Management Earnings Forecasts: A Review and Framework

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SYNOPSIS: In this paper, we provide a framework in which to view management earnings forecasts. Specifically, we categorize earnings forecasts as having three components—antecedents, characteristics, and consequences—that roughly correspond to the timeline associated with an earnings forecast. By evaluating management earnings forecast research within the context of this framework, we render three conclusions. First, forecast characteristics appear to be the least understood component of earnings forecasts—both in terms of theory and empirical research—even though it is the component over which managers have the most control. Second, much of the prior research focuses on how one forecast antecedent or characteristic influences forecast consequences and does not study potential interactions among the three components. Third, much of the prior research ignores the iterative nature of management earnings forecasts—that is, forecast consequences of the current period influence antecedents and chosen characteristics in subsequent periods. Implications for researchers, educators, managers, investors, and regulators are provided.

INTRODUCTION

Management earnings forecasts are voluntary disclosures that provide information about expected earnings for a particular firm. Such forecasts represent one of the key voluntary disclosure mechanisms by which managers establish or alter market earnings expectations, preempt litigation concerns, and influence their reputation for transparent and accurate reporting. Management earnings forecasts are influential; they have been shown to affect stock prices (Pownall et al. 1993), analysts’ forecasts (Baginski and Hassell 1990), and bid-ask spreads (Coller and Yohn 1997). The purpose of this paper is twofold. First, we provide an organizing framework in which to evaluate research on management earnings forecasts. This framework characterizes management forecasts as having three components—antecedents, characteristics, and consequences.
consequences. We organize a large number of studies on management earnings forecasts within this framework. ¹ Second, we draw on this framework to identify areas and topics where additional management earnings forecast research would be most productive.

This paper makes several contributions to the literature. First, although prior reviews of the management earnings forecast literature exist (Cameron 1986; King et al. 1990), they predate important changes in the environment in which management earnings forecasts are produced and consumed. For example, the passage of Regulation Fair Disclosure (Reg FD) and the increased use of earnings benchmarks significantly influence both the frequency and content of management earnings forecasts (Bailey et al. 2003; Brown and Caylor 2005). Because significant research has been conducted since those prior reviews, an up-to-date evaluation of the literature is warranted. Second, by viewing the forecasting process as involving three related components, we can more readily organize the existing literature and draw insights from that research. The decomposition of the literature also enables us to identify where theory development and additional empirical research are warranted. Given the importance of voluntary management earnings forecasts to the functioning of capital markets (Healy and Palepu 2001), we believe that a re-evaluation of the literature is in order.

The framework we use herein is adapted from one developed by Wiedman (2000) who characterizes both voluntary and mandatory disclosure as involving three components—antecedents, characteristics, and consequences. ² We tailor her framework to the management earnings forecast domain and identify the elements comprising the three components. Specifically, antecedents are the environmental and firm-specific characteristics, such as the legal setting and the incentives of managers that influence the likelihood of a forecast being issued. Forecast characteristics embody the choices that a manager makes relating to the content of the forecast itself, such as its form, horizon, and level of detail. Consequences are the reactions to the forecast, such as stock price changes and analyst behavior. Not surprisingly, these consequences are a function of antecedents and forecast characteristics.

Looking at the published research over the last several decades through the lens of this framework yields three important implications for researchers in the management earnings forecast area. First, gaining a better understanding of the choices that managers make once they decide to issue an earnings forecast is an important direction for both theory development and empirical research. Existing theories largely focus on why managers choose to issue a forecast and the likely consequences of those decisions (e.g., Ajinkya and Gift 1984; Skinner 1994; Stocken 2000; Verrecchia 2001). That is, theories primarily address antecedents and consequences. Thus, opportunities exist for theory development on the choices that managers make related to forecast characteristics. Because of fewer theories, it is perhaps no surprise that relative to the vast literature on forecast antecedents and consequences, comparatively fewer studies examine how managers choose the characteristics of their earnings forecasts. The lack of theory may explain why the research that is conducted on forecast characteristics is fairly recent (at least compared with research on forecast antecedents and consequences). To the extent that forecast characteristics are examined in the literature, they are primarily treated as exogenous variables (Baginski et al. 2004). Given that managers have substantially greater control over forecast characteristics than they have over forecast antecedents and consequences, it is striking that the decisions managers make about such characteristics are comparatively less understood (Choi et al. 2006). For example, we know relatively little about why managers decide to issue forecasts with external versus internal

¹ By intention, we do not survey every paper on the topic of management earnings forecasts. Our goal is to describe a sufficient number of studies within the context of our framework to be able to legitimately render our conclusions.

² We use different component labels than Wiedman (2000) who uses the terms environment, attributes, and impact.
attributions, why they issue them in conjunction with other disclosures, and what the nature is of those other disclosures (Baginski et al. 2004, 17).

Second, our review of the literature highlights that the typical study focuses on the main effect of one or more forecast antecedents or characteristics on forecast consequences. Because main effect results are unlikely to hold under all conditions, we argue that researchers should identify and test possible interactions among antecedents or characteristics. Given the large number of studies looking at main effects, interaction tests will push forward our knowledge and understanding of such forecasts (Libby et al. 2002). Although such interaction tests have been more prevalent in recent research (e.g., Rogers and Stocken 2005; Hutton et al. 2003; Wang 2007), ample opportunities exist for further study. For example, managers with strong incentives tied to the firm’s stock price (a forecast antecedent) are viewed as issuing self-serving forecasts (Rogers and Stocken 2005). What is less clear-cut, however, is how other factors might moderate the influence of these incentives. For example, does providing forecasts more frequently moderate the influence of incentives on how forecasts are viewed by market participants?

Furthermore, interaction tests are useful in reconciling conflicting findings in the literature. Including a theoretically motivated conditioning, or moderator, variable often allows the researcher to identify where the effect holds (or where it holds in a different way). For example, Baginski et al. (1993) find that stock price reactions to earnings forecasts are contingent on forecast form; point forecasts lead to greater stock price reactions relative to range forecasts. In contrast, Pownall et al. (1993) and Atiase et al. (2005a) find no variation in stock price reactions conditional on forecast form. One possible reason for these mixed results may originate from Hirst et al. (1999) who examine how prior forecast accuracy may moderate the effects of forecast form. They experimentally show that only when prior forecast accuracy is high do investors consider forecast form. When prior accuracy is low, forecast form does not influence investor judgments. That is, prior accuracy is shown to be a significant moderator variable. Careful consideration of other such interactions within and among antecedents, characteristics, and consequences could help establish important boundary conditions to main-effect results.

Third, our review reveals a multi-period aspect of management earnings forecasts, yet the existing literature does not completely leverage this feature (see Miller [2002] for an exception). Forecast consequences from one period can later become forecast antecedents and may influence subsequent choices about forecast characteristics. For example, accurate forecasts in prior periods enhance a firm’s reputation for forecasting accuracy (a consequence), which, in turn, becomes an antecedent for a current period forecast. This antecedent, in turn, can significantly influence whether managers issue subsequent forecasts and, if they do, the chosen characteristics of those forecasts as well as the market’s reaction to them. A challenge in leveraging this multi-period feature is identifying the manner in which consequences from one period affect antecedents and forecasts in subsequent periods. For example, a firm’s reputation for accuracy is normally built over an extended time and is generally not quickly changeable, while remedying information asymmetries may occur more readily. Thus, recognizing the multi-period and iterative nature of the forecasting process and identifying how forecast consequences become antecedents are important to extend our understanding of the impact of forecasts beyond immediate, one-time reactions. In sum, our paper has numerous implications for those who conduct research on management earnings forecasts.

