

Evidence from Auditors about Managers' and Auditors' Earnings Management Decisions

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ABSTRACT: This paper reports analyses of data obtained using a field-based questionnaire in which 253 auditors from one Big 5 firm recalled and described 515 specific experiences they had with clients who they believe were attempting to manage earnings. This approach enables us to analyze separately managers' decisions about how to attempt earnings management and auditors' decisions about whether to prevent earnings management by requiring adjustment of the financial statements. Our results indicate that managers are more likely to attempt earnings management, and auditors are less likely to adjust earnings management attempts, which are structured (not structured) with respect to precise (imprecise) standards. We also find that managers are more likely to make attempts that increase current-year income, but auditors are more likely to require that those attempts be adjusted, that managers are more likely to make attempts that decrease current-year income with unstructured transactions and/or when standards are imprecise, and that auditors are more likely to require adjustment of attempts that they identify as material or that are attempted by small clients.

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Data Availability: *Contact the authors.*

I. INTRODUCTION

Earnings management can be defined as non-neutral financial reporting in which managers intervene intentionally in the financial reporting process to produce some private gain (Schipper 1989). Managers can intervene by modifying how they interpret financial accounting standards and accounting data, or by timing or structuring transactions (Healy and Wahlen 1999).¹ Because many such interventions are difficult to distinguish from appropriate applications of GAAP, the definition of earnings management hinges fundamentally on managerial intent, which is difficult to assess using *ex post* accounting information (Dechow and Skinner 2000). As a consequence, researchers have struggled to identify earnings management, and accounting research has not provided much evidence about the characteristics of accounting standards that encourage earnings management, or about the extent to which various aspects of the financial reporting process discourage earnings management (Healy and Wahlen 1999).

This paper reports analyses of data obtained using a field-based questionnaire in which 253 audit partners and managers from one Big 5 firm recalled and described 515 specific experiences they had with clients who they believed were attempting to manage earnings. Auditors are required by GAAS to understand their clients' incentives and to search for differences between actual and expected performance that may indicate misstatements, so the auditors who participated in our study were relatively well positioned to identify specific instances of earnings management. Because respondents provided transaction-level data about attempts covering a range of financial accounting transactions, including attempts that are purely judgmental as well as attempts that involve transaction structuring, these data allow us to examine how attempts are affected by the precision of financial accounting standards² and by other characteristics of attempts. Unlike studies that focus on only post-audit information, we consider separately managers' decisions about how to attempt earnings management and auditors' decisions about whether to require adjustments.³ Thus, our study provides evidence about how a key feature of accounting standards (precision of rules) and a key feature of the financial reporting process (activity of external auditors) influence earnings management.

Results of descriptive analyses indicate that the earnings management attempts in our sample occurred in numerous accounting areas, including revenue recognition, business combinations, intangibles, fixed assets, investments and leases, but by far the most frequently identified attempts involve reserves. Respondents believe that managers' attempts were motivated by a variety of incentives, including the need to meet analysts' estimates and influence the stock market, to reach targets set by compensation contracts or debt covenants, to communicate economic information to stakeholders, and to smooth income or improve future income, as well as by combinations of these incentives. Auditors adjusted

¹ We use "transaction structuring" to include management attempts to manage earnings by modifying contracts, transactions, or activities.

² We use the term "precise standard" to refer to a criterion that specifically allows or disallows a particular accounting treatment or that is specified numerically.

³ We use "adjustment" to denote an auditor-required accounting treatment or a refusal to issue an unqualified opinion.

44 percent of the attempts in our sample, 21 percent were not adjusted because the auditor believed the client demonstrated compliance with GAAP, 17 percent because the auditor did not have convincing evidence the client's position was incorrect, and the remaining 18 percent because of some other reason (usually, immateriality).

Consistent with theory and results from law, economics, and accounting, our hypothesis tests provide evidence that managers were more likely to attempt earnings management (and auditors were less likely to adjust attempts) that were either structured to comply with precise standards or unstructured with respect to imprecise standards. Consistent with prior research in accounting, managers were more likely to attempt earnings management that increased current income, and auditors were more likely to adjust these attempts. To the extent that managers made attempts that *decreased* current income, they did so with respect to imprecise standards and/or with unstructured transactions, presumably to retain maximum flexibility for making future income-increasing attempts that reverse the current-period decrease in income. Consistent with other research in accounting, auditors were more likely to adjust attempts that were more material and/or that were attempted by smaller clients.

We believe these results are useful for understanding how earnings management attempts of various types move through the financial reporting process. For example, attempts involving reserves tend to be unstructured, governed by judgmental standards, and income decreasing, so they are less likely to be adjusted. Attempts involving leases, consolidations and determining the appropriateness of the equity vs. cost method tend to be governed by precise standards, and transactions in these areas are amenable to structuring, so they also are less likely to be adjusted. In contrast, although attempts involving revenue recognition occur relatively frequently in our sample, they tend to increase current income, and they are more likely to be adjusted.

Overall, we identify several factors that affect how managers attempt earnings management and whether auditors adjust attempts. Understanding these factors can help participants in the financial reporting process predict where attempts and adjustments occur, and to predict the effects of changes in regulations or audit methodologies that modify these factors. Our results also provide a baseline for assessing the effectiveness of recent regulatory changes (e.g., SAB Nos. 99–102, SAS Nos. 89 and 90) that occurred after we collected data.

The rest of this paper proceeds as follows. In Section II we describe how our research approach complements other approaches, and describe theory and results from law, economics, and accounting that support our hypotheses about factors that affect where earnings management is attempted and whether auditors adjust attempts. In Section III we describe our method. In Section IV we describe analyses and results. In Section V we summarize our findings, discuss implications and limitations, and suggest directions for future research.

II. BACKGROUND AND HYPOTHESES

Contrasting Research Approaches

Prior researchers have used multiple approaches to examine earnings management. For example, “unexpected accruals” studies infer earnings management if total accruals or some subset differs from expectations in the direction favored by an incentive proxy (e.g., Jones 1991; Dechow et al. 1995; McNichols and Wilson 1988). “Distributional” studies test whether the distribution of earnings around benchmarks differs in some predicted way from what would be expected in the absence of earnings management (e.g., Hayn 1995; Burgstahler and Dichev 1997; Burgstahler and Eames 1998; Degeorge et al. 1999; Beatty et al. 2002). “Enforcement-release” studies examine SEC Accounting and Auditing Enforcement Releases (e.g., Dechow et al. 1996; Beneish 1997; Bonner et al. 1998; Panel on

Audit Effectiveness 2000). "Adjusting-entry" studies examine auditors' decisions with respect to proposed adjusting journal entries, some of which may involve earnings management (e.g., Wright and Wright 1997; Kinney and Martin 1994). "Experimental" studies examine earnings-management-related decisions made in laboratory settings (e.g., Hackenbrack and Nelson 1996; King 2002).

