To Guide or Not to Guide?
Causes and Consequences of Stopping Quarterly Earnings Guidance

Joel F. Houston
Department of Finance
University of Florida
(352) 392-7546
Joel.houston@cba.ufl.edu

Baruch Lev
Department of Accounting
New York University
(212) 998-0028
blev@stern.nyu.edu

Jennifer W. Tucker
Fisher School of Accounting
University of Florida
(352)273-0214
Jenny.tucker@cba.ufl.edu

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ABSTRACT

In recent years, quarterly earnings guidance has been harshly criticized for inducing "managerial short-termism" and other ills. Managers are, therefore, urged by influential institutions to cease guidance. We examine empirically the causes of such guidance cessation and find that poor operating performance—decreased earnings, missing analyst forecasts, and lower anticipated profitability—is the major reason firms stop quarterly guidance. After guidance cessation, we do not find an appreciable increase in long-term investment once managers free themselves from investors' myopia. Contrary to the claim that firms would provide more alternative, forward-looking disclosures in lieu of the guidance, we find that such disclosures are curtailed. We also find a deterioration in the information environment of guidance stoppers in the form of increased analyst forecast errors and forecast dispersion and a decrease in analyst coverage. Taken together, our evidence indicates that guidance stoppers are primarily troubled firms and stopping guidance does not benefit either the stoppers or their investors.

Keywords: earnings guidance, voluntary disclosure, managerial myopia, guidance cessation.

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> *The law of large numbers has caught up with Dell. Once worshipped for consistent performance, Dell has had seven quarters of declining revenue growth and missed its own revenue predictions in three of the last four quarters. It finally gave up giving quarterly guidance (arguing that its competitors don't do so either).* (*Forbes*, June 19, 2006, p. 44).

1. Introduction

Quarterly earnings guidance—managers' public forecasts of forthcoming earnings—is widespread yet highly controversial. A recent position paper by the CFA Institute and the Business Roundtable emphatically calls on managers to "end the practice of providing quarterly earnings guidance" (CFA 2006, p.2). Similarly, the U.S. Chamber of Commerce (2007) publicly implored managers to stop providing quarterly guidance. Arguments for ending the practice of guidance are made by purists, who claim that managers should tend to their business and leave securities valuation and the underlying forecasts of future performance to investors and analysts, and by pragmatists, lawyers in particular, who caution managers that guidance increases litigation exposure. Regulators and commentators are often concerned that a previously issued forecast will motivate managers to meet the guidance even if doing so would require costly changes in real activities, such as cutting capital expenditures or R&D, and sometimes induce them to manage earnings toward the forecast (Levitt 2000). And then there is the frequently voiced view that issuing quarterly guidance caters to the whims of short-term (myopic) investors, driving managers to accommodate these investors by engaging in myopic behavior that sacrifices the company's long-term growth. All in all, concludes the consulting company McKinsey, quarterly earnings guidance is "misguided" (Hsieh et al. 2006). The anti-guidance arguments are serious indeed.

On the pro-guidance side, managers often claim that the practice is necessary to keep analysts' earnings forecasts—issued with or without corporate guidance—within a reasonable range to avoid large earnings surprises and the consequent high stock price volatility and investors' heightened risk perceptions (Ajinkya and Gift 1984; Janjigian 2003). Researchers note that successful guidance—reliable prediction of corporate performance—enhances investor confidence in managers' ability: Successful guiders are obviously "on top of things" (Trueman 1986). From a conceptual point of view, credible guidance is virtuous because it decreases information asymmetry, leading in turn to a lower cost of capital and enhanced corporate investment and growth—all good things. Many managers obviously ascribe to the pro-guidance arguments, evidenced by their adherence to this practice.

To join this conceptually and practically important debate, we empirically examine in this study a sample of 222 U.S. firms that ceased to provide quarterly earnings guidance during 2002 through the first quarter of 2005, after having routinely done so. Only a few of these "stoppers" publicly announced and rationalized their decision, whereas the majority just ceased to provide guidance. We first examine the determinants of the stopping decision with particular reference to the pro and con arguments made by challengers and supporters of the practice. Although managers often cite reducing short-termism as the motive for stopping guidance, an unstated reason could be poor performance and repeated consensus misses.[1] We then examine the post-stoppage changes in the stoppers' long-term investments, in their complementary disclosures, and in their information environment. [2]

[1] Identifying the motives for guidance cessation is important. The U.S. Chamber of Commerce, aware of the fact that some struggling companies (like Dell, above) stopped guidance, urged "a large group of respected companies with good performance record" (2007, p.78) to cease guidance in order to avoid the negative signaling by the poor performers stopping the practice.

[2] We issue the conventional disclaimer that our tests establish associations and not necessarily causations. We talk about "consequences" in the sense that the documented changes in investment, disclosure, and information

Using a control sample of 676 guidance "maintainers," along with the 222 stoppers, we find that poor performance is the main reason for guidance cessation. Our stoppers are characterized by (1) a decline in earnings before stopping, (2) a poor record of meeting or beating analyst consensus forecast, and (3) a deterioration of anticipated earnings. Additionally, we document that guidance cessation is associated with (1) a change in top management, likely ushering in new management philosophy, (2) a relatively low frequency of guidance by industry peers, and (3) past as well as anticipated difficulties in predicting earnings.

After guidance cessation, with respect to the oft-mentioned argument that quarterly guidance elicits short-term managerial behavior, we do not find that guidance stoppers, free of investors' myopic shackles, enhance investment in capital expenditure and research and development (R&D).[3] In contrast to the statements made by some guidance stoppers and the recommendations of the bodies urging companies to cease guidance, we find that stoppers did not enhance, but curtail, the disclosure of alternative, forward-looking information. Moreover, we document a decrease in analyst coverage and increases in their earnings forecast errors and forecast dispersion. The curtailed other forward-looking disclosures and the changes in the quantity and quality of analysts' activities suggest a significant deterioration in the information environment of stoppers. All in all, we do not substantiate any of the major benefits claimed for ceasing the practice of guidance.[4]

Our research contributes to the voluntary disclosure literature in general and to the earnings guidance research in particular. To our knowledge, ours is the first study that examines the complete sequence of events concerning guidance: from the circumstances prevailing before the

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environment occur immediately after stopping guidance, and are relative to firms that continue to provide quarterly guidance.

[3] For a subsample of stoppers we find tentative evidence of an R&D increase post-stoppage.

[4] In unreported analysis we use the traditional Heckman two-step selection model (e.g., inverse Mills ratio) to examine post-cessation behavior. Our reported results are robust to this specification.

stopping decision, through the disclosure change, to the post-changes in real (investment) and disclosure decisions.

Certain issues related to quarterly earnings guidance were examined by two contemporaneous studies: Chen et al. (2006), who focus on guidance stoppers which *publicly announced* their decision and primarily examine the circumstances leading these firms to stop guidance, and Cheng et al. (2006), who examine the investment decisions of guidance providers and non-providers. Our study, we believe, extends significantly these papers and thereby contributes to the voluntary disclosure literature. In particular, we differ from Chen et al. (2006) in three respects. First, their sample is restricted to firms that have publicly announced the decision to stop guidance. We observe in our sample that most stoppers do not make a public announcement and that the announcers are different from the non-announcers. Consequently, some of our findings differ from Chen et al. For example, we document that after guidance cessation, analyst coverage decreases for stoppers without an announcement but not for stoppers that publicly announced the decision. This explains their finding of no change in analyst coverage after stoppage and also suggests that restricting the sample to announced stoppers likely introduces a selection bias.[5]

Second, although both Chen et al. and our study find that poor performance is associated with guidance cessation, we provide broader and stronger evidence due to our larger sample. Even though Chen et al.'s sample period spans over five years, their stopper sample size is 96 and the useful observations are 75 in testing the determinants of guidance cessation. Their conclusion about poor performance is supported by one variable—stock performance—that is statistically significant at the 5% level. In contrast, our conclusions are based on tests using 208

[5] On the other hand, focusing on announcers allows Chen et al. to document the market reaction to the announcement (it's negative).

stoppers and four performance variables—past earnings change, the consensus meet-or-beat record, anticipated earnings change, and stock performance—which are *all* statistically significant at the 5% level.

Third, our analysis of the stoppers' post-cessation change in *forward-looking* disclosures is, we believe, more comprehensive than is Chen et al. and indeed yields a different conclusion. They use word counts in the earnings announcement press release as a proxy for the intensity of forward-looking disclosures and conclude that disclosures have increased after guidance cessation. Rather than counting words, we code the messages in the forward-looking disclosures derived from multiple sources: the earnings announcement press release, the 10-Q MD&A, the earnings announcement conference call, and special press releases between earnings announcements. Based on the coded disclosures of eight categories, we conclude that, on average, guidance stoppers *curtailed* meaningful forward-looking information after guidance cessation. This evidence provides a reliable and powerful check of the claim made by guidance detractors that stoppers will replace the guidance with extensive forward-looking information. Our evidence refutes this claim.

The second related study, Cheng et al. (2006), compares a sample of firms that frequently provided quarterly guidance with those that only occasionally provided such guidance or did not provide guidance at all and conclude that regular guiders had lower R&D than occasional or no-guiders, implying that guidance contributes to managerial short-termism. A major difference between ours and the Cheng et al. study is that our research design—examining firms *before* and *after* guidance cessation and comparing guidance stoppers with those that maintained guidance—uses a stopping firm's past as its own control. In contrast, comparing guiders with non-guiders (Cheng et al.) raises the thorny issue of adequately controlling for all the major

factors which affect the investment decision (e.g., management style, shareholder mix, or type of analysts following). One can never be sure whether an omitted control variable causes the difference in R&D or whether this difference is indeed driven by quarterly guidance. Having a stopping firm as its own control mitigates this problem. Moreover, while Cheng et al. examine levels, we focus throughout our analysis on *changes* in the variables—further mitigating the omitted variables problem.

Finally, our study, dealing with voluntary disclosure, is related to Miller (2002) which takes a comprehensive look at the voluntary disclosure patterns of firms with changing operating performance. Examining a broad range of voluntary disclosures, Miller reports that firms steadily increase the level of disclosure during periods of increased earnings, but once earnings begin to decline, the level of disclosure reverts to what it was during the initial flat earnings period. Our research considers a specific type of disclosure (earnings guidance) for a substantially larger number of firms (Miller's sample size is 80) and in a more recent (and very different) time period (Miller's sample period is 1980-1993). Among our various findings, we do find additional support for Miller's contention that firm disclosure tends to decline in the face of poor performance. Our study takes a step beyond Miller's important findings by examining whether the disclosure change (stopping guidance) is associated with real decisions (R&D and capital expenditures).

Our paper's order of discussion is as follows. Section 2 presents the conceptual foundations of our study and develops our hypotheses. Section 3 describes the sample selection and Section 4 reports on the association between prior performance and quarterly guidance cessation. Section 5 examines the changes in long-term investments after guidance cessation and Section 6 investigates whether guidance stoppers enhance alternative disclosures. Section 7 examines the

changes in the quantity and quality of analysts' activities after firms stop guidance. Section 8 comments on guidance stoppers that resumed guidance. Section 9 concludes the paper.

2. Conceptual Foundations and Hypotheses Development

We examine in this study the links between firm performance and quarterly guidance cessation and between this disclosure change and the changes in both real and informational decisions: changes in long-term investment, enhanced alternative disclosure in lieu of guidance, and changes in the information environment—analysts' forecast attributes.

