Financial and Non-financial Management Guidance: Evidence from Revenue and Emissions Targets

Brandon Gipper
gipperbr@stanford.edu
Graduate School of Business
Stanford University

Shawn Kim
shawn_kim@haas.berkeley.edu
Haas School of Business
University of California, Berkeley

Lydia Wang
lydwang@stanford.edu
Graduate School of Business
Stanford University

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Abstract: We examine whether firms that provide (more accurate) financial guidance are more likely to provide (more accurate) non-financial guidance. In particular, we examine forward-looking information about firms' revenue targets and emission reduction plans. We show a positive association between the provision of financial and non-financial guidance and between the accuracy of the two. Firms that are (i) less financially constrained, (ii) have climate-related manager incentives, (iii) hear from analysts about and discuss environmental issues on conference calls, and (iv) seek assurance on their reported emissions, are more likely to provide forward-looking emission information when providing revenue targets. Some results do not hold for emission intensity targets, indicating some meaningful difference between intensity and absolute emission plans. Our results shed light on demand for firms to voluntarily and accurately disclose non-financial information, and they suggest a complementarity between financial and non-financial guidance, especially among firms that are serious about emissions or face greater emissions-related risks.

JEL classification: G30; M14; M41
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1. Introduction

The topic of corporate guidance is a long-standing, important subject of interest. Starting as far back as Patell (1976), the accounting literature has approached this topic from multiple angles, including but not limited to the incentives, costs, and benefits of providing guidance, the content of guidance, and the implications of guidance (e.g., Coller and Yohn, 1998; Hirst et al., 2008; Han, 2013; Preussner and Aschauer, 2022; Call et al, 2024; Mayew, 2024). Despite this deep literature, however, an issue of interest and consequence that begs for more understanding is the relationship between financial guidance and nonfinancial guidance.

We examine whether firms that provide (more accurate) financial guidance are more likely to provide (more accurate) non-financial guidance. In particular, we examine forward-looking information about firms' revenue targets and emission reduction plans.

We argue that firms that provide financial guidance are indeed more likely to provide nonfinancial guidance. In addition, we argue that firms that provide more accurate financial guidance are more likely to provide more accurate nonfinancial guidance. Specifically, in studying nonfinancial guidance, we study emissions targets that firms voluntarily disclose. Firms may jointly provide financial guidance and non-financial guidance for several reasons. First, companies with better capabilities (or lower costs) of forecasting into the future may be more likely to provide both financial and non-financial guidance. For instance, firms that already operate robust forecasting systems and processes for issuing financial guidance have lower costs of forecasting nonfinancial guidance due to having stronger processes or internal structures in place. Second, similar economic forces that drive financial guidance (e.g., demand from shareholders and stakeholders, operations, information environment) may drive non-financial guidance. Investors may also deem both types of information as complements and demand them jointly. Third,

companies may jointly provide financial and non-financial guidance to signal higher credibility for one or both disclosures.

In studying financial and nonfinancial guidance, we study revenue guidance and emission (ESG) guidance. We study revenue guidance because it captures firms' activities more comprehensively than other measures, such as capital expenditures and earnings. We study emission (ESG) reporting because it is a great setting to analyze this issue of nonfinancial guidance. The importance of studying emission reporting lies in the fundamental impact emissions and climate change have, and will continue to have, on humanity if we do not take steps now to prevent the worst possible outcomes in the future. The U.S. is a country in which firms play a large role in its emission profile. With the recent growth in stakeholder interest in environmental, social, and governance (ESG) over the past decade, companies have been and are increasingly disclosing information about their environmental performance and emission reduction initiatives in response to stakeholders' demands.

We test the association between financial guidance and nonfinancial guidance by examining the disclosure of Russell 1000 firms in the sample period of 2010 to 2020. For studying financial guidance issuance, we use IBES Guidance data to observe firms' revenue guidance activity for quarters, for the current year, for the next year, or for beyond. For studying nonfinancial guidance issuance, we consider firms' voluntary disclosures in reporting absolute and intensity emissions targets to the Carbon Disclosure Project (CDP). We study Russell 1000 firms because the CDP sends their survey questionnaire to all of these firms, and we focus on firms that are large enough and thus would more likely have sufficient resources to issue non-financial guidance.

We construct multiple measures and variables for our tests. For studying financial guidance accuracy, we calculate the guidance error measure as the forecasted revenue value minus the actual

revenue value, scaled by the actual value. For studying nonfinancial guidance accuracy, we calculate the guidance error measure as the forecasted emissions measure based on a linear trend or prediction line minus the actual emissions measure, scaled by the actual emissions measure. Actual emissions values for firms are collected from CDP and supplemented further by Refinitiv and Trucost emissions data. Controls of firm size, book-to-market, sales growth, leverage, annual returns, and annual return volatility are constructed using CRSP/Compustat data.

We find that firms that provide financial guidance are indeed more likely to provide nonfinancial guidance. We also find that firms that provide more accurate financial guidance are more likely to provide more accurate nonfinancial guidance for absolute emissions target guidance but is not significantly associated with intensity emissions target guidance accuracy. The difference in association between absolute and intensity emissions targets may be due to the additional forecasting required for the separate factor of normalization for intensity targets.

We find that firms that are less financially constrained, have executive compensation tied to ESG, have more environment-related operations, have greater external demand for environmental information, and that seek assurance of their reported emissions are more likely to issue nonfinancial guidance than firms do not fit those qualities. Our results shed light on firms' relative ability to voluntarily disclose and accurately disclose nonfinancial information.

We contribute to the literature in several ways. First, we contribute to the broad literature of guidance, which is primarily focused on financial guidance. Extant accounting literature studies the drivers, content, and consequences of financial guidance (e.g., Coller and Yohn, 1998; Hirst et al., 2008; Han, 2013; Preussner and Aschauer, 2022; Call et al, 2024; Mayew, 2024). We add to the guidance literature by examining the relationship between financial and non-financial guidance.

We show that companies jointly use financial and non-financial disclosure and provide evidence of when the complementary effect is stronger.

Second, our findings also speak to the issue of the disclosure and credibility of nonfinancial, ESG disclosure. Factors such as pressure from institutional investors, climate-conscious ownership, firms' own ESG performance can drive the issuance of this disclosure in the first place, along with its credibility (e.g., Clarkson et al., 2008; Luo and Tang, 2014; Braam et al., 2016; Giannarakis et al., 2018; Clarkson et al., 2019; Naughton et al., 2019; Huang and Lu, 2022; Ilhan et al., 2023; Gipper et al., 2024). The credibility of ESG disclosure has always been at the center of attention for investors and regulators – the soft nature (lack of standardization and external verification) of ESG information coupled with the long horizons of forward-looking ESG disclosure makes the credibility of these disclosures highly questionable. We add to this discussion by showing that stakeholders can use information about firms' financial disclosure practices to evaluate the credibility of their non-financial disclosure.

Finally, we add to the growing literature on emissions reduction targets. Prior studies examined the determinants of corporate emissions reduction targets (Ioannou et al., 2016; Freiberg et al., 2021; Bolton and Kacperczyk, 2023; Kim, 2024), and the valuation implications of such targets (Desai et al., 2023; Aldy et al., 2024). We add to this literature by showing the companies' financial disclosure policy as another driver for companies' decision to announce emissions targets and providing evidence that financial guidance error provides information about the error or credibility of emissions reduction targets.