While prior research has provided evidence on managers' incentives for earnings management, there is relatively little evidence on the characteristics of accounting standards or transactions that influence where and how managers attempt to manage earnings (Healy and Wahlen 1999). Most unexpected-accruals studies examine aggregate accruals, and distributional studies focus on reported earnings, so they cannot examine particular transactions. Some unexpected-accruals studies and experimental studies focus on particular accruals, but their results may not generalize beyond the particular transaction, account, or industry examined (McNichols 2000; Libby et al. 2001). Enforcement-release studies highlight only the cases the SEC chooses to pursue aggressively, so likewise may not generalize to other types of earnings management. Adjusting-entry studies focus on individual transactions, but include items unrelated to earnings management (e.g., unintentional errors) and exclude important types of earnings management (e.g., successful transaction structuring).

In addition, prior research has struggled to examine how managers' and auditors' decisions with respect to earnings management combine and/or offset in the financial reporting process. Analysis of post-audit financial statements, a joint product of managers and auditors, cannot separate managers' and auditors' decisions. To the extent researchers are interested in the link between managers' incentives and their actions, a focus on post-audit data introduces noise from auditors' adjustment decisions. To the extent researchers are interested in whether auditors mitigate earnings management (e.g., Francis and Krishnan 1999; Bradshaw et al. 2001), a focus on post-audit data understates audit effectiveness by ignoring attempts that auditors detect and prevent. Experimental studies have primarily focused on auditors' adjustment decisions (Libby et al. 2001), and so provide little evidence about managers' attempts. Enforcement-release studies omit instances where auditors prevented earnings management, and both enforcement-release and adjusting-entry studies omit important types of earnings management.

We use a field-based questionnaire to elicit auditors' recollections of specific incidents where managers attempted to manage earnings (see Gibbins and Newton 1994; Gibbins et al. 2001 for other examples of the use of field-based questionnaires). This approach provides transaction-level data about earnings management attempts and auditors' adjustment decisions. Therefore, we can make progress in disentangling managers' and auditors' decisions by examining hypothesized relations involving managers' decisions about how to attempt earnings management (conditional on the decision to make an attempt that the auditor detected) and auditors' decisions about whether to adjust an attempt (conditional on identification of the attempt).

A field-based questionnaire relies on respondents providing accurate recollections. Numerous analyses of eyewitness testimony and other recalled experiences highlight the fallibility of human memory (Loftus 1982), but also indicate circumstances in which recall is relatively accurate (Davies 1993). Techniques have been developed for eliciting accurate recollections, (e.g., Flanagan 1954; Gibbins 2001). For example, accurate recall is encouraged by eliciting simple facts concerning recent events, as opposed to asking leading questions or eliciting elaborate details about long-past events. Intentional inaccuracy is discouraged by highlighting the importance of the research and assuring anonymity. As described in more detail later in the paper, we follow these and other procedures to minimize

noise or bias due to relying on recalled data, and also consider the potential for noise or bias when interpreting our results.

Hypotheses

The second and fourth columns of Table 1 summarize our hypotheses. (The results discussed in Section IV are also summarized in Table 1).

Precision of Standards and Transaction Structuring

Research in law and economics examines how rule characteristics affect behavior (see Kaplow [2000] for a review). This literature emphasizes how rule precision affects the degree to which people consider themselves vulnerable to “error costs” (e.g., fines, damages, imprisonment) that result from being found to have violated a rule. When applying *imprecise* rules, people assess high exposure to error costs because adjudication is unpredictable (Shavell 1987), and they may react to this uncertainty by being more careful to comply with the spirit of the rule (Kessler and McClellan 1996). People often lack the expertise necessary to interpret the complexity that typically accompanies precise rules, and so they may act as if they are applying an imprecise rule (Diver 1983; Kaplow 2000). Alternatively, people dealing with precise rules may incur costs to reduce exposure to error costs (Ogus 1992). For example, they might hire experts to interpret the rules (Ehrlich and Posner 1974), or they might incur costs to structure arrangements to evade legal norms (Kaplow 2000). Such investments in experts and/or arrangement structuring are less likely

TABLE 1
Analyses of Factors Affecting Managers’ and Auditors’ Earnings Management Decisions
Hypotheses and Results

<i>Variable</i>	<i>Sign of Effect on Frequency of Managers’ Attempts</i>		<i>Sign of Effect on Probability Auditor Requires Adjustment</i>	
	<i>Hypothesis</i>	<i>Result</i>	<i>Hypothesis</i>	<i>Result</i>
Precision (P) × Structuring (S) Interaction	H1: +	+**	H2: –	–**
Current-Period Income Effect (CIE)	H3: +	+**	H6: +	+**
P × CIE Interaction	H4: +	+**		
S × CIE Interaction	H5: +	+**		
Materiality			H7: +	+**
Client Size			H8: –	–**

** Significant at $p < 0.05$.

CIE = 1 if current-year-income increasing, –1 if current-year-income decreasing;

Precision = 1 if standard precise, 0 if standard not precise;

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; and

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.

when rules are imprecise, because they are less likely to reduce exposure to error costs significantly (Gifford 1971).

We extend this theory from law and economics to the financial reporting setting, where managers make earnings management attempts and auditors decide whether attempts must be adjusted for the financial statements to receive an unqualified audit opinion. As in the broader legal arena, accounting policymakers must determine the appropriate level of precision and complexity to include in the rules they promulgate (Beresford 1999; Mason and Gibbins 1991), so they must consider how varying levels of precision will affect behavior. We believe managers respond to varying levels of rule precision by varying their earnings management attempts to minimize the chance their auditors will require adjustments.

When accounting rules use precise guidance to distinguish between alternative accounting treatments, and/or to tie accounting recognition to the occurrence of specific events, we predict managers will structure transactions to meet the precise guidance, thereby reducing the risk the auditor will disagree and require adjustments. For example, managers can structure transactions by including elements that meet numerical thresholds; e.g., purchasing “7d insurance” to circumvent the “90 percent of fair-market value” test in SFAS No. 13, para. 7d (Pulliam 1988; Miller and Berton 1993). Managers can also structure transactions by timing events, e.g., recognizing accumulated unrealized gains on “available-for-sale” securities in a particular accounting period by selling the securities as required by SFAS No. 115.⁴

Transaction structuring often requires transaction fees, fees paid to experts for their advice, and/or modification of operational decisions that presumably were optimized prior to the structuring. Therefore, managers should engage in transaction structuring only when its anticipated financial reporting benefits exceed its anticipated out-of-pocket and operational costs. Because the benefits of transaction structuring are less certain. When rules are precise, we predict managers are less likely to structure transactions and more likely to attempt to convince the auditor that they have interpreted the rules correctly. For example, managers may avoid accruing a contingent loss by assigning a relatively high threshold to the term “probable” in SFAS No. 5, and/or interpret the underlying evidence as suggesting a relatively low probability of loss. Managers might state their investment purpose as consistent with the requirements for “available for sale” treatment of investments with respect to SFAS No. 115 to delay income recognition of unrealized gains and losses. Managers applying SFAS No. 87 might assume a relatively low discount rate to minimize pension liability and current-period pension expense.

This extension of theory from law and economics to the accounting context leads us to make the following hypothesis:

H1: Managers are more likely to attempt earnings management with structured transactions when standards are precise and with unstructured transactions when standards are imprecise.