The relation between firm performance and guidance cessation

Economic theory and empirical evidence is inconclusive about the relation between firm performance and disclosure. The early theoretical studies assume that the benefits of disclosure are a function of the nature of news (e.g., good or bad) and largely ignore the costs associated with non-disclosure (Verrecchia 1983; Dye 1985; Jung and Kwon 1988). These studies conclude that firms voluntarily disclose information when it is favorable, suggesting a positive association between firm performance and disclosure. Including the legal costs of non-disclosure in the model, Trueman (1997) demonstrates that firms will voluntarily disclose either good or bad news when such news is material. These studies thus argue that disclosure decisions are affected by firm performance, but the directional relation is unclear.

Empirical studies have found that firms make disclosure decisions conditional on performance, but the evidence regarding direction has been mixed. Some studies document a tendency of firms to issue earnings forecasts when the news is good (Patell 1976; Penman 1980; Waymire 1984; Lev and Penman 1990). Miller (2002), discussed above, finds that when earnings

decline, firms issue fewer earnings/sales forecasts.[6] These studies suggest a positive association between performance and voluntary disclosure. Other studies, however, suggest a negative association between performance and disclosure. Skinner (1994), and Kasznik and Lev (1995) report a higher frequency of bad-news than good-news disclosures. This difference is likely due to the increased threat of class-action lawsuits, which are often triggered by a large price decline rather than a price boost. So, poor performance may be associated with more disclosures. The above discussion indicates that managers' disclosure decisions are affected by firm performance, but the directional relationship is unclear. Accordingly, we hypothesize in the null form:

H1: Firm performance is unrelated to managers' decision to stop quarterly earnings guidance.

The relation between guidance cessation and changes in long-term investments

The claims for stopping quarterly guidance, outlined in our Introduction, are based on the argument that such guidance caters to short-term investors and in turn induces managers to under-invest in long-term growth to meet quarterly earnings targets. Accordingly, once firms stop quarterly guidance, managers, unshackled by the myopic earnings game, are expected to increase long-term investments in R&D and capital expenditures. However, whether capital markets are *dominated* by myopic investors has never been conclusively established. In fact, recent evidence indicates that investors react to revisions in analysts' long-term forecasts much more strongly than to near-term forecasts, thereby rejecting investors' myopia (Copeland et al. 2004). Thus, we hypothesize in the null form:

H2: The decision to stop guidance is unrelated to changes in long-term investments after guidance cessation.

[6] It is unclear from his study whether the decrease of forecasts in the lackluster years is due to a decrease in annual or in quarterly forecasts. Our study focuses on quarterly guidance (forecasts).

The change in alternative voluntary disclosures after ceasing guidance

Even if earnings guidance has an undesired effect on the firm's investing decisions, such guidance likely enriches the firm's information environment and reduces information asymmetry. Eliminating guidance will therefore adversely affect the information environment, unless the company enhances alternative disclosures. Guidance stoppers and their supporters frequently claim that after ceasing guidance they would provide additional forward-looking disclosures about key drivers of earnings and long-term strategies. We accordingly examine whether firms increase other forward-looking disclosures after guidance cessation. Our hypothesis, stated in the null form, is:

H3: After stopping guidance, managers do not change the level of other forward-looking disclosures.

Changes in the quantity and quality of analysts' information after guidance cessation

Financial analysts are important intermediaries between firms and investors. Analysts provide earnings forecasts, stock recommendations, and analysis of the firm's future prospects, which are obviously useful to investors, as evidenced by the reaction to revisions of forecasts and recommendations. In addition to providing information to investors, analysts also provide benefits to the firms they cover by making them better known to investors and likely reducing these firms' cost of capital.[7] It is, therefore, not surprising that 95% of the respondents to the NIRI (2006) survey believe that one of the benefits of providing guidance is to improve the communication between the firm and its analysts/investors.

[7] High analyst following reduces information asymmetry, which in turn reduces the cost of capital. For example, Easley and O'Hara (p. 1573) demonstrate that the risk premium in asset pricing can be reduced if the precision of information available to investors is improved in which, they argue, analysts play a key role. On the other hand, Hughes et al. (2007) and Lambert et al. (2007) demonstrate that the negative association between idiosyncratic information and cost of capital is only present in some situations.

The effect of guidance cessation on analysts' activities is difficult to predict. To the extent that analysts rely on public information, the quality of their product could be adversely affected by a firm's decision to cease guidance. As a result, analysts may lose interest in following the firm, and those that continue coverage may have greater difficulty in forecasting its earnings and thereby generate more biased earnings estimates. If, on the other hand, analysts mainly play a role of private information generators, guidance cessation is expected to *increase* analysts' interest in a firm, and the quality of analysts' forecasts will not decline, even though their opinions may become more divergent as a result of their use of different sources of private information. Our hypothesis, stated in the null form, is:

H4: After firms stop guidance, there will be no changes in the quantity and quality of analysts' activities. In particular, there will be:

- **H4a: no change in analyst coverage (proxy for the volume of analyst activities).**
- **H4b: no change in the dispersion of analyst estimates.**
- **H4c: no change in the accuracy of analyst estimates.**

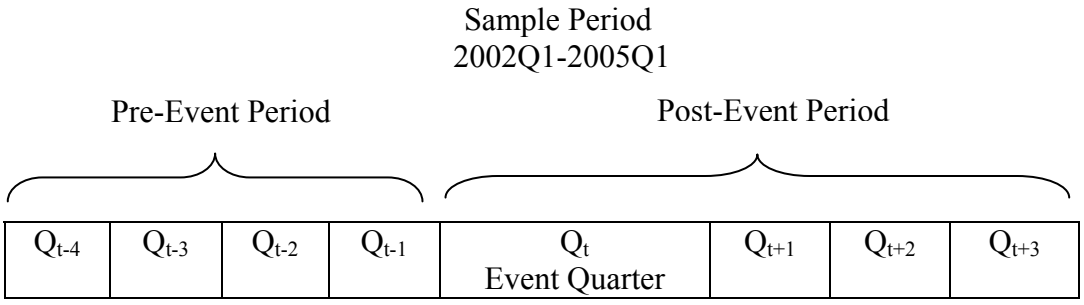
The sample selection is described in the next section. Then, for each hypothesis, we introduce in separate sections the empirical models, explain the variables used, and report the test results. Robustness tests are briefly discussed in the text or footnotes.

3. Sample selection

We use a *de facto* approach to identify the firms that maintained and those that stopped providing quarterly earnings guidance, summarized in Table 1. We refer to each quarter during our sample period—2002Q1–2005Q1—as an "event quarter" and to the preceding four quarters as the "pre-event" period. The event quarter and the subsequent three quarters are labeled as the "post-event" period (See the timeline below.). We identify "guidance stoppers" as the firms that issued guidance for at least three out of the four pre-event quarters, but gave no guidance for any

of the four post-event quarters. Firms that provided guidance for at least three out of the four quarters in *both* the pre- and post-event periods are termed "guidance maintainers." We start with the First Call Company Issued Guidelines (CIG) database to identify guidance stoppers and maintainers and obtain an initial sample of 353 stoppers and 699 maintainers.[8, 9]

Timeline
Identifying Guidance Stoppers and Maintainers



Since the CIG database is incomplete (Anilowski et al. 2007), we search the *Factiva* news database to make sure that the initially identified stoppers indeed have stopped quarterly guidance.[10] We find that 94 of the CIG-identified stoppers actually provided either earnings (including GAAP or *pro forma* earnings in dollars or EPS and earnings growth) or revenue guidance for at least one of the four post-event quarters. We exclude these firms from the stopper sample. We also exclude 13 firms whose first "silent" quarter, according to the news search, is

[8] Throughout the study we exclude guidance issued after the fiscal quarter end because these preannouncements are released so close to the earnings announcement date that they are a part of a firm's earnings announcement strategy rather than a guidance strategy.

[9] We find 527 firm-quarters that satisfy the data requirement for guidance stoppers. For a firm that appears in this group in more than one quarter, we choose its earliest quarter (See Note b in Table 1). For guidance maintainers we find 5,015 firm-quarters fulfilling our data requirements. If a maintainer satisfies this requirement in more than one quarter, we randomly choose a quarter from the qualified quarters as this firm's event quarter. Thus, there are no repeat firms in our samples.

[10] We in fact search for the earnings or revenue guidance history of all the stoppers from a year before the event quarter to October 2006. First, we search by the key word "guidance" in the headline and leading paragraph of *Business Wire*, *PR Newswire*, *Associated Press Newswires*, and *Reuters Significant Developments*. We find that guidance is most often given on the date of the previous-quarter earnings announcement and that *Reuters Significant Developments* reports most of the guidance. We additionally search by the key words "sees," "expects," or "expectation" in the headline and leading paragraph and find only a few items of news. For firms with no guidance news in the post-event period, we further search by key words "guidance," "outlook," "expect," or "forecast" in the quarterly earnings announcement press releases for the post-event period.

after the end of our sample period. Furthermore, our research design may lead to the inclusion of firms that appear to have stopped guidance because they were acquired or went bankrupt. Using the first digit of *DLSTCD* in CRSP, we identify and exclude 24 firms that were acquired (no firm went bankrupt) during the six quarters beginning with the event quarter. Consequently, our final stopper sample has 222 unique firms. Similarly, we exclude from the guidance maintainers 23 firms that were subsequently acquired, leaving us with a final control sample of 676 maintainers.

It should be noted that most of our quarterly guidance stoppers did not stop providing annual earnings/revenue guidance.[11] Our interest is in examining the issue of stopping *quarterly* guidance, because the debate about guidance on Wall Street and Main Street has focused on quarterly guidance. For example, the McKinsey article, the CFA Institute white paper, and the U.S. Chamber of Commerce Commission all recommended that companies eliminate quarterly earnings guidance, believing that such guidance, but apparently not annual guidance, induces short-termism (Hsieh et al. 2006; CFA 2006; U.S. Chamber of Commerce 2007). Interestingly, the U.S. Chamber of Commerce specifically calls for companies to switch from quarterly to annual guidance. In the empirical tests below we find that the reported results do not differ for those that stop only quarterly guidance than for those that stop both quarterly and annual guidance. Henceforth, we refer to "quarterly earnings guidance" as "guidance."

Panel A of Table 2 presents the distribution of guidance stoppers and maintainers across the four fiscal quarters of our sample period. To avoid skewing the data in Panel A, we report the numbers for the three complete calendar years (2002-2004), excluding 34 stoppers and 99 maintainers whose event quarter is the first quarter of 2005. Note that guidance is disproportionately stopped during the first fiscal quarter: More than 45 percent of the stoppers ceased guidance in the first fiscal quarter, suggesting that the decision to stop quarterly guidance

[11] Of the 222 quarterly guidance stoppers, 31 firms also discontinued their annual guidance.

is often made when a firm reviews its annual performance after the end of the fiscal year. In contrast, the maintainers are more evenly distributed across the four fiscal quarters.