2. Background and Literature

Companies provide financial guidance to disseminate timely information about their prospects and to reduce information asymmetry. Despite greater concern about misreporting, regulators recognize the value of forward-looking statements in delivering material information in a timely fashion and provide companies with a safe harbor provision for these disclosures under the Private Securities Litigation Reform Act of 1995. Providing financial guidance is voluntary, and prior literature identifies firm characteristics associated with companies' propensity to provide financial guidance (Hirst et al., 2008). Consistent with the information asymmetry concerns driving companies' disclosure decisions, Coller and Yohn (1997) find that firms issuing management earnings guidance tend to have higher bid-ask spreads. Firms with higher volatility are less likely to issue guidance (Waymire, 1985), and strong corporate governance is shown to be associated greater likelihood of providing management guidance (Ajinkya et al., 2005). Firm performance is also a driver for management forecasting – companies are more likely to provide guidance during periods of better financial performance (e.g., Miller, 2002; Houston et al., 2010).

Multiple factors can influence firms' financial guidance accuracy and bias. Exogenous shocks and lack of management experience are associated with lower guidance accuracy (Kasznik, 1999; Chen, 2004). Overconfident managers provide more biased guidance, while stronger corporate governance is associated with more accurate guidance (Hribar and Yang, 2006; Karamanou and Vafeas, 2005). Finally, prior studies document the information content and decision-usefulness of such financial guidance (e.g., Penman, 1980; Hutton et al., 2003; Li, 2010).

At the same time, various stakeholders increasingly demand nonfinancial information on companies' ESG performance and activities. Companies increasingly disclose more information about their ESG performance and activities based on mandatory disclosure requirements and

largely through various voluntary disclosure frameworks, such as the Carbon Disclosure Project (CDP). These disclosures often contain backward-looking information, such as the carbon emissions, but also contain forward-looking statements about their plans to reduce their environmental impact.

Recent studies have investigated the drivers and effects of ESG disclosure and their credibility in various settings. Pressure from institutional investors has been identified as a key driver for firms' voluntary ESG disclosure (Naughton et al., 2019). Ilhan et al. (2023) provide survey evidence that institutional investors value carbon disclosure as much as financial disclosure. The authors also show a positive association between climate-conscious ownership and the propensity of firms' voluntary climate change disclosure. Firms' ESG performance is also considered as a driver for firms' voluntary ESG disclosure, but without a clear direction. The voluntary disclosure theory predicts that firms with superior ESG performance are more likely to disclosure ESG information to differentiate themselves from companies with poor ESG performance. On the other hand, the legitimacy theory predicts that firms with poor ESG performance are more likely to disclose ESG information to portray themselves as socially responsible to stakeholders. Various studies found evidence in support of both hypotheses in various settings. Luo and Tang (2014) show that companies are more likely to provide voluntary carbon disclosure when they have superior carbon performance. Clarkson et al. (2008) and Giannarakis et al. (2018) find that environmental performance is positively associated with voluntary environmental disclosure. Better CSR performers are also more likely to provide standalone CSR reports (Clarkson et al., 2019). However, Braam et al. (2016) find that high polluters are more likely to disclose hard, objective, and verifiable environmental information than green firms. Huang and Lu (2022) also document that firms with lower gender pay gaps are more

likely to disclose the gender pay gap voluntarily, consistent with countersignaling. Gipper et al. (2024) provide evidence on ESG assurance in firms' reported environmental and social metrics.

Emissions reduction targets are among the most common forms of forward-looking ESG disclosure. The targets provide guidance on how the companies' carbon emissions are expected to look in the future. By interpolating current emissions and future targeted emissions, investors can obtain annual forecasts of where the emissions are expected to be every year. Emissions reduction targets are also a form of voluntary commitment, and prior studies identify some determinants of such disclosure, such as firm size, environmental performance, carbon intensity, growth, and capital intensity (Ioannou et al., 2016; Freiberg et al., 2021; Bolton and Kacperczyk, 2023; Kim, 2024). Since the advent of emissions targets, there have been questions about the credibility of these disclosures and concerns that firms may engage in greenwashing by announcing empty targets (Aldy et al., 2023; Ruiz Manuel and Blok, 2023; Jiang et al., 2024). Relatedly, recent studies examine the valuation implications of emissions targets and document insignificant market responses to corporate emissions targets (Desai et al., 2023; Aldy et al., 2024).

A gap in the literature is the interplay between financial and non-financial guidance. While each of the disclosures has been investigated separately, less understood is how the incentives to provide these two types of forward-looking statements are interrelated. In this paper, we examine how companies' decision to provide financial guidance is related to the companies' decision to provide non-financial guidance. Our findings suggest another important driver for companies' non-financial guidance. Moreover, we investigate how companies' non-financial guidance accuracy varies with companies' financial guidance accuracy.

3. Hypothesis Development

3.1 Financial guidance and non-financial guidance

Extensive disclosure literature has shown that companies use various forms of disclosure as complements and substitutes. We posit that companies that provide financial guidance are more likely to provide non-financial guidance. We provide three arguments to support the prediction. First, companies with lower costs of forecasting financial information (or better capabilities in forecasting financial information) may also have lower costs of forecasting non-financial information. For instance, firms that already operate robust forecasting systems and processes for issuing financial guidance have lower costs of forecasting nonfinancial guidance due to having stronger processes or internal structures in place.

Second, there may also exist overlaps in the drivers of financial and non-financial guidance. For instance, the companies' information environment, corporate governance structures, and investor base may simultaneously affect companies' decisions to provide financial and non-financial guidance. Investors may also deem both types of information as complements and demand them jointly. This effect would be stronger with greater correlation between financial and non-financial information, so that acquiring non-financial information aids in accessing the current and future financial performance of the firm.

Third, companies may use both financial and non-financial guidance to build a reputation for transparency. The benefits of providing non-financial guidance may be greater for firms that provide financial guidance, perhaps because those companies are perceived to be more credible. This and the aforementioned arguments lead us to our first hypothesis.

H1: Companies that provide financial guidance are more likely to provide non-financial guidance.

There are reasons why we may not see an association between the issuance of financial and non-financial guidance, however. Different drivers may be in play for financial and non-financial guidance. Bozanic et al. (2018) highlight the distinctions between non-financial forward-looking statements and financial forward-looking statements. For example, volatility is shown to be negatively associated with financial guidance but positively associated with companies' decisions to provide non-financial guidance (Waymire, 1985; Ioannou et al., 2016). There may be other factors, such as companies' environmental performance, relevant only to the companies' decisions to provide non-financial guidance, but not to financial guidance.

3.2 Cross-sectional predictions

We next explore factors that can encourage or discourage firms' joint use of financial and non-financial guidance. First, we study factors internal to the firm: financial constraints and managerial incentives related to ESG.

Financial constraints can moderate the complementarity of financial and non-financial guidance. Financially constrained firms are expected to focus on financial performance and disclosure, with less regard for non-financial disclosure. These companies may be under pressure to provide forecasts about financial performance, but not on non-financial information. If ESG activities are related to short-term costs and long-term benefits, financially constrained firms would be even less likely to engage in ESG activities or provide ESG disclosures.

H2a: The joint issuance of financial and non-financial guidance is less pronounced in financially constrained firms.

Corporate governance can also play a role in moderating the complementarity of financial and non-financial guidance. We focus on the role of executive incentives and assurance. We posit that when executive compensation is tied to ESG outcomes, there is a greater correlation between

financial and non-financial information, leading to more frequent joint use of financial and non-financial guidance.

H2b: The joint use of financial and non-financial guidance is more pronounced in firms that have executive incentive compensation tied to ESG.

Second, we study factors external to the firm: managerial disclosure about environment-related operations, stakeholder demand for environment-related information, and ESG assurance.

We posit that the joint use of financial and non-financial guidance is more pronounced for firms with more environment-related operations. For companies that are more exposed to climate change-related risks and opportunities, it is more likely that there exists a greater correlation between financial and ESG outcomes. Therefore, predicting future ESG performance is more likely to be relevant, or even required, to predict future financial performance for these firms. Relatedly, if financial and non-financial information exhibits greater correlation, investors may demand both types of disclosure jointly, as they can learn information about financial performance from non-financial disclosure and vice versa. Therefore, we predict that the complementarity of financial and non-financial guidance is more pronounced in firms with more environment-related operations.

