

ANALYST REACTIONS TO EXPECTATIONS MANAGEMENT IN THE POST-REGULATION FAIR DISCLOSURE PERIOD

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ABSTRACT

Using a uniquely hand-collected dataset, we examine how financial analysts react to expectations management in the post-Regulation Fair Disclosure (FD) period. We find evidence that management issues pessimistic public guidance to lower analysts' expectations to a beatable level in the new regulatory environment. Majority of the analysts revised their forecasts downward immediately (in terms of days rather than weeks) after the issuance of a pessimistic public guidance. The magnitude of the downward revision is significantly greater for firms that beat the expectations through managerial guidance than firms that beat the expectations without guidance. In addition, firms that beat analysts' expectations through pessimistic guidance are able to achieve a larger positive earnings surprise at the earnings announcement than the "legitimate beaters".

JEL: M41, M48

KEYWORDS: Expectations Management, Earnings Guidance, Managerial Guidance, Regulation FD, Analysts' Expectations

INTRODUCTION

The phenomenon that firms manage financial analysts' earnings expectations in order to achieve positive earnings surprises (the so-called "expectations management game") has been a popular research area for a number of years. There is ample academic evidence consistent with firms engaging in expectations management to meet or beat analysts' forecasts. Several studies find that firms deliberately guide analysts' forecasts downward to avoid a "disappointment" at the earnings announcement date (Matsumoto 2002, Bartov et al. 2002, Richardson et al. 2004). Furthermore, there is evidence showing that expectations management activities have increased substantially in recent years (Bartov et al. 2002 and Brown and Caylor 2005). This phenomenon has also attracted regulators' attention. In a widely cited speech made at New York University (NYU) in 1998, Arthur Levitt, Chairman of Securities and Exchange Commission (SEC) at that time, expressed concerns about firms' obsession with meeting or beating Wall Street forecasts. He noted, "...this process has evolved over the years into what can best be characterized as a game among market participants. A game that, if not addressed soon, will have adverse consequences for America's financial reporting system. ..." (Levitt 1998).

In this study, we explore analysts' reactions to expectations management in the post-Regulation FD period. Regulation FD was enacted by the SEC in October 2000 with the main objective of preventing firms from providing selective disclosure of nonpublic information to market participants. The regulation requires that "when an issuer, or person acting on its behalf, discloses material nonpublic information to certain enumerated persons (in general, securities market professionals and holders of the issuer's securities who may well trade on the basis of the information), it must make public disclosure of that information." (Final Rule: Selective Disclosure and Insider Trading, SEC). The majority of current academic studies on expectations management focus on the pre-Regulation FD period (e.g. Matsumoto 2002, Bartov et al. 2002,

Richardson et al. 2004, Brown and Caylor 2005). These studies developed proxies for expectations management because earnings guidance was largely provided in informal and private ways before Regulation FD, and therefore unobservable. The passage of the new regulation prohibited private communications between managers and analysts. Managers have to either stop giving guidance or switch to public guidance to influence analysts' forecasts. This makes it possible to directly observe and measure both expectations management activities and analysts' reactions to such activities in the new regulatory environment.

For an expectations management strategy to be successful, analysts must be incapable of fully unraveling management's reporting objectives. Downward revisions in analysts' forecasts to a beatable level due to management's guidance would be evidence to this effect. We find that more than 90 percent of the analysts revised their forecasts downward to a beatable level after the issuance of a pessimistic public guidance and more than 50 percent of the analysts revised their forecasts downward within one day of a management guidance event. Furthermore, we find that after controlling for the extent of optimism in the initial analyst consensus forecast and other firm characteristics, the magnitude of the analysts' downward revision is significantly greater for firms that beat the forecasts through pessimistic public guidance than firms that beat the forecasts without managerial guidance. Therefore, guidance firms are able to achieve a larger positive earnings surprise at the actual earnings announcement date than nonguidance firms.

This study contributes to the expectations management literature in that it provides *direct* evidence of expectations management. Using hand-collected pre-earnings announcement disclosure data, we directly investigate the public communications between the management and the analysts, extending the prior research based on downward revisions of analyst forecast (Bartov et al. 2002, Richardson et al. 2004, etc.). We find that the use of the downward revision as a proxy for expectations management would misclassify a significant portion of firms that do not guide as firms that guide.

