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Investor Relations and Firm Disclosures: Evidence from Quarterly Earnings
Conference Calls

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Abstract

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This paper examines the effect of investor relations (IR) on a firm's quarterly earnings conference call. IR is defined as a "strategic management responsibility" in charge of establishing a two-way communication between the firm and the financial community. I posit that IR has a dual role in the firm. On one hand, IR acts as an information bridge between management and the financial market, establishing the flow of two-way communication. On the other, IR acts as the voice of the company, managing the firm narrative and controlling the dialogue with external stakeholders. My findings suggest that this duality is reflected in the conference call. Results suggest that while IR encourages greater discussion of manager outlook and commentary, IR also serves to restrict manager responses in the Q&A to what was previously disclosed in the presentation and to inject positive spin in the conference call. Further, results suggest that a mechanism through which IR seeks to control the dialogue is the discrimination of analyst order in the Q&A. Results also offer some evidence that IR increases conference call informativeness through their effect on conference call content. Overall, I find that IR exhibits evidence of their dual role on the conference call disclosure.

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Dedication

To my parents, whose sacrifices have made all else possible.

1. Introduction

This paper examines how the investor relations department's (IR) involvement on the quarterly earnings conference call (conference call) incrementally impacts conference call content. IR is defined as a "strategic management responsibility" in charge of establishing a two-way communication between the firm and the financial community (NIRI).¹ Prior research has shown the importance of IR to the firm in expanding institutional ownership, analyst following, and media coverage; increasing firm liquidity and market valuation; and facilitating information assimilation in the market (Bushee and Miller, 2012; Kirk and Vincent, 2014; Chapman, Miller, and White, 2018). However, despite a documented communication-centric role in the firm, IR's direct impact on the content of firm disclosures is left largely unexplored.

IR manages and has significant input on many important corporate disclosure activities (Brown, Call, Clement, and Sharp, 2018). In particular, IR acknowledges conference calls to be the most important public disclosure for firms to communicate with institutional investors and one of the most important channels of communication between the firm and analysts (Brown et al. 2018). As such, IR has ample incentive and opportunity to significantly impact the conference call disclosure. I contribute to this stream of literature by examining *how* IR affects conference call content.

I posit that IR's establishment of the two-way communication between the company and external stakeholders allows them to help management identify and address the information demands of analysts and institutional investors. Further, survey literature provides evidence that IR is heavily involved both in scripting the conference call disclosure and in

¹ More information on NIRI – The National Investor Relations Institute – can be found at <https://www.niri.org/about-niri>

preparing potential questions and answers (Brown et al. 2018).

However, the duality of IR's role in the firm suggests that IR's effect on conference call content is multi-faceted. On one hand, as the crux of the firm's two-way communication, IR has a role in bridging the information gap between the firm and capital markets. This argument suggests that IR helps to increase information disclosed on the call to address analysts' and institutional investors' information demands. On the other hand, as the functioning voice of the firm, IR may also have a role in managing the firm's narrative and controlling the dialogue between the firm and external stakeholders (EY, 2018; Brown et al. 2019). It is possible that the disclosures necessary to fulfill this role are different than the disclosures necessary to fulfill the informational role above. As such, it is an empirical question how IR affects the content of conference call disclosure.

To examine the effect of IR on conference call content, I utilize a sample of 102,154 conference call transcripts from Thomson Reuters StreetEvents published from 2001 to 2019. Following prior literature, I use the conference call attendance list at the top of the transcript to identify firm-quarters with an IR presence (Chapman, Miller, and White, 2018). Since firms that have IR may be fundamentally different from firms that do not; as such, I employ an entropy balancing technique to control for factors that drive the decision to initiate IR.

Using this approach, I first examine whether IR increases information disclosed on the call to meet external information demands. Drawing on prior literature and practitioner publications, I examine textual characteristics that address common information demands of analysts and investors, including quantitative disclosures as well as the amount of discussions of manager outlook and commentary provided on the conference call. I find evidence that IR involvement on the call increases the amount of forecast-like statements, qualitative non-

earnings forward-looking statements on the call, manager opinion words, and specific qualitative references, suggesting that IR fulfills its role of addressing the common information demands of external stakeholders by encouraging more disclosures on the conference call.

I next examine a potential method through which IR can help the firm control the dialogue on the conference call. Specifically, I examine the effect of IR on the amount of unique content in the Q&A section of the conference call incremental to the presentation. Prior literature finds that the greater information content of the Q&A section relative to the presentation is driven by the spontaneous nature of the Q&A – by analysts prompting additional disclosures from managers that otherwise would not have been disclosed (Matsumoto 2011). However, prior literature suggests that some firms have both the incentive and means of *restricting* manager responses to information already disclosed in the more controlled, prepared presentation section of the call. Adopting a token-similarity approach to compare the two sections of the call, I find some evidence that IR restricts the amount of unique content in the Q&A incremental to the presentation, suggesting that IR helps to control the dialogue on the call by limiting the amount of spontaneous disclosures in the Q&A, likely through coaching and rehearsals with management.

Another method by which IR can help the firm control the dialogue is by framing the firm's performance in a positive light, or in other words, injecting positive spin in the conference call. Prior literature finds that external IR firms hired for publicity purposes increase positive spin in the firm's media coverage (Solomon, 2012). In this conference call setting, I examine the effect of IR on *abnormal* conference call tone and the relation between abnormal conference call tone and current period performance. Findings offer some evidence that IR adds positive spin to the call by increasing the positive tone of the call in a way that is

unrelated to firm fundamentals.

Finally, I examine an indirect mechanism through which IR can affect conference call content. Prior literature finds that not only do firms show preference to favorable analysts when accepting questions during the Q&A portion of the conference call, but the dialogues with favorable analysts are less informative than the dialogues with unfavorable analysts (Mayew, 2008; Mayew, Sethuraman, Venkatachalam, 2019). This suggests that firms use analyst discrimination as a means of controlling the dialogue on the call. As IR is tasked with maintaining close relationships with analysts and with helping management to anticipate and prepare responses to analyst questions. I examine whether IR is more or less likely to help the firm discriminate against unfavorable analysts on the call. On one hand, exacerbating discrimination helps the firm avoid difficult or contentious questions by unfavorable analysts. On the other hand, being less discriminatory is more likely to address any pressing information demands of its external stakeholders. While I do not find that IR increases (decreases) the likelihood of favorable (unfavorable) analysts *participating* on the call, I do find that IR increases the likelihood of favorable (unfavorable) analysts participating *earlier (later)* on the call.

I also run alternative difference-in-difference propensity-score matched specifications of my tests of conference call textual traits and analyst discrimination, finding similar (albeit weaker) inferences.

In additional tests, I examine the effect of IR on conference call informativeness as measured by one-day absolute abnormal returns on the conference call date as well as intraday TAQ returns around the conference call window. Results with one-day absolute abnormal returns provide some evidence that IR positively affects conference call informativeness,

primarily through its effect on conference call content.

Through my study, I contribute to two streams of literature: determinants of attributes and the role of investor relations within the firm. The conference call is a prominent information event for the firm; as such, it is important to understand the forces that shape the content of the call. I contribute to the literature by bringing to light an important but previously unexplored determinant of conference call attributes - IR. Further, my study provides insights to firms considering an investment in IR. Prior studies highlight the effect of IR on various capital market outcomes (Bushee and Miller, 2012; Kirk and Vincent, 2014; Chapman, Miller, and White, 2018). I contribute to this literature by identifying a specific channel through which IR fulfills their purpose of improving firm market outcomes and increasing information assimilation – the earnings conference call.

The remainder of the paper proceeds as follows. Section 2 discusses prior literature and hypothesis development. Section 3 presents the sample selection and variable measurement. Section 4 discusses research design and reports results for conference call text-based tests and analyst-level tests. Section 5 discusses research design and results for alternative specifications. Section 6 discusses research design and results for additional market-based tests and section 7 concludes the paper.

2. Literature Review and Hypothesis Development

2.1 Investor Relations and the Firm

Prior literature provides evidence that IR activities improve firms' capital market outcomes in various ways. For example, Bushee and Miller (2012) examine a sample of 210 small to mid-cap firms who hired an external IR firm; they find that hiring external IR is associated with greater increases in institutional ownership, a shift toward new investor bases,

greater analyst following, greater media coverage and a higher book to price ratio. Further, Kirk and Vincent (2014) find that firms initiating an internal professional IR department subsequently experience increased analyst following, institutional ownership, liquidity, and market valuation.

Prior literature has also begun to examine some potential *mechanisms* through which IR accomplishes these capital market outcomes. For example, Chapman, Miller, and White (2018) find evidence that IR helps the market to assimilate firm information. They examine firms with in-house IR officers and find that relative to an entropy balanced control sample, these firms have lower stock price volatility, lower analyst forecast dispersion, higher analyst forecast accuracy, and quicker price discovery. Further, they find that these effects are stronger within firms that have higher information levels (above-median numbers of SEC filings), and hence a greater need for information assimilation in the market. In addition, Kirk and Vincent (2014) examine the relation between firms' initiation of internal professional IR and firms' levels of management forecast disclosure, finding evidence that initiating IR more than doubles the frequency of press releases and management earnings guidance relative to a propensity score-matched sample.

Overall, evidence from prior studies finds positive capital market benefits associated with IR activities. Evidence also suggests that at least one mechanism through which IR provides such benefits is through involvement in firm disclosures. I further examine the role of IR on firms' disclosures by examining one of the most important disclosure outlets for firms: conference calls.

2.2 Investor Relations and Conference Call Content

The conference call is an important disclosure medium that serves as a hub of communication between management, analysts, and institutional investors (Bowen, Davis, and Matsumoto, 2002; Matsumoto, Pronk, and Roelofsen, 2011). Prior literature has examined various elements affecting the content of conference calls, including CEO- and CFO- specific effects, firm performance, and analyst following (Matsumoto et al., 2011; Price, Doran, Peterson, and Bliss, 2012; Davis, Ge, Matsumoto, and Zhang, 2015). Adding to this stream of literature, I examine the effect of a firm's IR on the conference call disclosure.

Recent practitioner literature and survey evidence find that drafting and preparing for the conference call is one of IR's most important responsibilities within the firm (Brown, Call, Clement, and Sharp, 2019; Amel-Zadeh, Scherf, and Soltes, 2019). In fact, in a survey of 610 Investor Relations Officers (IROs), 84% of surveyed IROs report having considerable influence on the presentation section of conference calls (Brown et al. 2019). Further, aside from drafting the presentation section, IR is also involved in preparing a list of possible questions and answers, developing a strategy for handling unanticipated questions, and rehearsing the call with the C- suite (Brown et al. 2019). Moreover, survey results suggest that IROs consider conference calls to be the single most important tool for conveying the company message to institutional investors (Brown et al. 2019). While these survey responses suggest IR involvement may significantly affect the content of conference call disclosures, empirical evidence of such an effect has not been documented.

Further, I posit that IR's central position in the firm's two-way communication highlights the duality of IR's role in the firm. On one hand, they are tasked with bridging the information gap between management and analysts and investors (EY, 2018; Brown et al.

2019). IR often acts as a feedback loop by bringing back to management the views of analysts and investors about the company and helping managers to respond (IR Magazine, 2015, 2017). This suggests that IR will increase information disclosed on the call to address the information demands of external stakeholders. I posit that this will reflect in increases in both quantitative and qualitative disclosures on the call.

Prior literature finds that conference calls with a greater proportion of quantitative disclosures are more informative. Specifically, Campbell, Zheng, and Zhou (2021) find that a higher ‘number of numbers’ is positively associated with short-window returns around the call. Further, practitioner literature suggests that useful conference call disclosures should contain more manager outlook on the future and manager commentary on firm performance (Sisson, 2014; EY, 2018). In fact, per a 2018 EY survey, one of IR’s important roles is to help “[bring] the CEO’s and CFO’s attention to discussing strategy, M&A, and street feedback” (EY, 2018). Further, IR Magazine (2009) advises “[giving] color on the important business drivers and how the current period meshes with your long-term themes and strategy.” These articles suggest that the type of information external participants demand on the conference call largely involves discussions of manager outlook and commentary, disclosures that help to contextualize current firm performance. In fact, while quantitative disclosures are vital to investors and analysts, prior literature suggests that disclosure quality suffers without sufficient contextualization of the numbers disclosed (Allee, Do, and Do, 2021).² Specifically, the authors find that when numbers in conference calls are less supported by context-relevant *words*, firms experience lower long-term returns and a higher risk of restatements.

² Further, given that the earnings announcement (typically released concurrently with the conference call disclosure) contains summaries of quantitative information, it is likely that the conference call faces stronger information demands for qualitative disclosures that help contextualize firm performance metrics.

As such, to examine whether IR fulfills their informational role on the conference call, I examine aspects of both quantitative and qualitative disclosures on the call. I posit that if IR fulfills their role of bridging the information gap and increases information disclosed on the call to address the types of disclosures that external participants demand, I expect a conference call with more information, both quantitative and qualitative. I state my first hypothesis below in the alternative:

H1: IR increases information disclosed on the conference call

On the other hand, IR's position in the two-way communication of the firm renders them the de facto voice of the company; as such they are also in charge of managing the firm's narrative and controlling the dialogue on the call (EY, 2018; Brown et al. 2019). While this aspect of their role is not mutually exclusive to providing information desired by external stakeholders, I do expect to see this reflected in other characteristics of conference call content. For example, prior literature finds that some IROs reduce 8-k length and the number of uncertainty words within 8-ks (Hope et al. 2019). Further, prior literature provides evidence that IR hired by firms for publicity purposes increase positive spin in the hiring firm's media coverage (Solomon, 2012). This suggests that IR has both the incentive and ability to control the dialogue between the firm and external stakeholders, whether through limiting disclosures or through adding positive spin to the conference call without necessarily making the call more informative.³ In fact, in an interview conducted by Brown et al. (2019), one IRO stated: "at the end of the day, transparency is all well and good, but that shouldn't come at the expense of the

³ Controlling the dialogue does not strictly suggest that IR is engaging in opportunistic behaviors on the call. For example, it is possible that IR limits disclosures to those that are most relevant and meaningful to the financial community, increasing disclosure efficiency. However, in this paper I focus on the obfuscatory nature of IR controlling the dialogue on the call to highlight the duality of their role in the firm and on the conference call.

company controlling the dialogue on the call to the best of our ability.” If IR fulfills this role of controlling the dialogue, I expect to see this reflected in the conference call in two ways: the amount of incremental content in the Q&A section (relative to the presentation) and increased positivity in conference call tone.

