The impact of analyst distraction on their reliance on industry-level information

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Abstract

This study uses events in which extreme industry returns capture analysts' attention as a measure of distraction to investigate whether analysts' distraction affects their relative reliance on industry-level information to make forecasts. Empirical analysis shows that when analysts are distracted, their reliance on industry-level information increases relative to firm-specific information. This result is consistent, regardless of whether industries are defined using different industry classifications and whether analysts' attention is measured using different weighting methods. In addition, when analysts are distracted, those who follow a larger number of industries and companies are more likely to increase their reliance on industry-level information. However, if the analysts are from large brokerage firms, the effect of distractions on their reliance on industry-level information weakens. Distracted analysts tend to rely more on industry-level information as the forecast horizon increases. However, those who issue bold earnings forecasts are less likely to depend on industry-level information when distracted.

Keywords: Analyst Distraction, Industry-level Information Reliance, Analyst Characteristics, Firm Characteristics, Forecast Characteristics

1. Introduction

Investors often depend on newspapers, magazines, and broadcast media to obtain information on individual stocks, industries, and overall market conditions. Much of this information is derived from analyst research reports, including earnings forecasts, target prices, as well as company and industry overviews. By collecting both public and nonpublic data, analysts process and interpret this information to make earnings predictions (Lys & Sohn, 1990; Baginski & Hassell, 1990; Abarbanell, 1991; Clement, Hales, & Xue, 2011), thus reducing information asymmetry and identifying stock mispricing (Das, Guo, & Zhang, 2006; Lee & So, 2017). As information intermediaries, analyst reports play a crucial role in presenting a company's fundamental value. Investors rely on these reports to guide their trading strategies, making analysts integral to capital market functioning.

However, attention is a limited cognitive resource (Kahneman, 1973). When analysts are distracted by external factors, they tend to selectively focus on processing the most relevant information (Israeli et al., 2017). In the presence of attention-grabbing events, analysts may shift their focus away from stocks in unaffected industries toward those that attract attention (Bourveau, Garel, Joos, & Petit-Romec, 2024). Research has shown that distractions negatively affect forecast accuracy. For example, Driskill et al. (2020) find that when analysts simultaneously cover multiple earnings announcements, both the timeliness and the quality of their forecasts suffer. Similarly, Bourveau et al. (2024) observe that distracted analysts produce less accurate forecasts and less informative revisions than their undistracted peers. Le and Trinh (2022) develop a firm-level measure of analyst distraction and linked it to increased earnings management. Other studies, such as Liu et al. (2023) and Han et al. (2024), show that distractions such as natural disasters reduce analysts' forecast accuracy owing to cognitive bias and limited attention. Analyst distraction undermines the quality of firm-specific forecasts.

This study explores whether distracted analysts tend to rely more on industry-level information than on firm-specific details in their earnings forecasts. Analysts face a tradeoff between industry- and firm-specific information, with the former being easier to access and applicable to multiple companies within the same sector. Given their limited cognitive resources and the vast amount of available information, analysts must be selective in their focus. When distracted, they may divert attention from detailed firm-specific analyses and instead rely on broader, more generalized, industry-level information.

Industry-level data are often less cognitively demanding and can be applied across multiple firms to help analysts manage their workload.[1] Peng and Xiong (2006) similarly observe that investors with limited attention focus more on broad market- and sector-wide information than on firm-specific details. Therefore, this study hypothesizes that analysts distracted by external events are more likely to rely on industry-level information than firm-specific details in their earnings forecasts.

This study adopts the methodology of Kempf, Manconi, and Spalt (2017) and Bourveau et al. (2024), using extreme industry returns as attention-grabbing events to measure how distractions affect analysts' focus on the stocks they cover. The measure of analyst distraction used in this study has several advantages (Bourveau et al., 2024). First, it is likely to be exogenous to the financial conditions of the stocks from which analysts are distracted, allowing for a clear focus on how external events influence their attention. Second, it precisely captures how limited attention affects forecasts by isolating the specific months in which analysts' attention is diverted. Third, it enables comparisons between distracted and non-distracted analysts covering the same stocks while keeping public information constant.

The findings show that when analysts are distracted, they tend to rely more on industry-level information than on firm-specific details in their earnings forecasts. This effect remains robust even after controlling for analysts' resources, incentives, and other influencing factors. Moreover, the impact of distraction varies according to the type of return event. When extremely positive returns occur, analysts are likely to rely more on industry-level information. However, extremely negative returns do not lead to the same increase in reliance. Epstein and Schneider (2008) suggested that investors react asymmetrically to good and bad news, whereas Chuprinin (2011) noted that investors tend to focus more on companies with positive news. These observations may explain why positive news leads to greater distraction and a shift toward industry-level information in analysts' forecasts.

Robustness tests confirm that the empirical results hold, regardless of how industries are defined or how analyst distraction is calculated. Additionally, distracted analysts who follow more industries and companies tend to increase their reliance on industry-level

[1] However, this shift toward industry-level information may come at the cost of reduced accuracy in firm-specific forecasts.

information. Conversely, distracted analysts from larger brokerage firms, which provide more resources, exhibit less reliance on industry-level information during distractions. Additionally, during periods of distraction, analysts' tendency to rely more on industry-level information is weaker for firms with higher trading volumes, larger firm sizes, and greater institutional ownership. Distracted analysts increasingly depend on industry-level information as the forecast horizon lengthens. However, when distracted analysts issue bold earnings forecasts, their reliance on industry-level information diminishes.

This study contributes to existing literature in several ways. First, while previous research examines how analyst distraction affects forecast accuracy (Bourveau et al., 2024) and earnings management (Le and Trinh, 2022), no study has specifically explored how distraction influences analysts' choices between industry- and firm-specific information. This study fills this gap by examining how distractions affect analysts' reliance on industry-level forecasting information. Second, building on the work of Choi and Gupta-Mukherjee (2022), who examine how information choices impact forecast accuracy, this study investigates how distraction shapes analysts' information preferences. Thus, it contributes to the broader literature on how analysts strategically allocate efforts across information sources. Third, this study contributes to understanding the role of attention in financial markets. While most existing studies focus on how limited investor attention affects asset pricing anomalies (Hirshleifer, Lim, and Teoh, 2009), this study shifts the focus to analysts, examining how distractions influence their earnings forecasts.

The remainder of this paper is structured as follows: Section 2 reviews the literature and develops the hypotheses, Section 3 presents the research methodology, Section 4 analyzes the empirical results and makes robust tests, and Section 5 provides additional tests. Section 6 concludes the study.