Our findings have important implications for regulators. Regulation-FD was enacted to prevent firms from providing private disclosures to influence analysts' forecasts and can potentially stop the expectations management game. However, our results suggest that it seems that the game is still played and successfully played in the post-Regulation FD era. Management has switched to public guidance to dampen analysts' forecasts, and analysts have responded in the way that management desired.

The remainder of the paper is organized as follows: In section II, we provide background information and review the related literature. Section III presents the sample selection procedures and the data sources. Section IV shows empirical analyses and results. In section V, we conclude.

LITERATURE REVIEW

A large number of studies investigate the phenomenon that managers take actions to meet or beat financial analysts' expectations (e.g. DeGeorge et al. 1999, Richardson et al. 2004, Brown 2001, Matsumoto 2002, McVay et al. 2006, Bhojraj et al. 2009, Doylea et al. 2013). It is not surprising that management has strong incentives to do so. On one hand, the market views the act of meeting or beating earnings forecasts as a signal regarding future profitability and reward such firms (Bartov et al. 2002, Kasznik and McNichols 2002). On the other hand, investors penalize firms for failing to meet or exceed analysts' expectations (Skinner and Sloan 2001).

Both anecdotal evidence and academic research shows that managers use two mechanisms to help their firms achieve earnings targets: earnings management and expectations management (Burgstahler and Eames 2003, Payne and Robb 2000, Kaznik and McNichols 2002, Matsumoto 2002 and Bartov et al. 2002). The former

involves managing earnings upward through accruals manipulation or real transactions, while the latter involves guiding analysts' expectations below the anticipated actual earnings.

This paper focuses on expectations management. Current academic evidence on expectations management is largely indirect because majority of the studies focus on the pre-Regulation FD period where expectations management activities were conducted through private communications between management and analysts, and were hard to observe and measure. Researchers have mainly used downward revision in analysts' forecasts as a proxy for expectation management (e.g. Bartov et al. 2002, Brown and Caylor 2005, Richardson et al. 2004). The passage of Regulation-FD prevents firms from providing private guidance to selected parties. If management still intends to influence analysts' expectations, they need to switch to public guidance.

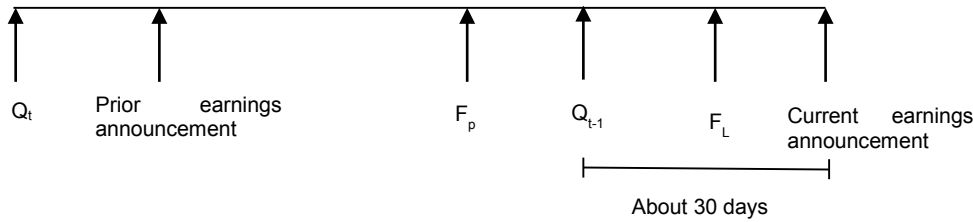
In this study we investigate how analysts react to the *public* discretionary disclosures that are utilized as a mechanism to guide their estimates downward to a beatable level in the post-Regulation FD period. A large body of research has documented that analysts react to management's *unbiased* guidance by updating their expectations to reflect the news in the guidance. Early evidence on analysts' reactions to management's unbiased guidance is provided in Waymire (1986), Hassell and Jennings (1986), Jennings (1987), and Hassell et al. (1988). Specifically, Waymire (1986), and Hassell and Jennings (1986) find that the accuracy of analyst earnings forecasts increases slightly after a management earnings forecast is released, and Jennings (1987) provide evidence that analysts revise their forecasts in response to management earnings forecasts. Similarly Hassell et al. (1988) report an association in terms of both sign and magnitude between the news conveyed by management forecasts and subsequent analyst forecast revisions.

More recently, Cotter et al. (2006) find that more analysts choose to revise their forecasts in response to the earnings guidance that leads to achievable targets. Moreover, Ke and Yu (2006) predict that managers prefer forecasts that are initially optimistic but then are revised down to be pessimistic before the earnings announcement, thereby creating a positive earnings surprise. Studying the period 1983-2000 before the implementation of Reg. FD, they document that analysts who issue an initial optimistic forecast followed by a pessimistic forecast before the earnings announcement are more accurate and are less likely to experience turnover. In a more recent study, Feng and McVay (2010) find that analysts wishing to curry favor with management overweight management guidance when revising their short-term earnings estimates in response to management guidance. Our paper different from previous study in that we examine whether analysts react to managers' *biased* and especially *pessimistically biased* guidance in the context of expectations management.

