Litigation Risk and the Optimism in Long-horizon Management Forecasts of Bad News and Good News

Helen Hurwitz

Submitted in partial fulfillment of the requirements for
the degree of Doctor of Philosophy
under the Executive Committee of the Graduate School of
Arts and Sciences

COLUMBIA UNIVERSITY

2012

ABSTRACT

Litigation Risk and the Optimism in Long-horizon Management Forecasts of Bad News and Good News

Helen Hurwitz

This study investigates the framework of how litigation risk affects management forecasting of bad news and good news differently, resulting in differential optimism in these forecasts. I argue that distinct stock price patterns following these two types of management forecasts expose them to differential litigation risk ex post. While optimistic management forecasts of good news attract lawsuits, truthful rather than optimistic forecasts of bad news are more likely to trigger immediate lawsuits. As a result, managers adjust the optimism in bad and good news forecasts differently to reduce litigation risk. Consistent with my hypotheses, I find that ex ante litigation risk increases the optimism in bad news management forecasts but does not change the optimism in good news management forecasts, and the optimism in bad news management forecasts is higher than that in their good news counterparts. In addition, I use RegFD as a natural setting to demonstrate how arguably exogenous shocks amplify this effect. It appears that litigation risk in the pre-RegFD period is not sufficient to affect management forecasting behavior, and my findings only exist in the post-RegFD period. Last, I present evidence that is consistent with investors correctly perceiving and responding to the relative bias in bad new and good news management forecasts.

Table of Contents

ACKNOWLEDGEMENTS

I am indebted to many people who have inspired and supported me during my doctoral study.

First and foremost I would like to thank my advisor Professor Stephen Penman. Without his support, this dissertation would not have been possible. I have learned so much from his rigor and passion toward research. I am also grateful to my dissertation committee members, Prof. Doron Nissim, and Prof. Yuan Zhang for their helpful insights and suggestions on my thesis. I thank Columbia University for its generous financial support.

I also benefited greatly from Prof. Sharon Katz and Prof. Katherine Tomas who was a member of my dissertation Proposal Committee. They have been excellent mentors in my study. Both gave me lots of advice during my academic job search process.

My fellow doctoral students at Columbia University have provided great spiritual support. We share every little joy in our lives as well as struggles during difficult times. We encourage each other and provide support when most needed. These colleagues can be counted on to provide a lively exchange of ideas and feedbacks. I am especially grateful to Jing Li, who has been a peer and mentor during my doctoral study in many aspects.

I wish also to thank the following people for their extensive comments on the numerous drafts of this study: Divya Anantharaman, Woo-jin Chang, Ben Haimowitz, Trevor Harris, Emre Karaoglu, Sharon Katz, Yong-Gu Lee, Jing Li, Partha Mohanram, Jeffrey Ng, Doron Nissim, Stephen Penman, Oded Rozenbaum, Gil Sadka, Karen Teitel, Katherine Thomas and Yuan Zhang.

I dedicate this dissertation to my supportive family. Without their encouragement and understanding, I would not have entered the doctoral program. Their love also helps me through this long and difficult yet rewarding journal. I thank my husband, mother and sister for their great support and belief in me along the process. My father would be proud of my achievement if he were still with us.

1. Introduction

In this study, I investigate how litigation risk affects managers' forecasting of good news and bad news differently, resulting in higher optimism in bad news management forecasts than their good news counterparts.[1] This research question is important given that managers have incentives to forecast optimistically to gain favorable market valuations and that investors increasing rely on management forecasts to make investment decisions, especially after the adoption of RegFD.

Theory predicts that absent affirmative duty to disclose under Rule 10b-5, managers will withhold bad news and release good news, but when there exists an affirmative duty to disclose under Rule 10b-5, they will release either good news or news that is sufficiently bad (Trueman 1997). Trueman (1997) further shows that good news disclosures are expected to be more precise than bad news disclosures. He argues that bad news disclosures have both a positive effect of reducing the probability of a lawsuit and a negative effect of decreasing the firm's stock price, therefore the manager balances these effects by choosing an imprecise disclosure. However, since there are only positive effects of good news, the manager prefers full disclosure. Consistent with this rational, Skinner (1994) finds that bad news disclosures tend to be qualitative while good news disclosures tend to be point or range estimates. Both studies are consistent with my hypotheses that bad news management forecasts are more optimistically biased than their good news counterparts. I further analyze how distinct stock price patterns following

[1]This study focuses on the optimistic bias of management forecasts, referring to forecast bias as optimism. Because no shareholder lawsuits allege pessimistic forward-looking information and damage claim generally excludes opportunity costs from potential shareholders (Francis et al. 1994; Palmiter 2002), investors are generally less concerned about pessimistic bias than optimistic bias in management forecasts.

these two types of management forecasts result in differential legal effects on them. In particular, I argue that optimistic good news management forecasts attract lawsuits, but optimism in bad news management forecasts helps to reduce rather than increase litigation risk. Surprisingly, a truthful revelation of bad news could trigger immediately lawsuits, especially when the magnitude of the bad news is large.

The current legal system encourages shareholders to file a lawsuit whenever a company's stock price decreases suddenly and sharply enough, since such a lawsuit always results in the return of some fraction of their losses. Alexander (1990) shows that decisions at the motion to dismiss stage tilt toward permitting plaintiffs to proceed with their case, and thus are more likely to favor plaintiffs than would decisions after trial. Since a combination of factors make trial a practically non-available alternative for resolving disputes, regardless of the merits of the case, most cases are resolved through settlement.[2] As a matter of fact, less than 5% of securities class action lawsuits are actually tried to judgment. Alexander (1990) further shows that the strength of a case based on merits has little or nothing to do with determining the settlement amount. Instead, these cases settled at an apparent "going rate" of approximately one quarter of the potential damages. Because the recovery from settlement depends only on the occurrence of a large loss during a short period of time and does not require proof that a securities violation has actually occurred, managers are more likely to forecast in a way that avoids sharp stock price declines or fluctuations than merely forecast truthfully. If good news does not materialize, the positive short-window

[2] These factors include extremely risk-averse defendants (directors and officers are usually named, along with the firm, as defendants), high potential damages such as reputational damage to defendants, hourly fees of plaintiffs' attorneys and agency problems in the class actions. In addition, liability insurance pays only for negotiated settlements but not for judgments after trial.

market responses around good news management forecasts increase the probability of sharp stock price declines/fluctuations, patterns that trigger lawsuits (Alexander 1990; Frankel 1995). Therefore, I expect managers to avoid issuing overly optimistic forecasts. On the other hand, a truthful forecast of bad news, especially large magnitude of bad news, could lead to an immediate sharp decline of stock prices, thus triggering lawsuits instead of reducing litigation risk. However, by issuing optimistic forecasts and gradually releasing bad news, firms might be able to avoid sharp stock price declines, thus avoid lawsuits altogether. As a result, litigation risk might actually induce managers to issue optimistic bad news forecast, thus increasing the optimism in these forecasts. My findings are consistent with my hypotheses. I find that litigation risk increases the optimism in bad news management forecasts but does not change the optimism in good news management forecasts. There is also evidence that bad news management forecasts are more optimistic than their good news counterparts.

This study contrasts sharply with Soffer et al. (2000), which finds that managers with bad news release essentially all of their news at the preannouncement date, while managers with good news only release about half of their news. The differences in the two studies rest on different forecast horizons, which are associated with different management incentives. While this study investigates long-horizon management forecasts, Soffer et al. (2000) examines earnings preannouncements. Prior research documents that managers issue short-horizon forecasts to meet/beat analyst forecasts to avoid negative surprise at earning announcement date (Cotter, Tuna and Wysocki 2006). Soffer et al. (2000) find that firms with negative earnings announcement surprises experience significantly lower excess returns. They

attribute firms' preannouncement strategies to firms' goals of avoiding negative earnings announcement surprises. In contrast, firms are more likely to issue optimistic long-horizon forecasts to gain favorable market valuations, and are less concerned about meeting or beating market expectations due to the remoteness of earnings announcement date. How to extract capital market benefits while mitigating litigation risk is in the center of long-horizon management forecasts. Therefore, the two studies complement rather than contradict each other.

In addition, I use RegFD as a natural setting to examine how arguably exogenous shocks amplify the differential legal effects on management forecasts of good vs. bad news. After the implementation of RegFD, investors, particularly institutional investors, increasingly rely on management forecasts to make investment decisions. The higher information content of management forecasts potentially generates more trades and stronger stock price responses around management forecasts. Combined with litigation threat from institutional investors, these factors lead to increased litigation risk on management forecasts, thus changing managers' forecasting behavior. Consistent with my hypotheses, I find that the difference in the optimism of good and bad news management forecasts is only significant in the post-RegFD period. Before the implementation of RegFD, litigation is too low to affect managers' forecasting of either good or bad news, and there is no difference in the optimism of these two types of management forecasts.

Finally, I study the capital market implications of the relative optimism in good news and bad news management forecasts by examining both short-window and long-window market responses to management forecasts. I find no association between forecast news and long-window abnormal returns,

indicating that short-window market responses to forecast news are complete for both good news and bad news management forecasts. Investors correctly perceive and react to the relative optimism in good news and bad news management forecasts.

In terms of research method, I directly examine management forecast errors. I measure management forecast optimism as actual earnings (adjusted for unusual items) minus management forecasts.[3] The more negative the forecast error is, the more optimistic the management forecast is. I measure forecast news as management forecasts minus consensus analyst forecasts over the prior 90 days. If the management forecast is greater than or equal to the consensus analyst forecast, it is a good news management forecast. Otherwise, it is a bad news management forecast.

My research contributes to the accounting literature in the following ways. First, this study extends prior research on the role of litigation risk in shaping managers' forecasting behavior. Most prior studies focus on how litigation risk affects a firm's decision to issue forecasts (Skinner 1994, 1997; Kasznik and Lev 1995; Brown et al 2005). Rogers and Stocken (2005) examine how the market's ability to assess the truthfulness of management forecasts affects forecast bias, but they do not examine the differential effect of litigation risk on the optimism in bad news and good news management forecasts. Nor do they examine the difference in the bias of the two types of management forecasts. This study extends their study in these areas. Given that firms generally release bad news to reduce litigation risk, my results are surprising. I find that ex ante litigation risk increases the optimism in bad news management forecasts.

[3] Actual earnings per share are extracted from I/B/E/S, and are adjusted for unusual items to be on the same basis with analyst forecasts and management forecasts.

Firms appear to issue optimistic bad news forecasts to reduce ex post litigation risk. Therefore, investors and policy makers should take extra caution when interpreting bad news management forecasts. Second, I use RegFD as a natural setting to demonstrate how arguably exogenous shocks amplify this effect. I expect RegFD to increase the litigation risk on management forecasts, thus modifying managers' forecasting behavior. I find that the difference in the optimism of good news and bad news management forecasts only exists in the post-RegFD period, consistent with my hypotheses. So far, little research examines the effect of RegFD on management forecasts. Last, contrary to the conventional view that investors perceive good news management forecasts as more optimistically biased than bad news management forecasts, I find that investors correctly perceive and respond to the relative optimism in good news and bad news management forecasts.

The rest of the paper proceeds as follows: Section 2 develops hypotheses; Section 3 describes the sample; Section 4 specifies research design and empirical proxies; Section 5 reports results; Section 6 discusses robustness tests; and section 7 concludes.

2. Hypothesis Development

2.1 The Differential Effect of Litigation Risk on the Optimism in Bad News and Good News Management Forecasts

Managers have incentives to forecast optimistically to gain favorable market valuations for various reasons, such as job security, performance-based compensation incentives, or firms' financing needs.[4] However, their opportunistic behavior is constrained by litigation threat. Lev and Penman (1990) show that investors can verify management forecasts by comparing them to audited earnings reports. When actual earnings are released, there could be sudden stock price drops or fluctuations if the management forecast turns out to be optimistic. Alexander (1990) and Frankel (1995) show that investors are more likely to sue firms when there are sharp drops in stock prices or large stock price fluctuations. As a result, firms voluntarily release bad news to reduce litigation risk (Skinner 1994; Skinner 1997; Kasznik and Lev 1995; Brown et al 2005). It is well documented in the accounting literature that short-horizon management forecasts are usually pessimistic in nature, as firms tend to walk down analyst forecasts to avoid negative surprises at earnings announcements (Matsumoto 2002; Richardson, Teoh and Wysocki 2004). In addition, Soffer, Thiagarajan and Walther (2000) find that firms preannounce all bad news before earnings announcements, since total abnormal returns are lower if they preannounce only part of the bad news.

