions as employing third-party guarantors to attain desired capital-lease status (Pulliam 1988) and undertaking the steps necessary for an acquisition to qualify as a pooling of interests (Lys and Vincent 1995).

Since we have no basis for predicting whether managers tend to make EMAs more by structuring or other means, we make no prediction about structuring and the manager's EMA decision. However, we do predict that structuring will increase the likelihood that auditors waive an EMA, because we believe that managers will only incur the costs of structuring if they think they will realize the benefits of having the EMA waived.

### ***Structuring x Precision Interaction***

Structuring is more likely to be effective if management has a precise set of criteria around which to structure. Furthermore, when transactions are not structured, managers are probably aggressively interpreting standards to justify their EMA, which is done most easily when standards are imprecise. Therefore, we predict that managers are more likely to structure EMAs with respect to a precise standard.

If a transaction is structured effectively around a precise standard, the auditor will tend to waive the EMA, because it precisely complies with GAAP. "Substance over form" is difficult to argue compellingly when GAAP precisely states appropriate treatment. Therefore, we predict that auditors are more likely to waive an EMA when it is structured around a precise standard.

### ***Structuring x Current-Year-Income Effect Interaction, and Precision x Current-Year-Income Effect Interaction***

Anecdotal evidence suggests that many types of current-income-decreasing EMAs are made to enable future income-increasing EMAs. For example, "cookie jar reserves" (Levitt 1999) are most useful to managers if they can "take cookies from the jar" when they want them. This strategy should be more effective under imprecise

standards, and when transactions are not structured, as those circumstances allow more latitude for managers to justify harvesting the excess reserve in the future. Therefore, we predict more income-decreasing EMAs under imprecise standards than under precise standards, and more income-decreasing EMAs when transactions are not structured than when transactions are structured. We have no basis for predicting these interactions with respect to auditors' waive decisions.

### ***Materiality***

We have no basis for predicting an effect of materiality on managers' EMA decisions. Regarding auditors, their primary responsibility is to identify and require adjustment of material misstatements, and many EMAs could be considered misstatements, so it is reasonable that auditors would be less likely to waive misstatements that they consider material. This result would be consistent with findings in the audit-adjustment literature that auditors are less likely to waive errors they consider material (Icerman and Hillison 1991, Wright and Wright 1997, Braun 2000). Therefore, we predict that auditors are less likely to waive EMAs that they consider to be material.

### ***Client Size***

We have no basis for predicting an effect of client size on managers' EMA decisions. Regarding auditors, analytical research theorizes that concern over retaining and attracting client fees affects auditors' willingness to require audit adjustments that their client's oppose (for reviews of relevant models, see Lee and Gu 1998 and Zhang 1999). Because audit fees increase with client size (Francis and Simon 1987), this suggests that the probability an adjustment is waived increases with client size, which has been found in prior audit-adjustment research (Wright and Wright 1997). Therefore, we

predict that auditors are more likely to waive EMAs as client size increases. Of course, all else equal, an EMA of a given size is less material as client size increases. As a consequence, tests of our prediction are conditioned on the materiality of the EMA.

### **III. Data Collection**

#### **Participants**

Given that our goal was to obtain data about EMAs from very experienced auditors who were involved directly with each case, we limited participation to auditors of partner or manager rank. Data collection occurred in Autumn of 1998.<sup>5</sup> We could not contact audit managers directly, so instead asked each audit partner we contacted to distribute two additional instruments to managers of their choice. After pretesting the survey with two partners and two senior managers, packets were mailed to 532 audit partners selected randomly from U.S. offices of one Big-5 firm. As each packet included materials for one partner and two managers, a total of 1596 surveys were mailed.

We received a total of 278 responses, yielding a response rate of 17%.<sup>6</sup> Sixteen responses indicated no experience with EMA, and nine responses were uninterpretable,

---

<sup>5</sup> One month prior to data collection, SEC Chairman Levitt made a speech that expressed his concern over earnings management and highlighted specific techniques that he considered prevalent. It is possible that press coverage of Chairman Levitt's speech could have affected our subjects' responses. Following the speech, the SEC issued SAB's 99, 100 and 101, and the ASB issued SAS's 89 and 90, in the hopes of reducing various types of earnings management. We discuss the potential effect of these announcements on the generality of our results in section 5.

<sup>6</sup> Several factors probably contributed to our relatively low response rate. First, only 55% of respondents were managers, but 67% of the surveys were distributed to managers, indicating a lower response rate among managers. This could have occurred because partners who didn't respond also didn't encourage managers to respond, while partners who did respond may have had managers who didn't respond. Second, as discussed in section 3.2, most auditors were directed to focus on EMAs with respect to specific lists of topics. Auditors may not have responded if they had no experiences with respect to those topics, which is consistent with a slightly lower response rate for managers (who are less experienced than partners) and for "list" surveys (15%) as compared to "no list" surveys (18%). Third, some auditors might not have responded due to the sensitive nature of the topic. As an example of auditors' concern about the topic, one subject responded with the statement "I am not now nor have been nor expect to be involved in any way with earnings management".

so 526 experiences from 253 respondents form our sample. Participants had an average of 14.1 years of experience; 45% were partners, and 55% were managers.

### **Initial Instructions and Manipulation of “List” v. ”No List”**

Partners received a packet that contained a cover letter from a prominent member of the main office of the firm. The letter included the following statements:

Researchers from ... University are conducting an earnings management study. The project seeks to identify the nature of, and circumstances surrounding, attempts at earnings management. The results of the study will assist our development of an earnings-management training tool for less-experienced auditors. High quality input from professionals like you will help to make this study a success.

Please complete the enclosed materials which ask you to document your experiences. ... Please do not delegate this task. Also, please ask two senior managers in your office to complete the packets of materials that are enclosed for them. ...

No client-specific information will be collected. The data you provide will be kept confidential.

Included in the packet were three envelopes, one of which was addressed “Materials To Be Completed By [partner name]”, and two of which were addressed “Materials To Be Completed By A Manager Designated By [partner name].”

The Appendix contains the first page of the survey. We stated that we were interested in learning about participants’ experiences with companies that attempt material earnings management. We clarified what we meant by “attempted material earnings management”, and then highlighted that earnings management could occur in such ways as firms structuring transactions with respect to standards or aggressively interpreting standards or data. While all participants were instructed to focus on their most important experiences; i.e., “the most frequently occurring examples of attempted

material earnings management” that they had encountered, some participants were asked to focus on specific accounting topics, while others were not.

As our primary purpose was to consider comprehensively the types of earnings management that occur in various accounts, 80% of surveys asked “list” participants to consider earnings management with respect to a list of five areas chosen from the 22 areas shown in Table 2. These areas cover what we judged to be the primary non-industry-specific issues dealt with in SFAS No.’s 1-132 and the APBs and ARBs that preceded them. Following the first page of the survey, list participants received a table listing five areas and the financial accounting standards related to those areas.<sup>7</sup> The instructions asked participants to give three experiences for the first areas, but if they ran out of experiences for the first area they could move onto the second area, and so on, until they supplied a total of three experiences.<sup>8</sup>

Twenty percent of surveys asked “no-list” participants to provide a total of three experiences where companies attempted to materially manage earnings. No-list responses provide the cleanest estimate of the relative frequency with which various types of EMA occur.

### **Survey Questions**

Following the instructions (for all participants) and the table of five accounting areas (for list participants), the survey contained a sequence of 17 questions for

---

<sup>7</sup> Between participants we varied whether or not an area appeared on a table, and the 1-5 position of the area in the table in which it appeared, while insuring that each area appeared in tables an equal number of times and at each position within the table an equal number of times.

<sup>8</sup> Our data-collection approach could result in duplicate observations if more than one respondent described the same EMA. Duplication is most likely between partners and managers, as partners would probably distribute packets to managers with whom they had worked. To discourage duplication of observations, we ensured that the three surveys mailed to each partner in the list condition differed from each other in the

“Attempted Earnings Management Experience #1”, repeated those questions for EMAs #2 and #3, and finished with a short debriefing questionnaire. Included among the questions were requests that participants explain the EMA (called “the issue”), including the manner in which accounts were affected, and that participants state the specific criteria in financial accounting standards or principles that were most important for determining appropriate treatment of the EMA. Participants also stated their view of the manager’s incentive(s) for the EMA. This helped insure that our sample only includes situations where auditors believed managers’ incentives were influencing their reporting decisions.

Participants chose from among four alternatives that described how the EMA ended up being treated in the audited financial statements:

- (1) “treated as the company originally desired, because they demonstrated they were complying with GAAP,”
- (2) “treated as the company originally desired, because there was no convincing evidence that the company’s position was incorrect”,
- (3) “treated as the company originally desired, for some other reason (please explain)”, and
- (4) “treated other than how the company originally desired (please explain).”

Participants rated the materiality of the EMA to the client’s financial reporting, with the alternatives of “Material by itself: (a) in current year (b) in future years”, “Material in combination with other issues (a) in current year (b) in future years”, and “Not material”.

They rated the client’s annual net sales to provide an estimate of client size, with the alternatives of (a) < \$50M (million), (b) \$50M-\$100M, (c) \$100M-\$250M, (d) \$250M-

---

areas contained on the list. We also reanalyzed all results reported in the paper using only partner data. Results are very similar.

\$1B (billion), and (e) > \$1B. They also provided additional data, such as the year in which the EMA occurred and the industry of the client.

Participants also estimated the number of times they had encountered the EMA in their careers, and the percentage of times it had been treated in the audited financial statements in a manner consistent with each of the categories listed above. They classified the EMA as best described as “structuring a transaction to get around a standard”, “liberally interpreting the wording of a standard”, “liberally interpreting the data associated with a transaction”, or “other (please explain)”. The survey concluded with a short debriefing questionnaire. Participants returned the survey in an enclosed, stamped, addressed envelope.

