

# Do Managers Withhold Bad News?

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## Abstract:

In this study, we examine whether managers delay disclosure of bad news relative to good news. If managers accumulate and withhold bad news up to a certain threshold, but leak and immediately reveal good news to investors, then we expect the magnitude of the negative stock price reaction to bad news disclosures to be greater than the magnitude of the positive stock price reaction to good news disclosures. We present evidence consistent with this prediction. Our analysis suggests that management, *on average*, delays the release of bad news to investors.

**Keywords:** Bad news, conservatism, disclosure

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## Do Managers Withhold Bad News?

### 1. Introduction

In this study, we examine whether managers delay disclosure of bad news relative to good news. We infer the relative timeliness of bad and good news disclosures from the magnitude of stock price reactions to such disclosures. If managers accumulate and withhold bad news up to a certain threshold, but leak and immediately reveal good news to investors, then we expect the magnitude of the negative stock price reaction to bad news disclosures to be greater than the magnitude of the positive stock price reaction to good news disclosures. We present evidence to support this hypothesis. Notwithstanding managers' incentives to quickly disclose bad news to mitigate litigation risk (e.g., Skinner, 1994, and 1997, and Kasznik and Lev, 1995), our analysis comparing stock price reactions to good and bad news announcements suggests that management, *on average*, delays the release of bad news to investors.

Our analysis builds on theoretical models and empirical analyses of corporate disclosures that assume management can have value-relevant private information about the firm's prospects. Since such private information is not observable to market participants, it is not directly (or fully) reflected in security prices. The presence of private information creates an opportunity for the management to voluntarily disclose the information. The disclosure should reduce the information asymmetry between management and outside investors and can influence the firm's stock price.

Prior research outlines various incentives motivating management to disclose or withhold private information in its possession (see Healy and Palepu, 2001, and Verrecchia, 2001, who survey the empirical and theoretical literatures on corporate voluntary disclosures). Management's (credible) commitment to quickly disclose private information, good or bad,

reduces information asymmetry and the adverse-selection component of the bid-ask spread. This lowers the firm's cost of capital, which increases the firm's market value, *ceteris paribus* (see Glosten and Milgrom, 1985, Diamond, 1985, Diamond and Verrecchia, 1991, Verrecchia, 2001, and Healy and Palepu, 2001). These disclosure benefits provide managers with incentives to commit to disclosing both good and bad news promptly to the investment community. However, there are also costs if managerial information disclosures, good or bad, reveal proprietary information about the firm's prospects to competitors (Verrecchia, 2001).

On the other hand, there are factors that create differential incentives to release good news versus bad news to investors. For example, litigation risk in countries like the U.S. can motivate managers to quickly reveal bad news to outside investors. Prior accounting research provides evidence consistent with this view of the world (see, for example, Kasznik and Lev, 1995, and Skinner, 1994 and 1997). Managers may also time the release of bad and good news to increase the value of their option grants or the sale price of their stock. For example, Frankel et al. (1995) and Lang and Lundholm (2000) report that managers release good news prior to raising external finance. Yermack (1997) and Aboody and Kasznik (2000) show that managers accelerate bad news and/or withhold good news in the period immediately preceding option grant dates to lower the exercise price of the options and thus increase the value of their option-grant portfolio.<sup>1</sup> This assumes the quantity of options granted is not adversely affected by the accelerated release of bad news or withholding of good news.

While managers have incentives to disclose bad news early under certain circumstances, we conjecture that these incentives can be outweighed by other considerations such as career

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<sup>1</sup> Concerns about reputation, other labor market disciplinary forces, and potential civil and criminal litigation are likely to discourage manager from engaging in opportunistic behavior like the accelerated release of bad news immediately prior to option grants.

concerns. Career concerns can motivate managers to *withhold* bad news and gamble that subsequent corporate events (i.e., future corporate turnaround or restructuring) will allow them to “bury” the bad news.<sup>2</sup> Career concerns broadly encompass how management’s disclosure strategy can affect management compensation in the contemporaneous period as well as over a long horizon. The long-horizon effects might be from the impact on the manager’s career, e.g., promotion, employment opportunities within and outside the firm, and loss of employment.<sup>3</sup> Recent scandals where managers explicitly withheld bad news from outside investors reinforces the belief that managers’ private incentives might significantly influence the characteristics of corporate disclosures.

The recent scandals suggest that managers’ tendency to withhold bad news can be cast as a standard agency problem where managerial disclosure preferences are not aligned with those of shareholders. In particular, we hypothesize that managers face asymmetric payoffs to releasing good and bad news. For example, while good news disclosures ensure continued employment for the manager and can boost her wealth connected to firm value, bad news disclosures reduce her wealth and can lead to quick termination even if a corporate event is beyond the manager’s direct control. While stock-based compensation can help align managerial disclosure preferences with those of shareholders (see, for example, Nagar, Nanda, and Wysocki, 2003), stock-based incentives can also create asymmetric disclosure incentives for good and bad news. These asymmetric disclosures can become more pronounced if the firm’s equity becomes overvalued (see, for example, Jensen, 2005). Managers bear high costs from disclosing bad news,

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<sup>2</sup> Graham, Harvey and Rajgopal (2005) survey and interview CFO’s on their disclosure practices. Some CFO’s claim that they delay bad news disclosures to further study the information or in the hope that they may never have to release the bad information if the firm’s status improves before the next required information release.

<sup>3</sup> In addition to career concerns, managers’ actions might also be swayed in part because they typically hold an under-diversified portfolio that is invested heavily in firm equity.

including potential termination, i.e., the loss of future income from their current employer, the loss of future post-retirement benefits (including directorships), and the loss of opportunities to seek comparable employment with other companies.<sup>4</sup> These costs are in addition to the costs arising from explicit contracts like the management's bonus plan tied to earnings performance, or the likely decline in the quantity of options awarded to a manager performing poorly. Collectively, managers face strong incentives to withhold or explicitly hide bad news from outsiders and then gamble that subsequent events will turn in their favor.

Recognizing managers' incentives to hide bad news, historical cost accounting has evolved to be conservative (see Watts, 2003a and 2003b, for an excellent summary of the underlying economic arguments for conservative accounting). Conservative accounting means the verifiability standard for *recognizing* bad news is less stringent than for good news, i.e., recognition is called for on the basis of anticipated, not necessarily realized losses, but the gains must be realized before they can be recognized in financial statements. Considerable research provides evidence suggesting conservative *recognition* in accounting in the U.S. and internationally (e.g., Basu, 1997, and Ball, Kothari, and Robin, 2000).<sup>5</sup> However, there is little systematic evidence to suggest conservatism in firms' *disclosure* practices with the notable exception of the evidence on the disclosure of bad news to mitigate litigation risk (e.g., Skinner, 1994 and 1997).

We examine whether corporate voluntary *disclosures* exhibit an asymmetry in which bad news tends to be withheld and good news is disclosed early – which is exactly the opposite of conservative *recognition* in financial reporting. While prior research provides evidence of an

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<sup>4</sup>See DeAngelo (1988) and Weisbach (1988) for early research documenting the effect of adverse accounting performance on the likelihood of management turnover.