Hypothesis 1 predicates managers’ behavior on two assumptions about auditors’ behavior, namely, auditors will not require adjustment of structuring that complies with precise rules, and auditors will be willing to discuss, and compromise on, interpretations of imprecise rules. Consistent with this perspective, prior survey evidence indicates that auditors

⁴ Thus, our definition of transaction structuring includes both “real” earnings management as discussed by Schipper (1989) and “operational” earnings management as discussed by Parfet (2000).

often compromise in client negotiations when accounting standards do not provide precise guidance (Gibbins et al. 2001). In addition, experimental research (in settings where trans-*action structuring is not possible*) indicates that auditors are more likely to permit aggressive accounting positions as the subjectivity of the relevant standards and/or evidence increases.⁵ Together with the reasoning supporting H1, these prior results suggest a hypothesis about auditors' decisions that parallels H1:

H2: Auditors are less likely to require adjustment of earnings management attempts that are structured when standards are precise and that are not structured when standards are imprecise.

Current-Year Income Effect

Whether a manager makes earnings management attempts that increase or decrease current-year net income presumably depends on his incentives, which generally favor a time series of smoothly increasing income (Barth et al. 1999; DeFond and Jiambalvo 1993). Also, anecdotal evidence suggests that current-income-decreasing earnings management is intended to enable future-income-increasing attempts (e.g., the “cookie-jar reserves” highlighted by Levitt [1998]), but current-income-increasing attempts are typically intended to benefit the current period, rather than enabling future-income-decreasing attempts.⁶ Therefore, we predict the following:

H3: Managers are more likely to attempt earnings management that increases current-period income.

Assuming that income-decreasing earnings management is intended to benefit future income (as well as to manage expectations about future performance), it is reasonable to assume that managers desire maximum flexibility for recognizing future income in the periods in which it is needed. Flexibility should be greater under imprecise standards, or when transactions are not structured. Therefore, we predict the following:

H4: Managers are more likely to attempt earnings management that decreases current-period income by using unstructured transactions.

H5: Managers are more likely to attempt earnings management that decreases current-period income when the relevant financial accounting standards are imprecise.

Auditors' incentives include risk of litigation, which research suggest is highest for overstatements of current income and equity (St. Pierre and Anderson 1984; Carcello and Palmrose 1994). Auditing texts encourage auditors to focus on detecting overstatements of current-year net income and equity (Arens and Loebbecke 1997). While audit-adjustment studies indicate that auditors tend to *propose* audit adjustments that reduce income and equity (Wright and Wright 1997; Kinney and Martin 1994), evidence about the adjustments that auditors *require* is less clear. Archival research finds no association between the likelihood of requiring adjustments and the sign of their income effect (Wright and Wright

⁵ See, e.g., Trompeter (1994), Hackenbrack and Nelson (1996), Kennedy et al. (1997), Nelson and Kinney (1997), Salterio and Koonce (1997), Mayhew et al. (2001), and Kadous et al. (2000).

⁶ Earnings management to increase current income by accelerating revenue or postponing expense will decrease future income, but the future decrease is merely a necessary consequence of accrual accounting.

1997), but experimental evidence indicates that auditors are more likely to require adjustment if the unadjusted amount increases income (Braun 2001). Given our understanding of auditors' incentives, we predict the following:

H6: Auditors are more likely to require adjustment of earnings management attempts that increase current-period income.

Materiality and Client Size

Auditors' primary responsibility is to identify and require adjustment of material misstatements, so auditors should be more likely to adjust earnings management attempts as the materiality of those attempts increases (Icerman and Hillison 1991; Wright and Wright 1997; Braun 2001). In addition, qualitatively material attempts might be labeled immaterial to justify not making an adjustment (Libby and Kinney 2000). Therefore, we predict the following:

H7: Auditors are more likely to require adjustment of earnings management attempts they identify as material.⁷

Analytical research theorizes that concern over retaining and attracting clients affects auditors' willingness to require audit adjustments that their clients oppose (for reviews, see Lee and Gu [1998] and Zhang [1999]). This reasoning suggests that, because audit fees increase with client size (Francis and Simon 1987), the probability an adjustment is not made increases with client size, as found in prior audit-adjustment research (Wright and Wright 1997). Also, larger clients are more likely to have the resources to structure transactions carefully and defend aggressive positions effectively. Therefore, we predict the following:

H8: Auditors are more likely to require adjustment of earnings management attempts made by their smaller clients.

III. DATA COLLECTION

Participants

We limited participation to audit partners and managers to ensure that participants had sufficient experience to identify earnings management attempts. Data collection occurred in autumn of 1998.⁸ The firm providing access to auditors did not permit us to contact audit managers directly, but did permit us to ask each audit partner we contacted to distribute two additional instruments to managers of their choice. After pretesting the survey

⁷ As discussed further in Section III, we elicited instances of *material* earnings management to insure that our sample includes attempts auditors viewed as important. This does not preclude us from assessing whether auditors' adjustment decisions are explained in part by their *ex post* labeling of attempts as material or immaterial. During the course of negotiations with clients over proposed audit adjustments, auditors could be persuaded by managers that attempts are immaterial, could eventually conclude attempts are immaterial qualitatively or when compared to quantitative thresholds, and/or could label potentially material attempts as immaterial to justify no adjustment. When we base analyses on only the 376 attempts that auditors identified *ex post* as material, results are very similar to those reported.

⁸ One month prior to data collection, then SEC Chairman Levitt expressed his concern over earnings management and highlighted specific earnings management techniques. Press coverage of this speech could have affected our subjects' responses. Also, after our data collection, the SEC issued SAB Nos. 99-102, and the ASB issued SAS Nos. 89 and 90, all intended to reduce earnings management. In Section V we discuss the potential effect of these announcements on the generalizability of our results.

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.

Two hundred fifty-three audit partners and managers responded with a total of 525 attempts (10 attempts were dropped due to missing data, so our final sample consists of 515 attempts). Participants had an average of 14.1 years of experience; 43 percent were partners; 57 percent were managers. Our final response rate of 16 percent (20 percent for partners and 14 percent for managers) compares favorably to response rates of mailed surveys of senior financial managers (e.g., 9 percent response rate by Graham and Harvey [2001]; 12 percent response rate by Trahan and Gitman [1995]). However, it is lower than that often achieved in recent mailed survey studies employing auditors as subjects (e.g., 26.7 percent response rate by Gibson and Frakes [1997]; 32 percent response rate by Ayers and Kaplan [1998]).

Several factors probably decreased our response rate. First, asking about sensitive issues generally reduces response rates (Randall and Gibson 1990) and auditors are likely to be sensitive about earnings management.⁹ We assured confidentiality and anonymity, but our need to obtain explicit descriptions of actual attempts precluded the use of randomized response techniques (see Warner 1965; Greenberg et al. 1971) that might have further decreased participants' concerns about responding to our survey. Second, our response rate would be reduced if some partners did not distribute surveys to managers or did not encourage managers to respond. This explanation is consistent with our response rate for partners exceeding that for managers. Third, as discussed later in the paper, most auditors were directed to focus on attempts with respect to specific lists of topics to ensure comprehensive coverage of accounting topics. Auditors may not have responded if they had no experiences with respect to those topics, which is consistent with a lower response rate for "list" surveys (15 percent) as compared to "no list" surveys (18 percent) and for managers (who are less experienced than partners). Fourth, auditors with significant not-for-profit experience may not have responded because they believed their experience was not relevant to a study of earnings management, which is consistent with the relatively low amount of experience with not-for-profit clients indicated by our respondents (see footnote 10). Fifth, the survey instrument was lengthy, requiring 30–45 minutes to complete. Responses required significant written elaboration in addition to categorical and numerical answers. A few respondents returned incomplete surveys with a note indicating they lacked sufficient time to finish; others may have simply not responded due to survey length.

