

Do Managers Trade Off Expectations Management for Earnings Management?

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ABSTRACT: The extant literature generally treats expectations management and earnings management as complementary ways firms use to avoid negative earnings surprises. We investigate circumstances under which managers substitute expectations management for earnings management for the purpose of avoiding negative earnings surprises. We hypothesize and demonstrate that when a firm's ability to manage earnings upward is constrained, it is relatively less likely to avoid negative earnings surprises but, when it does avoid negative earnings surprises, it is relatively more likely to exhibit downward expectations management. Our results hold for both types of earnings management constraints we examine: inflated balance sheets and independent audits. Our findings suggest that regulatory attempts to constrain earnings management are likely to be only partially successful at curbing the earnings surprise game. When constrained in their ability to manage accounting earnings upward, managers use downward expectations management as a substitute means to achieve their goal of avoiding negative earnings surprises.

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1. Introduction

Many studies have examined managers' propensity to report earnings that meet or beat analyst estimates (DeGeorge et al. 1999; Brown 2001; Bartov et al. 2002; Lopez and Rees 2002; Matsumoto 2002) to avoid the negative valuation consequences of reporting negative earnings surprises (Skinner and Sloan 2002). Firms can avoid negative earnings surprises in one or more of the following ways: (1) positive earnings innovations occur due to real events; (2) managers 'manage' accounting earnings upward; and (3) managers 'manage' analyst earnings forecasts downward.¹ While positive earnings innovations due to real events are presumably outside management control, managers can employ earnings management and/or expectations management to avoid negative earnings surprises. The extent to which managers trade off between these two tactics is an uninvestigated issue which we explore in this study.

A vast amount of literature has examined earnings management (see Healy and Wahlen 1999 for a review) as a mechanism firms use to avoid negative earnings surprises. Expectations management or guidance of analyst forecasts has received far less attention. Studies that do consider expectations management generally treat analyst guidance and earnings management as complementary tactics (Barton and Simko 2002; Burgstahler and Eames 2002; Matsumoto 2002). We posit that, in certain circumstances, expectations management substitutes for, rather than complements, earnings management. In particular, we conjecture that managers substitute expectations management for earnings management when their ability to manage earnings is constrained. We contend that when their ability to manage earnings is constrained, firms are

¹ Consistent with much of the literature, we define an earnings surprise as the difference between reported earnings and the most recent analyst forecast, and we use the terms "avoid negative earnings surprise" and "meet or beat analyst estimates" synonymously.

relatively less likely to avoid negative earnings surprises, but when they do avoid negative earnings surprises, they are more likely to exhibit downward forecast guidance.

We examine two constraints to earnings management: (1) a firm's balance sheet is inflated due to previous income-increasing earnings management (Barton and Simko 2002), and (2) an annual audit. Firms with inflated balance sheets are constrained in their ability to manage earnings upward because they lack flexibility to create positive discretionary accruals. A financial statement audit is a monitoring mechanism which constrains firms' abilities to manage earnings upward (Becker et al. 1998). While annual financial statements are subject to independent audits, interim reports generally are not audited, providing firms with relatively greater opportunities to manage interim versus annual earnings (Jeter and Shivakumar 1999).²

We use the Bartov et al. (2002) procedure to proxy for expectations management and we adopt the Barton and Simko (2002) procedure to measure the degree of a firm's balance sheet inflation.³ We apply both cross-sectional and temporal techniques to a sample of firm-quarters and firm-years spanning the 11 year period, 1993 to 2003. In the context of balance sheet inflation, Barton and Simko (2002) document that firms whose balance sheets are more inflated are less likely to avoid negative earnings surprises. Using discretionary accruals as a proxy for earnings management, Su (2005) demonstrates that balance sheet inflation is negatively related to earnings management.⁴ The collective evidence from these studies suggests that inflated

² Our simplifying assumption that annual earnings are audited and interim earnings are unaudited, while imprecise, imposes a conservative bias, making it more difficult to find differences in earnings management and expectations management between interim and annual reporting periods.

³ We are grateful to Jan Barton for providing us with the Barton-Simko data, which enabled us to determine how to define balance sheet inflation consistent with their study. We did not use their data in our analyses.

⁴ We wish to provide new evidence rather than replicate findings already documented in prior studies. Barton and Simko's (2002) sample period ends in 1999. Because there have been significant changes in the regulatory environment in recent years which could have an impact on observed earnings surprises, we validate (but do not tabulate) Barton and Simko's finding that the likelihood of meeting or beating analyst forecasts decreases with balance sheet inflation with our sample which spans 1993 to 2003. Because Su's (2005) sample period spans 1993 to 2002 which by in large parallels ours, we do not replicate her results.

balance sheets constrain firms' ability to manage earnings upward. We extend this stream of literature in three ways. First, we show that when firms do meet or beat analysts' expectations, balance sheet inflation is positively associated with managers' proclivity to manage analyst estimates downward. Second, we demonstrate that firms whose balance sheets become more inflated over time are less likely to avoid negative earnings surprises. Third, we document that when a firm's balance sheet inflation increases over time but the firm still avoids a negative earnings surprise, it becomes more likely to manage analyst expectations downward.

We are unaware of any studies that examine whether earnings management differs between interim and annual reporting periods. We contend that audits constrain income-increasing earnings management, and we provide evidence consistent with this notion by showing that discretionary accruals are more positive in interim (unaudited) than annual (audited) reporting periods. Consistent with our hypotheses, we document that the annual audit is negatively associated with a firm's proclivity to meet or beat analyst estimates and, conditional on avoiding a negative earnings surprise, the annual audit is positively associated with a firm's proclivity to manage expectations downward.

Our evidence is consistent with our contention that managers trade off expectations management for earnings management. The fact that our earnings management constraint variables are negatively related to meeting or beating analyst forecasts, but positively related to expectations management provides compelling evidence that when earnings management is constrained, expectations management serves as a substitute mechanism to achieve the firm's objective of meeting or beating the analyst expectation.

Our study makes several contributions. We are the first researchers to investigate whether firms substitute expectations management for earnings management in order to avoid

negative surprises. Bhattacharya et al. (2003) and Leuz et al. (2003) show that countries with relatively strong investor protection exhibit less upward earnings management. Brown and Higgins (2005) demonstrate that countries with relatively strong investor protection exhibit more downward expectations management. While the combined evidence from these two studies suggests that expectations management is a substitute to earnings management in an international context when investor protection is strong, no study has jointly examined earnings management and expectations management and the extent to which managers trade off these two mechanisms to avoid negative earnings surprises.