<sup>5</sup> Also see McNichols (1988).

asymmetric market reaction to management forecasts of “bad news” versus “good news” (see, for example, Skinner, 1994, Soffer, Thiagaragan and Walther, 2000, Hutton, Miller, and Skinner, 2003, and Anilowski, Feng, and Skinner, 2005), these studies generally interpret the evidence as being consistent with managers accelerating the bad news disclosures, or that market participants interpret bad news disclosures as more credible. Our study provides broader evidence of a general asymmetry in managements’ disclosure of good and bad news. More importantly, we provide a new and compelling interpretation of both prior empirical results and our new evidence to suggest that managers systematically delay disclosing bad news to investors. We also examine whether a range of previously hypothesized incentives motivate managers to either accelerate or decelerate the disclosure of good and bad news.

***Summary of results.*** Our empirical tests focus on a few important corporate events. We first investigate the stock market reaction to corporate announcements of dividend changes. Similar to prior research (see Dielman and Oppenheimer, 1984), we find that the magnitude of the 5-day market reaction to announcements of negative dividend changes exceeds that of positive dividend changes.<sup>6</sup> This result holds even after controlling for the magnitude of the dividend change. It appears that investors are more surprised by dividend cuts than by dividend increases. One interpretation is that the goods news has already been leaked while the bad news has been withheld. We then investigate the stock market reaction to voluntary management earnings forecasts. Again we find that the magnitude of the 5-day market reaction to announcements of bad news earnings forecasts (i.e., below the level of analysts’ prior consensus) exceeds that of good news earnings forecasts (i.e., above the level of analysts’ prior consensus). This result holds even after controlling for the magnitude of the forecast revision. While it is the

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<sup>6</sup> The focus of Dielman and Oppenheimer (1984) is to test the information content of dividends hypothesis, not whether price reaction to dividend changes is asymmetric, which is the central hypothesis examined in our study.

case that the frequency of bad news management earnings forecasts announcements exceeds that of good news forecasts announcements, this is not inconsistent with managers withholding bad news. In particular, it should be recognized that managers tend to leak good news, which serves as a substitute for formal voluntary good news announcements. This further reinforces the idea that managers tend to delay their disclosures of bad news. Finally, we explore the likelihood that managers delay reporting asset write downs and other negative special items to the 4<sup>th</sup> quarter of the firm's fiscal year. We find that 40% of bad news write downs occur in the 4<sup>th</sup> quarter (which is statistically different from the expected value of one fourth of negative write downs occurring in the 4<sup>th</sup> quarter if managers did not delay bad news).

Our study examining whether managers withhold bad news might seem to contradict Skinner (1994), who hypothesizes and finds that firms voluntarily disclose bad news more often and sooner than good news in part to fend off shareholder litigation. The apparent inconsistency is resolved upon recognizing that Skinner addresses a different question. Specifically, he examines whether, in the face of impending (bad) earnings news, managers choose to speed its disclosure through a management forecast. However, he does not address how those firms got to the stage of a large negative earnings surprise with relatively little leakage of information. In his setting, the choice facing managers is whether to continue withholding the bad news until the earnings announcement within a few days or disclose the same to reduce the likelihood of a lawsuit. Managers do not appear to face a similar dilemma with respect to good news presumably because good news was leaked to the market earlier. This argument is also supported by survey evidence in Graham, Campbell and Rajgopal (2005) who find that managers with bad news (i.e. expected losses) are more likely to delay a news release than managers with good expected accounting performance. Skinner's stock price evidence (see Table 5 in Skinner,

1994) is consistent with managers withholding bad news in that the magnitude of price reaction to bad earnings preemption disclosures is greater than for good earnings preemption disclosures.

Our hypothesis that managers systematically withhold bad news from investors is further supported by recent empirical evidence presented in Anilowski, Feng and Skinner (2005). Their stock return evidence suggests good news is leaked out to investors weeks before the end of the fiscal quarter, while bad news is delayed until the end of the quarter (see Figure 5 in Anilowski et al., 2005).

*Competing explanations.* We entertain many competing explanations for the observed larger average magnitude of price reaction to bad news disclosures than good news disclosures. First, managers may disclose bad news promptly, but release good news only gradually, which is in the spirit of a firm recognizing good news about sales in earnings only over time as revenues are recognized. Second, market participants may find bad news to be more credible than good news, which translates into the differential stock price reaction. One variation of the credibility of disclosure story is that investors uniformly agree on the content of bad news, but not about good news. Finally, the differential price reaction to good and bad news might be consistent with the “torpedo effect” discussed in the context of market reaction to growth firms failing to meet analyst expectations (see, for example, Skinner and Sloan, 2002). We discuss each of these competing explanations and explain why they are not consistent with the observed evidence that the average market reaction to bad news is greater than to good news.

*Paper outline.* Section 2 develops our hypotheses about the market’s asymmetric reaction to management’s strategic disclosure of good news and bad news. Section 3 outlines the empirical proxies and our stock market tests. Empirical tests and results are presented in Section 4. Section 5 summarizes and concludes.

## 2. Hypothesis development

In this section we develop the paper's main hypothesis. It predicts that if managers withhold, accumulate, and slowly release bad news, but leak and/or quickly disclose good news, then the average negative stock price reaction to bad news disclosures will be of greater magnitude than the average magnitude of the positive stock price reaction to good news disclosures. We also develop hypotheses about cross-sectional variation in the magnitudes of stock price reactions to good and bad news disclosures as a function of attributes that proxy for managers' incentives and opportunities to withhold information.

The discussion below initially describes predicted stock-return behavior under the assumptions of no withholding and some withholding of bad news by managers. This discussion, however, does not motivate managers' economic optimality of withholding bad or good news. The initial discussion also assumes that stock market participants do not fully unravel the news withheld by the managers from their disclosure behavior. A discussion of (i) the incentives and opportunities for withholding news and the types of managers who are more likely withhold bad news or accelerate its dissemination, and (ii) the effect of stock market participants' attempt to unravel the withheld news is deferred to the back end of this section.

### *2.1 No withholding of information.*

We begin with a simple setting in which managers disclose good and bad information symmetrically without withholding any news. News, i.e., new information, is assumed to arrive randomly with managers having little control over the arrival of news. The distribution of news reaching the manager is assumed to be symmetric. It seems reasonable to expect that randomly

arriving good and bad news should have similar and symmetric distributional properties. Since the manager discloses all information, good and bad, quickly, its dissemination should generate symmetrically distributed stock price changes, i.e., stock returns. As a consequence of the symmetric distribution, the average magnitude of positive returns to good news disclosures and the average magnitude of negative returns to bad new disclosures are expected to be equal.

## ***2.2 Withholding of bad news***

In this setting, instead of disseminating good and bad news as soon as it arrives, the manager acts strategically and accumulates and withholds bad news. She discloses the information periodically when the accumulated news is worse than a threshold level of bad news. The threshold exists because there is a certain point at which it becomes too costly or difficult to withhold the bad news and this triggers disclosure. However, the manager hopes to “bury” the accumulated bad news with good news that might arrive while the accumulated bad news has not yet reached the threshold level. In contrast to withholding bad news, managers disclose or leak good news as soon as it arrives. Specifically, good news leakage or disclosure occur if (i) the arrived news is good and the manager has no accumulated bad news, or (ii) the sum of the newly arrived good news and accumulated bad news is positive news, i.e., when the good news buries the accumulated bad news. In the disclosure regime sketched above, disclosures are expected to be less frequent than when good and bad news is disclosed without withholding of news.