## **Coding the Data**

### ***EMA description***

We paraphrased participants’ open-ended (and often quite lengthy) descriptions of each EMA and coded them according to the broad financial accounting area (e.g., revenue recognition) and specific sub-area (e.g., bill-and-hold sales) that they described. Although no predictions were tied to area of EMA, we wanted to insure consistency of coding. Therefore, all of the researchers agreed on the coding scheme, the same researcher paraphrased and coded all EMAs, a second researcher checked the first researcher’s interpretation and coding, and the two met to resolve disagreements.

### ***Current-Year Income Effect***

The description of each EMA implied the current-year-income effect ("CIE") of the EMA. We coded CIE as 1 if the EMA increased current-year income, and -1 if the EMA decreased current-year income. We could not code CIE for some EMAs, either

because the EMA by nature has no clear CIE (e.g., capital- vs. operating-lease classification primarily affects the balance sheet [Imhoff, Lipe and Wright 1991]), or because the EMA as described did not provide sufficient information to identify the CIE (e.g., “Over-accrue reserve for receivable in profitable year and reverse in lean year” does not focus on a particular year). In those cases, CIE was assigned a value of 0.

### ***Precision of Standard***

When participants identified the key criteria in financial-accounting standards or principles that determined appropriate treatment of the EMA, some participants were very specific (e.g., “FAS 13 capitalization criterion number 4 (90% PV lease payment)” and others were less specific (e.g., “FAS 13”). When participants were less specific or did not respond to this question, a researcher identified the key criteria affecting disposition of the EMA. This identification was checked by a second researcher and disagreements were resolved. If insufficient information existed to identify the key criteria, the precision score was coded as missing data.

After the key criteria were identified, a researcher coded a precision score with a “1” if the criteria precisely indicated how the EMA should be reported (e.g., the 90% capital-lease criterion in SFAS No. 13), and a “0” if the criteria were imprecise (e.g., the “probable” criterion in SFAS No. 5). Criteria did not necessarily have to be quantitative to be considered precise. For example, some EMAs involved accruing a reserve for an unspecified future loss; this is precluded by SFAS No. 5, so was coded as Precision = 1. If multiple key criteria were present and at least one was imprecise, the precision score

was “0”.<sup>9</sup> A second researcher performed the precision-coding task independently, met with the first researcher and resolved any disagreements. Both researchers coded precision without reference to data concerning transaction-structuring or current-period income effect to reduce any chance that precision coding could be influenced by predictions.

### ***Other***

Other data in the form of simple quantitative or categorical responses (e.g., client size, whether the transaction was structured, EMA materiality<sup>10</sup>) were input into a spreadsheet by a research assistant and checked for accuracy by another research assistant (with additional spot-checking by one of the researchers). For categorical questions where participants gave the response of “other”, a follow-up question asked them to elaborate. These elaborations were either recorded verbatim or paraphrased by one of the researchers and checked by a second researcher.

### **Comparison of List and No-List Responses**

Before testing our predictions, we compare responses between list and no-list participants. Table 2 contains a comparison of response frequencies, by the accounting areas included in the tables provided to list participants. Total responses are listed in the

---

<sup>9</sup> This approach tends to understate the precision scores assigned to some standards, and thus reduces the power of our tests. For example, AAER 108 provides a list of characteristics that “bill-and-hold” transactions should possess to be recognized as revenue, but because some of the AAER 108 criteria leave much room for interpretation, we assigned these EMAs a precision score of 0.

<sup>10</sup> Auditors identified whether each of the EMAs they described was material individually and in combination with other issues. From this data we developed two materiality measures: Matrat (= 1 if, in any year, the EMA was material individually or in combination with other issues; 0 if not), and Matcur (= 1 if, in the current year, the EMA was material individually or in combination with other issues; 0 if not). These two ratings are highly correlated (Pearson correlation = .93,  $p < .0001$ ), and produce the same results when included in analyses, so results are only reported for Matrat. We also identified 83 EMAs for which materiality was explicitly mentioned by auditors, and developed a Matsaid measure to capture mention (Matsaid = 1 if materiality mentioned; 0 if not). Auditors were more likely to mention materiality when an EMA was rated as immaterial (e.g., Pearson correlation between Matsaid and Matrat = -.58,  $p < .0001$ ).

2<sup>nd</sup> column, no-list responses are listed in the third column, and list responses are listed separately in the 4<sup>th</sup> and 5<sup>th</sup> columns according to whether or not the response falls in an area that appeared on the list provided to the participant. The 6<sup>th</sup> column reports the total frequency that participants who reported an EMA in a particular area estimated they had encountered that EMA during their careers. Each cell of Table 2 also parenthetically reports the rank of that cell among the cells in that column.

In general, ranks of the most frequent EMAs are similar in all columns, regardless of whether a list was provided, and regardless of whether or not we focus on the frequency with which EMAs were mentioned or on estimates of the total frequency with which EMAs had been encountered throughout participants' careers. The primary difference is that list subjects were more likely to identify EMAs in low-frequency areas. Many responses provided by list participants were not associated with the areas in the list that had been provided to them. We conclude that prompting list subjects did increase our coverage of less-frequently-occurring EMAs, but not enough to create very different EMA frequencies. Therefore, in the remainder of our analyses, we focus on the frequency with which EMAs were described by participants, and we collapse list and no-list responses. Relative frequencies of EMAs are discussed further in section IV.

## **IV. Results**

### **Analysis of Managers' EMA Decisions**

Our EMA results are summarized in Table 1. We begin by analyzing the 2 x 2 contingency table formed by crossing precision and structuring (see Tables 3a and 3b). Structuring occurs for only 66/526 (13%) EMAs. As predicted, precision and structuring

interact significantly (Chi-square = 13.93;  $p < .0001$ ):<sup>11</sup> 64% (42/66) of structured transactions are with respect to precise standards (Chi-square = 4.78;  $p < .0144$ ), while only 39% (178/460) of unstructured transactions are with respect to precise standards (Chi-square = 23.10;  $p < .0001$ ).

Before adding current-year income effect ("CIE") to the analysis, we drop those observations that lack a clear CIE (i.e., for which CIE = 0), reducing our sample to 429 observations. Table 4a shows the resulting 2 x 2 x 2 (precision x structuring x CIE) classification table. Analyses are reported in Table 4b. We find the predicted significant effect of CIE (Chi-square = 19.88;  $p < .0001$ ), with 60% (256/429) of EMAs increasing income.<sup>12</sup> As predicted, there is also a significant interaction between CIE and structuring (Chi-square = 7.92;  $p < .0025$ ), and between CIE and precision (Chi-square = 2.73;  $p < .0492$ ). EMAs are more likely to increase current-year income when transactions are structured and when standards are precise. The precision x structuring interaction is weaker for the reduced sample than it is for the full sample. This finding is not surprising, as many of the EMAs that drove that interaction were excluded when we dropped the observations for which current-year income effect was unclear (e.g., capital-lease-structuring transactions).

---

<sup>11</sup> Analyses of managers' EMA decisions were performed via loglinear models using Proc Catmod (SAS v. 7). Analyses of auditors' waive decisions were performed using Proc Logistic (SAS v. 7). As our predictions are directional, p-values referenced in the text are one-tailed.

<sup>12</sup> The significance of CIE in this analysis is incremental to the significance of the CIE x structuring and CIE x precision interactions. However, a test of equal proportions indicates that the proportion of CIEs that are income increasing (60%) differs significantly from 50% (Chi-square = 16.0583;  $p < .0001$ ). On average, EMAs occurred 2.7 years prior to data collection (median 2 years), and almost all occurred within five years of data collection, so it is reasonable to assume that on average managers perceived the income-increasing expectations of the bull market that occurred throughout the 1990's and chose EMAs designed to meet those expectations.

Overall, the “manager EMA decision” results are consistent with our predictions. Managers tend to make income-increasing EMAs in general, but fully 40% (173/429) of EMAs for which CIE is determinable are income decreasing. Managers are more likely to structure transactions with respect to precise standards. Managers are more likely to make income-increasing EMAs when standards are precise: 65% (109/167) of EMAs with precise standards increase current income, whereas only 56% (147/262) of EMAs with imprecise standards increase current income. Managers also are more likely to structure transactions to attain an income-increasing effect: 81% (35/43) of structured transactions increase current income, whereas only 57% (221/386) of unstructured transactions increase current income. As a result, income-decreasing EMAs are more likely to occur with respect to imprecise standards, and when transactions have not been structured.

### **Analysis of Auditors’ Waive Decisions**

Our auditor-waive results are summarized in the rightmost column of Table 1. Table 5a shows the percentage of EMAs waived, by precision and structuring. Comparing managers’ EMA decisions and auditors’ waive decisions is instructive. As shown in the denominator of the proportions in Table 5a, managers structured against precise standards 42 times, and structured against imprecise standards 24 times.<sup>13</sup> EMAs of these types were generally waived (in fact, in 10 instances auditors mentioned that they had been enlisted by the client to help structure the transaction to insure it complied with GAAP). Managers did not structure against imprecise standards 282 times. This approach also was generally waived, reflecting the information asymmetry that auditors

---

<sup>13</sup> Many of these 24 EMAs were structured with respect to standards we classified as imprecise but that nonetheless contained a relatively high amount of precision, such as “bill and hold” revenue recognition criteria from AAER 108 and cost/equity method criteria from APB 18 and subsequent guidance.

face when questioning their client's treatment of highly judgmental transactions.

Managers did not structure transactions with respect to precise standards 178 times. This approach failed over half of the time. Auditors' comments indicated that these circumstances often reflected ignorance on the part of managers about the relevant accounting standards.

Table 5b shows the results of a logistic regression of waive (EMA waived = 1) against precision, structuring, the precision x structuring interaction, materiality and size. All variables are significant,<sup>14</sup> and their signs are in the direction predicted. No interactions other than the precision x structuring interaction were significant.

