Corporate Form and Proprietary Costs of Voluntary Disclosure

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ABSTRACT

Single-segment (focused) firms have a natural disadvantage compared to multi-segment (diversified) with respect to voluntary disclosure policy. Since aggregate disclosures by focused firms are at a finer level of detail than those of diversified firms, the latter have greater ability to react to focused firm information and therefore have a competitive advantage. I provide evidence that focused firms are less likely to provide earnings forecasts even after controlling for typical determinants of forecast issuance including various controls for proprietary costs. This result is the first to show that corporate form is an additional determinant of voluntary disclosure. Tests showing that disclosure ranking is not related to excess value are inconsistent with the alternative explanation that diversified firms reap greater benefits of disclosure. However, tests using additional measures of voluntary disclosures (forecast lead time, specificity, and error) are inconclusive.

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1. Introduction

When a multi-segment ("diversified") firm discloses information to the public at the aggregate level it is, by definition, disclosing less fine information than a single-segment ("focused") firm. For example, Microsoft reported five business segments (plus one Eliminations segment) in its 2008 10-K filing with aggregate sales of $60.4 billion. Google reported just one business segment with total sales of $21.8 billion on its 2008 10-K. Of Microsoft's five segments, four of them operate in the same three-digit Standard Industrial Company (SIC) code (737) as Google's single segment. If Microsoft voluntarily discloses a forecast of an aggregate performance measure such as earnings per share, its competitors would have to make assumptions as to how those earnings are allocated by segment. On the other hand, if Google voluntarily discloses such a measure, its competitors are able to assign the forecasted performance with more precision and adjust their competitive structure accordingly. The example points to a potentially lower cost of disclosure for Microsoft due to its diversified status. This study addresses the more general question of whether differences in voluntary disclosure between diversified and focused firms are related to proprietary costs after controlling for other determinants of voluntary disclosure.

Much of the voluntary disclosure literature stems from the full disclosure theories of Milgrom (1981) and Grossman and Hart (1980). These models are based on the premise that sellers with private information who choose not to disclose will receive a discounted price, as buyers treat withheld information as less favorable. In this scenario, it is in the seller's best interest to reveal all private information in order to get the best price. Diamond and Verrecchia (1991), Barry and Brown (1985), and Merton (1987) extend this idea to the context of disclosure by showing that a commitment to higher levels of disclosure provides a benefit of a lower cost of capital by decreasing information asymmetry, reducing estimation risk, or increasing investor following, respectively.[1]

Verrecchia (1983) develops a model in which concerns of revealing proprietary information rationally limit voluntary disclosure despite its apparent benefit. In his

[1]Surveys by Healy and Palepu (2001) [empirical] and Verrecchia (2001) [analytical] provide a thorough background of the literature with further discussion of topics too vast to cover in detail here. Also, reviews of those surveys by Core (2001) and Dye (2001), respectively, offer useful counterpoints.

model, withheld information cannot be treated unequivocally as less favorable due to management's tradeoff between the benefit of a lower cost of capital and the cost of higher competitive pressure. Unlike in the full disclosure models, traders must consider proprietary costs as a reason for withholding the information. Thus, they cannot discount firm value until full disclosure is optimum. Instead, a threshold level of disclosure is obtained. A firm with higher proprietary costs will enjoy a lower discount from withholding information. Extending this argument to diversification, if focused firms have higher proprietary costs as indicated in the Microsoft/Google example above, traders will react less negatively to withheld information from focused firms than from diversified firms, all else equal. Knowing that they will not be discounted as severely for withholding information, focused firms have more discretion to limit their disclosures.

I test whether focused firms adhere to a voluntary disclosure policy that is consistent with higher proprietary costs of disclosure than for diversified firms. First, I study the determinants of the firm's decision to issue a forecast with a focus on how corporate form affects this decision. Specifically, I answer the question: Are focused firms less likely to issue a guidance forecast? Although many of the aforementioned theoretical arguments and tests could be applied in the context of mandatory disclosures, I focus on voluntary disclosures because they offer a clear opportunity for a firm to either reveal or withhold private information. According to Baginski, Conrad, and Hassell (1993), using management forecasts "has the distinct advantage that the level of forecast precision is not directly regulated" which provides managers with some discretion on how they disclose their information.

Using the FirstCall Historical Database of Company Issued Guidance and necessary Compustat data for fiscal years 1994–2008, I show that focused firms are less likely than diversified firms to issue an earnings forecast, which is consistent with higher proprietary costs of disclosure for focused firms than for diversified firms. This result is contrary to research providing support for a negative association between corporate diversification and disclosure, such as Bens and Monahan (2004). Furthermore, the result presented here is the first to the author's knowledge to be derived using FirstCall voluntary disclosure measures and diversification status.[2] On average

[2]In analyzing R&D voluntary disclosures, Jones (2007) shows that the number of segments is not significantly related to disclosure. Hope and Thomas (2008) also show that the number of

over the sample period, greater than 30% of diversified firms issue a forecast in a fiscal year while less than 22% of focused firms do so. After controlling for other factors known to affect voluntary disclosure (e.g., growth opportunities, fear of litigation, earnings volatility, and recent performance), I find that diversified firms are still more likely to issue a forecast than a focused firm.

Most studies of voluntary disclosures simply use a proxy for proprietary costs to control for its effects, but the intuitive link between proprietary costs and diversification provides another test mechanism. I consider numerous proxies for proprietary costs, such as the Herfindahl Index, market-to-book ratio, the speed of adjustment to abnormal profit, and research and development expenses, to compare my results with those of extant literature. Additionally, I construct two measures of proprietary costs using the distribution of sales across business segments of the firm: weighted-average Herfindahl Index and weighted-average market share. Since diversified firms are composed of pieces of different industries with different proprietary costs, these measures are likely to be better indicators of the exposure that a firm has to competitive pressures. Including proprietary cost measures with proxies for firm diversification status provides additional understanding of the relationships between voluntary disclosure and corporate form.

Despite using various proxies for proprietary costs, the results consistently show that focused firms are less likely to issue guidance. The results also show that higher proprietary costs are associated with a lower likelihood of providing guidance. Interestingly, most of the measures of proprietary costs are not highly correlated, and in one case, even when a variable is just the segment sales-weighted average of another. More importantly, the inclusion of typical measures of proprietary costs do not subsume the positive relationship between diversification and voluntary disclosure.

Since voluntary disclosure is argued to lower information asymmetry, I also use the diversification discount valuation framework to study whether firms that disclose have higher values than those that do not. If diversified firms have higher information asymmetry due to their more opaque form and voluntary disclosure lowers it, diversified firms may have a greater incentive to disclose if they can reap gains from the disclosure. In addition to using control variables for information asymmetry in

line-of-business segments does not have explanatory power using measures of voluntary geographic disclosures as dependent variables.

earlier tests to control for such effects, I run additional tests to see if the valuation impact of disclosure is consistent with the information asymmetry argument.

To test the valuation effects of disclosure, I study its relationship to excess value, which is the relative value of a diversified firm to its imputed value using data from focused competitors. Bens and Monahan (2004) lend some credence to the existence of a relationship between corporate form and disclosure by showing that diversified firms score lower than focused firms in the AIMR (Association for Investment Management and Research) disclosure rankings, and their lower ranking is associated with a lower value for diversified firms relative to focused firms. My data allow me to update Bens and Monahan's work with more recent data, new empirical methods, and with actual disclosures rather than outsider rankings of disclosure. Tests using forecast lead time, specificity, and absolute forecast error show that increased disclosure is associated with higher excess value, but only the number of forecasts provided in a fiscal year is significant when interacted with diversification status. Moreover, results for forecast error (absolute value and level) support a *negative* relationship between disclosure and excess value for diversified firms. Overall, the evidence for particular valuation effects of disclosure for diversified firms is only weakly supported in my tests.[3]

My primary tests are subject to a few econometric concerns that I address using various methods. First, instead of using the entire Compustat database as the base sample from which to find nonforecasting matches for the FirstCall sample, I implement coarsened exact matching. Following Coller and Yohn (1997), I match firms based on market value of equity, two-digit SIC code, fiscal year, and primary exchange. Results using this adapted sample fully support the finding that diversified firms are more likely to issue a forecast.

Another econometric concern is the endogeneity that has been shown in the decision to diversify. Campa and Kedia (2002) and Villalonga (2004) show that the decision to diversify is endogenous, and this endogeneity can drastically change results using measures of corporate form. To ameliorate these concerns I use a two-stage

[3]This result is further complicated by the interpretation of forecast error as a measure of disclosure. The primary issue is that it is an ex-post measure of how accurate management was in predicting actual earnings. Increasing the time between forecast and actual earnings (forecast lead time, which is itself a measure of disclosure) increases the likelihood that confounding factors effect forecast accuracy.

framework that invokes instruments for diversification in the first stage and then uses a predicted value for diversification status in the second stage. The result that a more diversified firm is more likely to provide guidance continues to hold in most of the models used.

Two substantial regulatory changes affect my study. First, the regulatory change from Financial Accounting Standards Board (1976) (hereafter SFAS No. 14) to Financial Accounting Standards Board (1997) (hereafter SFAS No. 131) had the stated intention to increase the transparency of diversified firms. Berger and Hann (2003, 2007) and Botosan and Stanford (2005) study mandatory disclosure differences between diversified and focused firms surrounding this rule change. Berger and Hann (2007) report that diversified firms hid segments in ways consistent with agency cost explanations, but Botosan and Stanford (2005) find that proprietary cost measures were more prominent in the event. I incorporate this rule change into my analysis by making necessary adjustments to the segment data to allow for comparison before and after the rule.

Second, in late 2000 upon the adoption of Regulation Fair Disclosure (Securities and Exchange Commission (2000); hereafter Reg FD), management was prohibited from selectively providing material information to outsiders without releasing the information to the public. Reg FD was accompanied by marked changes in forecasts provided to the public (Ajinkya, Bhojraj, and Sengupta (2005)). To study the effects of Reg FD I include an indicator variable to study the time period before and after the rule was adopted separately. These results show a strong positive relationship between the adoption of RegFD and voluntary disclosure. The previous result of a greater propensity to disclose for diversified firms is present, but no longer significant. A differential effect for diversified firms after RegFD is not evident, though there is weak evidence of a positive relationship.

After analyzing the propensity to issue a forecast, I turn my attention to the timing and content of the forecasts. If focused firms have higher proprietary costs of disclosure, they may obfuscate their forecasts by delaying them, by providing lower forecast specificity, or by providing less accurate forecasts. Conditional on issuing a forecast, I test whether focused firms, relative to diversified firms, provide forecasts with less lead time, with less specificity, or with greater error from actual earnings when announced. Results for forecast lead time, specificity, and error do not sup-

port the proprietary cost hypotheses associated with diversification, though there are indications of support in summary statistics. The lack of supporting results after conditioning on a forecast is not surprising given the induced endogeneity of the tests and additional econometric issues, such as simultaneity of forecast characteristic determination. A more rigorous study of forecast characteristics and their association with diversification is left for future research.

The remainder of the paper proceeds as follows. Section 2 reviews relevant literature on voluntary disclosure and corporate form and provides further rationale for my study. Section 3 continues with a description of the data used in my empirical analysis. I present the tests and results showing differences in management guidance between diversified and focused firms in Section 4, and I address some empirical issues. Section 5 concludes.

2. Literature Review and Motivation

In the following section I motivate tests of voluntary disclosure differences between single-segment (focused) firms and multi-segment (diversified) firms. Disclosure provides management with the means to reveal their private information if they so choose. In the context of takeover bids, Grossman and Hart (1980) show that a seller with private information about the quality of the item will reveal his information in equilibrium, resulting in full disclosure. Similar analytical results can be found in Milgrom (1981).

This section details how proprietary costs associated with voluntary disclosure may inhibit full disclosure, and how such costs have been shown to limit disclosure. With the support of the literature in conglomerate diversification and voluntary disclosure, I argue that focused firms have a higher proprietary cost of disclosure and therefore disclose less than diversified firms. Also, I consider potential alternatives to the proprietary cost hypotheses.

A. Proprietary Cost Hypothesis

Early explanations for non-disclosure hinged on the assumption in the full disclosure models that the information could be conveyed with little or no cost. Later models show that the benefits of lowering information asymmetry and potentially lowering the cost of capital via disclosure could be offset by costs of the disclosure. In the informational setting where a value maximizing manager with private information chooses whether to reveal his information, models by Verrecchia (1983) and Bhattacharya and Ritter (1983) yield the full disclosure result for low-cost information, but their models provide for a threshold level of disclosure when such information production is costly.[4]

[4]Diamond (1985) provides an explanation for investor demand of such information. A basic premise of much of accounting literature and of the full disclosure literature in particular is that managers possess private information and investors know this fact. In practice, this assumption seems believable, although surely there are cases in which management knows little or no information. Myers and Majluf (1984) offers a well known example of a financial model assuming that agents have superior information. On the other hand, Axelson (2007) develops a security design model in which bidders have superior information to management.

Verrecchia (1983) pinpoints proprietary costs as a mechanism to model the trade-offs of disclosure. In his model, firms choose to disclose information based on an expected reaction by traders to the disclosure or non-disclosure. If the expected detriment is more than the benefits, the disclosure should not rationally occur. His model predicts a negative association between *product market competition* and disclosure. In the presence of proprietary costs, traders are unable to assess whether the lack of disclosure is good news or bad news, and the full disclosure premise is no longer valid. Other analytical studies addressing proprietary costs make it clear that the type of competition could be an important factor. For example, Darrough and Stoughton (1990) study a potential entrant as the form of competition, and their model predicts that this sort of competition encourages disclosure, therefore predicting a positive association between *threat of entry* and disclosure.[5]

While there is a substantial analytical literature studying the importance of the proprietary costs of disclosure, empirical evidence is limited. In a review of the empirical disclosure literature, Healy and Palepu (2001) state that "there is little direct evidence on the proprietary cost hypothesis." Verrecchia (1983) predicts that disclosure and proprietary costs should have a negative relationship, and there seems to be some support for this prediction. Bamber and Cheon (1998) find that higher product market competition is related to a lower probability of a firm offering a forecast in a venue with more "visibility." This negative relationship extends to the specificity of the forecast. Moreover, Brockman, Khurana, and Martin (2008) report a negative relationship between a measure of how far management's forecast missed actual earnings-per-share and market-to-book (MB), with MB being their proxy for proprietary costs (as is also the case in Bamber and Cheon (1998)).

Focused firms that voluntarily disclose private information are revealing a finer level of detail than diversified firms that reveal aggregate information. For example, providing a forecast of earnings per share for a focused firm will allow competitors to assess how that particular business is performing and make adjustments to investment accordingly. Diversified firms, on the other hand, can provide an earnings forecast for the consolidated firm without revealing how individual components of the business

[5]Dye (2001) demonstrates how a market characterized by perfect competition can also lead to a partial disclosure result. He also states that perfect competition is not necessary to increase efficiency if disclosures help to improve pricing that improves capital allocation. He dubs this the "feedback" effect of disclosure.

are performing. Of course, competitors of diversified firm information will be able to use historical or contemporaneous information about the segments of the firm to apportion aggregate earnings. However, such apportionment is at best equal to the apportionment possible with a focused firm. To the extent that competitors are successful in apportioning such information, proprietary cost effects will be diminished.[6] The potential informational advantage for the diversified firm could raise the costs of disclosure for a focused firm and motivate the focused firm to refrain from providing guidance, which is formalized in the following hypothesis in alternate form:

Hypothesis 1. *Focused firms are less likely to provide an earnings forecast.*

Hypotheses 1 considers the relationship between diversification and voluntary disclosure, but an explicit treatment of the competitive environment will provide further understanding. If the explanatory variable that measures corporate diversification is simply a noisy proxy for proprietary costs of disclosure in tests of voluntary disclosure propensity, the inclusion of variables that are more direct proxies for proprietary costs should decrease the explanatory power of the diversification variable. However, the diversification variable should still capture proprietary cost differences that are not captured in standard measures. Specifically, diversified firms should be more likely to disclose.

B. Evidence from Mandatory Disclosures

Public firms have been required to disclose certain segment information since the passage of SFAS No. 14 with a considerable update to the rule adopted in 1996 as SFAS No. 131. The latter rule explicitly addresses competitive harm that may result from the increase in filing requirements for firms with multiple segments. Most of the arguments taken from comments to FASB on the implementation of the rule are concerned with the competitive harm to public diversified companies that are required to provide segment-level information versus private firms that do not have to disclose

[6] Hutton, Miller, and Skinner (2003) show that firms provide supplementary statements concurrently with earnings forecasts approximately two-thirds of the time in their sample; the distribution of statements is almost equal between "good" and "bad" news; and the market only reacts to "good" news forecasts when accompanied by supporting verifiable statements. These results are based on aggregate statements only and do not incorporate the intricacies of diversified versus focused disclosure.

such information. The Board includes some provisions intended to ameliorate the competitive harm between public and private diversified firms, but nothing directly addresses the competitive harm to focused firms that must disclose more than is required of segments of diversified firms that I hypothesize. In fact, SFAS No. 131 paragraph 111 provides an indication that the competitive pressures faced by segments of diversified firms and focused firms may be equal:

> The Board concluded that it was not necessary to provide an exemption for single-product or single-service segments because enterprises that produce a single product or service that are required to issue general purpose financial statements have that same exposure to competitive harm.

The evidence on the proprietary costs of mandatory disclosure and diversification is not as limited as the voluntary disclosure side due in part to the rule change mentioned in the paragraph above. SFAS No. 131 has the stated intention to increase transparency by changing the reporting basis from one of industry allocation of segments to one of operating segments, among other changes. Berger and Hann (2003) provide evidence supporting an increase in transparency due to the rule change: the number of reported segments increased and the newly reported information was not previously incorporated into market expectations or analysts' predictions. Even with the advent of the new rule, filings for segments of diversified firms are not as revealing as those of a firm with just one segment. Required items for segment reporting are limited to a few items from the income statement used to create a measure of profit or loss. Focused firms must report consolidated firm filings (via SEC forms 10-K or 10-Q) including such items as research and development and risk factors that can be used to assess the growth potential of their singular business. Botosan and Stanford (2005) show that in the previous regime firms hid profitable segments in less competitive industries, which is consistent with competitive pressures impacting mandatory disclosure. Finally, Berger and Hann (2007) use the same rule change and find that agency costs rather than proprietary costs appear to influence management's filing disclosures.

Other research on mandatory disclosures does not utilize the rule change. Rather, it focuses on aggregation choice in the presence of competitive pressures. Hayes and Lundholm (1996) model the decision to aggregate business segments considering the

incentives of the firm to reveal or hide disclosures in the presence of a competitor. They find that a firm faced with a rival has the incentive to aggregate segments that have disparate results and disaggregate segments when their results are similar, lest the rival discovers the more profitable business to cannibalize. Harris (1998) compares SIC codes taken from filings and matches against SIC codes reported in Compustat as a segment to show that firms tend to aggregate segments in less competitive industries, although she admits that she finds this result in mandatory disclosures while many of the models used to motivate her story are for voluntary disclosure.

I adjust my tests for the potential impacts that mandatory disclosures have on a firm's complete disclosure environment. First, I adjust the segment data before and after the adoption of SFAS No. 131 to address pseudo-conglomeration as discussed in Sanzhar (2006). In addition, Compustat has back-filled segment data before the 1997 to be in accordance with the new filing requirements. Second, I consider the adoption of Regulation Fair Disclosure (Reg FD) in late 2000. Reg FD prohibited management from selectively providing material information to outsiders without releasing the information to the public, and it was accompanied by a marked increase in the number of forecasts provided to the public as shown in Healy (2007).

C. Consideration of Alternatives

C.1. Cost of Capital

In the full disclosure model, managers are endowed with private information and investors know that the manager possesses such information. If this information is disclosed, the information asymmetry between managers and investors diminishes. Diamond and Verrecchia (1991) show that this reduction leads to a lower price impact on the firm's securities that increases demand from large investors and in turn decreases the cost of capital for the firm. Another line of research that produces a negative relationship between disclosure and cost of capital centers around estimation risk. In the models of Coles, Loewenstein, and Suay (1995) and Barry and Brown (1985), firms that offer more information have parameters that are easier to estimate, resulting in lower market betas and lower expected returns (i.e., lower cost of equity capital). By modeling information as a noisy indicator of future cash flows, Lambert,

Leuz, and Verrecchia (2007) show that increasing the quality of disclosures creates effects within a CAPM framework that ultimately lead to a lower cost of capital.[7]

The empirical literature examining the notion of a negative relationship between disclosure and cost of capital offers mixed results. Botosan and Plumlee (2002) find support using analysts' ratings of disclosure of annual documents, but they find a positive relationship using the ratings of quarterly reports. Brown and Hillegeist (2007) find more consistent support by showing that annual, quarterly, and investor relations ratings are negatively related to the probability of informed trade measure (PIN), which they argue proxies for information asymmetry. Further, Lang and Lundholm (1996) show that many measures often used to proxy for information asymmetry, such as analyst coverage and forecast dispersion, accuracy, and variability, are correlated with disclosure in ways that indicate lower information asymmetry for firms with more disclosure, which is consistent with lower cost of capital.[8] Botosan, Plumlee, and Xie (2004) argue that public information could either be a complement to or a substitute for private information, and when they include public information, the relationship between cost of equity capital and private information is positive. In support of the price impact story of Diamond and Verrecchia (1991), Coller and Yohn (1997) show that information asymmetry as measured by bid-ask spreads is higher for firms providing a forecast than for non-forecasting firms in the period prior to the forecast, but there is no difference in spreads after a forecast. Also they show that spreads over the nine days prior to a forecast are significantly higher than the spreads over the nine days after the management forecast.