One way to examine whether managers withhold bad news while accelerating good news is to directly compare the frequencies of good news and bad news disclosures. However, the drawback of this approach is that the channel of disclosure is not limited to formal news announcements, and it is hard to draw definitive conclusions based on the frequencies of specific

disclosure events. For example, existing evidence has documented that the frequency of managers' voluntary public bad news forecasts exceeds voluntary public good news forecasts.<sup>7</sup> At first glance, this might appear to contradict our argument that managers withhold bad news. However, this measure does not capture the fact that managers informally leak good news information to analysts and investors, which serves as a substitute for formal voluntary good news announcements.

We examine whether managers withhold bad news based on stock market reactions. Specifically, because bad news is disclosed only when the accumulated bad news is worse than a threshold level, bad news disclosures are likely to be greeted with larger magnitudes of negative stock price reactions than good news disclosures. Thus, price reactions to news releases are expected to be asymmetric as a consequence of the managers' asymmetric disclosure of news to the market participants.

### ***2.3 Effect of incentives facing managers on disclosure behavior***

The discussion in the preceding section does not discuss an economic rationale for why managers might withhold or accelerate the release of bad news vis-à-vis good news. For managers to engage in a disclosure policy that deviates from a policy of disclosing *all* news as soon as it arrives, i.e., a discretionary disclosure policy, they must have the opportunity and incentive to deviate. Costs associated with disclosure create both the opportunity and the incentive for discretionary disclosure (see Verrecchia, 2001, and Pae, 2005). Because disclosure is costly, it is not always optimal for managers to disclose their information. As a result, market participants cannot unambiguously infer whether a manager is withholding information and

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<sup>7</sup> This is especially true at the quarterly level. At the annual level, the frequency of good news forecasts almost equals that of bad news forecasts (Anilowski et al. 2005).

whether the withheld information is good or bad. This is discussed in greater detail in the next subsection. In addition, the costs of disclosure can also serve as an incentive for opportunistic discretionary disclosure, i.e., withholding some (generally bad) information. Below we summarize the main incentives.

Managers face many incentives with off-setting effects on their desire to disclose, withhold, or accelerate the release of good and bad information. First, disclosures reduce information asymmetry between the management and outside investors, and discourage investors from expending resources on private information-gathering activities. This lowers the information asymmetry component of the bid-ask spread and thereby reduces the firm's cost of capital (see Glosten and Milgrom, 1985, Diamond, 1985, Diamond and Verrecchia, 1991, and Verrecchia, 2001, for theoretical analysis).<sup>8</sup> The negative relation between corporate disclosures and cost of capital is an incentive to managers to commit to a policy of promptly disclosing information, good or bad, to the market.

Second, proprietary costs and/or uncertainty about whether the manager is informed provide managers with an opportunity to withhold (bad) information about the firm (see Verrecchia, 1983, and Dye, 1985). Such withholding of information assumes that managers seek to maximize the firm's current market value and Verrecchia (2001, p. 141) concludes that "arguably the most compelling" reason for withholding of information "is the cost associated with disclosing information that is proprietary in nature."

Third, litigation risk can motivate managers to quickly reveal the bad news they learn before market participants learn about it through earnings reports and other channels (see Skinner, 1994 and 1997, Francis et al., 1994, and Kasznik and Lev, 1995). Plaintiffs' likely

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<sup>8</sup> Evidence on the beneficial effect of disclosures on the cost of capital is weak, see Botosan (1997), Welker (1995), and Botosan and Plumlee (2002).

success from litigation is asymmetric with respect to loss from a stock price decline or foregone gain in the event of a stock price increase (see Kellogg, 1984). Plaintiffs are more likely to be successful in arguing that they suffered an economic loss as a result of stock price decline, which they could have averted had the management disclosed (bad) information on a timely basis. In contrast, plaintiffs' chances of success are slim in arguing that they suffered an opportunity loss in foregoing a stock price increase that took place after they sold a security because the management delayed the release of good news. The asymmetric loss function from litigation facing corporations can motivate managers to disseminate bad news sooner than good news.

Fourth, managers might opportunistically accelerate the release of good and withhold bad news prior to events like the raising of external finance, and conversely accelerate the release of bad news and withhold good news prior to events like the award of stock options. If such timing can influence the stock price even temporarily, firm's shareholders and/or managers benefit. In fact, it would be rational for managers to time the release of good and bad news even if they could not fool the market.<sup>9</sup> If market participants anticipate managers to time the release of news, then in equilibrium managers' rational response would be to fulfill the expectations by timing the news releases. Otherwise, since prices are set as if the news release has been timed, not timing the news release puts the firm and/or managers at a disadvantage.

The literature documents considerable evidence that managers time the release of good and bad news. For example, a preponderance of good news management forecasts precedes external capital issues (see Frankel et al., 1995, and Lang and Lundholm, 2000), which suggests

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<sup>9</sup> This is in the spirit of Stein's (1989) prediction that managers would rationally manage earnings optimistically even in an efficient market that anticipates such earnings management and is not fooled by it.

that capital market incentives exert a strong influence on managerial disclosure behavior.<sup>10</sup> In periods immediately prior to the award of stock options, Yermack (2000) and Aboody and Kasznik (2000) document that managers disclose bad news to depress the stock price, which lowers the exercise price for their option grants.<sup>11</sup> Considerable evidence in the literature currently favors not only that managers time the release of good and bad news, but stock prices behave as if managers succeed in influencing them to their benefit as judged by the long-horizon performance of securities following corporate disclosures and events (see Kothari, 2001, for a summary of evidence).

Finally, managers weigh their career concerns against loss of reputation and other costs in deciding whether to withhold or accelerate the release of private information available to them. As Verrecchia (2001, p. 142) notes “information may be (rationally) withheld because it can be used to value human capital of the manager, as well as the firm (see Nagar, 1999, and Kim, 1999).” One motivation for withholding bad news is that managers face asymmetric payoffs to releasing good vs. bad news. This is different from the scenario discussed earlier wherein a policy of promptly disclosing both good and bad news benefits the firm and the manager because of the salubrious effect of such a disclosure policy on the cost of capital. The effect of disclosures on human capital depends on the nature of the news. Good news disclosures ensure continued employment for the manager and can boost her wealth connected to firm value. In contrast, bad news disclosures reduce her wealth and can lead to quick termination even if a corporate event is beyond the manager’s direct control. Terminations are costly to managers.

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<sup>10</sup> We might naturally expect firms raising external finance to disclose considerable good news prior to the event. Good prospects and attractive investment opportunities are the primary reasons for raising external finance. Therefore, the disclosure of these opportunities *per se* is not opportunistic notwithstanding its concentration in periods preceding events like seasoned equity offerings.

<sup>11</sup> Also see Huddart and Lang (2003) who find that stock returns are abnormally high following periods of unusually low frequency of option exercise by the employees, which is consistent with employees withholding good news.

They entail the loss of future income from their current employer, the loss of future post-retirement benefits (including directorships), and a diminution in the employment opportunities with other companies. In addition, the manager bears costs arising from explicit contracts like the management's bonus plan tied to earnings performance, or the reduced quantity of options likely to be awarded to a manager performing poorly. Collectively, managers face strong incentives to withhold or explicitly hide bad news from outsiders, at least in the short run. In withholding bad news, the manager gambles that subsequent events will turn in her favor and thus she would be able to successfully "bury" the bad news.