Before adding CIE to the analysis, we drop those observations that lack a clear CIE, reducing our sample to 429 observations. Table 6a shows the percentage of EMAs waived, by CIE, precision and structuring. The EMAs least likely to be waived are income increasing, unstructured and involve precise standards (29% waived). No interactions were significant, so Table 6b contains a reduced logit model.<sup>15</sup> Auditors were significantly more likely to waive if the standards were imprecise, if the EMA was structured, if the EMA served to decrease current-year income, if they judged the EMA to be immaterial, and/or if the EMA was attempted by a larger client.<sup>16</sup>

---

<sup>14</sup> Two simple effects in the precision x structuring interaction are significant. First, when standards are precise, the proportion of EMAs waived when transactions are not structured (41%) is significantly less than the proportion waived when transactions are structured (86%; Chi-square = 21.34;  $p < .0001$ ). Second, when transactions are not structured, the proportion of EMAs waived when standards are precise (41%) is significantly less than the proportion waived when standards are imprecise (61%; Chi-square = 17.23;  $p < .0001$ ).

<sup>15</sup> The precision x structuring interaction is not significant, which occurs because the process of dropping those EMAs with CIE=0 reduced the probability of waiving transactions that were structured around precise standards. This should be expected, as EMAs like structured capital-lease transactions would have a very high probability of waive, but have an unclear current-period income effect.

<sup>16</sup> Pearson and Spearman correlation matrices indicate some collinearity ( $r < .20$  but  $p < .05$ ) between independent variables (particularly between precision, structure and precision\*structure, and between size, CIE and materiality). Collinearity would tend to decrease incremental significance of variables and

When auditors consider an EMA to be immaterial, it is waived 83% (110/132) of the time; when auditors consider an EMA to be material, it is waived 48% (190/394) of the time. These results must be interpreted with caution, because we do not know the dollar amount of EMAs or the quantitative materiality thresholds against which those dollar amounts were being compared. However, we can conclude that auditors often identified immateriality as the reason for waiving EMAs. Given that participants provided EMAs in response to a request for “experiences where companies attempted to materially manage earnings,” they probably believed at some point that the EMAs might be material in some way. To the extent that these EMAs actually were material, if only in some qualitative sense, this result is consistent with regulatory concern (e.g., Levitt 1998) and recent experimental findings (Braun 2000, Libby and Kinney 2000) that potentially material EMAs are waived as immaterial.

The significance of client size should be interpreted in light of the fact that it is incremental to the significance of materiality. All else equal, the materiality of an EMA of a given dollar amount probably decreases as company size increases. However, our results indicate that, regardless of whether an auditor considered an EMA to be material or immaterial, the EMA was more likely to be waived if it was attempted by a large client. Table 7 depicts the size effect in more detail. Particularly for income-increasing, material EMAs, waive is more likely for large clients than for small clients.

One reason to waive an EMA is if it clearly falls within GAAP. Large clients might have more sophisticated accounting departments that can help EMAs to achieve

---

therefore bias away from supporting predictions, but it could create unstable parameter estimates. However, all parameters have similar signs and magnitudes regardless of the other variables included in models, indicating that parameters are stable (Neter, Wasserman and Kutner 1983).

GAAP status. However, at the bottom of Table 7, we show that, even after excluding those EMAs that were waived because they conformed to GAAP, the likelihood of waive increases with client size, particularly when the EMA is income-increasing and material.

Overall, the “auditor waive” results are consistent with predictions. The probability that an EMA will be waived increases if the EMA is governed by imprecise standards, is structured (particularly around a precise standard), is current-year-income decreasing, is judged immaterial by the auditor, and/or is attempted by a large client.

### **EMA and EM, By Accounting Topic Area**

One purpose of this study is to assess the relative frequency of EMAs and EMs in various accounts. Such frequency information may be useful in a number of ways. When regulators enforce standards and consider regulatory changes, they may scrutinize more carefully areas where EMAs occur with high frequency. Investors may consume information with respect to those areas more skeptically. Auditors may focus more on those areas when fulfilling their responsibilities to use the audit risk model in audit planning (SAS 47), considering the potential for fraud (SAS 82), and reporting to their clients' audit committees about the presence of uncorrected misstatements (SAS 89) and the quality of clients' earnings (SAS 90). Also, because auditors are more likely to be held liable for failing to detect more frequently occurring frauds (Bonner, et al. 1998), attending to relative frequencies may help auditors avoid unnecessary liability.

Table 8 contains the frequencies with which EMAs and EMs occurred across the 517 EMAs in our sample for which all necessary data were available. Rows are assigned to each broad financial-accounting topic that had an EMA frequency of at least 5 instances (i.e., 1% of our sample). Topics are listed in the order of their relative

frequency. Columns identify for each topic the total frequency of EMAs, the frequency of each type of waive decision (in total and by CIE), the percentage that were waived, and the mean precision and structuring scores.

Per Table 8, auditors required adjustment of 225 EMAs (43%). Auditors waived adjustment of 112 EMAs (22%) because they concluded that the EMA was consistent with GAAP, waived adjustment of 89 EMAs (17%) because they believed they had no convincing evidence that the company's position was incorrect, and waived adjustment of 91 EMAs (18%) for some other reason. For 66 of those 91, the auditor's stated reason for waiving the EMA was that it was immaterial.

### ***Comparing Reserves and Non-Reserves***

We show reserves on three lines of Table 8: "Reserves and Contingencies", "Restructuring Reserves", and included in "Business Combinations." At the bottom of Table 8, these categories are combined to create a general "Reserve EMAs" classification that totals 176 instances (34% of our sample), which is more than twice the frequency of the next most frequent category.<sup>17</sup>

Contrasting "reserve EMAs" with "non-reserve EMAs" draws together many of the results discussed previously. As shown at the bottom of Table 8, reserve EMAs have a mean precision-of-standard score of .26, while non-reserve EMAs have a mean precision score of .5. Consistent with our finding that transaction structuring occurs more

---

<sup>17</sup> Consistent with prior research, we find frequent EMA with respect to restructuring reserves (e.g., see Elliott and Shaw 1988, Pourciau 1993, and Francis, Hanna and Vincent 1997), inventory reserves (e.g., see Guidry, Leone and Rock 1999), loan-loss reserves (e.g., see Ma 1988, Beaver, Eger, Ryan and Wolfson 1989, Moyer 1990, Wahlen 1994, Beatty, Chamberlain and Magliolo 1995, Beaver and Engel 1996, Bhat 1996, Chen and Daley 1996, and Kim and Kross 1998), bad-debt reserves (e.g., see McNichols and Wilson 1988 and Teoh, Welch and Rao 1998), reserves for valuation allowances against deferred-tax assets (e.g., see Bauman and Bauman 1999), and insurance claim-loss reserves (e.g., see Petroni 1992, Adiel 1996, and

often with respect to precise standards, reserve EMAs have a mean structuring score of 0, while non-reserve EMAs have a mean structuring score of .19. Given that structuring is intended to increase the chance that an EMA is viewed as consistent with GAAP, we would anticipate that more non-reserve EMAs than reserve EMAs are waived because the auditor concluded they met GAAP. That is what we observe: 45% (81/179) of waived non-reserve EMAs are waived because of GAAP compliance, while only 27% (31/113) of waived reserve EMAs are waived because of GAAP compliance. Auditors often waived reserve EMAs because they didn't have convincing evidence that their client's judgment was incorrect (40 EMAs) or for some other reason (42 EMAs), such as immateriality (mentioned 33/42 times).

Table 9 focuses on the 429 EMAs for which we could identify a CIE. Reserve EMAs tend to decrease current-year income (96/133 = 72%), and tend to be waived (83/133 = 62% waived). Non-reserve EMAs tend to increase current-year income (219/296 = 74%), and are less likely to be waived (146/296 = 49% waived).<sup>18</sup> When reserve EMAs increase current-year income, they are also less likely to be waived (20/37 = 54% waived). These results highlight that EMAs are more likely to be waived when they involve more imprecise standards and when they decrease current-period income.

### ***Comparing Various Types of Non-Reserves***

AAER studies tend to identify revenue-recognition issues as the most frequently occurring area of EM, but in our sample they occur less than half as frequently as do

---

Gaver and Paterson 1999). More generally, evidence of EM with respect to reserves is consistent with general evidence of market mispricing of accruals (e.g., Sloan 1996, Xie 1999, Hribar 2000).

<sup>18</sup> The difference in waive percentage between reserve and non-reserve EMAs is even more striking if we eliminate the 20 reserve EMAs and the 60 non-reserve EMAs that had a determinable current-year income effect and that auditors concluded had complied with GAAP: 63/113 = 56% reserve EMAs were waived, and only 86/236 = 36% non-reserve EMAs were waived.

EMAs with respect to reserves. Next most frequent are EMAs involving business combinations,<sup>19</sup> followed by intangibles, fixed assets,<sup>20</sup> investments,<sup>21</sup> leases, compensation, consolidations and equity v. cost method, transfer of receivables, accounting changes,<sup>22</sup> pensions and other post-retirement employee benefits (“OPEBs”),<sup>23</sup> and others.

In light of the waive results discussed previously, it is interesting to examine the frequency with which EMAs were waived by auditors in different areas. Leases, consolidations, and equity v. cost method decisions have the highest likelihood of being structured, and have a high probability of being waived.<sup>24</sup> Perhaps because they tend to increase current-year income, EMAs involving revenue recognition, investments, fixed assets, and transfers of receivables have less than a 50% chance of being waived. As a consequence, these areas are relatively less frequent among EMs than they are among

---

<sup>19</sup> Consistent with findings by Lys and Vincent 1995, some managers structured mergers to qualify for pooling treatment. The most frequent business-combination EMAs involved reserves, but EMAs involving in-process R&D and goodwill recognition were also frequent.

<sup>20</sup> Consistent with prior research, intangibles and fixed-asset EMAs sometimes involve depreciation and amortization policies (see, e.g., Manzon 1992; Bowen, Du Charme and Shores 1995; Teoh, Welch and Rao 1998) and impairments and restructurings (Elliott and Shaw 1988, Francis et al. 1997). The most frequent EMAs involved improper capitalization and deferral.