Our paper also has implications for financial reporting educators, managers, investors, and regulators. For those who teach financial reporting, our paper provides a succinct appraisal of the scholarly literature on management forecasts. Most financial reporting textbooks focus on mandatory financial reporting and provide little, if any, coverage on important voluntary disclosures like management earnings forecasts. This focus is puzzling given the important role of earnings forecasts in the operation of capital markets. We believe our paper will inform these
scholars/educators, thereby facilitating classroom coverage. Doing so will enable students to understand, for example, why the stock market may react very little when the mandatory earnings reports are released (i.e., the market already anticipates the news via management earnings forecasts) or why managers manipulate earnings in response to previous forecasts. This knowledge is not only helpful for financial reporting classes, but also for auditing courses. By recognizing the expectations that managers create with their earnings forecasts, auditing students (and practitioners) can improve their ability to identify when certain accounting practices may be questionable.

Managers can benefit from our paper by becoming more knowledgeable about scholarly research findings regarding these forecasts. This information should improve their ability to make informed decisions about whether and when to issue a forecast and what characteristics it should possess. For example, from our review, managers can better distinguish between the changes they might make to their earnings forecasts to achieve immediate responses from market participants and the changes that would not be quickly appreciated. Managers also can gain insight into the forecast characteristics that increase the credibility of good-news forecasts (e.g., verifiable information) and the characteristics that do not (e.g., soft talk; Hutton et al. 2003).

Investors should find our paper useful because it draws attention to the full range of forecast characteristics that managers can choose and the consequences that may follow. The distinct characteristics of forecasts are important because not all choices that managers make are equally relevant to investors. For example, a pre-commitment to disclosure may be viewed as a more-powerful cue to the believability of a forecast than its form. Our review also allows investors to fully appreciate the various types of reactions that management earnings forecasts can produce. While many investors might solely focus on the stock price reaction to a management earnings forecast, our review highlights the important role of other consequences, such as management’s reputation for clear and transparent disclosure. A better understanding, through the framework, of the relations among antecedents, characteristics, and consequences also can inform investors as they lobby firms to make changes in their disclosures.

Finally, our paper informs regulators who think about the quality, frequency, and effectiveness of management earnings forecasts (House Committee on Financial Services 2006). Since 1973, when the Securities and Exchange Commission (SEC) lifted its prohibition against forward-looking information, the SEC and other regulators have been concerned with the credibility of such information. Thus, they should be interested in our systematic review of the management earnings forecast research literature, particularly where empirical findings have (or have not) changed with new regulations. For example, we discuss research showing that although Reg FD does not decrease the amount of forward-looking information firms provide, it apparently decreases the quality of such information (Bailey et al. 2003; Irani and Karamanou 2003).

The rest of the paper is organized as follows. In the next section, we define management earnings forecasts and provide an overview of our framework. In the following three sections, we summarize the major themes in the earnings forecast literature within the context of the three components of our framework—namely, antecedents, characteristics, and consequences. Our goal is not to provide an exhaustive survey of individual studies, but to identify broad themes in the literature. In the penultimate section, we reflect on our review of the earnings forecast research in light of our framework and identify areas and topics where additional earnings forecast research would be most productive. The final section provides conclusions.

**FRAMEWORK**

King et al. (1990) define management earnings forecasts as voluntary managerial disclosures predicting earnings prior to the expected reporting date. The term *earnings guidance* often is used synonymously with earnings forecasts, both in the popular press (Zuckerman 2005) and in the...
academic literature (Atiase et al. 2005a; Hutton 2005). Although earnings forecasts are commonly issued well in advance of quarterly and annual earnings releases, they are sometimes provided after the accounting period has ended but before the earnings are announced. These latter forecasts are typically referred to as earnings preannouncements. When management forecasts indicate substantial shortfall from expected earnings, they are commonly termed earnings warnings (Kasznik and Lev 1995).

Figure 1 provides a pictorial representation of the antecedent, characteristics, and consequences framework that we use to discuss management earnings forecasts. After providing an overview of our framework, we then discuss each component of the framework in greater detail.

Because earnings forecasts are voluntary disclosures, the first question confronting managers is whether to issue a forecast. The answer is shaped by a combination of the environment faced by the firm and firm-specific characteristics. In our framework, we label these factors as antecedents because they are precursors to the actual forecast decision. Having chosen to issue an earnings forecast, the manager then faces a broad array of choices regarding the attributes of that forecast. These choices involve, for example, the form of the forecast (e.g., point, range, qualitative, etc.), the horizon (e.g., quarterly versus annual), and the information to accompany the forecast (e.g., the presence or absence of attributions). We label these choices as forecast characteristics because they are attributes associated with the forecast. The third component of our framework, forecast consequences, captures events and reactions that occur after the forecast is issued, such as the stock market reaction to the forecasted earnings information. Not surprisingly, these consequences are a function of the antecedents and forecast characteristics. For example, management forecasts lead to larger earnings forecast revisions by analysts when they originate from firms with high prior forecast accuracy (Williams 1996).

Although our framework is organized chronologically—that is, consequences follow the choice to issue a forecast with particular characteristics, which, in turn, follow forecast antecedents—it is important to recognize that the framework is iterative. That is, forecast consequences in one period become forecast antecedents in subsequent periods. For example, Healy et al. (1999) document that expanded disclosures result in increased institutional ownership and analyst coverage. In other words, they view institutional ownership as a consequence of disclosure, whereas Ajinkya et al. (2005) argue that higher institutional ownership leads to more frequent and more precise forecasts, implying that institutional ownership is an antecedent. Reflecting the natural iterative aspect of the forecasting process, some elements are listed under more than one component of our framework (see Figure 1).

Forecast Antecedents

We define antecedents as factors that exist at the time the manager decides to issue a forecast. Indeed, antecedents influence whether the manager will issue a forecast and, as explained later,

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3 Earnings guidance represents any manager-provided information that guides outsiders in their assessment of a firm’s future earnings, both directly and indirectly (Miller 2002). Thus, earnings guidance might include, but need not be limited to, earnings forecasts. For instance, a firm’s comments on its prospects in a new product market might be construed as indirect earnings guidance. All references to earnings guidance in this paper refer to earnings forecasts only.

4 Even though preannouncements are technically earnings forecasts, most of the literature treats them as early earnings announcements rather than late earnings forecasts. Accordingly, we do not discuss preannouncements in this paper.

5 In theory, all elements under characteristics and consequences could be listed under antecedents. That is, historical stock market reaction (a consequence) to a firm’s forecasts could be an antecedent. The historical choices that a firm makes about forecast form (a characteristic) could be viewed as an antecedent. Although we do not list all of these items under the antecedents component, the reader is encouraged to think about whether and how other characteristics and consequences might be profitably viewed as antecedents.
FIGURE 1
A Framework for Analyzing Management Earnings Forecasts

This figure represents the various components in the forecasting process. Each component contains several elements. The forecasting process is represented chronologically, but the bi-directional arrows indicate the iterative nature of the process.
can influence the manager’s choice of forecast characteristics and the forecast’s consequences. As shown in Figure 1, we classify antecedents into two broad categories: (1) forecast environment—that is, features of the legal and regulatory environment and features of the analyst and investor environment, and (2) forecaster characteristics—that is, information asymmetry, pre-commitment to disclosure, firm-specific litigation, managerial incentives, prior forecasting behavior, and proprietary costs. Firms often have little or no control over certain antecedents in the short term, although they can influence some of those antecedents in the longer term. For example, a firm’s prior forecasting accuracy is an antecedent. A reputation for accuracy is normally built over an extended time and is generally not quickly changeable.