Greater disclosure for diversified firms could be a result of an increased incentive to lower their information asymmetry (and their cost of capital) rather than a result of lower proprietary cost. The *transparency hypothesis* offered in Hadlock, Ryngaert, and Thomas (2001) states that diversified firms have higher information asymmetry due to lower transparency in the information available about the segments of the firm

[7] Shin (2006) develops a model incorporating joint determination of asset returns and disclosure with predictions that resemble short-term momentum and long-term reversal in returns, but a reduction in cost of capital is not the driver of the model.

[8] While the focus here is on voluntary disclosures that lower information asymmetry, other firm actions that lower information asymmetry have also been shown to be negatively related to cost of capital. For instance, Barth, Konchitchki, and Landsman (2008) find that more transparent earnings, that is, earnings that more closely relate to returns, are associated with a lower cost of capital.

relative to pure-play firm information. The empirical evidence on higher information asymmetry in diversified firms generally finds the opposite, however. Using analysts' forecasts as a proxy for information asymmetry, Thomas (2002) shows that diversified firms do not have more information asymmetry than focused firms. He shows "that greater diversification is associated with smaller forecast errors and less dispersion among forecasts." Moreover, he finds that diversified firms have higher earnings response coefficients (ERC) indicating that investors impound earnings information into stock prices to a greater extent than for focused firms. However, the results from Thomas (2002) indicating lower information asymmetry for diversified firms flip after controlling for return volatility. Using market microstructure measures of information asymmetry, Clarke, Fee, and Thomas (2004) support the Thomas (2002) findings of lower information asymmetry for diversified firms.[9]

Whether or not diversified firms have a lower cost of capital relative to focused firms has yet to be fully answered. Only a few studies offer tests related to differences in cost of capital or expected returns between diversified and focused firms. Hadlock, Ryngaert, and Thomas (2001) show that relative to focused firms, diversified firms suffer a less negative stock price reaction to seasoned equity offerings than focused firms, which is *inconsistent* with higher levels of information asymmetry for diversified firms. The authors attribute their result to lower adverse selection problems in issuing securities of diversified firms due to lower measurement error from imperfectly correlated segments than from a bucket of focused segments. If the lower measurement error for diversified firms that are selling securities is actually due to a commitment to disclosure above and beyond that of focused firms, increased disclosure could be causing this result. Lamont and Polk (2001) bring lower cost of capital for diversified firms into question by showing that there is no difference in returns between diversified and focused firms, but they do find that discounted diversified firms have higher realized returns than premium diversified firms.[10]

I address the possibility that diversified firms have a greater incentive to disclose due to differences in information asymmetry rather than proprietary cost differences in

[9]Though not a study including all diversified firms, Krishnaswami and Subramaniam (1999) show that firms that engage in a spinoff have higher information asymmetry than a matched control group and gains associated with the spinoff are related to the decrease in information asymmetry for spinoff firms.

[10]Mitton and Vorkink (2008) find that diversified firms have lower skewness in their returns and this is consistent with investors' preference for skewness risk and with a discount for diversified firms.

two ways. First, in regressions of disclosure on diversification status and proprietary costs, I include variables that control for information asymmetry. Next, I analyze whether firms that provide voluntary disclosure have higher valuations relative to their industry peers and whether this result is related to diversification status. If the latter is true, it is an indication that further analysis is needed to disentangle the determinants of disclosure and how those determinants affect value.

Bens and Monahan (2004) report that disclosure ranking measured using AIMR ratings, which is used as an inverse proxy for information asymmetry, is positively associated with excess value, which is measured as a log ratio of the actual value of a firm to its value imputed from focused firm rivals, for diversified firms, but the relationship does not exist for focused firms. The authors attribute the positive association for diversified firms to the increased monitoring that is present for firms with more revealing disclosure. My empirical structure allows me to update Bens and Monahan's work with more recent data, new empirical methods, and with actual disclosures rather than outsider rankings of disclosure. I test the following hypothesis:

Hypothesis 2. *Higher measures of voluntary disclosures are associated with higher excess value.*

Moreover, if diversified firms have higher information asymmetry and use voluntary disclosure to decrease it, there would be a positive interaction effect for diversification status and disclosure in regressions of excess value. The hypothesis below formalizes this argument:

Hypothesis 3. *Higher levels of disclosure positively effect the excess value of diversified firms more than focused firms.*

C.2. Agency Costs

There is also a strand of literature addressing managers acting in their own interest and adopting a disclosure policy accordingly. Berger and Hann (2007) provide empirical support for an agency cost story that managers of diversified firms seek to mask inefficient behavior among their segments by aggregating segments with poor performance. Using proxies for disclosure, Aboody and Kasznik (2000) find evidence that is consistent with firms adapting their voluntary disclosures in favor of CEO option

payoffs. Brockman, Martin, and Puckett (2008) lend more support to this argument by showing that firms release information intended to increase management's stock option payoff by releasing positive disclosure before intended exercise of options and by releasing negative information before intended holding of vested options. In a similar agency cost story, insider transactions are shown to be clustered after voluntary disclosures that result in higher payoffs for the insiders in Noe (1999). Bernhardt and Campello (2007) provide evidence that managers "talk down" the consensus analyst estimate of earnings. While this practice fools investors in that they treat the changes in analysts' estimates as unbiased, the earnings "surpise" is not substantial enough to raise the stock price above its losses from talking down the consensus before the earnings announcement. Finally, Brockman, Khurana, and Martin (2008) show that managers "talk down" the price of the firm's stock using voluntary disclosures prior to repurchasing shares, and the bias in management forecasts is positively correlated with management's private incentives.[11]

Many studies on corporate form point to potential agency costs differences between diversified and focused firms. At the level of the CEO, Shleifer and Vishny (1989) model an empire building CEO who overinvests in projects to carve out more rents for herself. Jensen (1986) details another form of overinvestment borne of greater access to free cash flows in the diversified corporate form. Rajan, Servaes, and Zingales (2000) develop a model in which incomplete contracting on investment choice drives self-interested divisional managers to invest in projects that are defensive rather than those that are most efficient for the firm. Scharfstein and Stein (2000) show how rent-seeking managers provide another avenue for a value loss for corporate diversification as managers take on projects that increase their bargaining power rather than increasing firm value. Lamont (1997), Lamont and Polk (2002), and Ahn and Denis (2004) provide empirical support for overinvestment by diversified firms. If managers are behaving in the manner described in these studies, agency costs will be higher in all cases for diversified firms. As such, they will be considered "lemons" in the marketplace, and any attempt to mitigate agency costs using disclosure will be moot

[11]It could be that the adjustment to disclosure by diversified firms is less than for focused firms because investors don't know enough details to apportion the news to the segments that make up the business. If this is the case, the good news/bad news studies will have more focused firms in them, and in turn, those samples will be smaller and younger than excluded firms. Also, dividing the sample based on "substantial news" (>1% or <-1% move in price) amplifies the aforementioned effect.

in equilibrium. Since the mechanism by which voluntary disclosures could be used to mitigate this aspect of differences in corporate form is not evident, I do not include agency cost considerations in my tests.

3. Sample and Variable Construction

The primary data that I use to test the hypotheses are derived from the intersection of the FirstCall Company Issued Guidance (CIG) database and segment- and firm-level data from Compustat. A download from CIG with announcement years from 1990–2009 yields 111,908 observations of management forecasts.[12] There are only 67 forecasts from 1990–1993, so I remove forecasts announced in those years. Since announcements pertaining to fiscal year 2009 have yet to be fully incorporated into the database as of this draft, I also remove forecasts provided during firm fiscal years after 2008. After choosing forecasts of earnings per share on common stock in U.S. dollars that possess an eight-digit CUSIP and a FirstCall code that is necessary to qualify the specificity of the forecasts, the database has 97,975 observations. Similar to Anilowski, Feng, and Skinner (2007), I remove forecasts that are more than 90 days *after* or more than two years and 90 days *before* the subject fiscal period end of the forecast. Finally, I remove a few remaining duplicates in CIG for a resulting database with 94,600 observations (46,184 annual forecasts and 48,416 quarterly forecasts) spanning fiscal years as of the announcement of 1994–2008 as shown in Table 1.

To derive measures of corporate diversification and to weight variables according to segment distribution, I use the segment-level data from Compustat. SFAS No. 14 created the regulatory requirement for firms to file segment-level information with implementation and data entries beginning in earnest in the fiscal year of 1978. Restatements of segment or firm information are removed so the database contains information that was available to investors at the time of filing rather than adjusted numbers and filings revealed later.[13] I remove financial firms and utilities from the sample as these industries are regulated differently from others, which could affect the interpretation of proprietary costs and diversification.

SFAS No. 131 creates the need to make an adjustment to the data on both sides of the rule change for comparability. I perform the procedure described in Hund, Monk,

[12] Chuk, Matsumoto, and Miller (2009) note some problems with the CIG database. First, they show that hand-collected guidance from Lexis-Nexis is often not present in CIG. Though this may bias my results for the propensity to provide a management forecast, other tests and techniques are employed to lessen this problem. Also, they show that non-EPS measures and more complicated calculations of guidance (e.g., 10% increase in earnings) are not as complete. I use only EPS forecasts.

[13] To the extent that managers knowingly provide incorrect forecasts and then manipulate filings to meet the incorrect forecasts, using non-restated data could bias my results.

and Tice (2010) to account for the segment reporting changes. The new rule requires firms to report segments based on operating structure rather than industry composition. As a result, firms reported more segments, but many of these segments are in the same four-digit SIC code (see Sanzhar (2006) for details on these pseudoconglomerates.) The procedure I use aggregates sales for segments in the same 4-digit SIC code thereby making the data after SFAS No. 131 more comparable to those before it. I also remove segments with sales equal to zero or with missing values, since many of these are "corporate" segments put in place to allow firms (under the new rule) to allocate assets to the corporate entity rather than business-line segments. Finally, Compustat has adjusted observations in the segment database before the adoption of the rule to be in accordance.[14] In addition, Compustat created "new" segments data to backfill years prior to 1997 in their database to provide better comparability across the regulatory regimes.

Finally I merge the forecast and segment data with Compustat firm-level data required to perform additional screens for the segment-level data and to calculate other variables used throughout the study as controls. I remove those firms not reporting segment sales that sum to within 1% of reported total sales. This firm-level screen is taken from Berger and Ofek (1995) and is in agreement with the empirical diversification literature. Other variables will be described in the sections below as needed. Short descriptions of all variables are in Appendix A.

A. Management Forecasts

Using the FirstCall Company Issued Guidance data described above I create management forecast variables for my tests. To get a better sense of how often the firm offers voluntarily disclosures, I calculate the number of forecasts provided by a firm in fiscal year t, notated by $NForecast_t$, including updates but not duplicating forecasts given on the same day. Botosan and Plumlee (2002) find substantial differences between disclosure rankings based on annual and quarterly reports. Therefore, I produce separate results for annual and quarterly data where appropriate. I also create a dummy variable ($Forecast$) to indicate whether management issued a forecast. $Forecast$

[14] Due to the subjective nature of asset allocation under the new rule, I only use segment sales data in my analysis.

equals 1 for each CIG observation that has a matching firm-year observation from Compustat, and it equals zero for Compustat firm-years that do not have a matching observation in CIG.

To allow for deeper analysis of the disclosure policy of firms, I create variables based on more than just the sheer number of management forecasts. First, I calculate the number of days between the announcement date and the fiscal period end, denoted by *Lead*. Note that this variable is negative for those forecasts that are provided after the fiscal period end but before the actual earnings are announced. To capture the information available to investors at the time of the announcement and to reduce erroneous data points, I remove announcements that are more than 90 days after or more than 820 days (two years plus 90 days) before the subject fiscal period end. I chose 90 days after the fiscal period end so as not to interfere with results from the next quarter. I chose two years plus 90 days before the fiscal period end after looking at the distribution of forecasts and noting a few outliers that were thousands of days before the fiscal period end and are likely data entry errors. Second, I create a variable to denote the specificity of forecasts, *Spec*, using the definitions from Baginski, Conrad, and Hassell (1993) and a numbering scheme that is increasing in specificity as indicated in Appendix B. Fig. 2 shows that the number of forecasts per year peaked in 2004 and that the proportion of "range" forecasts has increased over time.

The final forecast measure is the ex-post accuracy of the management forecast. *Error* is calculated as the difference between the management forecast and actual earnings normalized by the stock price at the end of the most recent quarter, multiplied by 100, and winsorized at the 1% level. I also use the absolute value of this measure in some tests. Ajinkya, Bhojraj, and Sengupta (2005) and Brockman, Khurana, and Martin (2008), among others, use a similar measure of management "bias" in situations of monitoring and repurchasing shares, respectively. In the present context the measure will be useful in determining if the bias from other research is related to the effects of proprietary costs and diversification. However, this measure is imperfect because for open-interval forecasts, I simply subtract actual EPS number from the EPS forecast. Also, for range forecasts, I use the mid-point of the range forecast as management's forecast following Baginski, Conrad, and Hassell (1993).

B. Measures of Diversification Status and Value

Using the Compustat segment data I create two measures of diversification. The first and most commonly used is the diversification indicator variable ($Multi_t$) that equals one if a firm reports multiple segments by four-digit SIC code in fiscal year t. Otherwise, the indicator equals zero. To provide additional depth to the analysis, I also create entropy ($Entropy_t$) as described in Jacquemin and Berry (1979) as a continuous measure of diversification. The entropy measure of diversification for firm i is determined at fiscal year t by

$$Entropy_{i,\,t} = \sum_{s=1}^{n} P_{s,\,i,\,t} \ln \frac{1}{P_{s,\,i,\,t}}, \tag{1}$$

where n is the number of four-digit SIC code segments and $P_{s,\,i,\,t}$ is the proportion of sales from segment s of firm i at t. Entropy equals zero for firms reporting a single business segment, and it is greater than zero for firms reporting multiple business segments. Importantly, entropy changes as the distribution of sales across segments changes, even if the number of segments is held constant, which allows for an analysis of the impact of the degree of diversification on disclosure decisions.

Table 2 shows descriptive statistics for annual forecasts split into two panels based on diversification status. The mean number of annual forecasts per firm per year ($NForecast$) has increased from about one in 1994 to above five in 2008, and mean $NForecast$ is greater for diversified firms in every year after 1997. Diversified firms comprise only 19% $[11,264/(11,264+46,870)]$ of firms not providing annual guidance, but they comprise 33% $[3,130/(3,130+6,480)]$ of firms providing an annual forecasts and 36% $[10,461/(10,461+18,556)]$ of total annual forecasts. Similar results for quarterly forecasts are available upon request.

The similarities between the full FirstCall sample and the screened sample in unreported tests provide confidence that screening mechanisms did not introduce substantial bias. In addition, a matching technique is employed in Section 4.B.3 to provide further empirical support.

C. Proprietary Costs

Several measures are needed for reliable proxies for the proprietary costs that firms face. As noted in early literature cited in Section 2, the type of competition can and does have an impact on voluntary disclosure equilibrium outcomes. The difference between product market competition and the threat of entry has been shown to be enough to change the effect of competition on voluntary disclosures. The variability of proxies for proprietary costs across industries, firms, and segments can be drastically different. I separate the measures according to their variability: industry-, firm-, or segment-level.

C.1. Industry-Level Measures

Following Botosan and Stanford (2005) and Harris (1998), for each three-digit firm-level SIC code I construct the four-firm concentration ratio ($Conc4Firm$) and the Herfindahl Index (HI). The former equals the sum of the proportion of annual sales in a three-digit SIC code industry of the top four producers by sales, whereas the latter is the sum of the squared proportions of sales coming from all firms in a three-digit SIC code industry.[15] As these measures increase, competition decreases.

As the last industry-level measure, I use the speed of profit adjustment. Harris (1998) notes that this measure provides an indicator of the persistence of abnormal profits away from the industry mean. The value for speed of adjustment, $SpeedAdj$, is the coefficient β_{2j} of Eq. 2, which is executed separately for each industry j. As with $Conc4Firm$ and HI, a higher value for $SpeedAdj$ implies less competition.[16]

$$X_{ijt} = \beta_{0j} + \beta_{1j}(D_n X_{ijt-1}) + \beta_{2j}(D_p X_{ijt-1}) + \varepsilon_{ijt} \tag{2}$$

[15] Ali, Klasa, and Yeung (2009) provide evidence that industry concentration measures using Compustat can be biased. Their study cites the lack of private firms in the Compustat database as a weakness. However, in the context of testing differences in voluntary public disclosures that are ultimately verifiable due to mandatory filings, using only public firms should have less of an impact on inference.

[16] Berger and Hann (2007) use segment abnormal profitability to proxy for management's desire to withhold segment information from potential entrants. As stated in their paper, such measures for the entire sample of segments are difficult to obtain and to verify. Their sample is limited to firms changing corporate form around a rule change. As such, they could hand-collect the necessary data more easily.

where

- X is the difference between the ROA of firm i and the mean ROA of its three-digit SIC industry j;
- D_n is a dummy indicating negative X;
- D_p is a dummy indicating positive X.

C.2. Firm-Level Measures

The equity market-to-book ratio (MB) has been used in the disclosure literature as a measure of growth opportunities and more loosely as a proxy for proprietary costs. Firms with high growth opportunities may have a lower incentive to disclose as argued in Bamber and Cheon (1998), but this relationship could be in the opposite direction if a firm desires to deter entry by signalling that a particular industry has lower opportunities. Perhaps this ambiguous relationship is demonstrated in their findings that the lagged value of MB is negatively associated with the level of investor proactivity of the release venue, but when used as an explanatory variable for forecast specificity the ratio is no longer significant. Further, Ajinkya, Bhojraj, and Sengupta (2005) include lagged MB in similar regressions of management forecasts issuance, but in most cases their tests show that the coefficient for it is not significantly different from zero. I calculate MB_t as the log of the ratio of the market value of equity at calendar year end t to the book value of equity.

Other firm-level variables offer more direct proxies for proprietary costs. Research and development expense (RD), calculated as the yearly R&D expense over assets, is argued to be positively related to proprietary costs in Wang (2007). In cases in which R&D expense is missing, I set the value equal to zero. Also, I include three-digit SIC industry percent rank of profit margin ($PMargin$) and market share ($MShare$) as in Nichols (2009).

C.3. Firm-Level Measures Using Segment-Level Information

Since a diversified firm is composed of multiple segments from potentially multiple industries, I construct some firm-level variables that are based on segment-level information. For each measure, I treat the segment as a separate entity within an

industry and calculate market share information accordingly. By treating each segment as a separate competitor in the industry market, these measures offer a more complete picture of the level of competition that a particular industry participant is facing. Specifically, I use segment sales and their accompanying industry designation to create a segment-sales weighted average market share ($MShareSeg$) and Herfindahl Index ($HIwtd$). To calculate the latter measure I multiply the proportion of firm sales in a particular three-digit segment industry by the Herfindahl Index created using sales values from all segments within a three-digit SIC code industry and then sum over the number of segments in the firm as shown in Eq. 3 and Eq. 4.

$$HIseg_j = \sum_{i=1}^{m} (\frac{s_i}{S_j})^2 \tag{3}$$

$$HIwtd_f = \sum_{k=1}^{n} (\frac{s_k}{S_f}) * HIseg_j, \tag{4}$$

where

m = number of segments in three-digit industry j,
s = segment sales,
S = sales from all segments (in industry j or firm f),
n = number of segments in firm f.

Table 3 provides some support for separate consideration of the proprietary cost measures. Although many of the correlation coefficients between the measures are significantly different than zero, only four have an absolute value greater than 0.5. $SpeedAdj$, MB, and $PMargin$ have very little relationship with any of the other measures. Since MB has been used in the disclosure literature to proxy for other economic effects such as growth opportunities, it will remain in my analyses. Among the remaining proprietary cost proxies, I will consider measures that include industry-level, firm-level, and segment-based calculations where appropriate.