2. Literature review and hypothesis development

Earnings forecasts and recommendations from financial analysts play a crucial role in investors' decision-making (Bradshaw et al., 2017; Kothari et al., 2016; Loh and Stulz, 2018). However, owing to incentive structures or behavioral biases, such as limited attention, analysts may not always interpret and present information in a fully rational or impartial manner. Kahneman (1973) propose the "limited attention" model, suggesting that attention is a scarce resource and the human brain's capacity for processing vast amounts

of information is limited. As external stimuli increase, the human cognitive processing ability decreases. The way people allocate their attention across multiple tasks also affects their performance. Despite their expertise, even professional analysts are subject to limited attention (Driskill et al., 2020; Hasan and Shahid, 2021; Bourveau et al., 2024). Consequently, when analysts conduct earnings forecasts if they are distracted by other exogenous events, their behavior may be affected.

Peng and Xiong (2006) posit that investors have limited time and energy and often prefer processing market-wide or sector-specific information over firm-specific details. Similarly, managers often prioritize macroeconomic data over firm-level information (Kacperczyk et al., 2016). Kacperczyk et al. (2014, 2016) indicate that experienced fund managers adapt their focus to market conditions, emphasizing stock selection during expansions and switching to market timing during downturns. Analysts are external parties to the company, and their access to firm-specific information is limited compared to that of company insiders. Consequently, it is often more cost-effective for analysts to obtain and analyze industry- or market-level information that reflects stock price trends. However, to improve the precision of earnings forecasts, analysts must balance their reliance on industry-specific and firm-specific information.

The choice between industry- and firm-specific information depends on costs. When analysts face resource constraints, they must weigh the relative benefits and costs of the different information sources. Relying on industry-level information allows costs to spread across multiple stocks, thus reducing both per-stock research and overall costs (Muslu et al., 2014). Additionally, industry information is often less costly to obtain because analysts typically have access to brokerage firm reports on macroeconomic and industry trends (Hutton et al., 2012; Hugon et al., 2016). Moreover, industry-level earnings tend to be more stable and predictable than firm-specific earnings, making them easier to forecast (Hui et al., 2016).

Piotroski and Roulstone (2004) examine how analysts' trading activities influence stock prices through firm-specific, industry-, and market-level information and find that analysts' forecasts convey more industry-level insights. Similarly, Choi and Gupta-Mukherjee (2022) find that analysts tend to rely on industry information rather than firm-specific information when making earnings forecasts. However, this reliance decreases with increased resources, larger brokerages, and increased analyst experience. When

analysts encounter heightened competition or have incentives tied to specific companies (e.g., large-cap stocks, high trading volumes, or substantial institutional ownership), they are motivated to prioritize firm-specific information. However, when covering many industries and companies, they gravitate toward industry-level information, which makes it easier to generalize across multiple firms.[2]

Sims (2003) posits that investors allocate limited attention across information types to maximize returns on their information-gathering costs. Analysts, who act as both users and providers of information in capital markets, face high time and attention costs. As industry information encompasses multiple stocks, when distracted by exogenous events, analysts may rationally shift their focus toward readily accessible public information. Consequently, analysts may rely more on industry-level information for forecasting during periods of distraction because firm-specific information requires higher marginal costs. Based on this rationale, we hypothesized the following:

Hypothesis 1: When analysts are distracted, their focus on industry-level information increases relative to that on firm-specific information.

When analysts manage more complex portfolios by following a larger number of industries and companies, the demand for attention spreads across multiple firms and sectors. With limited time and resources, these analysts face greater distractions than those with simpler portfolios. In such situations, when attention-grabbing events occur in the market, the already stretched attention is further divided, making it more difficult to focus on firm-specific details. Consequently, they are more likely to turn to industry-level information that is easier to apply to multiple firms. Therefore, we propose the following hypotheses:

Hypothesis 2: When analysts are distracted, greater portfolio complexity amplifies their reliance on industry-level rather than on firm-specific information.

The size of the brokerage firm in which an analyst is employed reflects the level of resources available to support earnings forecasts. Larger brokerage firms can offer analysts more resources, such as research tools and data support, which enhance their ability to analyze firm-specific information. Consequently, even when analysts are distracted, the

[2] Liu (2011) shows that analysts tend to provide more firm-specific information in reports, particularly for high-risk or heterogeneous companies.

additional resources provided by a larger brokerage firm reduce the need to rely on industry-level information. Thus, we propose the following hypotheses:

Hypothesis 3: When analysts are distracted, those working with larger brokerage firms are less likely to rely on industry-level information.

3. Data and method

Section 3.1 explains the data sources and the sample selection process, ensuring that the data used are reliable and representative. Section 3.2 explores a method for measuring analyst distraction. Section 3.3 discusses how to measure analysts' relative reliance on industry-level information compared to firm-specific information. Section 3.4 presents the regression model.

3.1 Data

This study uses common stocks publicly listed on U.S. stock exchanges as a research sample. The data sources include the Compustat financial database, the Center for Research in Security Prices (CRSP) database, and the Institutional Brokers' Estimate System (IBES). Because the IBES earnings forecast data began in January 1984, the sample period for this study covers January 1984 to December 2022. The sample excludes CRSP data lacking stock returns and market trading information (e.g., trading volume and turnover) as well as Compustat data missing accounting information. The sample is restricted to annual earnings forecasts (Clement, 1999; Clement, Koonce, and Lopez, 2007; Harford, Kecskés, & Mansi, 2018). Additionally, we use Standard Industrial Classification (SIC) codes to classify individual firms into 12 corresponding Fama-French industries. For each industry, we obtain monthly industry returns from Kenneth French's website.

After implementing the aforementioned filtering procedures and removing observations with missing values, the final sample comprises 1,000,462 observations. Of these, 800,642 observations are earnings forecasts from non-distracted analysts, whereas 199,820 observations are earnings forecasts from distracted analysts.

3.2 Measure of analyst distraction

Analysts have limited time, resources, and attention (Simon, 1971; Kahneman, 1973; Caplin, 2016). When their attention is constrained, they must allocate their focus and effort

to collecting and analyzing information about the companies they follow. Other market factors may also influence the allocation of analysts' attention. This study investigates the mechanisms by which analysts allocate their attention. When attention-grabbing events occur in the market, analysts may shift their focus to impacted companies while neglecting unaffected ones, leading to a decrease in attention toward unaffected companies, a phenomenon referred to as analyst distraction.

Distraction, the primary variable in the research design, serves as a measure of analyst distraction, reflecting the degree to which an analyst is distracted from following a specific company during a particular month. Analyst distraction for analyst (*i*) with respect to a specific company (*f*) in month (*t*) is defined as

$$Distraction_{\mathrm{i},f,t} = \sum_{IND \neq IND_f} W_{it}^{IND} \times IS_t^{IND} \quad (1)$$

In this context, *IND* represents the 12 industry categories defined by the Fama-French classification. IND_f denotes the industry category to which company *f* belongs in the Fama-French classification. In Equation (1), IS_t^{IND} is a dummy variable. If an industry in month *t* experiences either the highest or lowest returns among the 12 Fama-French industry classifications, this variable equals 1, and 0 otherwise. The dummy variable IS_t^{IND} captures the occurrence of attention-grabbing events in industries other than those to which company *f* (denoted by IND_f) belongs. Building on Barber and Odean (2008), Kempf et al. (2017), and Bourveau et al. (2024), we utilize extreme industry returns, both positive and negative, as indicators of attention-grabbing events. This approach is further supported by research showing that periods of extreme returns can be especially valuable for understanding uncertainty, prompting analysts to focus more on firms experiencing such returns (e.g., Kacperczyk et al. 2016).