We organize our discussion of antecedents as follows. We first discuss the two components of the forecasting environment. Then, we discuss the forecaster characteristics.

**Forecast Environment**

**Legal and regulatory environment.** Although management earnings forecasts are voluntary disclosures, legal and regulatory environments can influence the type of forecasts that firms make and the channels through which they are disseminated.\(^6\) Four significant changes in the U.S. regulatory environment occurred over the last four decades. In 1973, the SEC allowed firms to include forward-looking information in their regulatory filings. In 1979, the SEC provided safe harbor to firms issuing forecasts to shield them from frivolous litigation related to forward-looking disclosures made in good faith. Then, in 1996 the Private Securities Litigation Reform Act (PSLRA) extended the safe harbor so that firms could not be sued easily for forecasts that do not materialize. Finally, Reg FD, passed in 2000, mandated that material information could not be disclosed selectively.\(^7\)

The first three regulatory changes are largely aimed at encouraging companies to more freely disclose forward-looking information (including earnings forecasts). These regulatory changes are controversial. For example, the primary concern with the PSLRA is that companies might issue self-serving, opportunistic forecasts with impunity given the expanded safe harbor. Johnson et al. (2001) document that the PSLRA does not adversely affect the quality of management earnings forecasts, at least for high-tech firms. In fact, they find that the accuracy of earnings forecasts increases after the passage of the PSLRA.

Reg FD raises concerns of a different nature. Before the passage of Reg FD, managers could privately provide earnings guidance to selected analysts. Prior research documents that many managers used this private channel extensively (Ajinkya and Gift 1984; Hutton 2005). Following Reg FD, managers face a choice between public disclosure and no disclosure at all. Many, including regulators, fear that firms would choose the no-disclosure option because earnings forecasts are voluntary. However, research reveals an increase in public earnings forecasts following the passage of Reg FD, suggesting that concerns about the information-chilling effect of this regulation may have been misplaced (Bailey et al. 2003; Heflin et al. 2003). However, Wang (2007) reports that the decision regarding the continuation of guidance after the passage of Reg FD depends on firm-specific characteristics. Specifically, those firms with lower information asymmetry and higher proprietary information costs do, in fact, reduce or eliminate their public disclosures subsequent to Reg FD.

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\(^6\) We focus on the U.S. environment. However, the framework could be expanded to cover cross-border issues in other legal and regulatory regimes (see Baginski et al. 2002).

\(^7\) Although the SEC does not provide a bright line definition of what constitutes material information, recent enforcement actions indicate that even a discussion confirming a prior forecast could be construed as material information (SEC 2005).
The research discussed above compares forecasting behavior before and after a new regulation is enacted. In contrast, Baginski et al. (2002) study the effect of the legal environment on earnings forecast behavior by examining two legal regimes. Comparing the United States and Canada, they argue that the business environment in the two countries is similar, but the United States is more litigious (Baginski et al. 2002, 28–29). Specifically, they compare forecasts issued by Canadian versus U.S. managers and find that Canadian managers behave in a manner that suggests less concern over litigation. Specifically, Canadian managers issue more forecasts in general and, in particular, during periods of rising profits, relative to their U.S. peers. Furthermore, they issue longer-term and more-precise forecasts than their U.S. counterparts. Finally, Canadian managers are less likely to issue interim forecasts during periods of earnings decreases.

**Analyst and investor environment.** Two other environmental factors also affect whether managers issue forecasts, namely the behavior of investors and analysts. Research shows that investors and analysts seek disclosure of forward-looking information, such as earnings forecasts, and they tend to invest in and provide coverage of companies that have more forthcoming disclosure policies (Ajinkya et al. 2005; Healy et al. 1999).

Both institutional investment and analyst coverage have changed over time. Specifically, institutional investors’ share of the U.S. stock market capitalization has expanded from under 30 percent in 1980 to over 50 percent in 2002 (Gompers and Metrick 2001; Gillan and Starks 2003). Furthermore, analyst coverage of companies has increased over time. Barber et al. (2001, 2003) report that the number of firms followed by analysts rose from 1,841 in 1986 to 5,786 in 2001. Arguably, because of these changes in institutional investment and in analyst coverage, the number of firms providing public earnings guidance also increased from approximately 10 to 15 percent in the mid-1990s to approximately 50 percent in 2004 (Anilowski et al. 2007).

**Forecaster Characteristics**

Because the legal/regulatory and investor/analyst antecedents largely vary longitudinally, they arguably affect U.S. firms similarly. For example, all public U.S. firms are subject to the forces of Reg FD in the same fashion. However, the other antecedent, forecaster characteristics, exhibits significant cross-sectional variation because it refers to unique aspects of the forecasting firm. We discuss a number of these important forecast antecedents next (see Figure 1).

**Information asymmetry.** Many of the motivations managers have for issuing earnings forecasts are congruent with those of shareholders. That is, the supply of and the demand for forecasts is assumed to be largely driven by stock price considerations, with managers issuing forecasts (and analysts and investors demanding them) to reduce the asymmetry in information between managers and analysts and current or potential investors (Ajinkya and Gift 1984; Verrecchia 2001). Lower information asymmetry is viewed as desirable because it is associated with higher liquidity (Diamond and Verrecchia 1991) and lower cost-of-capital (Leuz and Verrecchia 2000).

Prior research supports the idea that there is a relationship between information asymmetry and firm behavior. Specifically, firms issuing management earnings forecasts are noted to have higher information asymmetry (measured by bid-ask spreads prior to the forecast) compared with firms that do not issue such forecasts (Coller and Yohn 1997). More importantly, that study finds that the information asymmetry is reduced after the issuance of the forecasts, suggesting that forecasts are highly influential. Interestingly, though, managers may not always desire to reduce information asymmetry. For example, if lower information asymmetry leads to greater monitoring (Shleifer and Vishny 1989), managers may not necessarily seek to voluntarily reduce it.

**Pre-commitment to disclosure.** Economic theory suggests that pre-commitment to continued disclosure also reduces the information asymmetry component of a firm’s cost-of-capital (Leuz and Verrecchia 2000). Although managers can proffer their commitment to disclosure, they can only credibly signal such commitment by providing disclosures more frequently (Botosan and
Despite the apparent benefits of a commitment to disclosure, wide variation exists in how frequently managers choose to issue forecasts. Some firms issue forecasts regularly (either quarterly or annually), while others exhibit a sporadic pattern of forecasting.

Prior research captures this mix of empirical forecast frequencies. For a sample of 733 forecasts (548 firms) during the period 1979–1983, McNichols (1989) reports that approximately half of her sample firms issue only one annual forecast over the sample period and only seven firms issue forecasts in every year. Such results are consistent with a 1981 survey by the Conference Board (cf., Ajinkya and Gift 1984), revealing that only 10 percent of New York Stock Exchange (NYSE) firms issue public forecasts in the sample period. Similar results exist for more recent periods. Specifically, Rogers and Stocken (2005) report for a sample of 925 annual forecasts (595 firms) during the period 1995–2000, 63 percent of firms issue only one forecast in the time period and only seven firms issue forecasts in every year (also see Tucker 2007 and Kasznik and Lev 1995 for evidence on quarterly and fourth-quarter guidance, respectively). Because most of these studies consider only point and range forecasts and exclude other forms of forecasts, it is possible that these frequency levels are understated. Kile et al. (1998) capture these other types of forecasts in their sample of NYSE firms for the year 1980, and they report a relatively high forecast frequency of 64 percent.