D. Other Variables

I address two common controls first. **Firm size** may have a positive or negative association with disclosure. On one hand, larger firms will have the real resources

to produce the information more easily (Diamond (1985)). On the other hand, more information is generally available publicly for larger firms, perhaps substituting for some of the information that management would otherwise release (Brockman, Khurana, and Martin (2008)). Harris (1998) argues that firm size is also a proxy for the number of segments reported due to filing requirements based on a 10% threshold to list a segment separately. To control for these possible effects I use the variable $Size$, measured as the log of total assets. Brown and Hillegeist (2007) also note the importance of **recent performance** on a firm's decision to issue guidance. To capture recent performance I use return on equity, ROE. Using excess firm returns over the CRSP value-weighted index during the three months ending before the issuance of the management forecast yields similar results.

Earnings volatility has been used as a measure of the potential for large movements in management forecasts and susceptibility to litigation. Managers from firms with higher earnings volatility may have a tougher time forecasting earnings and may be more likely to get the forecast wrong. Not only is this measure applicable in the study of voluntary disclosures, but also it has been shown to be an important determinant in studies of corporate diversification. Diversified firms are shown in Dimitrov and Tice (2006) and Hund, Monk, and Tice (2010) to have significantly lower volatility in firm performance measures such as ROE, ROA, and $EBIT$. I calculate earnings volatility, $EarnVol$, as the standard deviation of the previous 12 quarters of earnings before the period including the forecast winsorized at 1%.

To address **information asymmetry**, which is one of the primary theoretical determinants of disclosures, I use a few measures taken from extant literature. First, I use residual stock return standard deviation, $Volatility$, as calculated in Krishnaswami and Subramaniam (1999). $Volatility$ is the standard deviation of the market-adjusted daily stock returns over the 36 months preceding the forecast announcement. I take two other measures of information asymmetry from analyst information as provided in FirstCall: $NumEst$ and $Dispersion$. $NumEst$ is the number of analyst estimates of annual earnings per share preceding the date of the management forecast, and $Dispersion$ is the standard deviation of all active analyst forecasts as of that same date winsorized at 1%.

There is considerable theoretical and empirical evidence in the disclosure literature

showing that firms disclose **good news** more readily than bad news.[17] I construct an indicator variable for negative earnings, $NegEarn$, to control for this effect. However, there is a counterargument to the preference for good news disclosures. Management's legal obligation to reveal material private information can bias their disclosures toward "bad news" as management attempts to prevent suits after a precipitous fall in stock price as in Baginski, Hassell, and Kimbrough (2002) and Schrand and Walther (1998). The **legal environment**, specifically the probability of litigation surrounding negligent guidance, has been shown to be a factor when issuing guidance, for the frequency of the guidance, and for its specificity. Congress enacted the Private Securities Litigation Reform Act of 1995 as a means to address this fear of litigation. Recent results by Rogers and Stocken (2005), Kothari, Shu, and Wysocki (2009), and Cao, Wasley, and Wu (2007) show that firms are more likely and quicker to reveal bad news than good news.

Although there is to my knowledge no research showing a difference between diversified and focused firms with respect to litigation risks, some research argues that inefficient investment by diversified firms causes those firms to have worse performance than their peers on average. Worse performance could cause more lawsuits as investors tend to sue more often after bad information is released than after good information is released. On the other hand, dispersed segments could allow diversified firms to smooth performance perhaps lowering the probability of a lawsuit (and making diversified firms more likely to issue guidance). Therefore, the impact of litigation risks is not clear in the context of diversification and disclosure. I use the negative earnings growth indicator variable ($NegEarnG$) from Bamber and Cheon (1998) and Brockman, Khurana, and Martin (2008) to proxy for litigation exposure. $NegEarnG$ equals 1 if the firm has negative earnings growth over the year, and it equals 0 otherwise. Additionally, I include a broader indicator for industries prone to litigation. Using segment-level data, I calculate $LitInd$ as the proportion of firm total sales coming from segments in the following four-digit SIC code industries: 2833–2836 and 8731–8734 (biotechnology); 3570–3577 and 7370–7374 (computers); 3600–3674 (electronics); and 5200–5961 (retail).

One assumption of the full disclosure model is that all investors interpret manage-

[17] For example, see Dye (1990), Dye and Sridhar (1995), Gennotte and Trueman (1996), and Miller (2002).

ment's disclosure or non-disclosure in the same manner. Theoretical models manipulating this assumption, such as in Dye (1998), result in some investors gaining more from the information release than others. Brockman, Khurana, and Martin (2008) address the empirical implications of the models by controlling for differences in **investor sophistication**. Although the focus of their paper is not different investor groups, they find a result consistent with investor sophistication impacting voluntary disclosure. Bamber and Cheon (1998) use a measure of non-affiliated blockholders to proxy for litigation exposure, but the same measure could be a proxy for investor sophistication. Evidence in Ajinkya, Bhojraj, and Sengupta (2005) showing that greater institutional ownership increases disclosure lends support to these arguments. However, this measure is confounded by the liquidity impacts of disclosure and how those impacts may be favored more by one set of investors over another. Although other variables that I incorporate into my tests may be considered proxies for investor sophistication, I intend to include a more direct measure in my controls at a later date.

4. Empirical Tests and Results

In the following section, I merge arguments taken from the Motivation section with the data described in the previous section to implement empirical tests. All of the tests are designed to work together to provide rigor to an analysis of whether proprietary cost differences between diversified and focused firms impact voluntary disclosures.

A. Univariate and Bivariate Tests

On average over the sample period, a greater percentage of diversified firms provide voluntary disclosure than do focused firms. Fig. 1 shows that this is true in every year except 1997. Since 1998 an average of about 36% of diversified firms have provided a forecast while only 27% of focused firms done so.

The summary statistics in Table 4 show that there are significant differences between firms that provide management forecasts and those that do not. Diversified firms comprise 26.8% of forecasting firms, but only 19.1% of non-forecasting firms. This relationship holds for the *Entropy* measure as well. All of the proprietary measures except for MB are significantly different for forecasting firms, and the direction of the difference indicates that firms facing less competition tend to forecast. As with extant literature on voluntary disclosures, forecasting firms tend to be larger, less likely to have negative earnings, have better recent performance, come from industries with high litigation exposure, have greater analyst following, and have less dispersion among the analyst forecasts of their firm.

B. Multivariate Tests

The summary statistics provide some evidence for a relationship between corporate form and disclosure, but without more rigorous testing, arguments other than the proprietary cost story that I offer could be used to explain this relationship. In the section to follow, I test the hypotheses put forth in the Motivation section using a multivariate framework.

B.1. Forecast Issuance

I first analyze whether diversified firms are more or less likely than focused firms to issue a forecast as stated in Hypothesis 1 and whether the effect of diversification changes with the competitive environment. I test the propensity of providing a management forecast conditioned on proxies for corporate form and other factors known to affect forecast issuance, such as growth opportunities, firm size, earnings volatility, and litigation environment (see Rogers and Stocken (2005) and Matsumoto (2002)). The dependent variable is the dummy variable $Forecast_t$ that equals 1 if a firm provides a forecast in fiscal year t and is 0 otherwise. Due to the binary nature of the dependent variable, the most appropriate empirical tests utilize binary response models, specifically a probit or logit model. I use a logit model. The tests of forecast issuance take the form:

$$Pr(Forecast_t) = \beta_0 + \beta_1 Form_t + \mathbf{x_t}\boldsymbol{\beta} + \varepsilon_t, \tag{5}$$

where $Form$ is either the multi-segment dummy variable $Multi$ or the entropy measure of diversification $Entropy$, and $\mathbf{x_{t-1}}$ is a vector containing control variables.

Table 5 provides results that are consistent with Hypothesis 1 for various iterations of Equation 5 using $Multi$ as a measure of diversification. All of the models show that the diversified corporate form is associated with a greater propensity to issue a forecast. In the first column of results, the positive and significant (at the 1% level) coefficient of 0.286 for $Multi_{t-1}$ translates to a 7% marginal effect for a diversified firm. The other columns present the results with various proprietary cost proxies. The label at the top of each column indicates the proprietary cost (PC) measure used. MB is negative and significant in all of the models except the one that includes RD as a control. Additionally, all of the other PCs are significant at the 1% level and the sign of the coefficient indicates that an increase in proprietary costs is correlated with a decrease in the propensity to issue a forecast. For example, the positive coefficient for HI in the second column of results indicates that higher industry concentration, which proxies for lower proprietary costs, is positively related to the propensity to issue a forecast. The negative coefficient for RD, a positively correlated proxy for proprietary costs, indicates that higher RD is correlated with a lower propensity of issuing a forecast. These results provide support for the proprietary cost hypothesis

and for Hypothesis 1.

The results in Table 5 are consistent across models with respect to the control variables. The coefficients for $Size$ are positive and significant at the 1% level, indicating that larger firms are associated with higher odds of issuing a forecast, perhaps because size is a proxy for diversification as in Harris (1998). The negative coefficients for $NegEarn$ are contrary to arguments that firms with negative earnings attempt to avoid litigation resulting from poor performance by being more transparent via disclosures. However, $LitInd$ is positive and significant in almost all cases, and the inclusion of $LitInd$ makes the interpretation of $NegEarn$ different with respect to litigation exposure. Consistent with earlier studies, recent firm performance, as proxied by ROE, is positive and significant at the 1% level in all models.

Table 6 shows that using $Entropy$ as the diversification proxy produces very similar results to those found using $Multi$. The results for the control variables are almost identical to the results using $Multi$ as the diversification indicator.

B.2. Valuation Effects

The next tests that I perform are related to the potential benefits of voluntary disclosure. Firms that successfully lower the level of information asymmetry surrounding their firm should enjoy higher valuations. Moreover, diversified firms that are considered more opaque may benefit more from such disclosures than their less opaque focused peers. Although all firms would be expected to gain value if they commit to higher levels of disclosure and disclosure decreases the cost of capital, diversified firms may benefit even more from disclosure if they have characteristics causing their cost of capital to be higher relative to focused firms.

I use the excess value measure to assess valuation differences between diversified and focused firms. Excess value (EV) is calculated using a log ratio of reported total capital (market value of equity plus book value of debt) to the imputed value for the firm. The imputed value is computed by multiplying the median ratio of total capital to sales for focused firms in a segment's industry by the segment's reported sales and then summing over the number of segments in the firm.[18]

[18]I do not use the asset- or EBIT-multiplier approach for excess value. I forego the former because

I test Hypothesis 2 and Hypothesis 3 using the following regression:

$$EV_t = \alpha + \beta_0 Multi_t + \beta_1 Disc_t + \beta_1 MultiX Disc_t + \mathbf{x4_t}\boldsymbol{\beta} + \varepsilon_t, \tag{6}$$

where $Disc$ is a disclosure level equal to firm-level number of forecasts provided ($NForecast$) or within industry percentile rank of $Lead$, $Spec$, or $Error$ for fiscal year t. Typical control variables for regressions involving excess value are included in $\mathbf{x4_t}$.

As is evident in Table 7, the results for these tests depend on which measure of disclosure is used. I use ordinary least squares for all of the models controlling for year fixed effects and clustering standard errors by firm. Consistent with Hypothesis 2 the coefficients for $Lead$, $Spec$, and $|Error|$ indicate higher excess values for those firms with more revealing disclosure policy.[19] However, there are mixed results for Hypothesis 3. While the model including $NForecast$ supports the hypothesis that diversified firms reap greater benefits of disclosure, the results for $Error$ and $|Error|$ show the opposite. The lack of a convincing result for Hypothesis 3 lends some support to the argument that the higher propensity of providing a forecast for diversified firms found in earlier tests is related to the proprietary cost hypothesis.

B.3. Matched Sample

Although a number of recent academic studies use the FirstCall CIG database for guidance forecasts, there are some sample selection concerns with the firms covered. Lansford, Lev, and Tucker (2010) provide an appendix to their work showing that firms providing "soft" guidance information are less likely to be covered in the CIG. Moreover, Chuk, Matsumoto, and Miller (2009) provide evidence that firms providing guidance with greater $Lead$ or lower $Spec$, among other characteristics, tend to be missing from the CIG database. For this to be a factor in the results presented here, the omissions from the CIG would have to be systematically related to diversification status or proprietary costs.

the allocation of assets to segments is problematic after the passing of SFAS No. 131, and the latter because EBIT is often missing in the segment data. Appendix B provides greater detail on the formula used to calculate excess value.

[19] A higher ranking for $|Error|$ indicates a higher error on average versus industry peers and therefore is an inverse measure of disclosure.

To allay these concerns I change how I determine the sample that did not issue a guidance forecast. Namely, I use coarsened exact matching to construct the non-forecasting firms from firms that are matched to those in the FirstCall CIG using a number of criteria. I follow Coller and Yohn (1997) and match firms on market value of equity, two-digit SIC code, fiscal year, and primary exchange. I use coarsened exact matching to exactly match on the latter three characteristics and to match within a range for the market value of equity.

As shown in Table 8, the results using this adapted sample fully support the finding that diversified firms are more likely to issue a forecast. The signs and significance levels of the coefficients are very similar to those in Table 5.

B.4. Diversification Decision

The decision to diversify has been shown to be a factor in analyzing the effects of diversification status. Campa and Kedia (2002) and Villalonga (2004) provide evidence that the results of earlier studies using diversification indicators as exogenous measures are erased or even reversed when variables correlated with the decision to diversify and the dependent variable in those studies are included in the empirical framework. Although the analysis above appears to support Hypothesis 1 that diversified firms are more likely to issue a forecast, endogeneity of the diversification decision could result in biased estimates and erroneous inferences.

I address this endogeneity by fitting a probit model that allows for instrumentation of a continuous endogenous explanatory variable. Since the implementation of instrumenting a binary endogenous explanatory variable in a binary response model has some weaknesses, I perform tests using the continuous variable *Entropy* rather than *Multi* as a proxy for diversification. As instruments for *Entropy*, I use three measures that have been supported in the literature. Campa and Kedia (2002) note that there are many reasons why a particular industry may be more attractive to a particular corporate form. In particular, they mention industry regulation as a potential factor. I use their measures to capture this potential effect. $PSDIV$ is the fraction of sales within an industry that come from diversified firms after omitting the sales from the subject firm. Industry is measured at the two-digit level in Campa and Kedia (2002), but I use the three-digit and the four-digit level to allow for comparison with other

measures. Also, I use a sales-weighted average of the measures, which affects the values for multiple-segment firms. These measures are constructed to be positively associated with industry attractiveness for diversified firms. Following Dimitrov and Tice (2006), I also include minority interest as shown on the balance sheet (MIB) as an instrument for the decision to diversify. MIB is a dummy variable that equals one if the firm has non-zero minority interest on its balance sheet. This indicates that the firm owns a majority of another firm and therefore has an interest in that firm.

Table 9 shows the second stage results of this test. Four of the six models have coefficients for *Entropy* that are positive and significant in agreement with Table 6 and in support of diversified firms being more likely to provide a forecast. The models using the industry-level proprietary cost measures of HI and *SpeedAdj* show positive coefficients for instrumented *Entropy*, but those coefficients are not significantly different from zero. The lack of results for these particular models weakens my previous findings, but perhaps some identification issue is driving these results. Perhaps one indication of this is the fact that segment sales-weighted $HIwtd$ is positive and significant while the pure industry-level measure HI is not. As with previous tests, all of the models show that PC are negatively associated with the propensity to forecast.

C. Empirical Issues and Robustness Tests

C.1. Regulatory Robustness

There are two regulatory changes that occurred over the period of this study that have been shown to affect diversification and disclosure. For financial statements for periods beginning after December 15, 1997, SFAS No. 131 requires public companies to meet new segment reporting regulations. Regulation Fair Disclosure, effective as of October 23, 2000, was accompanied by marked changes in forecasts provided to the public (Healy (2007)). The former rule change is addressed in two ways. First, Compustat has back-filled segment data prior to the rule change to make it comparable to data after the rule change. Second, I remove extraneous segments with no sales and those that were created to represent "corporate" rather than a true business segment. I address the latter rule change using an indicator variable to study how the rule affected voluntary disclosure policy. Brown, Hillegeist, and Lo

(2005) follow this technique for the implications of Reg FD on the determinants of disclosures.

To the extent that these rule changes increased transparency, diversified firms would be expected to lose some of their proprietary cost advantage, and the effects of diversification and proprietary costs noted in Hypothesis 1 would be diminished.[20]

Table 10 shows that the previous results from Table 5 in support of Hypothesis 1 are no longer present after explicit consideration of RegFD. The indicator $RegFD$ is positive and significant in all of the models indicating that all firms are more likely to disclose after the rule was adopted than before. Also, as expected, the coefficients for the diversification indicator have been diminished in value and significance. However, all of the proprietary cost measures remain significant and indicate a negative relationship between proprietary costs and disclosure.

C.2. Forecast Obfuscation

Firms have considerable latitude in the level of voluntary disclosure they provide even if they have decided to definitely issue a forecast. In this section, I study the timing, specificity, and accuracy of forecasts with attention to how these attributes of a forecast are affected by proprietary costs differences between focused and diversified firms. Higher proprietary costs of voluntary disclosure for a focused firm may motivate the firm to refrain from providing guidance or to obfuscate it. The following hypotheses provide testable implications for such obfuscation:

Hypothesis 4. *Conditional on issuing an earnings forecast,*

(a) Focused firms provide the forecast later in the forecast window than diversified firms;
(b) Focused firms offer lower earnings forecast specificity than diversified firms;
(c) Focused firms provide forecasts with greater differences from actual earnings than diversified firms.

Additional measures of voluntary disclosure decisions provide at best mixed results

[20]The Private Securities Litigation Reform Act of 1995 expanded the safe-harbor protection to firms for disclosing forward-looking information, but the implementation of this Act did not occur until late in 1995 and therefore should not drastically impact the results of my sample.

on the question of whether focused firms obfuscate their forecasts. It appears from Fig. 4 that for diversified firms *Error* is lower and *Lead* is higher, both indications that diversified firms provide information more readily than focused firms. *Spec* seems to almost identical between diversified and focused firms over the years. As shown in Fig. 3, a notable increase in *Lead* is evident in annual and quarterly forecasts in the earlier years of the sample indicating that firms increased the time between their forecasts and the fiscal period end. Moreover, values for *Error* indicate that management forecasts of EPS are greater than what is ultimately revealed, which is consistent with a bias toward positive information in voluntary forecasts as shown in Rogers and Stocken (2005). However, *Error* has decreased substantially since 2001.

Table 11 statistically confirms some of the appearances in the figures by showing significant differences for annual forecasts not only between *Error* and *Lead*, but also $NForecast$ and $|Error|$. For quarterly forecasts only $NForecast$ is significantly different between focused and diversified firms.

I test Hypotheses 4(a)–4(c) using a similar framework to Eq. 5. I use *Lead*, *Spec*, and *Error* as forecast-level dependent variables as shown respectively in the equations below:

$$Lead_t = \alpha + \beta_0 Multi_t + \mathbf{x1_t}\boldsymbol{\beta} + \varepsilon_t \tag{7}$$

$$Spec_t = \alpha + \beta_0 Multi_t + \mathbf{x2_t}\boldsymbol{\beta} + \varepsilon_t \tag{8}$$

$$abs(Error_t) = \alpha + \beta_0 Multi_t + \mathbf{x3_t}\boldsymbol{\beta} + \varepsilon_t \tag{9}$$

where $Multi$ is the diversification dummy variable. The control variables in the vector $\mathbf{x1_{t-1}}$ and $\mathbf{x3_{t-1}}$ are the same as in Eq. 5. Following Ajinkya, Bhojraj, and Sengupta (2005), I include *Lead* as an additional control variable for $\mathbf{x2_{t-1}}$. In each case, I also provide test results after adjusting the dependent variable by the three-digit SIC code median industry value.

There are differences from earlier tests with respect to the data set used and empirical methodology as well. For these tests I use forecast-level data rather than firm-level data, and tests are divided by periodicity (annual or quarterly). Other studies take the approach of removing periodicity as a concern by focusing on either annual or quarterly forecasts. This delineation is especially important when looking at variables such as *Lead*, which is obviously different for annual and quarterly

forecasts. Since these dependent variables are not discrete response models, different empirical methods are required. Ordinary least squares (OLS) is a reliable technique for Eq. 7 and for all of the industry adjusted regressions. OLS eases the use of advanced empirical methods such as fixed effects and instrumental variables, especially in the case of endogenous binary explanatory variables. An ordered probit is the best methodology for Eq. 8, which has a dependent variable that equals 1, 2, 3, or 4. Since $|Error|$ is censored below at zero, I use a tobit model for Eq. 9.