SAMPLE SELECTION AND DATA SOURCE

We first select a group of firms that are *suspected* to have successfully beaten analysts' forecasts through expectations management. Specifically, we select firm-quarters that meet the following criteria: (1) the last available analysts' median consensus forecast (F_L) before the earnings announcement is pessimistic (relative to the actual earnings); and (2) the last available analysts' median consensus forecast (F_P) prior to F_L is optimistic (relative to the actual earnings). We choose median consensus forecast instead of mean consensus forecast to mitigate the influence of extreme individual forecasts. Figure 1 presents the timeline of events. All analyst forecast-related data are from I/B/E/S, which publishes consensus forecasts on the third Thursday every month; therefore, F_L is issued about 30 days after F_P . This initial sample consists of firm-quarters where analysts revised their initially optimistic forecast (F_P) downward, and this downward revision successfully turns a negative forecast error (measured as the actual earnings minus F_P) into a positive earnings surprise (measured as the actual earnings minus F_L) prior to the earnings announcement.

Figure 1: Timeline of Events



F_L : the last available analysts' consensus earnings forecast before the actual earnings announcement.

F_p : the last available analysts' consensus earnings forecast prior to F_L .

Q_t : the previous quarter end.

Q_{t+1} : the current quarter end.

We then hand-collect *all* the public disclosures, both quantitative and qualitative, with implications for quarterly earnings issued between F_p and F_L by the management of the above-identified firm-quarters. We do not consider disclosures made by management at the beginning of the fiscal period because management has a high degree of uncertainty about the level of earnings at that time. Disclosures made at the beginning of the period are less likely to be issued for expectations management purposes. Public disclosure data are mainly obtained from the StreetEvents database, which is maintained by Thomson Financial. According to the database documentation, “the database provides a one-stop source for market-moving corporate disclosure and brokerage event information for more than 6,500 public companies and 100 sell-side firms.” For firm-quarters that are not included in StreetEvents, we obtain the public disclosure data from Lexis/Nexis New Wires and other sources (e.g. company websites).

Matsumoto (2002) finds that firms in regulated industries are likely to have different incentives to meet or beat analysts' expectations than firms in non-regulated industries. Therefore, we exclude financial institutions (SIC codes 6000-6999), utilities (SIC codes 4800-4999), and other quasi-regulated industries (SIC codes 4000-4499, and 8000 and higher) from our study.

The sample period is restricted to years after Regulation FD was formally enacted, specifically, from January 2001 to June 2005. The initial sample is composed of 1060 firms with 1,203 firm-quarters with required data available.

We read all the disclosures collected and classify them as pessimistic/neutral/optimistic guidance if the disclosures indicate that earnings will be worse/the same/better. Table 1 shows that 57.1% of the sample (687 firm-quarters) made pessimistic guidance, providing evidence that is consistent with the use of pessimistic managerial guidance to lower analysts' forecasts in the post Regulation-FD period. Table 1 also shows that 41.6% (501 firm-quarters) made no disclosures at all. Therefore, the use of downward forecast revision as a proxy for expectations management would misclassify these silent firms as firms that guide. In addition, we find 0.7% of the sample (eight firm-quarters) made optimistic guidance and 0.6% (seven firm-quarters) made neutral guidance.

Table 1: Type of Management's Public Guidance Made by the Initial Sample Firms¹

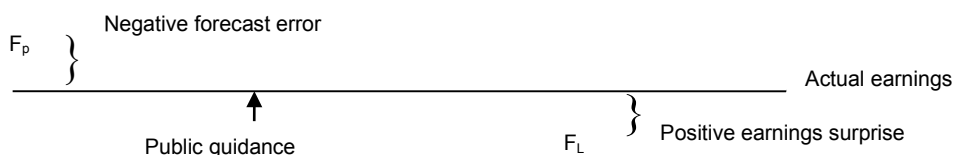
	N	percent
Optimistic guidance	8	0.7
Neutral guidance	7	0.6
Pessimistic guidance	687	57.1
No disclosures	501	41.6
Total	1203	100

¹ The initial sample includes 1203 firm-quarters where analyst downward revision turns a negative forecast error into a positive earnings surprise.