Evidence from prior literature suggests that the greater information content of the Q&A relative to the presentation is driven by analyst questions prompting additional spontaneous information from managers *that otherwise would not have been disclosed* (in the presentation) (Matsumoto et al. 2011). Relatedly, prior literature also finds that the firm has both the incentive and the means of restricting responses to analyst questions in the Q&A. For example, Hollander, Pronk, and Roelofson (2010) find that managers tend to withhold information from analyst questions by using non-responsive language (e.g. “No, we do not want to provide that information.”), particularly when the firm is experiencing poor performance. Further, Lee (2016) finds evidence that another form of non-responsiveness, content similarity between the presentation and Q&A, is used in conjunction with Q&A scriptedness to restrict disclosures on the conference call. Specifically, he finds that firms are more likely to exhibit content similarity in conference calls when facing negative future unexpected earnings, suggesting a desire to restrict information outflow in the conference call.

I posit that if IR on average helps the firm to control the dialogue on the conference call, then I expect greater limiting of manager responses in the Q&A to disclosures already made in the more controlled presentation section. It is also possible that IR helps the firm *anticipate* analyst questions allowing them to address them more fully in the presentation (thereby limiting the amount of new information disclosed in the Q&A). The latter explanation for the limited amount of new information in the Q&A does not necessarily imply that IR is

not fulfilling its role of bridging the information gap between management and external stakeholders. However, given findings from prior literature, I contend that the choice to focus the call on the more controlled presentation section (rather than allowing more spontaneous disclosure in the Q&A) is more indicative of IR's goal of controlling the dialogue on the call.⁴ As such, I state my second hypothesis below in the alternative:

H2: IR decreases the incremental content in the Q&A section of the conference call.

Additionally, evidence from prior literature shows that investors respond to the tone of firm disclosures. For example, Price et al. (2012) find that conference call tone is a significant predictor of abnormal returns and trading volume during the three-day window surrounding the call. Further, prior literature finds that abnormal positive tone in press releases has a positive stock return effect at the earnings announcement and a delayed negative reaction in future quarters (Huang, Teoh, and Zhang, 2014), suggesting that managers use tone strategically to manage investor perceptions. In this spirit, to shed light on IR's potential to create positive *spin* in the conference call, I examine how IR affects the *abnormal* positive tone on the call, unrelated to firm fundamentals. Solomon (2012) finds that externally hired IR increases firms' positive spin in the media, suggesting that IR has the incentive and ability to manage tone upwards. However, practitioner literature suggests that IR should aim to "curb...enthusiasm" on the conference call and temper the tone of disclosures in order to relay information rationally (IR Magazine, 2009). As such, I state my second hypothesis below, in the null form:

H3: IR does not affect positive spin on the conference call.

⁴ Further, while limiting incremental content in the Q&A could also suggest that IR is keeping the conversation focused on relevant topics and avoiding getting sidetracked by analyst questions, prior literature (Hollander et. al., 2010; Lee, 2016) suggests an obfuscatory nature to non-responsiveness in the Q&A and similarity between the Q&A and the presentation section of the call.

2.3 IR and Analyst Interactions on the Call

In addition to examining how IR might directly affect conference call content, I also consider an indirect mechanism through which IR can shape the discussion on the call: discriminating between analysts who have a favorable versus unfavorable outlook on the firm. Mayew (2008) finds evidence of strategic manager discrimination between favorable and unfavorable analysts in the Q&A section of the conference call. Specifically, he finds that analysts who provide a favorable stock recommendation for the firm are more likely to be called on to ask a question, compared to analysts who follow the firm but give an unfavorable stock recommendation (Mayew, 2008). In addition, Mayew et al. (2019) finds that questions by unfavorable analysts lead to longer and more informative dialogues.

As such, I examine how IR affects the likelihood of firms calling on favorable analysts in the Q&A section of the conference call. IR is tasked with managing close firm relationships with analysts and institutional investors. To the extent that IR helps firms to bridge the information gap between the firm and these external stakeholders and address pressing information demands, I expect IR firms to be *less likely* to discriminate between analysts. Further, surveyed IROs note the importance of communicating with analysts to get an idea ahead of time of what questions to expect (Brown et al. 2019). IR's role in communicating with analysts allows the firm greater time to prepare responses for the tough questions that unfavorable analysts may ask.

On the other hand, the frequent communication between analysts and IR also allows them to more accurately *identify* the unfavorable analysts that will ask tough or contentious questions and therefore, provide greater ability to discriminate amongst the firm's analyst following.

Therefore, to the extent that IR seeks to control the dialogue on the conference call, I expect IR firms to be *more likely* to discriminate between analysts. As such, it is not clear ex ante whether IR will increase or decrease the likelihood of discrimination against unfavorable analysts. I state my last hypothesis below in the null form:

H4: IR does not affect the likelihood of discriminating among analysts on the conference call.

3. Sample Selection and Variable Measurement

3.1. Sample Selection

To conduct my analyses, I begin with a sample of 294,266 quarterly earnings conference call transcripts from 2001 through 2019 sourced from Thomson Reuters StreetEvents. I discard conference call observations with missing identifying information and merge my remaining conference call dataset with quarterly Compustat by ticker symbol and fiscal quarter and year. I then discard observations missing current and lagged quarterly assets. This leaves me with 137,172 firm-quarter observations. I then drop observations with unparsable transcripts and missing controls for my conference call-level tests, leaving me with 102,154 firm-quarter observations. My analyst-firm-quarter dataset consists of 991,977 observations with non-missing controls for analyst-firm-quarter level tests. I obtain analyst data from IBES, return data from CRSP, and firm data from Compustat. Table 1 details the sample construction process.

3.2. Variable Measurement

To measure the independent variable of interest, I use conference call transcripts to

identify firm-quarters in which an IR role is listed on the conference call.⁵ Not only does this allow me to identify firms with IR personnel, it also allows me to capture firms with IR involvement on the conference call. From the transcript, I parse out conference call attendance relating to firm participants and search on key terms including “IR,” “Investor Relations,” and “Investor.” Since IR can also be responsible for public relations activities, I also include managers whose titles include “Public Relations” and “External Relations.” See Appendix II for a full list of IR search terms. I create an indicator variable *IR* set equal to one for firm-quarters in which we observe an IR officer on the conference call and zero otherwise. Following Chapman, Miller, and White (2018), in firm-quarters in which I observe no IR on the transcript, but IR is listed in prior and subsequent quarters, I assume IR was present during the missing quarter and adjust the variable accordingly.⁶ Further, as IR activities likely take time to implement, I set *IR* equal to zero if I do not observe IR on the conference call in the prior four quarters, similar to Chapman et al. (2018).

I rely on text-based measures to capture IR’s effect on conference call content. For all text-based measures of conference call content, I identify and drop analyst questions from the conference call transcripts in order to capture only the information the manager discloses. To examine whether IR increases information disclosed on the call, I first create two measures of quantitative disclosures: the number of specific numeric references and the number of quantitative earnings-related forward-looking statements, hereafter referred to as forecast-like statements.⁷ I also measure three proxies for qualitative information: the number of qualitative

⁵ I do not distinguish between internal IR and externally hired IR firms.

⁶ Once a firm initiates IR, it is likely to continue to maintain an IR presence within the firm.

⁷ Kirk and Vincent (2014) finds firms that hire IR subsequently increase the frequency of management forecasts. I note that discussions of forecast-like statements on the call are likely correlated with the number of management forecasts issued by the firm, often bundled with the earnings announcement released prior to the call. Thus, finding that IR is associated with increased disclosure of quantitative earnings-related forward-looking statements on the conference call would be consistent with their findings.

non-earnings forward-looking statements, the number of opinion words, and the number of specific qualitative references.^{8,9} These measures are consistent with disclosures that provide additional detail and nuance to help contextualize firm performance.

I measure the number of specific numeric references using the Stanford Named Entity Recognition (NER) algorithm to extract specific references to money and percentages on the call, scaling by total words spoken by managers on the call (*Specific_num*). I follow the methodology in Bozanic et al. (2018) to identify the number of forecast-like statements on a sentence by sentence basis. To create the measure %*FCST-LIKE*, I scale the number of forecast-like statements by the number of non-forward-looking sentences.¹⁰

To identify discussions of manager outlook, I follow the methodology in Bozanic et al. (2018) to identify qualitative non-earnings related forward-looking statements on a sentence-by-sentence basis. To create this measure of %*FLS*, I scale the number of qualitative non-earnings forward-looking sentences by the number of non-forward-looking sentences. See Appendix IV for a list of forward-looking terms. I identify opinion words using the Hu and Liu (2004) wordlist of opinion words.¹¹ See Appendix III for a list of opinion words. I scale the number of opinion words by total words spoken by managers on the call to create the measure *Opinion*. This measure intends to capture managers' subjectivity in their disclosures, including their commentary and points of view. I measure specific qualitative references using the

⁸ While forecast-like statements consist of quantitative projections of future earnings, qualitative non-earnings forward-looking statements capture qualitative statements of managers' anticipations and plans for the future. (e.g. "We do not intend to alter the fundamental structure of the Company..."; "We anticipate that...with the rollout of our new branded marketing campaign, we will continue to see this strength in [growth].")

⁹ Specific qualitative references are references to specific people, organizations, locations, dates, and times. e

¹⁰ I note that Bozanic et al. (2018) scale their measures by total sentences. In my study, I scale by total non-forward-looking sentences to address the concern that IR also affects other types of forward-looking statements. I discuss this issue further in section 4.1.

¹¹ I note that this list was extracted from customer product reviews and as such is not geared specifically towards a financial setting. Therefore, I parse out words that may express an opinion in a general setting but not in an accounting and finance setting (e.g. liability, appreciated, risk, positive, negative, etc.).

Stanford Named Entity Recognition (NER) algorithm to extract specific references to people, organizations, locations, dates, and times, scaling by total words spoken by managers on the call (*Specific_qual*). This measure is intended to capture qualitative discussions that provide information about the specific activities of the firm, helping to further contextualize firm performance.¹²

Next, I use a token-based approach to calculate unique content in the Q&A section of the conference call. First, I drop all stop words (e.g. helping verbs, function words) from the extracted manager comments to more directly capture meaningful content. I then strip the text of duplicate words (keeping the first instance of each word in each section) and count the number of non-duplicate words in both sections of the conference call. Lastly, I calculate the number of tokens in the Q&A section not found in the presentation (*Unique-Token*) and divide it by all non-duplicate words spoken by managers in the Q&A to calculate *Content_Diff*.

Lastly, to examine abnormal conference call tone, I follow Huang et al. (2014) and first measure net optimistic language (*Net_Opt*) in the conference call using the Loughran & McDonald (2011) dictionary. I calculate the net positive words (*Positive – Negative*) spoken by managers on the call and scale by total words spoken by managers. Following Huang et al. (2014), I then regress *Net_Opt* on firm-quarter measures of performance and information environment and obtain the residuals from this regression as my measure of abnormal tone (*Abtone*).¹³ See Appendix I for detailed variable definitions.

I employ two measures to capture analyst discrimination on the call. First, I follow the methodology in Mayew (2008) to measure the likelihood of calling on a favorable vs

¹² I multiply my measures of quantitative and qualitative information by 100 so they are in percentage form, and to ensure that my regression results display readable coefficients.

¹³ I multiply *Abtone* by 100 in order to show meaningful coefficients in my regression tables.

unfavorable analyst to ask a question on the call. I use the IBES detail files to identify analyst-firm-quarter observations that have both an outstanding earnings estimate and an outstanding stock recommendation. Outstanding forecasts must have been issued within one year of the fiscal-quarter end date in order to retain only analysts that are actively following the firm. Next, for this sample of analysts, I identify analyst i covering firm j at quarter t as "participating" if he/she asks a question on the conference call and create an indicator variable *Participate* with value 1 or 0.

Second, among the analysts selected to participate on the call, I examine whether IR discriminates between favorable versus unfavorable analysts through the order in which they select analyst to ask questions. I measure *Order* as the numeric order in which an analyst appears on the call. Although prior literature suggests that firms willing to bring disfavored analysts on the call do so to engage with these analysts rather than to minimize their role in the call (Mayew et al. 2019), calling on favorable analysts first can set the tone for the rest of the call and aid in controlling the dialogue on the call.¹⁴

4. Research Design

I note that the decision to initiate IR is a firm choice; therefore, firms that hire IR may differ in various dimensions from firms that do not. As such, I control for factors that prior literature has found to drive the decision to hire IR that might also influence my outcome variables. For my main analyses, I estimate my regressions using an entropy balancing technique that uses a continuous scale to weight treatment ($IR=1$) and control ($IR=0$)

¹⁴ In fact, in an interview conducted by Brown et al. (2019), one IRO stated: "If an analyst is going to get on there and say something negative, he's going to the bottom of the list. But if I have an opportunity, I'm going to let the people who have a 'buy' on me ask questions first because they're going to set the tone for the call." (Brown et al., 2019)

observations based on determinants of hiring IR. This method ensures covariate balance on these dimensions (Hainmueller, 2013; McMullin and Schonberger, 2018). Following prior literature, I balance my sample on the following determinants of the decision to have IR: firm size, firm age, book-to-market ratio, leverage, scaled earnings, earnings volatility, return volatility, prior analyst following, research and development intensity, and an indicator for litigious industries (Bushee and Miller, 2012; Kirk and Vincent, 2014; Chapman et al. 2018; Kim, Sethuraman, and Steffen, 2020).

Table 2 Panel A presents descriptive statistics on determinants of IR included in the entropy balancing. Overall, means are consistent with prior literature (Chapman, Miller, White, 2014). Table 2 Panel B presents results from the first stage logistic regression of IR_{it} on determinants:

$$IR_{it} = \beta_0 + \beta_1 LnATQ_{it} + \beta_2 Age_{it} + \beta_3 BTM_{it} + \beta_4 LnLev_{it} + \beta_5 Earn_{it} + \beta_6 StdEarn_{it} + \beta_7 Ret_Vol_{it} + \beta_8 LnAnalyst_{it-1} + \beta_9 Litigation + \beta_{10} RD_{it} + Quarter\ FE + Ind\ FE + \varepsilon_{it} \quad (1)$$

I include indicators for 2-digit SIC industry and calendar quarter and cluster standard errors by firm, as IR tends to be sticky over time.

Consistent with prior literature, I find that the likelihood of having IR is positively associated with firm size ($LnATQ$), earnings and return volatility ($StdEarn$, Ret_Vol), prior analyst following ($LnAnalyst_{t-1}$), and research and development intensity (RD). This suggests that larger firms with greater uncertainty about future earnings, cash flows, and operations are more likely to benefit from initiating IR.¹⁵

¹⁵ As reported in Table 2 Panel C, the entropy-balancing technique successfully balances treatment and control observations on all three moments (mean, variance, and skewness).