We extend the extant literature by examining differences in negative earnings surprise avoidance, earnings management, and expectations management in interim versus annual reporting periods. Our investigation provides insights into the effectiveness of audits as an earnings management constraint. Furthermore, our study deepens our understanding of the trade off between earnings management and expectations management. Specifically, we provide cross-sectional evidence that expectations management is more likely to be used when earnings management is constrained, i.e., in the presence of balance sheet inflation or an audit. We also help validate Barton and Simko's (2002) conjecture that the balance sheet acts as an earnings management constraint by providing temporal evidence that when balance sheets become more (less) inflated, firms become less (more) likely to avoid negative earnings surprises. In support of the notion that earnings management and expectations management are substitutes, we offer temporal evidence that when a firm's balance sheet becomes more (less) inflated, it becomes more (less) likely to use expectations management to accomplish its goal of meeting or beating analysts' expectations.

Our investigation offers academics, practitioners and regulators a better understanding of how managers go about avoiding negative surprises. Our findings imply that regulatory attempts to constrain earnings management are likely to be only partially successful at curbing the earnings surprise game (Levitt 1998; Eccles et al. 2001). When constrained in their ability to manage earnings upward, managers are more likely to use downward expectations management as an alternative means to avoid negative earnings surprises.

We proceed as follows. Section 2 discusses related literature. Section 3 derives our hypotheses. Section 4 describes our data and methodology. Section 5 presents results and Section 7 concludes.

2. Related Literature

Using data from 1976-1995, Degeorge et al. (1999) show that managers seek to avoid negative earnings surprises, but that they are even keener to avoid losses or earnings decreases. Brown (2001), Bartov et al. (2002), Lopez and Rees (2002), and Matsumoto (2002) document that firms' propensity to avoid negative surprises has increased over time, suggesting that the hierarchical order proposed by Degeorge et al. may not be valid in recent years. Brown and Caylor (2005) demonstrate that, since the mid 1990's (but not before then), firms' propensity to avoid negative surprises exceeds their tendency to avoid either losses or earnings decreases. Similarly, in a survey of 401 financial executives and in-depth interviews with an additional 20 executives, Graham et al. (2005) find that the majority of managers would avoid initiating a positive net present value project if it would produce earnings that fall short of the current quarter's consensus forecast. The collective evidence suggests that managers are keen to avoid negative earnings surprises.

To meet or beat analyst expectations, firms are likely to employ varying degrees of earnings management and expectations management tactics. Matsumoto (2002) examines firms' avoidance of negative earnings surprises in the context of both earnings management and expectations management. She considers management of analyst forecasts and management of earnings as complementary ways firms use to avoid negative earnings surprises.⁵ Consistent with this notion, other studies that examine both earnings management and expectations management treat the two mechanisms as complementary tactics firms use to avoid negative surprises (e.g., Barton and Simko 2002; Bartov et al. 2002; Burgstahler and Eames 2002). While it generally is reasonable to suppose that earnings management and expectations management are complements, when constraints to earnings management exist, firms are likely to rely relatively more on expectations management to achieve their goal of avoiding negative surprises.⁶

Barton and Simko (2002) examine the balance sheet as a constraint to earnings management and posit that when a firm's balance sheet becomes too inflated because of previous income-increasing earnings management, it loses its ability to manage earnings upward because it has used up most of its potential to create positive discretionary accruals. The authors argue that meeting or beating analyst forecasts is a strong incentive for upward earnings management. Using data from 1993 to 1999, they demonstrate that firms with inflated balance sheets are less likely to meet or beat analyst forecasts. Su (2005) extends Barton and Simko (2002) by showing that balance sheet inflation is negatively related to contemporaneous discretionary accruals and

⁵ From her three models, it is evident that Matsumoto (2002) treats earnings management and expectations management as complements. She models each of a firm's propensity to (1) avoid negative earnings surprises, (2) manage reported earnings upward, and (3) manage analyst estimates downward as a function of the same independent variables for which she has the same expected sign.

⁶ While such an empirical analysis is beyond the scope of our study, it is also reasonable to suppose that when expectations management is constrained, managers are more likely to engage in earnings management.

that firms with inflated balance sheets use less earnings management for the purpose of meeting or beating analyst estimates.

Barton and Simko (2002) and Su (2005) undertake cross-sectional analyses. Neither study examines whether temporal changes in a firm's balance sheet inflation are associated with changes in its propensity to avoid negative earnings surprises. Moreover, neither study investigates the relation between balance sheet inflation and expectations management. Using data from 1993 to 2003, we show that temporal changes in a firm's balance sheet inflation are negatively associated with temporal changes in its propensity to avoid negative surprises, providing new (temporal) evidence in support of Barton and Simko's claim that an inflated balance sheet acts as an earnings management constraint. We also provide new evidence that balance sheet inflation is positively associated with expectations management, and that temporal changes in balance sheet inflation are positively related to temporal changes in expectations management.

Becker et al. (1998) investigate the relation between audit quality and earnings management, and show that external auditors constrain managerial discretion. While annual reports are subject to independent audits, interim reports generally are not. Thus, managers have fewer opportunities to manage annual versus interim earnings (Jeter and Shivakumar 1999). Earnings management studies tend to employ annual data (e.g., Burgstahler and Dichev 1997; Dechow, Sloan, and Sweeney 1995) or quarterly data (e.g., Myers and Skinner 1999) but not both. While the literature has examined differences in the extent of earnings management across quarters (e.g. Jeter and Shivakumar 1999), we are unaware of any study that examines differences in the extent of earnings management in annual versus interim reports. We document that the likelihood of avoiding a negative earnings surprise is greater in interim than annual

reports; that discretionary accruals are more positive in interim than annual reports; and that the likelihood of expectations management is greater in annual than interim periods. Our results are consistent with the notion that firms rely relatively more on expectations management when an independent audit curtails their ability to manage reported earnings.

3. Hypothesis Development

Consider a firm seeking to avoid a negative earnings surprise, the outcome of a stochastic process, and that its managers are considering two ways to achieve this desired result. One way is to manage analyst estimates downward at a cost function of X , which includes the cost of negative stock price reactions to downward analyst revisions (Stickel 1991). Another way is to manage reported earnings upward at a cost function of Y , which includes the cost of being sued if it is contended that earnings management is fraudulent (Feroz, Park and Pastena 1991). Assume that the cost of X rises as the amount of expectations management increases (i.e., more recalcitrant analysts need to be persuaded to play the game), the cost of Y rises as the amount of earnings management increases (i.e., the firm is more likely to commit fraud rather than engage in more benign earnings management games), and that the firm is in equilibrium, achieving its negative surprise avoidance goal Z percent of the time. Now assume that the cost function of managing accounting earnings increases from Y to Y^* while the cost function of managing analyst forecasts remains constant at X . Basic economic theory dictates that the firm will now achieve its desired result only Z^* percent of the time, where Z^* is less than Z . To increase the probability that the firm achieves its goal of avoiding negative surprises, it will substitute management of analyst expectations (whose relative cost has fallen) for management of accounting earnings (whose relative cost has risen). Our two hypotheses follow:

H₁: Firms that are relatively more constrained in their ability to manage earnings upward are less likely to avoid negative earnings surprises.