In Equation (1), W_{it}^{IND} represents the importance of the attention-grabbing industry within the scope of analyst coverage during month *t*. This variable is calculated as the number of companies in the analyst's portfolio belonging to the attention-grabbing industry divided by the total number of companies covered by the analyst. Intuitively, Distraction depends on the impact of attention-grabbing events in industries outside IND_f and the degree to which the analyst's coverage portfolio is connected to other industries.

Numerically, the level of Distraction ranges from 0 to 1, with higher values indicating

a greater likelihood that the analyst will shift their attention away from focal company *f* and toward companies in the covered industries that are experiencing extreme returns. According to this setup, Distraction is zero for all companies belonging to the industries experiencing extreme returns during month t.

Bourveau et al. (2024) highlight a key advantage of this method of measuring analyst attention: the calculated industry shocks are not related to the fundamentals of focal company *f*, because the industry shocks embedded in its computation do not mechanically relate to the fundamentals of the focal firm since its own industry is excluded ($IND \neq IND_f$). Therefore, in this study, the analyst distraction variable serves as a reasonable proxy for identifying exogenous shocks to analyst attention.

3.3 Measure of relative reliance on industry-level information

This section follows Choi and Gupta-Mukherjee (2022) in measuring the degree to which analysts rely on industry-level information relative to firm-specific information, referred to as Industry Reliance (Ind_Rel). The first step in constructing Ind_Rel is measuring analysts' earnings forecast revisions using Equation (3).

$$Rev_{i,f,t} = \frac{F_{i,f,t} - F_{i,f,t-1}}{|F_{i,f,t-1}|} \quad (2)$$

In this context, $F_{i,f,t}$ represents the earnings forecasts made by analyst *i* for company *f* in month *t*, while $F_{i,f,t-1}$ is the most recent earnings forecast made by the same analyst for company *f* prior to $F_{i,f,t}$ for the same forecast period. The revision of earnings forecasts by analysts reflects the incorporation of new information obtained by analysts.

In this study, following Choi and Gupta-Mukherjee (2022), stock returns are used as public information to measure the extent to which analysts rely on the information embedded in individual stock returns and industry-level returns when making earnings forecast revisions.[3] To calculate an analyst's reliance on industry-level information, the

[3] The focus of Choi and Gupta-Mukherjee (2022) is on analysts' expertise in extracting and interpreting information from publicly available investor beliefs as reflected in stock prices (Lys and Sohn, 1990; Baginski and Hassell, 1990; Abarbanell, 1991; Clement et al., 2011). Choi and Gupta-Mukherjee (2022) document that extracting information about future earnings from stock returns requires understanding not only how much of the stock price change reflects market expectations of the company's future earnings, but also the likelihood that those market expectations will be accurately realized. Using stock returns as an information source for analysts during forecast revisions is based on prior research that stock returns act as an information signal that analysts interpret and utilize, or serve as a proxy for the broader set of information

$R^2(R_{i,f,t}^{2,industry})$ is obtained by regressing the earnings forecast revisions made by analyst *i* for company *f* during month *t* on the industry's lagged returns over the previous four months (Choi and Gupta-Mukherjee, 2022). The formula used is as follows:

$$Rev_{i,f,t} = \beta_0 + \beta_1 \sum_{m=1}^{4} Industryret_{j,t-m} + \varepsilon_{i,f,t} \ , \qquad (3)$$

where $Rev_{i,f,t}$ is defined as shown in Equation (2), and $Industryret_{j,t-m}$ represents the monthly industry return for industry *j* in month *t−m*. This return is calculated as the average monthly return for all companies in industry *j* for a given month. Here, *m* = 1, 2, 3, or 4 indicates a lag of one, two, three, or four months before month *t* (Choi and Gupta-Mukherjee, 2022). The $R_{i,f,t}^{2,Industry}$ value in Equation (3) represents the degree to which analysts' earnings forecast revisions are explained by industry returns. A higher $R_{i,f,t}^{2,Industry}$ indicates the greater extent to which an analyst's forecast revisions are driven by industry-level information.

Similarly, analysts' use of firm-specific information ($R_{i,f,t}^{2,Firm}$) is derived from the R^2, obtained by regressing the earnings forecast revisions made by analyst *i* for company *f* in month *t* on the lagged individual stock returns of company *f*. The formula used is as follows:

$$Rev_{i,f,t} = \beta_0 + \beta_1 \sum_{m=1}^{4} Stockret_{f,t-m} + \varepsilon_{i,f,t} \, , \qquad (4)$$

where $Stockret_{f,t-m}$ represents the industry-adjusted return for company *f* in month *t-m*, calculated as the company's stock return minus the corresponding industry return. A higher $R_{i,f,t}^{2,Firm}$ value indicates that analysts' forecast revisions are largely explained by firm-specific returns, which, in turn, reflects the degree to which analysts' forecast revisions are driven by firm-specific information. Therefore, $R_{i,f,t}^{2,Firm}$ reflects the extent to which analysts' forecast revisions are explained by the past stock returns of the individual company and serves as a measure of the analyst's focus on and reaction to firm-specific information. The greater the value of $R_{i,f,t}^{2,Firm}$, the more analysts rely on firm-specific information for earnings forecast revisions.

Finally, we construct an analyst's industry-reliance variable (Ind_Rel) for analyst *i* for

analysts rely on.

company *f* in month *t* as follows:

$$Ind\_Rel_{i,f,t} = R^{2,Industry}_{i,f,t} - R^{2,Firm}_{i,f,t} \quad (5)$$

where $R^{2,Industry}_{i,f,t}$ and $R^{2,Firm}_{i,f,t}$ represent the R^2 values from equations (3) and (4), respectively. Ind_Rel measures the degree to which analysts rely on industry-level information relative to firm-specific information when issuing forecast revisions. A higher Ind_Rel value indicates that analysts make greater use of industry information than firm-specific information.

3.4 Regression model

To assess whether analysts tend to rely more on industry-level information than firm-specific information when distracted, this study implements the following baseline regression model:

$$Ind\_Rel_{i,f,t} = b_0 + b_1 Distraction_{i,f,t-1} + b_2 Resource_{i,f,t-1} + b_3 Incentive_{i,f,t-1} + \delta Controls_{i,f,t-1} + FirmFE + YearFE + AnalystFE + \varepsilon_{i,f,t}, \quad (6)$$

where *i, f,* and *t* represent the analyst, company, and month, respectively. The explanatory variables use data from t-1 to reduce the potential endogeneity between Ind_Rel and the other variables. **Distraction** represents the degree of an analyst's distraction. Equation (6) assesses whether analysts, when distracted, increase their reliance on industry-level information over firm-specific details. Coefficient b_1 reveals the presence and extent of this shift of their relative reliance on industry-level information due to analyst distraction.