H2c: The joint use of financial and non-financial guidance is more pronounced in firms with more environment-related operations.

H2d: The joint use of financial and non-financial guidance is more pronounced in firms with greater external demand for environmental information

Environmental assurance associated with more complementarity of financial and non-financial guidance if firms build a reputation for credibility by simultaneously issuing guidance and obtaining assurance. Audited financial reporting and disclosure of managers' private

information are complements, because verification of outcomes enhances disclosure credibility (Ball et al., 2012).

H2e: The joint use of financial and non-financial guidance is more pronounced in firms that obtain external assurance for their environmental information.

3.3 Financial guidance accuracy and non-financial guidance accuracy

Next, we turn to the accuracy of non-financial guidance. Accuracy of non-financial guidance is a more significant concern for investors and stakeholders, as unlike earnings information, the guided non-financial information often lacks standardization and verification. Relatedly, setting empty emissions targets has been pointed out as a primary means of corporate greenwashing (Lyon and Montgomery, 2015), raising concerns about the reliability of non-financial guidance (Aldy et al., 2023; Jiang et al., 2024). We predict that companies that provide more accurate financial guidance are more likely to provide more accurate non-financial guidance. Companies with lower costs of forecasting financial information may also have lower costs of forecasting non-financial information. These companies may be better and forecasting in general, allowing them to provide more accurate financial and non-financial guidance. Correlation between financial outcomes and non-financial outcomes driven by factors that affect both, such as volatility and exogenous shocks, can also contribute to the relationship. Finally, companies with greater concern about their reputation on credibility may invest more to increase the accuracy of both their financial and non-financial guidance.

Although this story may hold for the clear and straightforward absolute emission target, which is a goal to reduce units of emissions by a set amount, it may not hold for an intensity emission target, which is a measure of emissions scaled or normalized by a separate economic or operational variable. Due to any room for unpredictability from the separate normalizing variable

in intensity emission targets, the accurate forecasting of intensity targets is more difficult, compared to the forecasting of absolute targets.

H3: Companies that provide more accurate financial guidance are likely to provide more accurate non-financial guidance in the form of absolute targets. Companies that provide more accurate financial guidance are not more likely to provide more or less accurate non-financial guidance in the form of intensity targets.

4. Sample and Research Design

4.1 Sample and data

The sample includes U.S. firms in the Russell 1000 Index anytime in our sample period of 2010 to 2020. We study U.S. firms in the Russell 1000 Index to focus on firms that are large enough and thus would more likely have sufficient resources to issue non-financial guidance.

Variables for our analysis are collected and constructed from multiple different sources. For studying financial guidance issuance, we use IBES Guidance data to observe firms' revenue guidance activity. For studying nonfinancial guidance issuance, we consider firms' voluntary disclosures in reporting absolute and intensity emissions targets to the Carbon Disclosure Project (CDP). For studying financial guidance accuracy, we calculate the guidance error measure as the forecasted revenue value minus the actual revenue value, scaled by the actual value. For studying nonfinancial guidance accuracy, we calculate the guidance error measure as the forecasted emissions measure based on a linear trend or prediction line minus the actual emissions measure, scaled by the actual emissions measure. Actual emissions values for firms are collected from CDP and supplemented further by Refinitiv and Trucost emissions data. Controls of firm size, book-to-

market, sales growth, leverage, annual returns, and annual return volatility are constructed using CRSP/Compustat data.

We retain firms that have non-missing values of our variables and controls of interest. This yields a final sample of 12,200 firm-year observations for our guidance tests, 2,088 firm-year-target observations for our absolute target guidance accuracy tests, and 232 firm-year-target observations for our intensity target guidance accuracy tests.

4.2 Research design

4.2.1 Financial guidance and non-financial guidance tests

The primary empirical analyses for our guidance tests employ a reduced-form regression design. The model used is as follows:

$$Nonfinancial\ Guidance = \beta\ FinGuid_{,i,t} + \gamma X_{i,t} + \delta_k + \lambda_t + u_{i,t.} \quad (1)$$

The unit of observation is at the firm *i* and year *t* level. *Nonfinancial Guidance* is a dummy for whether a firm sets a CDP emissions target in a given year, where the dummy pertains to either absolute emissions targets or intensity emissions targets, depending on the analysis focus. *FinGuid* is a dummy for whether a firm issues revenue management guidance for quarters, for the current year, for the next year, or for beyond, in a given year. We test 5 different variations of *FinGuid* to be comprehensive in our tests: $FinGuid_{QtrORAnn}$, $FinGuid_{QtrORAnnOR2Yr}$, $FinGuid_{QtrORAnnOR2YrORMore}$, $FinGuid_{AnnOR2Yr}$, $FinGuid_{AnnOR2YrORMore}$. In-depth variable definitions are provided in Appendix A. Our coefficient of interest is β on *FinGuid*, and we predict β to be positive for both absolute and intensity targets for all 5 variations of *FinGuid*.

The vector of time-varying firm level controls is represented by $X_{i,t}$, which consists of *Firm Size*, *Book to Market*, *Sales Growth*, *Leverage*, *Annual Returns*, *Annual Return Volatility*. *Firm Size* is the natural logarithm of total assets, *Book to Market* is the book value of equity

divided by market capitalization, *Sales Growth* is revenue divided by prior year revenue minus one, *Leverage* is total liabilities divided by total assets, *Annual Returns* is the compounded annual returns from compounding returns of each fiscal month, and *Annual Return Volatility* is the standard deviation of returns of each fiscal month in a fiscal year. λ represents year fixed effects and δ represents industry fixed effects. I cluster standard errors at the firm level.

4.2.2 Cross-sectional tests

Our cross-sectional analyses explore factors that can encourage or discourage firms' joint use of financial and non-financial guidance. The cross-sectional guidance tests are split-subsample tests, where each subsample is split along a threshold of our factors of interest, and the regression model run on each subsample is Equation 1. We run cross-sectional analyses for both our absolute and intensity targets.

We test a set of cross-sectional factors that are internal to the firm and external to the firm. In studying factors internal to the firm, we study financial constraints and managerial incentives related to ESG. In studying factors external to the firm, we study factors external to the firm: managerial disclosure about environment-related operations, stakeholder demand for environment-related information, and ESG assurance.

We measure the factors internal to the firm in the following ways. We employ both a broad measure of financial constraint based on the Hadlock and Pierce (2010) measure used in the prior finance literature (*Financially Constrained*) and a shorter-term measure of financial constraint based on whether a firm experienced a loss or negative earnings in the prior year (*Prior Year Loss*). To capture managerial incentives related to ESG, we have a dummy for whether a firm provides these incentives (*Climate-Related Incentives*), based on CDP survey data.

We measure the factors external to the firm in the following ways. To capture managerial disclosure about environment-related operations, we have a variable that represents the average number of environmental keywords mentioned by a firm in its conference calls in a given year (*Mgmt Environment Discussion*). Stakeholder demand for environment-related information is captured by whether analysts in a firm's conference calls mentions environmental keywords in a given year (*Analyst Environment Discussion*). We measure a firm's ESG assurance by whether a firm has a third-party verification or assurance process in place for its emissions, based on CDP survey data (*Emission Assurance*).