H₂: Firms avoiding negative earnings surprises that are relatively more constrained in their ability to manage earnings upward are relatively more likely to exhibit downward expectations management.

Barton and Simko (2002) provide evidence consistent with our first hypothesis with respect to balance sheet inflation as an earnings management constraint. As we wish to provide only new evidence, we limit our tests of H₁ to differences in negative surprise avoidance in interim versus annual reports. The extant literature offers no evidence regarding the substitution of expectations management for earnings management in either of the contexts we consider so we test H₂ using both of our earnings management constraint variables. H₁ and H₂ above are stated in the context of a point in time, making them well suited for cross-sectional tests. The current literature provides no evidence with respect to the effect of temporal changes in earnings management constraints. We wish to examine the effect of temporal changes in constraints to earnings management so we also formulate our hypotheses in a temporal vein (H₁' and H₂').

H₁': When a firm becomes relatively more constrained in its ability to manage earnings upward, it is less likely to avoid negative earnings surprises.

H₂': When a firm that does avoid negative earnings surprises becomes relatively more constrained in its ability to manage earnings upward, it becomes relatively more likely to engage in downward expectations management.

The temporal variants of our two hypotheses are testable only in the context of balance sheet inflation because temporal counterparts for interim versus annual reports do not exist.

4. Data and Methodology

4.1 Data

4.1.1 Balance Sheet Inflation

Our sample spans the 11 year period, 1993 to 2003, and consists of firm-quarter observations with all necessary Compustat and I/B/E/S data to measure balance sheet inflation,

the earnings surprise and expectations management. Consistent with Barton and Simko (2002), we use the magnitude of scaled net operating assets (SNOA) to proxy for the extent of balance sheet inflation. A relatively large SNOA ratio indicates a relatively inflated balance sheet. SNOA is computed as beginning of period stockholders' equity minus cash and short-term investments plus short-term and long-term debt, divided by current period sales, requiring our sample to have the following quarterly Compustat data: net sales (Data2), cash and short term investments (Data36), short-term debt (Data45), long-term debt (Data51), and total stockholders' equity (Data60). Consistent with Barton and Simko (2002), SNOA is winsorized at its 1st and 99th percentiles.

We define negative surprise avoidance and expectations management using the Bartov et al. (2002) methodology. Specifically, a firm avoids a negative surprise if its actual earnings are greater than or equal to the last analyst forecast made prior to the current quarter's actual earnings announcement.⁷ All the remaining quarterly observations are categorized as failing to avoid negative surprises. We use this dichotomy to test both the cross-sectional and temporal variants of our first hypothesis. Firms are considered to manage expectations in firm-quarters with both a negative forecast error and a nonnegative earnings surprise, where the forecast error is defined as actual earnings less the first analyst forecast made after announcement of the prior quarter's actual earnings, and the earnings surprise is defined as actual earnings less the last analyst forecast made before the announcement of the current quarter's earnings. All other firm-quarters are coded as exhibiting no expectations management. We use this dichotomy to test the cross-sectional and temporal variants of our second hypothesis.

⁷ Consistent with most of the literature, we use the same data source (in our case I/B/E/S) for both actual and forecasted earnings.

Consistent with Bartov et al. (2002), we require firm-quarters to satisfy the following criteria: (1) at least two individual earnings forecasts (not necessarily by the same analyst) are made at least 20 trading days apart; (2) release date of the earliest forecast is at least three trading days after the release of the previous quarter's earnings; and (3) release date of the last forecast precedes the earnings release date by at least three days.⁸ After invoking these constraints and excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67), we have 28,132 firm-quarters to test H_2 , and 4,044 and 1,945 firm-quarters to test $H_{1'}$ and $H_{2'}$, respectively, based on the notion of balance sheet inflation. H_2 and $H_{2'}$ pertain only to quarters in which firms avoid negative earnings surprises; hence, our tests of H_2 and $H_{2'}$ are limited to firm-quarters with nonnegative earnings surprises.

4.1.2 Interim versus Annual Reporting Periods

4.1.2.1 Hypothesis Testing

Consistent with our balance sheet inflation tests, the sample we use to test differences in interim versus annual periods spans the 11 year period, 1993 to 2003. The sample consists of interim and annual observations with all necessary data on I/B/E/S to measure the earnings surprise and expectations management. For interim firm-quarter observations, we define negative surprise avoidance and expectations management as in the previous section. We employ an equivalent approach for firm-year observations. A negative earnings surprise is avoided when actual earnings are greater than or equal to the last analyst forecast made prior to the current year's actual earnings announcement. All the remaining annual observations, namely those where actual earnings are less than the last analyst forecast made prior to the current year's actual earnings announcement, are categorized as failing to avoid negative surprises. We use this

⁸ For the latter two criteria, when more than one forecast is released on this day, we use the average value of the forecasts.

dichotomy to test the cross-sectional version of our first hypothesis based on the notion of audited versus unaudited earnings. Firms are considered to have managed expectations in firm-years with a negative forecast error and a nonnegative earnings surprise, where the forecast error is defined as actual earnings less the first analyst forecast made after announcement of the prior year's actual earnings, and the earnings surprise is defined as actual earnings less the last analyst forecast made before announcement of the current year's actual earnings. All other firm-years are coded not exhibiting expectations management. We use this dichotomy to test the cross-sectional version of our second hypothesis based on the notion of audited versus unaudited earnings.

We require firm-years to satisfy the following criteria: (1) at least two individual earnings forecasts (not necessarily by the same analyst) are at least 20 trading days apart; (2) the earliest forecast occurs at least three trading days after the release of the previous year's earnings; and (3) the last forecast precedes the earnings release by at least three days. After invoking sample constraints and excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67), we have 29,798 interim firm-quarters and 22,290 firm-years to test H_1 , and 21,941 interim firm-quarters and 14,204 firm-years to test H_2 based on the notion of annual versus interim earnings.