Resource refers to the resources available to the analyst, including the analyst's industry coverage (Ind_Fol), company coverage (Firms_Fol), whether they are part of a large brokerage (Large_Brokerage), general experience (Experience), and the analyst's experience with specific companies (Experience_Firm) (Clement, 1999; Choi and Gupta-Mukherjee, 2022). Ind_Fol refers to the number of industries followed by analysts and represents analysts' industry coverage. Firms_Fol represents the number of companies followed by analysts across different two-digit SIC codes. The number of industries and companies followed by the analysts represents the complexity of the portfolios. When an analyst follows more industries and companies, it indicates that the analyst is busier and

may face more constraints in terms of attention and resources (Clement, 1999). Large_Brokerage is a dummy variable. If the analyst's brokerage ranks in the top 10% by size in that year, the variable equals 1; otherwise, it equals 0 (Choi and Gupta-Mukherjee, 2022). Brokerage size is measured by the number of analysts employed, indicating whether an analyst has abundant resources (Clement, 1999; Clement and Tse, 2003; Hong and Kubik, 2003).

Experience is measured as the time since the analyst first appeared in the IBES database with earnings forecast reports. Experience_Firm is the time since the analyst first issued the earnings forecasts for a specific company in the IBES database. As analysts gain experience, they accumulate more resources for researching firm-specific information. For example, analysts may become more familiar with a company's management and engage in more frequent private communication (Brown et al., 2015, 2016; Chiu et al., 2020).

Analysts have greater incentives to invest effort in researching the firms they cover when there is a strong potential to attract higher trading commissions for their brokerage firms and enhance their standing with institutional clients. Consequently, analysts' motivation to exert effort is higher when they cover firms with high trading volumes, larger market capitalization, and significant institutional ownership (Groysberg et al., 2011; Dechow and You, 2012; Harford et al., 2018). High-quality research on such firms not only boosts brokerage revenues but can also lead to increased analyst compensation and reputation. Therefore, this study uses ***Incentive*** as a variable to represent analysts' motivations for researching firm-specific information. ***Incentive*** includes Volume, Size, and Institutional Ownership (Inst) (Choi and Gupta-Mukherjee, 2022). Volume refers to a company's monthly trading volume. Size is the natural logarithm of a company's market capitalization at the end of a month. Institutional Ownership (Inst) is the proportion of the equity held by institutional investors.

Additionally, this study incorporates other control variables (**Controls**), including the average industry concentration of the companies followed by the analysts (Avg_Hindex) and book-to-market ratio (BM). Because the relative costs and benefits of an analyst relying on industry-level versus firm-specific information may depend on the degree to which industry-level information correlates with firm-specific information for companies covered by analysts, we include Avg_Hindex as an additional control variable (Choi and Gupta-Mukherjee, 2022). Avg_Hindex measures the industry concentration of firms

covered by an analyst. To calculate this, we first determine the industry concentration for each firm's industry using the Herfindahl Index (Hindex) of sales, summing the squared sales weights of all firms within that industry for the year. Then, for each analyst-year, Avg_Hindex is calculated as the average Hindex across all firms for which the analyst issued forecasts. This measure reflects the level of competition within the companies' industries covered by analysts.

Including the book-to-market ratio (BM) as a control variable is essential to isolate the impact of analyst distractions on analysts' reliance on industry-level information. The BM ratio is the ratio of a firm's book value to its market value. A high BM often reflects a company's stable, mature assets and can be associated with industries that experience less volatility and slower growth. In such cases, analysts may find industry-level information sufficient for their forecasts because industry trends often capture much of a firm's performance. Conversely, a low BM is more common in growth-oriented firms, where analysts may prioritize firm-specific information to capture unique growth opportunities or risks that are not reflected at the industry level. The model includes firm-, year-, and analyst-fixed effects, and standard errors are adjusted for heterogeneity and clustered by analyst and firm.

4. Empirical results

4.1 Summary statistics

Table 1 presents the descriptive statistics of the observations. The mean of the analyst distraction variable (Distraction) was 0.152, with a median of 0.000 and a standard deviation of approximately 0.752, indicating significant variation in distraction levels across analysts. The mean of the analyst industry reliance variable (Ind_Rel) is -0.136, suggesting that, on average, firm-specific stock returns explain 13.6% more variation in forecast revisions than industry-level returns. The median Ind_Rel value of -0.060 suggests that for most analysts in the sample, firm-specific information contributes more significantly than industry-level data to their earnings forecasts. The median number of companies followed by analysts (Firms_Fol) is 11, whereas the median number of industries followed (Ind_Fol) is four (based on two-digit SIC codes). The dummy variable Large_Brokerage has a mean of 0.121, indicating that 12.1% of the earnings forecasts in the sample come from analysts employed by large brokerage firms.

[Insert Table 1 here]

Table 2 reports the Pearson correlations of variables used in the study. As shown in Table 2, there is a positive correlation (0.026) between analyst distraction and relative industry reliance. Among the independent variables, the highest correlation (0.745) is between Size and Volume. The second highest (0.591) is between Experience and Experience_Firm, while the third highest (0.586) is between Firms_Fol and Ind_Fol. To address this potential problem of multicollinearity, we follow Hong et al. (2000) and regress Ind_Fol on Firms_Fol to obtain Res_Ind, regress Experience on Experience_Firm to obtain Res_Exp, and regress Volume and Size to obtain Res_Vol. We then use the residuals (Res_Ind, Res_Exp, and Res_Vol) as control variables.

[Insert Table 2 here]

Table 3 compares distracted and non-distracted analysts and shows that both groups exhibit negative Ind_Rel values, indicating a preference for industry-level information over firm-specific information in earnings forecasts. However, distracted analysts have a higher average Ind_Rel (-0.092 for distracted analysts vs. -0.147 for non-distracted analysts), suggesting that distracted analysts rely more on industry-level information than their non-distracted counterparts. Distracted analysts cover more industries (5.774 vs. 3.819) and companies (15.079 vs. 11.596), and have greater general (5.849 vs. 5.344) and specific (2.894 vs. 2.734) experience in earnings forecasts than non-distracted analysts. They also tend to work at smaller brokerages (370.7 vs. 371.9 employees) and follow companies with higher book-to-market ratios (0.461 vs. 0.441), lower trading volumes (4.863 million vs. 5.094 million shares), smaller market capitalizations (log Size of 7.984 vs. 8.092), and lower institutional ownership (22.347% vs. 25.834%). Overall, distracted analysts generally cover more complex portfolios, have more experience, and prefer value-oriented companies.