Panel B of Table 2 reports the distribution of firms across the 13-quarter sample period, indicating a relatively high frequency of stoppers in the first two quarters of 2003, likely due to the ripple effects of Coca-Cola's widely publicized guidance cessation announcement on December 13, 2002. The number of guidance maintainers during the sample period steadily increases, consistent with the overall upward trend in quarterly guidance (untabulated). Panel C of Table 2 reports the industry composition of guidance stoppers and maintainers: Software companies (business services) and electrical equipment manufacturers are prominent among both the stoppers and maintainers, as are chemical products and measurement equipment manufacturers. There is no significant industry distinction between the stoppers and maintainers. We now move to examine the first hypothesis.

4. Firm performance and quarterly guidance cessation

Most guidance stoppers do not announce or explain the change in disclosure policy. Among those that do, "poor performance" is, as expected, rarely mentioned. We nevertheless suspect, and extant research suggests, that prior performance is a major motive for stopping guidance. We use a logit model to test this hypothesis, controlling for several reasons that managers cite when they do announce the policy change and for other factors.

Variable identifications and measurements

Change in performance

We use three main measures and two supplementary ones for change in performance. The main measures are: the change in earnings (ΔEPS), a variable for meeting or beating analyst

estimates (*MBanalyst*), and the *ex post* change in future earnings (*FutureEPS*). Specifically, ΔEPS is the average change in diluted earnings per share (EPS) in the four pre-event quarters relative to their respective same-quarter-last-year values, deflated by the stock price at the beginning of the pre-event period.[12] *MBanalyst* is the proportion of quarters in the pre-event period for which the firm meets or beats the most recent analyst consensus compiled before the earnings announcement.[13] *FutureEPS* is the average change in diluted EPS from the four pre-event quarters to the four post-event quarters, similarly deflated as Δ*EPS*. Strictly speaking, this measure assumes that managers can perfectly predict next year's performance, which is, of course, a strong assumption. But even if managers can only partially predict near-term earnings—a reasonable assumption—*FutureEPS* will proxy for *anticipated* performance.

We add to the above measures a variable indicating accounting losses (*Loss*) and one for stock performance (*Return*). DeGeorge et al. (1999) argue that zero profit is a common earnings benchmark which firms strive to surpass. We accordingly define *Loss* as the proportion of loss-reporting quarters (negative diluted EPS) in the pre-event period. We include stock performance in the analysis, expecting it to reflect the firm's performance incremental to earnings. This variable, *Return,* is the buy-and-hold return (compounded monthly) during the one-year period before the earnings announcement for the quarter preceding guidance stoppage, less the buy-and-hold return on the equal-weighted market index in the same period.

[12] We use the stock price at the beginning of the pre-event period because prices are expected to decrease for guidance stoppers if poor performance is a major reason for firms to stop providing guidance. Throughout the paper, we split-adjust earnings (both realized and forecasted) and prices when price is used as the deflator. To avoid the influence of outliers due to small deflators, we exclude the observations with a deflator less than 1.

[13] For two reasons we also examine the proportion of quarters in the pre-event period in which a firm meets or exceeds its *own* most recent earnings estimate issued before the fiscal quarter end. First, a firm's inability to meet its own forecast may impair its credibility, leading analysts to rely less on the firm's future guidance (Williams 1996) thereby decreasing analysts' demand for guidance. Second, Feng and Koch (2006) find that a firm's poor predicting ability is an important reason for omitting guidance for a quarter. We find that this variable has no explanatory power (untabulated, coefficient= –0.358, z-statistic= –1.43).

We control for four frequently stated reasons for guidance cessation. A survey by the National Investor Relations Institute (NIRI 2006) asked members who were contemplating discontinuing guidance to list the reasons. The top three reasons are a change in management philosophy (i.e., quarterly guidance induces short-termism.) (47%); industry trend (27%); and low earnings visibility (25%), which is, presumably, difficulty in predicting earnings. Appendix A lists the 26 firms (11.7%) in our 222 stopper sample that publicly announced their policy change. Among these 26 stopper-announcers, 10 (38.5%) implied a refocus on the long term, two firms (7.7%) indicated they were following the market or industry trend, and 12 (46.2%) mentioned the difficulty of predicting earnings.[14] We examine these motives as follows:

Disclosure philosophy change

A change in management philosophy regarding guidance most likely occurs with a change in the top management team, and therefore we expect a higher likelihood of guidance cessation after a management change. We assign 1 to the dummy variable *Management* if a firm has changed or announced a change of the CEO or CFO positions during the six months before the end of the event quarter and 0 otherwise. Information about management change is obtained by news search in *Reuters News* and the four newswires mentioned in Footnote 10. We predict *Management* to have a positive coefficient.

Industry trend

Previous studies (Dye and Sridhar 1995; Gul and Lundholm 1995) suggest that a firm's disclosure decision is influenced by the actions taken by its peers; that is, firms tend to herd. To quantify this factor, we define for each sample firm *IndNo*, which is the proportion of companies

[14] One firm (3.8%) said it would replace quarterly guidance with monthly sales reports; 5 firms (19.2%) gave no reason. Note in Appendix A that four companies each gave two reasons.

in the firm's 2-digit SIC code that *do not* provide any quarterly guidance in the pre-event period. We expect that firms with high levels of *IndNo* (i.e., absence of guidance is popular) are more likely to cease guidance, and thus expect the coefficient on *IndNo* to be positive.

Past or anticipated difficulty in forecasting earnings

Managers with less precise private information are more likely to withhold it (Verrecchia 1990). To capture past difficulty in forecasting earnings, we use the variable *Dispersion*, measured as the standard deviation of analyst forecasts of quarterly EPS—reflecting forecasting uncertainty—in the most recent consensus before the earnings announcement, averaged over the pre-event period. To scale for the cross-sectional differences in EPS, we deflate forecast dispersion by the stock price at the beginning of the pre-event period. We predict a positive coefficient for forecast dispersion because higher dispersion suggests greater difficulty in predicting earnings and therefore a higher likelihood of guidance cessation.

To capture managers' increased anticipated difficulty in forecasting *future* earnings, we use *FutureVAR*. The variable measures the extent to which future earnings increasingly deviate from past earnings. It is computed as the change from the four pre-event quarters to the four post-event quarters in the sum of the absolute differences between quarterly EPS and the EPS in the same quarter of the year before the pre-event period.[15] We deflate this measure by the stock price at the beginning of the pre-event period.

[15] To clarify: define the post-event quarters as t, t+1, t+2, and t+3 and the pre-event quarters as t-4, t-3, t-2, and t-1. The year before the pre-event period quarters are t-8, t-7, t-6, and t-5. The variable *FuturVAR* is the difference between A and B, where A = mean ($|X_t-X_{t-8}|$, $|X_{t+1}-X_{t-7}|$, $X_{t+2}-X_{t-6}|$, $|X_{t+3}-X_{t-5}|$) and B = mean ($|X_{t-4}-X_{t-8}|$, $|X_{t-3}-X_{t-7}|$, $|X_{t-2}-X_{t-6}|$, $|X_{t-1}-X_{t-5}|$). Thus, we use the year before the pre-event as the benchmark. Variable A measures the deviations of earnings (X) in the post-event quarters from the benchmark quarters and B measures the deviation of earnings in the pre-event quarters from the benchmark quarters.

Other guidance cessation motives

Finally, we control for four variables that capture important firm characteristics associated with disclosure: litigation risk, firm size, analyst coverage, and stock price volatility. In addition, we control for fixed time effects by including the quarterly dummy variables. Firms with a greater risk of being sued by shareholders may be inclined to provide guidance, especially warnings, to mitigate litigation risk and its cost (Skinner 1994, 1997; Field et al. 2005). On the other hand, Rogers and Van Buskirk (2006) suggest that firms that are concerned with lawsuits may limit their voluntary disclosures. Thus, we do not predict the effect of litigation risk on firms' guidance cessation. *Litigation* is the estimated probability of being sued by shareholders, using the litigation exposure model in Appendix B with the input variables measured in the one-year period before the event quarter.

We control for firm size, but do not predict its effect on guidance cessation.[16] Firm size is measured by *LogMVE,* the natural logarithm of market value of equity at the beginning of the event quarter. In addition, we control for analyst coverage, but do not predict its coefficient because its effect on guidance cessation depends on analysts' role in the capital markets (see discussion in Section 2). The variable *Analyst* is the average number of analysts whose forecasts are included in the most recent consensus before the earnings announcement for the four pre-event quarters. If a firm-quarter is covered by Compustat but not by I/B/E/S, we assume analyst following is 0 for that firm quarter.

We control for stock volatility because managers tend to believe that voluntary disclosure reduces stock volatility (Hsieh et al. 2006) and will therefore be reluctant to stop guidance if their stock volatility is high. The variable *Volatility* is the standard deviation of daily stock

[16] A large firm faces a greater demand for voluntary disclosure from market intermediaries covering the firm and from the large number of shareholders. On the other hand, large firms may be more likely to lead off a new industry path of stopping quarterly guidance.

returns in the one-year period ending five days after the earnings announcement for the quarter preceding the event quarter. We subtract from this measure the standard deviation of the equal-weighted market index in the same period.

Equation (1) is our logit model, where the dependent variable *Stop* is 1 for a guidance stopper and 0 for a maintainer, and $F(\cdot)$ is the cumulative distribution function of the logistic distribution, including the variables defined above.

$$\begin{aligned}\Pr(\text{Stop}=1) = F(&a_0 + a_1 \Delta\text{EPS} + a_2\,\text{MBanalyst} + a_3\,\text{FutureEPS} + a_4\,\text{Loss} + a_5\,\text{Return} \\ &+ a_6\,\text{Management} + a_7\,\text{IndNo} + a_8\,\text{Dispersion} + a_9\,\text{FutureVAR} + a_{10}\,\text{Litigation} \\ &+ a_{11}\,\text{LogMVE} + a_{12}\,\text{Analyst} + a_{13}\,\text{Volatility} + \text{quarterly dummies} + \varepsilon) \qquad (1)\end{aligned}$$

Test Results

The univariate statistics of the variables by stoppers vs. maintainers are presented in Table 3. The Wilcoxon tests show that relative to the maintainers, guidance stoppers have decreased earnings (Z = –3.33 for Δ*EPS*), more consensus misses (Z = –7.14 for *MBanalyst*), more loss quarters (Z = 4.08 for *Loss*), and lower stock returns (Z = –5.59 for *Return*) in the pre-event period and that they probably anticipate a decline in future earnings (Z = –3.13 for *FutureEPS*). These comparisons indicate that the stoppers are troubled firms.

Table 4 reports the logit model estimations with the coefficients on the quarterly dummies suppressed. The estimations use 208 stoppers and 640 maintainers that have complete data. We estimate the model in two ways due to the high correlation between *FutureVAR* and *FuturEPS* and primarily discuss the estimation that includes *FutureEPS* and excludes *FutureVAR*.[17]

Almost all the firm performance variables we examine are statistically significant. The likelihood of stopping quarterly guidance is significantly higher for firms with a larger

[17] The correlation between *FutureEPS* and *FutureVAR* is –0.933. When both *FutureEPS* and *FutureVAR* are included in the model, they lose statistical significance as a result of multicollinearity.

seasonally adjusted earnings decline before stoppage (coefficient on ΔEPS = –9.739, z-statistic = –2.65). Even after accounting for the earnings decline, we find that a firm is more likely to stop guidance when it has a poor record of meeting/beating analyst consensus (coefficient on *MBanalyst* = –1.751, z-statistic = –4.15), and when it anticipates poor earnings in future quarters (coefficient on *FutureEPS* = –5.237, z-statistic = –2.14). The likelihood of stopping quarterly guidance is weakly higher if a firm experiences a higher frequency of losses in the pre-event period (coefficient on *Loss* =0.659, z-statistic = 1.70). Finally, *Return* is significantly lower for the stoppers than for the maintainers (coefficient = –0.562, z-statistic = –2.29). These results convey a consistent message: poor performance—both realized and anticipated—contributes to firms' decision to stop quarterly guidance.