One way to assess the potential for nonresponse bias is to compare data from late respondents to data from on-time respondents (Oppenheim 1992; Wallace and Mellor 1988). In our study, 52 "late" responses, received following a reminder, are not significantly different from other responses in any of the analyses reported in the results section. Likewise, there are no significant differences between the first 50 and last 50 responses received, or between the first half and last half of the responses received, providing evidence against nonresponse bias. We also tested for similarity between respondents and the population from which they were drawn (see, e.g., Moore and Reichert 1983). Although confidentiality restrictions prevented us from getting some forms of demographic data, respondents did provide the percentage of their experience that involved clients in each of the many industry classifications used by their firm. The average proportion of auditors' experience in each

⁹ As an example of sensitivity, one auditor responded with the emphatic statement "I am not now nor have been nor expect to be involved in any way with earnings management."

industry is very similar to the proportion of audit clients the firm has in that industry, suggesting that respondents' backgrounds reflect the general practice of their firm.¹⁰

A final potential concern is that our data collection approach could result in duplicate observations if more than one respondent described the same attempt. Duplication is most likely between partners and managers, as partners presumably would be likely to distribute packets to managers with whom they had worked. To discourage duplication of observations, we ensured that, when auditors were directed to focus on attempts with respect to specific lists of topics (80 percent of our sample), the three surveys mailed to each partner differed in the accounting topics listed. We also reanalyzed all results reported in the paper using only partner data. Results are very similar to those reported.

Initial Instructions and Manipulation of "List" vs. "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 Cornell 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 addressed "Materials To Be Completed By [partner name]," and two 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 by structuring transactions with respect to standards or by 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" they had encountered), some participants were asked to give experiences with respect to specific accounting topics, and others were not.

As our primary purpose was to consider factors affecting earnings management decisions across a range of transactions, 80 percent of surveys asked participants to consider earnings management with respect to a list of five areas chosen from the 22 areas shown in Table 2. The list was developed in consultation with representatives from the participants' firm to cover the primary non-industry-specific issues dealt with in SFAS Nos. 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

¹⁰ For three industries, there was a statistically significant difference between the mean proportion of respondents' experience and the mean proportion of the firms' clients. Compared to their firms' practice, respondents had more experience with consumer products companies ($p < .001$), and less experience with industrial companies ($p < .001$) and with not-for-profit organizations ($p = .006$). Auditors with predominantly not-for-profit clients may not have responded because they did not believe their experience was relevant to this study.

TABLE 2
Descriptive Data about Earnings Management Attempts

<i>Area</i>	<i>Number of Earnings Management Attempts (Percent Adjusted by Auditor)</i>				<i>Percent of Total Governed by Precise Standard</i>	<i>Percent of Total that were Structured</i>
	<i>Current-Period Income Effect</i>					
	<i>Total</i>	<i>Decrease</i>	<i>Increase</i>	<i>None Identified</i>		
Reserves ^a	178 (35%)	92 (35%)	49 (45%)	37 (24%)	25	0
Revenue Recognition	78 (60)	11 (55)	64 (64)	3 (0)	44	13
Business Combinations	35 (43)	13 (31)	9 (56)	13 (46)	40	14
Non-R&D Intangibles	32 (44)	6 (33)	26 (46)	0 (0)	9	3
Fixed Assets	31 (65)	11 (82)	19 (58)	1 (0)	23	6
Investments	28 (57)	5 (60)	20 (60)	3 (33)	39	14
Leases	23 (39)	2 (0)	18 (39)	3 (67)	83	57
Accounting changes and prior period adjustments	20 (25)	5 (0)	13 (38)	2 (0)	60	5
Compensation	19 (16)	3 (33)	9 (11)	7 (14)	63	26
Consolidations and equity /cost method	15 (27)	1 (0)	12 (33)	2 (0)	47	80
Transfers of Receivables	11 (64)	1 (0)	8 (87)	2 (0)	64	36
Cash Flows	10 (70)	2 (100)	7 (71)	1 (0)	80	10
Taxes	5 (20)	3 (0)	2 (50)	0	60	0
Long-Term Debt	5 (100)	0	4 (100)	1 (100)	80	0
Pensions	5 (20)	3 (33)	2 (0)	0	80	40

(Continued on next page)

TABLE 2 (Continued)

<i>Area</i>	<i>Number of Earnings Management Attempts (Percent Adjusted by Auditor)</i>				<i>Percent of Total Governed by Precise Standard</i>	<i>Percent of Total that were Structured</i>
	<i>Current-Period Income Effect</i>			<i>None Identified</i>		
	<i>Total</i>	<i>Decrease</i>	<i>Increase</i>			
Other Post-Retirement Benefits	4 (25)	0	4 (25)	0	50	0
Segment Reporting	3 (33)	0	0	3 (33)	100	33
R&D	3 (67)	0	3 (67)	0	33	33
Foreign Currency	2 (50)	0	0	2 (50)	50	0
EPS	1 (100)	0	1 (100)	0	100	0
Related Party Disclosures	1 (100)	0	0	1 (100)	100	0
Nonmonetary transactions	1 (100)	0	0	1 (100)	100	0
Other	5 (20)	1 (0)	2 (50)	2 (0)	60	80
Total	515 (44)	159 (38)	272 (52)	84 (29)	39	13

Areas are ordered according to the total frequency with which they appeared in Column 2.

^a The 178 reserves include general reserves (102 attempts), restructuring reserves (29 attempts), reserves established in business combinations (37 attempts), and reserves against deferred-tax assets (10 attempts).

to those areas.¹¹ The instructions asked participants to give three experiences for the first area, 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. This approach was designed to ensure that our sample included earnings management decisions pertinent to numerous accounting topics.

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 were elicited to provide an estimate of the relative frequency of various attempts.

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 “Attempted Earnings Management Experience #1,” repeated those questions for Attempts #2 and #3, and finished with a short debriefing questionnaire. Included among the questions were requests that participants explain the attempt (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 attempt. Participants also stated their views of the manager’s incentive(s) for the attempt.

Participants chose from among four alternatives that described how the attempt was eventually 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 attempt 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–\$1B (billion), and (e) > \$1B. They provided additional data, such as the year in which the attempt occurred, the industry of the client, the number of times they had encountered the attempt in their careers, and the percentage of times the attempt had been treated in the audited financial statements in a manner consistent with each of the alternatives listed above. The survey concluded with a short debriefing questionnaire. Participants returned the survey in an enclosed, stamped, addressed envelope.

Coding the Data

Descriptive Data

We provide descriptive data about areas in which earnings management was attempted, and auditors’ assessments of managers’ incentives for these attempts. To do so, one of the

¹¹ Between participants we varied whether an area appeared on a table, and the area’s 1–5 position, 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.

authors coded attempts according to financial accounting area (e.g., revenue recognition), incentive(s) for the attempt, and primary incentive for the attempt. When a participant listed multiple incentives and did not indicate one incentive as primary, the first incentive listed was coded as primary. To insure consistency of coding, all of the authors agreed on the coding scheme, the same author coded all attempts, a second author checked the first author's interpretation and coding, and the two met to resolve disagreements.