However, the effect of litigation risk on long-horizon management forecasts could be different for the following reasons. First, managers have higher incentives to issue optimistic long-horizon forecasts, since

---

4. This study focuses on how litigation risk affects management forecast optimism. Francis et al. (1994) find no shareholder lawsuits alleging pessimistic forward-looking information. Palmiter (2002) provides evidence that investors who do not own shares and incur opportunity costs due to stock price increases are generally excluded from damage claims. Therefore, I do not explore the pessimistic aspect of management forecasts in this study.

they can benefit over a longer period of time. They also have sufficient time to walk down market expectations as the actual earnings announcement date approaches. Second, operating uncertainty usually increases with forecast horizon, thus it is more difficult for investors to assess the credibility of long-horizon management forecasts. Rogers and Stocken (2005) find that managers' incentives to issue optimistic forecasts increase with the difficulty that the market experiences in assessing forecast credibility. In addition, shareholder lawsuits based on earnings disclosures are typically brought under SEC rule 10*b*-5, which requires proof of the *intent* of misstatements. Operating uncertainty associated with longer horizons makes it more difficult for investors to prove intentional bias on the part of managers. Therefore, litigation risk might not deter managers from issuing optimistic long-horizon forecasts.

Further, litigation risk could affect long-horizon bad news and good news management forecasts differently, mainly driven by the distinct stock price patterns following these two types of management forecasts. Figure 1 depicts four hypothetical stock price patterns following management forecasts. Case 1 depicts the stock price pattern following optimistic good news management forecasts. The initial stock price reaction to good news management forecasts is usually positive, followed by a sudden stock price drop when the good news does not materialize at the actual earnings announcement or as the firm revises down its previous forecasts. Frankel (1995) and Alexander (1990) show that a sudden stock price drop or large stock price fluctuations cause lawsuits. Thus, optimistic good news management forecasts are vulnerable to lawsuits. On the other hand, bad news is usually associated with a negative stock market

reaction. Case 3 shows a smooth downward stock price trend associated with an optimistic bad news management forecast. An initial moderate decline is followed by a mild decrease in stock prices until the actual earnings news is revealed to be worse. By issuing an (or a series of) optimistic bad news forecast(s) to gradually walk down investor expectations, firms might be able to avoid sharp stock price declines thus reduce the likelihood of lawsuits. In addition, the partial release of bad news shortens the class period of the lawsuit, thus reducing the number of potential plaintiffs and legal damages. Skinner (1997) finds that more timely disclosure of bad news is associated with lower settlement amounts. In contrast, a truthful revelation of the bad news in case 4 could cause a sharp decline in stock prices, triggering an immediate lawsuit when the magnitude of the bad news is large. Skinner (1997) shows that stockholders sue when there is a large negative earnings surprise even though managers quickly disclose the bad news. Case 4 is in sharp contrast to case 2, where a truthful or conservative revelation of good news is associated with a smooth curve trending upward. For the above reasons, I argue that the distinct stock price patterns following good news and bad news management forecasts increase ex post litigation risk on optimistic good news management forecasts but reduce ex post litigation risk on optimistic bad news management forecasts. To our surprise, an optimistic bad news management forecast could actually be a more optimal strategy than a truthful forecast of bad news.

In addition, in the case of lawsuits, it is more difficult for investors to prove intentional bias in bad news than good news management forecasts. Skinner (1994, 1997) show that firms preempt the market with bad news to avoid lawsuits or reduce expected litigation costs. The legal needs to warn investors of

upcoming bad news makes operating uncertainty a legitimate defense of the optimism in bad news management forecasts, especially when forecast horizons are long. It is difficult for investors to prove that a firm knows the full magnitude of the bad news but chooses to partially disclose the news and it is difficult to prove when the bad news becomes known to managers. In contrast, as investors do not normally sue firms for withholding good news (Francis et al 1994; Palmiter 2002), there is no (or minimum) legal need to disclose good news. When managers are uncertain about the magnitude of the good news, the litigation risk of releasing good news outweighs benefits. Absent managerial incentives, rational managers would not release good news when uncertainty is high. Thus, investors naturally challenge managers' motivations for issuing optimistic good news forecasts, rending operating uncertainty a pale argument. For this reason, it is easier for a firm to defend its optimistic bad news forecast than good news forecast if a case goes to trial. Although less than 5% of disclosure-related cases are tried, this argument lends additional support that managers are more prone to issue optimistic bad news forecasts. The above analysis leads to my first hypothesis:

H1: Litigation risk increases the optimism in bad news management forecasts but does not increase the optimism in good news management forecasts.

If as I predict above, optimism in bad news management forecasts reduces the likelihood of lawsuits, and it is easier for managers to defend bad news forecasts than good news forecasts when a case is tried, I expect managers to modify their forecasting behavior to reduce ex post litigation risk. In particular, I

expect managers to be more optimistic when issuing bad news forecasts, leading to my second hypotheses:

H2: Long-horizon bad news management forecasts are more optimistic than their good news counterparts. [5]

This prediction is consistent with other explanations documented in prior studies. Raedy et al. (2006) prove theoretically that for a given level of inaccuracy, analysts' reputation suffers more (less) when subsequent information causes a revision in investor expectations in the opposite (same) direction as the analyst's prior earnings-forecast revision. Managers could face similar dilemmas, or they might be concerned that their forecasts would damage analysts' reputation thus affect their relationship with analysts, e.g., analysts could drop coverage of the firm. If Raedy's theory holds for management forecasts, optimistic good news management forecasts are more damaging than bad news management forecasts. If the good news does not materialize, it becomes bad news when actual earnings are announced or when the firm revises down its previous good news forecasts. In this case, investors' expectations change in the opposite direction as the news contained in the original management forecast. In the case of optimistic bad news management forecasts, news is consistently conveyed in the same direction, which is less damaging to managers' reputation or analysts' reputation if analysts use

[5] Although the focus of this study is on forecast optimism, I acknowledge that firms do issue pessimistic forecasts to deflate stock prices under certain circumstances. Aboody and Kasznik (2000) indicate that firms guide analysts to issue pessimistic forecasts prior to option grants to gain favorable option pricing. Newman and Sansing (1993) argue that firms in more concentrated industries have greater incentives to issue pessimistic forecasts to deter entry. Since these pessimistic management forecasts tend to be bad news, absent them, bad news management forecasts could be even more optimistically biased than good news management forecasts. This strengthens my argument.

management forecasts to update their own forecasts. In addition, career concerns can motivate managers to withhold bad news and gamble that things could turn around later on. Hermalin and Weisbach (2007) theoretically model how CEO's career concerns affect his/her disclosure properties. They argue that the optimal disclosure is less than fully transparent, especially for bad news. Last, managers may incur other costs, such as a loss of wealth and reduction of bonus payments and option awards due to stock price declines following bad news disclosures. The survey data in Graham, Harvey, and Rajgopal (2005) show that some CFOs delay bad news disclosures in the hope that things may improve before mandatory disclosure dates. For the above reasons, I expect managers to be more optimistic in their bad news forecasts than good news forecasts, resulting in higher optimism in bad news than good news management forecasts.

Despite theoretical prediction and survey results that bad news management forecasts are more optimistic than good news management forecasts, early empirical studies generally show the opposite. Jennings (1987) uses investors' response to management forecasts followed by analyst revisions as a proxy for the credibility of management forecasts. He finds that investors react more to good news management forecasts that are confirmed by analysts than those not confirmed by analysts, consistent with a confirmation effect. However, he does not observe such a confirmation effect in bad news management forecasts. He thus argues that investors perceive bad news management forecasts as less biased than good news management forecasts. Williams (1996) finds that analysts refer to prior management forecast usefulness in determining whether to revise their forecasts following good news

management forecasts, but they do not do so following bad news management forecasts. She concludes that bad news management forecasts are less biased than good news management forecasts. Built on psychological literature that finds the credibility of messages is related to the pre-existing conception of the bias of communicators, Hutton, Miller and Skinner (2003) argue that good news is inherently more biased than bad news due to the expected upward bias of management forecasts. They find that the market response to good news management forecasts is bigger when the good news is supplemented by a verifiable forward-looking statement, but they do not observe the same phenomenon with bad news management forecasts. They claim that bad news is always informative, but good news is informative only when supplemented by a verifiable forward-looking statement.

However, recent research challenges this traditional view. Although Rogers and Stocken (2005) do not focus on the differential bias in good news and bad news management forecasts, their descriptive statistics of mean predicted and actual forecast errors of annual EPS show no evidence that bad news management forecasts are unbiased or even less biased than good news management forecasts. Therefore, the mixed results in prior research call for a systematic and direct examination of the bias in good news and bad news management forecasts.

2.2 The Effect of RegFD on Management Forecasts of Good and Bad News

Prior to the implementation of RegFD, firms can leak information to select analysts or institutions. By the time management forecasts are released, these analysts or institutions might have already learned the information, and stock prices are likely to have reflected part or all of the information. Informed traders

are less likely to trade on forecast news as they have already traded based on their private information before management forecasts are released to the public. Meanwhile, uninformed traders, mostly individual investors, are reluctant to trade on management forecasts due to their information disadvantage. The lack of activities from both informed and uninformed traders result in lower trading volumes and weaker stock price responses around management forecasts. Both effects reduce the likelihood of lawsuits as well as litigation costs in the case of a lawsuit. In addition, informed institutional traders are either affiliated to the firm or favored by the firm to have received or continue to receive private information, thus are less likely to sue for management forecasts. Consequently, the relatively low litigation risk on management forecasts might not affect management forecasting behavior during the pre-RegFD period, and there might not be any difference in the optimism in good news and bad news management forecasts.

RegFD prevents firms from releasing value-relevant information to select securities professionals. The reduction of information leakage increases the information content of management forecasts, potentially increasing trading volume and market reactions around management forecast announcements. In addition, since institutional investors no longer receive private information after the implementation of RegFD, they also rely on management forecasts to make investment decisions, and will sue firms for misleading forecasts. Cheng et al (2009) show that institutional investors are more likely to serve as lead plaintiffs, and securities class action lawsuits with institutional owners as lead plaintiffs are less likely to be dismissed and have larger monetary settlements than securities class action lawsuits with individual

lead plaintiffs. All these factors lead to higher litigation risk on management forecasts after the implementation of RegFD. Johnson et al. (2001) and Baginski et al. (2002) show that legal environment affects management forecasting behavior. Indeed, Heflin et al. (2003) find that management forecasts of point estimates decrease while range estimates increase after the implementation of RegFD.

For the above reasons, I expect RegFD to affect the optimism in management forecasts. In particular, I expect RegFD to affect managers' forecasting of bad news and good news differently. Bailey et al. (2003) show that trading volume around earnings releases significantly increases due to the difference in opinion after the adoption of RegFD. It thus becomes especially important to avoid large negative surprises at earnings announcements in the post-RegFD period. One measure taken by firms is to walk down market expectations through issuing bad news earnings forecasts. Heflin, Subramanyam and Zhang (2003) find that the number of management forecasts more than doubled after the implementation of RegFD, consistent with firms responding to RegFD by issuing more forecasts to reduce information asymmetry. In addition, higher litigation risk on management forecasts after the implementation of RegFD also increases managers' incentives to avoid big negative surprises around management forecast releases. As I argue in Section 2.1, truthful forecasts of bad news could cause sharp stock price declines, thus triggering immediate lawsuits, especially when the magnitude of the bad news is big. A more optimal strategy is to release bad news but only partially. Keeping some optimism in bad news management forecasts and gradually walking down market expectations ensures a smooth pattern of stock prices, which lowers litigation risk. Therefore, I expect litigation risk to be positively associated with the

optimism in bad news management forecasts after the implementation of RegFD. In contrast, optimism in good news management forecasts increases litigation risk. Thus I expect managers to be more cautious when issuing good news forecasts. Untabulated results show that stock price responses to good news management forecasts more than doubled after the implementation of RegFD. [6] If the good news in management forecasts does not materialize, this stronger stock market reaction increases the likelihood of large stock price declines or fluctuations, which are documented in prior research to cause lawsuits. As a result, I expect litigation risk to have differential effects on good news and bad news management forecasts after the implementation of RegFD. I therefore hypothesize that:

H3a: Before the implementation of RegFD, litigation risk does not affect the optimism in management forecasts; after the implementation of RegFD, litigation risk is positively associated with the optimism in bad news management forecasts, but not that in good news management forecasts;

H3b: Before the implementation of RegFD, there is no difference in the optimism in good news and bad news management forecasts; after the implementation of RegFD, the optimism in bad news management forecasts is higher than that in their good news counterparts.