[Insert Table 3 here]

4.2 Analyst distraction and relative reliance on industry information

Table 4 presents the impact of analyst distractions on reliance on industry information when making earnings forecasts. The dependent variable Ind_Rel is a measure of analysts' reliance on industry-level information. Model (1) controls for analyst resources and other variables. Model (2) controls for analyst incentives and other variables. Model (3)

controls for analyst resources, incentives, and other variables. In all three models, the coefficient of Distraction is significantly positive, indicating that distracted analysts tend to rely more on industry-level information than on firm-specific information when making earnings forecasts. This result supports hypothesis 1.

[Insert Table 4 here]

Additionally, the coefficients for Res_Ind and Firms_Fol are significantly positive, showing that as analysts follow more industries or companies, they increase their reliance on industry-level information. The coefficients of Inst and BM are also significantly positive, indicating that when analysts follow companies with higher institutional ownership or when the book-to-market ratio is larger, they rely more on industry information than on firm-specific information. The negative coefficients of Res_Vol and Size suggest that as a company's trading volume or market capitalization increases, analysts' incentives to make accurate forecasts lead them to focus more on firm-specific private information. Consequently, analysts rely more on firm-specific information than industry-level information. Additionally, the negative coefficient for Avg_Hindex indicates that the lower the industry concentration of companies followed by the analyst, the more likely the analyst is to use firm-specific information rather than industry information when making earnings forecasts.

This study further examines how extreme positive and negative returns in industries and companies influence reliance on industry-level information during periods of distraction. To capture these effects, we decompose distractions into Distraction_Pos (extreme positive returns) and Distraction_Neg (extreme negative returns). The results in Table 5 show that, after accounting for analyst resources, incentives, and other factors, the coefficient for Distraction_Pos is significantly positive, whereas Distraction_Neg is not statistically different from zero. This finding suggests that analysts increase their reliance on industry information in response to extreme positive returns, whereas extreme negative returns do not lead to similar shifts. In other words, distraction drives analysts to rely more on industry information, specifically during periods of positive shocks, an effect that is not observed with negative shocks. This outcome aligns with the finding that investors react asymmetrically to good and bad news (Epstein and Schneider, 2008) and tend to focus more on companies with positive prospects (Chuprinin, 2011). Thus, positive news heightens analysts' distractions and increases their reliance on industrial information.

[Insert Table 5 here]

4.3 Robustness tests

This section presents a series of robustness tests to validate and reinforce the consistency of the findings of the main regression model. First, analyst distractions and reliance on industry-level information may vary depending on the industry classification method used. While the primary analysis employs the Fama-French 12-industry classification, we extend the robustness tests using the Fama-French (1988) 17-industry classification, Fama-French (1997) 48-industry classification, and 2-digit SIC codes.

Table 6 shows the regression results. In these three cases, the distraction coefficient remains significantly positive, indicating that analysts' reliance on industry-level information increases during distraction events regardless of the industry classification used. These findings suggest that the alternative industry classifications do not affect the main results of this study.

[Insert Table 6 here]

Second, following Harford et al. (2018), we consider that analysts may allocate more effort and attention to companies that are more critical to their careers and rationally distribute their time and effort across their portfolios. Harford et al. (2019) posit that analysts strategically prioritize their efforts across portfolio firms, focusing more on firms that are more important for their careers, such as larger firms. To capture the importance of a company's market capitalization to analysts' careers, we use a value-weighted method as an alternative to measure analysts' attention. Table 7 presents the empirical results for the distraction calculated using the value-weighted method. As shown in Table 7, regardless of whether Distraction and Ind_Rel are calculated using the 12-, 17-, 48- industries, or 2-digit SIC codes, the Distraction coefficient remains significantly positive. These findings confirm that the alternative weighting methods do not alter the main results of the study.

[Insert Table 7 here]

5. Additional tests

5.1 Analyst characteristics

To assess whether analyst characteristics influence the extent to which distractions affect their reliance on industry-level information, this study introduces interaction terms between distraction and analyst attributes. The analysts' attributes include D(Ind_Fol), D(Firms_Fol), and D(Brokerage). D(Ind_Fol) is a dummy variable set to 1 if the number of industries an analyst follows in that year is above the median and 0 otherwise. D(Firms_Fol) equals 1 if the number of companies followed by the analyst that year exceeds the median and 0 otherwise. D(Brokerage) is 1 if the size of the analyst's brokerage firm in that year is greater than the median and 0 otherwise. These interaction terms allow us to examine how analyst characteristics shape the relationship between distractions and their reliance on industrial information.

Table 8 reports the results after incorporating analyst characteristics. The findings indicate that the coefficients for Distraction*D(Ind_Fol) and Distraction*D(Firms_Fol) are significantly positive. This suggests that as analysts follow more industries or companies, their portfolio complexity increases; given the limited attention analysts can allocate to a larger portfolio, distraction events further heighten their reliance on industry-level information. This outcome aligns with Hypothesis 2, supporting the notion that portfolio complexity amplifies analysts' dependence on industry-level data during periods of distraction. The interaction term Distraction*D(Brokerage) has a significantly negative coefficient, suggesting that distracted analysts at larger brokerage firms with greater resources at their disposal are less likely to rely on industry-level information. This result supports Hypothesis 3.

[Insert Table 8 here]

5.2 Forecast characteristics

The forecast horizon (Horizon), defined as the time interval between an analyst issuing an EPS forecast and the company's subsequent announcement of the actual EPS, plays a critical role in determining forecast accuracy. Generally, the longer the forecast horizon, the higher the likelihood of errors, as longer horizons inherently involve greater uncertainty and exposure to unforeseen events. This relationship has been consistently validated by prior research (e.g., Luo & Xie, 2012; Hutira, 2016). Therefore, we conjecture that analysts' tendency to rely more on industry-level information increase with forecast horizons. We define a dummy variable D(Horizon), which is 1 when above the median,

and 0 otherwise.

Timing also plays a significant role in forecast accuracy. Clement and Tse (2003) find that earnings forecasts are more accurate when issued shortly after other earnings forecasts for the same firm. Similarly, Lorenz and Homburg (2018) find that revenue forecasts also tend to be more accurate when made shortly after other forecasts for the same firm, as indicated by Days_Elapsed. If Days_Elapsed is above the median, D(Days_Elapsed) equals to 1, and 0 otherwise.

The positive relationship between forecast boldness and accuracy has been empirically demonstrated in the context of earnings forecasts, as highlighted by studies such as Clement and Tse (2005). Thus, we anticipate that distracted analysts who issue bold earnings forecasts will rely less on industry-level information. Building on the methodology of Clement and Tse (2003, 2005) and Gleason and Lee (2003), we construct a binary variable to classify forecasts as bold, based on their divergence from the consensus forecast. Specifically, Boldness is assigned a value of 1 if analyst's earnings forecast meets the following conditions simultaneously: (1) The forecast is above (below) the analyst's prior forecast. (2) The forecast is also above (below) the consensus forecast immediately preceding the forecast revision.