4.2.3 Financial guidance accuracy and non-financial guidance accuracy tests

The analyses for our guidance accuracy tests are run on a firm-year-target panel, and the regression model is as follows:

$$On\ Target = \beta\ FinGuid\ Error\ Unsigned_{i,t,l} + \gamma X_{i,t} + \delta_k + \lambda_t + \omega_m + \psi_n + u_{i,t.} \quad (2)$$

The unit of observation is at the firm *i* and year *t* and target *l* level. *On Target* is a dummy for whether an emissions target is on track to being achieved or is achieved in a given year, where the dummy pertains to either absolute emissions targets or intensity emissions targets, depending on the analysis focus. The dummy equals one when the following value is greater than or equal to zero: the forecasted emissions measure based on a linear trend or prediction line minus the actual emissions measure, scaled by the actual emissions measure. *FinGuid Error Unsigned* is a measure of revenue management guidance error for the current year, for the next year, or for beyond, in a given year. The financial guidance error is calculated as the absolute value of the forecasted revenue value minus the actual revenue value, divided by the actual revenue value. We test 2 different variations of *FinGuid Error Unsigned* to be comprehensive in our tests: *FinGuid Error Unsigned* $_{AnnOR2Yr}$, *FinGuid Error Unsigned* $_{AnnOR2YrORMore}$. We do not test the

variations that include quarter forecasts, due to quarterly versus annual-level estimates not being perfectly comparable. In-depth variable definitions are provided in Appendix A. Our coefficient of interest is β on *FinGuid Error Unsigned*, and we predict β to be negative for absolute targets and insignificant for intensity targets. The economic interpretation of negative β is that the greater the financial guidance error, the less likely firms are on track to or do achieve their forecasted nonfinancial targets.

The vector of time-varying firm level controls is represented by $X_{i,t}$, which again, consists of *Firm Size*, *Book to Market*, *Sales Growth*, *Leverage*, *Annual Returns*, *Annual Return Volatility*. λ represents year fixed effects and δ represents industry fixed effects. Equation 2 adds two additional fixed effects: *Target Length* for the number of years between the target year and the target base year for a given CDP emissions target, represented by ω, and *Years Since Target Base Year* for the number of years since the target base year for a given year and CDP emissions target, represented by ψ. We cluster standard errors at the firm level.

5. Empirical Results

5.1 Descriptive Statistics

Table 1 Panel A presents a sample selection table. We start with 59,875 firm-year observations in Compustat. After merging in CRSP, CDP, and IBES Guidance data, restricting to Russell 1000 firms, and requiring non-missing values for all controls, we end up with 12,200 firm-year observations for 1,445 unique firms. Table 1 Panel B presents the industry distribution for the sample, where manufacturing is the most heavily represented (4,493 observations), and finance, insurance, and real estate is the next most represented (2,760 observations). Table 1 Panel C

presents the year distribution for the sample, where the firm-year observations are balanced across the sample years of a bit over 1,000 observations each year.

Table 2 Panel A presents descriptive statistics for main variables, control variables, and cross-sectional variables for our analyses. Firms in our sample issue more intensity targets (6.0 percent of the time) than absolute targets (3.1 percent of the time) during our sample period and hit absolute targets (53.6 percent of the time) more often than intensity targets (15.1 percent of the time). The average target length of absolute targets (15.05 years) is longer than that of intensity targets (7.67 years).

Table 2 Panels B and C present descriptive statistics for the absolute target sample and the intensity targets sample, respectively, on the target level. In our sample, we have 1,181 unique absolute targets and 698 unique intensity targets. The average target set year is 2015 (2014), the average target base year is 2014 (2013), and the average target year is 2025 (2021), for absolute (intensity) targets. The percentage of total base year emissions covered is comparable between absolute and intensity targets at 87-89 percent, and the targeted emissions reduction percentage is around 37 (21) percent for absolute (intensity) targets.

5.2 Financial guidance and non-financial guidance

Tables 3 and 4 examine and find significant positive relationships between firms' issuance of financial and nonfinancial guidance.

Table 3 presents univariate regression results from the Equation 1 regression of *Nonfinancial Guidance* on different variations of financial guidance variables. Panel A presents results for *Nonfinancial Guidance* where it refers to setting a CDP absolute emissions target. Panel B presents results for *Nonfinancial Guidance* where it refers to setting a CDP intensity emissions target. For both Panels A and B, in Column (1), the regression is run on $FinGuid_{QtrORAn}$. In Column

(2), the regression is run on $FinGuid_{QtrORAnnOR2Yr}$. In Column (3), the regression is run on $FinGuid_{QtrORAnnOR2YrORMore}$. In Column (4), the regression is run on $FinGuid_{AnnOR2Yr}$. In Column (5), the regression is run on $FinGuid_{AnnOR2YrORMore}$. The positive significant coefficients on all 5 variations of *FinGuid* across all columns for Panels A and B (coefficients: 0.006–0.011, t-stats: 1.39–1.94) indicate positive associations between firms issuing financial guidance and nonfinancial guidance.

Table 4 presents multivariate regression results from the Equation 1 regression of *Nonfinancial Guidance* on different variations of financial guidance variables. Like in Table 3, Panel A presents results for *Nonfinancial Guidance* where it refers to setting a CDP absolute emissions target. Panel B presents results for *Nonfinancial Guidance* where it refers to setting a CDP intensity emissions target. For both Panels A and B, in Column (1), the regression is run on $FinGuid_{QtrORAn}$. In Column (2), the regression is run on $FinGuid_{QtrORAnnOR2Yr}$. In Column (3), the regression is run on $FinGuid_{QtrORAnnOR2YrORMore}$. In Column (4), the regression is run on $FinGuid_{AnnOR2Yr}$. In Column (5), the regression is run on $FinGuid_{AnnOR2YrORMore}$. The positive significant coefficients on all 5 variations of *FinGuid* across all columns for Panels A and B (coefficients: 0.009–0.018, t-stats: 1.80–3.09) indicate a strong positive association between firms issuing financial guidance and nonfinancial guidance.

5.3 Guidance cross-sectional tests

Tables 5 and 6 present cross-sectional split-subsample analyses that explore factors that can encourage or discourage firms' joint use of financial and non-financial guidance.

Table 5 Panel A and Table 6 Panel A report results of analyses for absolute targets, and Table 5 Panels B and Table 6 Panel B report results of analyses for intensity targets. Table 5 studies cross-sectional factors that are internal to the firm in influencing firms' joint use of financial and

non-financial guidance for absolute and intensity targets, respectively. Table 6 studies cross-sectional factors that are external to the firm in influencing firms' joint use of financial and non-financial guidance for absolute and intensity targets, respectively.

Firms that are less financially constrained are more likely to issue nonfinancial guidance than firms that are more financially constrained. Table 5 Panel A and B Columns (1) and (2) compare more and less financially constrained firms by the Hadlock-Pierce (2010) financial constraint measure, while Columns (3) and (4) compare more and less financially constrained firms by whether they experienced prior year loss or negative earnings. Table 5 Panel A Columns (1-4), as well as Table 5 Panel B Columns (1-4) show on average larger and positive coefficients (0.011 – 0.021) for less financially constrained firms compared to on average smaller and negative coefficients (-0.012 – -0.003) for more financially constrained firms.

Firms that have incentives for top management tied to ESG are more likely to issue nonfinancial guidance than firms that do not. Table 5 Panel A and B Columns (5) show on average larger positive coefficients (coef = 0.054; coef = 0.086) for firms with managerial climate-related incentives compared to smaller positive coefficients in Columns (6) (coef = 0.009; coef = 0.038) for firms without these incentives.

Firms that have more environment-related operations are more likely to issue nonfinancial guidance than firms that do not. Table 6 Panel A and B Columns (1) show on average larger coefficients (coef = 0.014; coef = 0.016) for firms with more environment-related operations compared to smaller coefficients in Columns (2) (coef = 0.004; coef = 0.008) for firms with less environment-related operations.

Firms that have greater external demand for environmental information are more likely to issue nonfinancial guidance than firms that do not. Table 6 Panel A and B Columns (3) show on

average larger coefficients (coef = 0.010; coef = 0.015) for firms with greater external demand for environmental information compared to smaller coefficients in Columns (4) (coef = -0.002; coef = -0.001) for firms with less external demand for environmental information.