Reputation considerations and litigation are the disciplinary forces that discourage managers from withholding bad news. Thus, we expect the observed behavior to be the net result of the manager trading off the costs against the benefits of withholding bad news. Moreover, because the costs and benefits are likely to vary cross-sectionally, we expect the extent of bad news withheld to vary predictably across firms in the economy.

#### ***2.4 Market participants' response to managers' disclosure behavior***

Our analysis assumes efficient capital markets. The theoretical disclosure literature we rely on in making predictions about managers withholding bad news also assumes efficient markets. For example, Verrecchia (2001, p. 141) concludes that "equilibria exist in which information that favorably enhances the firm's current market capitalization is disclosed, and information that unfavorably enhances market capitalization is withheld. ....information is withheld despite the fact that market agents (e.g., investors) have "rational expectations" about its content: that is, they presume that withheld information is less favorable information ....." The market is unable to unravel the withheld information in part because "uncertainty exists

about whether the manager is informed or, equivalently, whether the information in question has yet to arrive .....” (see Verrecchia, 2001, p. 142).

While we assume markets are efficient, the predictions about managers withholding bad news are likely to be robust under the assumption of inefficient markets as well. We suspect if the market is assumed to be fixated on (or easily swayed by) reported financial numbers and disclosures, managers’ incentive to withhold bad news is likely to be intensified. Bergman and Roychowdhury (2005) develop a theoretical model in which managers withhold bad news in periods of overvaluation and accelerate good news in periods of security undervaluation in markets that are inefficient due to limited arbitrage (see Shleifer and Vishny, 1997). However, even in inefficient capital markets, managers’ disclosure behavior is unlikely to be unfettered because of litigation and reputational concerns.

### **3. Empirical proxies**

In this section we discuss our empirical proxies of factors that influence manager’s disclosure choices. We use these proxies in cross-sectional tests of managerial withholding of bad news.

#### ***3.1 Litigation costs and incentives to release bad news***

In section 2.3 we discussed the role of litigation risk as a factor that mitigates the withholding of bad news. Evidence from prior research suggests two major reasons why managers voluntarily release earnings information early to investors. First, they may make good news disclosures to distinguish their firms from those that are doing less well (see, for example, Lev and Penman, 1990). Second, they make pre-emptive bad news disclosures. These bad news

disclosures are consistent with the legal liability and reputation effects arguments put forward by Skinner (1994). Evidence from relatively recent time periods indicates that managers *publicly* disclose bad news more frequently than other types of earnings news (see Skinner, 1994 and 1997, and Kasznik and Lev, 1995). For example, Skinner (1994) finds that quarterly earnings announcements that convey large negative earnings surprises are pre-empted about 25% of the time, compared with less than 10% for other earnings announcements.

We use firm size to proxy for potential legal exposure. If larger firms have “deeper pockets” then they potentially face greater litigation risk as litigants seek out cases when there are large potential damages to be extracted from firms.

### ***3.2 Information asymmetry***

Firm-specific factors affecting disclosure include information asymmetry between management and investors (see, for example, Verrecchia, 1990). In the traditional setting, high information asymmetry tends to provide incentives for managers to disclose all types of news to avoid market penalties from investors. However, with regard to the *differential* disclosure of bad news and good news, the role of information asymmetry is less clear. We argue that greater information asymmetry provides *opportunities* for managers to withhold bad news and to disclose good news early.

We use the ratio of market-to-book value of equity as a proxy for the information asymmetry between management and investors, an important determinant of firms’ disclosure choice (Verrecchia, 1990). In the literature, the market-to-book ratio is also used as a proxy for other factors that we believe tend to be correlated with information asymmetry. For example, it is commonly used to measure the investment opportunity set, and the associated financing

considerations, which partly determine disclosure costs and the demand for disclosure by investors.

The degree of analyst following is another variable that captures the extent to which information asymmetry might be reduced through extensive outside monitoring and dissemination of information to the investment community. Prior studies show that analyst following is positively related to management forecasts (e.g., Soffer, Thiagarajan, and Walther, 2000) and disclosure quality (e.g., Lang and Lundholm, 1993).

### ***3.3 Manager's human capital and ownership-related incentives***

As discussed before, managers might withhold bad news because of the potential adverse effect of bad news on their human capital and/or their personal wealth invested in the firm in the form of equity ownership. We proxy for this incentive to withhold bad news using the percentage of the compensation a manager receives in the form of stock options and the percentage of firm equity owned by managers and insiders as reported in the *Spectrum* database.

## **4. Empirical results**

In this section we describe our empirical tests of the asymmetry in management's voluntary disclosures of good and bad news. We first investigate the stock market reaction to managerial announcements of dividend changes. We then examine the stock market reaction to voluntary management earnings forecasts. Finally, we examine the timing during the fiscal year when managers formally recognize bad news asset write downs and negative special items.

### ***4.1 Dividend change sample***

We first investigate managers' voluntary decision to change dividend payouts to shareholders. Prior research documents that dividend-change announcements contain value-relevant information (i.e., Dielman and Oppenheimer, 1984). We focus on these important voluntary disclosure events to determine whether there is an *asymmetric* market reaction to announcements of dividend decreases (i.e. "bad news") compared to dividend increases (i.e. "good news"). Our dividend change sample consists of 8,783 dividend change announcements between 1990 and 2002. We define a dividend change as the percentage change in dividends over a period,  $[Div(t)-Div(t-1)]/Div(t-1)$ . To ensure that our sample captures relevant and economically-meaningful dividend changes, we impose the following sample selection criteria. First, the absolute value of a firm's percentage dividend change must be greater than 1% to ensure that the change is economically significant. Second, the dividend change must occur after a year of stable dividend pattern, i.e., there is no dividend change in the year immediately preceding the current dividend change. Third, the most extreme 1% of *Divchg* observations are excluded to eliminate the effects of large special one-time dividends and/or potential data errors.<sup>12</sup> In addition, the firm must have *CRSP* stock return data for the 5-day period surrounding the dividend change announcement date. As shown in Table 1, the final sample consists of 6,990 dividend increases and 1,793 dividend decreases.

#### [Table 1]

After creating the dividend change sample, we use the *CRSP* database to identify dividend change announcement dates. We collect daily stock returns around these announcement dates. To examine announcement returns for these dividend changes, we

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<sup>12</sup> Although we have adjusted data for share splits wherever we can, some might have crept into the data because of coding errors. Therefore, we remove these remaining extreme observations.

calculate the 5-day cumulative abnormal return around each announcement date, where abnormal returns are defined as the firm's stock return minus the *CRSP* equal-weighted market return.

As shown in Table 1, there exists an asymmetry between the magnitudes of dividend increases vs. decreases. The average dividend increase is around 17% while the average decrease is much larger at around 42%. This suggests that when firms decide to cut dividends, they cut them by a larger amount than when they raise the dividends. One interpretation of the evidence is that firms resist cutting dividend until they have to (after the bad news has been accumulating for a while).

Not surprisingly, investors' reactions to dividend increases vs. decreases are also asymmetric. Table 1 shows that investors react positively to announcements of dividend increases. For the main sample, the average 5-day abnormal stock return around a dividend increase is 1.5% and it is statistically different from zero at the 5% level. On the other hand, investors' reactions to dividend decreases are much larger, with an average cumulative abnormal return of -4.1% in the main sample. We also sort firms into different sub-samples based on broad characteristics such as market value of equity (*Size*) and the ratio of book equity to the market equity (*B/M*). The descriptive results for each of the sub-samples of *Size* and *M/B* suggest that the asymmetry in the market reaction to dividend increases and decreases is prevalent across all types of firms.