4.1 IR and Conference Call Content

To test my first hypothesis, I examine the relation between *IR* and my text-based measures of quantitative and qualitative information by running the following model on my entropy-balanced sample of IR and non-IR firms:

$$\begin{aligned} Information_{it} = & \beta_0 + \beta_1 IR_{it} + \beta_2 Ret_Vol_{it} + \beta_3 \ln MVE_{it} + \beta_4 \ln Analyst_{it} + \beta_5 BTM_{it} + \\ & \beta_6 MBE_{it} + \beta_7 Surp_{it} + \beta_8 Loss_{it} + \beta_9 CAR_Q_{it} + \beta_{10} Growth_{it} + \beta_{11} ROA_{it} + \\ & \beta_{12} Fut_ROA_{it} + Quarter\ FE + Ind\ FE + \varepsilon_{it} \end{aligned} \quad (2)$$

Information_{it} refers to my textual measures of information (*Specific_num*, *%FCST-LIKE*, *%FLS*, *Opinion*, and *Specific_qual*) as described in Section 3. My main variable of interest is *IR*; if IR on average helps bridge the information gap between managers and external stakeholders, I expect a positive and significant β_1 . I include return volatility, firm size, analyst following, and book to market as controls in Equation (2) to capture levels of firm uncertainty and information demands that affect conference call disclosures.¹⁶

Following prior literature examining textual characteristics of conference calls (e.g. length and tone), I also include controls for measures of firm performance (Matsumoto et al. 2011; Davis et al. 2015). Specifically, I control for meeting or exceeding analysts' expectations (*MBE*), earnings surprise relative to analyst consensus (*Surp*), an indicator for whether earnings before extraordinary items is below zero (*Loss*), buy and hold returns over the quarter (*CAR_Q*), seasonal sales growth (*Growth*), and return on assets (*ROA*). I also control for *future* performance by including *ROA* averaged over the next four quarters (*FUT_ROA*), under the assumption that managers have informed, rational expectations of future performance. I expect

¹⁶ Although I have included these variables in my entropy balancing, for robustness, I further control for them in my conference call level regressions as they are important determinants of the characteristics of conference call disclosures.

both current and (expectations of) future performance to affect the information disclosed by firms on the conference call. Finally, I include calendar quarter and industry fixed effects and cluster standard errors by firm, as a firm's disclosure choices tend to be sticky over time.

To test my second hypotheses, I estimate an equation similar to equation (2) but with $Content_Diff_{it}$ as the dependent variable:

$$Content_Diff_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 Ret_Vol_{it} + \beta_3 \ln MVE_{it} + \beta_4 \ln Analyst_{it} + \beta_5 BTM_{it} + \beta_6 MBE_{it} + \beta_7 Surp_{it} + \beta_8 Loss_{it} + \beta_9 CAR_Q_{it} + \beta_{10} Growth_{it} + \beta_{11} ROA_{it} + \beta_{12} Fut_ROA_{it} + Quarter\ FE + Ind\ FE + \varepsilon_{it} \quad (3)$$

Again, my main measure of interest is IR ; if IR on average helps to control the dialogue on the call, I expect a negative and significant β_1 , suggesting that IR helps the firm to restrict manager responses in the Q&A section of the call. I cluster standard errors by firm.

To test my third hypothesis, I modify equation (2) to examine whether IR serves to create positive spin on the call. Specifically, I investigate whether IR impacts abnormal conference call tone on the call. I conduct my analysis using the model below:

$$Abtone_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 Ret_Vol_{it} + \beta_3 \ln MVE_{it} + \beta_4 \ln Analyst_{it} + \beta_5 BTM_{it} + \beta_6 MBE_{it} + \beta_7 Surp_{it} + \beta_8 Loss_{it} + \beta_9 CAR_Q_{it} + \beta_{10} Growth_{it} + \beta_{11} ROA_{it} + \beta_{12} Fut_ROA_{it} + Quarter\ FE + Ind\ FE + \varepsilon_{it} \quad (4)$$

Again, my main measure of interest is IR ; if IR on average increases positive spin on the call, I expect a positive and significant β_1 , suggesting that IR increases abnormal tone that is not explained by firm fundamentals. Consistent with analyses above, I cluster standard errors by firm.

To address concerns that the entropy balancing methodology fails to control for latent firm characteristics that affect both the likelihood of having IR and conference call

characteristics, I also run specifications of equations (2-4) with firm fixed effects rather than entropy balancing. Further, to address concerns that top management disclosure practices drive both the decision to have IR as well as conference call characteristics, I also run specifications of equations (2-4) with CEO and CFO fixed effects. To capture CEO and CFO fixed effects, I generate manager IDs from individual CEOs and CFOs identified on the conference call and retain only manager IDs where there is variation in *IR*. One advantage of generating CEO and CFO effects from individuals listed on the conference call rather than from a separate database (such as Execucomp or Boardex) is that it ensures I pick up top management that are directly involved in the conference call disclosure.¹⁷

4.1.1. Results

Table 3 Panel A presents descriptive statistics for my firm-quarter-level variables. Just under half of the firm-quarters in my sample (roughly 45%) are IR firm-quarters. On average, specific references to money and percentages make up 0.1% of words on the call and the average conference call has 0.2% of sentences consisting of forecast-like statements. In contrast, the average conference call has roughly 14.2% of sentences consisting of qualitative non-earnings forward-looking statements while opinion words make up 2.9% of the words on the call and specific qualitative references make up 3.3% of the words on the call. This highlights how the conference call is conducive to greater disclosure of qualitative information to help contextualize quantitative metrics. Additionally, the Q&A section of the average conference call consists of 43.8% unique content incremental to the presentation. Consistent

¹⁷ Despite conventional wisdom, CEOs and CFOs are not always present on the conference call (Lu, Matsumoto, and Moon, 2022). As such, I choose not to use BoardEx or Execucomp data to identify these top C-Suite managers. However, I note that one cost to using conference call attendance to measure individual CEOs and CFOs is that conference call transcripts can have variations in manager's names (e.g. Bill and William, Bob and Robert), potentially leading to misclassification of managers.

with prior literature, on average abnormal conference call tone residuals are around 0%.

Table 4 Panel A presents univariate Pearson and Spearman correlations for conference call level variables. At the univariate level, consistent with predictions, *IR* is positively correlated with *%FCST-LIKE*, *%FLS*, *Opinion*, and *Abtone*, negatively correlated with *Content_Diff*, and positively correlated with *Abtone*, significant at the 1% level. However, at the univariate level, *IR* is negatively correlated with *Specific_num* and *Specific_qual*, significant at the 1% level.

Table 5 presents results on H1 testing IR's role in increasing the disclosure of quantitative and qualitative information. Column 1 of Panels A and B present the multivariate regression results using the entropy balanced sample of the effect of IR on the disclosure of specific numeric references and forecast-like statements, respectively. In Panel A, contrary to expectations, the coefficient on IR is negative and significant at the 5% level, though in the firm fixed effects and the CEO/CFO fixed effects specifications in Columns 2 and 3, the coefficient is insignificant. On the other hand, in Panel B, the coefficient on IR is positive and significant at the 5% level in Column (1), indicating that IR firm-quarters exhibit more forecast-like statements than non-IR firm-quarters. However, in the firm fixed effects and the CEO/CFO fixed effects specifications, the coefficient is insignificant. Overall, results on the effect of IR on quantitative disclosures on the conference call are mixed, suggesting that increasing quantitative disclosures on the call is not IR's primary function.

Column 1 of Panels C, D, and E present the multivariate regression results using the entropy balanced sample of the effect of IR on the disclosure of qualitative information – qualitative non-earnings forward-looking statements, manager opinions, and specific qualitative references, respectively. The coefficients on *IR* are positive and significant at the

1% level, suggesting that firms with IR on average provide more qualitative non-earnings forward-looking statements, manager opinions, and specific qualitative references, consistent with IR's role in helping to provide more context and addressing the common information demands of external stakeholders. Overall, results are qualitatively similar in specifications with firm fixed effects (Column 2) and CEO/CFO fixed effects (Column 3). The relatively stronger results with qualitative information variables support insights from practitioner literature that discussions of manager outlook and commentary provide context to assess current firm performance.

Further, consistent with prior literature, greater uncertainty and poorer firm performance are positively associated with qualitative non-earnings forward-looking statements (Bozanic et al., 2018). Specifically, return volatility and loss are positively associated with %*FLS* while MBE and future ROA are negatively associated.

Table 5 presents regression results for H2, IR's effect on incremental content in the Q&A. Column 1 presents results on the entropy balanced sample. The coefficient on *IR* is negative and significant at the 5% level, indicating that firms with IR have less incremental content (i.e., fewer unique tokens) in the Q&A relative to the presentation. This evidence suggests that, on average, IR seeks to control the dialogue on the call by reigning in manager responses to analyst questions and reiterating information discussed in the presentation. However, in specifications with firm fixed effects (Column 2) and CEO/CFO fixed effects (Column 3), this coefficient on *IR* is no longer significant.

Table 6 presents regression results for my third hypothesis on IR's potential to add positive spin to the call (increase abnormal tone). In Column 1, for the entropy balanced sample, the main effect on *IR* (β_1) is significant and positive at the 1% level, suggesting that IR

on average injects more positive spin into the conference call. Thus, it appears IR involvement on the call results in the use of language that controls the message on the call by maintaining a positive tone. In the specifications with firm fixed effects, β_1 continues to load positively at the 10% level.

Taken together, results on textual measures of conference call content suggest IR's affect the content of conference call in important ways due to the dual nature of their role in the firm.

4.2 IR and Analyst Interactions on the Conference Call

For my next set of analyses, I examine the relation between *IR* and the firm's likelihood of calling on favorable analysts during the conference call. I first run the following linear probability model regression at the analyst-firm-quarter level:

$$\begin{aligned}
 Participate_{ijt} = & \beta_0 + \beta_1 IR_{it} + \beta_2 Buy_{ijt} + \beta_3 Buy_{ijt} * IR_{it} + \beta_4 Sell_{ijt} + \beta_5 Sell_{ijt} * IR_{it} + \\
 & \beta_6 PriorAcc_{ijt} + \beta_7 FirmExp_{ijt} + \beta_8 GenExp_{ijt} + \beta_9 Inds_{ijt} + \\
 & \beta_{10} Companies_{ijt} + \beta_{11} ForFreq_{ijt} + \beta_{12} PriorParticipate_{ijt} + \beta_{13} CCuser_{ijt} + \\
 & \beta_{14} RecHorizon_{ijt} + \beta_{15} QA_Min_{it} + \beta_{16} NumAnalyst_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{5}$$

Participate is measured as described above. My main variables of interest are the interactions between *IR* and analyst recommendation favorability (β_3 and β_5). Mayew (2008) predicts that the more favorable an analysts' stock recommendation, the more likely that analyst is to participate on the conference call. For the sake of brevity, in my model I condense strong sell and sell recommendations into *Sell_{ijt}* and strong buy and buy recommendations into *Buy_{ijt}*. Analysts with a strong buy or buy recommendation are more likely to participate in the conference call ($\beta_2 > 0$). Analysts with a sell or strong sell recommendation are less likely to participate in the conference call ($\beta_4 < 0$). Similar to prior analyses, if IR on average helps bridge the information gap between managers and external stakeholders, I expect *IR* to

attenuate the relation between analyst stock recommendations and *Participate*. Specifically, I predict a negative and significant β_3 and a positive and significant β_5 . Alternatively, if IR attempts to control the dialogue by exacerbating discrimination amongst favorable versus unfavorable analysts, I predict a positive and significant β_3 and a negative and significant β_5 .

I follow Mayew (2008) and control for various analyst-level characteristics affecting their likelihood of participation on the call. Specifically, I control for measures that capture an analyst's ability, experience, and prestige, including their prior forecasting accuracy (*PriorAcc*), the depth and breadth of their knowledge and experience (*FirmExp*, *GenExp*, *Inds*, *Companies*, *ForFreq*), and the period of time since the analyst made their stock recommendation (*RecHorizon*). Further, I include measures that capture analysts' desire to be on the conference call, including their prior participation on the firm's conference calls (*PriorParticipate*), and their inherent preference to use conference calls (*CCuser*), calculated as the number of other firms' conference calls that the analyst participated on during the same calendar quarter as the current conference call. Following Mayew (2008), I capture variation in the above analyst characteristics by scaling each of the characteristic variables to range from 0 to 1 in the following calculation:

Characteristic_{ijt}

$$\frac{[Characteristic_{raw_{ijt}} - \min(Characteristic_{raw_{ijt}})]}{[\max(Characteristic_{raw_{ijt}}) - \min(Characteristic_{raw_{ijt}})]}$$

Further, I control for the length of the Q&A section (*QA_Min_{it}*) in minutes to control for the total time allotted for answering analyst questions during the conference call and for the number of analysts with both an outstanding forecast and recommendation (*NumAnalyst_{it}*) to control for analyst demand to be on the call. I also cluster standard errors by firm.

To examine discrimination based on the order in which analysts are called on to ask questions, I restrict my sample to analysts *participating on the conference call* and run the following OLS regression:

$$\begin{aligned}
 Order_{ijt} = & \beta_0 + \beta_1 IR_{it} + \beta_2 Buy_{ijt} + \beta_3 Buy_{ijt} * IR_{it} + \beta_6 PriorAcc_{ijt} + \beta_7 FirmExp_{ijt} + \\
 & \beta_8 GenExp_{ijt} + \beta_9 Inds_{ijt} + \beta_{10} Companies_{ijt} + \beta_{11} ForFreq_{ijt} + \\
 & \beta_{12} PriorParticipate_{ijt} + \beta_{13} CCuser_{ijt} + \beta_{14} RecHorizon_{ijt} + \\
 & \beta_{15} QA_Min_{it} + \beta_{16} NumAnalyst_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{6}$$

Order is defined as the order in which analyst *i* is called on in the conference call at quarter *t* for firm *i*. Smaller values denote an earlier appearance on the call. My main variable of interest is the interaction between IR and analyst recommendation favorability (β_3).¹⁸ Controls are as defined above. If IR on average helps bridge the information gap between managers and external stakeholders, I expect *IR* to attenuate the relation between analyst stock recommendations and *Order*. Specifically, I predict a positive and significant β_3 . Alternatively, if IR attempts to control the dialogue by exacerbating discrimination between favorable and unfavorable analysts, I predict a negative and significant β_3 .

In additional specifications, I re-run equations (5) and (6) with analyst-year fixed effects to capture any other unobservable analyst characteristics that may affect their participation on the conference call.

4.2.2. Results

Table 7 Panels A (B) present descriptive statistics for my analyst-firm-quarter level variables used in tests of analyst participation (*order*) on the call. Panel A shows that just over

¹⁸ I do not separately include *Sell* (unfavorable analysts) in this test as *Sell* analysts make up less than 5% (4.4%) of analysts participating on conference calls.

half of the analysts that follow a firm in a given quarter are selected to participate on the call (51%), consistent with Mayew (2008). Further, roughly half of the analysts that follow a firm have a buy recommendation (51%) while less than 6% have a sell recommendation. Consistent with prior findings that firms tend to cast favorable analysts on the call, Panel B reports 58% of analysts participating on the call having a buy recommendation. Table 7 Panels C and D present univariate Pearson and Spearman correlations for the analyst-firm-quarter level variables. Consistent with prior literature, participation on the call is positively correlated with *Buy* and negatively correlated with *Sell*, significant at the 1% level. Further, the order of analyst appearance is also positively correlated with *Buy*, significant at the 1% level.