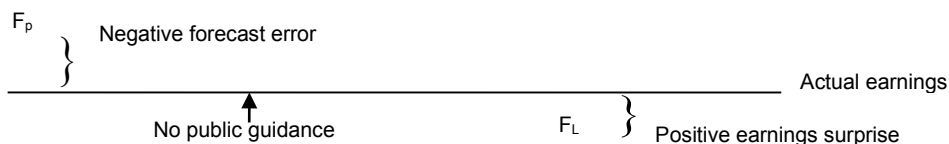
From this section on, we denote the 687 cases with pessimistic guidance as the *Guidance-Beat* sample, and the remainder of the 516 firm-quarters as the *Nonguidance-Beat* sample. We include the eight firm-quarters with optimistic guidance and the seven firm-quarters with neutral guidance in the *Nonguidance-Beat* sample because the optimistic guidance and the neutral guidance are unlikely to be issued for expectations management purpose. The *Guidance-Beat* sample represents firm-quarters that beat the analysts' forecasts through management's public guidance while the *Nonguidance-Beat* sample represents firms that beat the forecasts without management's involvement. Figure 2 provides a straightforward explanation of how the two samples are formed.

Figure 2: Sample Selection Criteria: Guidance-Beat Sample Vs. Nonguidance-Beat Sample

Guidance-Beat Sample: Firm-quarters that beat analysts' forecasts through expectations management



Nonguidance-Beat Sample: Firm-quarters that beat analysts' forecasts without managerial guidance (the legitimate beaters)



FL: the last available analyst consensus earnings forecast before the actual earnings announcement.

Fp: the last available analyst consensus earnings forecast prior to FL.

Forecast error is measured as the actual earnings minus Fp.

Earnings surprise is measured as the actual earnings minus FL.

METHODOLOGY AND RESULTS

We use T-tests (Wilcoxon z-tests) to compare several attributes of the *Guidance_Beat* sample and the *Nonguidance-Beat* sample. Table 2 shows the results.

In table 2, T-tests (Wilcoxon z-tests) are performed to assess whether the group means (medians) are significantly different between the two samples. The p-values are reported in the rightmost two columns. The *Guidance_Beat* sample is smaller than the *Nonguidance-Beat* sample in terms of market value of equity (*MV*). The average *MV* (median *MV*) is \$2,835.7 million (\$598.3 million) for the guidance firm-quarters, as opposed to \$4,783.4 million (\$912.9 million) for the nonguidance firm-quarters. The difference is not significant for means (p-value=0.180), but significant for medians (p-value<.0001). The two samples have the same average (median) analyst coverage (*Coverage*) of 8.000 (6.000) at the date of F_p . The *Guidance-Beat* firm-quarters have higher growth prospects (*Growth Prospect*), measured as the firms' long-term growth forecasts made at the F_p date by I/B/E/S, than the *Nonguidance-Beat* firm-quarters. The difference in the group means (medians) is statistically significant with a p-value of 0.011 (<.0001).

Table 2: Attributes of the Guidance-Beat Sample and the Nonguidance-Beat Sample¹

Variable ²	Guidance-Beat sample (N=687)			Nonguidance-Beat Sample (N=516)			Test of Difference of Means ³	Test of Difference of Medians ⁴
	Mean	S.D.	Median	Mean	S.D.	Median	p-value	p-value
<i>MV</i>	2835.7	10372.9	598.3	4783.4	23948.0	912.9	0.180	<.0001***
<i>Coverage</i>	8.000	6.128	6.000	8.000	6.392	6.000	0.150	0.386
<i>Growth Prospect</i>	18.239	11.237	14.281	15.827	11.985	15.840	0.011**	<.0001***
<i>Loss</i>	0.197	0.385	0.000	0.216	0.398	0.000	0.529	0.572
<i>HighTech</i>	0.338	0.432	0.000	0.204	0.459	0.000	<.0001***	<.0001***
<i>Dispersion</i>	0.273	0.600	0.147	0.472	1.164	0.173	<.0001***	<.0001***
<i>Optimism</i>	1.280	2.028	0.500	0.623	2.782	0.118	0.000***	<.0001***
<i>EarnSurp</i>	0.271	0.523	0.125	0.233	0.478	0.069	0.379	<.0001***
<i>Downward_percent</i>	0.853	0.202	0.925	0.545	0.319	0.490	<.0001***	<.0001***
<i>Upward_percent</i>	0.009	0.039	0.000	0.025	0.074	0.000	<.0001***	<.0001***
<i>Salesgrowth</i>	-0.060	0.223	-0.049	0.098	1.109	-0.012	0.021**	<.0001***
<i>ROA</i>	-0.017	0.064	0.002	-0.004	0.057	0.005	0.034**	<.0001***
<i>ROE</i>	-0.021	0.144	0.004	0.020	0.274	0.021	0.012**	<.0001***

¹Guidance-Beat sample includes 687 firm-quarters that beat the analysts' forecasts through management's public guidance. Nonguidance-Beat sample includes 516 firm-quarters that beat the forecasts without management's involvement.