While it appears that investors react differently to dividend increases vs. decreases, it is not clear whether the greater stock market reaction to dividend cuts is driven by the larger magnitude of the cuts, or by investors being more surprised by the announcement of dividend decreases because firms have been withholding bad news while leaking good news.

To examine whether investors react more to dividend cuts than to dividend increases after controlling for the magnitude of the changes, we estimate a regression of firm's 5-day cumulative stock return around the dividend announcement on the information contained in the dividend announcement as well as other firm characteristics:

$$Ret = \mathbf{a} + \mathbf{b}_0Neg + \mathbf{b}_1Divchg + \mathbf{b}_2Divchg*Neg + \mathbf{b}_3High + \mathbf{b}_4High*Neg + \mathbf{b}_5High*Divchg + \mathbf{b}_6High*Divchg*Neg + \mathbf{e} \quad (1)$$

where *Ret* is the 5-day cumulative abnormal stock return around the dividend announcement; *Neg* is a categorical variable that equals one for negative dividend changes, and zero otherwise; and *High* is categorical variable that equals one if a particular firm characteristic (such as firm size) is greater than the sample median, and zero otherwise. We separately examine the following firm characteristics in separate regressions: *Size*, *B/M*, *#Analyst*, *Ownership*, *Leverage*, and *%StockComp*. *Size* is the logarithm of market value of equity in the year preceding the dividend announcement. *B/M* is the ratio of book equity to market value of equity in the year preceding the dividend announcement. *#Analyst* is the number of analysts that make at least one earnings forecasts during the year of the dividend announcement. *Leverage* is tabulated as lagged long-term debt scaled by lagged total assets. *Inside Ownership* is the percentage of the firms' held by managers and insiders as tabulated in the 1999 Spectrum database. *%StockComp* is the ratio of the value of stock and stock option grants to the CEO to the value of total CEO compensation (salary, bonus, stock grants, option grant, and other compensation) in the year preceding the dividend announcement.

Table 2 presents the regression results for regression model (1). In the first column of Table 2, we present the baseline regression, where the 5-day cumulative abnormal return is

regressed on the sign and the magnitude of dividend changes, plus an interaction variable between the two explanatory variables. In the remaining columns of Table 2, we add various firm characteristics as explanatory variables. For example, in column 2, we add a dummy variable, *High*, which takes on a value of one if a firm's *Size* is greater than the sample median, and zero otherwise. This variable is then interacted with other variables such as the magnitude of the dividend change.

### [Table 2]

The dummy variable for negative dividend changes, *Neg*, is consistently negative in all specifications, and statistically significant in 5 out of the 7 regression specifications. This suggests that investors, on average, react more negatively to dividend decreases (i.e., bad news disclosures) than dividend increases (i.e., good news disclosures). Consistent with our expectation, the coefficient on the dividend change variable, *Divchg*, is positive and statistically significant. More importantly, the interaction variable, *Divchg\* Neg*, is positive and highly significant in all models. This implies that, for a given percentage change in dividends, investor reaction to negative dividend changes is more pronounced than for positive dividend changes. Taken together, the results in this table suggest an asymmetry in investors' reactions to dividend decreases (i.e., bad news) versus dividend increases (i.e., good news). It appears that announcements of dividend cuts are a greater surprise to investors and this finding is consistent with the notion that managers accumulate and withhold bad news, but leak and disclose good news.

We also investigate whether the asymmetry in investor reaction to news from dividend changes varies with managers' opportunities and incentives to withhold bad news. For example, the asymmetry might be more pronounced for small firms, since large firms are more transparent

and managers are under greater scrutiny, meaning they might have few opportunities for selective disclosure. The firm characteristics we investigate include variables that proxy for information asymmetry, such as *Size*, book to ratio (*B/M*), *# Analysts* following the firm, and variables that proxy for managerial agency costs and career concerns such as *Leverage*, *Insider Ownership*, and *%StockComp*. We capture the effects of these individual variables by identifying *High* (above sample median) observations of these firm variables. The results in Table 2 suggest mixed evidence of effect of these variables on the market reaction to dividend increases and decreases. For firms with high insider ownership and stock-based CEO compensation, the asymmetry between good and bad news disclosure is significantly reduced, suggesting that managers of these firms are less likely to withhold bad news. However, proxies for litigation risk (size) and information asymmetry (*M/B* and analyst following) do not exhibit incremental sensitivity to good and bad news disclosures.

#### ***4.2 Voluntary management earnings forecast sample***

We next focus on voluntary management earnings forecasts. Prior research provides some evidence of an asymmetric market reaction to management forecasts of “bad news” versus “good news” (see, for example, Skinner, 1994, Soffer, Thiagaragan and Walther, 2000, Hutton et al., 2003, and Anilowski et al., 2005). In this section, we re-examine the market reaction to management earnings forecasts for using recent data. Our management earnings forecasts sample consists of 7,567 public management forecasts of quarterly earnings per share between 1995 and 2002 from the *First Call* database. We define the news in management’s earnings forecast, *News* ( $= [MgmtFcast - AnalystFcast] / AnalystFcast$ ), as the difference between management’s forecast of quarterly EPS and analysts’ most recent consensus forecast (scaled by

the absolute value of analysts' consensus forecast). Again, we focus on economically meaningful management earnings forecast events. Therefore, we only include management forecasts where the absolute value of *News* is greater than 1%, and the absolute value of *AnalystFcast* > 5 cents per share. In addition, we exclude the most extreme 1% of *News* observations to minimize the effect of miscoded earnings and analyst forecasts. Using the *First Call* database, we identify the announcement date for each management earnings forecast and collect *CRSP* daily stock returns around these announcement dates. To examine announcement returns for voluntary disclosure events, we calculate the 5-day cumulative abnormal return around each announcement date, where abnormal returns are defined as the firm's stock return minus the *CRSP* equal weighted market return.

As shown in Table 3, there are 1,970 good news management earnings forecasts (i.e.,  $News = 0$ ) and 5,597 bad news management earnings forecasts (i.e.,  $News < 0$ ). The average amount of good news is 0.28, while that of bad news is much larger, at -0.55. This pattern is consistent with managers delaying and accumulating bad news while releasing good news on a more timely basis.

Not surprisingly, while there is a significant investor reaction to both good news and bad news announcements, the reaction is not symmetric. The average 5-day cumulative abnormal return (*Ret*) is +4.4% for the "good news" sample, and -8.6% for the "bad news" sample.

### [Table 3]

Similar to our analysis of the dividend change sample, we regress the 5-day cumulative abnormal stock returns around the management forecast date on the information contained in management's forecast of quarterly earnings.

$$\begin{aligned}
 Ret = & \mathbf{a} + \mathbf{b}_0\mathit{Bad} + \mathbf{b}_1\mathit{News} + \mathbf{b}_2\mathit{News}*\mathit{Bad} + \mathbf{b}_3\mathit{High} + \mathbf{b}_4\mathit{High}*\mathit{Bad} \\
 & + \mathbf{b}_5\mathit{High}*\mathit{News} + \mathbf{b}_6\mathit{High}*\mathit{News}*\mathit{Bad} + \mathbf{e}
 \end{aligned}
 \tag{2}$$

where *Ret* is the 5-day cumulative abnormal stock return around the management forecast date; *Bad* is a categorical variable that equals one for if *News* < 0, and zero otherwise; and *High* is categorical variable that equals one if a particular firm characteristic (such as firm size) is greater than the sample median, and zero otherwise. Again, we separately examine the following firm characteristics in separate regressions: *Size*, *B/M*, *#Analyst*, *Ownership*, *Leverage*, and *%StockComp*. The variables definitions are the same as those used for regression model (1).