2.3 Market Perception of the Optimism in Good News and Bad News Management Forecasts

Some prior studies find that good news management forecasts generate weaker short-window stock price responses than bad news management forecasts, thus conclude that investors perceive good news

---

[6] Untabulated results show that the market reaction to bad news management forecasts decreases after the implementation of RegFD. However, this finding could be due to firms' response to the increased litigation risk on bad news management forecasts by pre-releasing some bad news through other channels such as press releases and conference calls.

management forecasts as more optimistically biased than bad news management forecasts (Hutton, Miller, and Skinner 2003; Anilowski, Feng, and Skinner 2007). However, asymmetric investor loss functions or the differential magnitude of the news in bad news and good news management forecasts could also cause asymmetric stock price reactions to the two types of management forecasts. Indeed, Kothari et al (2009) find that firms withhold bad news but leak good news gradually. They argue it is the leakage of good news thus lower information content in good news management forecasts that causes weaker market reactions to good news management forecasts. In addition, if investors perceive bad news management forecasts as more optimistic than good news management forecasts, they could also react more negatively to bad news management forecasts, since the actual bad news could be worse. In this case, a stronger market reaction to bad news management forecasts indicates just the opposite to what prior research believes. That is, it is the higher (not lower) optimism in bad news management forecasts that causes stronger market reactions to these forecasts. Therefore, it is inconclusive to study only short-window market responses to management forecasts.

For the above reasons, I study both short-window and long-window market responses to management forecasts to determine the market's true perception of the relative optimism in good news and bad news management forecasts[7]. If good news management forecasts are less optimistic than bad news management forecasts as I expect but the market perceives the opposite thus reacts less positively to good

[7] Short-window market response is measured as the 3-day buy-and-hold abnormal returns around management forecasts, and long-window market response is measured as the buy-and-hold abnormal returns from two days after management forecasts till one day after actual earnings announcements.

news management forecasts, I expect a short-window underreaction to good news management forecasts. This underreaction is corrected as new information becomes available or when actual earnings are reported. As a result, long-window abnormal returns should be positively associated with the news in good news management forecasts. Similar logic applies to bad news management forecasts. A lack of such an association indicates that short-window market reactions to management forecasts are complete and investors correctly perceive the relative optimism in good news and bad news management forecasts. If the market is efficient, I expect investors to correctly perceive and react to the relative optimism in good news and bad news management forecasts, leading to my fourth hypothesis:

H4: There is no significant association between long-window abnormal returns and the news in management forecasts of either good news or bad news.

3. Sample Selection

The PSLR Act was passed on December 22, 1995. The safe harbor provision shelters managers from litigation arising from unattained forecasts made in good faith (Johnson et al. 2001). To mitigate the confounding effect of legal environment on management forecasting behavior, I restrict my sample to management forecasts issued after the passage of the PSLR Act. In addition, First Call has very limited number of management forecasts before 1995. My sample spans over the period between 1996 and 2009.

Since this study focuses on long-horizon management forecasts, I examine management forecasts of annual earnings per share only. Management forecasts of quarterly earnings are usually issued close to

earnings announcements. They are treated as short-horizon management forecasts and excluded from my sample.

To increase test power, I include a firm's first management forecast issued in the same fiscal year. Firms have higher incentives to bias their first forecasts for the following reasons: first, firms can benefit from favorable market valuations over a longer period of time by biasing up their first forecast; second, operating uncertainty is higher for longer-horizon forecasts, thus litigation risk is likely to be lower for the first management forecast than for revised forecasts. It is more difficult for investors to prove intentional bias when operating uncertainty is high. In addition, as actual reporting dates approach, firms tend to revise down their earlier optimistic forecasts to meet/beat analyst forecasts, thus revised management forecasts could be less optimistic or even pessimistic (Cotter, Tuna and Wysocki 2006). Nonetheless, absent management incentives, even the first management forecast should be unbiased. In addition, I restrict forecast horizon (defined as fiscal year end less forecast release date) to be less than one year. Management forecasts longer than one year could be subject to lower litigation risk, thus firms' forecasting behavior and market's reaction could be different. I exclude management forecasts issued after fiscal year end to avoid earnings preannouncements. To reduce the impact of extreme observations and potential data coding errors, I truncate my sample at the top and bottom 1% of management forecast errors.

I obtain management forecasts from the First Call Company Issued Guidelines (FCCIG) database and unadjusted analyst forecasts and actual earnings per share from I/B/E/S. I use unadjusted management

forecasts, analyst forecasts and reported actual earnings to mitigate the loss of information caused by stock splits and rounding (Payne and Thomas 2003). I then extract cumulative split factor for shares from CRSP based on forecast or earnings release date, and split adjust the unadjusted data.[8] Management forecasts, analyst forecasts and actual earnings in First Call and I/B/E/S are adjusted for one-time items, so they are on the same basis. Daily share prices are from CRSP, and other control variables are from Compustat. I exclude firms with share price under $2 at two days before management forecast release date to mitigate small denominator problems, as share price is used as a deflator for forecast errors.[9] I obtain GDP data from the Bureau of Economic Analysis. The final sample consists of 9,683 firm-years and 2,721 firms over the period of fourteen years between 1996 and 2009.

To examine the characteristics of management forecasts for firms that are involved in disclosure-related lawsuits, I hand collect disclosure-related lawsuit data from Stanford Securities Class Action Clearing House. There are totally 2,132 disclosure-related lawsuits with a filing date in my sample period. I then extract the management forecasts of annual EPS issued by these litigated firms during their litigation periods. To be consistent with the sample used in this study for management forecast optimism, I retain each firm's first management forecast issued for the same fiscal year. Among these 1,849

[8] I use the estimated management forecasts (cig_est) given by First Call, but manually check the data for errors. When the estimated forecasts appear to be erroneous, I manually calculate the management forecasts based on the detailed data and coding in FC. I extract the cumulative split factor for shares from CRSP to achieve a better match between split factor and share price. The cumulative split factor in CIG is identical to the cumulative split factor for shares in CRSP in most cases, but is different in some cases as CIG updates its records more frequently. I thank Jeffrey Ng for pointing this out.

[9] This study includes utilities, transportation, and financial services companies. The exclusion of these regulated industries does not change the results of this study.

management forecasts, 1,297 management forecasts have at least one analyst forecast over the 90 days prior to the forecast release date.

4. Hypothesis Testing

Section 4.1 examines the relative optimism in good news and bad news management forecasts as well as the differential effect of litigation risk on good news and bad news management forecasts. Section 4.2 investigates the role of RegFD in changing managers' forecasting behavior. Section 4.3 studies the market perception of the relative optimism in good news and bad news management forecasts. Section 4.4 defines and discusses variables used in this study.

4.1 The Relative Optimism in Bad News and Good News Management Forecasts as well as the Role of Litigation Risk

To examine the relative optimism in good news and bad news management forecasts and how litigation risk affects management forecasting of good news and bad news differently, I estimate the following models using cross-sectional ordinary least squares (OLS) regressions:

$$FE = Good + Litigation + Controls + \varepsilon \quad (1)$$

$$FE = Good + Litigation + Litigation \times Good + Controls + \varepsilon \quad (2)$$

The models' variables are defined and discussed below:

FE, management forecast error, is calculated as actual earnings less management forecast deflated by closing share price two days prior to the management forecast release date. I use actual earnings reported by I/B/E/S to ensure that actual EPS and management forecasts are on the same basis. In general, reported

earnings in I/B/E/S are adjusted for accounting irregularities not included in forecasted earnings. Good is a dummy variable that equals one if the management forecast is greater than the prior consensus analyst forecast, and zero otherwise. I use the litigation risk model in Rogers and Stocken (2005) to compute litigation risk:

$$\text{Litigation} = G(-5.738 + 0.141 \times \text{Size} + 0.284 \times \text{Turn} + 0.012 \times \text{Beta} - 0.237 \times \text{Returns} - 1.34 \times \text{Std\_Ret} + 0.011 \times \text{Skewness} - 3.161 \times \text{Min\_Ret} - 0.025 \times \text{Bio\_Tech} + 0.378 \times \text{Computer Hardware} + 0.075 \times \text{Electronics} - 0.034 \times \text{Retailing} + 0.211 \times \text{Computer Software} + \varepsilon) \quad (3)$$

Where $G(\cdot)$ is the standard normal cumulative distribution function, Size is the natural log of the average market value of equity, Turn is the average daily share volume divided by the average shares outstanding, Beta is the slope coefficient from regressing daily returns on the CRSP Equal-Weighted Index, Returns is defined as buy and hold returns, Std_Ret is the standard deviation of the daily returns, Skewness is defined as the skewness of the daily returns, Min_Ret is the minimum of the daily returns, Bio_Tech is an industry indicator variable equaling one if the firm is in the bio-tech industry (SIC 2833 to 2836) and zero otherwise, Computer Hardware is an industry indicator variable equaling one if the firm is in the computer hardware industry (SIC 3570 to 3577) and zero otherwise, Electronics is an industry indicator variable equaling one if the firm is in the electronics industry (SIC 3600 to 3674) and zero otherwise, Retailing is an industry indicator variable equaling one if the firm is in the retailing industry (SIC 5200 to 5961) and zero otherwise, and Computer Software is an industry indicator variable equaling one if the

firm is in the computer software industry (SIC 7371 to 7379) and zero otherwise. The above variables are measured over the calendar quarter prior to management forecasts.

Since Rogers and Stocken (2005) only examines the period between the fourth quarter of 1995 and the fourth quarter of 2000, which coincides with my sample period prior to RegFD, I use their coefficients to estimate the litigation risk for my samples in the pre-RegFD period. I then re-estimate the model for the post-RegFD period with the securities class action lawsuit data from Stanford Law School's *Securities Class Action Clearinghouse* for the period between the first quarter of 2001 and the fourth quarter of 2009. I use two sets of estimates because I expect RegFD to alter litigation risk associated with corporate disclosures.

Model 1 examines the relative optimism in good news and bad news management forecasts. A positive coefficient on Good indicates that good news management forecasts are less optimistically biased than bad news management forecasts. Model 2 includes an interaction term of Litigation and Good to examine whether litigation risk affects the optimism in good news and bad news management forecasts differently. The coefficient on Litigation represents the effect of litigation risk on bad news management forecasts, while the sum of the coefficients on Litigation and Litigation×Good represents the effect of litigation risk on good news management forecasts. I control for year effect and industry effect with the Fama-French 48-industry classification codes.

I include the following empirical proxies to control for other factors that could affect management forecast bias:

Growth/Distress Factor. I use BM ratio to proxy for firm growth and financial distress. Skinner and Sloan (2001) find that the market reaction to earnings announcements, especially negative earnings surprise, is greater for high-growth firms. Therefore, it is especially costly for high-growth firms to give optimistic forecasts and then surprise the market with negative news at actual earnings announcement dates. Revising forecasts downward before earnings report dates could also be costly, as Matsumoto (2002) finds that high-growth firms manage earnings upward but do not guide analyst forecasts downward to meet targeted earnings. Therefore, high-growth firms might be prone to issue less optimistic forecasts. High BM ratio could also indicate that firms are financially distressed. Rogers and Stocken (2005) find that financially distressed firms are more likely to issue optimistic long-horizon forecasts. In either case, I expect a positive association between BM and management forecast optimism.

Forecast Horizon. Several studies find that forecast errors decline as forecasts are issued closer to fiscal year end (Johnson et al. 2001). Rogers and Stocken (2005) show that the optimistic bias in management forecasts is positively associated with forecast horizon. Following Roger and Stocken (2005), I measure forecast horizon as the number of calendar days between forecast release date and fiscal year end.

Capital Market Pressure. I use two variables to proxy for capital market pressure: institutional ownership and the number of analysts following a firm. Lang and McNichols (1997) find that institutions trade on earnings and the change of institutional ownership affects stock returns. Thus, managers have incentives to inflate forecasted earnings to keep institutional investors. McNichols and O'Brien (1997)

find that analysts tend to cover firms that subsequently do well. The fear of analysts dropping the coverage of the firm could motivate managers to issue optimistic forecasts to paint a favorable outlook.