Prior research documents several regularities associated with forecasting frequency. Specifically, less volatile firms issue forecasts more often than more volatile firms (Waymire 1985), and firms with stronger corporate governance tend to issue more frequent forecasts (Ajinkya et al. 2005). Furthermore, forecast frequency is associated with a firm’s performance. Miller (2002) finds that guidance frequency increases during periods of rising earnings and falls when the period of earnings increases ends. Finally, forecast frequency is associated with the firm’s prior record of meeting analysts’ consensus earnings estimates. Firms that consistently fail to meet analyst estimates stop providing forecasts. When they resume, their record of meeting analysts’ estimates improves (Houston et al. 2007).

**Firm-specific litigation risk.** Firm-specific litigation risk appears to be another important determinant of whether a firm issues a forecast. That is, managers often issue forecasts to preempt earnings disclosures, particularly when they involve bad news, and to avoid subsequent litigation and its cost (Skinner 1994, 1997). Extant research uses a variety of proxies to model firm-specific litigation risk (Brown et al. 2005; Rogers and Stocken 2005; Field et al. 2005). The variables commonly associated with increased litigation risk in these models are (1) firm size, (2) variability of returns, (3) impending negative news that leads to a large drop in stock price, and (4) industry membership. These studies find that factors (1) through (3) are positively associated with litigation risk, and that firms in the high-tech industry are more prone to lawsuits. Cao and Narayanamoorthy (2005) employ a different approach to measuring litigation risk by using the directors’ and officers’ liability insurance premium as a measure of a firm’s ex-ante litigation risk.

In general, research indicates that litigation risk does influence the decision to issue forecasts. Specifically, Cao and Narayanamoorthy (2005) find that when faced with high ex-ante litigation risk, managers with bad news are more likely to issue earnings forecasts. Managers with good news, however, are not more likely to issue such forecasts, regardless of ex-ante litigation risk.

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8 Two additional reasons exist regarding why forecast frequency may be understated. First, the primary source of management earnings forecast data—the Corporate Investor Guidelines database maintained by First Call—appears to be incomplete prior to 1998 (Anilowski et al. 2007; Lansford et al. 2007), thus understating the total number of forecasts. Note, though, that Ajinkya et al. (2005) and Choi and Ziebart (2004) both provide evidence that the Corporate Investor Guidelines database is a more complete source of management forecasts than Factiva/Dow Jones News Retrieval System. Second, prior to Reg FD companies could (and did) engage in selective private guidance. This selective private guidance would not be reflected in public sources, thereby understating forecast frequency.
Brown et al. (2005) report that higher litigation risk is associated with more forecasts by both good-news and bad-news firms. After controlling for the level of litigation risk, however, they find that bad-news firms are significantly more likely to issue a forecast relative to good-news firms. That finding is consistent with Kasznik and Lev (1995) who also find that bad-news firms are significantly more likely to issue forecasts relative to good-news firms.

**Managerial incentives.** As noted earlier, managers often are motivated to issue earnings forecasts to reduce the information asymmetry that exists between them and analysts and investors. However, at times, managers issue forecasts for reasons that are consistent with only their own self-interest or incentives. Different levels of managerial incentives, such as equity-based compensation, exist across firms and time. Specifically, equity-based compensation accounts for less than 20 percent of CEO compensation in 1980 but increases to nearly 50 percent in 1994 (Hall and Lieberman 1998), and grows to nearly 60 percent by 2003 (Bebchuk and Grinstein 2005).

Research suggests that these incentives influence managers’ forecasting behaviors. Specifically, Nagar et al. (2003) argue that managers with greater levels of equity-based compensation issue more frequent forecasts to avoid equity mispricing that could adversely affect their wealth. They also argue that equity-based incentives encourage not just good-news, but also bad-news disclosures, because silence (i.e., no forecasts) is likely to be interpreted negatively. Consistent with their hypothesis, they find that the frequency of management earnings forecasts is positively related to the proportion of chief executive officer compensation affected by stock price, as well as the absolute value of shares held by that individual. In a similar vein, prior research documents that the quantity of earnings forecasts increases significantly around equity offerings (Ruland et al. 1990; Marquardt and Wiedman 1998).

Although one might conclude that managers with equity-based compensation will always issue forecasts in an attempt to boost their firm’s stock price, Aboody and Kasznik (2000) identify situations where incentives may lead to forecasts that depress the firm’s stock price. Specifically, they report that managers issue bad-news earnings forecasts around stock option award periods to temporarily depress stock prices and take advantage of a lower strike price on managers’ option grants. In a similar vein, Cheng and Lo (2006) and Rogers and Stocken (2005) find that insider trading is related to unfavorable management forecasts. Both studies suggest that managers have incentives to time their bad-news forecasts to take advantage of a lower stock price. In sum, these studies show that firm-specific managerial incentives play an important role in the decision to issue earnings forecasts.

**Prior forecasting behavior.** Firms’ prior forecasting behavior, namely their historical forecast accuracy and their historic behavior regarding meeting and/or beating benchmarks, also is shown to influence the decision to forecast. Accuracy is measured as the forecast’s deviation from the actual earnings realization. Recent survey evidence by Graham et al. (2005) confirms that managers issue voluntary disclosures, including earnings forecasts, to develop and maintain a reputation for accurate and transparent reporting (also see Skinner 1994; Stocken 2000; Healy and Palepu 2001). Indeed, research shows that prior forecast accuracy affects the credibility, or believability, of current forecasts (Williams 1996; Hutton and Stocken 2007), suggesting that the decision to forecast may be influenced by the firm’s prior accuracy.

With respect to the firm’s historic record of meeting and/or beating benchmarks, both anecdotal evidence and research confirms that, since the mid-1990s, managers are largely concerned with meeting or beating analysts’ consensus earnings forecasts (Dechow et al. 2003; Brown and Caylor 2005). Prior to the mid-1990s, managers appear to care more about prior-period earnings benchmarks or avoiding losses (DeGeorge et al. 1999). Research indicates the important role that the analysts’ consensus forecast now plays in firm behavior. Specifically, firms that do not meet analysts’ forecasts temporarily stop issuing management earnings forecasts, but they later resume...
when their ability to meet analysts’ forecasts improves (Houston et al. 2007). Along related lines, Cheng et al. (2005) find that regular forecasters meet or beat analysts’ forecasts more frequently, compared with less-regular forecasters.

Proprietary costs. Although there are benefits to disclosing management earnings forecasts, there also are costs. Economic theory suggests that proprietary costs are an important deterrent to full voluntary disclosure, including management earnings forecasts (Verrecchia 1983). For example, Wang (2007) finds that R&D expenditures scaled by total assets (as a proxy for proprietary costs) negatively impact the decision to issue public earnings forecasts. That is, firms with high proprietary costs replace private earnings guidance with nondisclosure following the passage of Reg FD (instead of replacing it with public guidance, which is the stated intent of the legislation). Additionally, proprietary costs appear to influence attributes of the forecast (Rogers and Stocken 2005; Bamber and Cheon 1998). Other research by Ajinkya et al. (2005), however, finds no relationship between proprietary costs and a firm’s decision to issue a forecast. They use market-to-book ratio and sales concentration as surrogates for proprietary costs.