In the first column of Table 4, we present the baseline regression, where the 5-day cumulative abnormal return is regressed on the sign and the magnitude of the *News* in a management earnings forecast, plus an interaction variable between the two explanatory variables. In the remaining columns of Table 4, we add various firm characteristics as explanatory variables.

### [Table 2]

The dummy variable for “bad news” management earnings forecasts, *Bad*, is negative and statistically significant in all regression specifications. This suggests that investors, on average, react more negatively to bad news disclosures than to good news disclosures about future earnings. Interestingly, the coefficient on the *News* variable is not significant after controlling for the direction of the news (i.e. *Bad*). As a whole the results in this table again suggest an asymmetry in investors’ reactions to managements’ voluntary disclosures of good and bad news about future earnings. It appears that announcements of bad news are a greater

surprise to investors and again this finding is consistent with the notion that managers accumulate and withhold bad news, but leak and disclose good news.

We also investigate whether the asymmetry in investor reactions varies with managers' incentives and opportunities to withhold bad news. Again, we include firm characteristics that proxy for information asymmetry, such as *Size*, book to ratio (*B/M*), # *Analysts* following the firm, and variables that proxy for managerial agency costs and career concerns such as *Leverage*, *Insider Ownership*, and *%StockComp*. The results in Table 4 provide mixed evidence on the effect of these variables on the market reaction to good and bad news disclosures. Somewhat surprisingly, the coefficient on *High\*News\*Bad* is significant and positive for *Size* and *#Analyst*. This implies that the asymmetry is accentuated for large firms and firms with greater analyst followings. Consistent with the evidence from the dividend change sample, percentage of stock based compensation is negative and significant, suggesting that stock-based compensation potentially mitigates management incentives to withhold bad news (see Nagar, Nanda, and Wysocki, 2003).

**[Table 4]**

***4.3 Negative special items – determinants of delaying special items until 4<sup>th</sup> quarter***

Finally, we investigate the timing of the recognition of write-downs of impaired assets. Prior research has noted that write-downs of poorly-performing assets are generally reported as negative special items (see, for example, Francis, Hanna and Vincent, 1996). If managers voluntarily report and recognize the impairment of these assets on a timely basis, then one would expect these large negative special items to be reported throughout the fiscal year. However, if managers withhold the bad news until it is likely to be exposed (i.e., when the financial reports

are formally audited at the end of the fiscal year) then one would expect a higher frequency of negative special items in the 4<sup>th</sup> quarter of the fiscal year.<sup>13</sup>

Our negative special items sample consists of 9,838 firm-quarters between 1990 and 2002 where firms report large negative special items in a given fiscal quarter in excess of 5% of lagged total assets. We identify these events as capturing the disclosure and recognition of significant bad news. Financial data are obtained from the 2003 version of the *Compustat* database. We define a “4<sup>th</sup> Qtr Dummy” that is a categorical variable that equals one if negative special item is reported in the 4<sup>th</sup> quarter, and zero otherwise.

Panel A of Table 5 reports the unconditional frequency of negative special items in the 4<sup>th</sup> quarter of the fiscal year. The frequency of 40% is much higher than what would be expected of large bad news items occur and are reported throughout the fiscal year. The simple correlation between the 4<sup>th</sup> Qtr Dummy and Inside Ownership, Leverage and Firm Size are reported in Panel B of Table 5. It appears that managers of small firms with greater inside ownership and leverage are more likely to delay large bad news write-downs and special items until the 4<sup>th</sup> quarter of the fiscal year.

[Table 5]

In Table 6, we estimate a multiple regression of the determinants of delaying recognition of large negative special items until the 4<sup>th</sup> quarter of the fiscal year.

$$4thQuarter = \mathbf{a} + \mathbf{b}_1AssetRank + \mathbf{b}_2InsideOwnership + \mathbf{b}_3Leverage + \mathbf{e} \quad (3)$$

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<sup>13</sup> There is also across-quarter variation in the frequency of positive special items. However, the relative frequency of large negative special items in the 4<sup>th</sup> quarter is more than double the relative frequency of positive special in the 4<sup>th</sup> quarter in our sample (compared to other fiscal quarters).

where firm *Size* is captured by the lagged value of total assets (\$MM). We use the decile rank of total assets (*AssetRank*) in each year as our regressor to allow for pooling of firms across years. *InsideOwnership* is the percentage of the firms' shares held by managers and insiders as tabulated in the 1999 Spectrum database. *Leverage* is tabulated as lagged long-term debt scaled by lagged total assets. We estimate regression model (3) using both OLS and logistic regressions. The OLS coefficients are unbiased and are easier to directly interpret while the logistic regression provides a more valid estimate of the significance of the explanatory variables. The regression results suggest that managers of small firms with greater inside ownership and leverage are more likely to delay large bad news write downs and special items until the 4<sup>th</sup> quarter of the fiscal year.

#### [Table 6]

#### ***4.4 Summary***

The conclusions that emerge from the empirical analysis described in this section are as follows. First, not surprisingly, good and bad news disclosures are associated with positive and negative stock price reactions. Second, stock market reaction to good and bad news disclosures is asymmetric and consistent with management delaying the disclosure of bad news, whereas leaking and disclosing good news on a more timely basis. Finally, there is mixed evidence from cross-sectional regressions linking management's tendency to withhold bad news to firm characteristics that proxy for the management's incentives to withhold bad news.

#### **5. Competing explanations**

In the Introduction, we outlined three competing explanations for the observed asymmetric magnitude of price reaction to corporate good and bad news disclosures. We discuss each below and explain why those are unlikely to explain the asymmetric price reaction.

The first competing hypothesis is that managers have incentives to disclose bad news promptly, whereas they disclose good news only gradually. Such a disclosure policy will surely generate a large negative price reaction to bad news disclosures, but in an efficient market, the good news disclosure will also be accompanied by a similarly large positive price reaction. Market participants will recognize that the firm has disclosed only a portion of the good news, and they will rationally infer the remaining good news on the basis of the disclosed good news (i.e., the tip of the iceberg). The price reaction therefore is expected to be the discounted present value of the cash flow consequences of both disclosed and inferred good news. The price reaction would be an unbiased estimate of the good news received by the managers regardless of how much of it has been disclosed. The magnitude of such a price reaction is expected to equal the reaction to bad news disclosures that were assumed to be made promptly.

In ruling out the competing explanation, we assumed market efficiency. In the current climate, this might not be a palatable assumption to all. If markets were fixated on disclosed news, then the observed evidence would appear to be consistent with firms disclosing bad news promptly, but releasing good news gradually. However, we still believe this interpretation is implausible. Even if the markets were inefficient, it seems improbable that news arrival is so lumpy. The average price reaction to bad news disclosures is several percentage points, which is quite substantial. It seems unlikely that managers receive adverse (and good news) information of such large magnitudes on an on-going basis. Rare events like merger announcements can generate large stock price reactions, but many of the voluntary disclosures are about the firm's

operational activities and performance. It is not intuitive to us that news about their own firm's operational activities reaches the CEO's desk in such discrete, large jumps.