Table 9 reports the results that examine the interplay between forecast characteristics (e.g., forecast horizon, timing, and boldness) and reliance on industry-level information of distracted analysts. The findings in Column (1) indicate that the coefficient for Distraction*D(Horizon) is significantly positive, suggesting that the reliance on industry-level information for distracted analysts increases with forecast horizon. The coefficient of Distraction*D(Days_Elapsed) in Column (2) is insignificant. That is, we find no evidence that distracted analysts rely less on industry-level information when earnings forecasts are issued shortly after other earnings forecasts for the same firm. In addition, the significant and negative coefficient of Distraction*D(Boldness) in Column (3) confirms that distracted analysts who issue bold earnings forecasts will rely less on industry-level information.

[Insert Table 9 here]

5.3 Firm characteristics

Analysts are especially motivated to invest effort in researching firms that present opportunities to generate higher trading commissions for their brokerage firms and enhance their reputations among institutional clients (Choi & Gupta-Mukherjee, 2022). High trading volumes often signal strong market interest and heightened scrutiny from investors who require precise, actionable insights (Ryan & Taffler, 2004). High-trading-volume firms also drive substantial brokerage commissions. Large firms, owing to their substantial market capitalization and prominence in both public and institutional portfolios, naturally draw intense attention, which also calls for detailed firm-specific insights.

Institutional investors demand higher standards of information quality, transparency, and specificity, which directly influence a firm's price formation process (Utama and Cready, 1997; El-Gazzar, 1998; Jiambalvo et al., 2002; Collins et al., 2003). Piotroski and Roulstone (2004) find that institutional trading accelerates the incorporation of firm-specific earnings news into stock prices, demonstrating a preference for company-specific data over broader industry insights.

Therefore, analysts covering firms with high trading volumes, large market capitalizations, and substantial institutional ownership are likely to exert more effort in producing firm-specific analyses, as this enhances both their compensation and standing within the industry (Groysberg et al., 2011; Dechow and You, 2012; Harford et al., 2018). As such, when analysts are distracted, their tendency to rely on industry-level information diminishes for firms with high trading volumes, substantial market capitalization, and significant institutional ownership.

This section examines whether firm characteristics influence the degree to which distraction affects analysts' reliance on industry-level information. To address this, we include interaction terms between distraction and firm attributes: D(Volume), D(Size), and D(Inst). Here, D(Volume) is a dummy variable equal to one if the trading volume is above the median and zero otherwise. D(Size) is set to 1 if the firm's size exceeds the median, and D(Inst) is 1 if institutional ownership is greater than the median, with both otherwise set to zero. These interaction terms enable us to analyze how specific firm characteristics influence the impact of distraction on analysts' tendencies to rely on industry-level information.

Table 10 reports the results after incorporating firm characteristics. The findings

indicate that the coefficients for Distraction*D(Volume), Distraction*D(Size), and Distraction*D(Inst) are all significantly negative, suggesting that, when analysts are distracted, their reliance on industry-level information decreases for firms with high trading volumes, larger sizes, and higher institutional ownership.

[Insert Table 10 here]

6 Conclusion

Analysts' earnings forecast reports provide substantial guidance to the public, especially retail investors, who may lack professional expertise or access to comprehensive information. However, analysts face time, attention, and resource constraints, which limit their capacity to focus comprehensively on their portfolios. Consequently, they may prioritize companies within their portfolios. However, when attention-grabbing events occur, such as extreme returns in external industries, analysts often shift their focus to these affected areas. This diversion can lead to analyst distractions, resulting in less attention being paid to the unaffected portfolio companies.

This study explores whether distracted analysts rely more on industry-level information than on firm-specific information when making earnings forecasts. Using earnings forecast data covering 1984 to 2022, we find that distracted analysts tend to increase their reliance on industry-level information. Further examination reveals that this increased reliance occurs specifically in response to extreme positive returns, with no comparable effect on extreme negative returns.

This study also investigates how certain analyst, firm, and forecast characteristics affect their reliance on industry information. The findings indicate that distracted analysts who cover a broader range of industries and companies show greater dependence on industry-level information. By contrast, distracted analysts at larger, resource-rich brokerage firms tend to rely less on industry information. Additionally, distracted analysts' tendency to rely more on industry-level information is weaker for firms with higher trading volumes, larger firm sizes, and greater institutional ownership. Moreover, the reliance on industry-level information for distracted analysts increases with forecast horizon; distracted analysts who issue bold earnings forecasts also rely less on industry-level information.

While previous research acknowledges the limits of analysts' attention, little is known about how these limits shape analysts' information choices. This study highlights a tendency for distracted analysts to rely more on industry-level information rather than investing the time to delve into firm-specific details. Because analysts are key intermediaries in the dissemination of market information, understanding how distractions affect

forecasting behavior can help investors interpret analyst reports more effectively, potentially improving their investment performance.

Appendix A: Variable Definitions

Variable	**Definition**
Distraction	Analyst-level distraction measure, reflecting the degree of distraction for a specific company in a given month.
Ind_Rel	Analyst industry reliance, where lower values indicate greater use of firm-specific information relative to industry-level information.
Firms_Fol	The number of companies followed by the analyst.
Ind_Fol	The number of industries followed by the analyst.
Large_Brokerage	Dummy variable is equal to 1 if the analyst's brokerage is ranked in the top 10% by size; otherwise, 0.
Experience	Analyst's general experience is measured as the time since the analyst's first earnings forecast in IBES.
Experience_Firm	Analyst's experience following a specific company is measured as the time since the first earnings forecast for that company in IBES.
Volume	Monthly trading volume, measured in millions.
Size	Natural logarithm of the company's market capitalization at the end of the month, measured in millions.
Inst	Institutional ownership.
Avg_Hindex	Average industry concentration of the companies followed by the analyst.
BM	Book-to-market ratio (book value divided by market value).
Distraction_Pos	Analyst distraction when experiencing extreme positive returns.
Distraction_Neg	Analyst distraction when experiencing extreme negative returns.
Horizon	Time interval between an analyst's submission of an EPS forecast and the company's subsequent announcement of the actual EPS
Days_Elapsed	Days between analyst's earnings forecast and the most recent preceding earnings forecast issued by any analyst for the same firm
Boldness	Boldness is assigned a value of 1 if analyst's earnings forecast is above (below) the analyst's prior forecast, and the forecast is above (below) the consensus forecast immediately preceding the forecast revision.