Operating Uncertainty/Information Asymmetry. The uncertainty in a firm's operating environment poses challenges for managers to accurately forecast future earnings. I use three proxies to control for the uncertainty in a firm's forecasting environment: 1) loss, a dummy variable for firms that experience a loss in any of the four fiscal quarters prior to the management forecast announcement; 2) analyst forecast dispersion, the standard deviation of analyst forecasts scaled by price during the 90 days prior to the management forecast; 3) stock return volatility, the standard deviation of daily stock returns over the 120 days prior to management forecast. Prior research documents that it is more difficult to forecast earnings for loss firms (Brown 2001), and higher analyst forecast dispersion usually signals forecasting difficulty. Rogers and Stocken (2005) argue that it is more difficult to forecast a firm's earnings when its "true" earnings are more volatile, and volatility in a firm's "true" earnings is positively associated with volatility in the firm's stock price. These three variables also signal information asymmetry between managers and investors. Kothari et al (2009) find that information asymmetry motivates managers to withhold bad news. I expect greater information asymmetry to also provide opportunities for managers to bias their forecasts.

Previous Cumulative Abnormal Returns. McNichols (1989) and Rogers and Stocken (2005) find that management forecast errors are correlated with previous cumulative abnormal returns. I calculate previous cumulative abnormal returns ($CAR_{-120, -2}$) as the cumulative daily returns less the size-decile-

matched CRSP Value-Weighted Index over the period from 120 days to 2 days before management forecast date.

Size. Bamber and Cheon (1998) show that firm size affects management forecasting behavior through the balance of forecasting costs and benefits. In addition, Alexander (1991) and Skinner (1994) show that litigation cost is likely to be a function of firm size. Since litigation threat is a main driving force of management forecasting behavior, size could indirectly affect management forecast bias.

4.2 The Impact of RegFD on Management Forecasting Behavior

The change in legal environment caused by RegFD could change the impact of litigation risk on management forecasting behavior, in particular, the relative optimism in good news and bad news management forecasts. To examine this effect, I examine models 1 and 2 for the pre- and post-RegFD periods separately. Management forecasts issued before October 23, 2000 are included in the pre-RegFD period and management forecasts issued after October 23, 2000 are included in the post-RegFD period. I include lagged real GDP change to control for macroeconomic changes around the implementation of RegFD. All other control variables are the same as those used in models 1 and 2.

Alternatively, I could extend models 1 and 2 by adding interaction terms of Litigation, Good and RegFD (a dummy variable that equals one if the management forecast is issued after October 23, 2000, and zero otherwise). However, numerous interaction terms could reduce test power and make it difficult to interpret results.

4.3 Research Design for the Market Perception of Management Forecast Optimism

To examine short-window market responses to management forecasts, I estimate the following models using cross-sectional OLS regressions:

$$CAR_{-1,+1} = Good + FN + FN\times Good + FN\_Large + Guidloss + UE + UE\_Large + Earnloss + Size + BM + Retvol + Horizon + \varepsilon \quad (4)$$

$$CAR_{-1,+1} = Good + FN + FN\times Good + FN\_Large + Guidloss + Size + BM + Retvol + Horizon + \varepsilon \quad (5)$$

Model 4 examines the full sample. $CAR_{-1,+1}$ is 3-day buy-and-hold abnormal returns around management forecast releases. FN is management forecast news, defined as management forecasts less the prior 90-day consensus (mean) analyst forecast deflated by share price. FN_Large, large-magnitude management forecast news, equals FN if the absolute value of FN is greater than 1% and zero otherwise. Guidloss is a dummy variable that equals one if forecasted earnings is negative, and zero otherwise. UE is the unexpected news contained in the current quarter's earnings that are announced concurrently with management forecasts, measured as actual earnings less the prior consensus analyst forecast. UE_Large, large-magnitude earnings news, equals UE if the absolute value of UE is greater than 1% and zero otherwise. Earnloss is a dummy variable that equals one if a firm incurs a loss in any of the previous four quarters and zero otherwise.

When actual earnings are announced concurrently with management forecasts, investors react to both management forecasts and actual earnings. To remove the confounding effect of concurrently announced earnings news on market reactions, I also examine the standalone subsample separately in model 5.

Standalone forecasts are management forecasts issued on a separate date from earnings announcements, while concurrent forecasts are those issued on the same day as earnings announcements.

The following empirical proxies are used to control for other factors that could affect short-window market reactions to management forecasts:

Large-magnitude Management Forecast News/Earnings News: To control for nonlinearity in the returns-earnings relation (Freeman and TSE, 1992), I include FN_Large and UE_Large to allow different slope coefficients for large-magnitude FN and UE. UE_Large is only included when examining the full sample.

Loss Firms: Hayn (1995) finds smaller return response to earnings news for loss firms than for firms reporting profits, so I include Earnloss and Guidloss in my models. Earnloss is a dummy variable for firms with negative concurrently-announced earnings. Guidloss is a dummy variable for firms with negative forecasted earnings.

Horizon: As forecast horizon affects management forecast bias, which could influence the market response to forecast news, I expect forecast horizon to indirectly affect the market response to management forecast news (Jennings 1987; Rogers and Stocken 2005).

I also include size, BM, and Retvol (stock return volatility) in the models as control variables, as prior research finds that market reaction to earnings news is affected by firm size (Atiase 1985; Freeman 1987), growth prospects and risk (Collins and Kothari 1989; Easton and Zmijewski 1989).

To examine the market perception of the relative optimism in good news and bad news management forecasts, I also study long-window market response to management forecasts with the following OLS regression models:

$$BHAR = Good + FN + FN\times Good + FN\_Large + Guidloss + UE + UE\_Large + Earnloss + Size + BM + Retvol + Horizon + \varepsilon \quad (6)$$

$$BHAR = Good + FN + FN\times Good + FN\_Large + Guidloss + Size + BM + Retvol + Horizon + \varepsilon \quad (7)$$

Model 6 examines the full sample and model 7 examines the standalone subsample. BHAR is buy-and-hold abnormal returns, measured as buy-and-hold returns less size-decile matched CRSP Index from two days after forecast releases to one day after earnings announcements. A lack of significance of the coefficient on FN as well as the sum of the coefficients on FN and FN×Good indicates that short-window market response to the news in management forecasts is complete for both good news and bad news management forecasts and that investors correctly perceive and react to the relative optimism in good news and bad news management forecasts.

4.4 Variable Definitions

The following is a list of the variables used in this study:

FE = management forecast error defined as actual earnings less management forecast deflated by share price two trading days before management forecast announcements;[10]

[10] Actual earnings are EPS reported in I/B/E/S. For this database, forecasted earnings are generally estimated on operating basis, and reported earnings are often adjusted for accounting irregularities not included in forecasted earnings.

Accuracy = the absolute value of management forecast error;

Good = dummy variable equal to 1 if forecast news is non-negative, and 0 otherwise;

FN = management forecast news defined as management forecasts less the prior 90-day consensus (mean) analyst forecast deflated by share price two trading days before management forecasts;

FN_Large = FN if abs(FN) > 0.01, and 0 otherwise;

Guidloss = dummy variable equal to 1 if forecasted earnings are negative, and 0 otherwise;

Litigation = litigation risk, measured with the model in Rogers and Stocken (2005);

Horizon = the number of calendar days between the forecast release date and fiscal year end;

Size = the natural log of equity market value at the end of the prior fiscal quarter;

BM = book-to-market ratio defined as book over market value of equity at the end of the prior fiscal quarter of management forecast announcements;

Retvol = return volatility measured as the standard deviation of daily stock returns over prior 120 days;

Loss = dummy variable equal to 1 if a firm incurs a loss in any of the prior four quarters;

Std_Af = analyst forecast dispersion measured as the standard deviation of analyst forecasts during the 90 days prior to management forecast announcements;

Analystn = the number of analysts following during the 90 days prior to management forecast

announcements;

Instown = institutional ownership measured as the percentage of firm shares owned by institutions;

Q_n = the n_{th} fiscal quarter in which a management forecast is issued;

$BHAR_{-120, -2}$= buy-and-hold abnormal returns from 120 to 2 days before management forecast announcements, measured as buy and hold returns less size-decile matched CRSP Index;

$CAR_{-1, +1}$ = 3-day buy-and-hold abnormal returns around management forecast announcements, measured as buy-and-hold returns less the size-decile matched CRSP Index from one trading day before to one trading day after management forecast announcements;[11]

BHAR = buy-and-hold abnormal returns from two days after management forecasts till one day after actual earnings announcements, measured as buy and hold returns less size-decile matched CRSP Index;

UE = unexpected earnings for the quarterly earnings concurrently announced with management forecasts, calculated as actual earnings less the prior consensus analyst forecast;

UE_Large = UE if abs(UE) > 0.01, and 0 otherwise;

Earnloss = dummy variable equal to 1 if concurrently announced earnings are negative, and 0 otherwise;

[11] When management forecast is released after normal trading hours, I reset the forecast release date to the following trading day to calculate event period returns.

Lagged_GDPChg=the change of real GDP in the quarter prior to management forecast issuances;

5. Empirical Findings

5.1 Descriptive Statistics

Table 1 presents the distributional properties of management forecasts. Panel A reports the distribution of management forecasts by year. The average number of management forecasts released each year more than doubled after the implementation of RegFD, consistent with prior research that RegFD increases voluntary disclosures (Heflin, Subramanyam and Zhang 2003). Approximately 54% of my sample contains bad news, while Kothari et al. (2009) find that 76% of management forecasts of quarterly EPS contain bad news. This evidence suggests that the horizon of management forecasts plays an important role in shaping managers' forecasting behavior. Panel B shows the distribution of frequency that firms issue forecasts. About 34% of the firms issued only one forecast in the 14 years examined in this study and about 17% issued forecasts almost every other year. Panel C reports the distribution of management forecasts by forecast horizon. Approximately 66% of management forecasts are issued in the first fiscal quarter, and about 81% of forecasts are issued in the first half of a fiscal year.

Table 2 reports descriptive statistics. Variables are defined in Section 4.4. Bad news management forecasts are more optimistic (or less pessimistic) than good news management forecasts in all percentiles. The magnitude of bad news (mean -0.64%) is greater than that of good news (mean 0.37%), consistent with the finding in Kothari et al. (2009) that managers withhold bad news but leak good news before they issue forecasts to the public. Litigation risk is higher on firms issuing bad news management

forecasts (mean 0.0085, median 0.0058) than on firms issuing good news management forecasts (mean 0.0077, median 0.0055). Abnormal returns are negative (mean -0.66% and median -1.7%) over the 120 days prior to bad news management forecasts and positive (mean 4.9% and median 1.8%) prior to good news management forecasts. Buy-and-hold abnormal returns following management forecasts are consistently higher for good news management forecasts than for bad news management forecasts over all percentiles. Short-window market reactions are positive to good news management forecasts and negative to bad news management forecasts. For the standalone subsample, average 3-day buy-and-hold abnormal returns is -4.5% for bad news management forecasts, and 2.1% for good news management forecasts. The magnitude of market reactions to bad news management forecasts is on average 2.1 times of that to good news management forecast, consistent with the findings in previous studies that the market reacts more strongly to bad news than to good news. There is no significant difference between firms issuing good news and bad news forecasts in terms of size, BM ratio, the number of analyst following, institutional ownership, stock return volatility prior to management forecasts, analyst forecast dispersion over the prior 5 years and the incidence of loss over the prior four quarters. In addition, there is no significant difference between good news and bad news management forecasts in terms of forecast accuracy and forecast horizon.

Table 3 reports the Pearson correlation matrix. Forecast news is significantly positively correlated with forecast errors indicating that the more negative the forecast news, the more optimistic the forecast is. Size, analyst following and institutional ownership are positively associated with forecast error,

suggesting that bigger firms with more analyst following and higher institutional ownership are more conservative when issuing forecasts. Forecast horizon is negatively associated with forecast error, consistent with prior research that management forecasts become more pessimistic as they approach actual earnings announcement dates. Both short-window and long-window buy-and-hold abnormal returns are significantly positively associated with forecast errors, indicating that investors immediately react to management forecast errors and management forecast errors continue to be corrected in the long run until the actual earnings are announced.

Figure 2 depicts the median forecast errors of good news and bad news management forecasts over the 12-month period prior to fiscal year ends. The median forecast errors of bad news management forecasts consistently lie under those of good news management forecasts for the first three fiscal quarters, but cross over to lie slightly above those of good news management forecasts for the last fiscal quarter. In addition, during the last three months before fiscal year ends, the median forecast errors of both good and bad news management forecasts are positive, meaning that both types of forecasts are pessimistic in nature. The evidence indicates that long-horizon bad news management forecasts are generally more optimistic than good news management forecasts, although there is no significant difference in the optimism of short-horizon management forecasts of good news and bad news.