Table 8 Panel A presents results of a linear probability model regression of analyst participation on *IR* and analyst controls. Column 1 (2) presents results without (with) analyst-year fixed effects. Consistent with Mayew (2008), favorable (*Buy*) analysts are significantly more likely than unfavorable (*Sell*) analysts to be called on to ask a question on the conference call. Longer calls, prior accuracy and analyst experience and ability increase the likelihood an analyst asks a question on the call, whereas the number of analysts following a firm and time elapsed between an analyst's latest recommendation and the conference call decreases the likelihood.

Results suggest that *IR* neither increases nor decreases the likelihood of discriminating amongst favorable versus unfavorable analysts. Results are unchanged with the inclusion of analyst-year fixed effects in Column 2. This could be due in part to the countervailing influence of *IR*'s greater ability to anticipate and prepare for questions from unfavorable analysts and their greater ability to identify and avoid analysts who may cause trouble on the call. Further, earlier results on *Content_Diff* suggest that *IR* firms provide less incremental

information in response to analyst questions, suggesting that IR has other ways of controlling the dialogue in the Q&A section other than discriminating amongst analysts.

Table 8 Panel B presents results from the regression of *Order* on *IR* and analyst controls for the sample of analysts selected to participate on conference calls. Consistent with expectations, buy analysts are more likely to appear earlier on the call. Further, results suggest that while IR does not affect discrimination based on participation, it does exacerbate discrimination based on the order of analyst appearance, consistent with IR calling on favorable analysts first in an attempt to control the dialogue and set the tone for the call. The coefficient on the interaction of *IR* and *Buy* is negative and significant below the 0.01 level. Results hold with the addition of analyst-year fixed effects in Column 2.

5. Changes after hiring IR

In this section, I use an alternative specification to corroborate my earlier findings. Specifically, I employ a propensity score matched difference-in-difference model and examine changes in conference call textual traits and strategic behavior with analyst participation before and after the initiation of IR.

I follow the methodology in Kirk and Vincent (2014) to construct my sample. I begin by identifying a firm's first *IR* quarter and consider this to be the event quarter when a firm initiates IR (*IIR*). I set *IIR* equal to one in this quarter and drop subsequent firm-quarters for this firm to ensure the control sample does not include firm-quarters after IR initiation. *IIR* equals zero for the remaining firm-quarters (i.e., firm-quarters prior to IR initiation and/or firms who never initiate IR during the sample period). Further, I limit my event quarters to those that do not coincide with a CEO/CFO turnover to further mitigate the concern that top

executive disclosure practices are driving both IR presence and conference call attributes.¹⁹
This leaves me with a sample of 25,764 firm-quarter observations.

Next, I estimate a firm's propensity to establish IR. I estimate a logit model that regresses *IIR* against the pre-initiation averages of determinants described in the entropy-balancing process and match *IIR* firm-quarters to a non-*IIR* firm-quarter without replacement based on the closest propensity score, using a caliper of .001. Assuming covariate balance, this matched sample will reduce the potential for results to be driven by differences between IR and non-IR firms. Table 9 Panel A reports results of the logistic regression of IR initiation (*IIR*) on the pre-initiation four-quarter average of IR determinants. Inferences are similar to determinants of *IR*. Not only are larger, more volatile firms with greater lagged analyst following and R&D intensity more likely to initiate IR, consistent with prior literature, I also find that younger, less mature firms with poorer performance are more likely to initiate IR. Table 9 Panel B reports the covariate balance of treatment firms with their closest neighbor. Overall, according to the means and medians of the determinants of IR initiation, my sample is balanced between treatment and control firms.

I then use this propensity score-matched sample and re-run equations (2)-(4) as difference in difference models, where $\Delta Text$ represents the changes of all textual traits previously examined:

$$\Delta Text = \beta_0 + \beta_1 IIR + \beta_2 \Delta Ret_Vol + \beta_3 \Delta \ln MVE + \beta_4 \Delta \ln Analyst + \beta_5 \Delta BTM + \beta_6 \Delta MBE + \beta_7 \Delta Surp + \beta_8 \Delta Loss + \beta_9 \Delta CAR_Q + \beta_{10} \Delta Growth + \beta_{11} \Delta ROA + \beta_{12} \Delta ROA_1 + \beta_{13} \Delta ROA_2 + \beta_{14} \Delta ROA_3 + \beta_{15} \Delta ROA_4 + \beta_{16} PChg_Text + \varepsilon \quad (7)$$

¹⁹ I note that due to sample size concerns I only limit the sample to exclude CEO/CFO turnover in the initiation quarter and not the eight subsequent quarters; as such, I do not fully eliminate the concern that top management disclosure practices are also influencing my conference call outcomes.

$$\begin{aligned} \Delta Participate_j = & \beta_0 + \beta_1 IIR + \beta_2 \Delta Buy_j + \beta_3 \Delta Buy_j * IIR + \beta_4 \Delta Sell_j + \beta_5 \Delta Sell_j * IIR + \\ & \beta_6 \Delta PriorAcc_j + \beta_7 \Delta FirmExp_j + \beta_8 \Delta GenExp_j + \beta_9 \Delta Inds_j + \\ & \beta_{10} \Delta Companies_j + \beta_{11} \Delta ForFreq_j + \beta_{12} \Delta PriorParticipate_j + \beta_{13} \Delta CCuser_j + \\ & \beta_{14} \Delta RecHorizon_j + \beta_{15} \Delta Q\&A_Min + \beta_{16} \Delta NumAnalyst + \\ & \beta_{17} PChg_Participate_j + \varepsilon \end{aligned} \quad (8)$$

$$\begin{aligned} \Delta Order_j = & \beta_0 + \beta_1 IIR + \beta_2 \Delta Buy_j + \beta_3 \Delta Buy_j * IIR + \beta_4 \Delta PriorAcc_j + \beta_5 \Delta FirmExp_j + \\ & \beta_6 \Delta GenExp_j + \beta_7 \Delta Inds_j + \beta_8 \Delta Companies_j + \beta_9 \Delta ForFreq_j + \\ & \beta_{10} \Delta PriorParticipate_j + \beta_{11} \Delta CCuser_j + \beta_{12} \Delta RecHorizon_j + \beta_{13} \Delta Q\&A_Min + \\ & \beta_{14} \Delta NumAnalyst + \beta_{15} PChg_Order_j + \varepsilon \end{aligned} \quad (9)$$

To calculate changes in conference call textual traits and strategic behavior, as well as changes in control variables, I gather data from eight quarters prior to and subsequent to IR initiation, requiring at least 4 quarters of data to be present. I then calculate the change in my dependent and independent variables based on the averages over the eight-quarter post-event period less the averages over the eight-quarter pre-event period.²⁰ To control for underlying trends, I also include the variables *PChg_[var]* which captures the quarterly change in the dependent variable in the pre-event period, measured as the change between the average of quarters q-1 to q-4 and the average of quarters q-5 to q-8. If my results from the levels regressions are not purely driven by top executive disclosure practices, then I expect no changes to inferences in my difference-in-difference analyses.

Table 9 Panel C presents results from running equation (7). Consistent with results from levels regressions, in Columns 3 and 5, $\Delta Specific_qual$ and $\Delta Opinion$ increase around IR initiation quarters ($IIR = 1$), significant at the 10% and 1% levels, respectively. Further, in Column 6, $\Delta Content_Diff$ decreases around IR initiation quarters, significant at the 10% level. However, in Column 4, results on qualitative non-earnings forward-looking statements

²⁰ I create the change variables prior to identifying the closest propensity score match to avoid losing observations due to lack of data to compute the change variables.

($\Delta\%FLS$) are no longer significant.

Table 9 Panel D presents results from running equation (8) and equation (9). In Column 1, consistent with results from the levels regression, IR does not appear to exacerbate or mitigate discrimination on the call based on analyst participation, though I note that in this specification, coefficients on ΔBuy and $\Delta Sell$ are also not significant. In Column 2, $\Delta Order$ loads negatively with the interaction between *Buy* and *IIR*, significant at the 10% level, providing further evidence that IR exacerbates discrimination on the call based on the *order* in which analysts get to ask their questions on the call. However, I note that in this specification, ΔBuy also fails to load. Overall, taken together, these analyses provide further evidence of the duality of IR's role on the call.

6. Additional Tests: IR and Conference call Informativeness

My findings thus far provide evidence that conference call content is affected by the duality of IR's role in the firm. I find evidence that IR increases the disclosure of forecast-like statements, qualitative non-earnings forward-looking statements, manager opinions, and specific qualitative references. Further, in some specifications, I find that IR also reduces incremental content in the Q&A section while injecting positive spin into the call that is unrelated to firm fundamentals. In addition, results suggest that one potential *mechanism* through which IR controls the dialogue on the call is the exacerbation of discrimination in the order of analyst appearance in the Q&A. As an additional test, I examine abnormal returns on the day of the conference call in an attempt to shed light on whether and how IR's net effect on the conference call affects the informativeness of the call.

6.1 OLS Regressions – One-day CRSP returns

To measure market returns around the conference call, I first use CRSP data to calculate abnormal absolute one-day returns on the date of the conference call (*AbsCAR*).

I first examine the relation between my seven text-based measures of conference call content and *AbsCAR* by running the following regression on my entropy-balanced sample:²¹

$$\begin{aligned} AbsCAR_{it} = & \beta_0 + \beta_1 \%Specific_num_{it} + \beta_2 \%FCST-LIKE_{it} + \beta_3 \%FLS_{it} + \beta_4 Opinion_{it} + \\ & \beta_5 Specific_qual_{it} + \beta_6 Content_Diff_{it} + \beta_7 Abtone_{it} + \beta_8 Abs_Surp_{it} + \\ & \beta_9 Abs_Revsurp_{it} + \beta_{10} Abs_Msurp_{it} + \beta_{11} Ret_Vol_{it} + \beta_{12} \ln MVE_{it} + \beta_{13} \ln Analyst_{it} + \\ & \beta_{14} BTM_{it} + \beta_{15} \ln Length_{it} + Quarter\ FE + Ind\ FE + \varepsilon_{it}. \end{aligned} \tag{10}$$

I control for pieces of quantitative information released prior to or concurrent with the call (i.e. within the earnings announcement); specifically, the magnitude of the earnings surprise (*Abs_Surp*), the magnitude of the revenue surprise (*Abs_Revsurp*), and magnitude of the management forecast surprise for any one-quarter ahead earnings forecasts issued concurrent with the call (*Abs_Msurp*).²² In addition, I control for the length of the call (*lnLength*) to capture information from any other disclosures.

Following prior literature, I also include controls for firm size (*lnMVE*), growth (*BTM*), and return volatility during the quarter (*Ret_Vol*). I also include the natural log of analyst following (*lnAnalyst*) as an additional control for information demands on the firm, as the informativeness of conference call disclosures is in part driven by the level of analyst involvement (Mayew, 2008; Matsumoto et al. 2011; Mayew et al. 2019). Further, I include calendar quarter and industry fixed effects and cluster errors by firm. In additional

²¹ In recognition that some of the conference call text variables are highly correlated, I run alternate specifications excluding length and/or running one textual content variable at a time. Results do not appear sensitive to the inclusion of length nor do inferences change if I include one textual variable at a time.

²² I set *Abs_Msurp* to zero if there was no one-quarter ahead earnings-related management forecast issued concurrent with the call.

specifications, I run this regression with firm (CEO and CFO) fixed effects to control for other factors that potentially affect market returns around the conference call.

Consistent with prior literature that finds numeric intensity to increase short term returns around the conference call (Campbell et al., 2021), I expect a positive coefficient (β_1) on *Specific_num*. Further, consistent with Bozanic et al. (2018), who finds that both forecast-like statements and qualitative non-earnings forward-looking statements increase absolute abnormal returns around earnings releases, I expect a positive coefficient (β_2) on *%FCST-LIKE* and a positive coefficient (β_3) on *%FLS*. Further, to the extent that *Opinion* captures manager commentary on firm performance and *Specific_qual* captures detailed qualitative information that helps to contextualize firm performance, I expect a positive β_4 and β_5 , respectively. Prior literature finds that the informativeness of the conference call (as measured by intraday abnormal returns) is significantly driven by analyst involvement in the Q&A section which prompts additional disclosures from management (Matsumoto et al. 2011; Mayew, Sethuram, and Venkatachalam, 2019). As such, I expect a significant and positive coefficient (β_6) on *Content_Diff*. Lastly, although prior literature finds that *signed* market returns are positively associated with conference call tone, I do not have strong predictions on the relation between *absolute* return and *Abtone*.

Table 10 Panel A presents regression results for equation (10). While *Specific_num* is significantly and positively related to AbsCAR at the 1% level in the firm fixed effects specification, it is insignificant in both the entropy balanced specification as well as the CEO/CFO fixed effects specification. Consistent with predictions, across all specifications, *%FCST-LIKE* and *%FLS* is significantly and positively related to AbsCAR at the 5% level or better. Similarly, across all specifications, *Opinion* is positively and significantly related to

AbsCAR at the 5% level or better. However, contrary to expectations, I find that *Specific_qual* is significantly and *negatively* related to *AbsCAR* at the 1% level across all specifications. Further, I find no significant relation between *Content_Diff* and *AbsCAR*. Lastly, I find a negative and significant relation at the 1% level between *Abtone* and *AbsCAR* across all specifications.

Next, to examine the net effect of IR on conference call informativeness, I examine the relation between *IR* and *AbsCAR* and run the following regression on my entropy balanced sample:

$$AbsCAR_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 Abs_Surp_{it} + \beta_3 Abs_Revsurp_{it} + \beta_4 Abs_Msurp_{it} + \beta_5 Ret_Vol_{it} + \beta_6 lnMVE_{it} + \beta_7 lnAnalyst_{it} + \beta_8 BTM_{it} + \beta_9 lnLength_{it} + Quarter\ FE + Ind\ FE + \varepsilon_{it}. \quad (11)$$

My main variable of interest is the main effect on *IR* (β_1). Controls are as defined above. Consistent with prior analyses, I also run equation (11) with firm fixed effects and with CEO/CFO fixed effects. I posit that IR's positive effect on discussions of forecast-like statements, qualitative non-earnings forward-looking statements, and manager opinions on the call results in higher absolute abnormal returns during the conference call window for IR firms, as results from equation (10) suggest that these elements of conference call content are positively associated with conference call informativeness. In a similar vein, I posit that IR's positive effect on discussions of specific qualitative references results in *lower* absolute abnormal returns. Further, results in section 4 suggest that IR injects positive spin into the conference call, while results from equation (10) suggest that more positive abnormal conference call tone decreases conference call informativeness. As such, I posit that IR's positive effect on conference call tone reflects negatively on absolute abnormal returns. Therefore, it is not clear ex ante the net effect of IR on conference call informativeness.

Table 10 Panel B presents regressions results for equation (11). In the entropy balanced specification (Column 1), I find a positive coefficient on IR (β_1), significant at the 10% level, suggesting that IR on average serves to increase conference call informativeness. However, β_1 is insignificant in other specifications. I note that the weak results could be due in part to the offsetting natures of IR's effects on the conference call.