Firms that have seek assurance of their reported emissions are more likely to issue nonfinancial guidance than firms that do not. Table 6 Panels A and B Column (5) shows on average larger coefficients (coef = 0.038, coef = 0.062) for firms that seek assurance of their reported emissions compared to smaller coefficients in Column (6) (coef = 0.017, coef = 0.024) for firms that do not seek assurance for their emissions.

5.4 Financial guidance accuracy and non-financial guidance accuracy

We find that firms that provide more accurate financial guidance are more likely to provide more accurate nonfinancial guidance for absolute emissions target guidance but is not significantly associated with intensity emissions target guidance accuracy.

Table 7 presents regression results from the Equation 2 regression of *On Target* on different variations of our financial guidance error variables. Columns (1) and (2) are regression specifications that study absolute target forecasting accuracy, while Columns (3) and (4) study intensity target forecasting accuracy. In Columns (1) and (3), the regression is run on *FinGuid Error Unsigned*$_{AnnOR2Yr}$. In Columns (2) and (4), the regression is run on *FinGuid Error Unsigned*$_{AnnOR2YrORMore}$. Table 7 reports negative significant coefficients on both variations of *FinGuid Error Unsigned* in Columns (1) and (2) (coef = -0.898, coef = -0.948) but insignificant coefficients for both variations of *FinGuid Error Unsigned* in Columns (3) and (4) (coef = 0.407, coef = 0.433).

6. Conclusion

We examine whether firms that provide financial (and more accurate financial) guidance are more likely to provide nonfinancial (and more accurate nonfinancial) guidance. With the recent growth in stakeholder interest in environmental, social, and governance (ESG) over the past decade, companies are increasing disclosing information about their environmental performance and initiatives in response to stakeholders' demands. Less understood is companies' relative ability to voluntarily disclose and accurately disclose this nonfinancial information.

We provide evidence that firms that provide financial guidance are indeed more likely to provide nonfinancial guidance. Companies with better capabilities for forecasting may be more likely to provide both financial and non-financial guidance, similar economic forces that drive financial guidance may drive non-financial guidance, and providing both financial and non-financial guidance can signal higher credibility for one or both disclosures.

We also find that firms that provide more accurate financial guidance are more likely to provide more accurate nonfinancial guidance for absolute emissions target guidance but is not significantly associated with intensity emissions target guidance accuracy. The difference in association between absolute and intensity emissions targets may be due to the additional forecasting and room for unpredictability for the factor of normalization for intensity targets.

Firms that are less financially constrained, have climate-related incentives for management, discuss more at length about environmental issues in conference calls, have analysts that ask about environmental issues in conference calls, and that seek assurance of their reported emissions are more likely to issue nonfinancial guidance than firms do not fit those qualities.

Our results shed light on firms' relative abilities to voluntarily and credibly disclose nonfinancial information.

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Table 1: Sample Selection and Distributional Statistics

Panel A. Sample Selection Criteria

Criteria	*Firm-years*	*Number of firms*
Firm-year observations public U.S. firms on CRSP/Compustat from 2010-2020:	59,875	8,797
After merging with CRSP	59,849	8,796
After merging with CDP data	59,752	8,751
After merging with IBES Guidance data	59,752	8,751
After restricting to Russell 1000 firms	12,690	1,481
After requiring values for all controls	12,200	1,445

Notes: This table presents the sample selection criteria for the analyses.

Panel B: Industry Distribution

2-Digit SIC	*Industry Title*	*Frequency*	*Percent*
10-14	Mining	501	4.11
15-17	Construction	143	1.17
20-39	Manufacturing	4493	36.83
40-49	Transportation, Communications, Electric, Gas, And Sanitary Services	1266	10.38
50-51	Wholesale Trade	316	2.59
52-59	Retail Trade	722	5.92
60-67	Finance, Insurance, And Real Estate	2760	22.62
70-89	Services	1949	15.98
99	Non-classifiable Establishments	50	0.41
Total		*12,200*	*100*

Notes: This table presents the industry distribution for the sample.

Panel C: Year Distribution

Year	*Frequency*	*Percent*
2010	1,051	8.61
2011	1,092	8.95
2012	1,102	9.03
2013	1,115	9.14
2014	1,150	9.43
2015	1,143	9.37
2016	1,131	9.27
2017	1,119	9.17
2018	1,105	9.06
2019	1,100	9.02
2020	1,092	8.95
Total	*12,200*	*100*

Notes: This table presents the year distribution for the sample.

Table 2: Descriptive Statistics

Panel A: Firm-year Variables

	N	*Mean*	*Std. Dev.*	*25%*	*Median*	*75%*
Nonfinancial Guidance Variables (Absolute)						
Nonfinancial Guidance	12,200	0.031	0.174	0	0	0
On Target	2,088	0.536	0.499	0	1	1
Target Length	2,088	15.05	10.78	8	11	20
Years Since Target Base Year	2,088	5.47	4.177	2	5	8
Nonfinancial Guidance Variables (Intensity)						
Nonfinancial Guidance	12,200	0.060	0.237	0	0	0
On Target	232	0.151	0.359	0	0	0
Target Length	232	7.668	3.479	5	7	9
Years Since Target Base Year	232	2.853	2.344	1	2	4
Financial Guidance Variables						
FinGuid $_{QtrORAnn}$	12,200	0.442	0.497	0	0	1
FinGuid $_{QtrORAnnOR2Yr}$	12,200	0.398	0.490	0	0	1
FinGuid $_{QtrORAnnOR2YrORMore}$	12,200	0.402	0.490	0	0	1
FinGuid $_{AnnOR2Yr}$	12,200	0.459	0.498	0	0	1
FinGuid $_{AnnOR2YrORMore}$	12,200	0.462	0.499	0	0	1
FinGuid Error Unsigned $_{AnnOR2Yr}$	4,836	0.032	0.038	0.007	0.017	0.040
FinGuid Error Unsigned $_{AnnOR2YrORMore}$	4,883	0.033	0.040	0.007	0.018	0.040
Control Variables						
Firm Size	12,200	8.927	1.345	7.925	8.804	9.870
Book to Market	12,200	0.429	0.313	0.187	0.357	0.614
Sales Growth	12,200	0.080	0.156	-0.010	0.055	0.142
Leverage	12,200	0.287	0.191	0.129	0.277	0.424
Annual Returns	12,200	0.150	0.295	-0.047	0.134	0.328
Annual Return Volatility	12,200	0.085	0.040	0.054	0.075	0.107
Cross-Sectional Variables						
Financially Constrained	8,418	0.541	0.498	0	1	1
Prior Year Loss	12,094	0.149	0.357	0	0	0
Climate-Related Incentives	2,615	0.363	0.481	0	0	1
Mgmt Environment Discussion	11,793	4.277	4.027	1.500	3.250	5.750
Analyst Environment Discussion	11,744	0.883	0.322	1	1	1
High Emission Assurance	2,362	0.221	0.415	0	0	0

Notes: This table presents descriptive statistics for the main variables used in regressions as well as control variables. Detailed definitions of all variables are provided in Appendix A.