Variables Used in Hypothesis Tests

Participants supplied some data for hypothesis tests in the form of quantitative or categorical responses (e.g., client size, attempt materiality).¹² To test hypotheses about the effects of current-year income effect, precision of standard, and whether the transaction was structured, variables were coded independently by two coders as well as by one of the authors, based on auditors' descriptions of attempts, client incentives, and relevant financial accounting standards. The coders were CPAs, had public accounting experience of 5 and 1.5 years, respectively, and were unaware of hypotheses. Inter-coder agreement was high.¹³ The results of all analyses are similar if based on any coder's individual codes. Following independent coding, coders and the coding author met to resolve disagreements and create a consensus coding for each variable. The results reported are based on consensus coding.

Precision of Standard. Some participants specifically identified the key criterion in financial accounting standards or principles that determined appropriate treatment of the attempt, (e.g., "FAS No. 13 capitalization criterion number 4 (90 percent PV lease payment))." When participants were less specific or did not respond to this question, each coder examined the description of the attempt and identified the key criterion affecting disposition of the attempt. If insufficient information existed to identify the key criterion, then the Precision score was coded as missing.

After the key criterion was identified, Precision was coded 1 if the criterion specifically allowed or disallowed the accounting treatment or if the criterion was quantified, and 0 otherwise (e.g., if the criterion was not specific, required estimation, or used vague verbal definitions rather than numerical definitions). For example, SFAS No. 5 specifically disallows accruing contingent gains or unspecified contingent losses, so it would be coded as precise with respect to attempts governed by that criterion. On the other hand, SFAS No. 5 states that accrual of a specific contingent loss depends on the loss being "probable" and "reasonably estimable," so it would be coded as imprecise with respect to attempts governed by that criterion. If multiple key criteria were present and at least one was imprecise, the Precision score was 0. Thus, APB No. 18 is coded as imprecise with respect to the "20 percent of ownership" threshold used to determine application of the equity method, because APB No. 18 also indicates that additional evidence can be used to determine whether

¹² Auditors identified whether the attempt was material individually and in combination with other issues. We developed two materiality measures: *Matrate* (= 1 if, in any year, the attempt was material individually or in combination with other issues, 0 if not), and *Matcur* (= 1 if, in the current year, the attempt was material individually or in combination with other issues, 0 if not). These two ratings are highly correlated (Pearson correlation = 0.93, $p < 0.0001$), and produce the same results when included in analyses, so results are only reported for *Matrate*. We also identified 83 attempts for which materiality was mentioned explicitly 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 attempt was rated as immaterial (e.g., Pearson correlation between *Matsaid* and *Matrate* = -0.58 , $p < 0.0001$).

¹³ We used pairwise Kappa statistics to assess coder agreement with each other and with the author who also coded the data. For current-period-income effect, Kappas were 0.78 (coder1 to coder2), 0.80 (coder1 to author), and 0.77 (coder2 to author). For precision of standard, Kappas were 0.67 (coder1 to coder2), 0.74 (coder1 to author), and 0.68 (coder2 to author). For transaction structuring, Kappas were 0.71 (coder1 to coder2), 0.73 (coder1 to author), and 0.71 (coder2 to author). In general, agreement was high (Kappas of 0.8 indicate excellent agreement; Kappas of 0.4 indicate moderate agreement [Stokes et al. 2000]).

the investor has “significant influence” over the investee. This procedure therefore biases toward coding standards as imprecise. In Section IV we discuss how this aspect of our coding procedure affects our inferences.

Transaction Structuring. Whenever an attempt involved a change in the timing or nature of a contract, transaction or activity, as opposed to involving a judgment or estimation process, Structuring was coded as 1, and 0 otherwise. Examples of structured transactions include “not shipping a product available for shipment because the quarter had already reached budgeted level” (modifying timing of a transaction), “writing contract for revolving credit facility to not require any minimum payments within 12 months to avoid current liability recognition, even though the majority of cash receipts are applied to the balance” (modifying contract), “employing a third-party guarantor of residual value to allow capital-lease treatment for lessor and operating-lease treatment for lessee” (modifying transaction), and “hastening delivery of materials to shop floor to recognize revenue under percentage of completion method” (modifying activity).

Current-Year Income Effect (CIE). CIE was coded as 1 (–1) if the attempt increased (decreased) current-year income. CIE was 0 if the attempt had no clear CIE (e.g., “accruing large reserves and offsetting them with goodwill in a purchase-method acquisition”) or if the attempt 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).

IV. RESULTS

Descriptive Data about Attempts, Incentives, and Industries

Earnings Management Attempts

Column 2 of Table 2 lists attempts by the accounting areas included in the tables provided to list participants, ordered by the total frequency of responses.¹⁴ On average, attempts occurred 2.7 years prior to data collection (median 2 years), and almost all occurred within five years of data collection. Similar to prior analyses of SEC enforcement releases, many attempts involved revenue recognition (78/515 = 15 percent), but the most common attempts in our sample involve contingencies and reserves (178/515 = 35 percent). Numerous attempts also involved business combinations, fixed assets, intangibles, investments, and leases.

Incentives

Descriptive data about auditors’ beliefs about managers’ incentives for earnings management attempts are shown in Table 3. Consistent with prior research (for a recent review, see Fields et al. [2001]), Panel A provides evidence that attempts were associated with stock market and contracting incentives. The incentive identified most often was meeting analyst expectations (86 attempts), and auditors required adjustment of these attempts 28 percent of the time. Overall, stock-market-related incentives account for 56 percent (150/266) of specific primary incentives.

Some participants identified a particular financial statement effect or pattern as the primary reason for an attempt. Consistent with prior research, Panel B of Table 3 provides evidence that attempts were intended to affect income statement numbers, to smooth income, and to improve future income. Thirty-three percent (78/238) refer to smoothing or managing a trend, while 25 percent (59/238) involve increasing future income.

¹⁴ Comparisons (not shown) between list and no list respondents reveal very similar rankings of frequencies across the rows of Table 2. However, list respondents identified attempts in more areas, enhancing coverage of areas as intended. In all analyses, we combine list and no list responses.