<sup>21</sup> These EMAs are consistent with the results of numerous studies indicating EM with respect to banks' realization of gains and losses on short-term investments (see, e.g., Barth, Beaver and Wolfson 1990; Scholes, Wilson and Wolfson 1990; Beatty and Harris 1999; Gaver and Paterson 1999).

<sup>22</sup> EMAs involved both the adoption of new standards and change within existing standards. For prior research regarding adoption of new standards, see Stone and Ingram (1988) with respect to adopting SFAS No. 87, see Rutledge (1995) with respect to adopting SFAS No. 52, see Lehavy and Revsine (1994), Amir and Livnat (1996), Amir and Ziv (1997), and D'Souza, Jacob and Ramish (1999) with respect to adopting SFAS No. 106, and see Balsam, Haw and Lilien (1995) with respect to adopting various different standards. For prior research regarding changes within existing standards, see Elliott and Philbrick (1990) and Moses (1987).

<sup>23</sup> These results are consistent with early (pre SFAS No. 87) studies providing evidence of smoothing using pension-cost recognition (e.g., Dascher and Malcom 1970; Beidleman 1973), as well as with more recent evidence that also suggests that pension and/or OPEB adoptions, settlements or assumption changes are used to manage earnings (e.g., Beatty, Chamberlain and Magliolo 1995, Amir and Gordon 1996, and D'Souza 1998).

<sup>24</sup> Perhaps because of the technical nature of these areas, they are also frequently involved when auditors consult their firms' central research units (Salterio 1994).

EMAs. EMAs involving accounting changes, tax accruals, compensation, and pensions and OPEBs have greater than a 70% chance of being waived. These EMAs offer considerable flexibility in assumptions and/or the timing of transactions.

## **V. Summary, Implications and Directions for Future Research**

### **Summary**

Our study examines several factors that affect managers' and auditors' decisions with respect to EMAs: structuring transactions to meet standards, the precision of accounting standards, the current-year-income-effect of the EMA, the materiality of the EMA, and the size (and therefore importance) of the client. We find that managers tend not to structure transactions to meet standards, but when they do so it is usually with respect to precise standards, presumably because precise standards offer a definite threshold around which to structure. Managers tend to make current-period-income increasing EMAs, particularly when they structure transactions or when precise standards are relevant, presumably because income-decreasing EMAs often are intended to produce future income-increasing effects that are harder to realize if future structuring is necessary or if standards precisely indicate future actions. Auditors prevent many EMAs, particularly those that increase current-period income and those that are not structured but are governed by precise accounting standards. Auditors are more likely to waive EMAs that decrease current-period income, that are governed by imprecise standards, that are structured (particularly around precise standards), that they view as immaterial, and that are attempted by large clients.

We believe that these general factors affect the relative frequency with which EM is attempted and waived in various accounts. For example, roughly 1/3 of our sample

involves reserves, which are governed by relatively imprecise standards. EMAs with respect to reserves tend not to be structured, tend to decrease current-year income, and tend to be waived, often because they are viewed as immaterial. The other EMAs in our sample tend to be governed by more precise standards, tend to increase current-period income, are more likely than reserves to be structured, and are less likely than reserves to be waived. Of these non-reserve EMAs, we believe auditors are relatively unlikely to waive EMAs that involved revenue recognition, investments, fixed assets, and transfers of receivables, perhaps because these are transactions that often increase current-period income. We believe auditors are relatively likely to waive EMAs that involved leases, consolidations, and equity v. cost method decisions because these are transactions that are governed by precise standards and tend to be structured to insure compliance with GAAP. We believe auditors are relatively likely to waive EMAs that involved accounting changes, tax accruals, compensation, and pensions and OPEBs because these transactions provide significant latitude in the estimation of amounts and/or the timing of transactions.

## **Implications**

### ***Auditors' Role in Preventing EM***

Many EMAs in our sample were not waived (i.e., were prevented) by auditors. Consistent with the audit-adjustment literature (e.g., Kinney and Martin 1994), auditors tended to prevent income-increasing EMA. These results highlight that auditors serve an important role in preventing EM. Our results probably understate that role, as we have no way of assessing the extent to which knowledge of impending audit deters managers from even attempting EM.

Our survey required auditors to choose one of three explanations for waiving an EMA. These explanations provide insight into ways in which auditors could be discouraged from waiving EMAs, should that be desired. In 112 instances, auditors waived an EMA because they concluded that it was consistent with GAAP. We interpret these waive decisions as simply reflecting the fact that much EM falls within GAAP. We do not believe auditors have any responsibility to prevent this sort of EM. We also think it is unlikely that client audit committees would discourage this sort of EM, should it be reported to them by the auditor as part of the requirements of SAS 90. Rather, the only way to discourage this sort of EM is to change the underlying GAAP.

In 89 instances, auditors waived EMAs because they believed they had no convincing evidence that the company's position was incorrect. Seventy-eight of those 89 EMAs involved imprecise standards, reflecting the information asymmetry that auditors often face when dealing with judgmental transactions. In these circumstances, further assessment of client judgment and evidence accumulation may be warranted. For example, it may be that auditors need to increase the extent to which they develop independent expectations concerning appropriate balances in reserves. Although this approach is recommended by SAS 57 and supported by prior research (see, e.g., McDaniel and Kinney 1995), the Panel on Audit Effectiveness' (2000) peer-review data indicate that it is not in widespread use. In addition, bias in judgmental accounts might be reduced if auditors could require the client to demonstrate that the auditors' estimate is incorrect, rather than the auditor having to demonstrate that the clients' estimate is incorrect. As noted by the Panel on Audit Effectiveness and recommended by the SEC, further guidance concerning auditing estimates and reserves appears warranted.

In 91 instances, auditors waived EMAs for some other reason, which usually was immateriality. As discussed previously, current-period-income-decreasing EMAs were often waived as immaterial, even though those EMAs could create “cookie-jar reserves” that eventually could have a material income-increasing effect. This tendency might be reduced if auditors focused less on the effects of current-year EMAs on current-year income, and instead took a more balance-sheet-oriented view of “latent materiality” that could be accumulated to affect income in any given period. Perhaps fewer EMAs will be waived due to immateriality under SAS 89 (which requires that waived audit adjustments be reported to the audit committee), but current research indicates that SAS 89 might not be effective in that regard (Libby and Kinney 2000). While SAB 99 might increase auditors’ sensitivity to qualitative aspects that increase the materiality of quantitatively small transactions, it provides no new guidance, so it is not clear how much change it will produce. Finally, SAS 89 could be revised to simply require auditors to insist that their clients book all audit adjustments that the auditor identifies, regardless of materiality.

We also found that auditors were more likely to waive EMAs that were attempted by large clients, even when the EMA was material, income increasing, and not believed by the auditor to clearly comply with GAAP. This result is consistent with prior theoretical and error-adjustment research, and with concerns expressed by SEC Chairman Levitt (1998), that audit firms may allow large clients more latitude with respect to EMA.

### ***Financial Accounting Standard Precision***

Referring to Table 5a, we find that accounting-standard precision decreased the probability that an EMA would be waived, but structuring was more likely for precise standards (and was usually waived). Those results have unclear implications for the

policy makers responsible for determining the precision of standards, because some accounting issues are more amenable to precise standards. For example, it is doubtful that precise standards would be possible with respect to contingent losses, given the inherent subjectivity of these amounts.

Should the precision of a standard be increased, our results suggest two effects. First, increasing precision may increase the frequency of transaction structuring, and structured transactions are likely to be waived. However, transaction structuring can be costly, so the frequency of EMAs in total might decrease, such that it is not apparent that an increase in EMs would occur. Second, under a more precise standard there is likely to be a large *decrease* in waived EMAs that are not structured. Precise standards appear to help auditors prevent unstructured EMAs, perhaps because reference to an explicit standard is a powerful argument in auditor/client negotiations.

Decisions about the optimal precision of financial standards do not depend solely on reducing the frequency of EMAs and auditors' decisions to waive EMAs. Policy-makers must also consider the benefits associated with imprecise standards, such as less "standards overload", a lower barrier-to-entry than complex standards create for analysis of financial statements, an opportunity for managers to communicate their private information via their use of reporting discretion (see, e.g., Dye 1985), etc.

### **Limitations and Directions for Future Research**

Our study is subject to several limitations. First, we depend on survey data from audit partners and managers, so auditors' willingness to respond and their ability to perceive and recall EMAs affect our results. Auditors could fail to respond with an EMA because they did not detect the EMA to begin with, they did not identify the EMA as

such because the transaction clearly fell within GAAP, or they forgot that they encountered the EMA. Or, auditors could respond with particularly salient EMAs (e.g., those mentioned in press coverage of SEC Chairman Levitt's "Numbers Game" speech a month prior to data collection), or with EMAs that they recognized only in hindsight. Such concerns are less likely to influence our tests of general factors than they are to affect the relative frequencies of EMAs and waives that we report. Just as frequency data from studies of SEC AAERs reflect whatever filters the SEC employs for prosecuting egregious EM, our frequency data reflect the filters that auditors employ in identifying and recalling AEMs.

The nature of our data prevents us from addressing some interesting questions. For example, audit-client-confidentiality conditions prohibit us from knowing the identity of the companies in our sample. Therefore, we cannot link our results to stock-market performance or to firm-specific or market variables that we did not elicit. Also, our sample includes only EMAs (and not non-EMAs). Therefore, we cannot examine factors affecting the likelihood managers will attempt EM or auditors will detect an EMA -- our results are conditioned on EM having been attempted and detected by the auditor. Finally, because we do not examine data from companies that are not audited, we cannot assess the extent to which the presence of auditors deters managers from attempting EM.