To gain insight into the relation between performance and guidance cessation, we present in Table 5 quarter-by-quarter the three common earnings performance benchmarks surrounding the event quarter: (1) reporting losses, (2) experiencing an earnings decrease from the same quarter in the prior year, and (3) meeting or beating the most recent analyst consensus compiled before the earnings announcement. Relative to the maintainers, guidance stoppers in each pre-stoppage quarter have higher frequencies of losses and earnings declines and a lower frequency of meeting or beating consensus forecasts. Importantly, as the stoppers approach the guidance stopping quarter, they *increasingly* suffer from losses, earnings declines, and a failure to meet or beat analyst consensus. The maintainers do not have such patterns.

The logit results regarding managers' stated reasons for guidance cessation are as follows: Consistent with our expectations, firms are more likely to cease guidance if they have recently undergone or announced a change in senior management (coefficient = 0.974, z-statistic = 3.73). The coefficient on *IndNo* is significantly positive (coefficient of Management = 1.270, z-statistic

= 2.14), indicating that a firm is more likely to stop guidance if a larger proportion of its industry peers *do not* provide guidance. *Dispersion* has a positive coefficient of 313.4 (z-statistic = 4.45), and in Estimation (2) *FutureVAR* is significantly positively associated with the likelihood of guidance cessation (coefficient = 6.895, z-statistic = 2.39). The results about *Dispersion* and *FutureVAR* suggest that both past and anticipated difficulties in forecasting earnings contribute to guidance cessation. Our findings therefore confirm the common reasons cited by managers announcing the guidance policy change.

The associations between guidance cessation and other firm characteristics are as follows: Firms with a higher litigation risk are more likely to cease guidance, suggesting that such firms curtail forward-looking disclosure to reduce risk exposure. Firms with a higher analyst following are less likely to stop guidance, and firm size is not associated with guidance cessation. After controlling for firm performance and other characteristics, we find that guidance stoppers have lower stock volatility than maintainers before guidance cessation.

To announce or not to announce guidance cessation

A major difference between our study and Chen et al. (2006) is that they focus on stoppers that have publicly announced the policy change, while we examine all stoppers. To examine the potential selection bias induced by the public announcement, that is, the possibility that firms choosing to make such an announcement may differ from those stopping guidance "quietly," we examine the announcer-stoppers in our sample. From our 26 announcer-stoppers we exclude six firms that announced unusually early or late (to avoid misclassifications of pre- and post-event periods in the test). In Table 6 we report the logit estimation that examines the differences between the announcers and non-announcers.[18] Because of the small sample size, we mark the

[18] To improve test power, we do not include the variables found to be statistically insignificant in Table 4.

statistical significance in a one-tailed test. The results suggest the following: (1) the announcers have better earnings performance but poorer stock performance than the non-announcers, (2) the announcers are more likely to have a change in the top management, (3) providing quarterly earnings guidance is more frequent in the announcers' industries than in the non-announcers,' and (4) the announcers have lower earnings uncertainty than the non-announcers. Thus, despite the small announcer sample size, it appears that there are systematic differences between the announcers and the non-announcers and likely a selection bias in focusing on a sample limited to announcers. In all subsequent tests we perform robustness checks to examine whether the findings for the complete stopper sample also hold for the announcer-stopper subsample.

5. Post-cessation changes in long-term investments

Empirical model

Hypothesis 2 relates quarterly guidance to firms' investments in long-term growth, a focal point of guidance critics. We examine the combined long-term investments in capital expenditures and R&D, referred to as CAPEX. Ideally, a firm's actual level of CAPEX should be compared with optimal CAPEX which is unobservable. We proxy for optimal CAPEX in two ways. First, we subtract the "normal" industry (2-digit SIC code) level of CAPEX from the firm's CAPEX. This is done by first computing the ratio of the industry sum of CAPEX over the sum of the beginning-of-quarter total assets of the firms in the industry. This industry CAPEX intensity is then multiplied by the individual firm's beginning-of-quarter total assets, yielding the firm's *normal* CAPEX level. This normal CAPEX level is subtracted from the firm's actual quarterly CAPEX to yield the *abnormal CAPEX* (deviation from optimal), which is then deflated

by the beginning-of-quarter total assets to yield a CAPEX-intensity measure.[19] The dependent variable in our test of H2 is the change in average abnormal CAPEX intensity from the pre-event period to the post-event period (*ChgCAP*). Because changes in firms' investment decisions may take time to implement, we redefine the post-event period to be the event quarter plus the subsequent seven quarters (i.e., two years post stoppage).

Second, we control for firm characteristics that likely explain cross-sectional variations in optimal CAPEX, such as earnings performance (*ChgROA*), growth opportunities (*M/B*), operating cash flows (*OCF*), leverage (*Leverage*), and firm size (*LogMVE*). Specifically, the change in a firm's profitability from the pre- to post-event period affects its investment because the change in profitability changes the perceived investment opportunities and the capital constraints. Higher profitability, for example, indicates the need to increase production capacity as well as to provide funds to finance investment (loosening financial constraints). The change in profitability, *ChgROA,* is measured as the change in the average return on assets from the pre- to post-event period.[20]

Firms with bright growth opportunities are expected to increase investment (Chung et al. 1998; Brailsford and Yeoh 2004). We therefore control for growth by the market-to-book ratio, *M/B*, which "contains an *ex ante* estimate of growth prospects" (Brailsford and Yeoh 2004, p.233). *M/B* is measured at the end of the pre-event period.

We control for the average operating cash flows, deflated by the beginning-of-quarter total assets, in the pre-event period, *OCF*, because the higher the *OCF*, the lower the capital constraints on investment a firm faces. We allow *M/B* and *OCF* to interact because firms are

[19] We thank an anonymous referee for this suggestion.
[20] Here we use ROA instead of price-deflated earnings per share as in other sections because the former ensures that the major variables in Equation (2) use the same deflator— total assets.

expected to further increase investment when they have both high growth opportunities and ample internal capital.

We control for leverage, measured at the end of the pre-event period as the ratio of total debts over the beginning-of-quarter total assets. Highly levered firms, with increased risk of bankruptcy, will curtail investment in risky projects (Jensen 1986). In addition, we control for firm size in case it explains cross-sectional differences in investment. Finally, we add the pre-event level of CAPEX intensity (*CAP*) to the model to control for a potential non-linear relation between the change in investment and the initial investment level. Intuitively, it is less likely for a firm with a high investment level to substantially enhance investment than for a firm with a low investment level to do so.[21] Finally, we allow for within-industry correlations of the error term in the estimation to address unspecified industry factors.

Equation (2) is our empirical model for examining investment change post guidance cessation.

$$\text{ChgCAP} = b_0 + b_1\,\text{Stop} + b_2\,\text{ChgROA} + b_3\,\text{M/B} + b_4\,\text{OCF} + b_5\,\text{M/B*OCF} + b_6\,\text{Leverage} + b_7\,\text{LogMVE} + b_8\,\text{CAP} + \varepsilon \quad (2)$$

Our investment variable, CAPEX, includes capital expenditures and R&D. Investment preferences for these two types of investment may differ, and accordingly we also examine the change in R&D only from the pre- to post-event period after guidance cessation. R&D expenditures reduce reported earnings dollar for dollar, thereby focusing directly on the managerial myopia effect allegedly induced by quarterly guidance. The model for R&D is Equation (3):

$$\text{ChgR\&D} = c_0 + c_1\,\text{Stop} + c_2\,\text{ChgROA} + c_3\,\text{M/B} + c_4\,\text{OCF} + c_5\,\text{M/B*OCF} + c_6\,\text{Leverage} + c_7\,\text{LogMVE} + c_8\,\text{R\&D} + \varepsilon \quad (3)$$

[21] If the initial level is in fact irrelevant, the coefficients of other variables are estimated without bias but with less precision. We find in both this and subsequent tests that the initial level variable significantly increases the model fit (except for the *ChgAnalyst* test). Our findings are all robust to excluding the initial level variable.

Test results

Table 7 reports the estimations of Models (2) and (3) after the exclusion of outliers (i.e., studentized residual above two in absolute value, see Belsley, Huh, and Welsch (1980)). For Model (2) we exclude the firms that do not have any CAPEX (capital expenditures and R&D) in either the pre- or post-event period. In the test of CAPEX, the coefficient on *Stop* (guidance) is statistically insignificant (coefficient = –0.0011, t = –0.90), indicating that guidance stoppers *do not* increase their total long-term investments after guidance cessation. Most of coefficient estimates on the control variables are as expected. Firms increase investment when their earnings improve (*ChgROA*) and when they have better opportunities to grow (*M/B*), especially with ample internal capital on hand (*M/B*OCF*). In contrast, firms decrease investment when they are highly levered (*Leverage*). These results are unchanged if we estimate the model using the robust regression method, which is robust to outliers (identified differently) and a possible violation of normality (unreported).[22] The coefficient on *Stop* is also insignificant if we subtract the industry median level of period-specific CAPEX in constructing *ChgCAP*.

For Model (3), we exclude the firms that do not report any R&D activities in either the pre- or post-event period. Consequently, 44.3% of the stoppers and 55.0% of the maintainers in Model (2) are available for Model (3). The R&D test (right two columns in Table 7) shows that guidance stoppers with R&D activities do increase R&D spending after stopping guidance (coefficient = 0.0014, t = 3.13).[23] The negative coefficient on *OCF* suggests that firms with high operating cash flows do not increase R&D as much as firms with low operating cash flows.

[22] Using robust regression, we find *ChgROA* and *M/B * OCF* lose statistical significance. See Note 1 in Table 9 for the robust estimation method. We report the Belsley et al. outlier treatment method because it allows for within-industry error correlations, the control of which is important for this test, while the robust estimation does not.

[23] When we add a dummy for the announcer-stoppers, we find that these firms do not increase R&D after stoppage. The sum of coefficients on *Stop* and this announcer dummy is −0.0005 with an F statistic of 0.18. We find no difference between the announcer-stoppers and non-announcer stoppers in the CAPEX test.

Perhaps firms with high cash flows are in the mature stage ("cash cows") and therefore do not increase R&D spending. When we estimate Model (3) with "robust regression," as explained earlier for CAPEX, the coefficient of *Stop* is insignificant (coefficient = 0.0007; t = 1.02, unreported). The statistical significance also disappears if we subtract the industry median level of period-specific R&D in constructing *ChgR&D.* Thus, our result regarding the post-cessation effect on R&D is very tentative.

In sum, we find no evidence that firms increase total long-term investments in CAPEX after guidance cessation, inconsistent with the myopia-inducing argument for quarterly guidance. We do, however, find *tentative* evidence for a subset of firms that engage in R&D, suggesting that those expenditures increased after guidance cessation.