6.2 Path Analysis

To further examine the effects of IR on conference call informativeness, I turn to a path analysis to examine a breakdown of the direct and indirect paths between IR, conference call content, and conference call informativeness as measured by one-day absolute abnormal returns. For my entropy-balanced sample, I estimate the following recursive structural equation model on observables:

$$AbsCAR = f(Content, IR, Controls)$$

$$Specific_num = f(IR, Controls)$$

$$\%FCST-LIKE = f(IR, Controls)$$

$$\%FLS = f(IR, Controls) \quad Opinion = f(IR, Controls)$$

$$Specific_qual = f(IR, Controls)$$

$$Content_Diff = f(IR, Controls)$$

$$Abtone = f(IR, Controls)$$

Table 10 Panel C presents standardized estimation results of the structural equation model. Consistent with the OLS model, direct paths from $\%FCST-LIKE$, $\%FLS$ and $Opinion$ to $AbsCAR$ are significant and positive and the direct path from $Specific_qual$ and $Abtone$ to $AbsCAR$ is significant and negative. Also consistent with the OLS model, the disclosure of forecast-like statements, manager opinions, and abnormal positive tone has the strongest

correlation with absolute returns. Contrary to expectations, the correlation between *Specific_num (Content_Diff)* and *AbsCAR* is negative. Results show that only the mediated path from *IR* to *AbsCAR* is positive and significant, suggesting that IR contributes to greater absolute returns on the conference call date through their involvement on the conference call disclosure.

6.3 Intraday TAQ Returns

To examine whether market effects are caused by the conference call disclosure itself, I use TAQ data to calculate intra-day returns during the conference call window. Narrowing down return windows to the conference call disclosure itself reduces the possibility that any effects of IR on returns is due to private communications with investors that occur on the conference call day but outside the conference call itself. About 40% of surveyed IR officers indicate that private phone calls with members of the investment community *after* the earnings release but *before* the public earnings conference call starts are at least somewhat important; in addition, over 80% of companies routinely conduct private “call-backs” with institutional investors and sell-side analysts after public earnings conference calls (Brown et al. 2019). As such, I modify equations (7) and (8) above to examine the effect of conference call characteristics and IR on intraday returns.

I follow the approach in prior literature to estimate returns during the conference call window. First, in my sample, I retain firm-quarter observations where the conference call occurred during trading hours. I then obtain the start time of the conference call from the transcript and then estimate the end time of the conference call window based on word count and median words spoken per minute (160 and 157 for the presentation and Q&A, respectively) (Matsumoto et al. 2011, Mayew et al. 2019). Using these estimates, I first calculate the

absolute value of the difference in quote midpoints at the start and end of the conference call, scaled by the quote midpoint at the beginning of the call. Next, I calculate *Absret_TAQ* by removing the median absolute return of the S&P 500 ETF (SPY) observed during the same time period as the conference call to control for market-wide effects. To control for the effects of the earnings announcement, which is typically released shortly or within one day prior to the conference call, I include the absolute return over the 24-hour period prior to the start of the conference call as an additional control (*RetB4*). Consistent with my earlier analyses, I also run alternate specifications with firm fixed effects and CEO/CFO fixed effects.

Table 11 Panel A presents regression results for the modified equation (10). Consistent with prior literature, I find positive significant relations between *Absret_TAQ* and *RetB4* and between *Absret_TAQ* and the length of the conference call. However, I do not find a significant statistical relation between *Absret_TAQ* and my textual measures of conference call content.

Table 11 Panel B presents regression results for the modified equation (11). Across all specifications, I find no significant relation between *IR* and *Absret_TAQ*, contrary to results using one-day returns (in the entropy balanced specification).²³ I note that the significant sample reduction when using TAQ data potentially contributes to these differences in results between one-day returns and intraday returns.²⁴ Additionally, it is possible that certain aspects of conference call content, particularly those that involve managers' interpretation of results

²³ In untabulated analyses, I examine two alternative market-based measures of informativeness. Specifically, I examine the change in the Amihud (2002) illiquidity measure around the conference call date as well as relative changes in intraday bid ask spreads over the conference call window. However, I find no additional evidence that *IR* serves to improve the informativeness of the public conference call disclosure.

²⁴ There is a 75% drop in sample size when using TAQ intraday returns relative to using CRSP one day return data. I note that the decrease in sample size is largely due to restricting observations to conference calls that occur during trading hours with normal quote conditions.

and discussion of future outlook take longer for conference call audiences to process.

However, I note that to the extent that these conference call disclosures correlate to the content of private communication on the conference call day between IR and external stakeholders, I cannot rule out that my results with one-day returns are at least in part driven by private communication rather than the public conference call disclosure. Nevertheless, the limited evidence of IR's net effect on the conference call is interesting to the extent that it suggests that the main benefits of IR to the firm flows through IR's relationships and private communications with external stakeholders, rather than through public disclosures.

7. Conclusion

I examine how IR affects characteristics of quarterly earnings conference calls, given the dual nature of their role in the firm - establishing two-way communication and controlling the dialogue between the firm and external stakeholders. I further examine an indirect method through which IR can affect conference call content: discrimination amongst favorable vs. unfavorable analysts. I find some evidence that while IR encourages forecast-like statements, qualitative non-earnings forward-looking statements, expressions of manager opinions on the call, and specific qualitative references on the call, IR also serves to reign in manager responses to analyst questions in the Q&A section and inject positive spin in the call. Further, I find that IR exacerbates discrimination between favorable and unfavorable analysts by influencing the order in which they appear on the call. Finally, I find some evidence that IR positively affects conference call informativeness through their impact on conference call content. However, overall results suggest that IR's dual role in the firm does have some offsetting effects on the public conference call disclosure. These results contribute to our

understanding of IR's impact on one of the most important mediums of public disclosure, as well as our understanding of IR's dual role within the firm.

References

- Amel-Zadeh, A., Scherf, A., & Soltes, E. F. (2019). Creating firm disclosures. *Journal of Financial Reporting*, 4(2), 1-31.
- Bowen, R. M., Davis, A. K., & Matsumoto, D. A. (2002). Do conference calls affect analysts' forecasts?. *The Accounting Review*, 77(2), 285-316.
- Bozanic, Z., Roulstone, D. T., & Van Buskirk, A. (2018). Management earnings forecasts and other forward-looking statements. *Journal of Accounting and Economics*, 65(1), 1-20.
- Brown, L. D., Call, A. C., Clement, M. B., & Sharp, N. Y. (2015). Inside the “black box” of sell-side financial analysts. *Journal of Accounting Research*, 53(1), 1-47.
- Brown, L. D., Call, A. C., Clement, M. B., & Sharp, N. Y. (2019). Managing the narrative: Investor relations officers and corporate disclosure☆. *Journal of Accounting and Economics*, 67(1), 58-79.
- Bushee, B. J., Matsumoto, D. A., & Miller, G. S. (2004). Managerial and investor responses to disclosure regulation: The case of Reg FD and conference calls. *The Accounting Review*, 79(3), 617-643.
- Bushee, B. J., & Miller, G. S. (2012). Investor relations, firm visibility, and investor following. *The Accounting Review*, 87(3), 867-897.
- Campbell, J. L., Zheng, X., & Zhou, D. (2021). Number of Numbers: Does Quantitative Textual Disclosure Reduce Information Risk?. Available at SSRN 3775905.
- Chapman, K., Miller, G. S., & White, H. D. (2019). Investor relations and information assimilation. *The Accounting Review*, 94(2), 105-131.
- Corporate Finance Institute. (n.d.). Role of Investor Relations. Retrieved from <https://corporatefinanceinstitute.com/resources/careers/jobs/investor-relations-job-description-ir/>
- Cossette, J. (2009). Thirty tips for better earnings calls. *IR Magazine*. Available at: <https://www.irmagazine.com/reporting/thirty-tips-better-earnings-calls> (Accessed: 18 April 2022).
- Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2015). The effect of manager-specific optimism on the tone of earnings conference calls. *Review of Accounting Studies*, 20(2), 639-673.
- Davis, A. K., Piger, J. M., & Sedor, L. M. (2006). Beyond the numbers: An analysis of optimistic and pessimistic language in earnings press releases (No. 2006-005). St. Louis, MO: Federal Reserve Bank of St. Louis.
- Hainmueller, J., & Xu, Y. (2013). Ebalance: A Stata package for entropy balancing. *Journal of Statistical Software*, 54(7).
- Hollander, S., Pronk, M., & Roelofsen, E. (2010). Does silence speak? An empirical analysis of disclosure choices during conference calls. *Journal of Accounting Research*, 48(3), 531-563.
- Hope, O. K., Huang, Z., & Moldovan, R. (2019). Economic Consequences of Hiring Wall Street Analysts as Investor Relations Officers.
- Huang, X., Teoh, S. H., & Zhang, Y. (2014). Tone management. *The Accounting Review*, 89(3), 1083-1113.
- IR Magazine. (2015). Research Report: IR Challenges. Retrieved from <https://www.irmagazine.com/research-reports/research-report-ir-challenges-2015>

- IR Magazine. (2017). Research Report: Measuring and Demonstrating IR, Part II – Senior management. Retrieved from <https://www.irmagazine.com/articles/case-studies/21987/research-report-measuring-demonstrating-ir-part-ii-senior-management/>
- Kirk, M. P., & Vincent, J. D. (2014). Professional investor relations within the firm. *The Accounting Review*, 89(4), 1421-1452.
- Lee, J. (2015). Can investors detect managers' lack of spontaneity? Adherence to predetermined scripts during earnings conference calls. *The Accounting Review*, 91(1), 229-250.
- Lu, J., Matsumoto, D., & Moon, K. (2022). Straight From the Horses' Mouth: Determinants and Consequences of Managers' Conference Call Participation. *Working Paper*.
- Matsumoto, D., Pronk, M., & Roelofsen, E. (2011). What makes conference calls useful? The information content of managers' presentations and analysts' discussion sessions. *The Accounting Review*, 86(4), 1383-1414.
- Mayew, W. J. (2008). Evidence of management discrimination among analysts during earnings conference calls. *Journal of Accounting Research*, 46(3), 627-659.
- Mayew, W. J., Sethuraman, M., & Venkatachalam, M. (2019). Analyst conflict of interest and earnings conference call informativeness. *Working Paper*
- McMullin, J. L., & Schonberger, B. (2018). Entropy-balanced discretionary accruals. *Kelley School of Business Research Paper*, (15-31), 15-01.
- Price, S. M., Doran, J. S., Peterson, D. R., & Bliss, B. A. (2012). Earnings conference calls and stock returns: The incremental informativeness of textual tone. *Journal of Banking & Finance*, 36(4), 992-1011.
- Sisson, J. (2014, March 03). Investor relations professionals focus on improving disclosures. Retrieved from <https://pwc.blogs.com/corporatereporting/2014/03/investor-relations-professionals-focus-on-improving-disclosures.html>
- Solomon, D. H. (2012). Selective Publicity and Stock Prices. *Journal of Finance*, 67(2), 599–638.
- Taking it to heart (Publication). (2018, September 20). EY. https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/growth/ey-investor-relations-20180920.pdf

Appendix I: Variable Definitions

Firm-quarter level

<i>Abs_MSURP</i>	Management forecast surprise, calculated as the absolute value of the difference between one-quarter ahead earnings management forecasts issued on the date of the conference call and the most recent analyst consensus. If missing data on management forecasts, then equal to 0
<i>Abs_Revsurp</i>	Revenue surprise, calculated as the absolute value of the difference between sales at time t and the most recent analyst consensus between the earnings announcement on t and t-1, scaled by lagged price. If missing analyst consensus, then equal to sales at time t and sales at time t-4
<i>Abs_Surp</i>	Absolute value of earnings surprise ($(\text{median analyst consensus eps-actual})/prccq_{t-1}$) at time t
<i>AbsCAR</i>	Absolute value of abnormal returns on the date of the conference call
<i>Absret_TAQ</i>	Absolute value of the difference between the quote midpoint at the start of the conference call and the quote midpoint at the end of the call, scaled by the quote midpoint at the start of the call less S&P 500 ETF absolute returns measured during the same time period
<i>Abtone</i>	Abnormal conference call tone measured following the methodology in Huang et al. (2014); residuals are obtained from the following regression: $Net_Opt_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 CAR_Q_{it} + \beta_3 BTM_{it} + \beta_4 LnMVE_{it} + \beta_5 Ret_Vol_{it} + \beta_6 Surp_{it} + \beta_7 Loss_{it} + \beta_8 Stdearn_{it} + \beta_9 \Delta Earn_{it} + \beta_{10} lnAge_{it} + \beta_{11} AF_{it} + \beta_{12} LnBusseg_{it} + \beta_{13} LnGeoseg_{it} + Quarter\ FE + Ind\ FE + \epsilon_{it}$
<i>AF</i>	One-quarter ahead analyst EPS forecast consensus
<i>Age</i>	Firm age measured as the current calendar year less the first calendar year in which the firm appeared on Compustat
<i>BTM</i>	Book to Market value of equity
<i>CAR_Q</i>	The market-adjusted stock return during the quarter
<i>Content_Diff</i>	Unique_Token scaled by the total number of non-duplicate words spoken by managers in the Q&A portion of the call
<i>Earn</i>	Earnings before unusual items scaled by the market value of equity for the firm at the end of the quarter (<i>IBQ/MVE</i>)
<i>%FCST-LIKE</i>	The number of forecast-like statements (quantitative, earnings-related forward-looking statements) spoken by managers scaled by total non-forward-looking sentences spoken by managers in the entire conference call at time t. Forecast-like statements are identified following Bozanic et. al. (2018).
<i>%FLS</i>	The number of qualitative non-earnings forward-looking statements spoken by managers scaled by total non-forward-looking sentences spoken by managers in the entire conference call at time t. Qualitative non-earnings forward-looking statements are identified following Bozanic et. al. (2018).
<i>Fut_ROA</i>	Average ROA over the 4 periods subsequent to quarter t
<i>Growth</i>	Seasonally adjusted sales growth

<i>IR</i>	Indicator variable with value 1 if an IRO is present on the conference call at time t and 0 otherwise
<i>Litigation</i>	Indicator variable with value 1 if a firm is in a FPS industry and 0 otherwise
<i>LnAnalyst</i>	The natural log of the number of analyst following per firm-quarter, calculated as the mean number of estimates per forecast period
<i>LnBusseg</i>	The natural log of the number of business segments at time t
<i>LnGeoseg</i>	The natural log of the number of geographic segments at time t
<i>LnLength</i>	The natural log of total words spoken in the entire conference call at time t
<i>LnMF</i>	The natural log of the number of management forecasts occurring over a 2-day window, beginning on the earnings announcement date (rdq, or rdq+1 if the conference call is conducted after hours) and ending the day after the window opens
<i>LnMVE</i>	Natural log of the market value of assets (<i>cshoq*prccq</i>)
<i>LogRev</i>	Natural log of revenues (<i>Sales</i>) at time t
<i>Loss</i>	Indicator variable with value 1 if the firm experienced a loss (as measured by IBQ) at time t and 0 otherwise
<i>MBE</i>	Indicator variable with value 1 if the firm beats analyst consensus EPS at time t and 0 otherwise
<i>Opinion</i>	The number of opinion words spoken by managers scaled by total words spoken by managers in the entire conference call at time t
<i>Net_Opt</i>	The number of optimistic words less the number of pessimistic words (as measured by the L&M dictionary) spoken by managers scaled by the total words spoken by managers in the entire conference call at time t
<i>Pavg_[Var]</i>	Average of determinants of IR initiation in the pre-event period, measured as the average of quarters q_{t-1} to q_{t-4}
<i>Pchg_[Var]</i>	Change in the dependent variable in the pre-event period, measured as the change between the average of quarters q_{t-1} to q_{t-4} and the average of quarters q_{t-5} to q_{t-8} .