In sum, the decision to issue a forecast is influenced by preexisting conditions or antecedents. Some antecedents are external to the firm (legal, regulatory, investor, and analyst environment) while others are internal and firm-specific (forecaster characteristics). Both factors influence the decision to issue a forecast in the current period (as well as the characteristics of that forecast). With some exceptions, these antecedents are not easily changed in the short term. For example, although managers can disclose more forward-looking information to remedy information asymmetry problems, it is more difficult for them to quickly change their prior forecasting accuracy. In the next section, we describe attributes of the forecast over which managers have greater control—forecast characteristics.

Forecast Characteristics

Forecast characteristics are properties or attributes of the earnings forecast *per se*. They differ from forecast antecedents in at least one important respect—namely, managers have greater discretion over forecast characteristics (particularly in the short term). For example, managers can choose whether to issue a point or a range forecast, and they also can choose the level of detail that accompanies a forecast. Perhaps not surprisingly, prior research documents substantial variation in forecast characteristics (King et al. 1990).

We organize our review by the various forecast characteristics. See Figure 1 for a listing of these characteristics.

Earnings Forecast News

Although managers do not entirely control the news that their forecasts convey, they effectively can create such control via their current-period decisions about whether to issue an earnings forecast and the earnings number to forecast. The news conveyed by a forecast falls into one of three categories. Good-news forecasts exceed market expectations, bad-news forecasts fall short of these expectations, and confirming forecasts corroborate those expectations. In many cases, researchers use analysts’ consensus earnings estimates as a proxy for market earnings expectations. However, other proxies exist. For example, Penman (1980) uses a time-series model of earnings to proxy for the market earnings expectation. Yet other research infers the market’s expectation from the sign and magnitude of stock price response to new information (e.g., Basu 1997).

Research shows a changing trend over time in terms of management earnings forecast news. Early studies report that earnings forecasts predominantly convey good news (Penman 1980; Waymire 1984). Studies based on samples from the early 1980s to the mid-1990s suggest a different trend. Both McNichols (1989) and Hutton et al. (2003) find that good-news forecasts and bad-news forecasts are equally likely in the studied time period. More recently, for a sample of
9,381 annual earnings forecasts between 1996 and 2003, Hutton and Stocken (2007) report that good-news forecasts constitute 37 percent of their sample; confirming-news forecasts are about 17 percent, and bad-news forecasts account for 46 percent. For large earnings surprises, Kasznik and Lev (1995) show that managers from bad-news firms are twice as likely as good-news firms to provide earnings forecasts.9

In terms of factors associated with forecasts with different types of news, research has shown that bad-news forecasts are positively associated with analyst optimism and inversely associated with equity issuance (Cotter et al. 2006). Bad-news forecasts are positively associated with firm size, size of the surprise, and firm-specific litigation risk (Kasznik and Lev 1995). Good-news forecasts, on the other hand, are systematically associated only with firm size. Furthermore, pessimistic forecasts are issued by firms in concentrated industries (a proxy for proprietary costs) more than they are by firms in less concentrated industries, presumably to deter new entrants (Rogers and Stocken 2005).

**Accuracy Versus Bias**

Once the decision to issue a forecast has been made, managers can strive to achieve accurate forecasts or they can strategically forecast to achieve a desired result. Research shows substantial variation in managers’ forecast accuracy. For example, Hassell and Jennings (1986) report that for the time period 1979–1982, forecast errors range from 0 to 242 percent with a mean (median) error rate of 15 percent (6.5 percent).10 Research also shows that managers’ quarterly forecasts are more accurate than their annual forecasts. Specifically, managers meet their annual forecasts approximately 6 percent of the time (Hribar and Yang 2006; Kasznik 1999), whereas they meet their quarterly forecasts approximately 45 percent of the time (Chen 2004).

Studies identify additional variables associated with forecast accuracy. For example, managers who face lower accounting flexibility and those who are subject to exogenous shocks are less likely to issue accurate forecasts (Chen 2004; Kasznik 1999). Furthermore, managers with less forecasting experience are shown to be less-accurate forecasters (Chen 2004).

In terms of strategic forecasting behavior, the systematic tendency to forecast in a particular direction apparently depends on the time period in question. Early research finds a preponderance of negative forecast errors, suggesting that forecasts are optimistically biased during the 1970–1980 time period in which the samples for these studies are drawn (Basi et al. 1976; Penman 1980). Studies between 1980 and the mid-1990s find no discernible bias in forecasts (Johnson et al. 2001; McNichols 1989). A sample from a more-recent time period (i.e., 1994–2003), in contrast, shows a steadily increasing pessimistic bias in quarterly management earnings forecasts (Chen 2004). In the last year of her sample, Chen shows that actual earnings exceed forecasts 44 percent of the time, suggesting that quarterly earnings forecasts are pessimistically biased.

The recent trend in forecast pessimism often is explained as the result of management’s desire to use its earnings forecasts as a device to walk-down market earnings expectations (Bergman and Roychowdhury 2007; Cotter et al. 2006; Matsumoto 2002). As noted earlier, managers intentionally issue pessimistic forecasts that, in turn, cause market participants to revise their expectations downward. Although this behavior creates bad-news earnings forecasts from management, it later creates an easier benchmark to meet or beat when actual earnings are released. Bergman and Roychowdhury (2007) find that this bias depends on the forecast horizon. Specifically, for long-horizon analysts’ forecasts that are optimistic, firms are disinclined to walk-down earnings esti-

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9 Kasznik and Lev (1995) define a large earnings surprise as one in which the magnitude of the earnings surprise exceeds 1 percent of the stock price.

10 Hirst et al. (1999, 105) confirm these results with data for the period 1993–97. They find mean (median) forecast error rates of 10.5 percent (3.5 percent) using a sample of 2,170 forecasts.
mantes. In contrast, for short-horizon forecasts that are optimistic, managers tend to walk-down analyst forecasts. Therefore, it is not surprising that annual earnings forecasts (usually long horizon) are optimistically biased (Choi and Ziebart 2004; Rogers and Stocken 2005), whereas quarterly forecasts (usually short horizon) are pessimistically biased.

Finally, research suggests additional factors associated with forecast bias. Specifically, those managers who appear to be overconfident issue optimistically-biased forecasts (Hribar and Yang 2006). In addition, firms with superior corporate governance provide more accurate and less biased forecasts (Ajinkya et al. 2005; Karamanou and Vafeas 2005). Firms issuing earnings forecasts around equity offerings are optimistically biased (Lang and Lundholm 2000), reiterating the role of incentives in understanding managers’ forecasting behavior. Finally, Rogers and Stocken (2005) find that managers issue misleading earnings forecasts when it is difficult to detect bias, but not otherwise.

**Forecast Form**

Managers can issue earnings forecasts in either qualitative or quantitative forms. Qualitative forecasts are nonnumerical (i.e., earnings will be higher next quarter), while quantitative forecasts can occur as numerical point, range, minimum, or maximum estimates. Baginski et al. (1993) report that point and range forecasts account for less than 20 percent of their sample drawn from 1983–1986. More-recent studies indicate that approximately 50 percent of forecasts sampled from 1993–1997 are point and range forecasts (Baginski et al. 2004; Hutton et al. 2003). Regardless of the time period studied, these results imply that other types of forecasts—qualitative and open-ended—account for a nontrivial percentage of forecasts. Yet, the typical archival study focuses on point and range forecasts, perhaps because of their more straightforward interpretation for measuring accuracy and bias (Atiase et al. 2005a; Lev and Penman 1990; Rogers and Stocken 2005). Whereas measures of forecast accuracy and bias can be computed from range forecasts by using the midpoint of the range, there is no widely accepted way to measure bias or accuracy for a qualitative or open-ended forecast.