5.2 Ligation Risks and Management Forecast Optimism

Table 4, Panel A reports the descriptive statistics of the management forecasts issued by firms involved in disclosure-related lawsuits during their litigation periods. Among the 1,297 management

forecasts, 635 (48.96%) are good news management forecasts and 662 (51.04%) are bad news management forecasts. There does not appear to be any significant difference between the number of lawsuits associated with good news management forecasts and that associated with bad news management forecasts. Further examination of the characteristics of these management forecasts reveals that the mean (median) forecast error of good news management forecasts is -1.23% (-0.03%), while the mean (median) forecast error of bad news management forecasts is -2.07% (-0.19%). Bad news management forecasts are more optimistically biased than good news management forecasts. The difference is statistically significant at less than 1% level. This evidence is consistent with my expectation that firms are cautious not to issue optimistic good news forecasts and that good news management forecasts with similar optimism are more likely to be sued than bad news management forecasts. The lack of a significant difference in the frequency of lawsuits between firms issuing good news forecasts and those issuing bad news forecasts could be attributed to the adjustment in firms' forecasting behavior. If firms change their forecasting behavior and issue less optimistic good news forecasts due to higher ex post litigation risk on optimistic good news management forecasts, the number of lawsuits associated with good news management forecasts would be reduced. Consequently, there might not be any ex post difference in the frequency of lawsuits associated with good news and bad news management forecasts.

Panels B and C report management forecast optimism and the effect of litigation risk on the optimism in good news and bad news management forecasts. Panel B shows the univariate results of management forecast errors. The mean forecast error is -0.37% for good news management forecasts and -0.53% for

bad news management forecasts. This difference is statistically significant at less than 1% level, indicating that bad news management forecasts are on average more optimistic than good news management forecasts.

Panel C reports the regression results. In column 1, the coefficient on Good is 0.001 and significant at 5% level, indicating that good news management forecasts are less optimistic than bad news management forecasts by 0.001 on average. The difference is approximately 17.5% and 24.7% of the mean forecast error of bad news and good news management forecasts respectively. Consistent with this finding, figure 2 shows that the median forecast errors of bad news management forecasts lie under those of good news management forecasts for almost all forecast horizons. These findings indicate that bad news management forecasts are more optimistic than good news management forecasts. The coefficient on Litigation is significantly negative, suggesting that litigation risk is positively associated with the optimism in management forecasts, which seems surprising. However, a close examination in column 2 reveals that litigation risk increases the optimism in bad news management forecasts only and does not change the optimism in good news management forecasts. Column 2 shows the regression results of the effect of litigation risk on the optimism in good news and bad news management forecasts respectively. While the coefficient on Litigation is significantly positive, F test shows that the sum of the coefficients on Litigation and Litigation*Good is insignificantly. When litigation risk increases from the first quartile to the third quartile, the optimism in bad news management forecasts increases by 0.082*(0.01-0.004)=0.05%, about 9.49% of the average forecast error in bad news management forecasts.

All other variables in panel C have expected signs. Higher operating uncertainty/information asymmetry, proxied by analyst forecast dispersion, the incidence of loss in any of the previous four quarters, and stock return volatility, increases management forecast optimism. Firms with lower prior buy-and-hold abnormal returns issue more optimistic forecasts, consistent with the findings of McNichols (1989). The number of analysts following a firm is positively associated with the optimism in management forecasts, while institutional ownership does not appear to change management forecast optimism. Larger firms are less optimistic, consistent with prior findings that litigation risk is higher for bigger firms. BM ratios are negatively correlated with management forecast errors, indicating that low BM (high-growth) firms issue less optimistic forecasts, and high BM (financially distressed) firms issue more optimistic forecasts. The coefficient on horizon is significantly negative, suggesting that firms issue less optimistic forecasts when fiscal year end approaches. Controlling for year and industry effect does not change my results. In addition, if managers' forecasting styles are sticky, the standard errors of management forecasts across different years could be correlated. To improve the efficiency on the coefficients, I perform the same tests using clustered standard errors by firm. My results remain the same.

5.3 The Effect of RegFD on Management Forecasting Behavior

Table 5 reports management forecast optimism and the effect of litigation risk on management forecast optimism during the pre- and post-RegFD period respectively. Panel A shows the univariate results of management forecast optimism. For the pre-RegFD period, the mean (median) forecast error in good news management forecasts is -0.52% (0.04%) while that in bad news management forecasts is -

0.72% (-0.04%). There is no significant difference in the mean forecast error of good news and bad news management forecasts, although the median shows a difference. For the post-RegFD period, the mean (median) forecast error in good news management forecasts is -0.35% (0.08%) while that in bad news management forecasts is -0.49% (0.02%). The difference is statistically significant for both the mean and median forecast error at less than 1% level.

Panel B reports the regression results of the optimism in good news and bad news management forecasts as well as the effect of litigation risk on the optimism in good news and bad news management forecasts. Columns 1 and 2 report results for the pre-RegFD period while columns 3 and 4 report results for the post-RegFD period. The coefficient on Good in column 1 is not statistically significant, indicating that there is no significant difference in the forecast optimism between good news and bad news management forecasts during the pre-RegFD period. This evidence is consistent with the findings in Rogers and Stocken (2005), which examine only the pre-RegFD period. In addition, the coefficient on Litigation in columns 1 is insignificant, suggesting that litigation risk does not change management forecast optimism in general. Column 2 adds an interaction term of Litigation and Good to examine the effect of litigation risk on the optimism in good news and bad news management forecasts separately. The coefficient on Litigation remains insignificant, indicating that litigation risk does not change the optimism in bad news management forecasts. F test shows that the sum of the coefficients on Litigation and Litigation×Good is also insignificant, providing evidence that litigation risk does not change the optimism in good news management forecasts either. In summary, litigation risk does not appear to be sufficiently

large to change the optimism in management forecasts for either good news or bad news prior to the implementation of RegFD.

For the post-RegFD period, the coefficient on Good in column 3 is positive and statistically significant at 5% level, indicating that good news management forecasts are less optimistic than bad news management forecasts. The difference in the forecast error of good news and bad news management forecasts is 0.1%, approximately 21% (29%) of the magnitude of the mean forecast error of bad (good) news management forecasts for the post-RegFD period. The evidence suggests that the greater optimism in bad news management forecasts reported in table 4 is mostly driven by the post-RegFD period. In column 4, the coefficient on Litigation is positive and significant, while F test shows that the sum of the coefficients on Litigation and Litigation×Good is insignificant. These findings indicate that litigation risk increases the optimism in bad news management forecasts, but does not change the optimism in good news management forecasts during the post-RegFD period.

5.4 Market Perception of Management Forecast Optimism

Table 6 reports the regression results of short-window market response to management forecasts. Short-window market response is measured as the 3-day buy-and-hold abnormal returns immediately around management forecast release dates. Panel A examines the entire sample of 9,683 management forecasts. To reduce the confounding effect of concurrent earnings announcements on stock market reactions, I also examine the standalone sample which includes only management forecasts that are issued on a separate date from earnings announcements. These results are reported in panel B. In both panels, the

coefficients on FN are significantly positive and those on FN×Good are significantly negative. The findings indicate that investors react more strongly to bad news management forecasts than to good news management forecasts, consistent with prior literature.

Table 7 shows the regression results of long-window market response to management forecasts. Long-window market response is measured as the buy-and-hold abnormal returns from two days after management forecasts to one day after actual earnings announcements. Panel A reports the results on the full sample, while panel B reports results on the standalone subsample. The coefficient on FN is insignificant in both panels A and B, suggesting that long-window market responses are not associated with the forecast news in bad news management forecasts. In panel B, *F*-test shows that the sum of the coefficients on FN and FN×Good is not statistically significant. Since long-window market responses are not associated with the forecast news in either good news or bad news management forecasts, we can reasonably infer that short-window market responses to forecast news are complete for both good news and bad news management forecasts. That is, investors correctly perceive and respond to the relative optimism in good news and bad news management forecasts. If investors discount good news management forecasts because they perceive good news management forecasts as more optimistically biased than bad news management forecasts but they are actually less optimistic as documented in this study, there would be a short-window underreaction to good news management forecasts. This underreaction is corrected when actual earnings are announced or when new information revises investor belief before actual earnings are announced. As a result, there would be a positive association between

long-window market responses and the news in good news management forecasts. The lack of such an association provides evidence that investors do not perceive bad news management forecasts as less optimistically biased than good news management forecasts as claimed in some prior research.

In panel A, *F*-test shows that the sum of the coefficients on FN and FN×Good is marginally significant (at 10% level), indicating that there could be an underreaction to good news management forecasts. This finding is inconsistent with the results for the standalone sample. However, it could be caused by the confounding effect of concurrently announced earnings. If managers tend to give good news guidance when their current earnings are not good, the weaker market response to good news management forecasts contains investors' negative reaction to the disappointing current earnings information. Therefore, the test on the standalone subsample is more reliable. We can reasonably claim that investors correctly perceive and react to the relative optimism in good news and bad news management forecasts.

6. Additional Tests

6.1 Management Forecast Accuracy and the Effect of Litigation Risk on Accuracy

Absent management bias, there should be no directional difference between the forecast error of good news management forecasts and that of bad news management forecasts. The significant difference in the forecast error between good news and bad news management forecasts found in this study is sufficient to prove the existence of management bias. Nonetheless, I examine management forecast accuracy for any fundamental difference other than management bias in good news and bad news management forecasts.

Forecast accuracy composes of both management bias and measurement errors. Certain firm characteristics affect measurement errors in management forecasts. For example, if firms issuing bad news forecasts have higher operating uncertainty than firms issuing good news forecasts, citrus paribus, measurement errors in bad news management forecasts could be greater than those in good news management forecasts. In this case, if bad news management forecasts are also more optimistically biased than good news management forecasts as documented in this study, accuracy in bad news management forecasts would be lower than that in good news management forecasts. The lack of such a significant difference in the accuracy of good news and bad news management forecasts suggests that bad news management forecasts do not have higher measurement errors than good news management forecasts, thus there is no significant difference in the nature of good news and bad news management forecasts or characteristics of firms issuing these two types of forecasts. I use OLS regressions in model 8 to examine the relative accuracy in good news and bad news management forecasts:

$$Accuracy = Good + Litigation + Controls + \varepsilon \quad (8)$$

Accuracy, defined as the absolute value of management forecast error, measures unsigned management forecast errors. An insignificant coefficient on Good indicates that there is no significant difference in the accuracy of good news and bad news management forecasts.

Table 8, panel A shows the univariate results of management forecast accuracy. The mean (median) forecast accuracy is 1.23% (0.52%) for good news management forecasts and 1.27% (0.55%) for bad news management forecasts. The difference in forecast accuracy between good news and bad news

management forecasts is not statistically significant. Combined with my earlier finding of greater optimism in bad news management forecasts, this evidence suggests that measurement errors in bad news management forecasts are not greater than those in good news management forecasts. Therefore, the forecasting environment of firms issuing bad news forecasts is not worse than that of firms issuing good news forecasts. Panel B reports the regression results. The coefficient on Good is not statistically significant, suggesting that there is no significant difference in the accuracy between good news and bad news management forecasts, consistent with the univariate results shown in panel A.

Panels C and D report results of management forecast accuracy for the pre- and post-RegFD period, respectively. Panel C reports the univariate results of management forecast accuracy. For the pre-RegFD period, bad news management forecasts are marginally less accurate than good news management forecasts. There is no significant difference in the accuracy between good news and bad news management forecasts in the post-RegFD period. Panel D reports regression results with column 1 showing the pre-RegFD period and column 3 showing the post-RegFD period. The coefficients on Good are not statistically significant in both columns, indicating that there is no significant difference in the forecast accuracy between good news and bad news management forecasts during both the pre- and post-RegFD periods.

6.2 Forecast Error by Fiscal Quarter

I examine management forecasts by fiscal quarter for the possibility that the differential optimism in good news and bad news management forecasts is driven by management forecasts released during certain fiscal quarter. I use OLS regression in model 10 to perform this robustness test.

$$FE = Good+Q1+Q1\times Good+Q2+Q2\times Good+Q3+Q3\times Good+Control\ variables+\varepsilon \quad (9)$$

I decompose management forecasts by the fiscal quarter in which they are released. Q_n is defined as the n_{th} fiscal quarter in which a management forecast is issued. All other control variables are defined in section 4.4.