<i>RD</i>	R&D intensity at time t, measured as quarterly R&D expenditures divided by total quarterly assets from Compustat. Missing observations are filled in with annual data, otherwise set to 0
<i>RetB4</i>	Absolute TAQ return over the 24 hour period prior to the conference call at time t
<i>ROA</i>	Return on assets (<i>IBQ/ATQ_{t-1}</i>) at time t
<i>Ret_Vol</i>	Return volatility calculated over the quarter at time t
<i>Specific_num</i>	Number of specific numeric references (money and percentage) spoken by managers scaled by total words spoken by managers in the entire conference call at time t. Specific numeric references are identified using the Stanford Named Entity Recognition (NER) algorithm.
<i>Specific_qual</i>	Number of specific qualitative references (people, organizations, locations, dates, times) scaled by total words spoken by managers in the entire conference call at time t. Specific qualitative references are identified using the Stanford Named Entity Recognition (NER) algorithm.
<i>StdEarn</i>	Standard deviation of the firm's <i>Earn</i> over the eight quarters prior to time t
<i>Unique_Token</i>	The count of unique token words spoken by managers between the Q&A and presentation sections of the conference call at time t
<i>Surp</i>	The earnings surprise (<i>(median analyst consensus eps-actual)/prccq_{t-1}</i>) at time t

Analyst-firm-quarter Level

<i>Buy</i>	Indicator variable with value 1 if I/B/E/S most recent outstanding stock recommendation prior to the conference call is a buy or strong buy and 0 otherwise.
<i>CCuser</i>	For analyst i following firm j at fiscal quarter q , equals the total number of conference calls (excluding firm j) in which analyst i participated during the calendar quarter containing fiscal quarter for firm j .
<i>Companies</i>	Company coverage measured as the relative number of companies followed by the analyst over the most recently completed calendar year prior to the conference call date. Relative company coverage is calculated as the company coverage of analyst i following firm j in quarter t minus the lowest company coverage by any analyst following firm j in quarter t , with this difference scaled by the range in company coverage for all analysts following firm j in quarter t
<i>FirmExp</i>	Firm experience measured as the relative time the analyst has covered the firm, where firm coverage is measured as the number of days between the conference call date and the analyst's first earnings forecast estimate date on I/B/E/S for the firm. Relative firm experience is calculated as the firm experience for analyst i following firm j in quarter t minus the smallest firm experience by any analyst following firm j in quarter t , with this difference scaled by the range in the firm experience for all analysts following firm j in quarter t .
<i>ForFreq</i>	Forecast frequency measured as the relative number of quarterly earnings forecasts issued by the analyst for the firm over the most recently completed calendar year prior to the conference call date. Relative forecast frequency is calculated as the forecast frequency for analyst i following firm j in quarter t minus the lowest forecast frequency by any analyst following firm j in quarter t , with this difference scaled by the range in the forecast frequency for all analysts following firm j in quarter t
<i>GenExp</i>	General experience measured as the relative time the analyst has been on I/B/E/S where time on I/B/E/S is measured as the number of days between the conference call date and the analyst's first earnings forecast estimate date on I/B/E/S for any firm. Relative general experience is calculated as the general experience for analyst i following firm j in quarter t minus the smallest general experience by any analyst following firm j in quarter t , with this difference scaled by the range in the general experience for all analysts following firm j in quarter t .
<i>Inds</i>	Industry coverage measured as the relative number of industries covered by the analyst over the most recently completed calendar year prior to the conference call date. Relative industry coverage is calculated as the industry coverage of analyst i following firm j in quarter t minus the smallest industry coverage by any analyst following firm j in quarter t , with this difference scaled by the range in industry coverage for all analysts following firm j in quarter t
<i>Order</i>	The order of analyst appearance on the conference call at time t
<i>NumAnalyst</i>	The number of analysts with an outstanding forecast and recommendation at quarter t
<i>Participate</i>	Indicator variable at the firm-quarter-analyst level with value 1 if an analyst i covering firm j at quarter t asks a question on the conference call and 0 otherwise

<i>PriorAcc</i>	Prior earnings forecast accuracy, measured as the relative absolute forecast error of the analyst's prior quarter earnings forecast. Relative absolute forecast error is calculated as the largest prior quarter forecast error by any analyst following firm j in quarter t minus the priorquarter absolute forecast error for analyst i following firm j in quarter t, with this difference scaled by the range in the prior quarter absolute forecast error for all analysts following firm j in quarter t.
<i>PriorParticipate</i>	Prior conference call participation measured as 1 if the analyst was identified as asking aquestion on any of the firm's prior conference calls in the sample, and 0 otherwise
<i>Rec_Horizon</i>	Forecast horizon measured as the number of days between the conference call date and the date of the analyst's most recent stock recommendation
<i>Sell</i>	Indicator variable with value 1 if I/B/E/S most recent outstanding stock recommendation prior to the conference call is a sell or strong sell and 0 otherwise.

Appendix II: IRO Search Terms

Invester

Investor

Invester Relation

Investor Relation

Invester Relations Officer

Investor Relations Officer

IR

IRO

PR

Public Relation

Public Affairs

External Relations

External Affairs

Communication

Appendix IIIA: Examples of Positive Opinion Words (Hu and Liu, 2004)

a+	affirmation	assurances	best	celebrated
abound	affirmative	assure	best-known	celebration
abounds	affluence	assuredly	best-performing	celebratory
abundance	affluent	assuring	best-selling	champ
abundant	afford	astonish	better	champion
accessible	affordable	astonished	better-known	charisma
accessible	affordably	astonishing	better-than-expected	charismatic
acclaim	afordable	astonishingly	beutifully	charitable
acclaimed	agile	astonishment	blameless	charm
acclamation	agilely	astound	bless	charming
accolade	agility	astounded	blessing	charmingly
accolades	agreeable	astounding	bliss	chaste
accommodative	agreeableness	astoundingly	blissful	cheaper
accomodative	agreeably	astutely	blissfully	cheapest
accomplish	all-around	attentive	blithe	cheer
accomplished	alluring	attraction	blockbuster	cheerful
accomplishment	alluringly	attractive	bloom	cheery
accomplishments	altruistic	attractively	blossom	cherish
accurate	altruistically	attune	bolster	cherished
accurately	amaze	audible	bonny	cherub
achievable	amazed	audibly	bonus	chic
achievement	amazement	auspicious	bonuses	chivalrous
achievements	amazes	authentic	boom	chivalry
achievable	amazing	authoritative	booming	civility
acumen	amazingly	autonomous	boost	civilize
adaptable	ambitious	available	boundless	clarity
adaptive	ambitiously	aver	bountiful	classic
adequate	ameliorate	avid	brainiest	classy
adjustable	amenable	avidly	brainy	clean
admirable	amenity	award	brand-new	cleaner
admirably	amiability	awarded	brave	cleanest
admiration	amiably	awards	bravery	cleanliness
admire	amiable	awe	bravo	cleanly
admirer	amicability	awed	breakthrough	clear
admiring	amicable	awesome	breakthroughs	clear-cut
admiringly	amicably	awesomely	breathlessness	cleared
adorable	amity	awesomeness	breathtaking	clearer
adore	ample	awestruck	breathtakingly	clearly
adored	amply	awsome	breeze	clears
adorer	amuse	backbone	bright	clever
adoring	amusing	balanced	brighten	cleverly
adoringly	amusingly	bargain	brighter	cohere
adroit	angel	beauteous	brightest	coherence
adroitly	angelic	beautiful	brilliance	coherent
adulate	apotheosis	beautifully	brilliances	cohesive
adulation	appeal	beautifully	brilliant	colorful
adulatory	appealing	beautify	brilliantly	comely
advanced	applaud	beauty	brisk	comfort
advantage	appreciable	beckon	brotherly	comfortable
advantageous	appreciate	beckoned	bullish	comfortably
advantageously	appreciated	beckoning	buoyant	comforting

advantages	appreciates	beckons	cajole	comfy
adventuresome	appreciative	believable	calm	commend
adventurous	appreciatively	believeable	calming	commendable
advocate	appropriate	beloved	calmness	commendably
advocated	approval	benefactor	capability	commitment
advocates	approve	beneficent	capable	commodious
affability	ardent	beneficial	capably	compact
affable	ardently	beneficially	captivate	compactly
affably	ardor	beneficiary	captivating	compassion
affectation	articulate	benefit	carefree	compassionate
affection	aspiration	benefits	cashback	compatible
affectionate	aspirations	benevolence	cashbacks	competitive
affinity	aspire	benevolent	catchy	complement
affirm	assurance	benefits	celebrate	complementary
complemented	daring	doubtless	empathy	enviably
complements	daringly	dreamland	empower	envious
compliant	darling	dumbfounded	empowerment	enviously
compliment	dashing	dumbfounding	enchant	enviousness
complimentary	dauntless	dummy-proof	enchanted	envy
comprehensive	dawn	durable	enchanted	equitable
conciliate	dazzle	dynamic	enchancing	ergonomical
conciliatory	dazzled	eager	enchancingly	err-free
concise	dazzling	eagerly	encouragement	erudite
confidence	dead-cheap	eagerness	encouraging	ethical
confident	dead-on	earnest	encouragingly	eulogize
congenial	decency	earnestly	endear	euphoria
congratulate	decent	earnestness	endearing	euphoric
congratulation	decisive	ease	endorse	euphorically
congratulations	decisiveness	eased	endorsed	evaluative
congratulatory	dedicated	eases	endorsement	evenly
conscientious	defeat	easier	endorses	eventful
considerate	defeated	easiest	endorsing	everlasting
consistent	defeating	easiness	energetic	evocative
consistently	defeats	easing	energize	exalt
constructive	defender	easy	energy-efficient	exaltation
consummate	deference	easy-to-use	energy-saving	exalted
contentment	deft	easygoing	engaging	exaltedly
continuity	deginified	ebullience	engrossing	exalting
contrasty	delectable	ebullient	enhance	exaltingly
contribution	delicacy	ebulliently	enhanced	exemplar
convenience	delicate	ecenomical	enhancement	exemplary
convenient	delicious	economical	enhances	excellent
conveniently	delight	ecstasies	enjoy	exceed

Appendix IIIB: Examples of Negative Opinion Words (Hu and Liu, 2014)

2-faced	adulterated	animosity	aspersions	barbaric
2-faces	adulteration	annihilate	assail	barbarically
abnormal	adulterier	annihilation	assassin	barbarity
abolish	adversarial	annoy	assassinate	barbarous
abominable	adversary	annoyance	assault	barbarously
abominably	adverse	annoyances	assult	barren
abominate	adversity	annoyed	astray	baseless
abomination	afflict	annoying	asunder	bash
abort	affliction	annoyingly	atrocious	bashed
aborted	afflictive	annoys	atrocities	bashful
aborts	affront	anomalous	atrocitiy	bashing
abrade	afraid	anomaly	atrophy	bastard
abrasive	aggravate	antagonism	attack	bastards
abrupt	aggravating	antagonist	attacks	battered
abruptly	aggravation	antagonistic	audacious	battering
abscond	aggression	antagonize	audaciously	batty
absence	aggressive	anti-	audaciousness	bearish
absent-minded	aggressiveness	anti-american	audacity	beastly
absentee	aggressor	anti-israeli	audiciously	bedlam
absurd	aggrieve	anti-occupation	austere	bedlamite
absurdity	aggrieved	anti-proliferation	authoritarian	befoul
absurdly	aggrivation	anti-semites	autocrat	beg
absurdness	aghost	anti-social	autocratic	beggar
abuse	agonies	anti-us	avalanche	beggarly
abused	agonize	anti-white	avarice	begging
abuses	agonizing	antipathy	avaricious	beguile
abusive	agonizingly	antiquated	avariciously	belabor
abysmal	agony	antithetical	avenge	belated
abysmally	aground	anxieties	averse	beleaguer
abyss	ail	anxiety	aversion	belie
accidental	ailing	anxious	aweful	belittle
accost	ailment	anxiously	awful	belittled
accursed	aimless	anxiousness	awfully	belittling
accusation	alarm	apathetic	awfulness	bellicose
accusations	alarmed	apathetically	awkward	belligerence
accuse	alarming	apathy	awkwardness	belligerent
accuses	alarmingly	apocalypse	ax	belligerently
accusing	alienate	apocalyptic	babble	bemoan
accusingly	alienated	apologist	back-logged	bemoaning
acerbate	alienation	apologists	back-wood	bemused
acerbic	allegation	appal	back-woods	bent

acerbically	allegations	appall	backache	berate
ache	allege	appalled	backaches	bereave
ached	allergic	appalling	backaching	bereavement
aches	allergies	appallingly	backbite	bereft
achey	allergy	apprehension	backbiting	berserk
aching	aloof	apprehensions	backward	beseech
acid	altercation	apprehensive	backwardness	beset
acidly	ambiguity	apprehensively	backwood	besiege
acridness	ambiguous	arbitrary	backwoods	besmirch
acrimonious	ambivalence	arcane	bad	bestial
acrimoniously	ambivalent	archaic	badly	betray
acrimony	ambush	arduous	baffle	betrayal
adamant	amiss	arduously	baffled	betrayals
adamantly	amputate	argumentative	bafflement	betrayed
addict	anarchism	arrogance	baffling	betraying
addicted	anarchist	arrogant	bait	betrays
addicting	anarchistic	arrogantly	balk	bewail
addicts	anarchy	ashamed	banal	beware
admonish	anemic	asinine	banalize	bewilder
admonisher	anger	asininely	bane	bewildered
admonishingly	angrily	asininity	banish	bewildering
admonishment	angriness	askance	banishment	bewilderingly
admonition	angry	asperse	bankrupt	bewilderment
adulterate	anguish	aspersion	barbarian	bewitch
bias	bogus	brute	capsize	clogged
biased	boil	brutish	careless	clogs
biases	boiling	bs	carelessness	cloud
bicker	boisterous	buckle	caricature	clouding
bickering	bomb	bug	carnage	cloudy
bid-rigging	bombard	bugging	carp	clueless
bigotries	bombardment	buggy	cartoonish	clumsy
bigotry	bombastic	bugs	cash-strapped	clunky
bitch	bondage	bulkier	castigate	coarse
bitchy	bonkers	bulkiness	castrated	cocky
biting	bore	bulky	casualty	coerce
bitingly	bored	bulkyness	cataclysm	coercion
bitter	boredom	bull****	cataclysmal	coercive
bitterly	bores	bull---	cataclysmic	cold
bitterness	boring	bullies	cataclysmically	coldly
bizarre	botch	bullshit	catastrophe	collapse
blab	bother	bullshyt	catastrophes	collude
blabber	bothered	bully	catastrophic	collusion
blackmail	bothering	bullying	catastrophically	combative