Researchers suggest that forecast form captures the precision of managers’ beliefs about the future (King et al. 1990). More precise (i.e., point) forecasts are generally perceived to reflect greater managerial certainty relative to less precise (i.e., range) forecasts (Hughes and Pae 2004). Factors that are positively associated with precise forecasts include managerial overconfidence (Hribar and Yang 2006), superior corporate governance (Ajinkya et al. 2005; Karamanou and Vafeas 2005), and analyst following (Baginski and Hassell 1997). Moreover, research establishes that earnings forecasts made in the presence of analysts tend to be more precise relative to press releases, possibly because of the immediacy and the directness of the potential scrutiny from analysts (Bamber and Cheon 1998). Factors that are negatively associated with forecast precision include firm size, return volatility, proprietary costs, exposure to legal liability, and the length of the forecast horizon (Baginski and Hassell 1997; Baginski et al. 2002; Bamber and Cheon 1998). Finally, negative news is associated with less precise forecasts than is positive news (Choi et al. 2006).

**Attributions Accompanying Forecasts**

Although recognition that forecasts do not occur in isolation is not new (Waymire 1984), the information accompanying forecasts is only recently subject to scholarly inquiry. For a sample of 961 forecasts during 1993–1996, Baginski et al. (2004) find that nearly three out of four forecasts are accompanied by attributions, or causes, explaining their forecasts. They also report that bad-news forecasts, maximum forecasts, and shorter-horizon forecasts are more likely to be accompanied by these attributions. They also note that large firms are more likely to provide attributions, whereas firms in regulated industries are less likely to do so.
Along similar lines, Hutton et al. (2003) evaluate a sample of 278 forecasts for the period 1993–1997 and find that two in three firms supplement their forecasts with verifiable forward-looking information. An acknowledgment that the information accompanying forecasts might be value-relevant in its own right and may amplify (or diminish) the value of the forecast represents an important departure from prior studies that typically evaluate the numerical forecast per se and ignore the accompanying information.

**Stand-Alone versus Bundled Forecasts**

Earnings forecasts are often bundled with earnings announcements or with other corporate announcements. In a sample of 658 forecasts for the period 1993–1997, Hutton et al. (2003) find that 195 forecasts are made concurrently with earnings announcements. In a sample of 263 annual earnings forecasts for the period 1978–1982, Han and Wild (1991) find that 162 are stand-alone earnings forecasts, whereas 101 earnings forecasts are accompanied by revenue forecasts. Atiase et al. (2005a) report that firms that provide guidance bundled with earnings announcements have more favorable earnings guidance, are larger, and have higher book-to-market ratios compared with firms that provide stand-alone guidance.

**Forecast Disaggregation**

Earnings forecasts vary in levels of disaggregation. That is, managers can issue a forecast of only the bottom-line earnings number. Alternatively, they can issue earnings forecasts along with forecasts of other key line items in the income statement (i.e., revenues, cost of goods sold, etc.). Lansford et al. (2007) find that nearly one in three S&P 500 companies that provide annual earnings forecasts also provide disaggregated forecasts. These data are consistent with Hirst et al. (2007) who review an ad hoc sample of 172 earnings forecasts for the year 2005 and report that, although most forecasts (71 percent) are of earnings, or earnings and revenues, a substantial number of forecasts (29 percent) include multiple income-statement lines.

In general, prior empirical research does not identify either the circumstances under which disaggregated forecasts are provided or the characteristics of firms that provide such forecasts. An exception is Lansford et al. (2007) who find that the likelihood of issuing components of earnings guidance is associated with good-news earnings guidance, favorable forthcoming sales performance, low value relevance of earnings, high institutional ownership, and high analyst following. They conclude that forecast disaggregation is primarily associated with enhancing the credibility of good-news earnings guidance and responding to the demand for additional disclosures.

**Forecast Horizon and Timeliness**

Managers can choose the time horizon over which they provide their forecasts. Typically, managers provide quarterly or annual earnings forecasts. Recent evidence suggests that a growing number of companies appear to be moving from quarterly to annual guidance. Specifically, in a survey of 654 of its members, the National Investor Relations Institute (NIRI 2006) reports that the percentage of companies providing annual guidance increases from 61 to 82 percent, while the percentage of companies providing quarterly guidance declines from 61 to 52 percent. This change in behavior may be the result of market participants (CFA Institute 2006) and researchers such as Fuller and Jensen (2002) expressing concerns over managers using their forecasts to strategically manage analysts’ consensus forecasts. They argue that such behavior represents a game, particularly when it is done on a quarterly basis. Reflecting this concern, they call for eliminating quarterly earnings guidance altogether.

A related forecast characteristic is forecast timeliness, which refers to the difference in time between the forecast and the actual earnings realization. More-timely forecasts are issued further in advance of actual earnings than are less-timely forecasts. Waymire (1985) studies timeliness and finds that companies with more volatile earnings are likely to forecast later in the year.
Baginski et al. (2002) argue that the more litigious environment in the United States leads U.S. managers to issue shorter-term forecasts relative to their Canadian peers.

In sum, once the decision to issue a forecast is made, managers have many choices as to the characteristics of these forecasts. The manager controls most of these characteristics, particularly in the short term. In the next section, we describe the consequences associated with firms issuing management earnings forecasts.

**Forecast Consequences**

Forecast consequences refer to the outcomes associated with the issuance of a forecast. As we note previously, forecasts are issued for a variety of reasons (e.g., reduction of litigation risk, reduction of information asymmetry) and produce a variety of related consequences. We organize our discussion in this section around those consequences as shown in Figure 1—namely, stock market reaction, information asymmetry/cost-of-capital, earnings management, litigation risk, analyst and investor behavior, and reputation for accuracy and transparency.

**Stock Market Reaction**

Managers often issue earnings forecasts to correct information asymmetry problems and, thus, influence their firm’s stock price (e.g., Nagar et al. 2003). The idea that earnings forecasts are value relevant was not always obvious, however. Indeed, early research questions whether market participants rely on a forecast from management (i.e., a subjective and unaudited projection of future events). Studies from the 1970s and early 1980s find that management earnings forecasts indeed have information content as they influence stock prices (Patell 1976; Penman 1980).

Having established that management earnings forecasts are value relevant, subsequent research examines whether forecaster and forecast characteristics affect the informativeness, or the stock-price impact, of forecasts. Regarding forecaster characteristics, Hutton and Stocken (2007) examine the effect of firm forecasting reputation on investors’ reactions to management earnings forecasts. They construct a measure of forecasting reputation that reflects prior forecast accuracy and frequency. They find that investors are more responsive (i.e., stock price reacts more promptly) to managers’ good-news forecasts when a firm has built a forecasting reputation.

Researchers also conjecture that markets may react differently to good-news versus bad-news forecasts. Whereas bad-news forecasts are considered to be inherently informative, good-news forecasts are considered informative only when accompanied by verifiable forward-looking information (Hutton et al. 2003) or if they come from managers who have been accurate in the past (Ng et al. 2006). Holding constant the absolute amount of news, markets appear to react significantly more negatively to bad news compared with an equivalent amount of good news. This result suggests that bad news is inherently credible, whereas managers have to expend greater effort to make good news credible.11

The form and time horizon of the forecast is another characteristic that appears to influence how stock markets react to the forecast, although the evidence on this point is mixed. Baginski et al. (1993) report that point forecasts are more informative relative to other (less precise) types of forecasts, but Pownall et al. (1993) and Atiase et al. (2005a) find no difference in stock-price reaction conditional on the form of the forecast. Additionally, Pownall et al. (1993) also find that interim forecasts are significantly more informative relative to annual forecasts.