6. Change in alternative disclosures subsequent to guidance cessation

Hypothesis 3 deals with the post-guidance cessation change in corporate disclosures. To examine whether guidance stoppers increase voluntary disclosure of other forward-looking information, we randomly choose 100 stoppers from the stopper sample, and for each we randomly choose a fiscal quarter in the post-event period, which we refer to as the "post-quarter." To examine the change in disclosures, we select for each stopper the *same* fiscal quarter in the pre-event period, which we refer to as the "pre-quarter."[24]

We collect forward-looking disclosures from four sources: the earnings announcement press release, the MD&A section of 10-Q, the earnings announcement conference call transcript (the presentation portion), and special press releases (that appeared in the four major newswires) between the prior-quarter earnings announcement date and the fiscal quarter end.[25] Our

[24] The substantial effort involved in hand collecting and especially coding the disclosures (details below) restricted this test to a subsample of 100 stoppers.
[25] They are *PR Newswire*, *Business Wire*, *Associated Press Wires*, and *Reuters News*.

disclosure data is, accordingly, quite comprehensive. We drop three firms that do not have earnings announcement press releases for both the pre-quarter and post-quarter. Among the remaining 97 firms, 18 firms do not have MD&A's because the10-Qs were not filed for the fourth fiscal quarter, and for another firm the 10-Q was not found. For 24 firms the conference call transcripts were not found for both the pre-quarter and post-quarter. We find special press releases with earnings-related, forward- looking disclosures for 28 firm-quarters and additional press releases with information about restructuring and acquisition plans. The forward-looking disclosures (excluding earnings and sales guidance) are coded into eight categories, detailed in Appendix C.

We aggregate the codes of forward-looking disclosures from four sources in two ways. Under the first approach we sum for each firm the number of disclosures. Under the second approach, for each of the eight disclosure categories we take the maximum number of disclosures a firm releases in one source. For example, suppose a given firm has four Category B (estimates of key drivers of earnings) disclosures in the earnings announcement press release, two Category B disclosures in the MD&A, and none in the conference call and special press releases. The total number of Category B disclosures for this firm is *six* under the first approach, assuming that the two disclosures in the MD&A are incremental to the four items in the earnings release. Under the second approach we have *four* disclosures (the maximum number from one source), assuming that the two disclosures in the MD&A do not add information to the four disclosures in the earnings release. Our test conclusions are the same from both approaches and the results are also robust to excluding firms that do not have conference calls for both quarters. For brevity, we report the analysis using the first approach below.

Panels A and B of Table 8 report the distribution of the total number of disclosures per firm by disclosure category in the pre-quarter and post-quarter, respectively. For example, the first row of Panel A indicates that in the pre-quarter, 22 firms gave no information about operational changes, 30 firms gave one disclosure of this type, and 19 firms gave two disclosures. Panel C summarizes the number of stoppers that increased, maintained, or decreased forward-looking disclosure after guidance cessation: 46 firms decreased, 21 had no change, and 30 enhanced disclosure. In the decreased disclosure group, the mean (median) decrease is –3.63 (–3), and in the increased disclosure group the mean (median) increase is 2.57 (2). On a whole, the t-test shows that, on average, stoppers decreased forward-looking disclosure after guidance cessation (t = –2.64).[26] This conclusion is confirmed by the signed rank test (p = 0.009).

In Panel D we report the stoppers' practice of offering *annual* earnings/sales guidance. For each pre- and post-event period (four quarters each) we count a firm in the "YES" group if the First Call CIG database has a record of annual guidance for that period or if we observe an annual earnings/sales forecast in the hand collected data. We find that 69 firms (71.1%) gave annual guidance in both periods, 12 firms (12.4%) stopped issuing annual guidance along with the quarterly guidance, and three firms (3.1%) replaced their quarterly guidance with an annual guidance. Thus, we find that along with the quarterly guidance cessation, annual earnings/sales guidance is also largely curtailed. Recall the Chamber of Commerce's recommendation to *substitute* annual for quarterly guidance.

Taken together, our examination does not support the claim that guidance stoppers replace the guidance with alternative, forward-looking information—a sobering finding indeed.[27]

[26] A caveat: we examine the quantity of disclosures, assuming similar quality of each disclosure across firms.

[27] We observe a few exceptions. For example, after stopping quarterly guidance, Hillenbrand Industries issued a more detailed outlook table for the fiscal year; Kinder Morgan provided guidance on how three out of its five segments were performing towards their respective annual budget targets.

7. Changes in the quantity and quality of analysts' activities post-guidance cessation

We examine here Hypothesis 4—post-stopping changes in analyst coverage and the attributes of their forecasts.

Changes in analyst coverage

In Model (4) below, we compare the average number of analysts following a company during the pre-event period with that in the post-event period to examine the change in analyst coverage. The dependent variable is *ChgAnalyst*. Our main control variables in this model reflect firm performance, because Chung and Jo (1996, p.496) report that "more analysts follow high quality firms than low quality firms because brokers find it easier to market stocks of high quality firms." Similarly, McNichols and O'Brien (1997) report that analysts initiate coverage of firms that have good prospects and drop those with lackluster performance to avoid jeopardizing their investment banking business after issuing unfavorable recommendations. Accordingly, we include two performance measures in the model, both defined earlier in Section 4: *Return*, which controls for past stock performance, and *FutureEPS*, which reflects the change in earnings performance from the pre- to post-event period.[28] Additionally, we control for the level of analyst coverage in the pre-event period, capturing a potential nonlinear relation between the change in analyst coverage and initial coverage. We also control for firm size. These variables are included in Model (4):

$$\text{ChgAnalyst} = d_0 + d_1\text{Stop} + d_2\text{Return} + d_3\text{FutureEPS} + d_4\,\text{LogMVE} + d_5\,\text{Analyst} + \varepsilon \qquad (4)$$

The left column of Table 9 presents the robust-regression estimates of Model (4).[29] The coefficient on *Stop* (guidance)—the focus of our analysis—is significantly negative (coefficient = –0.577, t-statistic = –3.95), indicating that stopping quarterly guidance is associated with a

[28] Other performance measures used in Model (1) do not have explanatory power in Model (4) (unreported).
[29] For Models 4, 5, and 6, the Belsley et al. (1980) outlier treatment method yields similar results for all coefficients.

reduction in analyst coverage. *Return* has a positive coefficient, consistent with the conjecture that analysts drop poorly performing firms. In addition, large firms are more likely to increase coverage than small ones.

When we add a dummy variable for the 20 timely announced stoppers, we find that these announcer-stoppers have a decrease of 0.184 analysts, which is statistically insignificant (Wald test F-statistic = 0.19, unreported), while the non-announcer stoppers, on average, have a significant decrease of 0.581 analysts (t statistic = –3.80).[30]

Accordingly, we conclude that the announcer-stoppers do not experience a decrease in analyst coverage, but the non-announcer stoppers suffer from a significant decrease in analyst following after guidance cessation.

Change in analyst forecast dispersion

In Model (5) we examine the change in the average forecast dispersion of analysts from the pre- to post-event period (*ChgDisper*). The main controls are the change in average earnings from the pre- to post-event period (*FutureEPS*, defined earlier) and its absolute change (|*FutureEPS*|). We control for the change in earnings because the divergence of analyst opinions is likely higher for bad news. We include the absolute change in earnings as a control for a change in earnings variability because volatile earnings are more difficult to predict. As in Model (4), we control for the pre-event level of forecast dispersion and firm size in Model (5):

$$\text{ChgDisper} = e_0 + e_1\text{Stop} + e_2\text{FutureEPS} + e_3|\text{FutureEPS}| + e_4\text{LogMVE} + e_5\text{Dispersion} + \varepsilon \quad (5)$$

The middle column of Table 9 presents the estimation of Model (5). The dummy variable *Stop* is significantly positive (coefficient = 0.0002, t = 6.55), indicating increased forecast

[30] We do not find differences between the two subgroups of guidance stoppers in other tests regarding analysts.

dispersion after firms stop providing guidance. As expected, dispersion is larger for firms with more volatile earnings and analyst disagreement is inversely related to firm size.

The dispersion increase after guidance cessation is likely the result of a poorer information environment absent the guidance. Without guidance, analysts rely more on their private information, which increases the disagreement among analysts. Guidance cessation increases the uncertainty about the firm. Some suggest that divergence of opinion reflects increased risk perceived by investors, which in turn suggests that firms with greater analyst disagreement may face a higher cost of capital (Williams 1977; Varian 1985; Merton 1987). According to these conjectures, increased analyst forecast dispersion should be a serious concern to managers contemplating stopping guidance.

Change in analyst forecast error

In Model (6) we examine the change in average analyst forecast errors from the pre- to post-event period (*ChgError*). Forecast error is defined as the absolute difference between realized earnings and the most recent analyst consensus estimate compiled before the quarterly earnings announcement (both from I/B/E/S), deflated by stock price. For reasons similar to those given above, we control in (6) for *FutureEPS*, |*FutureEPS*|, the pre-event level of forecast error (*Error*), and firm size.

$$\text{ChgError} = f_0 + f_1\,\text{Stop} + f_2\,\text{FutureEPS} + f_3\,|\text{FutureEPS}| + f_4\,\text{LogMVE} + f_5\,\text{Error} + \varepsilon \qquad (6)$$

The right column of Table 9 presents the estimation of Model (6). The variable *Stop* is significantly positive (coefficient = 0.0003, t = 3.35), indicating that analyst forecasts are less accurate after firms stop guidance. To the extent that investors use analyst forecasts in their valuation models, our results suggest that stopping guidance may adversely affect investors' decisions.

Summarizing, our evidence rejects hypotheses H4a- H4c, indicating that guidance cessation is associated with a deterioration in the information environment as far as analysts' output is concerned.

8. Postscript

Tracking guidance stoppers, we observe that of the 222 stoppers, 68 firms—a full 31%—resumed quarterly guidance (with a median silent period of six quarters) by October 2006. This suggests that some stoppers temporarily cease guidance, and resume it when circumstances change, whereas the majority stop guidance as a matter of policy.

In an unreported logit analysis we observe some evidence that the resumers experienced fewer loss quarters, more favorable EPS changes, and higher stock volatility during the post-stoppage period than the non-resumers. This before-resumption earnings performance is consistent with our main finding that firms stop quarterly guidance primarily because of poor performance. Our finding regarding stock volatility is consistent with the pressure from investors to resume guidance. Although the small sample size of resumers does not allow a more thorough statistical analysis, we believe that the finding of a large number of resumers attests to the strong investor demand for guidance. We would like to note that our reported results are all robust to excluding the resumers from the stopper sample.

9. Conclusions

Earnings guidance is practiced by a large number of public companies and is clearly welcomed by investors and analysts, yet forceful arguments against this practice persist. Perhaps in response to these arguments, there has been in recent years a decrease in the number of firms providing quarterly guidance. Earnings guidance, though, continues to be a highly controversial

practice. Central issues of this controversy can be aired by examining the motives and subsequent changes in the real and informational decisions of guidance stoppers, which we do in this study.

We document that a major reason for stopping guidance is poor operating performance, in particular, decreased earnings, a spotty record of meeting or beating analyst forecasts, and low anticipated earnings. We also find support for several reasons that managers offer to justify stopping guidance: a change in management philosophy, low frequency of guidance by industry peers, and difficulty in predicting earnings.