In short, multivariate test results do not support any obfuscation of forecasts by focused firms. In fact, many of the results shown in Tables 12–17 lack consistent results for a particular control variable. These varying results may be caused by weakness in the empirical method that conditioning on a forecast causes. There is obvious evidence that firms that forecast are significantly different from those that do not. In future research, I intend to find a more appropriate way to address the endogeneity of the forecast decision along with the endogeneity of the diversification decision.

5. Conclusion

In disclosing information to the public that is not mandatory, a diversified firm has a choice: provide segment-level details or provide aggregate information. Focused firms do not enjoy this option. A focused firm disclosure can be more accurately allocated to a particular business or industry allowing competitors to react more readily. This situation creates the potential for additional proprietary costs suffered by focused firms that are not incurred by diversified firms. If the proprietary cost of voluntary disclosures hypothesis posited in Verrecchia (1983) holds, focused firms could refrain from voluntary disclosures without the fear of incurring a market discount, resulting in a lower propensity to provide voluntary disclosure for focused firms.

Using voluntary disclosures from the FirstCall Company Issued Guidance database, I show that focused firms are less likely than diversified firms to issue a forecast. Even after controlling for other variables that are known to affect the issuance of a forecast (e.g., recent performance, size, analyst coverage), a focused firm is less likely to issue a forecast than a diversified firm. All measures of proprietary costs affect the likelihood of providing guidance in the expected direction. For example, firms operating in more concentrated industries are more likely to provide guidance, and firms with more investment in research and development are less likely to disclose. However, the inclusion of proprietary cost measures does not remove the significance of the diversification status of the firm. Focused firms remain less likely to disclose.

I use regressions of excess value on disclosure measures and diversification proxies to test whether diversified firms are more likely to disclose because they have more to gain from lowering their increased information asymmetry relative to focused firms. The results show that more informative disclosures do tend to be positively associated with excess value, but there is limited evidence of a differential effect for diversified firms. In fact, for disclosure measures constructed using management forecast error, diversified firms with less informative disclosures have higher excess value on average. These results generally indicate that diversified firms do not gain more from disclosure.

Additional tests of the propensity to issue a forecast yield mixed results. Using a matched sample the results fully support a lower propensity of disclosure for focused firms, and the proxies for proprietary cost indicate a negative relationship between

proprietary costs and disclosure. After considering the endogenous decision to diversify, the results are not so clear. When instrumenting the continuous diversification indicator *Entropy*, most of the models show that focused firms are less likely to disclose. Tests incorporating the adoption of RegFD in late 2000 show that all firms were more likely to voluntarily disclose after RegFD was adopted. In these tests, the diversification status and its interaction have the expected positive sign, but neither is significant. Taken together, these additional tests provide more evidence that diversified firms are more likely to disclose, although the result does not hold in every case.

When firms decide to provide guidance they have additional discretion over what level of detail to provide to the public. The same proprietary cost difference that may be driving focused firms to limit the instances of their voluntary disclosures could also result in less informative disclosures from focused firms as a way to obfuscate their news. In the results presented, I show that this does not seem to be the case. Tests analyzing the time between earnings forecast and earnings announcement, the specificity of the earnings-per-share (EPS) estimate provided, and the difference between forecasted and actual EPS do not yield a consistent result. Moreover, the sign and significance of many of the control variables are different from the results analyzing the issuance of a forecast.

Here again, the econometric method could be an important factor. Those firms choosing to provide a forecast are obviously different from those that do not (as seen in earlier tests). This endogeneity must be addressed. Additionally, after a decision to issue a forecast is made, the characteristics of that forecast are simultaneously determined. My tests do not control for these issues yet, which could definitely change my results.

This study provides ample indication that further study of the voluntary (and mandatory) disclosure environment is warranted. Regulation that is written to consider the competitive disadvantage of a diversified firm disclosing segment information should also consider the fact that focused firms are always revealing their "segment" information in full.

Appendix A. Variable Descriptions

Variable	Definition
Forecast	Dummy variable equal to 1 if the firm offered guidance and 0 otherwise
NForecast	Number of forecasts provided by a firm per fiscal year
Lead	Average elapsed days from guidance announcement to fiscal period end
Spec	The specificity of the guidance: 1 is qualitative; 2 is open-ended; 3 is range; and 4 is point
Error	Difference between the forecast and actual earnings per share, normalized by the most recent end-of-quarter share price, multiplied by 100, and winsorized at 1%
Multi	Dummy variable equal to 1 if firm has multiple segments and 0 otherwise
Entropy	A measure of firm diversification based on the dispersion of sales across segments
Conc4Firm	Proportion of sales in a three-digit SIC code industry coming from the top four producers by sales
HI	Firm-level sales-based Herfindahl Index at the 3-digit SIC code level
SpeedAdj	Speed of abnormal profit adjustment as calculated in Eq. 2
EarnVol	Standard deviation of 12 quarters of earnings measured at the end of the fiscal period before the management forecast date winsorized at 1%
MB	Log of the equity market to book ratio
MShare	Firm three-digit SIC code industry sales market share as a percentile rank
PMargin	Firm three-digit SIC code industry profit margin (EBIT/Sales) winsorized at 1% as a percentile rank
RD	Research and development yearly expense over total assets
HIwtd	Weighted average firm Herfindahl Index using segment sales at the 3-digit SIC code level
MShareSeg	Within-firm sales-weighted three-digit segment SIC code industry sales market share as a percent rank, scaled to 0–100
Volatility	Standard deviation of monthly market-adjusted returns over the 36 months before the management forecast
Size	Log of total yearly assets
NegEarn	Dummy variable equal to 1 if earnings for a given period are negative

(Continues on the next page.)

(Variable descriptions continued)

Variable	Definition
$NegEarnG$	Dummy variable equal to 1 if earnings growth (the difference in earnings) is negative
ROE	Return on equity, calculated as earnings over book equity, winsorized at 2%
$LitInd$	Dummy equal to 1 if the firm is in an industry that is prone to litigation: SIC=2833–2836, 8731–8734, 3570–3577, 7370–7374, 3600–3674, and 5200–5961
$NumEst$	Number of analyst with active estimates before the release of the management forecast
$Dispersion$	Standard deviation of active estimates before the release of the management forecast winsorized at 1%
$RegFD$	Dummy variable equal to 1 if the management forecast date is after October 23, 2000
$SFAS131$	Dummy variable equal to 1 if the subject fiscal period end of the forecast is after December 15, 1998
$PSDIV$	For each firm and three-digit SIC code industry, the sales-weighted average proportion of sales coming from diversified firms excluding the subject firm
$MinInt$	Minority interest dummy indicating whether the firm has ...

Appendix B. Additional Variable Definitions

Specificity Definition

Specificity	Value	Rule
Point	4	Number estimate given with no qualifications such as "greater than," "less than," "no more than," or "at least."
Range	3	Provides both ends of estimate interval, usually with "between"
Open-interval	2	Number estimate given with some indication that the forecast is unbounded at one end
Qualitative	1	All remaining forecasts

Excess Value Definition

To calculate excess value (EV) I use the following formulas (Berger and Ofek, 1995, page 60):

$$I(V) = \sum_{i=1}^{n} AI_i * (Ind_i(\frac{V}{AI})_{mf})$$

$$EV = \ln(V/I(V))$$

where

$I(V)$	=	imputed value,
V	=	firm total capital (market value of equity at the end of the calendar year t plus book value of debt at the end of the firm fiscal year t),
AI	=	accounting item (sales at the end of the firm fiscal year t),
$Ind_i(\frac{V}{AI})_{mf}$	=	ratio of total capital to an accounting item for the median focused firm in the same industry as segment i,
n	=	the number of segments in segment i's firm at the end of the firm fiscal year t.

The matched segment median value comes from the finest SIC code level (2-, 3-, or 4-digit) with at least five focused firms.

References

Aboody, David, and Ron Kasznik, 2000, CEO stock option awards and the timing of corporate voluntary disclosures, *Journal of Accounting and Economics* 29, 73–100.

Ahn, Seoungpil, and David Denis, 2004, Internal Capital Markets and Investment Policy: Evidence from Corporate Spinoffs, *Journal of Financial Economics* 71, 489–516.

Ajinkya, Bipin, Sanjeev Bhojraj, and Partha Sengupta, 2005, The Association between Outside Directors, Institutional Investors and the Properties of Management Earnings Forecasts, *Journal of Accounting Research* 43, 343–376.

Ali, Ashiq, Sandy Klasa, and Eric Yeung, 2009, The Limitations of Industry Concentration Measures Constructed with Compustat Data: Implications for Finance Research, *Review of Financial Studies* 22, 3839–3871.

Anilowski, Carol, Mei Feng, and Douglas J. Skinner, 2007, Does earnings guidance affect market returns? The nature and information content of aggregate earnings guidance, *Journal of Accounting and Economics* 44, 36–63 Conference Issue on Corporate Governance: Financial Reporting, Internal Control, and Auditing.

Axelson, Ulf, 2007, Security Design with Investor Private Information, *Journal of Finance* 62, 2587–2632.

Baginski, Stephen P., Edward J. Conrad, and John M. Hassell, 1993, The Effects of Management Forecast Precision on Equity Pricing and on the Assessment of Earnings Uncertainty., *Accounting Review* 68, 913–927.

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

Bamber, Linda Smith, and Youngsoon Susan Cheon, 1998, Discretionary management earnings forecast disclosures: Antecedents and outcomes associated with forecast venue and forecast specificity choices, *Journal of Accounting Research* 36, 167–190.

Barry, Christopher B., and Stephen J. Brown, 1985, Differential Information and Security Market Equilibrium, *Journal of Financial and Quantitative Studies* 20, 407–422.

Barth, Mary E., Yaniv Konchitchki, and Wayne R. Landsman, 2008, Cost of Capital and Earnings Transparency, Working paper, Stanford Univ., Univ. of Southern California, and Univ. of North Carolina Chapel Hill.

Bens, Daniel, and Steven Monahan, 2004, Disclosure Quality and the Excess Value of Diversification, *Journal of Accounting Research* 42, 691–730.

Berger, Philip, and Rebecca Hann, 2003, The Impact of SFAS No. 131 on Information and Monitoring, *Journal of Accounting Research* 41, 163–223.

Berger, Philip, and Rebecca Hann, 2007, Segment Profitability and the Proprietary and Agency Costs of Disclosure, *Accounting Review* 82, 869–906.

Berger, Philip, and Eli Ofek, 1995, Diversification's Effect on Firm Value, *Journal of Financial Economics* 37, 39–65.

Bernhardt, Dan, and Murillo Campello, 2007, The Dynamics of Earnings Forecast Management, *Review of Finance* 11, 287–324.

Bhattacharya, Sudipto, and Jay R. Ritter, 1983, Innovation and Communication: Signalling with Partial Disclosure., *Review of Economic Studies* 50, 331–346.

Botosan, Christine A., and Marlene A. Plumlee, 2002, A Re-Examination of Disclosure Level and the Expected Cost of Equity Capital, *Journal of Accounting Research* 40, 21–40.

Botosan, Christine A., Marlene A. Plumlee, and Yuan Xie, 2004, The Role of Private Information Precision In Determining Cost of Equity Capital, *Review of Accounting Studies* 9, 000–000.

Botosan, Christine A., and Mary Stanford, 2005, Managers' Motives to Withhold Segment Disclosures and the Effect of SFAS No. 131 on Analysts' Information Environment., *Accounting Review* 80, 751–771.

Brockman, Paul, Inder Khurana, and Xiumin Martin, 2008, Voluntary Disclosures around Actual Share Repurchases, *Journal of Financial Economics* 89, 175–191.

Brockman, Paul, Xiumin Martin, and Andy Puckett, 2008, Voluntary Disclosures and the Exercise of CEO Stock Options, Working paper, Univ. of Missouri (1+3) and Washington Univ. (2).

Brown, Stephen, and Stephen A. Hillegeist, 2007, How Disclosure Quality Affects the level of Information Asymmetry, *Review of Accounting Studies* 12, 443–477.

Brown, Stephen, Stephen A. Hillegeist, and Kin Lo, 2005, Management Forecasts and Litigation Risk, Working paper, Emory Univ., Northwestern Univ., and Univ. of British Columbia.

Campa, Jose Manuel, and Simi Kedia, 2002, Explaining the Diversification Discount, *Journal of Finance* 57, 1731–1762.

Cao, Yan, Charles E. Wasley, and Joanna S. Wu, 2007, Soft-Talk Management Cash Flow Forecasts: Verifiability, Credibility and Stock Price Effects, Working paper, Cornerstone Research and University of Rochester.

Chuk, Elizabeth, Dawn Matsumoto, and Greg Miller, 2009, Assessing Methods of Identifying Management Forecasts: CIG vs. Hand-Collection, Working paper, Univ. of Washington, Univ. of Washington, Univ. of Michigan.

Clarke, Jonathan E., C. Edward Fee, and Shawn Thomas, 2004, Corporate Diversification And Asymmetric Information: Evidence From Stock Market Trading Characteristics, *Journal of Corporate Finance* 10, 105–129.

Coles, Jeffrey L., Uri Loewenstein, and Jose Suay, 1995, On Equilibrium Pricing under Parameter Uncertainty., *Journal of Financial and Quantitative Studies* 30, 347–364.

Coller, Maribeth, and Teri Lombardi Yohn, 1997, Management Forecasts and Information Asymmetry: An Examination of Bid-Ask Spreads, *Journal of Accounting Research* 35, 181–191.

Core, John E., 2001, A Review Of The Empirical Disclosure Literature: Discussion, *Journal of Accounting and Economics* 31, 441–456.

Darrough, Masako N., and Neal M. Stoughton, 1990, Financial Disclosure Policy In An Entry Game, *Journal of Accounting and Economics* 12, 219–243.

Diamond, Douglas, 1985, Optimal Release of Information By Firms, *Journal of Finance* 40, 1071–1094.

Diamond, Douglas W., and Robert E. Verrecchia, 1991, Disclosure, Liquidity, and the Cost of Capital, *Journal of Finance* 46, 1325–1359.

Dimitrov, Valentin, and Sheri Tice, 2006, Corporate Diversification and Credit Constraints: Real Effects across the Business Cycle, *Review of Financial Studies* 19, 1465–1498.

Dye, Ronald A., 1990, Mandatory Versus Voluntary Disclosures: The Cases of Financial and Real Externalities, *Accounting Review* 65, 1–24.

Dye, Ronald A., 1998, Investor Sophistication and Voluntary Disclosures., *Review of Accounting Studies* 3, 261–287.

Dye, Ronald A., 2001, An Evaluation of "Essays on Disclosure" and the Disclosure Literature in Accounting, *Journal of Accounting and Economics* 32, 181–235.

Dye, Ronald A., and Sri S. Sridhar, 1995, Industry-Wide Disclosure Dynamics, *Journal of Accounting Research* 33, 157–174.

Financial Accounting Standards Board, 1976, *Financial Reporting for Segments of a Business*. (Statement of Financial Accounting Standards No. 14, Norwalk, CT).

Financial Accounting Standards Board, 1997, *Disclosures about Segments of an Enterprise and Related Information*. (Statement of Financial Accounting Standards No. 131, Norwalk, CT) original pronouncements as amended edn.

Gennotte, G., and Brett Trueman, 1996, The Strategic Timing Of Corporate Disclosures, *Review of Financial Studies* 9, 665–690.

Grossman, S. J., and O. D. Hart, 1980, Disclosure Laws and Takeover Bids, *Journal of Finance* 35, 323–334.

Hadlock, Charles J., Michael Ryngaert, and Shawn Thomas, 2001, Corporate Structure and Equity Offerings: Are There Benefits to Diversification?, *Journal of Business* 74, 613–635.

Harris, Mary Stanford, 1998, The Association between Competition and Managers' Business Segment Reporting Decisions, *Journal of Accounting Research* 36, 111–128.

Hayes, Rachel M., and Russel Lundholm, 1996, Segment Reporting to the Capital Market in the Presence of a Competitor, *Journal of Accounting Research* 34, 261–279.

Healy, Paul M., 2007, How did Regulation Fair Disclosure Affect the US Capital Market? A Review of the Evidence, Working paper, Harvard Business School.

Healy, Paul M., and Krishna G. Palepu, 2001, Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature, *Journal of Accounting and Economics* 31, 405–440.

Hope, Ole-Kristian, and Wayne B. Thomas, 2008, Managerial Empire Building and Firm Disclosure, *Journal of Accounting Research* 46, 591–626.

Hund, John, Donald Monk, and Sheri Tice, 2010, Uncertainty about Average Profitability and the Diversification Discount, *Journal of Financial Economics* 96, 463–484.

Hutton, Amy P., Gregory S. Miller, and Douglas J. Skinner, 2003, The Role of Supplementary Statements with Management Earnings Forecasts, *Journal of Accounting Research* 41, 867–890.

Jacquemin, Alexis P., and Charles H. Berry, 1979, Entropy Measure of Diversification and Corporate Growth, *Journal of Industrial Economics* 27, 359–369.

Jensen, Michael C., 1986, Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *American Economic Review* 76, 323–329.

Jones, Denise A., 2007, Voluntary Disclosure in R&D-Intensive Industries, *Contemporary Accounting Research* 24, 489–522.

Kothari, S.P., Susan Shu, and Peter D. Wysocki, 2009, Do Managers Withhold Bad News?, *Journal of Accounting Research* forthcoming, 000–000.

Krishnaswami, Sudha, and Venkat Subramaniam, 1999, Information Asymmetry, Valuation, and the Corporate Spin-off Decision, *Journal of Financial Economics* 53, 73–112.

Lambert, Richard, Christian Leuz, and Robert E. Verrecchia, 2007, Accounting Information, Disclosure, and the Cost of Capital, *Journal of Accounting Research* 45, 385–420.

Lamont, Owen, 1997, Cash Flow and Investment: Evidence from Internal Capital Markets, *Journal of Finance* 52, 83–109.

Lamont, Owen, and Christopher Polk, 2001, The Diversification Discount: Cash Flows Versus Returns, *Journal of Finance* 56, 1693–1722.

Lamont, Owen, and Christopher Polk, 2002, Does Diversification Destroy Value? Evidence from the Industry Shocks, *Journal of Financial Economics* 63, 51–77.

Lang, Mark H., and Russell J. Lundholm, 1996, Corporate Disclosure Policy and Analyst Behavior, *Accounting Review* 71, 467–492.

Lansford, Benjamin, Baruch I. Lev, and Jenny Tucker, 2010, Causes and Consequences of Disaggregating Earnings Guidance, Working paper series Northwestern Univ., New York Univ., and Univ. of Florida.

Matsumoto, Dawn A., 2002, Management's Incentives to Avoid Negative Earnings Surprises, *Accounting Review* 77, 483–514.

Merton, Robert C., 1987, A Simple Model of Capital Market Equilibrium with Incomplete Information, *Journal of Finance* 42, 483–510.

Milgrom, Paul R., 1981, Good news and bad news: representation theorems and applications, *The Bell Journal of Economics* 12, 380–391.

Miller, Gregory S., 2002, Earnings Performance and Discretionary Disclosure, *Journal of Accounting Research* 40, 173–204.

Mitton, Todd, and Keith Vorkink, 2008, Why Do Firms With Diversification Discounts Have Higher Expected Returns?, Working paper, Brigham Young University.

Myers, Stewart C., and Nicholas S. Majluf, 1984, Corporate Financing And Investment Decisions When Firms Have Information That Investors Do Not Have, *Journal of Financial Economics* 13, 187–221.

Nichols, D. Craig, 2009, Proprietary Costs and Other Determinants of Nonfinancial Disclosures, Working paper series Cornell University.

Noe, Christopher F., 1999, Voluntary Disclosures and Insider Transactions, *Journal of Accounting and Economics* 27, 305–326.

Rajan, Raghuram, Henri Servaes, and Luigi Zingales, 2000, The Cost of Diversity: The Diversification Discount and Inefficient Investment, *Journal of Finance* 55, 35–80.

Rogers, Jonathan L., and Phillip C. Stocken, 2005, Credibility of Management Forecasts, *Accounting Review* 80, 1233–1260.

Sanzhar, Sergey V., 2006, Discounted But Not Diversified: Organizational Structure and Conglomerate Discount, Working paper, University of North Carolina.

Scharfstein, David, and Jeremy Stein, 2000, The Dark Side of Internal Capital Markets: Divisional Rent-seeking and Inefficient Investment, *Journal of Finance* 55, 2537–2564.

Schrand, Catherine M., and Beverly R. Walther, 1998, Discretionary Reporting of Earnings Components, Working paper, Univ. of Pennsylvania and Northwestern Univ.

Securities and Exchange Commission, 2000, Selective Disclosure and Insider Trading, *Final Rule,* http://www.sec.gov/rules/final/33-7881.htm.

Shin, Hyun Song, 2006, Disclosure Risk and Price Drift, *Journal of Accounting Research* 44, 351–379.