The second competing hypothesis is that bad news is more credible to investors than good news. Since management has an incentive to disclose good news promptly and to embellish the news, if possible, it would be rational for investors to greet voluntary good news disclosures by management with skepticism (i.e., not credible). In contrast, since management does not have an incentive to overstate bad news, bad news disclosures would be taken at face value. The asymmetric credibility implies that the price reaction per unit of bad news would be greater than the price reaction per unit of good news.<sup>14</sup> However, since investors can diversify the idiosyncratic credibility risk, differential price reaction of the magnitude we observe weakens the asymmetric credibility explanation. If the credibility is to be interpreted as investors discounting good news because it might be an embellished disclosure, we would expect the forecast errors (i.e., actual minus the management forecast) for good news disclosures to be large and negative. However, we do not observe a large asymmetry in the forecast error *magnitudes* after management has provided earnings guidance (see, for example, Richardson, Teoh, and Wysocki, 2004).

Finally, the differential price reaction to good and bad news might be consistent with the "torpedo effect" discussed in the context of market reaction to growth firms failing to meet analyst expectations (see Skinner and Sloan, 2002). In examining the asymmetric effect we gather a random sample of firms, not simply growth and value stocks where the "torpedo effect" has been documented. More importantly, we control for the growth and value effects by including the market-to-book ratio variable and demonstrate that the asymmetry persists.

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<sup>14</sup> Bayesian belief revision per unit of a noisy piece of information is less than that in response to one unit of precise news (see Holthausen and Verrecchia, 1988).

Therefore, while the asymmetry is greater among the growth stocks, the phenomenon is by no means limited to those stocks, but it is pervasive.

## **6. Summary and conclusions**

In this study, we examine whether managers delay the disclosure of bad news relative to good news. We infer the relative timeliness of bad and good news disclosures from the magnitude of stock price reactions to such disclosures. If managers accumulate and withhold bad news up to a certain threshold, but leak and immediately reveal good news to investors, then we expect the magnitude of the negative stock price reaction to bad news disclosures to be greater than the magnitude of the positive stock price reaction to good news disclosures. Our analysis comparing stock price reactions to good and bad news announcements suggests that management, *on average*, delays the release of bad news to investors.

Our empirical tests focus on major voluntary disclosure events. We investigate the stock market reaction to managerial announcements of dividend changes and voluntary managerial forecasts or earnings. In addition, we examine the timing of recognition of bad news write-downs and special items during the fiscal year. We find that the magnitude of the 5-day market reaction to bad news announcements such as negative dividend and pessimistic managerial forecasts of earnings exceeds that of good news announcements such as positive dividend changes and optimistic managerial forecasts of earnings. These results hold even after controlling for the magnitude of the news announcement. Finally, we explore the likelihood that managers delay reporting asset write-downs and other negative special items to the 4<sup>th</sup> quarter of the firm's fiscal year. We find that bad news disproportionately occur in the 4<sup>th</sup> quarter.

We have outlined various incentives facing managers to withhold as well as accelerate the release of bad news and good news. The net effect of these incentives on managerial behavior is difficult to specify *a priori*. However, our priors are that capital market and human capital incentives, as suggested by the recent accounting scandals, might dominate managerial disclosure behavior and lead to managers *on average* withholding bad news and leaking good news early. Our empirical evidence suggests that, on average, withholding of bad news and leaking good news early is pervasive across various types of firms.

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**Table 1**  
**Descriptive Statistics for Dividend Change Sample**

Sample consists of 8,783 dividend change announcements between 1990 and 2002.  $Divchg$  ( $= Div(t)-Div(t-1)/Div(t-1)$ ) is the percentage change in stated dividend payout. The sample includes dividend change announcements where  $Divchg > 0.01$  and there were no dividend changes in the previous year. In addition, the most extreme 1% of  $Divchg$  observations are excluded. The size (B/M) quartiles are based on the relative size (B/M) of firms each year.

	Positive Dividend Change				Negative Dividend Change			
	% Obs	% div chg = $(d_t - d_{t-1})/d_{t-1}$ Mean (Median)	5-day announce Return Mean (Median)	1-month return prior to announcement Mean (Median)	# Obs	% div chg = $(d_t - d_{t-1})/d_{t-1}$ Mean (Median)	5-day announce Return Mean (Median)	1-month return prior to announcement Mean (Median)
Full sample	6,990	0.170 (0.120)	0.015 (0.010)	0.023 (0.015)	1,793	-0.418 (-0.445)	-0.041 (-0.026)	-0.010 (-0.011)
Largest Size Quartile	1,202	0.164	0.008	0.019	202	-0.447	-0.026	-0.022
Smallest Size Quartile	990	0.181	0.021	0.029	408	-0.398	-0.039	-0.010
Largest B/M Quartile	846	0.178	0.0173	0.029	464	-0.440	-0.042	-0.009
Smallest B/M Quartile	1,155	0.178	0.009	0.021	143	-0.456	-0.029	-0.012

**Table 2**  
**Cross-sectional Variation in Market Reactions to Dividend Changes**

Sample consists of 8,783 dividend change announcements between 1990 and 2002.  $Divchg$  ( $= Div(t)-Div(t-1)/Div(t-1)$ ) is the percentage change in stated dividend payout. The sample includes dividend change announcements where  $Divchg > 0.01$  and there were no dividend changes in the previous year. In addition, the most extreme 1% of  $Divchg$  observations are excluded.  $Neg$  is a categorical variable that equals one for negative dividend changes.  $High$  is equal to one if the variable concerned (e.g., size, leverage) is greater than the sample median, and zero otherwise.  $Size$  is the logarithm of market value of equity in the year preceding the dividend change.  $B/M$  is the ratio of book equity to market value of equity in the year preceding the dividend change.  $\#Analyst$  is the number of analysts that make at least one earnings forecasts during the year of the dividend announcement.  $Leverage$  is measured as long-term debt scaled by total assets in the year preceding the dividend change.  $Inside Ownership$  is the percentage of the firms' held by managers and insiders as tabulated in the 1999 Spectrum database.  $\%StockComp$  is the ratio of the value of stock and stock option grants to the CEO to the value of total CEO compensation (salary, bonus, stock grants, option grant, and other compensation) in the year preceding the dividend change.