4.1.2.2 Discretionary Accruals

Because our hypotheses are based on the assumption that earnings management is more constrained in some circumstances than in others, and the extant literature provides no evidence on differences in the extent of earnings management in interim versus annual reporting periods, we examine this issue.⁹ We measure discretionary accruals using the modified Jones model

⁹ With respect to balance sheet inflation, extant research already demonstrates that relatively inflated balance sheets constrain earnings management. In particular, Su (2005) documents that balance sheet inflation is negatively related

(Dechow et al. 1995) based on a sample of firm-years and interim firm-quarters spanning the 11 year period, 1993 to 2003. The sample consists of 103,929 interim firm-quarters and 64,712 firm-years pertaining to firms included in the Compustat database with complete data to estimate the variables that enter the modified Jones model over 1993-2003, excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67). To be included in our sample, firm-periods must have the following Compustat data: earnings before extraordinary items and discontinued operations (Data18 for annual; Data8 for interim), operating cash flows (Data308 for annual; Data108 for interim), total assets (Data6 for annual; Data44 for interim), revenue (Data12 for annual; Data2 for interim), change in accounts receivable (Data302 for annual; Data103 for interim¹⁰), and gross property, plant, and equipment (Data7 for annual; Data118 for interim). To mitigate undue influence of outliers, we winsorize all variables that enter the modified Jones model and discretionary accruals at the 1st and 99th percentile.

4.2 Methodology

4.2.1 Cross-sectional Approach

We test H_1 by partitioning our sample into two groups, firm-periods for which actual earnings meet or beat the last analyst estimate (i.e., avoid a negative earnings surprise) and firm-periods that fail to avoid a negative earnings surprise. In the context of interim versus annual reporting periods, we expect firms to be less likely to meet or beat the analyst forecast in audited reporting periods, i.e., in annual than interim periods. Our expectations are consistent with the notion that an audit constrains a firm's ability to manage its earnings upward, reducing its ability to meet or beat the analyst forecast.

to contemporaneous discretionary accruals and firms with inflated balance sheets use less earnings management to avoid negative earnings surprises. Since her sample period by in large parallels ours, we do not replicate her results.
¹⁰ Compustat data item 103 for quarterly data reflects the year-to-date change in accounts receivable for each quarter. We use these data to determine the change in accounts receivable for each individual quarter.

We examine differences in discretionary accruals across interim and annual reporting periods by estimating discretionary accruals for firm i in two-digit SIC code j in period t using the residual from the following regression, estimated by two-digit SIC code and fiscal year:

$$TACC_{ijt}/TA_{ijt-1} = \alpha (1/ TA_{ijt-1}) + \beta_1 [(\Delta REV_{ijt} - \Delta REC_{ijt})/TA_{ijt-1}] + \beta_2 (PPE_{ijt}/TA_{ijt-1}) + \varepsilon_{ijt} \quad (1)$$

where:

TACC = total accruals defined as earnings before extraordinary items and discontinued operations less operating cash flows;
 TA = total assets;
 ΔREV = revenues for period t less revenues for period $t-1$;
 ΔREC = change in accounts receivable for period t ;
 PPE = gross property, plant, and equipment; and
 t = fiscal interim quarter or fiscal year.

Assuming that annual (interim) earnings are audited (unaudited), we expect discretionary accruals to be more positive for interim than annual reporting periods, consistent with the notion that an audit constrains managers' ability to manage earnings upward.

We test H_2 by partitioning our sample of meet or beat firm-periods into two groups, firm-periods with versus without expectations management. In the context of balance sheet inflation, we expect the average balance sheet inflation to be greater for firm-quarters with expectations management, indicating that firms that are relatively more constrained in their ability to manage earnings upward are relatively more likely to use expectations management as a substitute way to achieve their goal of avoiding negative surprises. In the context of interim versus annual reporting periods, we expect that firms are more likely to exhibit expectations management when earnings are audited versus unaudited, consistent with our contention that firms constrained in their ability to manage earnings use expectations management as a substitute way to avoid negative earnings surprises.

4.2.2 Temporal Approach

In the context of balance sheet inflation, we test H_1' by partitioning our sample of firm-quarters into four groups, namely firms that:

- (1) Meet or beat the last analyst forecast in both the first and last quarters they are in our sample;
- (2) Meet or beat the last analyst forecast in the first but not the last quarter they are in our sample;
- (3) Fail to meet the last analyst forecast in the first but not in the last quarter they are in our sample; and
- (4) Fail to meet the last analyst forecast in both the first and the last quarters they are in our sample.

To reflect the degree to which a firm's balance sheet inflation changed over time, we compute the percentage change in SNOA ($\Delta SNOA$) as the difference between last quarter and first quarter SNOA scaled by first quarter SNOA. We expect $\Delta SNOA$ to be greater for firms that meet or beat the last analyst estimate in the first but not in the last quarter (group 2) than for firms that meet or beat the last analyst estimate in both the first and last quarters (group 1) because increased inflation makes it harder for firms to continue avoiding negative surprises. We also expect $\Delta SNOA$ to be greater for firms that fail to meet the last analyst estimate in both the first and last quarters (group 4) than for firms that fail to meet the last analyst estimate in the first but not the last quarter (group 3) because increased inflation makes it harder for firms to shift away from failing to avoid negative surprises estimates towards avoiding them.

We test H_2 by partitioning our sample of meet or beat firm-quarters into four mutually exclusive and collectively exhaustive groups, namely firms that:

- (1) Manage expectations in both the first and last quarters;
- (2) Manage expectations in the first but not the last quarter;
- (3) Manage expectations in the last but not the first quarter; and
- (4) Manage expectations in neither the first nor the last quarter.

We expect $\Delta SNOA$ to be greater for firms that guide analyst forecasts in both the first and last quarters (group 1) than for firms that guide analyst forecasts in the first quarter only (group 2) because increased inflation constrains firms' ability to manage earnings upward, making it more likely that they continue managing expectations to avoid negative surprises. We also expect $\Delta SNOA$ to be greater for firms that guide analyst forecasts in the last but not the first quarter (group 3) than for firms that do not manage analyst estimates in either the first or last quarter (group 4) because increased inflation constrains these firms' ability to manage earnings upward to a greater extent, making them more likely to initiate expectations management to allow them to continue avoiding negative surprises.