Appendix IV: Forward-Looking Terms (Bozanic et al. 2017)

also aim	and forecast	are seeking	company believes
also aims	and forecasts	are sought	company commits
also anticipate	and foresee	are targeted	company estimates
also anticipates	and foresees	are targeting	company expects
also assume	and hope	are willing	company forecasts
also assumes	and hopes	assume	company foresees
also believe	and intend	assumes	company hopes
also believes	and intends	believe	company intends
also commit	and plan	believes	company plans
also commits	and plans	but aim	company projects
also estimate	and project	but aims	company seeks
also estimates	and projects	but anticipate	company targets
also expect	and seek	but anticipates	corporation aims
also expects	and seeks	but assume	corporation anticipates
also forecast	and target	but assumes	corporation assumes
also forecasts	and targets	but believe	corporation believes
also foresee	and will	but believes	corporation commits
also foresees	anticipate	but commit	corporation estimates
also hope	anticipates	but commits	corporation expects
also hopes	are aimed	but estimate	corporation forecasts
also intend	are aiming	but estimates	corporation foresees
also intends	are anticipated	but expect	corporation hopes
also plan	are anticipating	but expects	corporation intends
also plans	are assumed	but forecast	corporation plans
also project	are assuming	but forecasts	corporation projects
also projects	are believed	but foresee	corporation seeks
also seek	are believing	but foresees	corporation targets
also seeks	are committed	but hope	currently aim
also target	are committing	but hopes	currently aimed
also targets	are estimated	but intend	currently aiming
also will	are estimating	but intends	currently aims
and aim	are expected	but plan	currently anticipate

and aims	are expecting	but plans	currently anticipated
and anticipate	are forecasted	but project	currently anticipates
and anticipates	are forecasting	but projects	currently anticipating
and assume	are foreseeing	but seek	currently assume
and assumes	are foreseen	but seeks	currently assumed
and believe	are hoped	but target	currently assumes
and believes	are hoping	but targets	currently assuming
and commit	are intended	but will	currently believe
and commits	are intending	commit	currently believed
and estimate	are planed	commits	currently believes
and estimates	are planning	company aims	currently believing
and expect	are projected	company anticipates	currently commit
and expects	are projecting	company assumes	currently commits
currently committed	do not anticipate	firm projects	management forecasts
currently committing	do not assume	firm seeks	management foresees
currently estimate	do not believe	firm targets	management hopes
currently estimated	do not commit	foresee	management intends
currently estimates	do not estimate	foresees	management plans
currently estimating	do not expect	intend	management projects
currently expect	do not forecast	intends	management seeks
currently expected	do not foresee	is aimed	management targets
currently expecting	do not hope	is aiming	normally aim
currently expects	do not intend	is anticipated	normally aims
currently forecast	do not plan	is anticipating	normally anticipate
currently forecasted	do not project	is assumed	normally anticipates
currently forecasting	do not seek	is assuming	normally assume
currently forecasts	do not target	is believed	normally assumes
currently foresee	do not will	is believing	normally believe
currently foreseeing	does not aim	is committed	normally believes
currently foreseen	does not anticipate	is committing	normally commit
currently foresees	does not assume	is estimated	normally commits
currently hope	does not believe	is estimating	normally estimate
currently hoped	does not commit	is expected	normally estimates
currently hopes	does not estimate	is expecting	normally expect

currently hoping	does not expect	is forecasted	normally expects
currently intend	does not forecast	is forecasting	normally forecast
currently intended	does not foresee	is foreseeing	normally forecasts
currently intending	does not hope	is foreseen	normally foresee
currently intends	does not intend	is hoped	normally foresees
currently plan	does not plan	is hoping	normally hope
currently planed	does not project	is intended	normally hopes
currently planning	does not seek	is intending	normally intend
currently plans	does not target	is planed	normally intends
currently project	does not will	is planning	normally plan
currently projected	expect	is projected	normally plans
currently projecting	expects	is projecting	normally project
currently projects	firm aims	is seeking	normally projects
currently seek	firm anticipates	is sought	normally seek
currently seeking	firm assumes	is targeted	normally seeks
currently seeks	firm believes	is targeting	normally target
currently sought	firm commits	is willing	normally targets
currently target	firm estimates	management aims	normally will
currently targeted	firm expects	management anticipates	not aimed
currently targeting	firm forecasts	management assumes	not aiming
currently targets	firm foresees	management believes	not anticipated
currently will	firm hopes	management commits	not anticipating
currently willing	firm intends	management estimates	not assumed
do not aim	firm plans	management expects	not assuming
not believed	now estimate	still aimed	still planning
not believing	now estimated	still aiming	still plans
not committed	now estimates	still aims	still project
not committing	now estimating	still anticipate	still projected
not estimated	now expect	still anticipated	still projecting
not estimating	now expected	still anticipates	still projects
not expected	now expecting	still anticipating	still seek
not expecting	now expects	still assume	still seeking
not forecasted	now forecast	still assumed	still seeks

not forecasting	now forecasted	still assumes	still sought
not foreseeing	now forecasting	still assuming	still target
not foreseen	now forecasts	still believe	still targeted
not hoped	now foresee	still believed	still targeting
not hoping	now foreseeing	still believes	still targets
not intended	now foreseen	still believing	still will
not intending	now foresees	still commit	still willing
not planed	now hope	still commits	we aim
not planning	now hoped	still committed	we anticipate
not projected	now hopes	still committing	we assume
not projecting	now hoping	still estimate	we believe
not seeking	now intend	still estimated	we commit
not sought	now intended	still estimates	we estimate
not targeted	now intending	still estimating	we expect
not targeting	now intends	still expect	we forecast
not willing	now plan	still expected	we foresee
now aim	now planed	still expecting	we hope
now aimed	now planning	still expects	we intend
now aiming	now plans	still forecast	we plan
now aims	now project	still forecasted	we project
now anticipate	now projected	still forecasting	we seek
now anticipated	now projecting	still forecasts	we target
now anticipates	now projects	still foresee	we will
now anticipating	now seek	still foreseeing	will
now assume	now seeking	still foreseen	
now assumed	now seeks	still foresees	
now assumes	now sought	still hope	
now assuming	now target	still hoped	
now believe	now targeted	still hopes	
now believed	now targeting	still hoping	
now believes	now targets	still intend	
now believing	now will	still intended	

Table 1: Sample Selection

	Observations
Firm-quarter level observations from StreetEvents conference call transcripts	294,266
Less: Observations with missing data on ticker, fiscal year, and fiscal quarter	-127,976
Less: Observations with missing data on lagged quarterly assets	-19,957
Less: Observations with missing controls	-35,018
Sample for firm-quarter level tests:	102,154
Sample for analyst-firm-quarter level tests with non-missing controls:	991,977

Table 2: Determinants of IR

Panel A presents descriptive statistics on known determinants of IR that I entropy balance on in my sample. Panel B presents results of a logistic regression of IR on determinants. I include Industry and calendar quarter fixed effects. Marginal effects are reported in column (2). Coefficient z-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. Panel B presents covariate balance before and after entropy balancing. All variables are defined in Appendix I.

Panel A: Descriptives - Determinants

Variable	N	Mean	Min	p25	Median	p75	Max	Std Dev
<i>IR</i>	102,154	0.454	0	0	0	1	1	0.498
<i>LnATQ</i>	102,154	7.459	2.537	6.116	7.382	8.693	12.371	1.863
<i>Age</i>	102,154	20.964	2	10	18	28	54	13.695
<i>BTM</i>	102,154	0.574	0.031	0.272	0.462	0.74	3.169	0.463
<i>Lev</i>	101,231	0.194	0	0.015	0.157	0.316	0.939	0.186
<i>Earn</i>	102,154	0.002	-0.383	0.002	0.011	0.017	0.091	0.049
<i>StdEarn</i>	102,118	0.026	0.001	0.004	0.008	0.019	0.587	0.066
<i>Ret_Vol</i>	102,154	0.094	0.008	0.044	0.075	0.121	0.439	0.073
<i>Analyst_t-1</i>	100,356	7.077	1	4	7	9	18	3.705
<i>LnAnalyst_t-1</i>	100,356	3.028	0	2.565	3.091	3.664	4.543	0.859
<i>Litigation</i>	102,154	0.308	0	0	0	1	1	0.461
<i>RD</i>	102,154	0.012	0	0	0	0.015	0.15	0.022

Panel B: Determinants of IR

VARIABLES	(1)	(2)
<i>LnATQ</i>	0.281*** (12.466)	0.064***
<i>Age</i>	0.000 (0.072)	0.000
<i>BTM</i>	-0.063 (-1.232)	-0.014
<i>Lev</i>	-0.057 (-0.350)	-0.013
<i>Earn</i>	0.002 (0.897)	0.000
<i>StdEarn</i>	0.551** (2.215)	0.125**
<i>Ret_Vol</i>	0.994*** (5.852)	0.226***
<i>LnAnalyst_t-1</i>	0.113*** (3.507)	0.026***
<i>Litigation</i>	0.100 (0.809)	0.023
<i>RD</i>	6.167*** (4.408)	1.403***
<i>Constant</i>	-1.863* (-1.704)	
<i>N</i>	99,312	
<i>Pseudo R-squared</i>	6.28%	

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Panel C: Entropy Balancing – Covariates

	<i>IR=1</i>			<i>IR=0</i>					
				Before EB			After EB		
	mean	variance	skewness	mean	variance	skewness	mean	variance	skewness
<i>LnATQ</i>	7.758	3.979	0.051	7.000	3.374	0.174	7.757	3.980	0.051
<i>Age</i>	22.050	219.100	0.681	19.700	156.400	0.865	22.050	219.000	0.681
<i>BTM</i>	0.584	0.237	2.369	0.612	0.250	2.322	0.584	0.237	2.369
<i>Lev</i>	0.203	0.036	0.830	0.187	0.035	0.917	0.203	0.036	0.830
<i>Earn</i>	17.660	146.000	1.473	16.310	115.300	1.506	17.660	146.000	1.474
<i>StdEarn</i>	0.029	0.005	5.396	0.030	0.005	5.323	0.029	0.005	5.396
<i>Ret_Vol</i>	0.094	0.006	1.887	0.097	0.006	1.836	0.094	0.006	1.887
<i>LnAnalyst_t-1</i>	2.882	1.387	-1.147	2.572	1.443	-0.862	2.882	1.387	-1.147
<i>Litigation</i>	0.310	0.214	0.820	0.297	0.209	0.888	0.310	0.214	0.820
<i>RD</i>	0.012	0.001	3.086	0.012	0.001	3.244	0.012	0.001	3.086

Table 3: Descriptive statistics and univariate correlations – conference call level

This table presents descriptive statistics and univariate correlations of variables used in conference call level tests. Panel A presents descriptive statistics. Panel B presents Pearson (Spearman) correlations on the bottom left (top right). Coefficients significant at the 5% level or below are in bold. See Appendix I for variable definitions.

Panel A: Descriptive Statistics- Conference Call Level

Variable	N	Mean	Min	p25	Median	p75	Max	Std Dev
<i>IR</i>	102,154	0.454	0	0	0	1	1	0.498
<i>Specific_Num</i>	102,154	0.089	0	0	0	0	1	0.204
<i>%FCST-LIKE</i>	102,154	0.226	0	0	0	0	2	0.355
<i>%FLS</i>	102,154	14.160	4.124	9.963	13.324	17.300	34.928	4.168
<i>Opinion</i>	102,154	2.918	1.641	2.558	2.910	3.267	4.251	0.561
<i>Specific_Qual</i>	102,154	3.345	1.236	2.321	3.003	3.961	10.118	1.515
<i>Content_Diff</i>	102,154	0.438	0.154	0.362	0.432	0.500	0.953	0.128
<i>Abtone</i>	101,173	0.001	-1.783	-0.289	-0.004	0.286	1.877	0.445
<i>Ret_Vol</i>	102,154	0.094	0.008	0.044	0.075	0.121	0.439	0.073
<i>Inatq</i>	102,154	7.459	2.537	6.116	7.382	8.693	12.371	1.863
<i>InAnalyst</i>	102,154	3.064	0.000	2.565	3.091	3.664	4.543	0.795
<i>BTM</i>	102,154	0.574	0.031	0.272	0.462	0.740	3.169	0.463
<i>MBE</i>	102,154	0.544	0	0	1	1	1	0.498
<i>Surp</i>	102,154	-0.002	-0.100	-0.003	0.000	0.002	0.051	0.015
<i>Loss</i>	102,154	0.224	0	0	0	0	1	0.417
<i>Car_Q</i>	102,154	0.008	-0.562	-0.090	0.004	0.100	0.680	0.182
<i>Growth</i>	102,154	0.127	-0.692	-0.018	0.073	0.196	2.374	0.357
<i>ROA</i>	102,154	0.005	-0.238	0.001	0.010	0.021	0.093	0.039
<i>Fut_ROA</i>	102,154	0.005	-0.187	0.001	0.009	0.020	0.065	0.033