Table 9 panel A reports univariate results. Bad news management forecasts are more optimistic than good news management forecasts for all fiscal quarters except the fourth fiscal quarter. This result is expected given that management forecasts of annual earnings released in the fourth fiscal quarter are essentially forecasts of quarterly earnings, which are more accurate and usually pessimistic due to their closeness to earnings announcements. Mean and median forecast accuracy show mixed results. No consistent evidence demonstrates that bad news management forecasts are less accurate than good news management forecasts in any of the four fiscal quarters.

Panel B reports regression results. Column 1 shows no significant difference in forecast accuracy between good news and bad news management forecasts for all four fiscal quarters, indicating that there is no significant difference in the nature of good news and bad news management forecasts or firms issuing good news and bad news management forecasts. Column 2 shows that bad news management forecasts are more optimistic than good news management forecasts for all fiscal quarters except for the

fourth fiscal quarter , when management forecasts are essentially short term in nature. The findings are consistent with the univariate results shown in panel A. Therefore, the differential optimism in good news and bad news management forecasts is not driven by management forecasts issued in any particular fiscal quarter.

6.3 Robustness Check of Data Skewness

As a robustness check, I also examine the optimism in good news and bad news management forecasts with the rank of management forecast errors as dependent variable. Untabulated results continue to support my hypothesis that bad news management forecasts are more optimistically biased than good news management forecasts. My findings are not driven by data skewness.

6.4 Partition Sample by Stock Price Patterns Prior to Management Forecast Releases

Firms with downward drifting stock prices could be facing higher operating uncertainty than firms with upward drifting stock prices. To minimize the influence of operating uncertainty on management forecast errors, I partition the sample by stock price patterns in the 120 days prior to management forecast release dates. I find that management forecasts are more optimistically biased and have lower forecast accuracy for the subsample with downward drifting stock prices compared to the subsample with upward drifting stock prices. However, within each subsample, both univariate and regression results consistently show that bad news management forecasts have higher optimism than good news management forecasts, although there is no difference in the accuracy between good news and bad news management forecasts.

These results again confirm my hypothesis that the higher optimism in bad news management forecasts is driven by managers' incentives rather than other factors such as operating uncertainty.

7. Conclusion

In this study, I find that litigation risk increases the optimism in bad news management forecasts but does not change the optimism in good news management forecasts. I attribute this finding to the distinct stock price patterns following bad news and good news management forecasts. While the stock price pattern following optimistic good news management forecasts attracts lawsuits, the case with bad news management forecasts is counter intuitive. It appears that optimistic forecasts of bad news reduces rather than increases litigation risk while a truthful revelation of bad news actually increases the chance of immediate lawsuits. As a result, managers opportunistically modify their forecasting behavior to reduce ex post litigation risk, causing bad news management forecasts to be more optimistically biased than their good news counterparts.

Using RegFD as a natural setting to examine how arguably extrogenous shocks amplify this effect, I find that the differential optimism in good news and bad news management forecasts as well as the asymmetric effect of litigation risk on the forecast optimism in good news and bad news management forecasts only exist in the post-RegFD period. Litigation risk in the pre-RegFD period is too low to affect managers' forecasting of either good or bad news.

Finally, I study investors' perception of the relative optimism in good news and bad news management forecasts by examining both short and long window market responses to management

forecasts. I do not find evidence that investors perceive bad news management forecasts as less biased than good news management forecasts as claimed in some prior studies.

REFERENCES

Aboody, D., and R. Kasznik. 2000. CEO stock option awards and the timing of corporate voluntary disclosure. *Journal of Accounting and Economics* 29 (3): 73-100.

Alexander, J.C. 1991. Do the Merits Matter? A study of Settlements in Securities Class Actions. *Stanford Law Review* 43: 497-598.

Anilowski, C., M. Feng, and D. Skinner. 2007. Does Earnings Guidance Affect Market Returns? The Nature and Information Content of Aggregate Earnings Guidance. *Journal of Accounting and Economics* 44: 36–63.

Atiase, R., H. Li, S. Supattarakul, and S. Tse. 2005. Market Reaction to Multiple Contemporaneous Earnings Signals: Earnings Announcements and Future Earnings Guidance. *Review of Accounting Studies* 10: 497-525.

Baginski, S., J. Hassell, and M. Kimbrough. 2002. The Effect of Legal Environment on Voluntary Disclosure: Evidence from Management Earnings Forecasts Issued in U.S. and Canadian Markets. *The Accounting Review* 77: 25–50.

Bailey, W., H. Li, C. Mao, and R. Zhong. 2003. Regulation Fair Disclosure and Earnings Information: Market, Analyst, and Corporate Responses. Working Paper.

Bamber, L. S., and Y. S. Cheon. 1998. Discretionary Management Earnings Forecast Disclosures: Antecedents and Outcomes Associated with Forecast Venue and Specificity Choices. *Journal of Accounting Research* 36 (2): 167-190.

Brown, L.D. 2001. A temporal Analysis of Earnings Surprises: Profits versus Losses. *Journal of Accounting Research* 39 (2): 221-241.

Brown, S., S. Hillegeist, and K. Lo. 2005. Management Forecasts and Litigation Risk. Working Paper.

Cao, Z., and G. Narayanamoorthy. The Effects of Litigation Risk on Management Earnings Forecasts. Forthcoming, *Contemporary Accounting Research.*

Cheng, A., H. Huang, Y. Li, and G. Lobo. 2010. Institutional Monitoring through Shareholder Litigation. *Journal of Financial Economics* 95: 356-383.

Chiyachantana, C.N., P.K. Jain, C. Jiang and R.A. Wood. 2004. International Evidence on Institutional Trading Behavior and Price Impact. *Journal of Finance* 59: 869–898.

Cotter, J., I. Tuna, and P. Wysocki. 2006. Expectations Management and Beatable Targets: How Do Analysts React to Explicit Earnings Guidance? *Contemporary Accounting Research* 23 (3): 593-628.

Das, S., K. Kim, and S. Patro. 2007. Management Earnings Forecasts and Subsequent Price Formation. Working Paper, University of Illinois – Chicago.

Feltham, G., and J. Xie. 1992. Voluntary Financial Disclosure in an Entry Game with Continua of Types. *Contemporary Accounting Research 9*: 46-80.

Francis, J., D. Philbrick, and K. Schipper. 1994. Shareholder Litigation and Corporate Disclosures. *Journal of Accounting Research* 31 (2): 216-230.

Frankel, R., M. McNichols, and G. Wilson. 1995. Discretionary Disclosure and External Financing. *The Accounting Review* 70 (1): 135-150.

Freeman, R., and S. Tse. 1992. A Nonlinear Model of Security Price Responses to Unexpected Earnings. *Journal of Accounting Research* 30, 185–209.

Graham, J., C. R. Harvey, and S. Rajgopal. 2005. The Economic Implications of Corporate Financial Reporting. *Journal of Accounting and Economics* 40: 3-73.

Hayn, C. 1995. The Information Content of Losses. *Journal of Accounting and Economics* 20: 125-143.

Heflin, F., K.R. Subramanyam, and Y. Zhang. 2003. Regulation FD and the Financial Information Environment: Early Evidence. *The Accounting Review* 78 (1): 1-37.

Hermalin, B., and M. Weisbach. 2007. Transparency and Corporate Governance. Working paper, University of California at Berkeley.

Hutton, A., G. Miller, and D. Skinner. 2003. The Role of Supplementary Statements with Management Earnings Forecasts. *Journal of Accounting Research* 41 (2): 867-890.

Hutton, A., and P. Stocken. 2007. Effect of Reputation on the Credibility of Management Forecasts. Working Paper.

Jennings, R. 1987. Unsystematic security price movements, management earnings forecasts, and revisions in consensus analyst earnings forecasts. *Journal of Accounting Research* 25 (1): 90-110.

Johnson, M., R. Kasznik, and K. Nelson. 2001. The Impact of Securities Litigation Reform on the Disclosure of Forward-looking Information by High Technology Firms. *Journal of Accounting Research* 39 (2): 297-327.

Kothari, S.P., S. Shu, and P. Wysocki. 2009. Do Managers Withhold Bad News? *Journal of Accounting Research* 47 (1): 241-276.

Lang, M., and R. Lundholm. 1993. Cross-Sectional Determinants of Analyst Rating of Corporate Disclosures. *Journal of Accounting Research* 31 (2): 246-271.

Lang, M., and R. Lundholm. 2000. Voluntary Disclosure and Equity Offerings: Reducing Information Asymmetry or Hyping the Stock? *Contemporary Accounting Research* 17 (4): 623-662.

Lang, M., and M. McNichols. 1997. Institutional Trading and Corporate Performance. Working paper, Stanford University, Palo Alto, CA.

Lev, B., and S.H. Penman. 1990. Voluntary Forecast Disclosure, Nondisclosure, and Stock Prices. *Journal of Accounting Research* 28 (1): 49-76.

Lipe, R., L. Bryant, and S. Widener. 1998. Do nonlinearity, Firm-specific Coefficients, and Losses Represent Distinct Factors in the Relation between Stock Returns and Accounting Earnings? *Journal of Accounting and Economics* 25: 195-214.

Matsumoto, D. 2002. Management's Incentives to Avoid Negative Earnings Surprises. *The Accounting Review* 77 (3): 483-514.

McNichols, M. 1989. Evidence of Information Asymmetries from Management Earnings Forecasts and Stock Returns. *The Accounting Review* 64 (1): 1-27.

McNichols, M., and P. O'Brien. 1997. Self-selection and Analyst Coverage. *Journal of Accounting Research* 35: 167-199.

Miller, G. 2002. Earnings Performance and Discretionary Disclosure. *Journal of Accounting Research* 40: 173-204.

Nagar, V., D. Nanda, and P. Wysocki. 2003. Discretionary Disclosure and Stock-based Incentives. *Journal of Accounting and Economics* 34: 283-309.

Newman, P., and R. Sansing. 1993. Disclosure policies with multiple users. *Journal of Accounting Research* 31 (1): 92-112.

Ng, J., I. Tuna, and R. Verdi. 2008. Management Forecast Credibility and Underreaction to News. Working Paper.

Palmiter, A. 2002. Securities Regulation: Examples and Explanations, Second Edition. Aspen Publishers, New York, NY.

Payne, J., and W. Thomas. 2003. The Implications of Using Stock-Split Adjusted I/B/E/S Data in Empirical Research. *Accounting Review* 78 (4): 1049-1067.

Patell, J. 1976. Corporate Forecasts of Earnings per Share and Stock Price Behavior: Empirical Tests. *Journal of Accounting Research* 14 (Autumn): 246-276.

Penman, S.H. 1980. An Empirical Investigation of the Voluntary Disclosure of Corporate Earnings Forecast. *Journal of Accounting Research* 18 (1): 132-160.

Petersen, M. 2009. Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches. *The Review of Financial Studies* 22 (1): 435-480.

Raedy, J., P. Shane, and Y. Yang. 2006. Horizon-Dependent Underreaction in Financial Analysts' Earnings Forecasts. *Contemporary Accounting Research* 23 (1): 291-322.

Richardson, S., S.H. Teoh, and P. Wysocki. 2004. The walk-down to Beatable Analyst Forecasts: The Role of Equity Issuance and Insider Trading Incentives. *Contemporary Accounting Research* 21 (4): 885-924.

Rogers, J., and P. Stocken. 2005. Credibility of Management Forecasts. *The Accounting Review* 80 (4): 1233-1260.

Skinner, D. 1994. Why Firms Voluntarily Disclose Bad News. *Journal of Accounting Research* 32 (1): 38-60.

Skinner, D. 1997. Earnings Disclosures and Stockholder Lawsuits. *Journal of Accounting and Economics* 23 (3): 249-282.

Skinner, D., and R. Sloan. 2002. Earnings Surprises, Growth Expectations and Stock Returns or Don't Let an Earnings Torpedo Sink Your Portfolio. *Review of Accounting Studies* 7 (2/3): 289-312.

Soffer, L.C., S. R. Thiagarajan, and B. R. Walther. 2000. Earnings Preannouncement Strategies. *Review of Accounting Studies* 5 (1): 5-26.

Trueman, B. 1997. Managerial Disclosures and Shareholder Litigation. *Review of Accounting Studies* 2 (2): 181-199.

Waymire, G. 1984. Additional Evidence on the Information Content of Management Earnings Forecasts. *Journal of Accounting Research* 22 (2): 703-718.