5. Results

5.1 Balance Sheet Inflation

5.1.1 Cross-Sectional Analyses

Table 1 presents cross-sectional results to test our second hypothesis in the context of balance sheet inflation.¹¹ Mean and median scaled net operating assets are presented for firm-

¹¹ Barton and Simko (2002) provide evidence in support of our H_1 for balance sheet inflation. Because our sample period is more recent than Barton and Simko's, we test (but do not tabulate results for) H_1 using our sample. In support of both H_1 and Barton and Simko's (2002) findings, we find that balance sheet inflation is greater for firms failing to avoid negative surprises than for firms that do avoid negative surprises. For our pooled sample, the mean balance sheet inflation is 4.25 (SD = 10.13, N = 10,562) for firm-quarters with negative earnings surprises which is significantly greater ($t = 8.41$, $p < .0001$) than the mean balance sheet inflation of 3.33 (SD = 7.99, N = 28,132) for

quarters with versus without expectations management, both pooled and by year. The sample is restricted to those 28,132 firm-quarters with nonnegative earnings surprises. Consistent with H_2 , firms avoiding a negative surprise have greater balance sheet inflation when they do versus do not exhibit expectations management. For the pooled sample, the mean balance sheet inflation of 3.64 (SD = 8.43) for firms with expectations management is greater ($t = -4.02$, $p < .0001$) than the mean balance sheet inflation of 3.20 (SD = 7.80) for firms without expectations management. Similarly, the median balance sheet inflation of 2.23 for firms with expectations management is greater ($z = -12.39$, $p < .0001$) than the median balance sheet inflation of 1.95 for firms without expectations management. Our results are rather robust. With only two exceptions in 11 years (2001 and 2002), the directional effect based on means is as expected, and the results are significant at the 0.05 level or better in six of nine years. In all 11 years, the directional effect based on medians is as expected and the results are significant at the 0.05 level or better.

Insert Table 1 about here

5.1.2 Temporal Analyses

Panels A and B of Table 2 present results for the temporal versions of our first and second hypotheses, respectively. First consider firms that meet or beat analyst estimates when they enter our sample (i.e., they start out by achieving their goal of avoiding negative surprises). There are two mutually exclusive and collectively exhaustive possibilities; they either report a nonnegative or a negative earnings surprise in the last quarter they are in our sample. Consistent with H_1 , firms with a negative earnings surprise in the last quarter experience a significantly

firm-quarters with nonnegative earnings surprises. Similarly, the median balance sheet inflation is 2.37 for firm-quarters with negative earnings surprises which is significantly greater ($z = 15.82$, $p < .0001$) than the median balance sheet inflation of 2.03 for firm-quarters with nonnegative earnings surprises. Our results are robust by year. In all 11 years, the directional effect is as expected and the results are significant at the 0.05 (0.0001) level or better based on means (medians).

greater Δ SNOA relative to firms reporting a nonnegative earnings surprise in the last quarter. Specifically, the median Δ SNOA of .25 for firms with a nonnegative earnings surprise in the first quarter but a negative surprise in the last quarter is greater ($z = 3.57, p = .0002$) than the median increase in balance sheet inflation of .14 for firms with a nonnegative surprise in both the first and last quarters.

Next consider firms that miss analyst estimates when they first enter our sample (i.e., they start out by failing to avoid negative surprises). These firms either report a negative or a nonnegative surprise in the last quarter. Consistent with H_1 , firms reporting a negative earnings surprise in the last quarter experience a greater Δ SNOA relative to firms with a nonnegative earnings surprise in the last quarter. Specifically, the median Δ SNOA of .09 for firms with a negative surprise in both the first and last quarters is greater ($z = 3.42, p = .0003$) than the median Δ SNOA of .01 for firms with a negative (nonnegative) surprise in the first (last) quarter.¹²

 Insert Table 2 about here

Turning to the temporal version of our second hypothesis

(Panel B), we focus on firms that meet or beat analyst estimates both when they first and last

¹² For the temporal analyses, we base our tests on medians because the distributional properties of Δ SNOA are not conducive to parametric tests. The nature of the distribution is as follows:

	NNegESQ _{last}	NegESQ _{last}
NNegESQ _{first}	Mean = .77 SD = 15.09 Skewness = -.81 Kurtosis = 219.64	Mean = .91 SD = 6.88 Skewness = -.28 Kurtosis = 159.24
NegESQ _{first}	Mean = .48 SD = 5.57 Skewness = 13.89 Kurtosis = 302.17	Mean = .27 SD = 9.05 Skewness = -15.93 Kurtosis = 319.29

appear in our sample. We start out by considering firms that manage analyst estimates in the first quarter. These firms either manage analyst estimates or they do not manage analyst estimates in the last quarter. Consistent with H_2 , firms managing analyst expectations in the last quarter experience a greater $\Delta SNOA$ relative to firms that do not manage expectations in the last quarter. In particular, the median $\Delta SNOA$ of .20 for firms with expectations management in both the first and last quarters is greater ($z = -3.23, p = .0006$) than the median $\Delta SNOA$ of .01 for firms with expectations management only in the first quarter. Next consider firms that do not manage analyst estimates when they first enter our sample. These firms either continue to not manage expectations or resort to this technique in the last quarter. Consistent with H_2 , firms with expectations management in the last quarter experience a greater $\Delta SNOA$ relative to firms without expectations management in either the first or last quarter. Specifically, the median $\Delta SNOA$ of .31 for firms with expectations management in the last but not first quarter is greater ($z = -4.72, p < .0001$) than the median $\Delta SNOA$ of .11 for firms without expectations management in either quarter.

5.2 Annual versus Interim Reporting Periods

To test our first cross-sectional hypothesis in the context of the audit as a constraint to earnings management, Table 3 presents results for annual versus interim reporting periods. The frequency of nonnegative earnings surprises is presented by reporting period (i.e., for fiscal quarters one, two, and three and for annual earnings), both pooled and by year. For the pooled sample, the frequency of nonnegative surprises for annual earnings is .64 ($SD = .48$) which is less than the frequency of nonnegative surprises for first quarter earnings of .75 ($SD = .43, t = 20.87, p < .01$), second quarter earnings of .74 ($SD = .45, t = 18.70, p < .01$), and third quarter earnings of .72 ($SD = .45, t = 15.25, p < .01$). Our results are robust by year. In all 11 years, the

frequency of nonnegative earnings is lower in annual than in all three interim reporting periods, and the results are significant at the .05 level or better in 32 of 33 comparisons. In support of H₁, firms are less likely to meet or beat the latest analyst forecast in annual than interim reporting periods, consistent with the notion that audits constrain income-increasing earnings management.

Insert Table 3 about here

The results presented in Table 3 suggest that there is more managerial discretion when preparing interim versus annual reports. To provide more direct evidence of the extent of income-increasing earnings management in interim versus annual reports, Table 4 presents mean discretionary accruals by reporting period (i.e., for fiscal quarters one, two, and three and for annual earnings), both pooled and by year. Mean discretionary accruals are positive in interim periods but negative in annual periods. For the pooled sample, mean annual discretionary accruals are -.05 (SD = .20) which is less than mean discretionary accruals for the first interim period of .03 (SD = .09, $t = 85.36$, $p < .01$), the second interim period of .03 (SD = .11, $t = 82.85$, $p < .01$), and the third interim period of .03 (SD = .14, $t = 71.22$, $p < .01$). Our results are robust by year. In all 11 years, mean discretionary accruals are greater in each of the three interim than annual periods and the results are significant at the .01 level in all 33 comparisons. Consistent with the notion that a financial statement audit constrains income-increasing earnings management, discretionary accruals are more positive in interim than annual reporting periods.