Table 2: Descriptive Statistics—continued

Panel B: Absolute Emissions Target Sample (Target-Level)

	N	*Mean*	*Std. Dev.*	*25%*	*Median*	*75%*
Target Set Year	1,181	2016	4.046	2014	2017	2019
Target Base Year	1,181	2014	4.966	2011	2015	2018
Target Year	1,181	2025	9.317	2020	2025	2030
Covered Emissions in Base Year	1,181	102.0	3279	0.056	0.301	1.634
Percentage of Total Base Year Emissions Covered	1,181	88.98	26.64	99	100	100
Targeted Reduction Percentage	1,181	37.16	31.04	11	30	50

Panel C: Intensity Emissions Target Sample (Target-Level)

	N	*Mean*	*Std. Dev.*	*25%*	*Median*	*75%*
Target Set Year	698	2,014	4.037	2,011	2,015	2,017
Target Base Year	698	2,013	4.205	2,010	2,014	2,016
Target Year	698	2,021	5.220	2,018	2,020	2,025
Covered Emissions in Base Year	698	0.764	4.9	0.000	0.000	0.0002
Percentage of Total Base Year Emissions Covered	698	87.01	27.04	93	100	100
Targeted Reduction Percentage	698	21.28	19.55	7	16.43	30

Table 3: Financial and Nonfinancial Guidance Univariate Test Results

Panel A: Absolute Targets

Union of:	(1)	(2)	(3)	(4)	(5)
Quarterly	*X*	*X*	*X*		
Annual	*X*	*X*	*X*	*X*	*X*
2nd year Annual		*X*	*X*	*X*	*X*
>2 year Annual			*X*		*X*
	Nonfinancial Guidance	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*
FinGuid	0.006	0.008*	0.008*	0.009*	0.008*
	(1.39)	(1.88)	(1.79)	(1.94)	(1.82)
Constant	0.029***	0.028***	0.028***	0.028***	0.028***
	(9.71)	(9.46)	(9.46)	(10.02)	(10.02)
Observations	12,200	12,200	12,200	12,200	12,200
R-squared	0.000	0.001	0.000	0.001	0.001

Notes: This table presents univariate regression results from the regression of *Nonfinancial Guidance* on different variations of financial guidance variables, where *Nonfinancial Guidance* refers to setting a CDP absolute emissions target. In Column (1), the regression is run on $FinGuid_{QtrORAnn}$. In Column (2), the regression is run on $FinGuid_{QtrORAnnOR2Yr}$. In Column (3), the regression is run on $FinGuid_{QtrORAnnOR2YrORMore}$. In Column (4), the regression is run on $FinGuid_{AnnOR2Yr}$. In Column (5), the regression is run on $FinGuid_{AnnOR2YrORMore}$. The unit of observation is at the firm-year level. The standard errors are clustered by firm. The values in the parentheses represent t-statistics. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). Detailed definitions of all variables are provided in Appendix A.

Table 3: Financial and Nonfinancial Guidance Univariate Test Results—continued

Panel B: Intensity Targets

Union of:	(1)	(2)	(3)	(4)	(5)
Quarterly	*X*	*X*	*X*		
Annual	*X*	*X*	*X*	*X*	*X*
2nd year Annual		*X*	*X*	*X*	*X*
>2 year Annual			*X*		*X*
	Nonfinancial Guidance	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*
FinGuid	0.009	0.011*	0.011*	0.011*	0.010
	(1.60)	(1.92)	(1.80)	(1.79)	(1.62)
Constant	0.056***	0.055***	0.055***	0.056***	0.056***
	(13.29)	(12.92)	(12.92)	(13.76)	(13.77)
Observations	12,200	12,200	12,200	12,200	12,200
R-squared	0.000	0.001	0.001	0.000	0.000

Notes: This table presents univariate regression results from the regression of *Nonfinancial Guidance* on different variations of financial guidance variables, where *Nonfinancial Guidance* refers to setting a CDP intensity emissions target. In Column (1), the regression is run on $FinGuid_{QtrORAnn}$. In Column (2), the regression is run on $FinGuid_{QtrORAnnOR2Yr}$. In Column (3), the regression is run on $FinGuid_{QtrORAnnOR2YrORMore}$. In Column (4), the regression is run on $FinGuid_{AnnOR2Yr}$. In Column (5), the regression is run on $FinGuid_{AnnOR2YrORMore}$. The unit of observation is at the firm-year level. The standard errors are clustered by firm. The values in the parentheses represent t-statistics. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). Detailed definitions of all variables are provided in Appendix A.

Table 4: Financial and Nonfinancial Guidance Multivariate Test Results

Panel A: Absolute Targets

Union of:	(1)	(2)	(3)	(4)	(5)
Quarterly	*X*	*X*	*X*		
Annual	*X*	*X*	*X*	*X*	*X*
2nd year Annual		*X*	*X*	*X*	*X*
>2 year Annual			*X*		*X*
	Nonfinancial Guidance	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*
FinGuid	0.012**	0.013***	0.012**	0.009*	0.009*
	(2.50)	(2.67)	(2.55)	(1.95)	(1.80)
Firm Size	0.026***	0.026***	0.026***	0.026***	0.026***
	(12.99)	(12.97)	(12.97)	(12.94)	(12.94)
Book to Market	-0.021***	-0.021***	-0.021***	-0.022***	-0.022***
	(-2.69)	(-2.67)	(-2.68)	(-2.81)	(-2.83)
Sales Growth	-0.019**	-0.019**	-0.019**	-0.019**	-0.018**
	(-2.07)	(-2.06)	(-2.05)	(-2.05)	(-2.04)
Leverage	-0.021**	-0.021**	-0.021**	-0.022**	-0.022**
	(-2.13)	(-2.14)	(-2.14)	(-2.25)	(-2.24)
Annual Returns	0.000	0.000	0.000	0.000	0.000
	(0.07)	(0.08)	(0.07)	(0.03)	(0.03)
Annual Return Volatility	-0.022	-0.022	-0.022	-0.022	-0.022
	(-0.49)	(-0.48)	(-0.48)	(-0.49)	(-0.50)
Constant	-0.190***	-0.190***	-0.190***	-0.187***	-0.187***
	(-10.89)	(-10.87)	(-10.85)	(-10.83)	(-10.82)
Observations	12,200	12,200	12,200	12,200	12,200
R-squared	0.056	0.056	0.056	0.056	0.056
Year FE	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES

Notes: This table presents multivariate regression results from the regression of *Nonfinancial Guidance* on different variations of financial guidance variables and a vector of controls, where *Nonfinancial Guidance* refers to setting a CDP absolute emissions target. In Column (1), the regression is run on $FinGuid_{QtrORAnn}$. In Column (2), the regression is run on $FinGuid_{QtrORAnnOR2Yr}$. In Column (3), the regression is run on $FinGuid_{QtrORAnnOR2YrORMore}$. In Column (4), the regression is run on $FinGuid_{AnnOR2Yr}$. In Column (5), the regression is run on $FinGuid_{AnnOR2YrORMore}$. The unit of observation is at the firm-year level. All columns include year and industry (on the SIC 2-digit code level) fixed effects. The standard errors are clustered by firm. The values in the parentheses represent t-statistics. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). Detailed definitions of all variables are provided in Appendix A.