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Table 1 Descriptive Statistics

This table presents the descriptive statistics of the research variables and control variables used in this study. The descriptive statistics include the number of observations (N), mean, standard deviation (Stddev), median, 10th percentile (P10), 25th percentile (Q1), 75th percentile (Q3), and 90th percentile (P90). The sample period covers 1984 to 2022. Ind_Rel measures the degree to which analysts rely on industry-level information, instead of firm-level information. Distraction is the analyst distraction measure. Ind_Fol refers to the number of industries followed by the analyst, while Firms_Fol refers to the number of companies followed by the analyst. Large_Brokerage is a dummy variable that equals 1 if the analyst works for a brokerage firm ranked in the top 10% by size, and 0 otherwise. Experience measures the analyst's general experience, based on the time since their first earnings forecast report appeared in IBES. Experience_Firm measures the analyst's experience following a specific company, based on the time since their first earnings forecast report for that company in IBES. Volume is the monthly trading volume, measured in millions. Size is the natural logarithm of the company's market capitalization at the end of the month, measured in millions. Inst is the institutional ownership ratio. Avg_Hindex measures the average industry concentration of the companies followed by the analyst. BM represents the book-to-market ratio.

Variables	N	Mean	Stddev	P10	Q1	Median	Q3	P90
Ind_Rel	1,000,462	-0.136	0.309	-0.577	-0.294	-0.060	0.013	0.179
Distraction	1,000,462	0.152	0.752	0.000	0.000	0.000	0.000	0.160
Ind_Fol	1,000,462	4.209	2.737	2.000	2.000	4.000	5.000	7.000
Firms_Fol	1,000,462	12.292	9.158	5.000	8.000	11.000	15.000	20.000
Large_Brokerage	1,000,462	0.121	0.326	0.000	0.000	0.000	0.000	1.000
Experience	1,000,462	5.445	5.273	1.000	2.000	4.000	8.000	13.000
Experience_Firm	1,000,462	2.766	3.282	0.000	0.000	2.000	4.000	7.000
Volume	1,000,462	5.047	1.722	2.781	3.940	5.118	6.261	7.206
Size	1,000,462	8.070	1.933	5.514	6.686	8.070	9.486	10.603
Inst	1,000,462	25.137	37.298	0.000	0.000	0.000	65.354	88.521
Avg_Hindex	1,000,462	0.008	0.029	0.000	0.000	0.000	0.004	0.020
BM	1,000,462	0.445	0.559	0.094	0.200	0.361	0.593	0.895

Table 2 Pearson Correlations

This table presents the Pearson correlation matrix for the research variables and control variables used in this study. Ind_Rel measures the degree to which analysts rely on industry-level information. Distraction is the measure of analyst distraction. Ind_Fol refers to the number of industries followed by the analyst, while Firms_Fol refers to the number of companies followed by the analyst. Large_Brokerage is a dummy variable that equals 1 if the analyst works for a brokerage firm ranked in the top 10% by size, and 0 otherwise. Experience measures the analyst's general experience, based on the time since their first earnings forecast report appeared in IBES. Experience_Firm measures the analyst's experience following a specific company, based on the time since their first earnings forecast report for that company in IBES. Volume is the monthly trading volume, measured in millions. Size is the natural logarithm of the company's market capitalization at the end of the month, measured in millions. Inst is the institutional ownership ratio. Avg_Hindex measures the average industry concentration of the companies followed by the analyst. BM represents the book-to-market ratio.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ind_Rel(1)	1.000											
Distraction(2)	**0.026**	1.000										
Ind_Fol(3)	**0.144**	**0.099**	1.000									
Firms_Fol(4)	**0.061**	**0.115**	**0.586**	1.000								
Large_Brokerage(5)	**0.015**	-0.001	**0.007**	**0.030**	1.000							
Experience(6)	**0.038**	**0.007**	**0.177**	**0.152**	**0.110**	1.000						
Experience_Firm(7)	**0.032**	**-0.020**	**0.128**	**0.120**	**0.088**	**0.591**	1.000					
Volume(8)	0.001	**-0.051**	**-0.136**	**-0.131**	**0.044**	**0.052**	**0.127**	1.000				
Size(9)	0.002	**-0.043**	**-0.033**	**-0.029**	**0.063**	**0.091**	**0.209**	**0.745**	1.000			
Inst(10)	**0.004**	**-0.036**	**-0.069**	**-0.109**	**0.009**	**0.017**	**0.048**	**0.215**	**0.177**	1.000		
Avg_Hindex(11)	**-0.022**	**0.011**	**0.016**	**0.004**	**0.007**	**0.023**	**0.048**	**0.091**	**0.174**	**-0.037**	1.000	
BM(12)	**0.017**	**0.008**	**0.014**	**0.021**	**-0.010**	**-0.007**	**0.013**	**-0.090**	**-0.178**	**-0.030**	-0.001	1.000

Table 3 Paired Sample Comparisons

This table presents a comparison of the characteristics between distracted analysts and non-distracted analysts. Ind_Rel measures the degree to which analysts rely on industry-level information. Distraction is the measure of analyst distraction. Ind_Fol refers to the number of industries followed by the analyst, while Firms_Fol refers to the number of companies followed by the analyst. Large_Brokerage is a dummy variable that equals 1 if the analyst works for a brokerage firm ranked in the top 10% by size, and 0 otherwise. Experience measures the analyst's general experience, based on the time since their first earnings forecast report appeared in IBES. Experience_Firm measures the analyst's experience following a specific company, based on the time since their first earnings forecast report for that company in IBES. Volume is the monthly trading volume, measured in millions. Size is the natural logarithm of the company's market capitalization at the end of the month, measured in millions. Inst is the institutional ownership ratio. Avg_Hindex measures the average industry concentration of the companies followed by the analyst. BM represents the book-to-market ratio (book value divided by market value). The Difference column shows the differences between distracted and non-distracted analysts. The number of observations for distracted analysts is 199,820, and for non-distracted analysts, it is 800,642. The t-statistics are calculated using Petersen's (2009) method to account for firm-clustered standard errors. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	Distraction	Not Distraction	Difference	T statistics
Ind_Rel	-0.092	-0.147	0.055	77.53***
Ind_Fol	5.774	3.819	1.956	233.15***
Firms_Fol	15.079	11.596	3.483	112.10***
BrokerSize	370.700	371.900	-1.200	-1.94*
Experience	5.849	5.344	0.506	37.57***
Experience_Firm	2.894	2.734	0.161	19.11***
Volume	4.863	5.094	-0.231	-53.61***
Size	7.984	8.092	-0.108	-22.62***
Inst	22.347	25.834	-3.487	-38.27***
Avg_Hindex	0.008	0.008	0.000	0.350
BM	0.461	0.441	0.020	15.45***