Insert Table 4 about here

To test H₂, Table 5 presents results for expectations management in interim versus annual periods. Our results are based on those 14,204 annual cases and 21,941 interim cases in which

firms avoid negative surprises. The frequency of expectations management is presented by reporting period, both pooled and by year. For the pooled sample, the frequency of expectations management in annual earnings is .48 (SD = .50) which is greater than the frequency of expectations management in the first interim period of .26 (SD = .44, $t = -32.15$, $p < .01$), the second interim period of .27 (SD = .45, $t = -31.31$, $p < .01$), and the third interim period of .31 (SD = .46, $t = -24.96$, $p < .01$). Our results are robust by year. In all 11 years, the frequency of expectations management in the annual period exceeds that of each of the three interim periods and all 33 contrasts are significant at the .01 level. Consistent with H₂, firms are more likely to manage expectations in the presence of an audit, suggesting that when a financial statement audit constrains income-increasing earnings management, expectations management is employed as a substitute mechanism for achieving the goal of meeting or beating expectations.

Insert Table 5 about here

6. Conclusion

We examine whether management of analyst forecasts is used as a substitute mechanism for management of reported earnings when earnings management is more constrained. We investigate two types of earnings management constraints: (1) balance sheet inflation and (2) an audit of annual but not interim reports. We present evidence consistent with our conjecture that managers trade off expectations management tactics for earnings management tactics when their ability to engage in earnings management is constrained. Our investigation provides insight into the extent to which managers make more or less use of earnings management and expectations management tactics to achieve their goal of avoiding negative earnings surprises. Hence, we offer a deeper understanding of how managers go about meeting or beating expectations.

Our investigation extends the extant literature in several ways. First, with respect to balance sheet inflation as an earnings management constraint, we provide temporal evidence that firms whose balance sheets become more inflated over time become less likely to avoid negative earnings surprises. Hence, we provide temporal evidence supporting Barton and Simko's (2002) argument that inflated balance sheets constrain earnings management. Second, we provide cross-sectional evidence that firms that meet or beat analyst forecasts and have relatively more inflated balance sheets are more likely to exhibit expectations management, suggesting that firms trade off expectations management for earnings management when their ability to manage earnings is constrained. In addition, we demonstrate that firms that avoid negative earnings surprises and whose balance sheets become more inflated over time are more likely to initiate expectations management, providing further evidence consistent with our contention that management of analyst forecasts is used as a substitute mechanism to earnings management for the purpose of avoiding negative earnings surprises.

In general, annual earnings are audited and interim earnings are not audited. If independent audits are successful at constraining income-increasing earnings management, firms should exhibit less earnings management and be less likely to avoid negative earnings surprises in annual than interim reporting periods. In support of our contention, we show that interim reporting periods are associated with more positive discretionary accruals than annual reporting periods, and firms are more likely to avoid negative earnings surprises in interim than in annual reporting periods. Consistent with the notion that firms trade off expectations management for earnings management when their ability to do the latter is constrained, we show that when firms do avoid negative earnings surprises, they are more likely to exhibit expectations management in annual than in interim periods.

Our finding that firms use earnings management and expectations management as substitutes when the former is constrained implies that regulatory attempts to restrict earnings management are likely to be only partially successful at curbing managers' attempts to play the earnings surprise game. In an attempt to avoid negative earnings surprises, managers who are constrained in their earnings management activities will use management of analyst forecasts as a substitute means to achieve their goal of avoiding negative earnings surprises.

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Table 1. Balance Sheet Inflation and Expectations Management

Year		No Expectations Management	Expectations Management	Test Statistic ^a	p
1993	Mean	2.34	3.73	-2.23	0.0133**
	SD	5.13	12.99		
	Median	1.73	2.02	-3.90	<.0001***
	N	1,006	461		
1994	Mean	2.58	3.54	-2.13	0.0168**
	SD	6.99	11.01		
	Median	1.76	2.00	-3.20	0.0007***
	N	1,794	687		
1995	Mean	2.52	2.69	-0.82	0.2056
	SD	6.86	3.43		
	Median	1.75	1.98	-3.17	0.0004***
	N	1,714	798		
1996	Mean	2.48	2.71	-1.35	0.089*
	SD	4.36	3.95		
	Median	1.83	2.01	-3.19	0.0007***
	N	2,014	850		
1997	Mean	2.69	3.41	-2.77	0.0028***
	SD	7.07	6.48		
	Median	1.80	2.17	-6.75	<.0001***
	N	2,380	892		
1998	Mean	2.88	3.95	-3.65	0.0015***
	SD	5.31	8.23		
	Median	1.85	2.39	-7.61	<.0001***
	N	2,007	938		
1999	Mean	3.28	4.18	-2.43	0.0077***
	SD	7.77	9.17		
	Median	1.99	2.42	-5.68	<.0001***
	N	2,181	752		
2000	Mean	3.75	3.82	-0.17	0.4339
	SD	9.05	9.02		
	Median	2.07	2.27	-1.89	0.0292**
	N	1,967	699		
2001	Mean	4.66	4.03	1.67	0.0475
	SD	10.87	7.21		
	Median	2.50	2.60	-0.73	0.2316
	N	1,511	833		
2002	Mean	4.50	3.80	1.64	0.0506
	SD	11.08	7.78		
	Median	2.50	2.78	-2.36	0.0091***
	N	1,813	542		
2003	Mean	3.58	4.77	-1.94	0.0267**
	SD	8.04	12.94		
	Median	2.28	2.51	-1.59	0.0555*
	N	1,806	487		
Pooled	Mean	3.20	3.64	-4.02	<.0001***
	SD	7.80	8.43		
	Median	1.95	2.23	-12.39	<.0001***
	N	20,193	7,939		

Table 1 Continued.

Sample and variable definitions:

The sample consists of 28,132 firm-quarters with nonnegative earnings surprises pertaining to firms included in the I/B/E/S and Compustat databases with complete data for our primary tests over 1993-2003, excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67). Following Bartov et al. (2002), firm-quarters with a negative forecast error (actual earnings less the initial analyst forecast is less than zero) combined with a nonnegative earnings surprise (actual earnings less the last analyst forecast is greater than or equal to zero) are categorized as having expectations management; all others are categorized as having no expectations management. Based on Barton and Simko (2002), scaled net operating assets (SNOA) equal beginning of period stockholders' equity minus cash and cash equivalents plus short-term and long-term debt, scaled by current period sales. The larger the SNOA ratio, the more inflated the balance sheet.