Table 4: Financial and Nonfinancial Guidance Multivariate Test Results—continued

Panel B: Intensity Targets

Union of:	(1)	(2)	(3)	(4)	(5)
Quarterly	*X*	*X*	*X*		
Annual	*X*	*X*	*X*	*X*	*X*
2nd year Annual		*X*	*X*	*X*	*X*
>2 year Annual			*X*		*X*
	Nonfinancial Guidance	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*	*Nonfinancial Guidance*
FinGuid	0.017***	0.018***	0.017***	0.013**	0.012**
	(2.94)	(3.09)	(2.93)	(2.22)	(2.02)
Firm Size	0.041***	0.041***	0.041***	0.041***	0.041***
	(16.00)	(16.00)	(15.99)	(15.98)	(15.97)
Book to Market	-0.032***	-0.031***	-0.031***	-0.033***	-0.033***
	(-3.28)	(-3.26)	(-3.28)	(-3.40)	(-3.42)
Sales Growth	-0.023*	-0.022*	-0.022*	-0.022*	-0.022*
	(-1.76)	(-1.74)	(-1.74)	(-1.73)	(-1.73)
Leverage	-0.032**	-0.032**	-0.032**	-0.034**	-0.034**
	(-2.35)	(-2.36)	(-2.36)	(-2.47)	(-2.46)
Annual Returns	-0.008	-0.008	-0.008	-0.008	-0.008
	(-1.10)	(-1.09)	(-1.10)	(-1.14)	(-1.15)
Annual Return Volatility	-0.083	-0.083	-0.083	-0.083	-0.084
	(-1.40)	(-1.39)	(-1.39)	(-1.39)	(-1.40)
Constant	-0.281***	-0.281***	-0.281***	-0.277***	-0.276***
	(-12.58)	(-12.58)	(-12.56)	(-12.59)	(-12.57)
Observations	12,200	12,200	12,200	12,200	12,200
R-squared	0.080	0.080	0.080	0.080	0.079
Year FE	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES

Notes: This table presents multivariate regression results from the regression of *Nonfinancial Guidance* on different variations of financial guidance variables and a vector of controls, where *Nonfinancial Guidance* refers to setting a CDP intensity emissions target. In Column (1), the regression is run on $FinGuid_{QtrORAnn}$. In Column (2), the regression is run on $FinGuid_{QtrORAnnOR2Yr}$. In Column (3), the regression is run on $FinGuid_{QtrORAnnOR2YrORMore}$. In Column (4), the regression is run on $FinGuid_{AnnOR2Yr}$. In Column (5), the regression is run on $FinGuid_{AnnOR2YrORMore}$. The unit of observation is at the firm-year level. All columns include year and industry (on the SIC 2-digit code level) fixed effects. The standard errors are clustered by firm. The values in the parentheses represent t-statistics. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). Detailed definitions of all variables are provided in Appendix A.

Table 5: Cross-sectional Analyses for Firm-Internal Channels

Panel A: Absolute Targets

	Financially Constrained		*Prior Year Loss*		*Climate-Related Incentives*	
	(1) High	(2) Low	(3) Yes	(4) No	(5) Yes	(6) No
$FinGuid_{AnnOR2Yr}$	-0.006	0.014**	-0.003	0.011**	0.054*	0.009
	(-0.64)	(2.49)	(-0.64)	(2.03)	(1.85)	(0.43)
Observations	3,781	8,418	1,802	10,287	946	1,665
R-squared	0.056	0.064	0.049	0.059	0.108	0.064
Controls	YES	YES	YES	YES	YES	YES
Year and Industry FEs	YES	YES	YES	YES	YES	YES

Notes: This table reports cross-sectional analyses from the regression of *Nonfinancial Guidance* on $FinGuid_{AnnOR2Yr}$ and a vector of controls, where *Nonfinancial Guidance* refers to setting a CDP absolute emissions target. The cross-sectional splits here are based on firm-internal channels. Within Columns (1) and (2), the sample is split based on *Financially Constrained*, or whether firms are above or below the median Hadlock-Pierce (2010) financial constraint variable *Financially Constrained* in the sample within a year. Columns (3) and (4) mirror the presentation in Columns (1) and (2), but the sample is split by whether firms experienced negative earnings in the prior year in a given year. Columns (5) and (6) mirror the presentation in Columns (1) and (2), but the sample is split based on whether a firm has climate-related incentives for management in a given year. All columns include the baseline regression with full set of control variables, as well as firm and industry fixed effects. The unit of observation is at the firm-year level. The standard errors are clustered by firm. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). t-statistics are in the parentheses. Detailed definitions of all variables are provided in Appendix A.

Table 5: Cross-sectional Analyses for Firm-Internal Channels—continued

Panel B: Intensity Targets

	Financially Constrained		*Prior Year Loss*		*Climate-Related Incentives*	
	(1) High	(2) Low	(3) Yes	(4) No	(5) Yes	(6) No
$FinGuid_{AnnOR2Yr}$	-0.012	0.021***	-0.010	0.016**	0.086**	0.038*
	(-1.00)	(3.15)	(-1.26)	(2.34)	(2.45)	(1.75)
Observations	3,781	8,418	1,804	10,285	946	1,665
R-squared	0.079	0.087	0.095	0.079	0.123	0.072
Controls	YES	YES	YES	YES	YES	YES
Year and Industry FEs	YES	YES	YES	YES	YES	YES

Notes: This table reports cross-sectional analyses from the regression of *Nonfinancial Guidance* on $FinGuid_{AnnOR2Yr}$ and a vector of controls, where *Nonfinancial Guidance* refers to setting a CDP intensity emissions target. The cross-sectional splits here are based on firm-internal channels. Within Columns (1) and (2), the sample is split based on *Financially Constrained*, or whether firms are above or below the median Hadlock-Pierce (2010) financial constraint variable *Financially Constrained* in the sample within a year. Columns (3) and (4) mirror the presentation in Columns (1) and (2), but the sample is split by whether firms experienced negative earnings in the prior year in a given year. Columns (5) and (6) mirror the presentation in Columns (1) and (2), but the sample is split based on whether a firm has climate-related incentives for management in a given year. All columns include the baseline regression with full set of control variables, as well as firm and industry fixed effects. The unit of observation is at the firm-year level. The standard errors are clustered by firm. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). t-statistics are in the parentheses. Detailed definitions of all variables are provided in Appendix A.

Table 6: Cross-sectional Analyses for Firm-External Channels

Panel A: Absolute Targets

	Management Environment Discussion		*Analyst Environment Discussion*		*Emission Assurance*	
	(1)	(2)	(3)	(4)	(5)	(6)
	High	Low	Yes	No	Yes	No
$FinGuid_{AnnOR2Yr}$	0.014*	0.004	0.010*	-0.002	0.038*	0.017
	(1.67)	(0.80)	(1.80)	(-0.24)	(1.67)	(0.70)
Observations	6,135	6,065	10,369	1,371	1,837	967
R-squared	0.062	0.059	0.057	0.115	0.059	0.098
Controls	YES	YES	YES	YES	YES	YES
Year and Industry FEs	YES	YES	YES	YES	YES	YES

Notes: This table reports cross-sectional analyses from the regression of *Nonfinancial Guidance* on $FinGuid_{AnnOR2Yr}$ and a vector of controls, where *Nonfinancial Guidance* refers to setting a CDP absolute emissions target. The cross-sectional splits here are based on firm-external channels. Within Columns (1) and (2), the sample is split based on *Financially Constrained*, or whether firms are above or below the median Hadlock-Pierce (2010) financial constraint variable *Financially Constrained* in the sample within a year. Columns (3) and (4) mirror the presentation in Columns (1) and (2), but the sample is split by whether firms experienced negative earnings in the prior year in a given year. Columns (5) and (6) mirror the presentation in Columns (1) and (2), but the sample is split based on whether a firm has climate-related incentives for management in a given year. All columns include the baseline regression with full set of control variables, as well as firm and industry fixed effects. The unit of observation is at the firm-year level. The standard errors are clustered by firm. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). t-statistics are in the parentheses. Detailed definitions of all variables are provided in Appendix A.