After guidance cessation, we document that stoppers do not increase their total long-term investments in capital expenditures and R&D, though we note some tentative evidence of an R&D increase for a subsample of firms. Notably, we find that the stoppers' information environment deteriorates after guidance cessation: We do not observe the frequently claimed increase in alternative, forward-looking disclosures in lieu of the discontinued guidance. In fact, we note that these disclosures are curtailed. And we document that analyst coverage decreases and both analyst forecast dispersion and forecast error increase after firms stop guidance.

Although our study documents associations and not causations, the evidence as a whole is consistent with poor operating performance as the major motive for guidance cessation and a deterioration in the information environment as its main outcome. All in all, our findings do not provide ringing support for the persistent calls to cease quarterly guidance.

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APPENDIX A
Guidance Stoppers Who Publicly Announced the Stoppage

No.	Company	Announce	FQE	Diff	Reasons Given
1	Leapfrog Enterprises	02/10/04	06/30/04	-141	Difficult to predict
2	Technitrol	12/12/02	03/31/03	-109	Long-term focus
3	Payless Shoesource	08/13/03	10/31/03	-79	None
4	WABTEC Corp.	01/12/04	03/31/04	-79	None
5	CDW Corp.	04/15/03	06/30/03	-76	Replace with monthly sales
6	McDonald's Corp.	01/17/03	03/31/03	-73	None
7	Haemonetics Corp.	04/23/03	06/30/03	-68	Long-term focus
8	Tweeter Home Entertainment	07/27/04	09/30/04	-65	Difficult to predict
9	Home Depot	02/25/03	04/30/03	-64	Long-term focus
10	Consol Energy	01/27/05	03/31/05	-63	Long-term focus
11	Microstrategy	01/27/05	03/31/05	-63	Difficult to predict Long-term Focus
12	Novell	02/27/03	04/30/03	-62	Difficult to predict
13	MEDCATH Corp.	02/06/03	03/31/03	-53	Long-term focus
14	Central Parking	02/14/03	03/31/03	-45	Difficult to predict
15	Haverty Furtniture	02/14/03	03/31/03	-45	Difficult to predict
16	Copart	09/17/03	10/31/03	-44	Difficult to predict; Trend
17	Principal Financial Group	05/24/04	06/30/04	-37	Long-term focus
18	Guess	02/26/03	03/31/03	-33	None
19	ASTEC Industries	04/01/03	03/31/03	1	Long-term focus
20	Calgon Carbon Corp.	02/07/03	12/31/02	38	Long-term focus
21	Forest Oil Corp.	05/08/03	03/31/03	38	None
22	Westpoint Systems	02/11/03	12/31/02	42	Difficult to predict Long-term Focus
23	Action Performance	07/28/04	03/31/04	119	Difficult to predict; Trend
24	Int'l Flavors & Fragrances	01/28/04	09/30/03	120	Difficult to predict
25	Bob Evans Farms	06/06/05	01/31/05	126	Difficult to predict
26	Penton Media	08/07/03	03/31/02	494	Difficult to predict

Notes:

1. Among our 222 guidance stoppers, 26 firms publicly announced the stoppage. *Announce* is the public announcement date. *FQE* is the fiscal quarter end of the first quarter since when the firm does not provide quarterly earnings guidance for at least four quarters. *Diff* is the number of days between *Announce* and *FQE*. The last column lists the reasons offered by the firm for stopping quarterly earnings guidance. We view an announcement as timely (shaded) if it is issued in the fiscal quarter that ends with *FQE* or in the quarter right after that. The number of timely announcements is 20 (shaded). Note that Firm #26 is a stopper-resumer-stopper.
2. Among the 26 announcements, 16 first appeared in firms' quarterly earnings announcements, seven in quarterly conference calls, and three in other news sources.
3. The reasons for guidance cessation are summarized as follows: 12 (46.2%) firms cited the difficulty of predicting earnings; 10 (38.5%) firms cited or implied a refocus on the long term; two firms (7.7%) indicated they were following the market or industry trend; one firm (3.8%) said it would replace quarterly guidance with monthly sales reports; 5 firms (19.2%) gave no reason. Note that four companies each gave two reasons.

APPENDIX B
Litigation Risk Estimation

The litigation-risk probit model is similar to that used in Tucker (2007), which closely follows Rogers and Stocken (2005) and Johnson et al. (2001). The model estimation uses the class-action filings during January 1996 and September 2003, downloaded from the Stanford Securities Class Action Clearinghouse website.

$$\begin{aligned}\Pr(\text{Lawsuit}_i = 1) = \Phi\,(&a_0 + a_1\,\text{LogMVE}_i + a_2\,\text{Turnover}_i + a_3\,\text{Beta}_i + a_4\,\text{CumRet}_i + a_5\,\text{StdRet}_i \\ &+ a_6\,\text{MinRet}_i + a_7\,\text{BioTech}_i + a_8\,\text{CompHard}_i + a_9\,\text{CompSoft}_i \\ &+ a_{10}\,\text{Electronics}_i + a_{11}\text{Retail}_i + \varepsilon_i)\end{aligned}$$

Variable	Coefficient	*p*-value
Intercept	–3.993	<0.001
LogMVE	0.171	<0.001
Turnover	13.317	<0.001
Beta	0.106	<0.001
CumRet	–0.285	<0.001
StdRet	–5.676	<0.001
MinRet	–3.759	<0.001
BioTech	–0.087	0.255
CompHard	0.180	0.024
CompSoft	0.127	0.015
Electronics	0.025	0.698
Retail	0.015	0.831
McFadden Pseudo R^2		28.1%
789 litigated and 55,329 non-litigated firm-year observations		

Variable Definitions: The dependent variable *Lawsuit* is 1 for a firm-year if the firm is the defendant in a class-action lawsuit filed in that year and 0 otherwise. For a litigated firm-year, the independent variables are measured in the one-year period before the filing date; for a non-litigated firm-year they are measured over the calendar year. *LogMVE* is the log transformation of average daily market value of equity (in millions of dollars). *Turnover* is the average daily trading volume deflated by the number of shares outstanding. *Beta* is the coefficient on market returns in the market model. *CumRet* is the sum of daily returns. *StdRet* is the standard deviation of daily returns. *MinRet* is the minimum daily return. *BioTech*, *CompHard*, *CompSoft*, *Electronics*, and *Retail* are the dummy variables for the bio-tech (SIC 2833-2836), computer hardware (SIC 3570-3577), computer software (SIC 7371-7379), electronics (SIC 3600-3674), and retail (SIC 5200-5961) industries, respectively.

APPENDIX C
Examples of Forward-looking Disclosures other than Earnings or Sales Guidance

A. Operational Changes (e.g. restructuring plans, new store openings, acquisitions or disposals of business units.)

"By fiscal year-end, the Company plans to operate 360 Abercrombie & Fitch stores, 163 Abercrombie stores, 318 Hollister stores, and eight RUEHL stores." --"Abercrombie & Fitch Reports Third Quarter Results," press release, 11/15/2005, company website.

B. Estimates of Key Drivers for Earnings (e.g. profit margins, segment sales, expenses, tax rate)

"AMO continues to expect its global eye care franchise to grow annually at a rate of 1 percent to 3 percent, excluding the impacts of currency." -- "Advanced Medical Optics Announced First-Quarter 2005 Results," press release, 4/28/2005, *PR Newswire*.

C. New Products or Services (e.g. prospective products or services, drugs in the FDA approval process)

"In the first quarter, we made our digital CAD mammography solution available through Hologic," continued Parr. "iCAD also received FDA approval to expand Second Look Digital for use with Siemens' full-field digital system, which we expect to contribute to sales in future quarters. Additionally, we filed our first application with the FDA for approval of a product to support radiologists in review of Computed Tomography (CT) studies of the chest, and detection of potentially cancerous lung nodules." --"iCAD Reports earnings in First Quarter 2005," press release, 4/28/2005, *PR Newswire*.

D: Capital Expenditure

"Our capital expenditures for the year are targeted at $1.5 billion to $1.6 billion." -- "McDonald's Ends Year with Strong Performance," press release, 1/26/2004, *PR Newswire*.

E: R&D Spending

"We anticipate research and development expenses to increase in future quarters as activities related to nebivolol progress." --Mylan Reports Record First Quarter Revenue and Earnings, press release, 7/25/2002, *Business Wire*.

F: Financing Plans (e.g. debts, stock repurchases, change in dividend policy)

"The company also said that a new asset-based $600 million five-year, senior secured revolving credit facility is expected to close early in the fourth quarter. The new facility will replace the current $300 million credit facility. The new credit facility is expected to provide Maytag with substantially more financial capacity and flexibility to meet its 2006 debt maturities and its long-term financing requirements. Maytag would have the ability to increase the new credit facility by $150 million to $750 million." -- "Maytag Announces Third Quarter Results," press release, 10/21/2005, *PR Newswire*.

G: Estimated Effect of Legal Actions

"The Gorilla V contract dispute with BP continues. Final arguments in the London trial were heard October 2nd, 3rd and 4th and a court decision should be handed down before year end. The Harris County, Texas litigation remains in the discovery phase though the trial date has again been postponed, possibly until the second quarter of next year. We remain confident of a favorable outcome." -- "Rowan Reports Third Quarter Financial Results," press release, 10/17/2001, *PR Newswire*.

H: Firm's forecast of Industry Factors

"The company has revised its forecast for U.S. industry demand for the year to 5 percent from 2 percent growth, based on current economic projections and consumer spending trends."

-- "Whirlpool Corp. Reports First Quarter 2002 Results," press release, 4/17/2002, *Business Wire*.

TABLE 1
Sample Collection

	Procedures	Unique Firms
Sample Period	The sample period is 2002Q1-2005Q1. Each quarter is referred to as an "event quarter." The number of firm quarters covered by Compustat, CRSP, and I/B/E/S is 42,692. [a]	4,576
Guidance Stoppers	Firms that issued earnings guidance for at least three out of the four quarters before the event quarter ("pre-event") and issued no guidance for the event quarter and its subsequent three quarters (these four quarters are referred to as "post-event") according to the First Call Company Issued Guidelines database.[b]	353
	Exclude firms that in fact issued guidance for the four post-event quarters according to our news search in Factiva.	(94)
	Exclude firms whose first quiet quarter was beyond the sample period, according to our news search in Factiva.	(13)
	Exclude firms that were acquired in the six quarters beginning with the event quarter.	(24)
	Guidance stoppers [c]	**222**
Guidance Maintainers	Firms that issued earnings guidance for at least three quarters in the four pre-event quarters and at least three quarters in the four post-event quarters, according to the First Call Company Issued Guidelines database.[d]	699
	Exclude firms that were acquired in the six quarters beginning with the event quarter.	(23)
	Guidance maintainers	**676**

[a]: The quarters are calendarized: a firm's fiscal quarter is labeled to the calendar quarter with which it overlaps most. For example, fiscal quarters that end in May, June, and July belong to the second calendar quarter.

[b]: The term "guidance" in our study does not include pre-announcements—the estimates issued after a fiscal quarter end. The number of firm-quarters that satisfy this requirement is 527. For a firm that appears in this group for more than one quarter, we choose its earliest quarter. The logic is as follows. Suppose a firm issues one guideline for each of the four quarters before Q_t and gives no guidance afterwards. The number of pre-event guidelines for Q_t, Q_{t+1}, Q_{t+2}, Q_{t+3}, and Q_{t+4} is 4, 3, 2, 1, and 0, respectively; the number of post-event guidelines is 0 for all these quarters. As a result, both Q_t and Q_{t+1} appear in the set of 527 observations, although Q_t is the *true* quarter since when the firm stops providing quarterly guidance.