TABLE 3
Auditors' Perceptions of Managers' Incentives for Attempting Earnings Management

	<i>Number of Attempts</i>	<i>Percent of Attempts Adjusted by Auditor</i>
<i>Panel A: Incentives Identified as Primary Motivation for Attempt^a</i>		
Related to Stock Market		
Analyst expectations	86	28
Stock price	29	56
Impending or new IPO or SEO	12	55
Mention investors	8	75
Selling company	8	75
SEC registrant	5	40
Do because market doesn't detect	<u>2</u>	<u>0</u>
Total	150	41
Related to Contracting and Cash Flows		
Executive Compensation		
Bonuses/incentives	22	50
Board expectations	<u>7</u>	<u>57</u>
Total	29	52
Debt		
Debt covenants	16	69
Maintain access to credit	5	80
Leverage	4	25
Bond ratings	<u>2</u>	<u>0</u>
Total	27	59
Concerned about reaction of parent	17	41
Other cash effects (e.g., minimizing accounting cost, negotiating contracts)	11	45
Privacy (e.g., concerned about competition, confidentiality)	8	62
Regulatory requirements	7	57
Politics	4	75
Taxes	<u>2</u>	<u>50</u>
Total Contracting/Cash Flows	105	56
Clarity (e.g., trying to better reflect economics, avoid confusion)	<u>11</u>	<u>36</u>
Total Specific Incentives	266	47

(Continued on next page)

TABLE 3 (Continued)

	<i>Number of Attempts</i>	<i>Percent of Attempts Adjusted by Auditor</i>
<i>Panel B: Particular Numbers/Patterns Identified as Primary Motivation for Attempt^b</i>		
Focus on Statements/Numbers		
Current income statement	47	51
Income target or projection	32	53
Avoiding loss	14	50
Current balance sheet	6	33
EBITDA	<u>2</u>	<u>0</u>
Total	101	49
Smoothing Income		
Smoothing	36	28
Trend/growth	16	50
Reserve for future	9	33
Spread over future periods	7	29
Conservative	4	25
Manage future earnings	3	33
Manage future expectations	2	50
Offset gains and losses	<u>1</u>	<u>0</u>
Total	78	33
Improve Future Income		
Increase future income	56	37
Load expenses into one year	<u>3</u>	<u>33</u>
Total	<u>59</u>	<u>37</u>
Total numbers/patterns	238	41
Other	<u>11</u>	<u>43</u>
Grand Total, Panels A and B	515	44

^a Panel A lists the frequency with which various incentives were identified by auditors as a manager's primary motivation for an earnings management attempt.

^b Panel B lists the frequency with which various financial statement numbers or patterns were identified by auditors as a manager's primary motivation for an earnings management attempt.

As noted by Fields et al. (2001), few studies examine whether combinations of incentives motivate attempts, focusing instead on proxies for one particular incentive. Our participants could mention more than one incentive for an attempt, so we can provide descriptive evidence on combinations of incentives. Results indicate that 24 percent of attempts for which a contracting incentive was mentioned also had a stock-market incentive mentioned. This was particularly apparent for attempts related to executive compensation, where 39 percent of attempts also had a stock-market incentive mentioned (often in the context of stock-based compensation plans).

Industries

Auditors identified the industry of the client for each attempt, and also indicated the proportion of time they had spent auditing clients in various industries. Absent industry

effects, we would expect the proportion of attempts reported for each industry to equal the proportion of time auditors spent auditing clients in that industry. While this is generally the case, we find more attempts in the electronics industry than would be suggested by respondents' experience ($p < .001$), particularly attempts that involve bill-and-hold revenue-recognition problems and problems with inventory reserves, and fewer attempts by not-for-profits ($p < .001$).

Hypothesis Tests

Paralleling Section II, we first discuss analyses of precision and structuring, then consider current-year income effects (CIE) and the effects of client size and materiality. Table 1 lists hypotheses and results.

Precision of Standards and Transaction Structuring

Table 4, Panel A shows a 2×2 contingency table of managers' earnings management attempts, crossing precision and structuring. Panel B shows the results of a loglinear analysis of the effect of precision and structuring on the relative frequency of attempts.¹⁵ Consistent with H1, there is a significant interaction between precision and structuring, with 69 percent (46/67) of structured transactions associated with precise standards (Chi-square = 8.86; $p < .0029$), and 35 percent (156/448) of unstructured transactions associated with precise standards (Chi-square = 39.96; $p < .0001$).

Table 5, Panel A shows the percentage of managers' attempts that auditors adjusted, by precision and structuring.¹⁶ Panel B shows the results of a logistic regression of adjust (EMA adjusted = 1; attempt not adjusted = 0) on precision, structuring, the precision \times structuring interaction, materiality and size (no other interactions are significant).¹⁷ Consistent with H2, the precision \times structuring interaction is significant ($p < .0024$).¹⁸

Comparing cells of Table 5, Panel A clarifies these results. Structured attempts to manage earnings, whether against precise or imprecise standards, were usually successful (i.e., 21 percent were adjusted).¹⁹ In fact, in ten instances auditors noted that they had helped structure the transaction to ensure compliance with GAAP. Unstructured attempts

¹⁵ Analyses of managers' attempt decisions were performed via loglinear models using Proc Catmod (SAS v. 8). As described by Stokes et al. (2000, chapter 16), loglinear analyses treat all variables as response variables and test for statistical dependence and independence (analogous to correlation analysis). Loglinear models make use of the fact that statistical independence can be expressed in terms of a linear combination of the logarithms of the cell probabilities in a contingency table. A low p-value associated with a variable indicates a high probability that cell probabilities are not independent of that variable.

¹⁶ Of 515 total attempts, 226 were adjusted. 110 attempts were not adjusted because the auditor believed the client had demonstrated compliance with GAAP, 88 because the auditor did not have convincing evidence that the client's position was incorrect, and 91 for some other reason. For 66 of those 91, the stated reason was immateriality. We use a binary adjustment variable in analyses because a finer distinction among adjustment decisions is subjective and therefore difficult to interpret. For example, an auditor faced with a potentially overstated bad debt expense might justify no adjustment by saying that the reserve was permitted under GAAP, that the auditor accepted management's estimate, or that the income effect was immaterial.

¹⁷ Analyses of auditors' adjustment decisions were performed using Proc Logistic (SAS v. 8).

¹⁸ Two simple effects in the precision \times structuring interaction are significant. First, when standards are precise, the proportion of attempts adjusted when transactions are not structured (62 percent) exceeds the proportion adjusted when transactions are structured (15 percent; Chi-square = 25.06; $p < 0.0001$). Second, when transactions are not structured, the proportion of attempts adjusted when standards are precise (62 percent) exceeds the proportion adjusted when standards are imprecise (39 percent; Chi-square = 20.72; $p < 0.0001$).

¹⁹ Imprecise standards (by our coding criteria) may exhibit a relatively high level of precision. For example, "bill and hold" revenue recognition criteria from AAER No. 108 and cost/equity method criteria from APB No. 18 have an element of imprecision, so were coded as precision = 0, but still provide opportunities for structuring transactions.

TABLE 4
Attempts to Manage Earnings

Panel A: Manager Attempts by Precision of Accounting Standard and Transaction Structuring

	<u>Transaction Not Structured</u>	<u>Transaction Structured</u>	<u>Total</u>
Low Precision	292	21	313
High Precision	<u>156</u>	<u>46</u>	<u>202</u>
Total	448	67	515

Panel B: Manager Attempts: Loglinear Analysis of the Effects of Precision and Structuring^a

Maximum Likelihood Analysis of Variance

<u>Source</u>	<u>Chi-Square</u>	<u>Pr > ChiSq</u>
precision	0.31	0.5764
structuring	187.51	< 0.0001
precision × structuring	25.14	< 0.0001**

** p < 0.05 with respect to hypothesis test.

^a The loglinear analysis in Panel B examines how the frequencies with which attempts appear in the cells of Panel A are influenced by precision and structuring (for further discussion of loglinear models, see Stokes et al. [2000]). Precision = 1 if standard precise, 0 if standard not precise; and Structuring = 1 if transaction structured, 0 if transaction not structured.

governed by imprecise standards also were usually successful (with 39 percent adjusted). However, unstructured attempts governed by precise standards were usually unsuccessful (with 62 percent adjusted). Examples include “treating as sales normal inventory that had not been shipped before year end,” “setting up unsupported accruals for unspecified future losses,” and “issuing stock options to employees below market price and not recording compensation expense.” Auditors’ comments indicated that these attempts often reflected lack of knowledge on the part of managers about the relevant accounting standards.