Table 4 Analyst Distraction and Industry Information Reliance

This table presents the relationship between analyst distraction and analyst reliance on industry-level information. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. Distraction is the measure of analyst distraction. For detailed definitions of the variables, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)
Intercept	-19.817***	-15.404***	-18.340***
	(-6.73)	(-5.23)	(-6.22)
Distraction	0.366***	0.474***	0.366***
	(24.72)	(32.18)	(24.72)
Res_Ind	1.713***		1.707***
	(111.95)		(111.37)
Firms_Fol	0.342***		0.340***
	(75.60)		(75.08)
Large_Brokerage	0.015		0.004
	(0.09)		(0.02)
Res_Exp	-0.002		-0.005
	(-0.25)		(-0.69)
Experience_Firm	-0.009		0.002
	(-0.94)		(0.19)
Res_Vol		-0.365***	-0.091***
		(-11.76)	(-2.96)
Size		0.024	-0.086***
		(0.88)	(-3.15)
Inst		0.003***	0.002*
		(3.28)	(1.68)
Avg_Hindex	-12.514***	-16.119***	-11.135***
	(-10.70)	(-13.63)	(-9.42)
BM	0.223***	0.319***	0.152**
	(3.77)	(5.07)	(2.56)
Firm-fixed	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462
Adj. R^2	0.051	0.036	0.051

Table 5 Extreme Positive and Negative Returns on Industry Information Reliance

This table presents the relationship between analyst distraction and reliance on industry-level information under conditions of extreme positive and negative returns. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. Distraction_Pos represents analyst distraction during periods of extreme positive returns, while Distraction_Neg represents analyst distraction during periods of extreme negative returns. For detailed definitions of the variables, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)
Intercept	-19.681***	-14.692***	-18.181***
	(-6.68)	(-4.99)	(-6.16)
Distraction_Pos	0.377***	0.427***	0.379***
	(19.38)	(22.13)	(19.44)
Distraction_Neg	0.221	1.052***	0.2087
	(1.22)	(5.78)	(1.15)
Res_Ind	1.713***		1.708***
	(111.86)		(111.29)
Firms_Fol	0.342***		0.340***
	(75.60)		(75.08)
Large_Brokerage	0.015		0.004
	(0.09)		(0.02)
Res_Exp	-0.002		-0.005
	(-0.25)		(-0.69)
Experience_Firm	-0.009		0.002
	(-0.95)		(0.19)
Res_Vol		-0.365***	-0.091***
		(-11.77)	(-2.95)
Size		-0.217***	-0.147***
		(-11.14)	(-7.52)
Inst		0.003***	0.002*
		(3.31)	(1.67)
Avg_Hindex	-12.521***	-16.094***	-11.142***
	(-10.71)	(-13.61)	(-9.42)
BM	0.223***	0.319***	0.152**
	(3.78)	(5.07)	(2.56)
Firm-fixed	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462
Adj. R^2	0.051	0.036	0.051

Table 6 Different Industry Classifications

This table presents the relationship between analyst distraction and industry information reliance, calculated using different industry classifications. Ind12 (Ind17 and Ind 48) represents distraction and industry information reliance calculated using the Fama-French 12- (17- and 48-) industry classification. 2-digit SIC represents distraction and industry information reliance calculated using the 2-digit SIC codes. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. For detailed variable definitions, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	Ind 17	Ind 48	2-digit SIC
Intercept	-40.837***	-17.419***	-3.2558
	(-7.34)	(-5.54)	(-1.24)
Distraction	0.748***	1.422***	0.3420***
	(16.82)	-14.78	(27.53)
Resource	Yes	Yes	Yes
Incentive	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm-fixed	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462
Adj. R^2	0.062	0.048	0.016

Table 7 Value-Weighted Measures

This table presents the results with analyst distraction and industry information reliance calculated using the value-weighted method. Ind12 (Ind17 and Ind 48) represents distraction and industry information reliance calculated using the Fama-French 12- (17- and 48-) industry classification. 2-digit SIC represents distraction and industry information reliance calculated using the 2-digit SIC industry classification. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. For detailed variable definitions, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	Ind12	Ind17	Ind48	2-digit SIC
Intercept	-18.405***	-40.898***	-17.387***	-3.5472
	(-6.24)	(-7.36)	(-5.52)	(-1.35)
Distraction	0.483***	1.130***	1.584***	0.4463***
	(13.30)	(23.15)	(7.92)	(10.21)
Resource	Yes	Yes	Yes	Yes
Incentive	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Firm-fixed	Yes	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462	1,000,462
Adj. R^2	0.051	0.062	0.048	0.015

Table 8 Analyst Characteristics

This table presents the relationship between analyst distraction and industry information reliance, measured based on various analyst characteristics. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. For detailed variable definitions, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)Ind_Fol	(2)Firms_Fol	(3)Large_Brokerage
Intercept	-18.272***	-18.258***	-18.316***
	(-6.19)	(-6.19)	(-6.21)
Distraction	0.132***	0.102***	0.383***
	(4.30)	(3.05)	(23.46)
Distraction*D(Ind_Fol)	0.319***		
	(9.71)		
Distraction*D(Firms_Fol)		0.333***	
		(9.32)	
Distraction*D(Large_Brokerage)			-0.095***
			(-2.73)
Resources	Yes	Yes	Yes
Incentives	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm-fixed	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462
Adj. R^2	0.051	0.051	0.051

Table 9 Forecast Characteristics

This table presents the relationship between analyst distraction and industry information reliance, measured based on various forecast characteristics. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. For detailed variable definitions, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)Horizon	(2) Days_Elapsed	(3) Boldness
Intercept	-12.7376***	-11.6156***	-11.5947***
	(-55.66)	(-39.31)	(-39.24)
Distraction	0.4559***	0.4351***	0.4145***
	(22.95)	(13.35)	(21.36)
Distraction*D(Horizon)	-0.1011***		
	(-3.77)		
Distraction*D(Days_Elapsed)		-0.0413	
		(-1.11)	
Distraction*D(Boldness)			-0.0003***
			(-2.65)
Resource	Yes	Yes	Yes
Incentive	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm-fixed	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462
Adj. R^2	0.039	0.036	0.036

Table 10 Firm Characteristics

This table presents the relationship between analyst distraction and industry information reliance, measured based on various firm characteristics. The dependent variable, Ind_Rel, measures the degree to which analysts rely on industry-level information. For detailed variable definitions, please refer to Appendix A. The t-statistics are calculated with standard errors adjusted for heterogeneity and clustered by analyst and firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)Volume	(2)Size	(3)Inst
Intercept	-12.6461***	-12.5466***	-12.7251***
	(-55.07)	(-54.44)	(-55.59)
Distraction	0.3148***	0.2831***	0.3704***
	(13.15)	(12.88)	(20.02)
Distraction*D(Volume)	-0.1541***		
	(-5.21)		
Distraction*D(Size)		-0.2281***	
		(-8.08)	
Distraction*D(Inst)			-0.0968***
			(-3.26)
Resource	Yes	Yes	Yes
Incentive	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm-fixed	Yes	Yes	Yes
Year-fixed	Yes	Yes	Yes
Analyst-fixed	Yes	Yes	Yes
Obs	1,000,462	1,000,462	1,000,462
Adj. R^2	0.039	0.039	0.039