Shleifer, Andrei, and Robert W. Vishny, 1989, Management Entrenchment : The Case of Manager-specific Investments, *Journal of Financial Economics* 25, 123–139.

Thomas, Shawn, 2002, Firm Diversification and Asymmetric Information: Evidence from Analysts' Forecasts and Earnings Announcements, *Journal of Financial Economics* 64, 373–396.

Verrecchia, Robert E., 1983, Discretionary Disclosure, *Journal of Accounting and Economics* 5, 179–194.

Verrecchia, Robert E., 2001, Essays on Disclosure, *Journal of Accounting and Economics* 32, 97–180.

Villalonga, Belén, 2004, Does Diversification Cause the "Diversification Discount"?, *Financial Management* 33, 5–27.

Wang, Isabel Yanyan, 2007, Private Earnings Guidance and Its Implications for Disclosure Regulation, *Accounting Review* 82, 1299–1332.

Wooldridge, Jeffrey M., 2002, *Econometric Analysis of Cross Section and Panel Data.* (The MIT Press).

Table 1: Descriptive Statistics—Full FirstCall Sample

The following table provides summary statistics for annual and quarterly earnings forecasts for from the FirstCall Company Issued Guidelines database tabulated by the fiscal year at the time of the forecast. The data represent companies' forecasts of earnings per share for U.S. common stock in U.S. dollars. Each column heading has the statistic measured above the variable name. $NForecast$ is the number of forecasts per firm per fiscal year.

	Panel A: Annual Forecasts			Panel B: Quarterly Forecasts		
Fiscal Year	Count Forecasts	Count Firms	Mean $NForecast$	Count Forecasts	Count Firms	Mean $NForecast$
1994	45	42	1.1	162	147	1.2
1995	271	217	1.5	500	426	1.3
1996	457	359	1.6	1,039	813	1.6
1997	685	509	1.8	1,517	1,123	1.7
1998	1,245	776	2.3	2,425	1,551	2.1
1999	1,767	1,017	2.6	2,997	1,757	2.4
2000	1,776	1,004	2.7	3,016	1,759	2.5
2001	3,438	1,452	3.8	5,432	2,143	4.1
2002	4,500	1,446	4.7	5,363	1,837	4.8
2003	4,987	1,463	5.0	5,053	1,546	5.9
2004	5,576	1,546	5.1	5,052	1,469	5.6
2005	5,396	1,397	5.3	4,503	1,280	5.6
2006	5,617	1,443	5.3	4,293	1,243	5.3
2007	5,334	1,358	5.2	3,766	1,080	5.2
2008	5,090	1,143	5.9	3,298	909	5.2
Total	46,184	15,172	4.72	48,416	19,083	4.46

Table 2: Descriptive Statistics—Test Sample

The following table provides summary statistics for annual company issued earnings per share forecasts for the sample meeting screening requirements tabulated by fiscal year at the time of the forecast. Panel A provides results for single-segment ("focused") firms, and Panel B provides results for multiple-segment ("diversified") firms. The data represent forecasts of earnings per share for U.S. common stock in U.S. dollars. Each column heading has the statistic measured above the variable name. "Nonforeasting" indicates that a firm is not present in the FirstCall Company Issued Guidance database, but it is present in Compustat. $NForecast$ is the number of forecasts per firm per fiscal year.

	Panel A: Focused Firms				Panel B: Diversified Firms			
Fiscal Year	Count Nonforecasting	Count Forecasts	Count Firms	Mean $NForecast$	Count Nonforecasting	Count Forecasts	Count Firms	Mean $NForecast$
1994	4,721	26	24	1.2	941	8	8	1.0
1995	5,071	143	122	1.3	915	44	32	1.9
1996	5,062	273	219	1.5	828	71	57	1.6
1997	4,698	415	311	1.7	782	76	58	1.7
1998	3,806	507	351	1.9	1,012	290	158	2.8
1999	3,353	545	349	2.2	1,014	404	214	2.9
2000	3,318	620	369	2.7	965	462	245	2.9
2001	2,522	1,245	593	3.2	709	786	330	3.4
2002	2,106	1,556	549	4.4	595	959	294	4.6
2003	2,214	1,961	610	4.8	631	1,069	297	5.0
2004	2,123	2,364	682	4.8	616	1,216	309	5.2
2005	2,159	2,206	593	5.1	618	1,254	285	5.7
2006	2,043	2,321	620	4.9	563	1,303	298	5.5
2007	1,972	2,244	588	4.8	575	1,210	268	5.5
2008	1,702	2,130	500	5.4	500	1,309	277	6.0
Totals	46,870	18,556	6,480	4.4	11,264	10,461	3,130	4.9

Table 3: Correlation Matrix of Proprietary Cost Measures

This table shows the Pearson correlation coefficients for the various proprietary cost proxies considered. The data span 1994–2008 and are derived from Compustat firm- and segment-level databases. Variables are described in Appendix A. The lower triangle shows the correlations coefficients using a pairwise method, while the upper triangle shows the coefficients using a list-wise method. Subscripts indicate the fiscal year of measurement. Superscript stars indicate statistically significant correlations at the levels provided in the legend below the table.

	Industry-Level			Firm-Level				Segment-Based	
	Conc4Firm	HI	SpeedAdj	MB	MShare	PMargin	RD	HIwtd	MShareSeg
Conc4Firm		0.851***	-0.203***	-0.153***	-0.035***	-0.001	-0.264***	0.622***	0.298***
HI_t	0.851***		-0.170***	-0.113***	-0.028***	-0.002	-0.196***	0.620***	0.265***
$SpeedAdj_t$	-0.203***	-0.162***		0.142***	0.030***	0.010**	0.244***	-0.164***	-0.091***
MB_t	-0.152***	-0.109***	0.144***		0.029***	0.074***	0.242***	-0.136***	-0.029***
$MShare_t$	-0.025***	-0.020***	0.024***	0.029***		0.394***	-0.113***	-0.030***	0.272***
$PMargin_t$	0.002	-0.002	0.005	0.074***	0.371***		-0.185***	0.001	0.091***
RD_t	-0.224***	-0.162***	0.210***	0.239***	-0.107***	-0.153***		-0.200***	-0.117***
$HIwtd_t$	0.622***	0.665***	-0.153***	-0.129***	-0.021***	0.003	-0.169***		0.540***
$MShareSeg_t$	0.303***	0.361***	-0.082***	-0.030***	0.263***	0.084***	-0.101***	0.597***	

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 4: Forecasting Status Summary Statistics

This table presents statistics for variables of interest by forecasting status for the firm-level sample for the fiscal years 1994–2008. A firm is considered "Nonforecasting" in a particular fiscal year if it is not represented in the FirstCall Company Issued Guidance database. For each of the variables in the first column, the second and third columns contain the mean on the upper row and the standard deviation on the lower row in parentheses. Variables are described in Appendix A. The "Diff." column indicates the difference between Nonforecasting and Forecasting firm means, and asterisks indicate if the difference is significant at the 10% (*), 5% (**), or 1% (***) level. Subscripts indicate the fiscal year of measurement.

	Nonforecasting_t	Forecasting_t		
	N	N	Total	
$Multi_t = 0$	46,870	11,754	58,624	
$Multi_t = 1$	11,264	4,690	15,954	
	Mean/(sd)	Mean/(sd)	Diff.	N
$Multi_t$	0.194	0.285	-0.091***	74,578
	(0.395)	(0.452)		
$Entropy_t$	0.120	0.179	-0.059***	74,578
	(0.285)	(0.334)		
HI_t	0.150	0.158	-0.008***	74,578
	(0.137)	(0.143)		
$SpeedAdj_t$	0.526	0.550	-0.024***	74,351
	(0.313)	(0.305)		
$PMargin_t$	0.479	0.573	-0.094***	68,345
	(0.306)	(0.278)		
RD_t	0.066	0.052	0.014***	74,555
	(0.193)	(0.091)		
$HIwtd_t$	0.122	0.125	-0.003***	74,578
	(0.132)	(0.132)		
MB_t	0.797	0.796	0.001	65,465
	(1.120)	(0.862)		
$EarnVol_t$	0.056	0.032	0.024***	51,568
	(0.131)	(0.075)		
$Volatility_t$	0.165	0.142	0.023***	44,666
	(0.107)	(0.081)		
$Size_t$	4.586	6.152	-1.565***	74,555
	(2.235)	(1.720)		
$NegEarn_t$	0.419	0.278	0.141***	74,578
	(0.493)	(0.448)		
$NegEarnG_t$	0.390	0.433	-0.043***	74,578
	(0.488)	(0.496)		
ROE_t	-0.248	-0.043	-0.205***	71,869
	(0.830)	(0.541)		
$LitInd_t$	0.328	0.390	-0.062***	74,578
	(0.461)	(0.475)		
$NumEst_t$	3.469	6.212	-2.743***	47,420
	(4.296)	(5.723)		
$Dispersion_t$	0.108	0.066	0.042***	33,984
	(0.215)	(0.147)		

Table 5: Forecast Issuance—Multi-segment

This table contains the coefficients from a logistic regression where the binary outcome is whether or not a firm issued a management forecast in a given fiscal year. Data for management forecasts are derived from the FirstCall Company Issued Guidance database for the time period 1994–2008. Each column heading indicates the proprietary cost measure **PC** used in each model. Other variables are described in Appendix A. The parentheses contain z-statistics adjusted for firm clustering.

		HI	SpeedAdj	RD	HIwtd	MShareSeg
$Multi_t$	0.304***	0.283***	0.294***	0.305***	0.296***	0.306***
	(8.61)	(8.19)	(8.41)	(8.75)	(8.46)	(8.52)
$\mathbf{PC_t}$		0.977***	0.454***	-1.117***	0.814***	1.130***
		(8.97)	(7.96)	(-2.93)	(5.03)	(5.18)
MB_t	-0.104**	-0.0984**	-0.134***	-0.0777	-0.0947**	-0.113***
	(-2.41)	(-2.25)	(-3.17)	(-1.57)	(-2.16)	(-2.64)
$EarnVol_t$	0.0439	0.0836	-0.00639	0.142	0.0819	0.0688
	(0.14)	(0.27)	(-0.02)	(0.43)	(0.26)	(0.22)
$Volatility_t$	2.804**	2.980***	3.021***	2.846**	2.938**	2.934**
	(2.42)	(2.59)	(2.60)	(2.43)	(2.55)	(2.56)
$Size_t$	0.134***	0.128***	0.161***	0.118***	0.131***	0.106***
	(4.26)	(4.05)	(5.25)	(3.68)	(4.07)	(3.05)
$NegEarn_t$	-0.395***	-0.379***	-0.403***	-0.358***	-0.379***	-0.388***
	(-4.83)	(-4.67)	(-4.90)	(-4.66)	(-4.73)	(-4.79)
$NegEarnG_t$	0.356***	0.352***	0.351***	0.359***	0.356***	0.358***
	(4.36)	(4.30)	(4.32)	(4.38)	(4.35)	(4.40)
ROE_t	0.156***	0.160***	0.163***	0.103***	0.160***	0.160***
	(3.38)	(3.40)	(3.44)	(2.82)	(3.42)	(3.45)
$LitInd_t$	0.248***	0.299***	0.225***	0.310***	0.283***	0.273***
	(6.61)	(6.51)	(6.14)	(6.13)	(6.38)	(6.48)
$NumEst_t$	0.0253***	0.0280***	0.0244***	0.0268***	0.0270***	0.0283***
	(3.71)	(4.07)	(3.66)	(3.84)	(3.84)	(3.96)
$Dispersion_t$	-1.511***	-1.470***	-1.513***	-1.489***	-1.486***	-1.473***
	(-7.35)	(-7.39)	(-7.56)	(-7.43)	(-7.38)	(-7.36)
Constant	-1.463***	-1.640***	-1.856***	-1.378***	-1.597***	-1.394***
	(-3.34)	(-3.77)	(-4.32)	(-3.10)	(-3.68)	(-3.10)
N	22694	22694	22629	22694	22694	22694
Pseudo R^2	0.0392	0.0421	0.0428	0.0405	0.0409	0.0423
Log likelihood	-15103.4	-15058.9	-15004.0	-15083.5	-15077.3	-15054.7

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 6: Forecast Issuance—Entropy

This table contains the coefficients from a logistic regression where the binary outcome is whether or not a firm issued a management forecast in a given fiscal year. Data for management forecasts are derived from the FirstCall Company Issued Guidance database for the time period 1994–2008. Each column heading indicates the proprietary cost measure **PC** used in each model. Other variables are described in Appendix A. The parentheses contain z-statistics adjusted for firm clustering.

		HI	SpeedAdj	RD	HIwtd	MShareSeg
$Entropy_t$	0.345***	0.310***	0.333***	0.353***	0.341***	0.354***
	(4.87)	(4.37)	(4.72)	(5.05)	(4.85)	(4.96)
$\mathbf{PC_t}$		0.979***	0.458***	-1.152***	0.839***	1.141***
		(9.13)	(8.00)	(-3.01)	(5.22)	(5.25)
MB_t	-0.109**	-0.103**	-0.139***	-0.0816	-0.0990**	-0.117***
	(-2.50)	(-2.33)	(-3.27)	(-1.64)	(-2.24)	(-2.73)
$EarnVol_t$	0.0359	0.0768	-0.0146	0.136	0.0752	0.0607
	(0.11)	(0.25)	(-0.05)	(0.41)	(0.24)	(0.20)
$Volatility_t$	2.844**	3.014***	3.062***	2.889**	2.981***	2.977***
	(2.46)	(2.63)	(2.64)	(2.47)	(2.60)	(2.60)
$Size_t$	0.136***	0.130***	0.162***	0.119***	0.132***	0.107***
	(4.08)	(3.91)	(5.00)	(3.49)	(3.88)	(2.91)
$NegEarn_t$	-0.399***	-0.383***	-0.406***	-0.361***	-0.382***	-0.392***
	(-4.82)	(-4.67)	(-4.90)	(-4.65)	(-4.73)	(-4.78)
$NegEarnG_t$	0.356***	0.352***	0.351***	0.358***	0.355***	0.358***
	(4.35)	(4.28)	(4.30)	(4.37)	(4.33)	(4.39)
ROE_t	0.157***	0.160***	0.164***	0.102***	0.161***	0.161***
	(3.39)	(3.42)	(3.47)	(2.80)	(3.44)	(3.47)
$LitInd_t$	0.237***	0.287***	0.214***	0.301***	0.273***	0.263***
	(6.03)	(6.10)	(5.52)	(5.78)	(5.93)	(5.97)
$NumEst_t$	0.0252***	0.0278***	0.0243***	0.0268***	0.0270***	0.0283***
	(3.60)	(3.94)	(3.54)	(3.74)	(3.74)	(3.85)
$Dispersion_t$	-1.521***	-1.480***	-1.523***	-1.498***	-1.496***	-1.483***
	(-7.43)	(-7.46)	(-7.64)	(-7.51)	(-7.45)	(-7.43)
Constant	-1.445***	-1.625***	-1.841***	-1.356***	-1.582***	-1.374***
	(-3.26)	(-3.68)	(-4.23)	(-3.01)	(-3.60)	(-3.02)
N	22694	22694	22629	22694	22694	22694
Pseudo R^2	0.0384	0.0412	0.0420	0.0397	0.0402	0.0416
Log likelihood	-15116.5	-15072.0	-15016.2	-15095.4	-15088.7	-15066.6

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 7: Excess Value on Diversification and Disclosure Ranking

The following table presents results from an ordinary least squares regression with the dependent variable of firm excess value as described in Appendix B. Each super-column heading indicates the disclosure measure used in the various models. $\mathbf{Disc_t}$ indicates the percentile rank within three-digit SIC code industry of the yearly disclosure measure in the super-column. Firm fixed effects are included in each model. Other control variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database over the period 1994–2008. Standard errors are clustered by firm, and resulting t-statistics are presented in parentheses.

	NForecast	Lead	Spec	Error	abs(Error)
$Multi_t$	-0.0750***	-0.0326	-0.0310	-0.0571***	-0.0654***
	(-3.52)	(-1.62)	(-1.39)	(-2.73)	(-3.04)
$\mathbf{Disc_t}$	-0.00722	0.110***	0.107***	-0.0206	-0.0952***
	(-0.28)	(4.93)	(4.26)	(-0.84)	(-3.84)
$\mathbf{MultiXDisc_t}$	0.126***	0.0298	0.0282	0.0796**	0.101***
	(2.99)	(0.83)	(0.67)	(2.09)	(2.64)
$Size_t$	0.0457***	0.0440***	0.0467***	0.0429***	0.0414***
	(8.75)	(8.45)	(9.02)	(7.67)	(7.40)
$Invest_t$	0.467***	0.460***	0.467***	0.501***	0.499***
	(9.61)	(9.48)	(9.58)	(8.36)	(8.31)
$EBIT_t$	-0.0244***	-0.0242***	-0.0244***	-0.0155	-0.0183
	(-3.11)	(-3.11)	(-3.11)	(-1.34)	(-1.60)
$Leverage_t$	-0.202***	-0.186***	-0.197***	-0.218***	-0.222***
	(-4.59)	(-4.26)	(-4.49)	(-4.63)	(-4.72)
Constant	-0.262***	-0.303***	-0.317***	-0.234***	-0.193***
	(-8.64)	(-9.91)	(-10.35)	(-6.78)	(-5.56)
N	13674	13674	13671	11678	11678
Adj. R^2	0.0441	0.0473	0.0457	0.0371	0.0386

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 8: Propensity to Provide Management Forecast—Matched Sample

This table contains the coefficients from a logistic regression where the binary outcome is whether or not a firm issued a management forecast in a given fiscal year. MATCHING...Data for management forecasts are derived from the FirstCall Company Issued Guidance database for the time period 1994–2008. Each column heading indicates the proprietary cost measure **PC** used in each model. Other variables are described in Appendix A. The parentheses contain z-statistics adjusted for firm clustering.

		HI	SpeedAdj	RD	HIwtd	MShareSeg
$Multi_t$	0.313***	0.294***	0.302***	0.313***	0.305***	0.313***
	(8.46)	(8.12)	(8.10)	(8.59)	(8.37)	(8.44)
$\mathbf{PC_t}$		0.876***	0.440***	-1.190***	0.746***	1.068***
		(9.06)	(7.15)	(-2.95)	(4.99)	(4.98)
MB_t	-0.111**	-0.105**	-0.138***	-0.0824	-0.102**	-0.119***
	(-2.52)	(-2.36)	(-3.18)	(-1.62)	(-2.30)	(-2.74)
$EarnVol_t$	-0.0541	-0.0186	-0.0784	0.0486	-0.0202	-0.0336
	(-0.17)	(-0.06)	(-0.24)	(0.14)	(-0.06)	(-0.11)
$Volatility_t$	2.866**	3.025***	3.017***	2.915**	2.987***	2.993***
	(2.46)	(2.62)	(2.64)	(2.47)	(2.58)	(2.60)
$Size_t$	0.132***	0.127***	0.158***	0.114***	0.129***	0.106***
	(4.59)	(4.38)	(5.69)	(3.99)	(4.41)	(3.35)
$NegEarn_t$	-0.371***	-0.357***	-0.384***	-0.331***	-0.357***	-0.366***
	(-4.44)	(-4.30)	(-4.59)	(-4.24)	(-4.36)	(-4.40)
$NegEarnG_t$	0.358***	0.355***	0.354***	0.361***	0.358***	0.360***
	(4.56)	(4.50)	(4.53)	(4.58)	(4.54)	(4.59)
ROE_t	0.158***	0.160***	0.158***	0.103***	0.161***	0.161***
	(3.21)	(3.23)	(3.13)	(2.67)	(3.25)	(3.28)
$LitInd_t$	0.218***	0.263***	0.193***	0.282***	0.250***	0.242***
	(5.15)	(5.33)	(4.68)	(5.47)	(5.21)	(5.19)
$NumEst_t$	0.0266***	0.0290***	0.0252***	0.0282***	0.0282***	0.0295***
	(3.99)	(4.29)	(3.86)	(4.13)	(4.08)	(4.19)
$Dispersion_t$	-1.513***	-1.476***	-1.499***	-1.488***	-1.491***	-1.479***
	(-7.66)	(-7.71)	(-7.69)	(-7.70)	(-7.67)	(-7.65)
Constant	-1.432***	-1.592***	-1.802***	-1.338***	-1.554***	-1.368***
	(-3.47)	(-3.86)	(-4.49)	(-3.21)	(-3.79)	(-3.23)
N	21817	21817	21817	21817	21817	21817
Pseudo R^2	0.0384	0.0406	0.0412	0.0398	0.0397	0.0411
Log likelihood	-14537.7	-14503.5	-14494.5	-14516.2	-14517.4	-14497.4

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 9: Forecast Issuance with Instrumented Entropy

This table duplicates the tests in Table 6 with added consideration for the endogeneity of the level of diversification of the firm, *Entropy*. The coefficients from a probit regression where the binary outcome is whether or not a firm issued a management forecast in a given fiscal year using instrumentation for *Entropy* are presented below. Data for management forecasts are derived from the FirstCall Company Issued Guidance database for the time period 1994–2008. Each column heading indicates the proprietary cost measure **PC** used in each model. Other variables are described in Appendix A. The parentheses contain z-statistics adjusted for firm clustering.