Current-Year Income Effect

Before adding current-year income effect (CIE) to the analysis, we drop observations that lack a clear CIE (i.e., for which CIE = 0), reducing our sample to 431 attempts. Table 6, Panel A shows managers’ attempts in a 2 × 2 × 2 (precision × structuring × CIE) classification table. Panel B shows the results of a loglinear analysis of the effect of precision, structuring, and CIE on the relative frequency of attempts. Consistent with H1, precision interacts with structuring. Consistent with H3, we find that 63 percent (272/431) of attempts increase income.²⁰ Consistent with H4, managers are more likely to decrease income with attempts governed by imprecise standards. Consistent with H5, managers are more likely to decrease income with attempts that are not structured. Overall, these results

²⁰ The significance of CIE in the loglinear analysis is incremental to the significance of the CIE × structuring and CIE × precision interactions. However, a test of equal proportions indicates that the proportion of CIEs that are income increasing (63 percent) differs significantly from 50 percent (Chi-square = 29.63; p < 0.0001).

TABLE 5
Auditors' Adjustment Decisions

Panel A: Percentage of Attempts That Were Adjusted by the Auditor, by Precision of Accounting Standard and Transaction Structuring^a

	<i>Transaction Not Structured</i>	<i>Transaction Structured</i>	<i>Total</i>
Low Precision	115/292 = 39	7/21 = 33	122/313 = 39
High Precision	97/156 = 62	7/46 = 15	104/202 = 51
Total	212/448 = 47	14/67 = 21	226/515 = 44

Panel B: Auditor Adjustment Decision: Logit of Precision, Structuring, Materiality, and Client Size^b

<i>Parameter</i>	<i>Estimate</i>	<i>Standard Error</i>	<i>Wald Chi-Square</i>	<i>Pr > ChiSq</i>
Intercept	-1.4123	0.3731	14.3312	0.0002
precision	1.2306	0.2389	26.5366	< 0.0001
structuring	-0.4669	0.4932	0.8961	0.3438
precision × structuring	-2.0674	0.6800	9.2431	0.0024**
materiality	1.9698	0.2835	48.2882	< 0.0001**
size	-0.1957	0.0707	7.6554	0.0057**

** p < 0.05 with respect to hypothesis test.

^a Cell formats are (number of attempts adjusted/total number of attempts = %).

^b The dependent variable in the logit is adjust (auditor required adjustment of the attempt = 1, auditor did not require adjustment of the attempt = 0).

Precision = 1 if standard precise, 0 if standard not precise;

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; and

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.

suggest that managers are more likely in general to make earnings management attempts that increase current income, but are more likely to decrease current income with unstructured transactions and with transactions that involve imprecise standards.

Table 7, Panel A shows the percentage of attempts adjusted by auditors, by CIE, precision, and structuring. Panel B contains a reduced logit model that omits insignificant interactions.²¹ Consistent with H2, precision interacts with structuring. Consistent with H6, auditors are significantly more likely to adjust attempts that increase current-year income.

²¹ Pearson and Spearman correlations indicate some collinearity ($r < 0.25$ but $p < 0.05$) between independent variables (particularly between precision, structure and the precision × structuring interaction, and between size, CIE and materiality). Collinearity often decreases the significance of variables and therefore biases away from supporting hypotheses, 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 et al. 1983).

TABLE 6
Attempts to Manage Earnings by Current-Period Income Effect

Panel A: Manager Attempts to Manage Earnings, by Current-Year Income Effect, Precision of Accounting Standard, and Transaction Structuring

	<i>Transaction Not Structured</i>		<i>Transaction Structured</i>		<i>Total</i>
	<i>Low Precision</i>	<i>High Precision</i>	<i>Low Precision</i>	<i>High Precision</i>	
Income-Increasing	136	91	16	29	272
Income-Decreasing	<u>113</u>	<u>42</u>	<u>0</u>	<u>4</u>	<u>159</u>
Total	249	133	16	33	431

Panel B: Manager Attempts: Loglinear Analysis of the Effects of Current-Year Income Effect, Precision and Structuring^a

<i>Maximum Likelihood Analysis of Variance</i>		
<i>Source</i>	<i>Chi-Square</i>	<i>Pr > ChiSq</i>
CIE	15.61	< 0.0001**
precision	1.20	0.2726
structuring	58.71	< 0.0001
precision × structuring	8.61	0.0033**
CIE × precision	6.78	0.0092**
CIE × structuring	4.57	0.0325**

** $p < 0.05$ with respect to hypothesis test.

^a The loglinear analysis in Panel B examines how the frequencies with which attempts appear in the cells of Panel A are influenced by precision, structuring and CIE (for further discussion of loglinear models, see Stokes et al. [2000]).

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

Precision = 1 if standard precise, 0 if standard not precise; and

Structuring = 1 if transaction structured, 0 if transaction not structured.

Materiality and Client Size

Analyses in Tables 5 and 7 indicate that, consistent with H7, auditors are more likely to adjust attempts they label as material. When auditors considered an attempt to be material, it was adjusted 53 percent (199/376) of the time; when auditors considered an attempt to be immaterial, it was adjusted 17 percent (22/130) of the time (materiality ratings were not available for nine observations). These results must be interpreted with caution, because we do not know the dollar amounts of attempts or auditors' quantitative materiality thresholds. However, given that participants were asked to describe "experiences where companies attempted to materially manage earnings," they probably believed at some point that the attempts were material. To the extent that attempts that are not adjusted due to immateriality actually are material, this result is consistent with regulatory concern (e.g., Levitt

TABLE 7
Auditors' Adjustment Decisions by Current-Period Income Effect

Panel A: Percentage of Attempts That Were Adjusted by the Auditor, by Current-Year Income Effect, Precision of Accounting Standard, and Transaction Structuring^a

	<i>Transaction Not Structured</i>		<i>Transaction Structured</i>		<i>Total</i>
	<i>Low Precision</i>	<i>High Precision</i>	<i>Low Precision</i>	<i>High Precision</i>	
Income-Increasing	63/136 = 46	65/91 = 71	7/16 = 44	7/29 = 24	142/272 = 52
Income-Decreasing	43/113 = 38	17/42 = 40	0/0	0/4 = 0	60/159 = 38
Total	106/249 = 42	82/133 = 61	7/16 = 44	7/33 = 21	202/431 = 47

Panel B: Auditor Adjustment Decision: Logit of Precision, Structuring, CIE, Materiality, and Client Size^b

<i>Parameter</i>	<i>Estimate</i>	<i>Standard Error</i>	<i>Wald Chi-Square</i>	<i>Pr > ChiSq</i>
Intercept	-1.1910	0.3964	9.0283	0.0027
precision	1.0025	0.2573	15.1793	< .0001
structuring	-0.2100	0.5513	0.1451	0.7033
precision × structuring	-1.8772	0.7358	6.5080	0.0107**
CIE	0.2595	0.1162	4.9895	0.0255**
materiality	1.7239	0.2965	33.8092	< .0001**
size	-0.1811	0.0759	5.6894	0.0171**

** p < 0.05 with respect to hypothesis test.

^a Cell formats are (number of attempts adjusted/total number of attempts = %).