²*MV* is the market value of equity; *Coverage* is the number of analyst forecasts for a firm-quarter at the F_P date; *Growth Prospect* is measured as firms' long-term growth forecasts made at the F_P date by I/B/E/S; *Loss* is a dummy variable, =1 if analyst initial consensus forecast F_P is a loss, =0 otherwise; *HighTech* is a dummy variable, which equals to 1 if the sample firm belongs to: Drugs (SIC code 2833-2836), Programming (SIC code 7371-7379), Computers (SIC code 3570-3577), Electrics (SIC code 3600-3674); and 0 otherwise; *Dispersion* is the standard deviation of the initial analyst consensus forecast F_P , deflated by the absolute value of actual earnings; *Optimism* is measured as the initial analyst consensus forecast F_P minus the actual earnings, deflated by the absolute value of actual earnings; *EarnSurp* is measured as the actual earnings minus the last available analyst consensus forecast F_L , deflated by the absolute value of actual earnings; *Downward_percent* is the number of analysts that revised forecasts downward divided by the number of analysts between F_P and F_L ; *Upward_percent* is the number of analysts that revised forecasts upward divided by the number of analysts between F_P and F_L ; *Salesgrowth* is the realized growth in sales revenue; *ROA* is the return on assets, measured as the net income divided by the average total assets; *ROE* is the return on stockholders' equity, measured as the net income divided by the average book value of equity.

³T-test is performed to assess whether the group means are significantly different. * significant at 10%; ** significant at 5%; *** significant at 1%.

⁴Wilcoxon z-test is performed to assess whether the group medians are significantly different. * significant at 10%; ** significant at 5%; *** significant at 1%.

Loss is a dummy variable, which equals 1 if the analyst initial consensus forecast F_P is a loss, and equals 0 otherwise. 19.7 percent of the *Guidance-Beat* firm-quarters have a predicted loss while 21.6 percent of the *Nonguidance-Beat* firm-quarters have a predicted loss. *HighTech* is also a dummy variable indicating a firm-quarter's membership in a high technology industry, and is equal to 1 if the sample firm belongs to: Drugs (SIC code 2833-2836), Programming (SIC code 7371-7379), Computers (SIC code 3570-3577), Electrics (SIC code 3600-3674); and 0 otherwise. 33.8 percent of the *Guidance-Beat* cases come from the high-tech industries while 20.4 percent of the *Nonguidance-Beat* cases come from the high-tech industries. The difference in the group means (medians) is statistically significant with a p-value <0.0001 (<0.0001). This is consistent with prior research which finds that high technology firms appear to be exposed to a higher risk of shareholder lawsuits and tend to disclose more than firms in other industries (Kasznik and Lev 1995, Soffer et al. 2000).

The characteristics of analyst forecast are quite different across the two samples. The dispersion in the initial analyst consensus forecast F_P (*Dispersion*) is much higher for the *Nonguidance-Beat* sample (mean=0.472, median=0.173) than for the *Guidance-Beat* sample (mean=0.273, median=0.147). The differences in both means and medians are significantly different from zero at less than the 1% level ($p < .0001$). It seems that when

the level of uncertainty among analysts is high, managers are less likely to issue public guidance to influence the analysts' forecasts. In the pre-Regulation FD period, management could affect extreme individual forecasts that drive the dispersion in the consensus forecast through private communications. However, after the enactment of the new regulation, management may find it difficult to do so through public guidance, and therefore may reduce/stop guidance activities when the analyst forecast dispersion is high.

The level of analyst optimism (*Optimism*), measured as actual earnings minus the initial analyst consensus forecast F_P , deflated by the absolute value of actual earnings, is significantly higher for *Guidance-Beat* firm-quarters than for *Nonguidance-Beat* firm-quarters (p-value=0.000 for means; <.0001 for medians). The earnings surprise (*EarnSurp*) is measured as actual earnings minus the last analyst consensus forecast F_L , deflated by the absolute value of actual earnings. It appears that the *Guidance-Beat* firm-quarters achieved larger positive earnings surprises at the earnings announcement than the *Nonguidance-Beat* firm-quarters. Although the means are not significantly different, the medians are significantly different (p<0.0001).