		HI	SpeedAdj	RD	HIwtd	MShareSeg
$Entropy_t$	0.363**	0.220	0.186	0.462***	0.434***	0.413***
	(2.20)	(1.26)	(1.00)	(2.97)	(2.92)	(2.67)
$\mathbf{PC_t}$		0.631***	0.285***	-0.734***	0.490***	0.693***
		(7.12)	(7.37)	(-3.22)	(4.19)	(5.22)
MB_t	-0.0750***	-0.0711**	-0.0936***	-0.0573*	-0.0693**	-0.0801***
	(-2.74)	(-2.53)	(-3.42)	(-1.84)	(-2.48)	(-2.98)
$EarnVol_t$	-0.0463	-0.0199	-0.0613	0.0284	-0.0244	-0.0353
	(-0.22)	(-0.09)	(-0.29)	(0.13)	(-0.12)	(-0.17)
$Volatility_t$	1.682***	1.765***	1.778***	1.714***	1.763***	1.759***
	(2.67)	(2.83)	(2.79)	(2.70)	(2.84)	(2.83)
$Size_t$	0.0612***	0.0665***	0.0905***	0.0424**	0.0532***	0.0409**
	(3.45)	(3.59)	(4.79)	(2.46)	(2.96)	(2.12)
$NegEarn_t$	-0.260***	-0.249***	-0.265***	-0.233***	-0.249***	-0.254***
	(-4.43)	(-4.31)	(-4.48)	(-4.22)	(-4.37)	(-4.40)
$NegEarnG_t$	0.214***	0.211***	0.212***	0.215***	0.213***	0.215***
	(4.83)	(4.70)	(4.78)	(4.85)	(4.80)	(4.88)
ROE_t	0.0955***	0.0961***	0.0978***	0.0608***	0.0984***	0.0981***
	(3.31)	(3.27)	(3.32)	(2.66)	(3.37)	(3.38)
$LitInd_t$	0.153***	0.175***	0.126***	0.202***	0.180***	0.170***
	(6.93)	(6.62)	(5.77)	(6.69)	(6.37)	(6.59)
$NumEst_t$	0.0193***	0.0196***	0.0171***	0.0214***	0.0211***	0.0215***
	(5.87)	(6.13)	(5.55)	(6.49)	(5.97)	(6.11)
$Dispersion_t$	-0.857***	-0.845***	-0.872***	-0.839***	-0.839***	-0.836***
	(-7.16)	(-7.27)	(-7.43)	(-7.15)	(-7.28)	(-7.21)
Constant	-0.785***	-0.919***	-1.062***	-0.706***	-0.849***	-0.734***
	(-3.23)	(-3.73)	(-4.30)	(-2.86)	(-3.53)	(-2.93)
athrho	-0.0485	-0.0114	0.00226	-0.0764*	-0.0703*	-0.0617
	(-1.07)	(-0.24)	(0.04)	(-1.79)	(-1.75)	(-1.48)
lnsigma	-1.250***	-1.252***	-1.249***	-1.250***	-1.251***	-1.250***
	(-98.98)	(-98.94)	(-98.67)	(-98.84)	(-98.46)	(-99.22)
N	19996	19996	19932	19996	19996	19996
Log likelihood	-16695.3	-16625.6	-16614.5	-16672.2	-16667.5	-16653.6

z statistics in parentheses
* $p < .10$, ** $p < .05$, *** $p < .01$

Table 10: Forecast Issuance—Regulation Fair Disclosure

This table duplicates the tests in Table 5 with an additional control for forecasts occurring after RegFD. RegFD is a dummy variable indicating the period after Reg FD. An "X" between variable names indicates an interaction term. The control variables from Table 5 have been included when identification is possible, but their coefficients are not shown for brevity.

		HI	SpeedAdj	RD	HIwtd	MShareSeg
$Multi_t$	0.171	0.157	0.162	0.179	0.169	0.174
	(1.56)	(1.43)	(1.47)	(1.64)	(1.54)	(1.56)
$\mathbf{PC_t}$		0.764***	0.385***	-1.231***	0.665***	1.155***
		(5.70)	(5.93)	(-3.17)	(3.61)	(5.11)
RegFD	0.791***	0.776***	0.779***	0.799***	0.785***	0.793***
	(3.09)	(3.03)	(3.04)	(3.11)	(3.06)	(3.07)
$MultiXRegFD$	0.176	0.171	0.177	0.165	0.169	0.174
	(1.48)	(1.43)	(1.50)	(1.40)	(1.43)	(1.44)
MB_t	-0.0827*	-0.0783	-0.109**	-0.0532	-0.0750	-0.0908*
	(-1.68)	(-1.58)	(-2.18)	(-0.98)	(-1.51)	(-1.86)
$EarnVol_t$	0.111	0.142	0.0682	0.211	0.143	0.137
	(0.31)	(0.40)	(0.18)	(0.56)	(0.40)	(0.38)
$Volatility_t$	1.807***	1.959***	1.998***	1.845***	1.921***	1.934***
	(2.96)	(3.25)	(3.22)	(3.00)	(3.21)	(3.22)
$Size_t$	0.0992***	0.0949***	0.122***	0.0811***	0.0966***	0.0703***
	(5.14)	(4.84)	(6.83)	(4.03)	(4.85)	(3.12)
$NegEarn_t$	-0.444***	-0.430***	-0.448***	-0.404***	-0.430***	-0.437***
	(-5.10)	(-5.03)	(-5.09)	(-4.94)	(-5.09)	(-5.06)
$NegEarnG_t$	0.368***	0.365***	0.363***	0.370***	0.367***	0.370***
	(4.68)	(4.61)	(4.66)	(4.70)	(4.66)	(4.73)
ROE_t	0.195***	0.197***	0.201***	0.134***	0.197***	0.199***
	(3.89)	(3.90)	(3.97)	(3.20)	(3.92)	(3.96)
$LitInd_t$	0.237***	0.276***	0.219***	0.305***	0.265***	0.261***
	(6.55)	(6.27)	(6.31)	(6.14)	(6.19)	(6.44)
$NumEst_t$	0.0224***	0.0246***	0.0218***	0.0241***	0.0238***	0.0254***
	(3.49)	(3.73)	(3.49)	(3.63)	(3.55)	(3.73)
$Dispersion_t$	-1.536***	-1.502***	-1.539***	-1.511***	-1.515***	-1.496***
	(-6.28)	(-6.35)	(-6.50)	(-6.33)	(-6.32)	(-6.27)
Constant	-1.604***	-1.738***	-1.935***	-1.511***	-1.711***	-1.533***
	(-4.53)	(-4.92)	(-5.55)	(-4.33)	(-4.85)	(-4.24)
N	22693	22693	22628	22693	22693	22693
Pseudo R^2	0.0651	0.0667	0.0678	0.0666	0.0661	0.0682
Log likelihood	-14696.4	-14670.2	-14611.1	-14673.1	-14679.6	-14648.0

z statistics in parentheses
* $p < .10$, ** $p < .05$, *** $p < .01$

Table 11: Summary Statistics by Periodicity and Diversification Status

This table presents statistics for more granular measures of management forecasts using a forecast-level sample for fiscal years 1994–2008. The left panel of the table shows statistics for quarterly earnings forecasts, while the right panel shows statistics for annual earnings forecasts. Variables are described in Appendix A. Each panel is further divided by diversification status. A firm is considered "focused" if it reports only one business segment and "diversified" if it reports more than one business segment. For each variable by periodicity and diversification status, the mean is on the upper row and the standard deviation on the lower row in parentheses. The "Diff." column indicates the difference between Focused and Diversified firm means, and asterisks indicate if the difference is significant at the 10% (*), 5% (**), or 1% (***) level. Subscripts indicate the fiscal year of measurement.

	Quarterly				Annual			
	Focused$_t$	Diversified$_t$			Focused$_t$	Diversified$_t$		
	Mean/(sd)	Mean/(sd)	Diff.	N	Mean/(sd)	Mean/(sd)	Diff.	N
$NForecast_t$	6.725	7.961	-1.236***	35,668	7.368	7.984	-0.616***	29,015
	(5.482)	(6.776)			(4.875)	(5.373)		
$Lead_t$	49.249	50.980	-1.731**	35,668	210.538	211.300	-0.762	29,015
	(64.580)	(62.016)			(135.078)	(134.251)		
$Spec_t$	2.986	2.963	0.023***	35,661	3.052	3.045	0.006	29,013
	(0.779)	(0.736)			(0.626)	(0.559)		
$Error_t$	0.354	0.270	0.084***	31,718	1.131	1.086	0.045	26,993
	(2.297)	(1.886)			(3.253)	(3.039)		
$\|Error_t\|$	0.751	0.637	0.114***	31,718	1.752	1.720	0.032	26,993
	(2.199)	(1.795)			(2.966)	(2.731)		
HI_t	0.146	0.185	-0.039***	35,668	0.173	0.209	-0.036***	29,015
	(0.133)	(0.148)			(0.161)	(0.173)		
$SpeedAdj_t$	0.547	0.515	0.032***	35,606	0.602	0.541	0.060***	28,984
	(0.296)	(0.291)			(0.306)	(0.304)		

(Table continues on the next page.)

Table 11: (continued)

	Quarterly				Annual			
	Focused$_t$	Diversified$_t$			Focused$_t$	Diversified$_t$		
	Mean/(sd)	Mean/(sd)	Diff.	N	Mean/(sd)	Mean/(sd)	Diff.	N
$PMargin_t$	0.592	0.590	0.002	31,661	0.635	0.619	0.016***	26,687
	(0.275)	(0.266)			(0.267)	(0.263)		
RD_t	0.057	0.027	0.030***	35,663	0.041	0.021	0.020***	29,009
	(0.090)	(0.049)			(0.073)	(0.035)		
$HIwtd_t$	0.120	0.157	-0.037***	35,668	0.142	0.170	-0.027***	29,015
	(0.141)	(0.149)			(0.162)	(0.156)		
MB_t	0.841	0.740	0.101***	32,927	0.989	0.799	0.191***	26,960
	(0.844)	(0.775)			(0.854)	(0.721)		

Table 12: Forecast Lead—Multi-segment

The following table presents results from an ordinary least squares regression of the lead time of a forecast (*Lead*) on the multi-segment indicator (*Multi*) and other control variables for the period 1994–2008. Other variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database. Each super-column heading indicates the periodicity of the forecasts and each column heading indicates the proprietary cost measure **PC** used in each model. All models include firm fixed effects. Standard errors are clustered by firm with *t*-statistics in parentheses.

	Annual Forecasts						Quarterly Forecasts					
		HI	PMargin	RD	HIwtd	MShareSeg		HI	PMargin	RD	HIwtd	MShareSeg
$Multi_t$	-2.841	-2.820	-2.857	-2.824	-2.809	-2.550	2.167	2.122	2.219	2.159	2.232	2.220
	(-0.53)	(-0.53)	(-0.53)	(-0.53)	(-0.52)	(-0.47)	(0.69)	(0.68)	(0.71)	(0.69)	(0.70)	(0.72)
$\mathbf{PC_t}$		-9.886	6.231	-13.42	-3.782	17.52		22.44*	4.190	1.519	-7.467	9.657
		(-0.50)	(0.33)	(-0.26)	(-0.19)	(0.80)		(1.78)	(0.35)	(0.03)	(-0.71)	(0.65)
MB_t	6.437**	6.350**	6.559**	6.475**	6.430**	6.397**	3.662***	3.710***	3.658***	3.659***	3.689***	3.622***
	(2.19)	(2.15)	(2.24)	(2.19)	(2.19)	(2.18)	(3.01)	(3.05)	(3.00)	(2.96)	(3.06)	(2.95)
$EarnVol_t$	-31.94*	-31.97*	-31.88*	-31.13*	-32.03*	-31.70*	-13.18	-12.90	-12.93	-13.23	-13.24	-13.15
	(-1.91)	(-1.90)	(-1.90)	(-1.86)	(-1.91)	(-1.89)	(-1.15)	(-1.12)	(-1.11)	(-1.17)	(-1.16)	(-1.15)
$Volatility_t$	245.5***	245.4***	245.9***	245.0***	245.0***	247.3***	25.28*	25.25*	25.62*	25.38*	24.43*	26.06*
	(7.41)	(7.42)	(7.42)	(7.38)	(7.34)	(7.46)	(1.68)	(1.69)	(1.70)	(1.68)	(1.66)	(1.67)
$Size_t$	11.33**	11.50**	11.52**	11.16**	11.40**	11.08**	17.32***	17.06***	17.18***	17.35***	17.43***	17.22***
	(2.44)	(2.48)	(2.47)	(2.38)	(2.47)	(2.40)	(9.09)	(8.99)	(9.02)	(8.52)	(9.16)	(9.01)
$NegEarn_t$	3.935	4.039	3.829	4.097	3.993	3.772	-4.141**	-4.214**	-4.262**	-4.155**	-4.082**	-4.163**
	(0.83)	(0.85)	(0.81)	(0.85)	(0.85)	(0.80)	(-2.07)	(-2.10)	(-2.12)	(-2.11)	(-2.04)	(-2.07)
$NegEarnG_t$	0.615	0.577	0.629	0.664	0.596	0.634	-0.383	-0.346	-0.280	-0.386	-0.424	-0.363
	(0.30)	(0.28)	(0.31)	(0.33)	(0.29)	(0.31)	(-0.30)	(-0.27)	(-0.22)	(-0.31)	(-0.34)	(-0.29)
ROE_t	-1.536	-1.513	-1.696	-1.600	-1.514	-1.723	6.018***	6.128***	6.067***	6.038***	6.023***	5.993***
	(-0.27)	(-0.26)	(-0.29)	(-0.28)	(-0.26)	(-0.30)	(3.15)	(3.20)	(3.16)	(2.96)	(3.15)	(3.14)
$LitInd_t$	36.23**	35.22**	36.12**	36.23**	36.05**	36.72**	14.53*	16.84**	14.28*	14.53*	14.34*	14.63*
	(2.08)	(1.99)	(2.08)	(2.07)	(2.07)	(2.11)	(1.72)	(2.00)	(1.69)	(1.72)	(1.70)	(1.73)
$NumEst_t$	-2.489***	-2.488***	-2.514***	-2.484***	-2.487***	-2.494***	-2.928***	-2.933***	-2.907***	-2.928***	-2.923***	-2.932***
	(-3.96)	(-3.95)	(-3.98)	(-3.97)	(-3.95)	(-3.97)	(-9.77)	(-9.76)	(-9.69)	(-9.90)	(-9.76)	(-9.75)
$Dispersion_t$	388.7***	388.9***	388.6***	388.7***	388.8***	388.5***	131.6***	131.2***	131.6***	131.6***	131.8***	131.5***
	(8.11)	(8.10)	(8.10)	(8.10)	(8.10)	(8.10)	(4.85)	(4.86)	(4.85)	(4.86)	(4.85)	(4.85)
Constant	84.12**	85.17**	79.21**	85.66**	84.31**	83.75**	-58.69***	-61.52***	-60.07***	-58.98***	-58.34***	-58.91***
	(2.51)	(2.51)	(2.34)	(2.51)	(2.50)	(2.50)	(-4.36)	(-4.52)	(-3.99)	(-3.77)	(-4.32)	(-4.37)
N	20569	20569	20548	20569	20569	20569	23353	23353	23324	23353	23353	23353
Adj. R^2	0.118	0.118	0.118	0.118	0.118	0.118	0.317	0.317	0.318	0.317	0.317	0.317

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 13: Forecast Lead—Industry Adjusted

The following table presents results from an ordinary least squares regression of the industry adjusted lead time of a forecast (*Lead*) on the multi-segment indicator (*Multi*) and other control variables for the period 1994–2008. Other variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database. Each super-column heading indicates the periodicity of the forecasts and each column heading indicates the proprietary cost measure **PC** used in each model. All models include firm fixed effects. Standard errors are clustered by firm with *t*-statistics in parentheses.

	Annual Forecasts						Quarterly Forecasts					
		HI	PMargin	RD	HIwtd	MShareSeg		HI	PMargin	RD	HIwtd	MShareSeg
$Multi_t$	-0.268	-0.258	-0.298	-0.253	-0.0623	-0.615	1.347	1.366	1.437	1.589	1.422	1.321
	(-0.06)	(-0.06)	(-0.06)	(-0.05)	(-0.01)	(-0.13)	(0.58)	(0.59)	(0.62)	(0.68)	(0.61)	(0.56)
$\mathbf{PC_t}$		-5.104	-9.521	-12.05	-24.44**	-20.93*		-9.088	-7.510	-47.07	-8.497	-4.688
		(-0.36)	(-0.58)	(-0.24)	(-2.17)	(-1.83)		(-0.89)	(-0.67)	(-0.98)	(-0.63)	(-0.40)
MB_t	3.636	3.590	3.721	3.669	3.591	3.684	2.706**	2.686**	2.745**	2.780**	2.737**	2.725**
	(1.58)	(1.56)	(1.63)	(1.59)	(1.56)	(1.60)	(2.43)	(2.42)	(2.47)	(2.45)	(2.46)	(2.45)
$EarnVol_t$	-20.35	-20.37	-20.70	-19.63	-20.94	-20.64	7.265	7.152	6.493	8.912	7.190	7.252
	(-1.29)	(-1.29)	(-1.32)	(-1.23)	(-1.33)	(-1.31)	(0.72)	(0.71)	(0.65)	(0.91)	(0.71)	(0.72)
$Volatility_t$	-12.11	-12.20	-11.74	-12.59	-15.33	-14.20	-1.170	-1.160	-0.936	-4.386	-2.133	-1.551
	(-0.47)	(-0.47)	(-0.45)	(-0.49)	(-0.59)	(-0.55)	(-0.10)	(-0.10)	(-0.08)	(-0.36)	(-0.18)	(-0.13)
$Size_t$	8.081**	8.171**	8.293**	7.932**	8.529**	8.380**	-4.073**	-3.968**	-4.204***	-5.091***	-3.942**	-4.026**
	(2.26)	(2.27)	(2.31)	(2.21)	(2.38)	(2.33)	(-2.49)	(-2.40)	(-2.58)	(-2.84)	(-2.37)	(-2.44)
$NegEarn_t$	9.247**	9.301**	9.048**	9.393**	9.628**	9.441**	-2.094	-2.064	-2.195	-1.664	-2.027	-2.083
	(2.35)	(2.37)	(2.31)	(2.35)	(2.45)	(2.40)	(-1.23)	(-1.21)	(-1.29)	(-1.01)	(-1.18)	(-1.22)
$NegEarnG_t$	0.246	0.227	0.303	0.291	0.125	0.223	0.326	0.311	0.459	0.429	0.279	0.317
	(0.15)	(0.13)	(0.18)	(0.17)	(0.07)	(0.13)	(0.31)	(0.30)	(0.44)	(0.42)	(0.26)	(0.30)
ROE_t	0.565	0.577	0.571	0.508	0.707	0.788	6.632***	6.587***	6.674***	6.008***	6.638***	6.644***
	(0.11)	(0.12)	(0.11)	(0.10)	(0.14)	(0.16)	(3.58)	(3.55)	(3.61)	(2.88)	(3.58)	(3.58)
$LitInd_t$	27.31**	26.79**	27.37**	27.31**	26.12*	26.73**	4.894	3.955	5.078	4.616	4.685	4.841
	(2.02)	(1.97)	(2.00)	(2.01)	(1.91)	(1.97)	(0.80)	(0.62)	(0.82)	(0.75)	(0.76)	(0.79)
$NumEst_t$	-0.241	-0.240	-0.280	-0.236	-0.230	-0.234	-0.449**	-0.446**	-0.432**	-0.434**	-0.443**	-0.447**
	(-0.62)	(-0.62)	(-0.71)	(-0.61)	(-0.59)	(-0.60)	(-2.53)	(-2.51)	(-2.45)	(-2.56)	(-2.50)	(-2.52)
$Dispersion_t$	44.20***	44.28***	44.07***	44.16***	44.79***	44.49***	13.89*	14.08*	13.78*	14.46*	14.05*	13.95*
	(5.70)	(5.70)	(5.69)	(5.68)	(5.72)	(5.72)	(1.80)	(1.82)	(1.79)	(1.93)	(1.81)	(1.81)
Constant	-67.40**	-66.85**	-63.10**	-66.01**	-66.14**	-66.96**	29.45**	30.60***	34.04**	38.54***	29.85***	29.56***
	(-2.45)	(-2.44)	(-2.23)	(-2.37)	(-2.41)	(-2.44)	(2.57)	(2.67)	(2.58)	(2.74)	(2.61)	(2.58)
N	20569	20569	20548	20569	20569	20569	23353	23353	23324	23353	23353	23353
Adj. R^2	0.415	0.415	0.415	0.415	0.415	0.415	0.547	0.547	0.550	0.547	0.547	0.547

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 14: Specificity—Forecast Level

The following table presents results from an ordered probit regression of the specificity of a forecast (*Spec*) on the multi-segment indicator ($Multi$) and other control variables for the period 1994–2008. Other variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database. Each super-column heading indicates the periodicity of the forecasts and each column heading indicates the proprietary cost measure **PC** used in each model. The parentheses contain z-statistics.