Table 6: Cross-sectional Analyses for Firm-External Channels—continued

Panel B: Intensity Targets

	Management Environment Discussion		*Analyst Environment Discussion*		*Emission Assurance*	
	(1)	(2)	(3)	(4)	(5)	(6)
	High	Low	Yes	No	Yes	No
$FinGuid_{AnnOR2Yr}$	0.016*	0.008	0.015**	-0.001	0.062***	0.024
	(1.68)	(1.33)	(2.26)	(-0.08)	(2.70)	(0.77)
Observations	6,135	6,065	10,369	1,371	1,837	967
R-squared	0.084	0.074	0.080	0.126	0.077	0.100
Controls	YES	YES	YES	YES	YES	YES
Year and Industry FEs	YES	YES	YES	YES	YES	YES

Notes: This table reports cross-sectional analyses from the regression of *Nonfinancial Guidance* on $FinGuid_{AnnOR2Yr}$ and a vector of controls, where *Nonfinancial Guidance* refers to setting a CDP intensity emissions target. The cross-sectional splits here are based on firm-external channels. Within Columns (1) and (2), the sample is split based on *Financially Constrained*, or whether firms are above or below the median Hadlock-Pierce (2010) financial constraint variable *Financially Constrained* in the sample within a year. Columns (3) and (4) mirror the presentation in Columns (1) and (2), but the sample is split by whether firms experienced negative earnings in the prior year in a given year. Columns (5) and (6) mirror the presentation in Columns (1) and (2), but the sample is split based on whether a firm has climate-related incentives for management in a given year. All columns include the baseline regression with full set of control variables, as well as firm and industry fixed effects. The unit of observation is at the firm-year level. The standard errors are clustered by firm. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). t-statistics are in the parentheses. Detailed definitions of all variables are provided in Appendix A.

Table 7: Financial and Nonfinancial Guidance Accuracy Test Results

Union of:	(1)	(2)	(3)	(4)
Annual	*X*	*X*	*X*	*X*
2nd year Annual	*X*	*X*	*X*	*X*
>2 year Annual		*X*		*X*
	Absolute Targets		Intensity Targets	
	On Target	*On Target*	*On Target*	*On Target*
FinGuid Error Unsigned	-0.898*	-0.948*	0.407	0.433
	(-1.74)	(-1.95)	(0.37)	(0.40)
Firm Size	-0.028	-0.028	-0.067	-0.067
	(-0.88)	(-0.88)	(-0.47)	(-0.47)
Book to Market	0.128	0.132	0.232	0.235
	(1.14)	(1.17)	(0.56)	(0.56)
Sales Growth	-0.149	-0.162	0.941*	0.941*
	(-0.57)	(-0.63)	(1.90)	(1.90)
Leverage	0.163	0.161	0.067	0.072
	(0.80)	(0.82)	(0.09)	(0.10)
Annual Returns	-0.068	-0.074	-0.018	-0.018
	(-0.72)	(-0.79)	(-0.07)	(-0.07)
Annual Return Volatility	-3.020***	-3.001***	-2.414	-2.395
	(-3.44)	(-3.44)	(-1.31)	(-1.31)
Constant	0.961***	0.959***	0.859	0.860
	(2.65)	(2.67)	(0.71)	(0.71)
Observations	818	824	103	103
R-squared	0.323	0.327	0.769	0.769
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Target Length FE	YES	YES	YES	YES
Years Since Target Base Year FE	YES	YES	YES	YES

Notes: This table presents regression results from the regression of *On Target* on different variations of financial guidance error variables and a vector of controls, where *On Target* refers to a firm being on track to achieving or achieving a CDP absolute or intensity emissions target. In Column (1), the regression is run on *FinGuid Error Unsigned* $_{AnnOR2Yr}$ for absolute emissions targets. In Column (2), the regression is run on *FinGuid Error Unsigned*$_{AnnOR2YrORMore}$ for absolute emissions targets. Columns (3) and (4) mirror Columns (1) and (2), but regression is run for intensity emissions targets. The unit of observation is at the firm-year-target level. All columns include year, industry (on the SIC 2-digit code level), *Target Length*, and *Years Since Target Base Year* fixed effects. The standard errors are clustered by firm. The values in the parentheses represent t-statistics. ***, **, * indicates statistical significance at 1%, 5%, and 10% respectively (two-tailed). Detailed definitions of all variables are provided in Appendix A.

Appendix A: Variable Definitions

Variable	Definition
Nonfinancial Guidance	A dummy for whether a firm sets a CDP emissions target in a given year
On Target	A dummy for whether a CDP emissions target is on track to being achieved or is achieved in a given year. The dummy equals 1 when the following value is greater than or equal to 0: forecasted emissions measure based on a linear trend or prediction line minus the actual emissions measure, scaled by the actual emissions measure
Target Length	The number of years between the target year and the target base year for a given CDP emissions target
Years Since Target Base Year	The number of years since the target base year for a given year and CDP emissions target
FinGuid $_{QtrORAnn}$	A dummy for whether a firm issues revenue management guidance for a quarter or for the current year, in a given year
FinGuid $_{QtrORAnnOR2Yr}$	A dummy for whether a firm issues revenue management guidance for a quarter or for the current year or for the next year, in a given year
FinGuid $_{QtrORAnnOR2YrORMore}$	A dummy for whether a firm issues revenue management guidance for a quarter or for the current year or for the next year or for any years beyond the next year, in a given year
FinGuid $_{AnnOR2Yr}$	A dummy for whether a firm issues revenue management guidance for the current year or for the next year, in a given year
FinGuid $_{AnnOR2YrORMore}$	A dummy for whether a firm issues revenue management guidance for the current year or for the next year or for any years beyond the next year, in a given year
FinGuid Error Unsigned $_{AnnOR2Yr}$	The absolute value of the forecasted revenue value minus the actual revenue value, divided by the actual revenue value; for revenue management guidance issued for the current year or for the next year, in a given year
FinGuid Error Unsigned $_{AnnOR2YrORMore}$	The absolute value of the forecasted revenue value minus the actual revenue value, divided by the actual revenue value; for revenue management guidance issued for the current year or for the next year or for any years beyond the next year, in a given year
Firm Size	The natural logarithm of total assets (AT) from Compustat
Book to Market	Book value of equity divided by market capitalization (CEQ)/(PRCC_F*CSHO) from Compustat
Sales Growth	Revenue (REVT) divided by prior year revenue minus one, from Compustat
Leverage	Total liabilities divided by total assets (DLTT+DLC)/AT from Compustat

Annual Returns	The compounded annual return from compounding returns of each fiscal month
Annual Return Volatility	The standard deviation of returns of each fiscal month in a fiscal year
Financially Constrained	A variable representing degree of financial constraint, based on Hadlock and Pierce (2010)
Prior Year Loss	A dummy for whether a firm experienced a loss (negative earnings) in the prior year
Climate-Related Incentives	A dummy for whether a firm provides incentives to top-level management (i.e., CEO, CFO, COO, President, Corporate executive team, Executive officer) for the management of climate-related issues
Mgmt Environment Discussion	The average number of environmental keywords (i.e. from the following set: ['environment', 'environmental', 'emission', 'emissions', 'carbon', 'climate', 'pollution', 'electricity', 'co2', 'ghg', 'greenhouse gas', 'net zero', 'net-zero', 'sustainable', 'sustainability', 'esg', 'csr']) mentioned by a firm in its conference calls, in a given year
Analyst Environment Discussion	A dummy for whether any analysts in a firm's conference calls mentions an environmental keyword (i.e. from the following set: ['environment', 'environmental', 'emission', 'emissions', 'carbon', 'climate', 'pollution', 'electricity', 'co2', 'ghg', 'greenhouse gas', 'net zero', 'net-zero', 'sustainable', 'sustainability', 'esg', 'csr']), in a given year
Emission Assurance	A dummy for whether a firm has a third-party verification or assurance process in place.
Target Set Year	The year in which a firm sets a CDP emissions target
Target Base Year	The base year for a CDP emissions target, upon which targeted emissions reductions are based
Target Year	The targeted year for achieving a CDP emissions target goal
Covered Emissions in Base Year	The covered emissions in a CDP emissions target base year (metric tons CO2e), divided by 1 million
Percentage of Total Base Year Emissions Covered	The covered emissions in a CDP emissions target base year as % of total base year emissions
Targeted Reduction Percentage	The targeted reduction in base year (%) for a CDP emissions target

**All continuous variables are winsorized at the 1st and 99th percentile.*