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11 Kothari et al. (2005) argue that this asymmetric market reaction may not be driven by news content *per se* (good versus bad). They maintain that good news tends to be leaked much earlier than bad news. Therefore, stock prices already impound a substantial portion of the good news. In contrast, bad news tends to be more of a surprise and markets react (more) negatively because of the surprise element and not because of the news valence (good versus bad).
The manner in which the stock market reacts also depends on the type of additional information accompanying management earnings forecasts. Although stand-alone forecasts are more informative relative to forecasts bundled with earnings announcements (Atiase et al. 2005a), stand-alone forecasts are not more informative than those containing attributions, or detailed explanations (Baginski et al. 2004). Similarly, forecasts accompanied by verifiable forward-looking information are seen as more informative (Hutton et al. 2003). The market reaction to attributions and verifiable information accompanying forecasts, however, is not unconditional. For example, external attributions (i.e., management targets a cause external to the company in explaining their forecast) are generally viewed as informative, whereas internal attributions (i.e., management targets themselves as the cause) are not informative (Baginski et al. 2004). In a similar vein, verifiable forward-looking information enhances the informativeness of good-news forecasts, but not that of bad-news forecasts (Hutton et al. 2003).

**Information Asymmetry/Cost of Capital**

Economic theory predicts that voluntary disclosures (and particularly those that suggest a commitment to disclosure) reduce information asymmetry (Diamond and Verrecchia 1991; Leuz and Verrecchia 2000). This reduction in information asymmetry, in turn, leads to a lower cost-of-capital. Coller and Yohn (1997) conduct one of the few studies that directly examine the cost-of-capital consequences of management forecasts. They document a reduction in bid-ask spreads (a proxy for information asymmetry) as a consequence of providing management earnings forecasts. Other studies provide indirect evidence on the connection between forecast issuance and cost-of-capital. For example, consistent with the idea that issuing earnings forecasts favorably affects the terms at which a firm may be able to raise capital, prior research shows that more frequent forecasters also access capital markets more often (Frankel et al. 1995).

**Earnings Management**

Managers cannot directly influence how much their stock price or cost-of-capital will change in response to their earnings forecasts. However, they can influence the news that they ultimately report. It is precisely this control over the subsequent earnings number that causes many to express concerns that managers who provide earnings forecasts may later engage in questionable practices (i.e., earnings management) or suboptimal behavior (i.e., forgoing potentially profitable projects) to meet their self-imposed earnings targets (Fuller and Jensen 2002).

Research suggests that these concerns are valid. Specifically, evidence indicates that managers use positive discretionary accruals to revise earnings upward to meet their own forecasts (Kasznik 1999). Concerns that managers who provide earnings forecasts may engage in myopic or shortsighted, albeit legitimate, business actions also have support. For instance, Cheng et al. (2005) find that more-regular forecasters invest significantly less in R&D relative to less-regular forecasters. They also report that more-regular forecasters’ long-term earnings growth rates are significantly lower than those of less-regular forecasters.

Although their research does not examine manager behavior (but does examine investor perceptions of management behavior), Hirst et al. (2007) find that investors believe that financial reporting quality is higher when managers provide disaggregated forecasts. The idea behind this belief is consistent with an analytical model by Dutta and Gigler (2002) who show that managers are less likely to manage earnings when they constrain themselves in terms of opportunities for subsequent earnings management.

**Litigation Risk**

Researchers posit that managers’ preemptive earnings disclosures, particularly when they involve bad news, are aimed at avoiding litigation or at least minimizing the cost of subsequent litigation. Specifically, Skinner (1994) argues that preemptive forecasts that convey impending bad
news reduce the subsequent potential for litigation, *ceteris paribus*, implying that bad-news firms are better off issuing earnings warnings. However, Francis et al. (1994) find no evidence suggesting either that preemptive earnings forecasts deter subsequent litigation or that the absence of such forecasts increases the likelihood of litigation. Surprisingly, they report that preemptive guidance increases the likelihood of subsequent litigation. Their findings cast doubt on the value of earnings guidance as a tool to minimize litigation risk. Field et al. (2005) find that preemptive bad-news forecasts are useful in deterring certain types of lawsuits. Furthermore, their results rule out the possibility that preemptive forecasts might actually trigger (instead of deter) litigation.

**Analyst and Investor Behavior**

Many studies find that analysts update their forecasts in response to firms’ earnings forecasts (Waymire 1986; Jennings 1987). Indeed, recent evidence suggests that approximately 60 percent of analysts revise their forecasts within five days of management guidance (Cotter et al. 2006), suggesting the important role of management forecasts in the current stock market environment. In earlier time periods, analysts often took up to four weeks to revise their forecasts (Jennings 1987). Even management forecasts that are confirmatory alter the dispersion of analysts’ forecasts without altering the mean consensus forecast (Clement et al. 2003), indicating that analysts respond to management forecasts. Not surprisingly, Graham et al. (2005) report that the number of analysts covering a firm is higher for firms that provide more earnings forecasts (also see Wang 2007).

Research also shows that analyst behavior is influenced by certain forecast characteristics. For example, Libby et al. (2006) experimentally show that analysts’ earnings estimates are not differentially influenced by forecast form (point versus range) immediately after the announcement of a forecast (also see Hirst et al. 1999). After earnings are reported, however, forecast accuracy (a forecast antecedent) interacts with forecast form (a forecast characteristic) to determine analysts’ revised earnings estimates.

Economic models predict that increased disclosures by firms, including management earnings forecasts, will be associated with increased investment in the firm’s stock (Diamond and Verrecchia 1991; Kim and Verrecchia 1994). Consistent with this prediction, Healy et al. (1999) document that sustained increases in earnings forecasts (among other disclosures) lead to increased institutional ownership. However, not all institutional ownership is positively associated with forthcoming corporate disclosure. Evidence by Bushee and Noe (2000) suggests that transient institutions and quasi-indexers respond positively to expanded disclosures, whereas dedicated investors’ (institutions that have large, stable holdings in a small number of firms) stock ownership is not related to expanded disclosures.12

**Reputation for Accuracy and Transparency**

Over 90 percent of managers surveyed by Graham et al. (2005) indicate that developing a reputation for accurate and transparent reporting is a key factor motivating their voluntary disclosures, including earnings forecasts. This idea is not new, having been previously documented by other researchers (Healy and Palepu 2001; Skinner 1994; Stocken 2000). This focus on accurate forecasts appears well-founded as studies indicate that forecast accuracy affects how analysts react to a forecast. As noted earlier, Hutton and Stocken (2007) report that the median stock price reaction to good news is larger for firms with a reputation for providing accurate (and frequent)

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12 A growing experimental literature has examined how nonprofessional investors react to management earnings forecasts. Han and Tan (2007), for example, experimentally show that nonprofessional investors react differently to different types of range forecasts. That is, nonprofessional investors’ revisions of forecasted earnings differ depending on whether management’s range forecast has explicitly stated upper and lower bounds (i.e., earnings will be between $1.00 and $1.10) or it has implicit upper and lower bounds (i.e., earnings will be within 5 cents of $1.05). Their results have implications for how managers disclose range forecasts, as they suggest that investor reaction depends on this factor.
forecasts than for firms without this reputation. Other researchers also find similar results. Specifically, after controlling for the magnitude of the surprise in the management earnings forecast, analysts revise their forecasts more for firms with high prior forecasting accuracy, again showing that a reputation for forecasting accuracy is important (Atiase et al. 2005b; Williams 1996). Finally, research shows that managers’ forecasts tend to be more accurate when they are issued in a venue where they expect immediate scrutiny, such as a press conference or a meeting with analysts (Bamber and Cheon 1998).