While some biases may have been introduced by our data-coding process, we believe the potential for such bias is low. First, transaction structuring, materiality and client size were provided directly by respondents. Second, CIE was indicated by the accounting effects of each EMA, which leaves little room for interpretation. Third, precision scores were assigned without referring to structuring, CIE or waive data to

prevent bias towards supporting hypotheses. Fourth, any coding that involved subjectivity was checked by at least two researchers.

The limitations of our approach suggest opportunities for future research. It may be possible to get a more complete sample of EMAs by asking auditors to document prospectively all EMAs encountered on their engagements. With company identities known, EMA and waive data could be tied to stock-market variables. Of course, eliciting EMAs in this manner may change auditor behavior. As an alternative, workpapers from prior audits could be examined to identify EMAs, similar to prior audit-adjustment studies and the peer-review analyses performed by the Panel on Audit Effectiveness (2000). This approach might tend to omit EMAs that were waived due to compliance with GAAP (as they might not be documented), but would identify most others. However, to the extent that material EMA only occurs on a subset of audits, this approach might require much data collection before enough EMAs are identified to yield powerful analyses.

Our data suggest other opportunities for future research. The relative frequencies of EMAs that we document may better focus archival and experimental researchers on the areas in which EMA is most prevalent. Because our data provide a baseline of EMA and waive behavior prior to the recent flurry of EM-related speeches, SAB's and SAS's, a future replication could refer to this baseline to assess change. Our results could guide creation of auditor training materials or decision aids that help auditors identify EMAs and consider whether or not they should be waived. Finally, we hope our results facilitate discussion among policy makers as they seek continued improvement in the quality of financial reporting.

## Appendix

### Instructions

*Note: The bracketed text varied between versions of the survey. “No list” participants received a version that included the first bracketed sentence as the first sentence of the next paragraph. “List” participants received a version that included the second bracketed paragraph and a table listing five accounting issues and related financial accounting standards.*

The purpose of this study is to learn about your experiences with companies attempting material “earnings management”. We interpret “earnings management” broadly to include all efforts to influence accounting measurement, recognition and/or disclosure that are intended to affect the view of an entity obtained by a person using the financial statements. We interpret “material” to indicate an amount that could affect financial statement users’ judgments. We focus on **attempted** earnings management to include all experiences where the company attempted to manage earnings, whether or not the final audited financial statements appeared as the company initially desired.

Since audited financial statements must conform with GAAP, companies who wish to manage earnings must do so within the constraints of the relevant financial accounting standards. Ways in which earnings management can be attempted include:

- Structuring transactions in a manner that gets around a standard to achieve a desired accounting effect.
- Aggressively interpreting the wording of a standard in a way that justifies a desired accounting effect.
- Aggressively interpreting the data associated with transactions in such a way that, when compared to the standard, it justifies a desired accounting effect.

[In the pages that follow, we ask you to list a total of three experiences where companies attempted to materially manage earnings.]

[In Table 1 on the next page, we list five broad accounting topics that have been addressed by accounting standards. In the pages that follow Table 1, we ask you to list a total of three experiences where companies attempted to materially manage earnings with respect to those topics. The first topic is the one for which we most need to learn about your experiences, so if possible, we would like you to list three experiences with attempted earnings management that are related to Topic 1. However, it may be that you have fewer than three experiences with attempted earnings management that are related to Topic 1. If so, please document those Topic 1 experiences (if any) that you have had, and turn to Topic 2. If documenting your Topic 2 experiences allows you to reach a total of three experiences across Topics 1 and 2, stop; if not, please turn to Topic 3, and so on.]

In all cases, please focus on those experiences that you feel are most important, in the sense of being the most frequently occurring examples of attempted material earnings management that you have encountered. Please consider all of your experiences of this nature, regardless of (1) whether or not the transaction was eventually treated in the manner preferred by the company, and (2) whether standards have been revised subsequently to more effectively address that sort of earnings management.

Company and auditor confidentiality is assured because we are not asking for the identity of companies or auditors. Your responses will be anonymous. **This study has been cleared with [firm name] to be sure that Firm policies and professional standards are upheld, and to be sure that the results of this project are very useful to [firm name].**

**Table 1**  
**Analyses of Factors Affecting Where Managers Attempt Earnings Management and**  
**When Auditors Waive Earnings Management**  
**PREDICTIONS and RESULTS**

Variable	Sign of Effect on Frequency of Managers' EMAs		Sign of Effect on Probability Auditor Waives an EMA	
	Prediction	Result	Prediction	Result
Current-Period Income Effect (CIE)	+	+	-	-
Precision of Standard (P)			-	-
Transaction Structuring (S)			+	+
P X S Interaction	+	+	+	+
P X CIE Interaction	+	+		
S X CIE Interaction	+	+		
Materiality			-	-
Client Size			+	+

EMA = earnings-management attempt.

CIE = 1 if current-year-income increasing; -1 if current-year-income decreasing.

Precision of standard = 1 if standard precise; 0 if standard not precise.

Transaction structuring = 1 if transaction structured; 0 if transaction not structured.

Materiality = 1 if material in current or future year individually or in combination with another issue; 0 if never material.

Client Size = 1 if annual sales < \$50M, 2 if \$50M < sales < \$100M,

3 if \$100M < sales < \$250M, 4 if \$250M < sales < \$1B, 5 if sales > \$1B.

**Table 2**  
**Frequency (Rank) of EMA Responses, By Instruction Conditions**

Issues	# of EMAs Described				Estimate of Total Frequency EMA Encountered in Career
	Total	No List Provided	List Provided, Response Was:		
			On List	Not On List	
Contingencies and Reserves	136 (1)	45 (1)	24 (2)	67 (1)	834 (1)
Revenue Recognition	81 (2)	25 (2)	31 (1)	25 (3)	365 (2)
Business Combinations	72 (3)	13 (3)	19 (3)	40 (2)	340 (3)
Fixed Assets	32 (4)	9 (4)	12 (6)	12 (6)	127 (6)
Non-R&D Intangibles	32 (4)	7 (5)	9 (8)	16 (4)	172 (4)
Investments	28 (5)	3 (7)	13 (5)	12 (5)	138 (5)
Leases	23 (6)	3 (7)	14 (4)	6 (8)	80 (9)
Accounting changes, prior period adjustments, and operations	20 (7)	4 (6)	9 (8)	7 (7)	60 (12)
Compensation	19 (8)	2 (8)	10 (7)	7 (7)	68 (11)
Taxes	16 (9)	3 (7)	7 (9)	6 (8)	106 (7)
Consolidations and equity/cost method of accounting	15 (10)	1 (9)	10 (7)	4 (10)	76 (10)
Transfers of Receivables	11 (11)	2 (8)	9 (8)	0	49 (13)
Cash Flows and Working Capital	10 (12)	4 (6)	3 (11)	3 (11)	31 (14)
Long Term Debt	6 (13)	0	4 (10)	2 (12)	19 (16)
Pensions	5 (14)	0	4 (10)	1 (13)	23 (15)
Other Post-Retirement Benefits	4 (15)	0	4 (10)	0	15 (17)
Segment Reporting	3 (16)	0	3 (11)	0	13 (18)
R&D	3 (16)	1 (9)	2 (12)	0	11 (19)
Foreign Currency	2 (17)	0	2 (12)	0	2 (21)
EPS	1 (18)	0	1 (13)	0	1 (22)
Related Party Disclosures	1 (18)	0	0	1 (13)	10 (20)
Nonmonetary transactions	1 (18)	0	0	1 (13)	2 (21)
Other (not one of 22 topics listed)	<u>5 (14)</u>	<u>0</u>	<u>0</u>	<u>5 (9)</u>	<u>105 (8)</u>
Total	526	122	190	214	2647

EMA = earnings-management attempt.

“List provided” participants received a randomly-selected list of five of the 22 areas shown above, along with a listing of the financial-accounting standards relevant to each of the five areas. Their responses are categorized according to whether or not they related to an area included on the participant’s list. “No list provided” participants did not receive a list.

**Table 3a:  
Manager EMAs, by Precision and Structuring**

		Manager Structured Transaction?		
		No	Yes	Total
Precision of Relevant Accounting Standard	Low	282	24	306
	High	178	42	220
	Total	460	66	526

**Table 3b:  
Manager EMAs: Analysis of the Effects of Precision and Structuring**

Source	Maximum Likelihood DF	Analysis of Variance Chi-Square	Pr > ChiSq
PREC	1	0.13	0.7157
struc	1	204.61	<.0001
PREC*struc	1	13.93	0.0002**

EMA = earnings-management attempt.

Prec = 1 if standard precise; 0 if standard not precise.

Struc = 1 if transaction structured; 0 if transaction not structured.

\*\*p<.05 with respect to one-tailed test of directional prediction.

**Table 4a:  
Manager EMAs, by Current-Income Effect, Precision and Structuring**

	Structure = 0		Structure = 1		Total
	Precision = 0	Precision = 1	Precision = 0	Precision = 1	
<b>Income Increasing</b>	129	92	18	17	256
<b>Income Decreasing</b>	112	53	3	5	173
<b>Total</b>	241	145	21	22	429

**Table 4b:  
Manager EMAs: Analysis of the Effects of  
Current-Income Effect, Precision and Structuring**

Maximum Likelihood Analysis of Variance			
Source	DF	Chi-Square	Pr > ChiSq
CIE	1	19.88	<.0001**
PREC	1	3.19	0.0739
STRUC	1	139.61	<.0001
PREC*struc	1	2.12	0.1455
CIE*PREC	1	2.73	0.0983**
CIE*struc	1	7.92	0.0049**

EMA = earnings-management attempt.

CIE = 1 if current-year-income increasing; -1 if current-year-income decreasing.

Prec = 1 if standard precise; 0 if standard not precise.

Struc = 1 if transaction structured; 0 if transaction not structured.

\*\*p<.05 with respect to one-tailed test of directional prediction.