*Regression Model:*

$$Ret = a + b_0Neg + b_1Divchg + b_2Divchg*Neg + b_3High + b_4High*Neg + b_5High*Divchg + b_6High*Divchg*Neg + e$$

Variable		Size	M/B	#Analyst	Leverage	Ownership	%Stock Comp
Intercept	0.011***	0.012***	0.015***	0.006***	0.011***	0.012***	-0.003
Neg	-0.019***	-0.024***	-0.026***	-0.004	-0.025**	-0.002	0.092***
Divchg	0.024***	0.030***	0.012*	0.0177***	0.018***	-0.001	0.007
Divchg*Neg	0.054***	0.045***	0.061***	0.073***	0.050***	0.098***	0.250***
High		-0.002	-0.006***	-0.000	0.002	-0.003	0.011
High*Neg		0.006	0.005	0.006	0.004	-0.011	-0.116***
High*Divchg		-0.032***	0.001	-0.015	-0.011	0.036***	-0.018
High*Divchg*Neg		0.009	-0.025	-0.007	0.014	-0.066***	-0.232***
Adj. R <sup>2</sup>	15.8%	14.8%	14.5%	9.6%	14.5%	12.2%	9.9%
# Obs	8,783	5,660	5,240	2,184	5,231	4,366	476

\*\*\* indicates significance at 1% level or better. \*\*5%, \* 10%

**Table 3**  
**Descriptive Statistics for Management Forecast Sample**

Sample consists of 7,567 public management forecasts of quarterly earnings per share between 1995 and 2002 from the First Call Database.  $News (= MgmtFcast - AnalystFcast / |AnalystFcast|)$  is the new content of management's forecast and is the difference between management's forecast of quarterly EPS and analysts' most recent consensus forecast (scaled by the absolute value of the analysts' consensus forecast). The sample includes all management forecasts where  $|News| > 0.01$  and  $|AnalystFcast| > 5$  cents per share. In addition, the most extreme 1% of  $News$  observations are excluded. The *Good News* sample consists of all observations where  $News > 0$ . The *Bad News* sample consists of all observations where  $News < 0$ . Raw announcement window returns are calculated for the 5 trading days surrounding the management forecast.

	Good News Sample				Bad News Sample			
	# Obs	Amount of News	5-day announce Return Mean	1-month return prior to announcement Mean	# Obs	Amount of News	5-day announce Return Mean	1-month return prior to announcement Mean
	1,970	0.276	0.044	0.023	5,597	-0.551	-0.086	-0.029
(Median)		(0.100)	(0.038)	(0.012)		(-0.257)	(-0.055)	(-0.027)

**Table 4**  
**Cross-sectional Variations in Market Reactions to Management Forecasts**

Sample consists of 7,566 public management forecasts of quarterly earnings per share between 1995 and 2002 from the First Call Database.  $News$  ( $= MgmtFcast - AnalystFcast / AnalystFcast$ ) is the new content of management's forecast and is the difference between management's forecast of quarterly EPS and analysts' most recent consensus forecast (scaled by the absolute value of the analysts' consensus forecast). The sample includes all management forecasts where  $|News| > 0.01$  and  $|AnalystFcast| > 5$  cents per share. In addition, the most extreme 1% of  $News$  observations are excluded.  $Bad$  is a categorical variable that equals one for if  $News < 0$ . Announcement window returns ( $Ret$ ) are calculated for the 5 trading days surrounding the management forecast.  $High$  is equal to one if the variable concerned (e.g., size, leverage) is greater than the sample median, and zero otherwise.  $Size$  is the logarithm of market value of equity in the year preceding the management forecast.  $B/M$  is the ratio of book equity to market value of equity in the year preceding the management forecast.  $\#Analyst$  is the number of analysts that make at least one earnings forecasts during the year of the management forecast.  $Leverage$  is tabulated as long-term debt scaled by total assets in the year of the management forecast.  $Inside\ Ownership$  is the percentage of the firms' held by managers and insiders as tabulated in the 1999 Spectrum database.  $\%StockComp$  is the ratio of the value of stock and stock option grants to the CEO to the value of total CEO compensation (salary, bonus, stock grants, option grant, and other compensation) in the year preceding the management forecast.

*Regression Model:*  $Ret = a + b_0Bad + b_1News + b_2News*Bad + b_3High + b_4High*Bad + b_5High*News + b_6High*News*Bad + e$

Variable	Base	Size	M/B	#Analyst	Leverage	Ownership	%Stock Comp
Intercept	0.042***	0.049***	0.041***	0.046***	0.050***	0.040***	0.048***
Bad	-0.112***	-0.136***	-0.098***	-0.130***	-0.137***	-0.101***	-0.097**
News	0.008	0.019	0.004	0.017	0.010	0.005	-0.003
News*Bad	0.022***	-0.002	0.015	0.003	0.013	0.014*	0.017
High		-0.017*	0.001	-0.010	-0.018*	0.005	-0.017*
High*Bad		0.048***	-0.025**	0.033***	0.045***	-0.029***	-0.017
High*News		-0.026*	-0.002	-0.023	-0.008	0.005	-0.006
High*News*Bad		0.042***	0.010	0.028*	0.004	-0.006	-0.026*
Adj. R <sup>2</sup>	17.7%	16.7%	16.6%	16.6%	16.9%	17.2%	15.3%
# Obs	7,566	4,282	4,266	4,215	4,305	6,772	2,522

\*\*\* indicates significance at 1% level or better. \*\*5%, \* 10%

**Table 5**  
**Negative Special Items – Quarterly Earnings Sample**  
**Variable Descriptive Statistics and Correlations**

Sample consists of 9,838 firm-quarters between 1990 and 2002 where firms reported negative special items in a fiscal quarter in excess of 5% of lagged total assets. The variable “4<sup>th</sup> Qtr Dummy” is a categorical variable that equals one if the negative special item was reported in the 4<sup>th</sup> quarter. *Inside Ownership* is the percentage of the firms’ held by managers and insiders as tabulated in the 1999 Spectrum database. *Leverage* is tabulated as lagged long-term debt scaled by lagged total assets. *Assets* is the lagged value of total assets (\$MM). The decile rank of assets is calculated each year for comparability.

Panel A – Sample Statistics						Panel B – Pearson Correlations			
Variable	Mean	Median	Stdev	Lower Quart.	Upper Quart.		Inside Ownership	Leverage	Assets
4 <sup>th</sup> Qtr Dummy	40.0%					4 <sup>th</sup> Qtr Dummy	0.06*	0.02*	-0.08*
Inside Ownership	13.2%	4.4%	18.8%	0.7%	18.7%	Inside Ownership		<0.01	-0.92*
Leverage	20.3%	7.5%	43.4%	0.1%	28.2%	Leverage			0.01
Assets (MM\$)	1,742	62	5,543	10	540				

**Table 6**  
**Negative Special Items – Quarterly Earnings Sample**  
**Determinants of Delaying Special Items Until 4<sup>th</sup> Quarter**

Sample consists of 9,838 firm-quarters between 1990 and 2002 where firms reported negative special items in a fiscal quarter in excess of 5% of lagged total assets. Financial data are obtained from the 2003 version of the *Compustat* database. The variable “4<sup>th</sup> Qtr Dummy” is a categorical variable that equals one if the negative special item was reported in the 4<sup>th</sup> quarter. *Inside Ownership* is the percentage of the firms’ held by managers and insiders as tabulated in the 1999 Spectrum database. *Leverage* is tabulated as lagged long-term debt scaled by lagged total assets. Assets is the lagged value of total assets (\$MM). The decile rank of assets is calculated each year for comparability.

$$4thQuarter = a + b_1AssetRank + b_2InsideOwnership + b_3Leverage + e$$

Variable	Predicted Sign	OLS Regression	Logistic Regression
Intercept		0.45** (32.19)	0.21** (12.34)
AssetRank	-	-0.02** (-7.81)	-0.06** (60.56)
InsiderOwnership	+	0.09** (3.54)	0.38** (12.43)
Leverage	+	0.08** (4.42)	0.36** (18.34)
Adj. R <sup>2</sup> / Chi-Sq.		1.1%	111.19**
# Obs		9,835	9,835

\*\* indicates significance at 1% level or better.