Interestingly, other research suggests that managers’ efforts to be viewed as transparent in their disclosures may be misplaced. If one interprets an early warning of bad news to be a transparent disclosure, then the results of Kasznik and Lev (1995) suggest that companies that are transparent in their disclosures fare worse than those that are not transparent. Specifically, they show that companies that warn ahead of bad news are worse off than those that do not warn. A recent study by Tucker (2007) reveals that the Kasznik and Lev conclusion appears to hold for short-windows, but it does not hold for long-windows after controlling for news content. Libby and Tan (1999) experimentally demonstrate that this short-window result occurs because a warning and a subsequent bad-earnings outcome are two instances of bad news, thereby causing analysts to consider the bad news twice. A recent experimental study by Mercer (2005) may offer insight into one reason firms warn about bad news in the short term. Specifically, she demonstrates that being forthcoming about bad news causes investors to judge management as credible.

In sum, management earnings forecasts are associated with important capital-market consequences, such as stock price and cost-of-capital changes. Not surprisingly, these consequences are a function of the antecedents and forecast characteristics. For example, management forecasts lead to greater earnings forecast revisions by analysts when they originate from firms with high prior forecast accuracy (Williams 1996).

SUMMARY OF FRAMEWORK AND REVIEW

The framework and selective review of the literature suggest three important conclusions for future research. First, when we look at the literature through the lens of our framework, we find that there is relatively less theory about how managers choose forecast characteristics than about why managers decide to issue a forecast and the expected consequences of doing so. That is, existing theories generally address antecedents and consequences (e.g., Ajinkya and Gift 1984; Skinner 1994; Stocken 2000; Verrecchia 2001). These theories do not speak to many of the choices that a manager faces once the decision to issue a forecast has been made. For example, when managers with high incentives (perhaps because of compensation plans tied to stock price) issue management earnings forecasts, they also must consider the characteristics associated with those forecasts. That is, should they forecast just earnings or also other line-items on the income statement? Should the forecasts also include explanations as to why the forecasts are plausible? We believe that great potential exists for theory refinement and/or development to address managers’ choice of forecast characteristics.

Perhaps because of this relative lack of theory, there is less research on the determinants of forecast characteristics. That is, much of the research in this area documents the types of forecast characteristics that exist (with less focus on the determinants of those characteristics) or treats forecast characteristics as exogenous variables. The latter research documents how forecast characteristics influence the market consequences associated with an earnings forecast. Because of this, we know relatively less about how managers choose forecast characteristics than we know about other aspects of management earnings forecasts. Stated differently, much of the existing research focuses on the links between antecedents and consequences as well as between characteristics and consequences. The relationship between antecedents and characteristics (i.e., how characteristics are chosen) is studied less frequently.
Second, our review of the literature highlights that the modal study focuses on the main effects of forecast antecedents or characteristics on forecast consequences. We argue that significant advances in the literature will derive from the study of interactions, as some of the main effects results are unlikely to hold under all conditions. Although such interaction tests have been more prevalent in recent research (e.g., Hutton et al. 2003; Rogers and Stocken 2005; Wang 2007), ample opportunities exist for further study. For example, the empirical variation in a firm’s incentives to manage earnings (a forecast antecedent) influences the market’s reaction to a forecast. What is less clear-cut, however, is how other factors might moderate the influence of incentives—in particular, characteristics associated with the forecast. Can explicit choices of a manager mitigate or exacerbate the effects associated with less-controllable factors, such as antecedents? For example, Hirst et al. (2007) experimentally show that managers with substantial incentives to issue self-serving forecasts can mitigate investor skepticism by issuing detailed, disaggregated forecasts that pre-commit managers to a specific path via which they will achieve their earnings target. In other words, managerial incentives (a forecast antecedent) interact with disaggregation (a forecast characteristic) to determine firm valuation (a forecast consequence).

Such interaction tests need not be limited to forecast antecedents and characteristics—they could be between two (or more) forecast antecedents, characteristics, or consequences. For example, Rogers and Stocken (2005) report that managers’ likelihood of issuing self-serving forecasts (a forecast antecedent) is moderated by investors’ ability to detect such misrepresentation (a forecast consequence). They show that managers are less likely to engage in self-serving behavior (i.e., issue more optimistic forecasts before disposing of stock and more pessimistic forecasts before acquiring stock or options) when investors can more easily detect misrepresentation.

Third, our framework highlights the multi-period aspect of management earnings forecasts. Interestingly, though, existing studies generally do not capture this feature in their research designs. For example, many of the benefits attributed to the issuance of earnings forecasts are based on short-window event studies that measure the impact of an earnings forecast immediately after the issuance of a forecast. Studies that track the impact of an earnings forecast both immediately following the earnings forecast and at a later time (e.g., after the earnings release) are less common.

Intertemporal studies are important because many forecast consequences from one period become forecast antecedents in subsequent periods. For example, an accurate forecast in the current period lays the foundation for an enhanced reputation for accuracy in subsequent periods. This antecedent, in turn, can influence how managers behave in subsequent periods—that is, whether they issue forecasts and the characteristics of those forecasts. For example, Hutton and Stocken (2007) construct a measure of forecasting reputation that reflects prior forecast accuracy and frequency. They report that investors are more responsive (a consequence) to management forecast news when a firm has built a reporting reputation (an antecedent). In the experimental domain, Mercer (2005) shows that the short-term credibility benefits of issuing a forecast in light of bad news (a forecast consequence and characteristic) are actually reversed in the long run. That is, forthcomimgness about bad news does not influence investors’ judgments about the credibility of management after a longer time period has passed. Similarly, Libby et al. (2006) demonstrate that in the short term, forecast form (a forecast characteristic) does not affect analysts’ earnings forecasts (a forecast consequence). However, once earnings are released, forecast accuracy (a forecast antecedent) interacts with forecast form to determine analysts’ revised earnings forecasts. Although these studies are in the minority of the extant research on management earnings forecasts, all three make a strong case for considering the multi-period nature of such forecasts. A challenge in leveraging this multi-period feature is identifying the manner in which consequences from one period affect antecedents and forecasts in subsequent periods.
CONCLUSION

In this paper, we adapt a framework originally proposed by Wiedman (2000) to review the literature on management earnings forecasts. This framework categorizes the literature into three components—antecedents, characteristics, and consequences—that roughly correspond to the timeline associated with an earnings forecast. The antecedents component refers to the pre-existing environmental and firm-specific characteristics that influence the decision to issue a forecast. The forecast characteristics component refers to specific features of the forecast, chosen by managers, following the decision to forecast. The forecast consequences component refers to the outcomes resulting from forecasting.

Three important conclusions emerge through the lens of this framework. First, of all the components of our framework, managers’ choice of forecast characteristics appears to be the least understood (both in terms of theory and research) even though it is the component over which managers have the most control. Second, our review highlights that the modal study focuses on the main effect of one or more forecast antecedents or characteristics on forecast consequences. The study of interactions between and among forecast antecedents, characteristics, and consequences appears to be a fruitful area for further work. Third, the multi-period nature of management earnings research presents a number of opportunities for future research.

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