**Table 5a**  
**Percentage of EMAs Waived by the Auditor,**  
**By Precision and Structuring**

		Manager Structured Transaction?		
		No	Yes	Total
Precision of Relevant Accounting Standard	Low	172/282 = 61%	19/24 = 79%	191/306 = 62%
	High	73/178 = 41%	36/42 = 86%	109/220 = 50%
	Total	235/460 = 51%	55/66 = 83%	290/526 = 55%

Cell formats are: # EMAs waived / total # EMAs = %.

**Table 5b:**  
**Auditor Waive Decision: Logit of Precision and Structuring**

Variable	DF	Parameter Estimate	Standard Error	wald Chi-Square	Pr > ChiSq
Intercept	1	0.9745	0.3628	7.2163	0.0072
precnum	1	-1.0366	0.2224	21.7242	<.0001**
struc	1	1.0066	0.5363	3.5235	0.0605**
psint	1	1.4590	0.7276	4.0206	0.0449**
matrat	1	-1.8205	0.2767	43.2934	<.0001**
size	1	0.2965	0.0722	16.8452	<.0001**

The dependent variable in the logit is waive (waive = 1, not waive = 0).

EMA = earnings-management attempt.

Precnum = 1 if standard precise; 0 if standard not precise.

Struc = 1 if transaction structured; 0 if transaction not structured.

Psint = interaction between precnum and struc.

Matrat = 1 if material in current or future year individually or in combination with another issue; 0 if never material.

Size = 1 if annual sales < \$50M, 2 if \$50M<sales<\$100M,

3 if \$100M<sales<\$250M, 4 if \$250M<sales<\$1B, 5 if sales > \$1B.

\*\*p<.05 with respect to one-tailed test of directional prediction.

**Table 6a**  
**Percentage of EMAs Waived by the Auditor,**  
**by Current-Income Effect, Precision and Structuring**

	Structure = 0		Structure = 1		Total
	Precision = 0	Precision = 1	Precision = 0	Precision = 1	
<b>Income Increasing</b>	69/129 = 53%	27/92 = 29%	13/18 = 72%	12/17 = 71%	121/256 = 47%
<b>Income Decreasing</b>	71/112 = 63%	29/53 = 55%	3/3 = 100%	5/5 = 100%	108/173 = 62%
<b>Total</b>	140/241 = 58%	56/145 = 39%	16/21 = 76%	17/22 = 77%	229/429 = 53%

Cell formats are: # EMAs waived / total # EMAs = %.

**Table 6b:**  
**Auditor Waive Decision: Logit of Precision, Structuring, CIE and Materiality**

Variable	DF	Parameter Estimate	Standard Error	wald Chi-Square	Pr > ChiSq
Intercept	1	0.9759	0.3962	6.0667	0.0138
precnum	1	-0.8922	0.2361	14.2811	0.0002**
struc	1	1.6830	0.4127	16.6316	<.0001**
CIE	1	-0.2585	0.1153	5.0298	0.0249**
matrat	1	-1.8254	0.3003	36.9560	<.0001**
size	1	0.2605	0.0801	10.5742	0.0011**

The dependent variable in the logit is waive (waive = 1, not waive = 0).

EMA = earnings-management attempt.

CIE = 1 if current-year-income increasing; -1 if current-year-income decreasing.

Precnum = 1 if standard precise; 0 if standard not precise.

Struc = 1 if transaction structured; 0 if transaction not structured.

Matrat = 1 if material in current or future year individually or in combination with another issue; 0 if never material.

Size = 1 if annual sales < \$50M, 2 if \$50M<sales<\$100M,

3 if \$100M<sales<\$250M, 4 if \$250M<sales<\$1B, 5 if sales > \$1B.

\*\*p<.05 with respect to one-tailed test of directional prediction.

**Table 7**  
**Percentage of EMAs Waived by the Auditor,**  
**by Size, and by Size, Current-Income Effect, and Materiality**

		Size (Annual Net Sales)					Total
		< \$50M	\$50M - \$100M	\$100M - \$250M	\$250M - \$1B	> \$1B	
<b>Full Sample</b>		36/91 = 40%	29/54 = 54%	46/94 = 49%	85/138 = 62%	96/134 = 72%	292/511 = 57%
<b>CIE = 0 dropped</b>							
<b>Material</b>	<b>Income Increasing</b>	11/48 = 23%	11/27 = 41%	15/41 = 37%	24/55 = 44%	16/28 = 57%	77/199 = 39%
	<b>Income Decreasing</b>	9/17 = 53%	7/12 = 12%	12/28 = 43%	18/28 = 64%	14/28 = 50%	60/113 = 53%
<b>Not Material</b>	<b>Income Increasing</b>	6/9 = 67%	1/2 = 50%	5/5 = 100%	14/18 = 78%	14/16 = 88%	40/50 = 80%
	<b>Income Decreasing</b>	3/7 = 43%	3/3 = 100%	9/11 = 82%	5/6 = 83%	25/27 = 93%	45/54 = 83%
<b>Total (CIE = 0 dropped)</b>		29/81 = 36%	22/42 = 50%	41/85 = 48%	61/107 = 57%	69/100 = 69%	222/417 = 53%
<b>GAAP Waives dropped</b>		21/76 = 28%	22/47 = 47%	30/78 = 38%	46/99 = 46%	62/100 = 62%	181/400 = 45%
<b>GAAP Waives and CIE = 0 dropped</b>							
<b>Material</b>	<b>Income Increasing</b>	4/41 = 10%	8/24 = 33%	9/35 = 26%	4/42 = 26%	11/23 = 48%	43/165 = 26%
	<b>Income Decreasing</b>	5/13 = 38%	5/10 = 50%	7/23 = 30%	8/18 = 44%	10/24 = 42%	35/88 = 40%
<b>Not Material</b>	<b>Income Increasing</b>	5/8 = 63%	1 / 2 = 50%	4/4 = 100%	11/15 = 73%	10/12 = 83%	31/41 = 76%
	<b>Income Decreasing</b>	3/7 = 43%	3/3 = 100%	7/9 = 78%	3 / 4 = 75%	18/20 = 90%	34/43 = 79%
<b>Total (GAAP Waives and CIE=0 dropped)</b>		17/69 = 25%	17/39 = 44%	27/71 = 38%	33/79 = 42%	49/80 = 61%	143/338 = 42%

EMA = earnings-management attempt.

Cell formats are: # EMAs waived / total # EMAs = %.

“Full sample” contains all EMAs for which all data was available.

“CIE = 0 dropped” removes from “full sample” those EMAs that neither increased nor decreased current-year income.

“GAAP Waives dropped” removes from “full sample” those EMAs that auditors waived because they concluded that the client had met GAAP.



**Table 8**  
**Relative Frequency of EMAs and EMs, By Accounting Area, Auditor Waive Decision and Current-Year Income Effect**

Topics And Specific Areas	Total EMA's				Auditor Required Adjustment (Did Not Waive)				Auditor Waived Adjustment Because:																Mean PREC	Mean STRUC
									Conformed to GAAP				Evidence Didn't Contradict Client				Some Other Reason				Total Waived					
	total	CIE			total	CIE			total	CIE			total	CIE			total	CIE			total waived (/ total EMAs = %)	CIE of waived				
		-1	0	1		-1	0	1		-1	0	1		-1	0	1		-1	0	1		-1	0	1		
Reserves and contingencies	110	67	13	30	35	18	4	13	18	12	4	2	28	18	3	7	29	19	2	8	75 (/ 110 = 68%)	49	9	17	.196	0
Revenue recognition	81	14	2	65	47	7	0	40	13	3	1	9	11	3	1	7	10	1	0	9	34 (/ 81 = 42%)	7	2	25	.481	.148
Business combinations	71	27	27	17	28	10	9	9	18	11	3	4	13	5	5	3	12	1	10	1	43 (/ 71 = 60%)	17	18	8	.431	.069
Intangibles	35	6	0	29	16	2	0	14	9	3	0	6	9	0	0	9	1	1	0	0	19 (/ 35 = 54%)	4	0	15	.143	.057
Fixed assets	31	11	1	19	20	9	0	11	3	2	0	1	5	0	0	5	3	0	1	2	11 (/ 31 = 35%)	2	1	8	.25	.063
Restructuring reserves	29	21	7	1	14	12	1	1	8	4	4	0	4	3	1	0	3	2	1	0	15 (/ 29 = 51%)	9	6	0	.517	.034
Investments	28	6	6	16	16	3	3	10	4	0	1	3	4	2	1	1	4	1	1	2	12 (/ 28 = 42%)	3	3	6	.393	.25
Leases	23	1	8	14	9	0	2	7	10	0	4	6	2	0	1	1	2	1	1	0	14 (/ 23 = 61%)	1	6	7	.783	.565
Compensation	19	3	7	9	3	1	1	1	5	0	3	2	4	2	1	1	7	0	2	5	16 (/ 19 = 84%)	2	6	8	.579	.158
Consol. and equity/cost	15	1	4	10	4	0	0	4	6	0	4	2	1	0	0	1	4	1	0	3	11 (/ 15 = 73%)	1	4	6	.467	.733
Transfer of receivables	11	1	2	8	7	0	0	7	2	0	2	0	1	0	0	1	1	1	0	0	4 (/ 11 = 36%)	1	2	1	.636	.182
Accounting changes	10	5	0	5	0	0	0	0	5	2	0	3	2	1	0	1	3	2	0	1	10 (/ 10 = 100%)	5	0	5	.4	0
Pensions and OPEBs	9	3	0	6	2	1	0	1	2	0	0	2	1	0	0	1	4	2	0	2	7 (/ 9 = 78%)	2	0	5	.667	.222
Taxes	7	3	1	3	1	0	0	1	2	0	0	2	2	1	1	0	2	2	0	0	6 (/ 7 = 78%)	3	1	2	.571	0
Other accrued liabilities	6	2	1	3	4	2	0	2	1	0	1	0	0	0	0	0	1	0	0	1	2 (/ 6 = 33%)	0	1	1	.833	.167
Long-term debt	6	0	1	5	5	0	1	4	0	0	0	0	1	0	0	1	0	0	0	0	1 (/ 6 = 33%)	0	0	1	.833	0
Classification	5	0	2	3	4	0	2	2	0	0	0	0	0	0	0	0	1	0	0	1	1 (/ 5 = 20%)	0	0	1	.833	0
Other	21	1	11	9	10	0	2	8	6	0	5	1	1	0	1	0	4	1	3	0	11 (/ 21 = 52%)	1	9	1		
<b>TOTAL</b>	<b>517</b>	<b>172</b>	<b>93</b>	<b>252</b>	<b>225</b>	<b>65</b>	<b>25</b>	<b>135</b>	<b>112</b>	<b>37</b>	<b>32</b>	<b>43</b>	<b>89</b>	<b>35</b>	<b>15</b>	<b>39</b>	<b>91</b>	<b>35</b>	<b>21</b>	<b>35</b>	<b>292 (/517 = 56%)</b>	<b>107</b>	<b>68</b>	<b>117</b>		
<b>Total reserve EMAs @</b>	<b>176</b>	<b>94</b>	<b>46</b>	<b>36</b>	<b>63</b>	<b>33</b>	<b>13</b>	<b>17</b>	<b>31</b>	<b>17</b>	<b>11</b>	<b>3</b>	<b>40</b>	<b>23</b>	<b>9</b>	<b>8</b>	<b>42</b>	<b>21</b>	<b>13</b>	<b>8</b>	<b>113 (/176 = 64%)</b>	<b>61</b>	<b>33</b>	<b>19</b>	<b>.26</b>	<b>0</b>
<b>Total non-reserve EMAs</b>	<b>341</b>	<b>78</b>	<b>47</b>	<b>216</b>	<b>162</b>	<b>32</b>	<b>12</b>	<b>118</b>	<b>81</b>	<b>20</b>	<b>21</b>	<b>40</b>	<b>49</b>	<b>12</b>	<b>6</b>	<b>31</b>	<b>49</b>	<b>14</b>	<b>8</b>	<b>27</b>	<b>179 (/341 = 52%)</b>	<b>46</b>	<b>35</b>	<b>98</b>	<b>.5</b>	<b>.19</b>