[c]: Among these firms, 35 firms stop quarterly guidance at a later quarter in the sample period than the quarter identified from the First Call data, according to our news search.

[d]: The number of firm-quarters that satisfy this requirement is 5,015. For a firm that appears in this group for more than one quarter, we randomly choose a quarter from the qualified quarters as its event quarter.

TABLE 2
Distributions of Guidance Stoppers and Maintainers

Panel A: Fiscal Quarter Distribution

Event Quarter	Stoppers	Maintainers
1st Fiscal Quarter	85	107
2nd Fiscal Quarter	48	139
3rd Fiscal Quarter	26	158
4th Fiscal Quarter	29	173
Total	188	577

Note: For this table we exclude 34 stoppers and 99 maintainers whose event quarter is 2005Q1.

Panel B: Calendar Year-Quarter Distribution

Year	Quarter	Stoppers	Maintainers
2002	1	27	30
2002	2	11	33
2002	3	9	24
2002	4	9	44
2003	1	36	29
2003	2	27	46
2003	3	10	44
2003	4	10	61
2004	1	18	62
2004	2	9	51
2004	3	12	67
2004	4	10	86
2005	1	34	99
Total		222	676

Note: A firm's fiscal quarter is labeled to the calendar quarter with which it overlaps most. For example, fiscal quarters ending in May, June, and July belong to the second calendar quarter.

Panel C: Top-Ten Industry (2-digit SIC) Distribution

Guidance Stoppers (222)			Guidance Maintainers (676)		
Obs.	SIC	Industry	Obs.	SIC	Industry
20	73	Business Services	145	73	Business Services
16	36	Electric Equipment	64	36	Electric Equipment
16	28	Chemical Products	51	38	Measurement Equipment
11	49	Electric, Gas and Sanitary Services	50	35	Machinery and Computers
11	38	Measurement Equipment	28	28	Chemical Products
9	20	Food Products	25	59	Retail
8	35	Machinery and Computers	25	56	Apparel
7	58	Eating and Drinking Services	18	58	Eating and Drinking Services
7	56	Apparel	17	87	Engineering and R&D Services
6	80	Health Services	17	50	Wholesale

TABLE 3
Descriptive Statistics

	Stoppers			Maintainers			Between-Group	
	Obs.	Mean	Median	Obs.	Mean	Median	T-Test	Wilcoxon
ΔEPS	218	–0.005	–0.011	675	0.002	–0.008	–1.55	–3.33***
MBanalyst	222	0.692	0.750	676	0.833	1.000	–6.70***	–7.14***
FutureEPS	222	–0.001	0.002	675	0.006	0.003	–1.11	–3.13***
Loss	222	0.276	0.125	676	0.179	0.000	3.74***	4.08***
Return	218	–0.243	–0.311	669	–0.002	–0.100	–4.94***	–5.59***
Management	222	0.198		676	0.087		χ^2=20.25	
IndNo	222	0.541	0.527	676	0.522	0.500	1.35	1.52
Dispersion	211	0.0019	0.0008	647	0.0009	0.0005	2.28**	4.87***
FutureVAR	222	0.008	0.002	675	0.002	0.002	1.18	0.04
Litigation	218	0.021	0.013	669	0.017	0.010	2.35**	3.00***
MVE	222	5,539	809	675	4,796	975	0.46	–1.99**
Analyst	222	7.50	5.63	676	8.87	7.00	–2.95***	–2.99***
Volatility	218	0.023	0.019	669	0.022	0.019	1.26	0.48
ChgCAP	192	0.0007	0.0003	643	–0.0003	0.0009	0.47	–0.24
ChgR&D	87	0.0031	0.0005	357	0.0003	0.0005	2.04**	1.85*
ChgAnalyst	222	–0.073	0.000	676	0.699	0.750	–5.01***	–5.06***
ChgDisper	205	0.0004	0.0003	640	0.0001	0.000	0.76	6.49***
ChgError	218	0.0010	0.0004	673	0.0005	0.0001	0.80	2.58***

Notes:

1. "***," "**," and "*" indicate statistical significance at the 1%, 5%, and 10% levels in a two-tailed test, respectively.
2. Variable definitions:

   ΔEPS is the change in diluted earnings per share (split-adjusted) from the same quarter in the prior year, averaged in the four pre-event quarters and deflated by the stock price at the beginning of the pre-event period.

   MBanalyst is the proportion of quarters in the four pre-event quarters for which a firm meets or beats the most recent analyst consensus compiled before the earnings announcement.

   FutureEPS is the change in average diluted earnings per share (split-adjusted) from the four pre-event quarters to the four post-event quarters, deflated by the stock price at the beginning of the pre-event period.

   Loss is the proportion of quarters in a sample firm's four pre-event quarters in which the firm has a loss (i.e. negative diluted earnings per share, from Compustat).

   Return is the buy-and-hold return (compounding monthly) in the one-year period that ends with the month of the earnings announcement for the quarter preceding the event quarter, subtracted by the buy-and-hold return of the equal-weighted market index during the same period.

   Management takes the value of 1 if a firm has changed or announced a change in the CEO or CFO in the six months before the fiscal quarter end of the event quarter and 0 otherwise. The

contingency-table chi-square statistic is reported for the between-group test and is significant at the 1% level.

IndNo is the proportion of firms in a sample firm's industry (2-digit SIC) that *do not* issue any quarterly guidance for the four quarters before the sample firm's event quarter.

Dispersion is the standard deviation of analyst quarterly earnings forecasts included in the most recent consensus before the earnings announcement, averaged in the four pre-event quarters and deflated by the stock price at the beginning of the pre-event period.

FutureVAR is the change from the four pre-event to the four post-event quarters in the sum of the absolute deviation of the quarterly EPS from the EPS in the same quarter of the year before the pre-event period, deflated by the stock price at the beginning of the pre-event period. Note that the benchmarks for both the pre- and post-event quarters are the same: the seasonal quarter in the year before the pre-event period.

Litigation is the estimated probability of being sued by using the litigation model in Appendix B out of sample, where the input variables are measured in the one-year period before the beginning of the event quarter.

MVE is the market value of equity at the beginning of the event quarter (in millions of dollars). *LogMVE* is its natural logarithm.

Analyst is the number of analysts whose forecasts are included in the most recent consensus before a firm's quarterly earnings announcement, averaged in the four pre-event quarters. If a firm-quarter is covered by Compustat but not by I/B/E/S, analyst following for that firm-quarter is considered 0.

Volatility is the standard deviation of daily returns in the one-year period that ends five days after the earnings announcement for the quarter preceding the event quarter, subtracted by the standard deviation of the equal-weighted market return during the same period.

ChgCAP is the change in average abnormal capital expenditures (Compustat #90) and R&D (Compustat #4) from the four pre-event quarters to the event and the subsequent seven quarters. *ChgR&D* is the change in average abnormal R&D from the four pre-event quarters to the event and the subsequent seven quarters. For each measure the normal level in each quarter is the ratio of the industry sum of CAPEX over the sum of the beginning-of-quarter total assets of the firms in the industry, multiplied by the firm's beginning-of-quarter assets. The abnormal intensity measure in each quarter is the actual level minus the normal level, scaled by the beginning-of-quarter total assets. We label the average abnormal capital expenditures plus R&D in the pre-event period as "*CAP"* and the R&D only in the pre-event period as "*R&D."*

ChgAnalyst is the change in average analyst following (see the definition of *Analyst*) from the four pre-event quarters to the four post-event quarters.

ChgDisper is the change in average analyst forecast dispersion (see the definition of *Dispersion*) from the four pre-event quarters to the four post-event quarters.

ChgError is the change in analyst forecast error from the four pre-event quarters to the post-event quarters. Forecast error in each quarter is the absolute difference between realized earnings and the most recent analyst consensus before the earnings announcement (both from I/B/E/S), deflated by the stock price at the beginning of the pre-event period. We label the forecast error in the pre-event period as "*Error*."

An observation is dropped if the split-adjusted price deflator is less than 1.

TABLE 4
Firm Performance and Earnings Guidance Cessation

Logit Model (*z*-statistic appears in parenthesis):

$$\Pr(\text{Stop}=1) = F(a_0 + a_1\Delta\text{EPS} + a_2\,\text{MBanalyst} + a_3\,\text{FutureEPS} + a_4\,\text{Loss} + a_5\,\text{Return} + a_6\,\text{Management} + a_7\,\text{IndNo} + a_8\,\text{Dispersion} + a_9\,\text{FutureVAR} + a_{10}\,\text{Litigation} + a_{11}\,\text{LogMVE} + a_{12}\,\text{Analyst} + a_{13}\,\text{Volatility} + \text{quarterly dummies} + \varepsilon)$$

Logit Model	Estimation (1)	Estimation (2)
Intercept	–1.723*	–1.776*
	(–1.84)	(–1.89)
ΔEPS	–9.739***	–11.186***
	(–2.65)	(–2.89)
MBanalyst	–1.751***	–1.753***
	(–4.15)	(–4.15)
FutureEPS	–5.237**	
	(–2.14)	
Loss	0.659*	0.602
	(1.70)	(1.56)
Return	–0.562**	–0.648***
	(–2.29)	(–2.62)
Management	0.974***	0.989***
	(3.73)	(3.77)
IndNo	1.270**	1.262**
	(2.14)	(2.12)
Dispersion	313.408***	304.089***
	(4.45)	(4.51)
FutureVAR		6.895**
		(2.39)
Litigation	1.038**	0.985*
	(1.97)	(1.86)
LogMVE	0.099	0.105
	(0.90)	(0.95)
Analyst	–0.060**	–0.060**
	(–2.51)	(–2.52)
Volatility	–23.787**	–22.256*
	(–1.96)	(–1.83)
LR Test χ^2	200.20	201.74
McFadden Pseudo R^2	21.2%	21.4%

See variable definitions in Table 3. The estimation uses 208 stoppers and 640 maintainers that have available data. "***," "**," and "*" indicate statistical significance at the 1%, 5%, and 10% levels in a two-tailed test, respectively. The fractional rankings of *Litigation* (between 0 and 1 with the highest value being 1) are used. The quarterly dummy coefficients are suppressed.