	Annual Forecasts						Quarterly Forecasts					
		HI	PMargin	RD	HIwtd	MShareSeg		HI	PMargin	RD	HIwtd	MShareSeg
$Multi_t$	-0.0264	-0.0265	-0.0265	-0.0260	-0.0262	-0.0286	-0.0878**	-0.0907***	-0.0881**	-0.0895**	-0.0887**	-0.0875**
	(-0.69)	(-0.70)	(-0.70)	(-0.69)	(-0.69)	(-0.76)	(-2.52)	(-2.60)	(-2.53)	(-2.56)	(-2.54)	(-2.51)
$\mathbf{PC_t}$		0.0123	0.00604	0.297	-0.148*	-0.184**		0.232**	0.0346	-0.695***	0.0613	-0.0150
		(0.12)	(0.09)	(0.86)	(-1.70)	(-2.39)		(2.30)	(0.63)	(-2.85)	(0.64)	(-0.17)
MB_t	0.0178	0.0180	0.0174	0.0119	0.0149	0.0184	0.0418*	0.0433**	0.0395*	0.0561**	0.0427**	0.0418*
	(0.69)	(0.70)	(0.67)	(0.44)	(0.58)	(0.72)	(1.94)	(2.02)	(1.79)	(2.49)	(1.98)	(1.94)
$EarnVol_t$	1.385***	1.386***	1.384***	1.357***	1.373***	1.373***	0.0615	0.0649	0.0636	0.0944	0.0617	0.0612
	(3.59)	(3.60)	(3.62)	(3.45)	(3.57)	(3.57)	(0.31)	(0.32)	(0.32)	(0.47)	(0.31)	(0.30)
$Volatility_t$	-0.219	-0.217	-0.209	-0.227	-0.247	-0.247	-0.568**	-0.520**	-0.550**	-0.506*	-0.555**	-0.569**
	(-0.64)	(-0.63)	(-0.61)	(-0.67)	(-0.72)	(-0.72)	(-2.17)	(-1.98)	(-2.10)	(-1.96)	(-2.10)	(-2.17)
$Size_t$	-0.0266	-0.0267	-0.0263	-0.0248	-0.0258	-0.0208	-0.0127	-0.0146	-0.0105	-0.0185	-0.0129	-0.0123
	(-1.56)	(-1.55)	(-1.51)	(-1.45)	(-1.51)	(-1.21)	(-0.89)	(-1.01)	(-0.73)	(-1.27)	(-0.90)	(-0.85)
$NegEarn_t$	-0.0680	-0.0680	-0.0679	-0.0770	-0.0704	-0.0695	-0.110***	-0.105***	-0.109***	-0.0881**	-0.108***	-0.110***
	(-1.25)	(-1.25)	(-1.25)	(-1.42)	(-1.29)	(-1.28)	(-2.85)	(-2.75)	(-2.83)	(-2.29)	(-2.81)	(-2.87)
$NegEarnG_t$	-0.0380	-0.0381	-0.0383	-0.0387	-0.0387	-0.0388	-0.0563**	-0.0570**	-0.0569**	-0.0551**	-0.0559**	-0.0564**
	(-1.39)	(-1.39)	(-1.40)	(-1.42)	(-1.42)	(-1.42)	(-2.47)	(-2.49)	(-2.49)	(-2.41)	(-2.44)	(-2.47)
ROE_t	0.0694	0.0692	0.0703	0.0761	0.0701	0.0710	0.0335	0.0330	0.0339	0.0151	0.0332	0.0335
	(1.00)	(0.99)	(1.01)	(1.10)	(1.00)	(1.02)	(0.84)	(0.83)	(0.85)	(0.37)	(0.83)	(0.84)
$LitInd_t$	0.0202	0.0211	0.0195	0.0116	0.0130	0.0123	0.0439	0.0539	0.0438	0.0626*	0.0458	0.0437
	(0.48)	(0.50)	(0.46)	(0.27)	(0.31)	(0.29)	(1.17)	(1.45)	(1.16)	(1.65)	(1.22)	(1.16)
$NumEst_t$	0.00398	0.00402	0.00398	0.00370	0.00369	0.00326	0.0104***	0.0110***	0.0102***	0.0108***	0.0105***	0.0103***
	(0.92)	(0.92)	(0.91)	(0.85)	(0.85)	(0.75)	(2.90)	(3.05)	(2.85)	(3.04)	(2.91)	(2.88)
$Dispersion_t$	-0.331**	-0.331**	-0.330**	-0.343**	-0.330**	-0.335**	-1.399***	-1.396***	-1.435***	-1.373***	-1.398***	-1.400***
	(-2.14)	(-2.14)	(-2.13)	(-2.22)	(-2.13)	(-2.16)	(-5.72)	(-5.76)	(-5.73)	(-5.60)	(-5.73)	(-5.72)
$Lead_t$	-0.000162	-0.000162	-0.000162	-0.000161	-0.000165*	-0.000167*	0.000181	0.000176	0.000186	0.000177	0.000180	0.000181
	(-1.63)	(-1.63)	(-1.63)	(-1.62)	(-1.65)	(-1.69)	(0.48)	(0.47)	(0.50)	(0.47)	(0.48)	(0.48)
cut1 Constant	-2.074***	-2.072***	-2.069***	-2.066***	-2.104***	-2.066***	-1.693***	-1.652***	-1.660***	-1.725***	-1.681***	-1.692***
	(-15.83)	(-15.84)	(-14.02)	(-15.73)	(-15.85)	(-15.74)	(-15.85)	(-15.63)	(-14.63)	(-15.89)	(-15.74)	(-15.85)
cut2 Constant	-1.719***	-1.717***	-1.713***	-1.711***	-1.749***	-1.712***	-1.349***	-1.308***	-1.317***	-1.381***	-1.337***	-1.348***
	(-13.28)	(-13.27)	(-11.73)	(-13.18)	(-13.37)	(-13.21)	(-12.54)	(-12.30)	(-11.51)	(-12.62)	(-12.47)	(-12.52)
cut3 Constant	0.807***	0.809***	0.812***	0.815***	0.777***	0.815***	0.734***	0.775***	0.766***	0.703***	0.745***	0.734***
	(5.95)	(6.01)	(5.33)	(6.01)	(5.68)	(6.01)	(6.59)	(7.05)	(6.44)	(6.20)	(6.72)	(6.58)
N	20569	20569	20548	20569	20569	20569	23348	23348	23319	23348	23348	23348
Adj. R^2												

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 15: Specificity—Industry Adjusted

The following table presents results from an ordinary least squares regression of the industry adjusted specificity of a forecast (*Spec*) on the multi-segment indicator (*Multi*) and other control variables for the period 1994–2008. Other variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database. Each super-column heading indicates the periodicity of the forecasts and each column heading indicates the proprietary cost measure **PC** used in each model. All models include firm fixed effects. Standard errors are clustered by firm with *t*-statistics in parentheses.

	Annual Forecasts						Quarterly Forecasts					
		HI	PMargin	RD	HIwtd	MShareSeg		HI	PMargin	RD	HIwtd	MShareSeg
$Multi_t$	0.0232	0.0234	0.0234	0.0227	0.0242	0.0223	-0.0142	-0.0145	-0.0169	-0.0142	-0.0150	-0.0140
	(0.70)	(0.71)	(0.71)	(0.69)	(0.73)	(0.68)	(-0.36)	(-0.36)	(-0.42)	(-0.36)	(-0.38)	(-0.36)
$\mathbf{PC_t}$		-0.121	0.0362	0.352	-0.121*	-0.0556		0.123	-0.107	-0.00282	0.0887	0.0339
		(-1.27)	(0.45)	(0.97)	(-1.70)	(-0.57)		(1.10)	(-0.91)	(-0.01)	(1.00)	(0.19)
MB_t	0.00566	0.00459	0.00582	0.00467	0.00543	0.00578	0.0196	0.0199	0.0189	0.0196	0.0193	0.0195
	(0.40)	(0.33)	(0.41)	(0.33)	(0.39)	(0.41)	(1.23)	(1.24)	(1.17)	(1.22)	(1.21)	(1.23)
$EarnVol_t$	-0.0564	-0.0567	-0.0549	-0.0776	-0.0593	-0.0571	-0.0300	-0.0285	-0.0394	-0.0299	-0.0292	-0.0299
	(-0.44)	(-0.44)	(-0.43)	(-0.58)	(-0.46)	(-0.45)	(-0.14)	(-0.14)	(-0.18)	(-0.14)	(-0.14)	(-0.14)
$Volatility_t$	0.206	0.204	0.203	0.220	0.190	0.201	-0.435***	-0.435***	-0.432***	-0.435***	-0.425**	-0.432***
	(1.11)	(1.11)	(1.09)	(1.19)	(1.02)	(1.08)	(-2.63)	(-2.64)	(-2.61)	(-2.60)	(-2.57)	(-2.65)
$Size_t$	0.0474*	0.0496*	0.0463*	0.0518**	0.0497*	0.0482*	-0.0167	-0.0181	-0.0172	-0.0168	-0.0181	-0.0170
	(1.88)	(1.95)	(1.84)	(2.08)	(1.95)	(1.90)	(-0.79)	(-0.86)	(-0.82)	(-0.77)	(-0.85)	(-0.80)
$NegEarn_t$	-0.0299	-0.0286	-0.0304	-0.0342	-0.0280	-0.0294	-0.0339	-0.0343	-0.0339	-0.0339	-0.0346	-0.0340
	(-1.09)	(-1.04)	(-1.11)	(-1.22)	(-1.02)	(-1.07)	(-1.44)	(-1.45)	(-1.43)	(-1.44)	(-1.46)	(-1.44)
$NegEarnG_t$	-0.0141	-0.0146	-0.0132	-0.0154	-0.0147	-0.0142	-0.00389	-0.00369	-0.00391	-0.00389	-0.00340	-0.00382
	(-1.25)	(-1.29)	(-1.18)	(-1.37)	(-1.30)	(-1.26)	(-0.32)	(-0.30)	(-0.32)	(-0.32)	(-0.28)	(-0.31)
ROE_t	-0.0172	-0.0170	-0.0174	-0.0156	-0.0165	-0.0166	0.0607*	0.0613*	0.0612*	0.0606*	0.0606*	0.0606*
	(-0.47)	(-0.47)	(-0.48)	(-0.43)	(-0.45)	(-0.46)	(1.82)	(1.84)	(1.82)	(1.76)	(1.82)	(1.82)
$LitInd_t$	-0.0460	-0.0583	-0.0462	-0.0461	-0.0519	-0.0475	0.0355	0.0482	0.0326	0.0355	0.0376	0.0359
	(-0.54)	(-0.65)	(-0.54)	(-0.54)	(-0.60)	(-0.56)	(0.34)	(0.47)	(0.31)	(0.34)	(0.36)	(0.34)
$NumEst_t$	0.00260	0.00261	0.00273	0.00248	0.00265	0.00262	0.00159	0.00156	0.00163	0.00159	0.00154	0.00158
	(1.21)	(1.22)	(1.27)	(1.17)	(1.24)	(1.22)	(0.72)	(0.71)	(0.74)	(0.72)	(0.70)	(0.72)
$Dispersion_t$	0.000848	0.00268	0.000648	0.00204	0.00381	0.00156	-0.449***	-0.451***	-0.449***	-0.449***	-0.450***	-0.449***
	(0.02)	(0.05)	(0.01)	(0.04)	(0.08)	(0.03)	(-2.93)	(-2.95)	(-2.93)	(-2.94)	(-2.95)	(-2.94)
$Lead_t$	-0.0000134	-0.0000137	-0.0000128	-0.0000133	-0.0000135	-0.0000133	0.0000276	0.0000257	0.0000252	0.0000276	0.0000283	0.0000274
	(-0.61)	(-0.62)	(-0.58)	(-0.60)	(-0.61)	(-0.60)	(0.30)	(0.28)	(0.28)	(0.30)	(0.31)	(0.30)
Constant	-0.341*	-0.328*	-0.355*	-0.381**	-0.335*	-0.340*	0.176	0.160	0.238	0.176	0.172	0.175
	(-1.85)	(-1.79)	(-1.88)	(-2.08)	(-1.82)	(-1.84)	(1.09)	(1.00)	(1.34)	(1.03)	(1.07)	(1.09)
N	20569	20569	20548	20569	20569	20569	23353	23353	23324	23353	23353	23353
Adj. R^2	0.434	0.434	0.435	0.434	0.434	0.434	0.418	0.418	0.418	0.418	0.418	0.418

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 16: Forecast Error Absolute Value—Multi-segment

The following table presents results from an ordinary least squares regression of the management forecast error on the multi-segment indicator ($Multi$) and other control variables for the period 1994–2008. Other variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database. Each super-column heading indicates the periodicity of the forecasts and each column heading indicates the proprietary cost measure **PC** used in each model. All models include firm fixed effects. Standard errors are clustered by firm with t-statistics in parentheses.

	Annual Forecasts						Quarterly Forecasts					
		HI	PMargin	RD	HIwtd	MShareSeg		HI	PMargin	RD	HIwtd	MShareSeg
$Multi_t$	0.0610	0.0595	0.0571	0.0568	0.0600	0.0643	-0.0261	-0.0272	-0.0265	-0.0259	-0.0275	-0.0278
	(0.68)	(0.67)	(0.65)	(0.63)	(0.67)	(0.72)	(-0.59)	(-0.61)	(-0.60)	(-0.58)	(-0.61)	(-0.62)
$\mathbf{PC_t}$		0.345	-0.582***	-3.072***	0.383*	0.338*		0.0972	0.0134	0.0726	0.0765	0.0859
		(1.44)	(-3.77)	(-3.71)	(1.77)	(1.75)		(1.01)	(0.21)	(0.16)	(1.03)	(1.29)
MB_t	-0.372***	-0.369***	-0.335***	-0.309***	-0.365***	-0.373***	-0.0578*	-0.0571*	-0.0581*	-0.0592*	-0.0566*	-0.0577*
	(-5.34)	(-5.29)	(-4.81)	(-4.25)	(-5.25)	(-5.35)	(-1.88)	(-1.87)	(-1.88)	(-1.92)	(-1.85)	(-1.88)
$EarnVol_t$	0.0179	0.0541	0.284	0.202	0.0485	0.0436	0.550	0.552	0.540	0.546	0.550	0.552
	(0.06)	(0.18)	(0.97)	(0.57)	(0.16)	(0.14)	(1.07)	(1.08)	(1.06)	(1.06)	(1.08)	(1.08)
$Volatility_t$	3.764***	3.823***	3.403***	3.866***	3.836***	3.814***	1.405***	1.424***	1.413***	1.399***	1.420***	1.412***
	(4.83)	(4.91)	(4.41)	(4.96)	(4.91)	(4.88)	(3.68)	(3.72)	(3.69)	(3.74)	(3.71)	(3.69)
$Size_t$	-0.0877**	-0.0916**	-0.114***	-0.104***	-0.0899**	-0.0982**	-0.0242	-0.0250	-0.0239	-0.0236	-0.0244	-0.0265
	(-2.14)	(-2.23)	(-2.81)	(-2.59)	(-2.21)	(-2.39)	(-1.23)	(-1.28)	(-1.24)	(-1.19)	(-1.25)	(-1.35)
$NegEarn_t$	1.255***	1.257***	1.272***	1.340***	1.263***	1.260***	0.166***	0.168***	0.164***	0.164***	0.169***	0.168***
	(7.01)	(7.02)	(7.11)	(7.46)	(7.04)	(7.03)	(2.73)	(2.76)	(2.69)	(2.60)	(2.78)	(2.78)
$NegEarnG_t$	0.182***	0.179***	0.180***	0.189***	0.184***	0.183***	-0.127***	-0.127***	-0.127***	-0.127***	-0.126***	-0.126***
	(3.23)	(3.20)	(3.21)	(3.38)	(3.27)	(3.27)	(-5.02)	(-5.04)	(-5.01)	(-5.00)	(-4.99)	(-5.00)
ROE_t	-1.213***	-1.219***	-1.218***	-1.289***	-1.215***	-1.215***	-0.756***	-0.757***	-0.760***	-0.754***	-0.757***	-0.756***
	(-4.22)	(-4.23)	(-4.21)	(-4.38)	(-4.21)	(-4.22)	(-4.91)	(-4.91)	(-4.91)	(-4.93)	(-4.91)	(-4.91)
$LitInd_t$	-0.0851	-0.0601	-0.0589	-0.00185	-0.0676	-0.0704	0.0201	0.0241	0.0201	0.0183	0.0223	0.0218
	(-0.87)	(-0.60)	(-0.60)	(-0.02)	(-0.69)	(-0.71)	(0.49)	(0.58)	(0.49)	(0.46)	(0.54)	(0.53)
$NumEst_t$	-0.0205**	-0.0194**	-0.0173*	-0.0175**	-0.0196**	-0.0192**	-0.0106***	-0.0103***	-0.0106***	-0.0106***	-0.0104***	-0.0103***
	(-2.34)	(-2.20)	(-1.94)	(-2.03)	(-2.25)	(-2.20)	(-2.84)	(-2.77)	(-2.87)	(-2.84)	(-2.82)	(-2.79)
$Dispersion_t$	3.358***	3.352***	3.272***	3.480***	3.353***	3.365***	10.80***	10.80***	10.87***	10.80***	10.80***	10.80***
	(5.15)	(5.15)	(4.98)	(5.37)	(5.16)	(5.17)	(11.67)	(11.67)	(11.35)	(11.66)	(11.67)	(11.68)
$Lead_t$	0.00332***	0.00332***	0.00335***	0.00331***	0.00332***	0.00332***	0.00174***	0.00173***	0.00173***	0.00174***	0.00173***	0.00174***
	(15.55)	(15.61)	(15.95)	(15.42)	(15.59)	(15.59)	(5.86)	(5.86)	(5.82)	(5.86)	(5.85)	(5.88)
Constant	1.296***	1.231***	1.781***	1.375***	1.220***	1.310***	0.327**	0.311**	0.318**	0.324**	0.313**	0.332**
	(4.32)	(4.04)	(5.74)	(4.64)	(3.99)	(4.37)	(2.40)	(2.25)	(2.23)	(2.33)	(2.28)	(2.44)
sigma Constant	2.248***	2.248***	2.241***	2.243***	2.248***	2.248***	1.356***	1.356***	1.357***	1.356***	1.356***	1.356***
	(35.34)	(35.31)	(35.17)	(35.27)	(35.35)	(35.30)	(21.99)	(21.98)	(21.99)	(21.99)	(21.98)	(21.98)
N	19461	19461	19441	19461	19461	19461	21485	21485	21457	21485	21485	21485
Adj. R^2												

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 17: Forecast Error Absolute Value—Industry Adjusted

The following table presents results from an ordinary least squares regression of the absolute value of the management forecast error on the multi-segment indicator (*Multi*) and other control variables for the period 1994–2008. Other variables are described in Appendix A. Data for management forecasts are derived from the FirstCall Company Issued Guidance database. Each super-column heading indicates the periodicity of the forecasts and each column heading indicates the proprietary cost measure **PC** used in each model. All models include firm fixed effects. Standard errors are clustered by firm with *t*-statistics in parentheses.