CIE = 1 if current-year-income increasing; -1 if current-year-income decreasing, 0 if no effect on current-year income or if effect is unclear from description of EMA.

EMA = earnings-management attempt. Prec = 1 if standard precise; 0 if standard not precise. Struc = 1 if transaction structured; 0 if transaction not structured.

@ "Reserve EMAs" includes data from reserves and contingencies (110 EMAs), reserves established in business combinations (37 EMAs), and restructuring reserves (29 EMAs).

**Table 9**  
**Percentage of EMAs Waived By Auditor,**  
**By Reserve/Non-Reserve and Current-Year Income Effect**  
**Reduced Sample**

	<b>Type of EMA</b>		
	<b>Reserve</b>	<b>Non-Reserve</b>	<b>Total</b>
<b>Income Increasing</b>	20/37 = 54%	101/219 = 46%	121/256 = 47%
<b>Income Decreasing</b>	63/96 = 66%	45/77 = 58%	108/173 = 62%
<b>Total</b>	83/133 = 62%	146/296 = 49%	229/429 = 53%

EMA = earnings-management attempt.

Cell formats are: # EMAs waived / total # EMAs = %.

“Reserve EMAs” includes data from reserves and contingencies (110 EMAs), reserves established in business combinations (37 EMAs), and restructuring reserves (29 EMAs).

“Non-reserve EMAs” include all other EMAs.

## REFERENCES

- Accounting Principles Board. 1971. *Opinion No. 18: The Equity Method of Accounting for Investments in Common Stock*.
- Adiel, R. 1996. Reinsurance and the management of regulatory ratios and taxes in the property-casualty insurance industry. *Journal of Accounting and Economics* 22: 207-240.
- American Institute of Certified Public Accountants. 1983. *Statement on Auditing Standards No. 47: Audit Risk and Materiality in Conducting an Audit*. New York: AICPA.
- \_\_\_\_\_. 1989. *Statement on Auditing Standards No. 57: Auditing Accounting Estimates*. New York: AICPA.
- \_\_\_\_\_. 1997. *Statement on Auditing Standards No. 82: Consideration of Fraud in a Financial Statement Audit*. New York: AICPA.
- \_\_\_\_\_. 1999. *Statement on Auditing Standards No. 89: Audit Adjustments*. New York: AICPA.
- \_\_\_\_\_. 1999. *Statement on Auditing Standards No. 90: Audit Committee Communications*. New York: AICPA.
- Amir, E., and E. A. Gordon. 1996. Firms' choice of estimation parameters: Empirical evidence from SFAS No. 106. *Journal of Accounting, Auditing & Finance* 11 (Summer): 427-448.
- \_\_\_\_\_, and J. Livnat. 1996. Multiperiod analysis of adoption motives: The case of SFAS No. 106. *The Accounting Review* 71 (October): 539-553.
- \_\_\_\_\_, and A. Ziv. 1997. Recognition, disclosure, or delay: Timing the adoption of SFAS No. 106. *Journal of Accounting Research* 35 (Spring): 61-81.
- Antle, R., and B. Nalebuff. 1991. Conservatism and auditor-client negotiations. *Journal of Accounting Research* 29 (Supplement): 31-59.
- Arens, A., and J. Loebbecke. 1997. *Auditing: An Integrated Approach*. 7<sup>th</sup> ed. Englewood Cliffs, N.J.: Prentice-Hall.
- Balsam, S., I. Haw, and S. B. Lilien. 1995. Mandated accounting changes and managerial discretion. *Journal of Accounting and Economics* 20: 3-29.
- Barth, M. E., W. H. Beaver, and M. A. Wolfson. 1990. Components of Earnings and the Structure of Bank Share Prices. *Financial Analysts Journal* 46 (May/June): 53-60.
- \_\_\_\_\_, J. A. Elliott, and M. W. Finn. 1999. Market rewards associated with patterns of increasing earnings. *Journal of Accounting Research* 37 (Autumn): 387-413.
- Bauman, C. C., and M. P. Bauman. 1999. The deferred tax asset valuation allowance as a strategic accounting choice. Working paper.

- Beatty, A., S. L. Chamberlain, and J. Magliolo. 1995. Managing financial reports of commercial banks: The influence of taxes, regulatory capital, and earnings. *Journal of Accounting Research* 33 (Autumn): 231-261.
- \_\_\_\_\_, and Harris. 1999. Intra-group, interstate strategic income management for tax, financial reporting and regulatory purposes. Working paper, Pennsylvania State University, PA.
- Beaver, W., C. Eger, S. Ryan, and M. Wolfson. 1989. Financial reporting, supplemental disclosures, and bank share prices. *Journal of Accounting Research* 27 (Autumn): 157-178.
- \_\_\_\_\_, and E. Engel. 1996. Discretionary behavior with respect to allowances for loan losses and the behavior of security prices. *Journal of Accounting and Economics* 22: 177-206.
- Beidleman, C. R. 1973. Income smoothing: The role of management. *The Accounting Review* 43 (October): 653-667.
- Beneish, M. D. 1997. Detecting GAAP violation: Implications for assessing earnings management among firms with extreme financial performance. *Journal of Accounting and Public Policy* 16 (Fall): 271-309.
- Bernard, V., and D.J. Skinner. 1996. What motivates managers' choice of discretionary accruals? *Journal of Accounting and Economics* 22: 313-325.
- Bhat, V. N. 1996. Banks and income smoothing: An empirical analysis. *Applied Financial Economics* 6: 505-510.
- Bonner, S. E., Z. Palmrose, and S. M. Young. 1998. Fraud type and auditor litigation: An analysis of SEC accounting and auditing enforcement releases. *The Accounting Review* 73 (October): 503-532.
- Bowen, R. M., L. DuCharme, and D. Shores. 1995. Stakeholders' implicit claims and accounting method choice. *Journal of Accounting and Economics* 20: 255-295.
- Bradshaw, M., S.A. Richardson, and R.G. Sloan. 1999. Earnings quality and financial reporting credibility: An empirical investigation. Working paper, University of Michigan, Ann Arbor, MI.
- Braun, K. W. 2000. The disposition of audit-detected misstatements: An examination of risk and reward factors and aggregation effects. Working paper, University of Georgia, Athens, GA.
- Burgstahler, D., and I. Dichev. 1997. Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics* 24: 99-126.
- \_\_\_\_\_, and M. Eames. 1998. Management of earnings and analyst forecasts. Working paper, University of Washington and Santa Clara University.
- Carcello, J. V., and Z. Palmrose. 1994. Auditor litigation and modified reporting on bankrupt clients. *Journal of Accounting Research* 32 (Supplement): 1-29.