TABLE 5
Earnings Performance Quarter by Quarter

Panel A: Guidance Stoppers (222)

	Q_{t-4}	Q_{t-3}	Q_{t-2}	Q_{t-1}	Q_t	Q_{t+1}	Q_{t+2}	Q_{t+3}
Loss	54 (24.3%)	55 (24.8%)	63 (28.4%)	72 (32.4%)	64 (28.8%)	67 (30.2%)	62 (27.9%)	62 (27.9%)
EPS Decrease	87 (39.2%)	83 (37.4%)	104 (46.8%)	116 (52.3%)	104 (46.8%)	104 (46.8%)	89 (40.1%)	79 (35.6%)
Meet/Beat	168 (75.7%)	157 (70.7%)	143 (64.4%)	141 (63.5%)	146 (65.8%)	133 (59.9%)	136 (61.3%)	139 (62.6%)

Panel B: Guidance Maintainers (676)

	Q_{t-4}	Q_{t-3}	Q_{t-2}	Q_{t-1}	Q_t	Q_{t+1}	Q_{t+2}	Q_{t+3}
Loss	125 (18.5%)	119 (17.6%)	123 (18.2%)	116 (17.2%)	100 (14.8%)	98 (14.5%)	97 (14.3%)	103 (15.2%)
EPS Decrease	228 (33.7%)	232 (34.3%)	198 (29.3%)	215 (31.8%)	217 (32.1%)	198 (29.3%)	208 (30.8%)	219 (32.4%)
Meet/Beat	542 (80.2%)	560 (82.8%)	564 (83.4%)	559 (82.7%)	561 (83.0%)	569 (84.2%)	533 (78.8%)	528 (78.1%)

Note: Q_t is the event quarter. The tables show the number of firms (percentage in parenthesis) that have losses (i.e. negative diluted earnings per share, from Compustat), experience a decrease in diluted earnings per share (from Compustat) from the same quarter in the prior year after split adjustment, and meet or beat analysts' most recent consensus compiled before the earnings announcement (both realized and forecasted earnings are obtained from I/B/E/S), respectively.

TABLE 6
Guidance Stoppers: To Announce or Not to Announce?

Logit Model:

$$\Pr(\text{Announce}=1) = F(a_0 + a_1\Delta\text{EPS} + a_2\,\text{MBanalyst} + a_3\,\text{FutureEPS} + a_4\,\text{Return} + a_5\,\text{Management} + a_6\,\text{IndNo} + a_7\,\text{Dispersion} + a_8\,\text{Litigation} + a_9\,\text{Analyst} + a_{10}\,\text{Volatility} + \varepsilon)$$

Variable	Coefficient	*z*-statistic
Intercept	0.245	0.16
ΔEPS	17.226	1.58*
MBanalyst	0.462	0.37
FutureEPS	4.654	0.60
Return	–1.024	–1.30*
Management	0.957	1.67**
IndNo	–2.782	–2.01***
Dispersion	–451.359	–1.37*
Litigation	–1.499	–1.16
Analyst	–0.006	–0.11
Volatility	–27.421	–1.06
LR Test χ^2	20.35	
McFadden pseudo R^2	16.2%	

See the stopper-announcer list in Appendix A. For this test we exclude six announcers who announced unusually early or late to avoid misclassifications of pre- and post-event periods in the test. The estimation uses 19 announcer-stoppers and 183 non-announcer stoppers that have available data for this test. See variable definitions in Table 3. The fractional rankings of *Litigation* (between 0 and 1 with the highest value being 1) are used. "***," "**," and "*" indicate statistical significance at the 1%, 5%, and 10% levels in a one-tailed test, respectively.

TABLE 7
Change in Long-Term Investments after Quarterly Guidance Cessation

Model (2): Capital Expenditures plus R&D Expenditures

$$ChgCAP = b_0 + b_1\,Stop + b_2\,ChgROA + b_3\,M/B + b_4\,OCF + b_5\,M/B*OCF + b_6\,Leverage + b_7\,LogMVE + b_8\,CAP + \varepsilon$$

Model (3): R&D Expenditures only

$$ChgR\&D = c_0 + c_1\,Stop + c_2\,ChgROA + c_3\,M/B + c_4\,OCF + c_5\,M/B*OCF + c_6\,Leverage + c_7\,LogMVE + c_8\,R\&D + \varepsilon$$

	ChgCAP		ChgR&D	
	Coefficient	t	Coefficient	t
Intercept	0.0025	1.02	0.0053	3.88***
Stop	**–0.0011**	**–0.90**	**0.0014**	**3.13*** **
ChgROA	0.0381	2.80***	–0.0127	–1.28
M/B	0.0005	2.10**	0.0000	0.45
OCF	–0.0147	–0.92	–0.0749	–6.17***
M/B*OCF	0.0051	1.96**	0.0014	1.32
Leverage	–0.0049	–2.12**	–0.0006	–0.54
LogMVE	–0.0001	–0.35	–0.0005	–3.05***
CAP	–0.2478	–14.44***		
R&D			–0.1224	–8.39***
Model-Test F statistic	55.26		51.55	
Stoppers/Maintainers	174 / 611		77 / 336	
Adjusted R^2	30.2%		21.6%	

Notes:

1. For this table we redefine the post-event period as the event quarter and its subsequent seven quarters. Model (2) uses the firms that have positive capital expenditures (including R&D) in either the pre- or post-event period. Model (3) uses the firms that have positive R&D in either the pre- or post-event period.
2. *ChgROA* is the change in average accounting return on assets from the pre- to post-event period. *M/B* is the market to book ratio at the end of the pre-event period. *OCF* is the average operating cash flow as a percentage of total assets in the pre-event period. *Leverage* is the ratio of total liabilities over total assets at the end of the pre-event period. *LogMVE* is the natural logarithm of *MVE*. See other variable definitions in Table 3.
3. Outliers (i.e., studentized residual above two in absolute value, see Belsely et al. (1980)) are deleted. The t statistics are robust to within-industry error correlations.
4. "***", "**", and "*" indicate statistical significance at the 1%, 5%, and 10% levels in a two-tailed test, respectively.

TABLE 8
Change of alternative Forward-looking Disclosures
after Quarterly Guidance Cessation

Panel A: Forward-looking disclosures in the *pre-quarter* (Excluding annual earnings or sales guidance)

Category	Description of Disclosures	Number of Firms					
		0	1	2	3	4	>=5
A	Operational changes	22	30	19	8	9	9
B	Estimates of key drivers for earnings	22	15	8	12	13	27
C	New products or services	70	17	5	1	1	3
D	Capital expenditures	47	36	8	6		
E	R&D Spending	88	5	3	1		
F	Financing plans	52	33	6	3	2	1
G	Estimated effect of legal actions	86	11				
H	Firm's forecast of industry factors	65	22	5	3	1	1
	All forward-looking disclosures	2	6	6	5	9	69

Panel B: Forward-looking disclosures in the *post-quarter* (Excluding annual earnings or sales guidance)

Code	Description of Disclosures	Number of Firms					
		0	1	2	3	4	>=5
A	Operational changes	33	26	20	2	8	8
B	Estimates of key drivers for earnings	19	15	18	16	4	25
C	New products or services	78	12	4	1		2
D	Capital expenditures	32	39	20	5	1	
E	R&D Spending	89	6	2			
F	Financing plans	60	22	13	2		
G	Estimated effect of legal actions	93	2	2			
H	Firm's forecast of industry factors	76	12	4	5		
	All forward-looking disclosures	4	5	6	5	12	65

Panel C: Change in alternative forward-looking disclosures from the pre- to post-quarter

	# of Firms	Mean	Median
Decrease	46	–3.63	–3
No Change	21	N/A	N/A
Increase	30	2.57	2
All 97 Stoppers		T-test: t = –2.64 Two-tailed p = 0.010)	(Signed Rank Test: Two-tailed p=0.009)

TABLE 8
(Continued)

Panel D: Guidance about fiscal-year earnings or sales

Pre-Event Period	Post-Event Period	# of Firms
YES	YES	69
YES	NO	12
NO	YES	3
NO	NO	13
		97

Notes:

1. Guidance stoppers issued earnings guidance for at least three out of four consecutive quarters and then issued *no* guidance for at least four consecutive quarters. The first quarter for which a stopper becomes quiet is referred to as the "event quarter"; the four quarters before the event quarter are referred to as the "pre-event period"; the four quiet quarters starting with the event quarter are referred to as the "post-event period."
2. We randomly select 100 firms from guidance stoppers and for each firm we randomly select a quarter in its post-event period, referred to as the "post-quarter." We then select the same fiscal quarter in the pre-event period, referred to as the "pre-quarter." If the pre-quarter is the quarter right before the event quarter, we replace it with the same fiscal quarter in the prior year. We do so because quarterly guidance is often issued in the previous-quarter earnings announcement; therefore, the earnings announcement press release for the quarter right before the event quarter probably resembles press releases for the post-event period rather than for the pre-event period. We drop three firms that do not have the earnings announcement press release for both the pre-quarter and post-quarter.
3. For each firm-quarter we code the forward-looking disclosures from four sources: (1) the earnings announcement press release, (2) the MD&A section of 10-Q, (3) the earnings announcement conference call (the presentation portion), and (4) special press releases issued between the prior-quarter earnings announcement date and the fiscal end of the quarter. Among the 97 firms, 18 firms do not have MD&A because 10-Qs are not filed for the fourth fiscal quarter, and for another firm its 10-Q was not found. For 24 firms the conference call transcripts were not found for both the pre-quarter and post-quarter.
4. In Panels A and B, the columns indicate the total number of disclosures per company from the four sources. For example, the first row of Panel A indicates that in the pre-quarter 22 firms gave no information about operational changes, 30 firms gave one disclosure of this type, and 19 firms gave two disclosures.
5. In Panel D, for each period a firm is in the "YES" group if it issued guidance about fiscal-year earnings or sales according to either the CIG database or our reading of the files from the four information sources.

TABLE 9
Changes in Analyst Activities after Quarterly Guidance Cessation

Model (4): Analyst Following
ChgAnalyst = $d_0 + d_1$Stop + d_2Return + d_3FutureEPS + d_4 LogMVE + d_5 Analyst + ε

Model (5): Analyst Forecast Dispersion
ChgDisper = $e_0 + e_1$Stop + e_2FutureEPS + e_3|FutureEPS| + e_4LogMVE + e_5Dispersion + ε

Model (6): Analyst Forecast Error
ChgError = $f_0 + f_1$ Stop + f_2 FutureEPS + f_3 |FutureEPS| + f_4 LogMVE + f_5 Error + ε

Robust-Regression Estimations (t-statistic appears in parenthesis).

	ChgAnalyst	ChgDisper	ChgError
Intercept	–0.614** (–1.98)	0.0005*** (7.16)	0.0010*** (5.77)
Stop	**–0.577***** **(–3.95)**	**0.0002***** **(6.55)**	**0.0003***** **(3.35)**
Return	0.595*** (6.72)		
FutureEPS	0.658 (0.48)	–0.0026*** (–5.91)	–0.0039*** (–3.78)
|FutureEPS|		0.0020*** (4.23)	0.0112*** (9.67)
LogMVE	0.241*** (4.61)	–0.0000*** (–4.29)	–0.0001*** (–3.44)
Analyst (Model 4) Dispersion (Model 5) Error (Model 6)	–0.049*** (–3.68)	–0.3353*** (–33.05)	–0.3658*** (–61.15)
Model-Test F statistic	21.13	265.07	785.68
Stoppers	218	205	218
Maintainers	668	640	673

Notes:
1. The robust-regression estimation is robust to outliers in the dependent and independent variables by automatically, in each iteration, setting aside influential observations and downweighting the observations that have large residuals. This method does not assume normality and theoretically possesses about 95% of the efficiency of OLS. The Belsley et al. (1980) outlier treatment when outliers (i.e., studentized residual above two in absolute value) are removed yields similar results.
2. "***", "**", and "*" indicate statistical significance at the 1%, 5%, and 10% levels in a two-tailed test, respectively.
3. See variable definitions in Table 3. |*FutureEPS*| is the absolute value of *FutureEPS*.