Williams, P. 1996. The Relation between a Prior Earnings Forecast by Management and Analyst Response to a Current Management Forecast. *The Accounting Review* 71: 103-113.

Wagenhofer, A. 1990. Voluntary Disclosure with a Strategic Opponent. *Journal of Accounting and Economics* 12: 341-363.

Yermack, D. 1997. Good Timing: CEO Stock Option Awards and Company News Announcements. *Journal of Finance* 52: 449–76.

Figure 1: Stock Price Patterns Following Management Forecasts of Good and Bad News

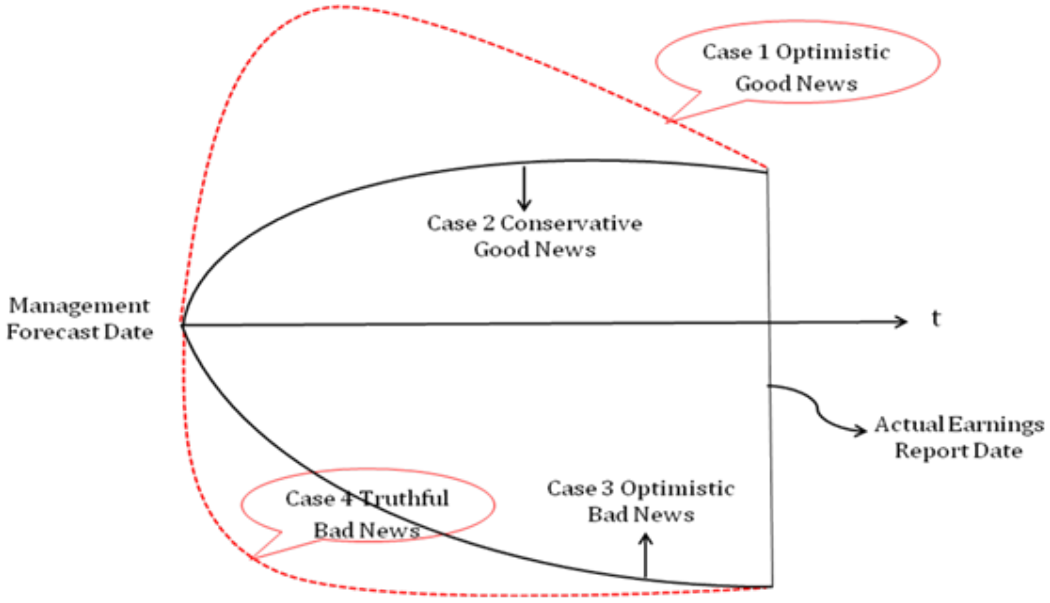

Figure 2 Management Forecast Error

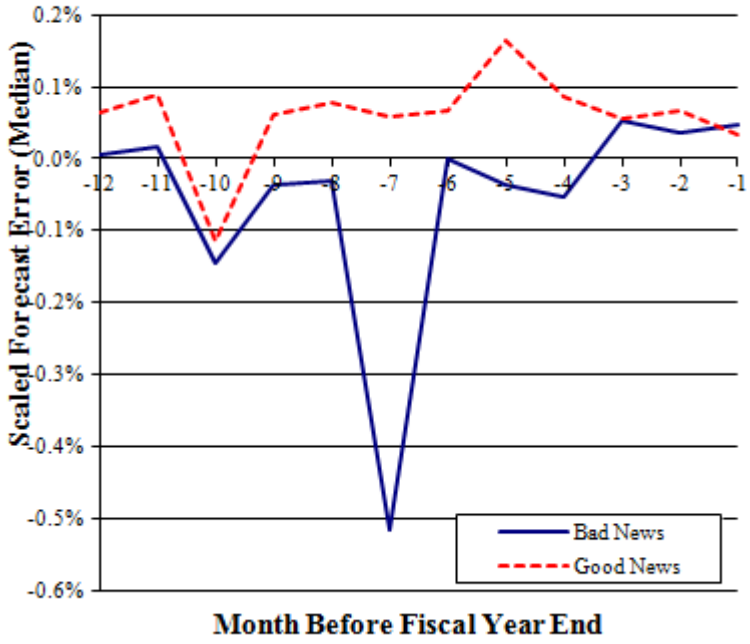

Table 1 Distributional Properties of Management Forecasts

Panel A: Number of Forecasts per Year

Year	Bad News	Good News	Total
1996	97	84	181
1997	136	105	241
1998	214	154	368
1999	225	160	385
2000	236	211	447
2001	421	357	778
2002	372	509	881
2003	452	454	906
2004	521	476	997
2005	538	428	966
2006	563	449	1012
2007	555	388	943
2008	482	385	867
2009	420	291	711
	5,232	4,451	9,683

Panel B: Number of Forecasts per Firm

Number of Forecasts per Firm	Number of Firms
1	929
2	424
3	331
4	224
5	179
6	167
6+	467
	2,721

Panel C: Distribution of Forecast Release Date

Month Lag	Bad News	Good News	Total
-12	1,216	980	2,196
-11	2,110	1,614	3,724
-10	268	198	466
-9	363	490	853
-8	188	209	397
-7	114	77	191
-6	273	281	554
-5	123	145	268
-4	140	65	205
-3	216	232	448
-2	97	89	186
-1	124	71	195
	5,232	4,451	9,683

TABLE 2 Descriptive Statistics

	N=9,683 Firm-Years						
Variables	Mean	P10	Q1	Median	Q3	P90	Std
Management Forecast Bias % (FE)	-0.457	-2.649	-0.707	0.036	0.460	1.216	2.319
Bad News (n=5,232)	-0.527	-2.822	-0.815	0.000	0.413	1.148	2.330
Good News (n=4,451)	-0.374	-2.448	-0.562	0.067	0.505	1.273	2.303
Management Forecast Accuracy % (|FE|)	1.255	0.061	0.191	0.537	1.415	3.195	2.002
Bad News	1.273	0.062	0.195	0.553	1.435	3.307	2.021
Good News	1.233	0.061	0.186	0.520	1.396	3.098	1.980
Management Forecast News % (FN)	-0.174	-0.871	-0.266	-0.022	0.121	0.445	1.192
Bad News	-0.638	-1.562	-0.627	-0.230	-0.079	-0.029	1.277
Good News	0.371	0.009	0.047	0.143	0.384	0.863	0.792
Litigation	0.008	0.002	0.003	0.006	0.010	0.016	0.010
Bad News	0.008	0.002	0.004	0.006	0.010	0.017	0.011
Good News	0.008	0.002	0.003	0.005	0.009	0.015	0.008
$CAR_{1,+1}$ (Full sample)	-0.003	-0.114	-0.047	0.001	0.049	0.104	0.103
Bad News (n=5,232)	-0.029	-0.150	-0.070	-0.016	0.027	0.072	0.103
Good News (n=4,451)	0.027	-0.068	-0.021	0.019	0.073	0.133	0.095
$CAR_{1,+1}$ (Standalone subsample)	-0.016	-0.150	-0.060	-0.004	0.044	0.093	0.116
Bad News (n=1,928)	-0.045	-0.196	-0.092	-0.022	0.023	0.068	0.119
Good News (n=1,484)	0.021	-0.080	-0.026	0.015	0.065	0.122	0.101
$BHAR_{120,-2}$	0.019	-0.230	-0.113	-0.003	0.118	0.267	0.266
Bad News	-0.007	-0.244	-0.128	-0.017	0.094	0.218	0.246
Good News	0.049	-0.209	-0.094	0.018	0.147	0.317	0.286
BHAR	0.006	-0.405	-0.200	-0.013	0.168	0.401	0.384
Bad News	-0.004	-0.407	-0.209	-0.022	0.157	0.378	0.382
Good News	0.017	-0.404	-0.189	-0.005	0.183	0.425	0.386
Size	7.341	5.312	6.206	7.205	8.402	9.558	1.639
Bad News	7.412	5.386	6.257	7.263	8.480	9.658	1.655
Good News	7.258	5.251	6.145	7.137	8.285	9.439	1.617
Book-to-Market Ratio (BM)	0.451	0.140	0.243	0.388	0.589	0.824	0.328
Bad News	0.452	0.148	0.249	0.391	0.590	0.813	0.314
Good News	0.450	0.132	0.234	0.383	0.589	0.832	0.345
Return Volatility (retvol)	0.027	0.012	0.017	0.023	0.033	0.046	0.015
Bad News	0.027	0.012	0.016	0.023	0.033	0.046	0.016
Good News	0.027	0.013	0.017	0.024	0.033	0.046	0.015
Analyst Forecast Dispersion (Std_af)	0.059	0.004	0.007	0.014	0.031	0.072	1.876
Bad News	0.075	0.004	0.007	0.014	0.031	0.073	2.548
Good News	0.040	0.004	0.007	0.014	0.030	0.072	0.163
Loss Dummy (Loss)	0.400	0.000	0.000	0.000	1.000	1.000	0.490
Bad News	0.409	0.000	0.000	0.000	1.000	1.000	0.492
Good News	0.390	0.000	0.000	0.000	1.000	1.000	0.488
Number of Analyst Following (Analystn)	5.424	1.000	2.000	4.000	7.000	12.000	4.762
Bad News	5.599	1.000	2.000	4.000	8.000	12.000	4.858
Good News	5.218	1.000	2.000	4.000	7.000	11.000	4.638
Institutioinal Ownership (Instown)	0.573	0.000	0.349	0.656	0.842	0.967	0.331
Bad News	0.580	0.000	0.364	0.663	0.846	0.972	0.330
Good News	0.564	0.000	0.325	0.646	0.838	0.959	0.332
Horizon	272	109	243	318	334	343	91
Bad News	275	106	246	319	335	343	92
Good News	270	114	240	315	334	343	90

% indicates that the values are in percentage format.

TABLE 3 Pearson Correlation Matrix

	FE	FN	Litigation	$BHAR_{-1, +1}$	$BHAR_{-120, -2}$	BHAR	Size	BM	Retvol	Std_AF	Loss	Analystn	Instown	Horizon
FE	1	0.005	0.007	0.129**	0.128**	0.322**	0.142**	-0.167**	-0.16**	-0.057**	-0.09**	0.029**	0.037**	-0.059**
FN		1	0.005	0.297**	0.121**	0.010	0.08**	-0.082**	-0.108**	-0.027**	-0.046**	-0.005	0.019	0.031**
Litigation			1	-0.009	-0.061**	-0.012	0.534**	-0.132**	0.108**	-0.009	0.015	0.382**	0.013	0.114**
$BHAR_{-1, +1}$				1	0.045**	0.015	0.006	0.007	-0.031**	-0.010	-0.03**	-0.004	0.000	0.072**
$BHAR_{-120, -2}$					1	0.007	-0.015	-0.055**	0.067**	0.006	-0.012	-0.056**	-0.029**	-0.015
BHAR						1	0.019	0.017	-0.007	-0.031**	-0.013	0.019	-0.018	0.015
Size							1	-0.323**	-0.347**	-0.03**	-0.008	0.53**	0.151**	0.201**
BM								1	0.15**	0.039**	0.105**	-0.143**	-0.072**	-0.044**
Retvol									1	0.006	0.078**	-0.012	-0.083**	-0.072**
Std_AF										1	-0.004	-0.013	-0.019	0.003
Loss											1	0.004	0.028**	0.058**
Analystn												1	0.021*	0.026*
Instown													1	0.124**
Horizon														1

*, ** Significant at 0.05 and 0.01 levels, respectively, using a two-tailed test.

Correlation matrices for the sample of 9,683 management forecasts issued between 1996 and 2009.