- Chen, P., and L. Daley. 1996. Regulatory capital, tax, and earnings management effects of loan loss accruals in the Canadian banking industry. *Contemporary Accounting Research* 13 (Spring): 91-128.
- Dascher, P. E., and R.E. Malcom. 1970. A note on income smoothing in the chemical industry. *Journal of Accounting Research* 8 (Autumn): 253-259.
- Dechow, P.M., and D. J. Skinner. 2000. Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons* 14 (June): 235-250.
- \_\_\_\_\_, R. G. Sloan, and A. P. Sweeney. 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13: 1-36.
- \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. 1995. Detecting earnings management. *The Accounting Review* 70 (April): 193-225.
- DeFond, M. L., and J. Jiambalvo. 1993. Factors related to auditor-client disagreements over income increasing accounting methods. *Contemporary Accounting Research* 9: 415-431.
- DeGeorge, F., J. Patel, and R. Zeckhauser. 1999. Earnings management to exceed thresholds. *Journal of Business* 72: 1-33.
- D'Souza, J. M. 1998. Rate-regulated enterprises and mandated accounting changes: The case of electric utilities and post-retirement benefits other than pensions (SFAS No. 106). *The Accounting Review* 73 (July): 387-410.
- \_\_\_\_\_, J. Jacob, and K. Ramesh. 1999. Accounting flexibility and income management: The case of OPEB recognition. Working paper.
- Dye, R. 1985. Strategic accounting choice and the effects of alternative financial reporting requirements. *Journal of Accounting Research* 23: 544-574.
- Elliott, J. A., and D. R. Philbrick. 1990. Accounting Changes And Earnings Predictability. *The Accounting Review* 65 (January): 157-174.
- \_\_\_\_\_, and W. H. Shaw. 1988. Write-offs as accounting procedures to manage perceptions. *Journal of Accounting Research* 26 (Supplement): 91-119.
- Financial Accounting Standards Board. 1975. *Statement of Financial Accounting Standards No. 5: Accounting for Contingencies*. Stamford, CT: FASB.
- \_\_\_\_\_. 1976. *Statement No. 13: Accounting for Leases*. Stamford, CT: FASB.
- \_\_\_\_\_. 1980. *Statement of Accounting Concepts No. 2: Qualitative Characteristics of Accounting Information*. Norwalk, CT: FASB.
- \_\_\_\_\_. 1985. *Statement No. 87: Employer's Accounting for Pensions*. Stamford, CT: FASB.
- Francis, J., J. D. Hanna, and L. Vincent. 1997. Causes and effects of discretionary asset write-offs. *Journal of Accounting Research* 35 (Supplement) 1997: 117-134.

- Francis, J., and D. Simon. 1987. A test of audit planning in the small-client segment of the U.S. Audit Market. *The Accounting Review* 62 (January): 145-157.
- Gaver, J. J., and J. S. Paterson. 1999. Managing insurance company financial statements to meet regulatory and tax reporting goals. *Contemporary Accounting Research* 16 (Summer): 207-241.
- Gibbins, M., S. Salterio, and A. Webb. 2000. Evidence about auditor-client management negotiation concerning client's financial reporting. *Journal of Accounting Research* (Forthcoming).
- Guay, W. R., S. P. Kothari, and R. L. Watts. 1996. A market-based evaluation of discretionary accrual models. *Journal of Accounting Research* 34 (Supplement): 83-105.
- Guidry, F., A. J. Leone, and S. Rock. 1999. Earnings-based bonus plans and earnings management by business-unit managers. *Journal of Accounting and Economics* 26: 113-142.
- Hackenbrack, K., and M. W. Nelson. 1996. Auditors' incentives and their application of financial accounting standards. *The Accounting Review* 71 (January): 43-59.
- Hall, S. C. 1993. Political scrutiny and earnings management in the oil refining industry. *Journal of Accounting and Public Policy* 12 (Winter): 325-351.
- Hayn, C. 1995. The information content of losses. *Journal of Accounting and Economics* 20: 125-153.
- Healy, P.M. 1985. The Effect of Bonus Schemes on Accounting Decisions. *Journal of Accounting and Economics* 7 (April): 85-107.
- \_\_\_\_\_, S. Kang, and K. G. Palepu. 1987. The effect of accounting procedure changes on CEOs salary and bonus compensation. *Journal of Accounting and Economics* 9 (April):7-34.
- \_\_\_\_\_, and J. M. Wahlen. 1999. A review of the earnings management literature and its implications for standard setting. *Accounting Horizons* 13 (October): 365-383.
- Houghton, C. W., and J. A. Fogarty. 1991. Inherent Risk. *Auditing: A Journal of Practice and Theory* 10 (Spring): 1-22.
- Hribar, P. 2000. The market pricing components of accruals. Working paper, Cornell University, NY.
- Icerman, R., and W. Hillison. 1991. Disposition of audit-detected errors: some evidence on evaluative materiality. *Auditing: A Journal of Practice and Theory* 10 (Spring): 22-34.
- Imhoff, E. A. Jr., R. C. Lipe, and D. W. Wright. 1991. Operating leases: Impact of constructive capitalization. *Accounting Horizons* 5 (March): 51-63.
- Jones, J. J. 1991. Earnings management during import relief investigations. *Journal of Accounting Research* 29 (Autumn): 193-228.

- Kang, S., and K. Sivaramakrishnan. 1995. Issues in testing earnings management and an instrumental variable approach. *Journal of Accounting Research* 33 (Autumn): 353-367.
- Kadous, K., J. Kennedy, and M. E. Peecher. 2000. Auditors' judgments of the acceptability of client-preferred accounting methods. Working paper, University of Washington, WA.
- Kennedy, J., D.N. Kleinmuntz, and M.E. Peecher. 1997. Determinants of the justifiability of performance in ill-structured audit tasks. *Journal of Accounting Research* 35 (Supplement): 105-123.
- Kim, M., and W. Kross. 1998. The impact of the 1989 change in bank capital standards on loan loss provisions and loan write-offs. *Journal of Accounting and Economics* 25: 69-99.
- Kinney, W. R., and R. D. Martin. 1994. Does auditing reduce bias in financial reporting? A review of audit-related adjustment studies. *Auditing: A Journal of Practice and Theory* 13 (1): 149-156.
- Lee, C-W. J., and Z. Gu. 1998. Low balling, legal liability and auditor independence. *The Accounting Review* 73 (October): 533-556.
- Lehavy, R., and L. Revsine. 1994. Adoption timing: An examination of SFAS 106 choices. Working paper, Northwestern University, IL.
- Levitt, A. 1998. *The Numbers Game*. Remarks by Chairman Arthur Levitt, Securities and Exchange Commission, Delivered at the NYU Center for Law and Business. New York, NY, September 28.
- Libby, R., and W. R. Kinney. 2000. Earnings management, audit differences, and analysts' forecasts. *The Accounting Review* (Forthcoming).
- Lys, T., and L. Vincent. 1995. An analysis of value destruction in AT&T's acquisition of NCR. *Journal of Financial Economics* 39 (October/November): 353-378.
- Ma, C. K. 1988. Loan loss reserves and income smoothing: The experience in the U.S. banking industry. *Journal of Business, Finance & Accounting* 15 4 (Winter): 487-497.
- Manzon, G. B., Jr. 1992. Earnings management of firms subject to the Alternative Minimum Tax. *Journal of the American Taxation Association* 14 (Fall): 88-111.
- Mayhew, B. W., J. W. Schatzberg, and G. R. Sevcik. 2000. The effect of accounting uncertainty and auditor reputation on auditor independence. Working paper, University of Wisconsin – Madison.
- McDaniel, L. S., and W. R. Kinney, Jr. 1995. Expectation-formation guidance in the auditor's review of interim financial information. *Journal of Accounting Research* 33 (Spring): 59-76.
- McNichols, M., and G. P. Wilson. 1988. Evidence of earnings management from the provision for bad debts. *Journal of Accounting Research* 26 (Supplement): 1-31.

- Moses, O. D. 1987. Income smoothing and incentives: Empirical tests using accounting changes. *The Accounting Review* 62 (April): 358-377.
- Moyer, S. 1990. Capital adequacy ratio regulations and accounting choices in commercial banks. *Journal of Accounting and Economics* 12: 123-54.
- Nelson, M. W., and W. R. Kinney. 1997. The effect of ambiguity on auditors' loss contingency reporting judgments. *The Accounting Review* 72 (April): 257-274.
- Neter, J., W. Wasserman, and M. H. Kutner. 1983. *Applied Linear Regression Models*. Homewood, IL: Irwin.
- Panel on Audit Effectiveness. 2000. *Report and Recommendations Exposure Draft* (May 31).
- Petroni, K. R. 1992. Optimistic reporting in the property-casualty insurance industry. *Journal of Accounting and Economics* 15: 485-508.
- Pourciau, S. 1993. Earnings management and nonroutine executive changes. *Journal of Accounting and Economics* 16: 317-336.
- Pulliam, S. 1988. Besting FAS-13. *Corporate Finance* (December): 31.
- Rutledge, R. W. 1995. Does management engage in the manipulation of earnings? The case of SFAS 52. *Journal of International Accounting, Auditing & Taxation* 4 1: 69-86.
- SEC, 1999. Call For Research: AAA and Securities and Exchange Commission Joint Conference. *Accounting Education News*: 25-26.
- Salterio, S. 1994. Researching for accounting precedents: Learning, efficiency, and effectiveness. *Contemporary Accounting Research* 11 (Fall): 515-542.
- Salterio, S., and L. Koonce. 1997. The persuasiveness of audit evidence: The case of accounting policy decisions. *Accounting, Organizations and Society* 22 (6): 573-587.
- Schipper, K. 1989. Commentary on earnings management. *Accounting Horizons* 3 (December): 91-102.
- Scholes, M., M. Wilson, and M. A. Wolfson. 1990. Tax planning, regulatory capital planning and financial reporting strategy for commercial banks. *Review of Financial Studies* 3 number 4: 625-650.
- Sloan, R. G. 1996. Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review* 71 (Summer): 289-315.
- St. Pierre, K., and J. A. Anderson. 1984. An Analysis of the Factors Associated with Lawsuits Against Public Accountants. *The Accounting Review* 59 (April): 242-263.
- Stone, M., and R. W. Ingram. 1988. The effect of Statement No. 87 on the financial reports of early adopters. *Accounting Horizons* 2 (September): 48-61.

- Teoh, S. H., T. J. Wong, and G. R. Rao. 1998. Are earnings during initial public offerings opportunistic? *Review of Accounting Studies* 3.
- Wahlen, J. M. 1994. The nature of information in commercial bank loan loss disclosures. *The Accounting Review* 69 (July): 455-478.
- Wright, A., and S. Wright. 1997. An examination of factors affecting the decision to waive audit adjustments. *Journal of Accounting, Auditing & Finance* 12 (1): 15-36.
- Xie, H. 1998. *Are discretionary accruals mispriced? A reexamination*. Unpublished dissertation, University of Iowa, IA.
- Zhang, P. 1999. A bargaining model of auditor reporting. *Contemporary Accounting Research* 16 (Spring): 167-184.