	Annual Forecasts						Quarterly Forecasts					
		HI	PMargin	RD	HIwtd	MShareSeg		HI	PMargin	RD	HIwtd	MShar
$Multi_t$	0.347**	0.345**	0.345**	0.347**	0.343**	0.352**	-0.00499	-0.00521	-0.000633	-0.00980	-0.00664	-0.0037
	(2.21)	(2.19)	(2.21)	(2.22)	(2.19)	(2.24)	(-0.07)	(-0.07)	(-0.01)	(-0.13)	(-0.09)	(-0.05)
$\mathbf{PC_t}$		0.743	-0.468	-0.0237	0.465	0.315		0.176	0.532	0.936	0.176	0.229
		(1.21)	(-0.64)	(-0.01)	(0.85)	(0.64)		(0.65)	(1.07)	(0.96)	(0.85)	(0.70)
MB_t	-0.588***	-0.582***	-0.580***	-0.588***	-0.588***	-0.589***	-0.127***	-0.126***	-0.124***	-0.128***	-0.128***	-0.128*
	(-5.22)	(-5.21)	(-5.16)	(-5.21)	(-5.22)	(-5.22)	(-3.22)	(-3.20)	(-3.12)	(-3.28)	(-3.23)	(-3.24)
$EarnVol_t$	0.732	0.735	0.716	0.733	0.743	0.736	-0.0935	-0.0915	-0.0495	-0.127	-0.0918	-0.0927
	(0.88)	(0.89)	(0.88)	(0.90)	(0.90)	(0.89)	(-0.28)	(-0.28)	(-0.14)	(-0.39)	(-0.28)	(-0.28)
$Volatility_t$	-4.007***	-4.001***	-3.898***	-4.007***	-3.946***	-3.974***	-0.959**	-0.960**	-0.943**	-0.896**	-0.939**	-0.940*
	(-4.04)	(-4.04)	(-3.95)	(-4.04)	(-3.99)	(-4.02)	(-2.44)	(-2.44)	(-2.39)	(-2.25)	(-2.37)	(-2.39)
$Size_t$	-0.706***	-0.721***	-0.692***	-0.707***	-0.716***	-0.711***	-0.225***	-0.228***	-0.225***	-0.204***	-0.228***	-0.228*
	(-6.44)	(-6.37)	(-6.42)	(-6.40)	(-6.44)	(-6.39)	(-4.93)	(-4.89)	(-4.97)	(-4.39)	(-5.01)	(-4.95)
$NegEarn_t$	0.890***	0.882***	0.864***	0.890***	0.882***	0.887***	0.223***	0.223***	0.217***	0.214***	0.222***	0.223**
	(4.90)	(4.88)	(4.88)	(4.92)	(4.88)	(4.89)	(3.74)	(3.74)	(3.72)	(3.60)	(3.73)	(3.73)
$NegEarnG_t$	0.0292	0.0322	0.0402	0.0293	0.0315	0.0296	-0.0951***	-0.0948***	-0.0930***	-0.0968***	-0.0941***	-0.0946
	(0.56)	(0.63)	(0.78)	(0.56)	(0.61)	(0.57)	(-3.99)	(-3.98)	(-3.87)	(-4.01)	(-3.95)	(-3.95)
ROE_t	-1.011***	-1.011***	-1.009***	-1.011***	-1.014***	-1.014***	-0.470***	-0.469***	-0.473***	-0.459***	-0.471***	-0.471*
	(-2.88)	(-2.88)	(-2.88)	(-2.88)	(-2.89)	(-2.89)	(-3.13)	(-3.13)	(-3.19)	(-3.08)	(-3.14)	(-3.14)
$LitInd_t$	1.306*	1.387*	1.309*	1.306*	1.330*	1.315*	-0.279	-0.259	-0.294	-0.272	-0.275	-0.276
	(1.65)	(1.73)	(1.65)	(1.65)	(1.68)	(1.66)	(-0.80)	(-0.74)	(-0.84)	(-0.79)	(-0.79)	(-0.80)
$NumEst_t$	-0.0187*	-0.0188*	-0.0214**	-0.0187*	-0.0189*	-0.0188*	-0.00554	-0.00559	-0.00542	-0.00583*	-0.00565*	-0.0056
	(-1.89)	(-1.90)	(-2.25)	(-1.88)	(-1.90)	(-1.89)	(-1.63)	(-1.64)	(-1.61)	(-1.70)	(-1.66)	(-1.65)
$Dispersion_t$	0.516	0.506	0.522	0.516	0.505	0.512	2.008***	2.003***	2.009***	1.996***	2.004***	2.005**
	(1.50)	(1.47)	(1.52)	(1.50)	(1.47)	(1.48)	(3.69)	(3.68)	(3.69)	(3.67)	(3.68)	(3.69)
$Lead_t$	0.000455***	0.000456***	0.000447***	0.000455***	0.000455***	0.000454***	0.000347***	0.000345***	0.000332***	0.000343***	0.000348***	0.0003
	(5.27)	(5.28)	(5.28)	(5.26)	(5.27)	(5.25)	(2.89)	(2.87)	(2.76)	(2.84)	(2.90)	(2.88)
Constant	5.806***	5.733***	5.984***	5.808***	5.787***	5.800***	2.116***	2.095***	1.830***	1.931***	2.110***	2.112**
	(6.70)	(6.63)	(6.24)	(6.62)	(6.68)	(6.70)	(6.20)	(6.20)	(5.03)	(5.26)	(6.17)	(6.18)
N	19968	19968	19948	19968	19968	19968	22404	22404	22375	22404	22404	22404
Adj. R^2	0.558	0.559	0.563	0.558	0.558	0.558	0.693	0.693	0.693	0.693	0.693	0.693

* $p < .10$, ** $p < .05$, *** $p < .01$

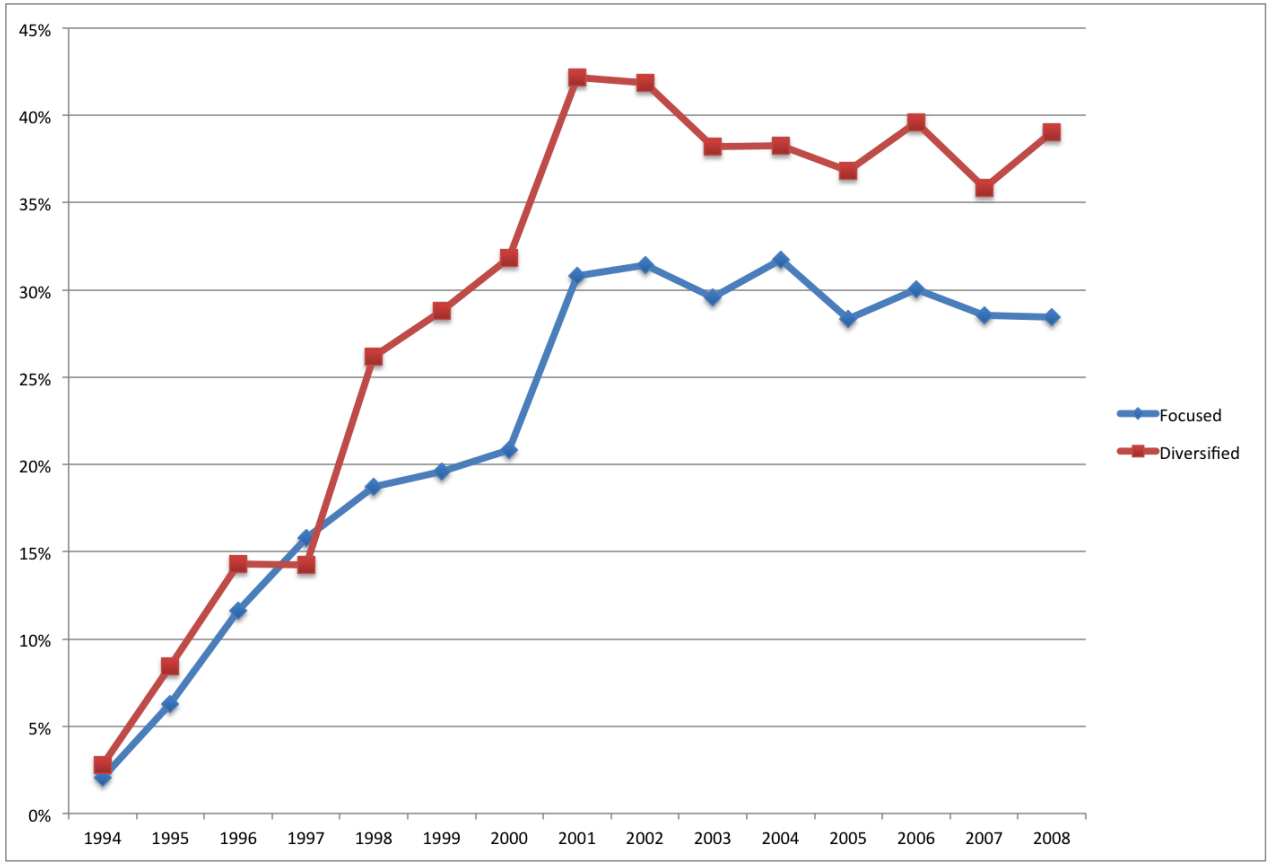

Figure 1: Percentage of Firms Providing a Forecast

This figure presents the percentage of firms from each corporate form category that provide a forecast within a given fiscal year.

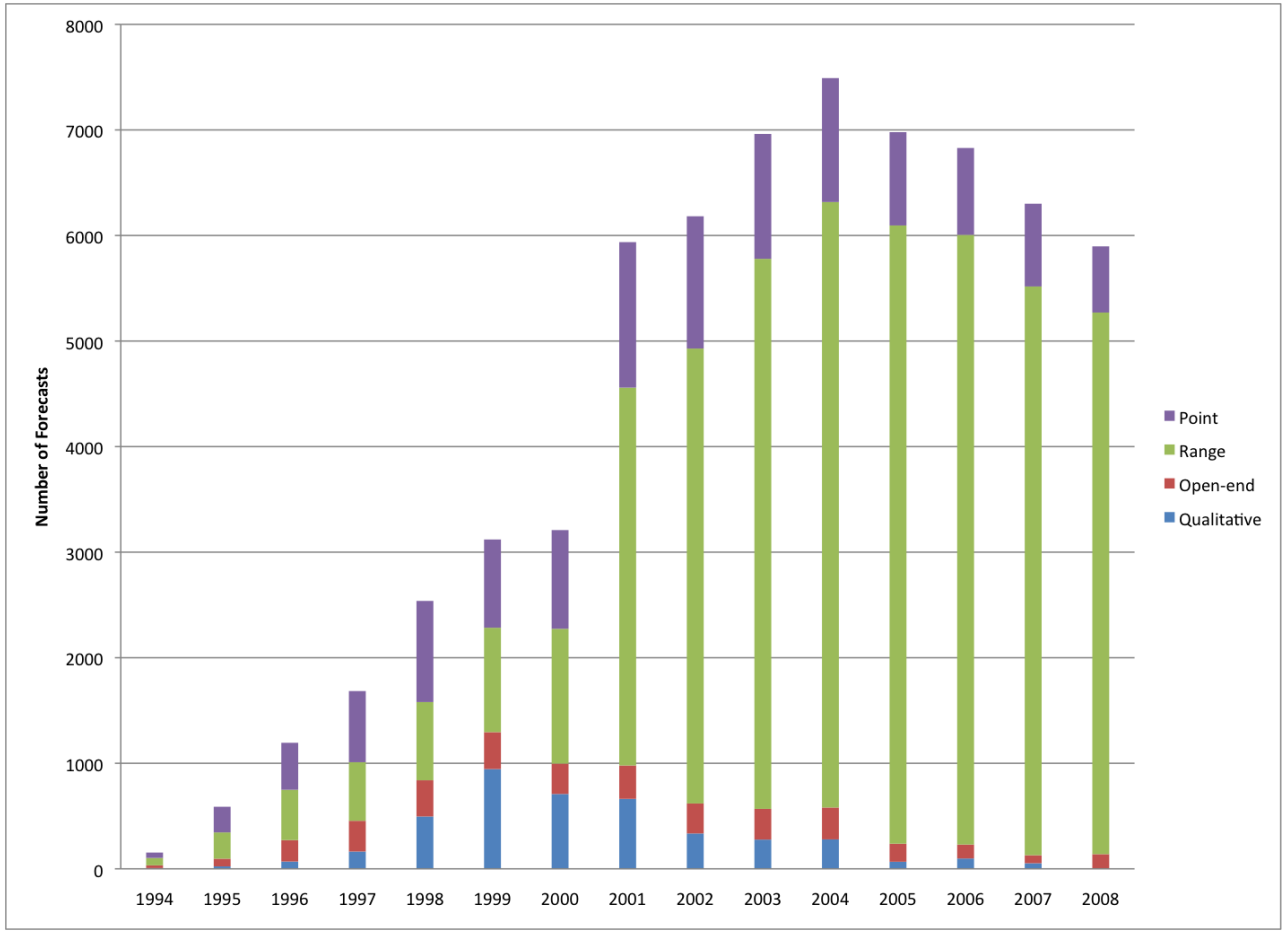

Figure 2: Forecast Specificity over Time

This figure presents the specificity of the forecasts by year according to four categories: point, range, open-end, and qualitative.

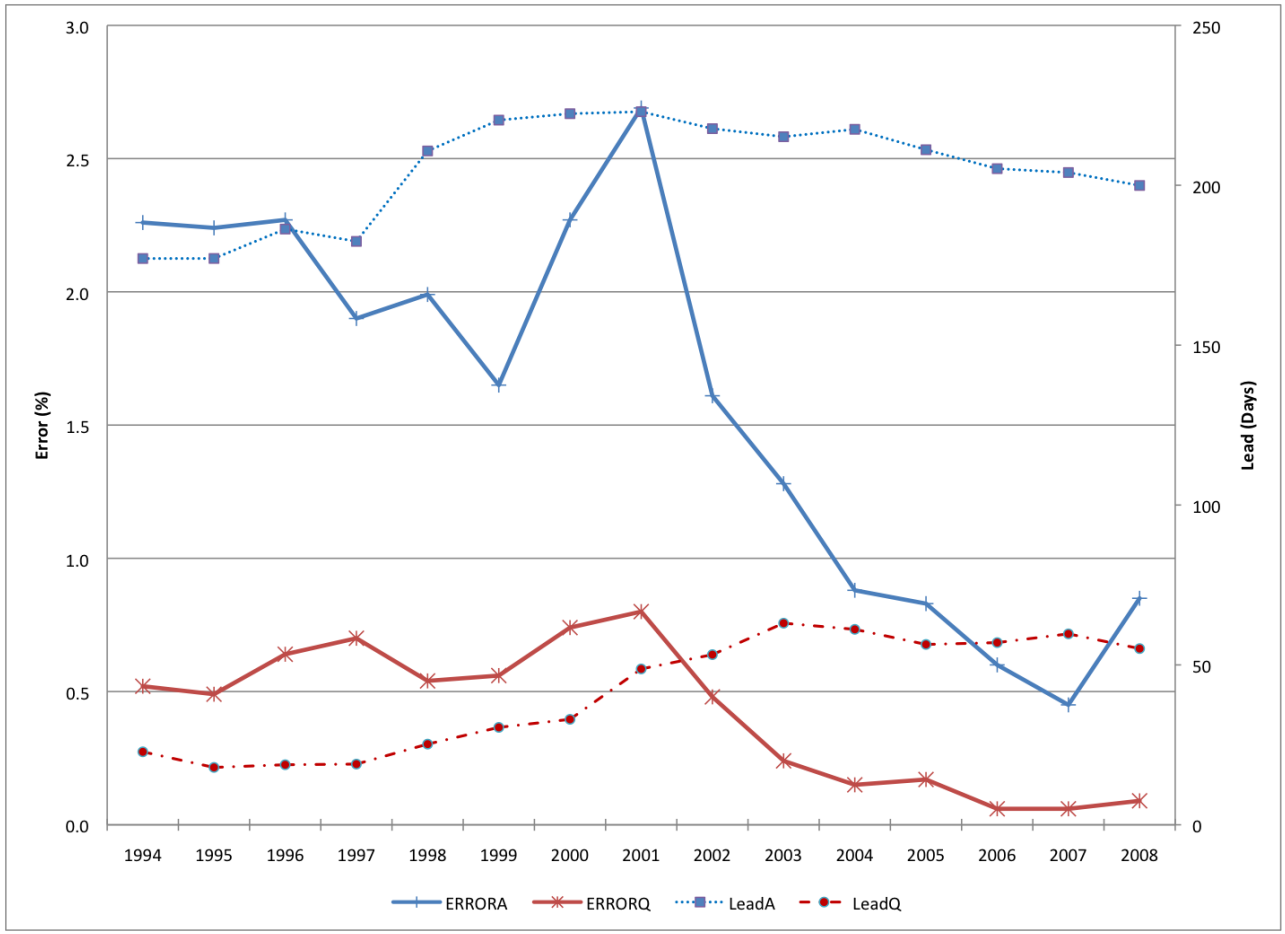

Figure 3: Disclosure Measures over Time

This figure presents the yearly averages for the forecasts used in the sample. *Error* is calculated as the forecasted midpoint of earnings per share minus the actual earnings per share, normalized by the most recent quarter stock price. *Lead* is the number of days from the forecasted earnings per share date until the actual earnings per share date. The letters appended to *Error* and *Lead* indicate the type of forecast: "A" for annual and "Q" for quarterly.

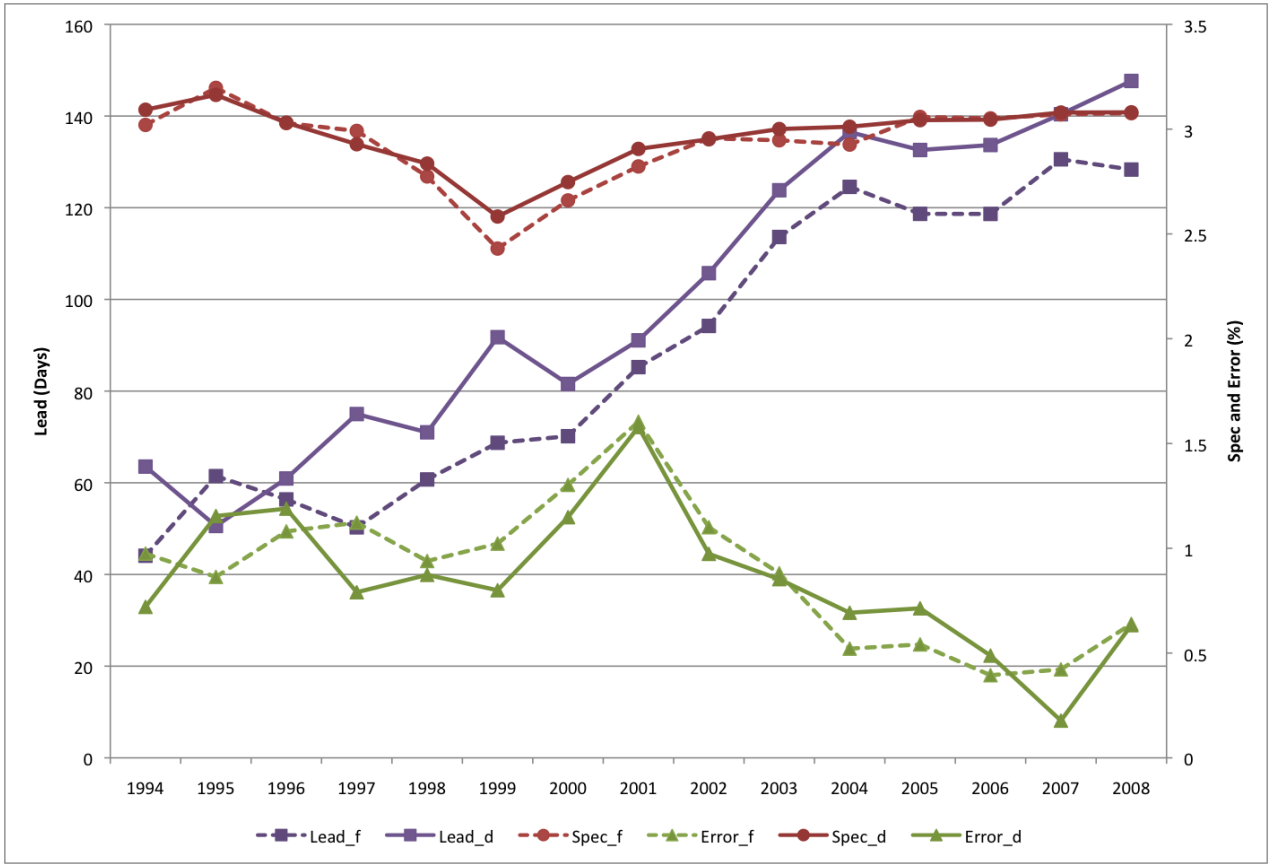

Figure 4: Characteristics of Forecasts by Corporate Form

This figure presents the yearly averages for the forecasts used in the sample by corporate form. In the legend a subscript of "f" or "d" indicates whether the values are for focused firms or diversified firms, respectively. *Lead* is the number of days from the forecasted earnings per share date until the actual earnings per share date. *Spec* is an number from one to four indicating the specificity of the forecast. *Error* is calculated as the forecasted midpoint of earnings per share minus the actual earnings per share, normalized by the most recent quarter stock price.