TABLE 4 Management Forecast Error

Panel A: Management forecasts issued by firms involved in lawsuits

Total number of disclosure-related lawsuits	2132
Lawsuits with management forecasts issued during the lawsuit period	1849
Lawsuits with management forecasts issued during the lawsuit period that had at least one analyst following over the prior 90 days	1297

	Good News		Bad News	
	Number	Percentage	Number	Percentage
Forecasts of annual EPS	635	48.96%	662	51.04%
	Mean	Median	Mean	Median
Forecast Error	-1.23%	-0.03%	-2.07%	-0.19%
Forecast News	0.24%	0.10%	-0.50%	-0.11%

Panel B: Univariate Results (%)

	Mean	Median
Good News	-0.374	0.067
Bad News	-0.527	0.000
Difference:		
Magnitude	0.153	0.067
p-value	(0.0012)	<0.0001

Panel C: Regression Results

(1) FE = Good + Litigation + Controls

(2) FE = Good + Litigation + Litigation×Good + Controls

	Coefficient (1)	t-stat	Coefficient (2)	t-stat
Intercept	-0.001	-0.34	-0.001	-0.31
Good	0.001	2.00 **	0.001	1.30
Litigation	-0.080	-2.18 **	-0.082	-2.13 **
Litigation×Good			0.009	0.15
Size	0.002	7.02 ***	0.002	6.83 ***
BM	-0.008	-10.54 ***	-0.008	-10.54 ***
Analystn#	-0.151	-2.54 **	-0.151	-2.54 **
Instown	0.000	0.10	0.000	0.11
$BHAR_{-120, -2}$	0.010	12.30 ***	0.010	12.30 ***
Horizon#	-0.028	-10.25 ***	-0.028	-10.25 ***
Std_af	-0.001	-5.03 ***	-0.001	-5.03 ***
Loss	-0.003	-6.62 ***	-0.003	-6.62 ***
Retvol	-0.165	-8.06 ***	-0.166	-8.04 ***
Year Effect	Yes		Yes	
Industry Effect	Yes		Yes	
			F-test: Litigation+Litigation×Good=0 (p-value=0.22)	
Observations	9,683		9,683	
Adjusted R^2	11.45%		11.44%	
F Value	18.88		18.61	

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

# indicates coefficients have been multiplied by 1000 for expositional purposes.

TABLE 5 RegFD and Management Forecasts

Panel A: Univariate Results - FE (%)

	Pre-RegFD		Post-RegFD	
	Mean	Median	Mean	Median
Good News	-0.522	0.036	-0.347	0.077
Bad News	-0.720	-0.037	-0.490	0.016
Difference:				
Magnitude	0.198	0.073	0.143	0.061
p-value	(0.1034)	(0.0007)	(0.0053)	<0.0001

Panel B: Regression Results of Management Forecast Optimism for Pre- and Post-RegFD Periods Separately

(1) & (3) FE = Good + Litigation + Controls

(2) & (4) FE = Good + Litigation + Litigation×Good + Controls

	Pre-RegFD				Post-RegFD			
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
	(1)		(2)		(3)		(4)	
Intercept	0.010	1.39	0.009	1.27	-0.001	-0.21	0.000	-0.03
Good	0.001	0.49	0.001	0.85	0.001	2.05 **	0.000	0.65
Litigation	-0.015	-0.31	-0.007	-0.14	-0.062	-1.43	-0.082	-1.77 *
Litigation×Good			-0.090	-0.76			0.069	1.17
Size	0.001	1.46	0.001	1.59	0.002	5.96 ***	0.002	5.76 ***
BM	-0.011	-4.80 ***	-0.011	-4.77 ***	-0.008	-9.74 ***	-0.008	-9.80 ***
Analystn#	-0.081	-0.57	-0.074	-0.52	-0.160	-2.43 **	-0.159	-2.42 **
Instown	-0.001	-0.54	-0.001	-0.57	0.000	0.36	0.000	0.37
$BHAR_{-120,-2}$	0.009	4.47 ***	0.009	4.38 ***	0.010	10.94 ***	0.010	10.93 ***
Horizon#	-0.038	-6.65 ***	-0.038	-6.67 ***	-0.025	-7.83 ***	-0.025	-7.84 ***
Std_af	-0.031	-8.89 ***	-0.031	-8.90 ***	-0.001	-4.76 ***	-0.001	-4.77 ***
Loss	-0.003	-2.28 **	-0.003	-2.27 **	-0.003	-6.12 ***	-0.003	-6.14 ***
Retvol	-0.180	-3.75 ***	-0.175	-3.63 ***	-0.151	-6.10 ***	-0.152	-6.15 ***
Lagged_GDPChg	0.001	3.32 ***	0.001	3.36 ***	0.000	-1.10	0.000	-1.10
Year & Industry Effect	Yes		Yes		Yes		Yes	
			F-test: Litigation+Litigation×Good=0 (p-value=0.41)				*F-test*: Litigation+Litigation×Good=0 (p-value=0.83)	
Observations	1,520		1,520		8,163		8,163	
Adjusted R^2	17.88%		17.86%		11.44%		11.45%	
F Value	6.42		6.33		16.74		16.51	

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

# indicates coefficients have been multiplied by 1000 for expositional purposes.

TABLE 6 Short-Window Market Response to Management Forecasts

$CAR_{-1, +1}$=Good+FN+FN×Good+FN_Large+Guidloss+UE+UE_Large+Earnloss +Size+BM+Retvol+Horizon

Panel A: Full Sample

	Coefficient	t-stat	
Intercept	-0.025	-3.60	***
Good	0.023	8.26	***
FN	5.978	13.46	***
FN×Good	-1.544	-6.81	***
FN_Large	-3.625	-8.59	***
Guidloss	0.011	1.47	
UE	1.189	2.66	***
UE_Large	-1.139	-2.55	**
Earnloss	-0.010	-1.80	*
Size	-0.001	-1.97	**
BM	0.013	4.10	***
Retvol	-0.015	-0.21	
Horizon#	0.081	7.39	***
Adjusted R^2	13.41%		
F Value	125.95		
Observations	9,683		

Panel B: Standalone Sample

	Coefficient	t-stat	
Intercept	-0.038	-3.06	***
Good	0.024	4.71	***
FN	6.954	8.48	***
FN×Good	-1.621	-4.00	***
FN_Large	-4.421	-5.65	***
Guidloss	0.006	0.53	
Size	-0.001	-0.78	
BM	0.027	4.47	***
Retvol	-0.103	-0.80	
Horizon#	0.086	5.01	***
Adjusted R^2	15.12%		
F Value	68.53		
Observations	3,412		

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

# indicates coefficients have been multiplied by 1000 for expositional purposes.

TABLE 7 Long-Window Market Response to Management Forecasts

BHAR = Good + FN + FN×Good + Controls

Panel A: Full Sample

	Coefficient	t-stat	
Intercept	-0.070	-2.55	**
Good	0.011	1.03	
FN	1.979	1.11	
FN×Good	1.565	1.73	*
FN_Large	-2.562	-1.52	
Guidloss	-0.040	-1.36	
UE	3.057	1.71	*
UE_Large	-3.069	-1.72	*
Earnloss	-0.003	-0.12	
Size	0.006	2.30	**
BM	0.025	1.92	*
Retvol	-0.069	-0.25	
Horizon#	0.046	1.05	
Adjusted R^2	0.17%	*F-test*: FN+FN×Good=0 (p-value=0.0505)	
F Value	2.4		
Observations	9,683		

Panel B: Standalone Sample

	Coefficient	t-stat	
Intercept	-0.095	-1.84	*
Good	-0.001	-0.03	
FN	3.508	1.04	
FN×Good	-1.412	-0.85	
FN_Large	-2.376	-0.74	
Guidloss	-0.076	-1.54	
Size	0.006	1.15	
BM	0.025	1.00	
Retvol	1.218	2.32	**
Horizon#	0.077	1.09	
Adjusted R^2	0.12%	*F-test*: FN+FN×Good=0 (p-value=0.54)	
F Value	1.45		
Observations	3,412		

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

# indicates coefficients have been multiplied by 1000 for expositional purposes.

TABLE 8 Management Forecast Accuracy

Panel A: Univariate Results (%)

	Mean	Median
Good News	1.233	0.520
Bad News	1.273	0.553
Difference:		
Magnitude	-0.040	-0.033
p-value	(0.3244)	(0.3375)

Panel B: Regression Results

|FE| = Good + Litigation + Controls

	Coefficient (1)	t-stat	
Intercept	0.008	3.58	***
Good	0.000	-0.39	
Litigation	0.034	1.31	
Litigation×Good			
Size	-0.002	-12.03	***
BM	0.011	16.66	***
Analystn#	0.000	4.84	***
Instown	0.000	-0.78	
$BHAR_{-120, -2}$	-0.005	-6.89	***
Horizon#	0.000	17.64	***
Std_af	0.001	5.31	***
Loss	0.003	8.65	***
Retvol	0.228	13.24	***
Year Effect	Yes		
Industry Effect	Yes		
Observations	9,683		
Adjusted R^2	19.17%		
F Value	33.8		

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.
# indicates coefficients have been multiplied by 1000 for expositional purposes.

TABLE 8 Management Forecast Accuracy

Panel C: Univariate Results

	Pre-RegFD		Post-RegFD	
	Mean	Median	Mean	Median
Good News	1.113	0.353	1.255	0.558
Bad News	1.304	0.471	1.267	0.569
Difference:				
Magnitude	-0.192	-0.118	-0.013	-0.011
p-value	(0.0802)	(0.0692)	(0.7688)	(0.8069)

Panel D: Regression Results for Pre- and Post-RegFD Periods Respectively

|FE|= Good + Litigation + Controls

	Pre-RegFD			Post-RegFD		
	Coefficient	t-stat		Coefficient	t-stat	
	(1)			(2)		
Intercept	0.001	0.09		0.004	1.32	
Good	-0.001	-1.12		0.000	0.04	
Litigation	0.006	0.15		0.019	0.53	
Size	-0.002	-3.97	***	-0.002	-9.57	***
BM	0.015	7.91	***	0.010	15.08	***
Analystn#	0.000	1.42		0.000	4.48	***
Instown	0.002	1.03		-0.001	-1.26	
$BHAR_{-120, -2}$	-0.005	-2.69	***	-0.004	-5.72	***
Horizon#	0.000	10.45	***	0.000	14.50	***
Std_af	0.029	9.96	***	0.000	5.08	***
Loss	0.002	2.06	**	0.004	8.60	***
Retvol	0.154	3.75	***	0.252	12.48	***
Lagged_GDPChg#	-0.001	-3.53	***	0.000	3.82	***
Year & Industry Effect	Yes			Yes		
Observations	1,520			8,163		
Adjusted R^2	25.55%			19.45%		
F Value	9.54			30.42		

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

# indicates coefficients have been multiplied by 1000 for expositional purposes.

TABLE 9 Management Forecast Error by Fiscal Quarter

Panel A: Univariate Results (%)		FE				Accuracy	
		Mean		Median		Mean	Median
Q1	Good News	-0.45		0.07		1.38	0.64
	Bad News	-0.58		0.00		1.39	0.63
	Diff	0.13	**	0.07	***	-0.02	0.01
Q2	Good News	-0.42		0.06		1.31	0.54
	Bad News	-0.63		-0.10		1.34	0.63
	Diff	0.21	*	0.17	***	-0.03	-0.10
Q3	Good News	-0.12		0.10		0.87	0.33
	Bad News	-0.47		-0.03		0.96	0.34
	Diff	0.35	***	0.13	***	-0.09	-0.01
Q4	Good News	-0.04		0.06		0.52	0.17
	Bad News	0.02		0.04		0.57	0.19
	Diff	-0.05		0.01		-0.05	-0.02

Panel B: Regression Results

Accuracy = Good + Q1 + Q1×Good + Q2 + Q2×Good + Q3 + Q3×Good + Controls

FE = Good + Q1 + Q1×Good + Q2 + Q2×Good + Q3 + Q3×Good + Controls

	Coefficient	t-stat		Coefficient	t-stat	
	(1)			(2)		
Intercept	0.007	2.89	***	0.002	0.80	
Good	0.000	0.15		-0.003	-1.73	*
Q1	-0.001	-0.29		-0.001	-0.37	
Q1×Good	0.000	-0.28		0.004	2.40	**
Q2	0.000	0.01		-0.002	-0.64	
Q2×Good	0.000	-0.26		0.004	1.92	*
Q3	0.001	0.78		-0.003	-1.64	
Q3×Good	0.000	-0.29		0.004	2.06	**
Litigation	0.033	1.30		-0.039	-1.25	
Size	-0.002	-11.92	***	0.002	6.59	***
BM	0.011	16.69	***	-0.008	-10.56	***
Analystn#	0.000	4.70	***	0.000	-2.53	**
Instown	0.000	-0.73		0.000	0.18	
$BHAR_{-120, -2}$	-0.005	-6.89	***	0.011	12.26	***
Horizon#	0.000	4.35	***	0.000	-2.49	**
Std_af	0.001	5.30	***	-0.001	-5.02	***
Loss	0.003	8.67	***	-0.003	-6.58	***
Retvol	0.229	13.26	***	-0.169	-8.09	***
Year & Industry Effect	Yes			Yes		
Adjusted R^2	19.15%			11.44%		
F Value	31.18			17.45		
Observations	9,683			9,683		

*, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

# indicates coefficients have been multiplied by 1000 for expositional purposes.