^b The dependent variable in the logit is adjust (auditor required adjustment of the attempt = 1, auditor did not require adjustment of the attempt = 0).

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

Precision = 1 if standard precise, 0 if standard not precise;

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; and

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.

1998) and recent experimental findings (Braun 2001; Libby and Kinney 2000) that auditors sometimes justify not adjusting potentially material attempts by labeling them as immaterial.

Analyses in Tables 5 and 7 also indicate that, consistent with H8, auditors are more likely to adjust their smallest clients' attempts. Attempts made by the smallest clients (annual net sales of \$50 million or less) were adjusted 62 percent (56/91) of the time, while attempts made by the largest clients (annual net sales of \$1 billion or greater) were adjusted

28 percent (38/134) of the time.²² This result may indicate that larger clients have more accounting sophistication, or that auditors are more willing to allow earnings management by their most important clients.

Adjustment Decisions, by Financial Accounting Area

The results of our analyses indicate that precision of standards, transaction structuring, and CIE are related to attempt and adjustment decisions. Table 2 presents the percentage of attempts adjusted, by accounting area and CIE, and also lists the percent of attempts in each area that were associated with a precise standard and that were structured. Several patterns in Table 2 are consistent with the results of our hypothesis tests. First, attempts involving reserves are likely to decrease current income, and attempts involving reserves and intangibles are likely to be unstructured and to involve imprecise standards, consistent with their relatively low adjustment percentage (35 percent and 44 percent, respectively). Attempts involving leases, compensation, and consolidations and equity vs. cost method are likely to be structured against precise standards, consistent with their low adjustment percentage (39 percent, 16 percent, and 27 percent, respectively). Attempts involving revenue-recognition, investments, and transfers of receivables tend to increase current-period income. Therefore, while these attempts are made frequently, they are more often than not adjusted. Finally, further analyses (not shown) indicate that non-reserve business combination attempts are usually not adjusted when they decrease current income (e.g., expensing in-process R&D) or when they are structured around precise standards (e.g., to enable pooling), but are usually adjusted otherwise, consistent with the effect of CIE and the precision \times structuring interaction identified in analyses of auditors' adjustment decisions. Fixed-asset attempts are difficult to reconcile with our analyses, since they are more likely to be adjusted when they decrease current-year income.

V. SUMMARY, IMPLICATIONS, LIMITATIONS, AND DIRECTIONS FOR FUTURE RESEARCH

In this study, we analyze auditors' recalled experiences with clients who they believe are attempting to manage earnings. This approach allows us to identify earnings management attempts for description and analysis, to separate managers' attempt decisions from auditors' decisions about whether to require adjustment of attempts, and to examine the effects of general factors on these decisions. Our sample contains earnings management attempts in a variety of accounting areas (most frequently, with respect to reserves), motivated by a variety of incentives (most frequently, to affect the stock market), and in a variety of industries.

Our results indicate that precision and structuring interact in managers' and auditors' decisions: when transaction structuring is involved, managers are more likely to make attempts (and auditors are less likely to adjust attempts) that are governed by precise standards, and when transaction structuring is not involved, managers are more likely to make attempts (and auditors are less likely to adjust attempts) that are governed by imprecise standards. Managers tend to make attempts that increase current-year income, but auditors are more likely to adjust these attempts. Managers are more likely to make attempts that decrease current-year income when standards are imprecise and/or with unstructured transactions. Auditors are more likely to adjust attempts they consider material and attempts made by small clients.

²² Additional analyses (not shown) indicate a size effect when the sample is restricted to include only material, income-increasing, non-GAAP attempts. Specifically, when attempted by clients of the smallest size category (annual net sales of \$50 million or less), 88 percent (37/42) were adjusted; when attempted by clients of the largest size category (annual net sales of \$1 billion or greater), 54 percent (15/28) were adjusted.

Our results shed light on the auditor's role in reducing earnings management. Most prior studies infer earnings management from issued financial reports, and therefore cannot address the effectiveness of the audit function in thwarting earnings management attempts. Many attempts in our sample were adjusted by auditors, particularly when the attempt would have increased current-year income. Our results probably understate auditors' role, as we have no way of assessing the extent to which knowledge of an impending audit deters managers from even attempting earnings management.

Second, our results highlight general factors that affect where earnings management is attempted and left unadjusted. This evidence may be of interest to regulators and standard setters. Our results imply that managers respond to increased precision by structuring attempts more often and by making fewer income-decreasing attempts. Our results also imply that auditors respond to increased precision by adjusting unstructured attempts more often and structured attempts less often. Consistent with regulatory concerns, our results indicate that auditors are relatively less likely to adjust current-period-income-decreasing attempts, even though such attempts may allow managers to increase income in a future period, and that auditors are less likely to adjust attempts made by their larger clients.

Our study is subject to limitations. First, the validity of our results depends on the accuracy of our survey data. Some earnings management attempts may be underrepresented because they are experienced more by auditors who did not respond to our survey, or because they are difficult for auditors to detect or recall. Other attempts could be overrepresented because they are salient (e.g., those mentioned in press coverage of former SEC Chairman Levitt's "Numbers Game" speech a month prior to data collection). A related concern is self-serving responses, in which auditors recall having behaved more appropriately than they actually did. Any such self-serving bias would tend to understate the proportion of attempts reported as not adjusted, particularly those not adjusted for reasons other than compliance with GAAP. Therefore, our evidence that 56 percent of attempts were not adjusted may understate the extent to which detected attempts are not adjusted in practice. In general, these concerns are less likely to affect the analyses of general factors (particularly interactions) than they are to affect the frequency of recalled individual attempts or adjustment decisions.

A second limitation is that audit-client-confidentiality conditions, which prohibit us from knowing the identities of the sample companies, preclude linking our results to stock market performance or to firm-specific or market variables that we did not elicit. In addition, our sample includes only earnings management attempts, so we cannot examine factors affecting the likelihood managers will attempt earnings management or auditors will detect an attempt—our results are conditioned on earnings management having been identified and recalled by the auditor. Finally, we cannot assess the extent to which the presence of auditors deters managers from attempting earnings management.

Our results suggest opportunities for future research. Because our data provide a baseline of managers' and auditors' behavior prior to the recent economic downturn and flurry of earnings-management-related speeches, SABs, and SASs, a future replication could refer to this baseline to assess change. We would expect that the relative proportions of various types of attempts might vary in different contexts, but the directional significance of main effects and interactions would be robust to changes in context. Our results could guide creation of auditor training materials or decision aids that help auditors identify attempts and consider whether they should be adjusted. The relative frequencies of attempt areas and incentives that we document may better focus archival and experimental researchers on the areas in which earnings management attempts are most frequent.

APPENDIX INSTRUCTIONS

[Note: “No list” participants received a version that included only the unbracketed text. “List” participants received a version that replaced the “In the pages that follow...” sentence with the bracketed text, and also received 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].**

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