In addition, we calculated the percentage of analysts that revised their forecasts downward between F_P and F_L (*Downward percent*) and the percentage of analysts that revised their forecasts upward between F_P and F_L (*Upward percent*) for each firm-quarter. The results show that a significantly higher portion (p-value<.0001 for both means and medians) of the analysts revised their forecasts downward in the *Guidance-Beat* sample (mean=85.3 percent, median=92.5 percent) than in the *Nonguidance-Beat* sample (mean=54.5 percent, median=49.0 percent), while a relatively higher portion (p-value<.0001 for both means and medians) of analysts revised their forecasts upward in the *Nonguidance-Beat* sample (mean=2.70 percent, median=0.00 percent) than in the *Guidance-Beat* sample (mean=0.90 percent, median=0.00 percent).

Furthermore, the *Guidance-Beat* firm-quarters have a lower sales growth rate (*Salesgrowth*) than the *Nonguidance-Beat* firm-quarters. The mean (median) growth rate in sales revenue is -6.0 percent (-4.9 percent) for the *Guidance-Beat* sample, as opposed to 9.8 percent (-1.2 percent) for the *Nonguidance-Beat* sample, and the difference in means (medians) significant with p=0.021 (p<.0001). The two profitability measures, return on assets (*ROA*) and return on stockholders' equity (*ROE*), indicate that the *Guidance-Beat* firm-quarters are less profitable than the *Nonguidance-Beat* firm-quarters. For example, the mean (median) ROA is -1.7 percent (0.2 percent) for the *Guidance-Beat* sample compared to -0.4 percent (0.5 percent) for the *Nonguidance-Beat* sample, and the difference is significant with p=0.034 (p<.0001). The mean (median) ROE is -2.1 percent (0.4 percent) for the *Guidance-Beat* sample compared to 2.0 percent (2.1 percent) for the *Nonguidance-Beat* sample, and the difference is significant with p=0.012 (p<.0001).

Overall, the results indicate that compared to firm-quarters that beat the analysts' forecasts without management's involvement (*Nonguidance-Beat* sample), the firm-quarters beating the forecasts through pessimistic guidance (*Guidance-Beat* sample) are smaller in terms of market value of equity, have higher growth prospects, represent a higher percentage of high-tech firms, have lower dispersion in initial analyst consensus forecast, have lower sales growth and are less profitable. In addition, although the *Guidance-Beat* sample firms start with higher level of analyst optimism than the *Nonguidance-Beat* sample, they achieved larger median positive earnings surprise at the end.

How analysts react to management's public guidance is crucial to the success of the expectations management strategy. If analysts cannot fully understand management's incentives to lower their expectations in order to achieve a positive earnings surprise, their forecasts would be excessively dampened by management's pessimistic guidance. We perform two sets of tests to explore analysts' reactions to managerial guidance.

We first examine the timing of the analysts' reactions to firms' expectations management activities. We find (results unreported) that in the *Guidance-Beat* sample (687 firm-quarters), more than 90 percent of the analysts revised their forecasts downward to a beatable level after the issuance of a pessimistic public guidance. Furthermore, more than 50 percent of the analysts revised their forecasts downward within one

day of the guidance event, while more than 75 percent of the analysts revised forecasts downward within four days of the guidance event. The immediate downward forecast revisions suggest that management successfully lowered the analysts' expectations to a beatable level by providing pessimistic public guidance. Cotter et al. (2006) also report analysts' prompt reactions to management's guidance (in days rather than in weeks). They find that in their sample 59.3% of the analysts revise their forecasts in the five days following the issuance of a management earnings forecast. Our results show that analysts' reactions to *pessimistic* guidance are even stronger (more than half of the analysts react within one day of the guidance event).

Next we investigate whether management's pessimistic guidance affects the *magnitude* of the analyst downward forecast revision. We perform the following regression on the initial sample (687 *Guidance-Beat* firm-quarters plus 516 *Nonguidance-Beat* firm-quarters):

$$FR_{it} = \alpha_0 + \alpha_1 Guidance_{it} + \alpha_2 Size_{it} + \alpha_3 Coverage_{it} + \alpha_4 Growth\ Prospect_{it} + \alpha_5 HighTech_{it} + \alpha_6 Dispersion_{it} + \alpha_7 Optimism_{it} + \alpha_8 Loss_{it} + \alpha_9 Salesgrowth_{it} + \alpha_{10} ROA_{it} + \varepsilon_{it} \quad (1)$$