^a Differences in means are tested using t-statistics; differences in medians are tested using z-statistics.

***, **, and * denote statistical significance at the .01, .05, and .10 levels, respectively, based on one-tailed tests.

Table 2. Temporal Changes in Balance Sheet Inflation*Panel A: Sign of Earnings Surprise*

	NNegESQ _{last}	NegESQ _{last}	z	p
NNegESQ _{first}	0.14 (N=1,945)	0.25 (N=894)	3.57	0.0002***
NegESQ _{first}	0.01 (N=760)	0.09 (N=445)	3.42	0.0003***

Panel B: Expectations Management

	ExMQ _{last}	NExMtQ _{last}	z	p
ExMQ _{first}	0.20 (N=138)	0.01 (N=363)	-3.23	0.0006***
NExMQ _{first}	0.31 (N=379)	0.11 (N=1,065)	-4.72	<.0001***

Sample and variable definitions:

The sample consists of firm-quarters pertaining to the first and last fiscal quarters a given firm appears in our sample of firms included in the I/B/E/S and Compustat databases with complete data for our primary tests over 1993-2003, excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67). Panel B sample is limited to firm-quarters with nonnegative earnings surprises in both the first and last quarter. An earnings surprise is defined as actual earnings minus the last individual analyst forecast. NNegESQ_{first} (NNegESQ_{last}) denotes a nonnegative earnings surprise in the first (last) quarter it appears in the sample. NegESQ_{first} (NegESQ_{last}) denotes a negative earnings surprise in the first (last) quarter it appears in the sample. Scaled net operating assets (SNOA) equals beginning of period stockholders' equity minus cash and short-term investments plus short-term and long-term debt, scaled by current period sales. Based on Barton and Simko (2002), the larger the SNOA ratio, the more inflated the balance sheet. The tabulated amounts are median levels of the percentage change in SNOA (Δ SNOA) which reflects the degree that the firm's balance sheet inflation changed from the first to the last quarter. Δ SNOA is computed as the difference between last quarter and first quarter SNOA scaled by first quarter SNOA. Following Bartov et al. (2002), firm-quarters with a negative forecast error (actual earnings less the initial analyst forecast is less than zero) combined with a nonnegative earnings surprise (actual earnings less the last analyst forecast is greater than or equal to zero) are categorized as having expectations management; all others are categorized as having no expectations management. ExMQ_{first} (ExMQ_{last}) denotes expectations management was present in the first (last) quarter; NExMQ_{first} (NExMQ_{last}) denotes expectations management was not present in the first (last) quarter.

*** denotes statistical significance at the .01 level based on one-tailed tests.

Table 3. Annual versus Interim Reporting Periods: Frequency of Nonnegative Earnings Surprises

Year		Q1	Q2	Q3	Annual	Q1 vs. Annual ^a	Q2 vs. Annual ^a	Q3 vs. Annual ^a
1993	Frequency	0.64	0.63	0.63	0.55	3.39***	2.43***	3.72***
	SD	0.48	0.49	0.48	0.50			
	N	550	339	804	1,444			
1994	Frequency	0.69	0.67	0.68	0.64	2.55***	1.43*	1.97**
	SD	0.46	0.47	0.47	0.48			
	N	800	999	1,011	1,728			
1995	Frequency	0.71	0.70	0.66	0.62	4.53***	4.12***	2.07**
	SD	0.45	0.46	0.47	0.49			
	N	816	1,013	1,054	1,929			
1996	Frequency	0.73	0.72	0.69	0.64	4.82***	4.89***	2.72***
	SD	0.45	0.45	0.47	0.48			
	N	883	1,055	1,165	2,123			
1997	Frequency	0.75	0.75	0.74	0.65	6.31***	6.23***	5.72***
	SD	0.43	0.43	0.44	0.48			
	N	1,017	1,195	1,206	2,430			
1998	Frequency	0.76	0.77	0.72	0.64	7.40***	7.94***	4.88***
	SD	0.43	0.42	0.45	0.48			
	N	939	1,086	1,033	2,414			
1999	Frequency	0.82	0.78	0.76	0.66	9.92***	7.24***	5.77***
	SD	0.38	0.41	0.43	0.47			
	N	903	1,051	1,029	2,302			
2000	Frequency	0.81	0.79	0.80	0.62	11.53***	9.95***	10.67***
	SD	0.39	0.41	0.40	0.49			
	N	842	893	878	2,177			
2001	Frequency	0.78	0.76	0.75	0.66	6.45***	5.69***	5.28***
	SD	0.41	0.43	0.43	0.48			
	N	694	862	899	1,905			
2002	Frequency	0.80	0.78	0.75	0.65	8.27***	7.11***	5.51***
	SD	0.40	0.42	0.43	0.48			
	N	755	806	826	1,893			
2003	Frequency	0.75	0.73	0.75	0.66	4.97***	3.65***	4.80***
	SD	0.43	0.45	0.44	0.48			
	N	749	827	819	1,945			
Pooled	Frequency	0.75	0.74	0.72	0.64	20.87***	18.70***	15.25***
	SD	0.43	0.44	0.45	0.48			
	N	8,948	10,126	10,724	22,290			

Sample and variable definitions:

The sample consists of 29,798 firm-quarters and 22,290 firm-years pertaining to firms included in the I/B/E/S database with complete data for our primary tests over 1993-2003, excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67). Firm-quarters are limited to interim fiscal quarters 1 through 3. We assume that annual (quarterly) earnings are audited (unaudited). An earnings surprise is defined as actual earnings minus the last individual analyst forecast. Observations are categorized by the sign of the earnings surprise into a binary variable where 1 (0) denotes actual earnings greater than or equal to (less than) the last analyst forecast. Frequencies tabulated reflect the mean of this binary variable.