where FR is the magnitude of the analyst forecast revision, measured as the initial analyst consensus forecast F_P minus the last analyst consensus forecast F_L , deflated by the initial consensus forecast F_P . *Guidance* is a dummy variable, equal to 1 for the *Guidance-Beat* firm-quarters and equal to 0 for the *Nonguidance-Beat* firm-quarters. We include several control variables given that the descriptive statistics show that *Guidance-Beat* firm-quarters differ from the *Nonguidance-Beat* firm-quarters on a number of attributes. We control for firm size (*Size*), analyst coverage (*Coverage*), the firm's long-term growth prospects (*Growth Prospect*) and the firm's membership in a high technology industry (*HighTech*) because large firms, heavily-followed firms, growth firms and high-tech firms tend to be exposed to either higher litigation risk for disappointing investors or higher costs for missing the analysts' expectations (Kasznik and Lev 1995, Soffer et al. 2000, Skinner and Sloan 2002, Li 2005). Therefore, these firms are more likely to "push" the analysts to revise their optimistic initial forecasts down to a greater extent to minimize the possibility of reporting a bad news at the earnings announcement date. We also control for two characteristics of analyst forecasts: forecast dispersion (*Dispersion*) and the level of analyst optimism (*Optimism*). In addition, we control for variables representing firm performance (*Loss*, *Salegrowth* and *ROA*), as analysts are likely to revise their forecasts downward more when firm performance is poor. As a robustness test, we also used *ROE* (return on stockholders' equity, measured as the net income divided by the average book value of equity) instead of *ROA* to measure firm performance. The regression results presented later in this section are not sensitive to different performance measures.

Size is measured as the log of the market value of equity. *ROA* refers to the return on assets, measured as the net income divided by the average total assets. The remaining variables are the same as those previously defined.

Guidance is the primary variable of interest. We expect α_1 to be significantly positive if management's pessimistic guidance makes the analysts of *Guidance-Beat* firms revise their forecasts downward to a greater extent than the analysts of *Nonguidance-Beat* firms. The regression results are reported in Table 3. As expected, the coefficient on *Guidance* is significantly positive (p-value=0.037), suggesting that after controlling for the extent of optimism in the initial analyst consensus forecast and other firm characteristics, the magnitude of the analysts' downward revision is significantly greater for *Guidance-Beat* firm-quarters than for *Nonguidance-Beat* firm-quarters. In addition, the variance inflation factor for *Guidance* is well below the usual threshold of 10.0 for serious multicollinearity and the White's test (p=0.130) does not reject the null hypothesis of no heteroscedasticity. Providing managerial earnings guidance to analysts is not necessarily a bad thing, if the only purpose of the guidance is to help analysts correct the optimistically biased initial forecast and improve forecast accuracy.

Table 3: Analysts’ Reactions to Management’s Public Guidance

	Coefficient Estimate	P-value
Intercept	0.224	0.578
Guidance	0.356	0.037**
Size	-0.021	0.641
Coverage	0.019	0.367
Growth Prospect	-0.007	0.290
HighTech	0.053	0.438
Dispersion	-0.037	0.583
Optimism	0.061	0.206
Loss	2.538	<.0001***
Salesgrowth	-0.0001	0.788
ROA	-0.038	0.009***
Adj. R ²	15.78%	

The analysis is based on the initial sample, including 687 guidance-beat firm-quarters and 516 nonguidance-beat firm-quarters. FR is the magnitude of the analyst forecast revision, measured as the initial analyst consensus forecast F_P minus the last analyst consensus forecast F_L , deflated by the initial consensus forecast F_P ; Guidance is a dummy variable, equal to 1 if management issues pessimistic guidance between F_P and F_L (the guidance-beat cases) and equal to 0 otherwise (the nonguidance-beat cases); Size is the log of the market value of equity; Coverage is the number of analysts’ forecasts for a firm-quarter at F_P ; Growth Prospect is measured as firms’ long-term growth forecasts made at the F_P date by I/B/E/S; Loss is a dummy variable, =1 if initial analyst consensus forecast F_P is a loss, =0 otherwise; HighTech is a dummy variable, equaling 1 if the sample firm belongs to: Drugs (SIC code 2833-2836), Programming (SIC code 7371-7379), Computers (SIC code 3570-3577), Electrics (SIC code 3600-3674); and 0 otherwise; Dispersion is the standard deviation of the initial analyst consensus forecast F_P , deflated by the absolute value of actual earnings; Optimism is the initial analyst consensus forecast F_P minus actual earnings, deflated by the absolute value of actual earnings; Salesgrowth is the realized growth in sales revenue; ROA is return on assets, measured as net income divided by the average total assets. . * significant at 10%; ** significant at 5%; *** significant at 1%.