^a t-statistic

***, **, * denote statistical significance at the .01, .05, and .10 levels, respectively, based on one-tailed tests.

Table 4. Annual versus Interim Reporting Periods: Discretionary Accruals

Year		Q1	Q2	Q3	Annual	Q1 vs. Annual	Q2 vs. Annual	Q3 vs. Annual
1993	Mean	0.03	0.03	0.02	-0.04	24.38***	20.51***	15.29***
	SD	0.07	0.10	0.14	0.18			
	N	2,542	2,496	2,541	5,220			
1994	Mean	0.03	0.03	0.02	-0.03	20.84***	19.38***	14.44***
	SD	0.08	0.10	0.13	0.18			
	N	2,588	2,546	2,570	5,463			
1995	Mean	0.03	0.03	0.02	-0.04	20.82***	18.82***	15.06***
	SD	0.08	0.10	0.13	0.18			
	N	2,688	2,621	2,704	5,714			
1996	Mean	0.03	0.03	0.03	-0.04	21.66***	22.87***	18.34***
	SD	0.09	0.10	0.14	0.20			
	N	3,545	3,403	3,805	6,499			
1997	Mean	0.03	0.03	0.03	-0.04	25.11***	24.63***	21.71***
	SD	0.08	0.11	0.15	0.20			
	N	4,384	4,260	4,309	6,610			
1998	Mean	0.02	0.03	0.03	-0.05	25.66***	25.77***	22.28***
	SD	0.08	0.11	0.15	0.20			
	N	4,456	4,315	4,253	6,340			
1999	Mean	0.02	0.03	0.03	-0.06	26.11***	27.24***	25.45***
	SD	0.08	0.11	0.15	0.21			
	N	4,434	4,373	4,385	6,541			
2000	Mean	0.02	0.03	0.04	-0.07	26.42***	29.76***	28.68***
	SD	0.10	0.12	0.15	0.23			
	N	4,548	4,420	4,265	6,336			
2001	Mean	0.04	0.03	0.03	-0.08	36.34***	31.07***	25.64***
	SD	0.10	0.12	0.15	0.19			
	N	2,359	2,085	2,010	5,936			
2002	Mean	0.03	0.03	0.03	-0.07	32.94***	27.54***	23.66***
	SD	0.09	0.12	0.14	0.17			
	N	1,940	1,891	1,887	5,485			
2003	Mean	0.03	0.03	0.02	-0.06	25.89***	21.53***	17.96***
	SD	0.09	0.11	0.13	0.17			
	N	1,824	1,762	1,720	4,568			
Pooled	Mean	0.03	0.03	0.03	-0.05	85.36***	82.85***	71.22***
	SD	0.09	0.11	0.14	0.20			
	N	35,308	34,172	34,449	64,712			

Sample and variable definitions:

The sample consists of 103,929 firm-quarters and 64,712 firm-years pertaining to firms included in the Compustat database with complete data to estimate discretionary accruals over 1993-2003, excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67). Firm-quarters are limited to interim fiscal quarters 1 through 3. We assume that annual (interim) earnings are audited (unaudited). We estimate discretionary accruals for firm i in two-digit SIC code j in period t using the residual from the following regression, estimated by two-digit SIC code and fiscal year:

$$TACC_{ijt}/TA_{ijt-1} = \alpha (1/TA_{ijt-1}) + \beta_1 [(\Delta REV_{ijt} - \Delta REC_{it})/TA_{ijt-1}] + \beta_2 (PPE_{ijt}/TA_{ijt-1}) + \varepsilon_{ijt} \quad (1)$$

Table 4 Continued.

where:

TACC	=	total accruals defined as earnings before extraordinary items and discontinued operations less operating cash flows;
TA	=	total assets;
Δ REV	=	revenues in period t less revenues in period t-1;
Δ REC	=	change in accounts receivable for period t; and
PPE	=	gross property, plant, and equipment.

Period t refers to a fiscal quarter or fiscal year. The tabulated amounts are mean levels of discretionary accruals.

^a t-statistic

*** denotes statistical significance at the .01 level based on one-tailed tests.

Table 5. Annual versus Interim Reporting Periods: Frequency of Expectations Management

Year		Q1	Q2	Q3	Annual	Q1 vs. Annual ^a	Q2 vs. Annual ^a	Q3 vs. Annual ^a
1993	Frequency	0.32	0.26	0.36	0.55	-7.13***	-8.04***	-6.56***
	SD	0.47	0.44	0.48	0.50			
	N	350	212	509	798			
1994	Frequency	0.27	0.26	0.30	0.42	-7.42***	-8.46***	-6.22***
	SD	0.44	0.44	0.46	0.50			
	N	553	666	684	1,105			
1995	Frequency	0.24	0.33	0.34	0.46	-9.63***	-5.81***	-5.17***
	SD	0.43	0.47	0.47	0.50			
	N	580	707	697	1,202			
1996	Frequency	0.32	0.28	0.33	0.48	-7.31***	-9.43***	-6.99***
	SD	0.47	0.45	0.47	0.50			
	N	641	762	798	1,354			
1997	Frequency	0.24	0.26	0.27	0.46	-11.23***	-10.42***	-9.68***
	SD	0.43	0.44	0.45	0.50			
	N	767	894	893	1,578			
1998	Frequency	0.28	0.32	0.37	0.49	-11.60***	-9.64***	-6.94***
	SD	0.45	0.47	0.48	0.50			
	N	717	832	745	1,540			
1999	Frequency	0.24	0.24	0.29	0.45	-10.46***	-10.43***	-7.68***
	SD	0.43	0.43	0.45	0.50			
	N	743	820	781	1,527			
2000	Frequency	0.21	0.25	0.28	0.43	-10.78***	-8.12***	-6.89***
	SD	0.40	0.44	0.45	0.50			
	N	684	703	701	1,341			
2001	Frequency	0.36	0.34	0.42	0.63	-10.69***	-12.44***	-8.97***
	SD	0.48	0.47	0.49	0.48			
	N	542	656	677	1,253			
2002	Frequency	0.22	0.22	0.28	0.47	-11.29***	-11.35***	-8.40***
	SD	0.42	0.42	0.45	0.50			
	N	604	628	621	1,229			
2003	Frequency	0.24	0.21	0.20	0.43	-7.98***	-9.76***	-10.40***
	SD	0.43	0.41	0.40	0.50			
	N	563	600	611	1,277			
Pooled	Frequency	0.26	0.27	0.31	0.48	-32.15***	-31.31***	-24.96***
	SD	0.44	0.45	0.46	0.50			
	N	6,744	7,480	7,717	14,204			

Sample and variable definitions:

The sample consists of 21,941 firm-quarters and 14,204 firm-years with nonnegative earnings surprises pertaining to firms included in the I/B/E/S database with complete data for our primary tests over 1993-2003, excluding utilities and financial services firms (two-digit SIC codes 49 and 60-67). Firm-quarters are limited to interim fiscal quarters 1 through 3. We assume that annual (quarterly) earnings are audited (unaudited). Following Bartov et al. (2002), observations with a negative forecast error (actual earnings less the initial analyst forecast is less than zero) combined with a nonnegative earnings surprise (actual earnings less the last analyst forecast is greater than or equal to zero) are categorized as having expectations management; all others are categorized as having no expectations management. Observations are categorized by the presence of expectations management into a binary variable where 1 (0) denotes expectations management is present (absent). Frequencies tabulated reflect the mean of this binary variable.

^a t-statistic

*** denotes statistical significance at the .01 level based on one-tailed tests.