However, our results suggest that management’s pessimistic public guidance results in a “harder” downward forecast revision, and therefore may help *Guidance-Beat* firm-quarters achieve larger positive earnings surprises at the earnings announcement. We perform the following regression to directly test this.

$$\begin{aligned}
 EarnSurp_{it} = & \beta_0 + \beta_1 Guidance_{it} + \beta_2 Size_{it} + \beta_3 Coverage_{it} + \beta_4 Growth\ Prospect_{it} \\
 & + \beta_5 HighTech_{it} + \beta_6 Dispersion_{it} + \beta_7 Optimism_{it} + \beta_8 Loss_{it} \\
 & + \beta_9 Salesgrowth_{it} + \beta_{10} ROA_{it} + \epsilon_{it}
 \end{aligned} \tag{2}$$

EarnSurp is the earnings surprise, measured as the actual earnings minus the last available analyst consensus forecast F_L , deflated by the absolute value of actual earnings. The remaining variables are the same as those previously defined. Table 4 presents the results of estimating Model 2.

Table 4: The Effects of Managerial Guidance on Earnings Surprises

	Coefficient Estimate	P-value
Intercept	0.252	0.010**
Guidance	0.058	0.017**
Size	-0.023	0.039**
Coverage	0.0003	0.843
Growth	0.0005	0.630
HighTech	0.079	0.004***
Dispersion	0.169	<.0001***
Optimism	0.082	<.0001***
Loss	0.030	0.493
Salesgrowth	-0.000	0.933
ROA	0.0004	0.816
Adj. R ²	33.54%	

The analysis is based on the initial sample, including 687 guidance-beat firm-quarters and 516 nonguidance-beat firm-quarters. *EarnSurp* is the earnings surprise, measured as actual earnings minus the last available analyst consensus forecast F_L , deflated by the absolute value of actual earnings; Guidance is a dummy variable, equal to 1 if the management issues pessimistic guidance between F_P and F_L (the guidance-beat cases) and equal to 0 otherwise (the nonguidance-beat cases); Size is the log of the market value of equity; Coverage is the number of analysts’ forecasts for a firm-quarter at F_P ; Growth Prospect is measured as firms’ long-term growth forecasts made at the F_P date by I/B/E/S; Loss is a dummy variable, =1 if initial analyst consensus forecast F_P is a loss, =0 otherwise; HighTech is a dummy variable, equaling 1 if the sample firm belongs to: Drugs (SIC code 2833-2836), Programming (SIC code 7371-7379), Computers (SIC code 3570-3577), Electrics (SIC code 3600-3674); and 0 otherwise; Dispersion is the standard deviation of the initial analyst consensus forecast F_P , deflated by the absolute value of actual earnings; Optimism is the initial analyst consensus forecast F_P minus the actual earnings, deflated by the absolute value of actual earnings; Salesgrowth is the realized growth in sales revenue; ROA is the return on assets, measured as the net income divided by the average total assets. . * significant at 10%; ** significant at 5%; *** significant at 1%.

Consistent with our prediction, the coefficient on *Guidance* is significantly positive ($p=0.017$), indicating that firms beating analysts' expectations through pessimistic managerial guidance (*Guidance-Beat* firms) are able to achieve a larger positive earnings surprise at the earnings announcement date than firms beating analysts' forecasts without management's public involvement (*Nonguidance-Beat* firms).

CONCLUSIONS

This is one of a series of papers that examine how market participants react to the expectations management game in the post-Regulation FD period. This study specifically focuses on financial analysts' reactions to public earning guidance issued by management. We find evidence that the majority of the analysts revised their forecasts downward immediately (in terms of days rather than weeks) after the issuance of a pessimistic public guidance. Moreover, we *find* that the magnitude of the analyst downward revision is significantly greater for firm-quarters beating the analysts' forecasts through pessimistic earnings guidance than for firm-quarters beating the forecasts without management's public intervention, and this "harder" downward revision helps the guidance firm-quarters achieve a larger positive earnings surprise at the official earnings announcement date.

It seems that analysts cannot "see through" management's intentions to lower their expectations in order to achieve a positive earnings surprise and their forecasts are excessively dampened by management's pessimistic guidance. In a follow-up study, we *investigate* how investors react to expectations management. Will the *guidance-beat* firms be rewarded or punished by the investors for having beaten analysts' forecasts through providing public guidance?

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