Panel B: Correlations - Conference Call Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(1) IR	1.00	0.01	0.05	0.09	0.08	-0.03	-0.01	0.04	-0.02	0.19	0.15	-0.04	0.02	0.02	-0.01	0.00	-0.03	0.00	0.00
(2) Specific_num	-0.03	1.00	0.10	-0.04	-0.03	-0.04	-0.06	0.01	-0.05	0.19	0.11	0.03	0.01	0.01	-0.07	0.02	0.02	0.05	0.06
(3) %FCST-LIKE	0.04	0.07	1.00	0.05	0.07	-0.07	-0.07	0.04	-0.05	0.12	0.11	-0.02	0.03	0.02	-0.08	0.01	0.00	0.08	0.09
(4) %FLS	0.09	-0.03	0.06	1.00	0.11	0.04	-0.06	0.06	0.09	-0.07	0.03	-0.03	-0.07	-0.06	0.16	-0.04	-0.06	-0.12	-0.12
(5) Opinion	0.07	-0.07	0.06	0.10	1.00	-0.18	-0.08	0.45	0.01	0.08	0.10	-0.08	0.05	0.05	0.04	0.02	-0.04	-0.02	-0.01
(6) Specific_qual	-0.04	0.04	-0.05	0.04	-0.22	1.00	0.01	-0.06	0.06	-0.20	-0.42	0.13	-0.02	-0.02	0.09	-0.01	-0.02	-0.10	-0.11
(7) Content_Diff	-0.01	-0.02	-0.05	-0.04	-0.08	0.01	1.00	-0.09	-0.03	0.02	0.00	-0.01	0.02	0.03	-0.02	0.01	0.01	0.01	0.01
(8) Abtone	0.04	0.01	0.05	0.03	0.46	-0.11	-0.09	1.00	0.01	0.00	0.01	-0.01	0.11	0.09	0.00	0.01	0.09	0.00	0.01
(9) Ret_Vol	-0.02	0.00	-0.04	0.09	0.01	0.07	-0.03	0.00	1.00	-0.32	-0.13	0.04	-0.05	-0.04	0.26	0.08	-0.01	-0.19	-0.19
(10) LnATQ	0.20	0.02	0.09	-0.08	0.07	-0.19	0.02	0.00	-0.30	1.00	0.49	0.13	0.04	0.04	-0.32	0.01	-0.06	0.15	0.15
(11) lnAnalyst	0.13	-0.01	0.07	0.02	0.08	-0.45	0.00	0.00	-0.14	0.43	1.00	-0.21	0.07	0.05	-0.19	0.01	0.05	0.22	0.22
(12) BTM	-0.03	-0.01	-0.02	-0.02	-0.06	0.12	-0.02	0.00	0.15	0.10	-0.18	1.00	-0.13	-0.12	0.07	-0.18	-0.24	-0.30	-0.36
(13) MBE	0.02	0.01	0.02	-0.07	0.05	-0.02	0.02	0.10	-0.05	0.04	0.07	-0.13	1.00	0.86	-0.19	0.20	0.20	0.24	0.19
(14) Surp	0.02	0.01	0.01	-0.04	0.03	-0.03	0.03	0.00	-0.11	0.05	0.07	-0.22	0.47	1.00	-0.24	0.23	0.22	0.28	0.20
(15) Loss	-0.01	-0.04	-0.06	0.16	0.05	0.08	-0.02	0.00	0.28	-0.33	-0.19	0.14	-0.19	-0.30	1.00	-0.08	-0.14	-0.76	-0.54
(16) Car_Q	0.00	0.03	0.01	-0.03	0.01	0.00	0.01	0.00	0.18	0.00	-0.01	-0.18	0.19	0.15	-0.07	1.00	0.09	0.10	0.14
(17) Growth	-0.01	0.01	-0.02	0.00	-0.02	0.01	0.01	0.04	0.02	-0.08	0.00	-0.13	0.12	0.15	-0.03	0.05	1.00	0.19	0.16
(18) ROA	0.01	0.05	0.08	-0.17	-0.04	-0.08	0.00	0.00	-0.26	0.31	0.18	-0.08	0.17	0.26	-0.64	0.09	0.02	1.00	0.73
(19) Fut_ROA	0.01	0.06	0.09	-0.18	-0.04	-0.08	0.00	0.01	-0.25	0.32	0.19	-0.11	0.13	0.14	-0.54	0.11	-0.03	0.75	1.00

Table 4: IR and Conference Call Content

This table reports an analysis of the relation between IR involvement on the quarterly earnings conference calls and increasing information disclosed on the call to address information demands. Panels A-E summarizes the results of regressing *Specific_num*, %FCST-LIKE, %FLS, *Opinion*, and *Specific_qual* on IR, respectively, controlling for other conference call and firm-level characteristics. Analyses in Column 1 are performed on an entropy-balanced sample with industry and calendar quarter fixed effects. Firm (CEO/CFO) fixed effects are included in Column 2 (3). Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

Panel A: IR and Specific_num on the call

VARIABLES	(1)	(2)	(3)
		<i>DV=Specific_num</i>	
<i>IR</i>	-0.003** (-2.271)	-0.000 (-0.082)	-0.000 (-0.035)
<i>Ret_Vol</i>	0.016* (1.731)	0.013 (1.369)	0.008 (0.738)
<i>LnATQ</i>	0.008*** (9.361)	-0.001 (-0.541)	0.003* (1.753)
<i>LnAnalyst</i>	-0.004*** (-3.020)	-0.005*** (-2.584)	-0.002 (-0.971)
<i>BTM</i>	0.005** (2.355)	0.004* (1.692)	0.005 (1.469)
<i>MBE</i>	-0.001 (-0.596)	-0.000 (-0.386)	0.001 (0.390)
<i>Surp</i>	-0.027 (-0.658)	0.032 (0.824)	-0.065 (-1.441)
<i>Loss</i>	-0.002 (-0.952)	-0.002 (-1.049)	-0.000 (-0.122)
<i>CAR_Q</i>	0.003 (1.158)	-0.000 (-0.013)	-0.000 (-0.048)
<i>Growth</i>	0.003 (1.467)	-0.001 (-0.659)	-0.001 (-0.544)
<i>ROA</i>	0.024 (1.160)	0.030 (1.255)	0.027 (0.899)
<i>Fut_ROA</i>	0.093*** (3.658)	0.050 (1.400)	0.068 (1.574)
<i>Constant</i>	0.034*** (6.438)	0.111*** (5.988)	0.061*** (4.320)
	-0.003**	-0.000	-0.000
<i>N</i>	99,421	102,024	65,309

<i>Adjusted R-squared</i>	44.00%	48.50%	55.40%
<i>Within R-squared</i>	0.81%	0.04%	0.03%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel B: IR and %FCST-LIKE on the call

VARIABLES	(1)	(2)	(3)
		<i>DV=%FCST-LIKE</i>	
<i>IR</i>	0.012** (2.166)	-0.001 (-0.189)	-0.001 (-0.235)
<i>Ret_Vol</i>	-0.025 (-0.964)	0.011 (0.591)	0.009 (0.344)
<i>LnATQ</i>	0.017*** (5.660)	0.002 (0.414)	0.015*** (3.256)
<i>LnAnalyst</i>	-0.010* (-1.791)	-0.009** (-2.057)	-0.002 (-0.405)
<i>BTM</i>	0.003 (0.367)	0.008 (1.373)	-0.009 (-0.989)
<i>MBE</i>	0.002 (0.540)	-0.003 (-1.026)	-0.004 (-1.111)
<i>Surp</i>	0.028 (0.231)	0.025 (0.244)	-0.023 (-0.145)
<i>Loss</i>	0.010 (1.587)	0.011** (2.460)	0.013** (2.279)
<i>CAR_Q</i>	0.000 (0.031)	0.000 (0.061)	-0.003 (-0.315)
<i>Growth</i>	-0.015*** (-3.410)	0.010*** (2.728)	0.001 (0.175)
<i>ROA</i>	0.021 (0.347)	0.028 (0.544)	0.126* (1.886)
<i>Fut_ROA</i>	0.588*** (6.500)	0.346*** (4.007)	0.420*** (3.800)
<i>Constant</i>	0.122*** (6.154)	0.227*** (5.270)	0.135*** (4.117)
<i>N</i>	99,421	102,024	65,309
<i>Adjusted R-squared</i>	4.20%	25.10%	32.90%
<i>Within R-squared</i>	0.95%	0.07%	0.11%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel C: IR and %FLS on the call

VARIABLES	(1)	(2) <i>DV= %FLS</i>	(3)
<i>IR</i>	0.537*** (7.688)	0.166*** (3.829)	0.147*** (3.538)
<i>Ret_Vol</i>	2.480*** (7.842)	0.837*** (4.163)	0.832*** (3.145)
<i>LnATQ</i>	0.006 (0.168)	0.022 (0.342)	-0.083 (-1.643)
<i>LnAnalyst</i>	0.264*** (3.878)	0.027 (0.575)	-0.054 (-0.967)
<i>BTM</i>	0.010 (0.100)	-0.004 (-0.057)	-0.186** (-2.200)
<i>MBE</i>	-0.333*** (-8.519)	-0.344*** (-12.586)	-0.281*** (-8.064)
<i>Surp</i>	2.877** (2.167)	-0.478 (-0.480)	-1.515 (-1.150)
<i>Loss</i>	0.437*** (5.746)	0.185*** (3.869)	0.186*** (3.128)
<i>CAR_Q</i>	-0.535*** (-6.479)	-0.459*** (-7.053)	-0.428*** (-4.909)
<i>Growth</i>	-0.161** (-2.536)	-0.219*** (-4.731)	-0.220*** (-3.736)
<i>ROA</i>	-1.153 (-1.580)	-1.017* (-1.808)	-1.030 (-1.389)
<i>Fut_ROA</i>	-11.242*** (-9.940)	-6.643*** (-6.489)	-8.001*** (-6.484)
<i>Constant</i>	10.641*** (41.214)	11.592*** (24.418)	12.908*** (34.631)
	0.537*** (7.688)	0.166*** (3.829)	0.147*** (3.538)
	99,421	102,024	65,309
<i>N</i>			
<i>Adjusted R-squared</i>	12.50%	41.20%	48.10%
<i>Within R-squared</i>	2.72%	0.95%	0.85%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel D: IR and opinion words on the call

VARIABLES	(1)	(2)	(3)
		<i>DV= Opinion</i>	
<i>IR</i>	0.033*** (3.294)	0.015*** (2.617)	0.010* (1.900)
<i>Ret_Vol</i>	0.078* (1.853)	0.024 (0.958)	0.018 (0.593)
<i>LnATQ</i>	0.042*** (7.652)	0.004 (0.531)	0.004 (0.646)
<i>LnAnalyst</i>	0.018* (1.875)	-0.030*** (-4.801)	-0.008 (-1.249)
<i>BTM</i>	-0.027** (-1.987)	0.045*** (4.757)	0.009 (0.947)
<i>MBE</i>	0.058*** (10.969)	0.047*** (14.079)	0.044*** (11.227)
<i>Surp</i>	0.302* (1.693)	0.434*** (3.399)	0.485*** (3.073)
<i>Loss</i>	0.053*** (5.225)	0.011** (2.023)	0.011* (1.650)
<i>CAR_Q</i>	0.023** (2.125)	0.037*** (4.693)	0.035*** (3.559)
<i>Growth</i>	-0.033*** (-4.181)	-0.015*** (-2.650)	-0.008 (-1.104)
<i>ROA</i>	-0.121 (-1.278)	-0.189*** (-2.728)	-0.134 (-1.550)
<i>Fut_ROA</i>	-0.683*** (-4.543)	-0.025 (-0.192)	-0.149 (-1.020)
<i>Constant</i>	2.507*** (70.205)	2.918*** (48.500)	2.905*** (64.485)
	0.033***	0.015***	0.010*
<i>N</i>	99,421	102,024	65,309
<i>Adjusted R-squared</i>	13.00%	47.90%	56.00%
<i>Within R-squared</i>	2.72%	0.70%	0.52%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel E: *IR and Specific_qual on the call*

VARIABLES	(1)	(2)	(3)
	<i>DV=Specific_qual</i>		
<i>IR</i>	0.075*** (3.175)	0.040** (2.553)	0.011 (0.824)
<i>Ret_Vol</i>	0.026 (0.248)	0.080 (1.079)	-0.026 (-0.291)
<i>LnATQ</i>	-0.035*** (-2.705)	-0.112*** (-4.880)	-0.146*** (-7.082)
<i>LnAnalyst</i>	-0.431*** (-18.325)	-0.323*** (-18.328)	-0.244*** (-11.753)
<i>BTM</i>	0.094*** (3.193)	0.017 (0.710)	0.055* (1.902)
<i>MBE</i>	0.005 (0.363)	0.006 (0.619)	0.002 (0.153)
<i>Surp</i>	-0.072 (-0.150)	0.626* (1.695)	0.190 (0.427)
<i>Loss</i>	-0.075*** (-3.088)	-0.023 (-1.389)	-0.040** (-2.148)
<i>CAR_Q</i>	0.033 (1.173)	0.048* (1.938)	0.053* (1.835)
<i>Growth</i>	0.012 (0.570)	0.011 (0.700)	0.006 (0.322)
<i>ROA</i>	-0.413* (-1.721)	-0.075 (-0.349)	-0.180 (-0.739)
<i>Fut_ROA</i>	0.362 (1.030)	0.643* (1.798)	0.517 (1.238)
<i>Constant</i>	4.803*** (57.456)	5.134*** (30.773)	5.160*** (31.228)
<i>N</i>	99,421	102,024	65,309
<i>Adjusted R-squared</i>	13.10%	39.70%	54.40%
<i>Within R-squared</i>	6.48%	1.46%	1.22%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Table 5: IR and Incremental Content in the Q&A

This table reports an analysis of the relation between IR involvement on the quarterly earnings conference calls and the amount of unique content in the Q&A section incremental to the presentation section. Analyses in Column 1 are performed on an entropy-balanced sample with industry and calendar quarter fixed effects. Firm (CEO/CFO) fixed effects are included in Column 2 (3). Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

VARIABLES	(1)	(2)	(3)
		<i>DV=Content_Diff</i>	
<i>IR</i>	-0.005** (-2.144)	-0.001 (-0.779)	-0.000 (-0.365)
<i>Ret_Vol</i>	-0.023** (-2.471)	-0.014** (-2.071)	-0.026*** (-3.034)
<i>LnATQ</i>	-0.002* (-1.760)	-0.001 (-0.301)	-0.002 (-1.500)
<i>LnAnalyst</i>	0.002 (0.823)	0.002 (1.239)	-0.001 (-0.644)
<i>BTM</i>	-0.011*** (-4.054)	-0.003 (-1.445)	-0.001 (-0.219)
<i>MBE</i>	0.003** (2.166)	0.001 (1.048)	0.001 (0.750)
<i>Surp</i>	0.040 (0.844)	0.002 (0.058)	0.017 (0.415)
<i>Loss</i>	-0.004* (-1.736)	-0.006*** (-4.162)	-0.007*** (-3.770)
<i>CAR_Q</i>	0.003 (1.291)	0.003 (1.491)	0.006** (2.169)
<i>Growth</i>	0.005** (2.289)	0.002 (1.224)	-0.003 (-1.622)
<i>ROA</i>	-0.031 (-1.349)	-0.016 (-0.921)	-0.020 (-0.862)
<i>Fut_ROA</i>	0.024 (0.670)	0.031 (1.085)	0.077** (2.213)
<i>Constant</i>	0.458*** (57.277)	0.441*** (26.935)	0.461*** (38.711)
<i>N</i>	99,421	102,024	65,309
<i>Adjusted R-squared</i>	2.98%	31.30%	40.30%
<i>Within R-squared</i>	0.36%	0.08%	0.11%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Table 6: IR and abnormal tone on the call

This table reports an analysis of the relation between IR involvement on the quarterly earnings conference calls and abnormal tone on the call. Analyses in Column 1 are performed on an entropy-balanced sample with industry and calendar quarter fixed effects. Firm (CEO/CFO) fixed effects are included in Column 2 (3). Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

VARIABLES	(1)	(2)	(3)
		<i>DV=Abtone</i>	
<i>IR</i>	0.033*** (3.856)	0.009* (1.676)	0.006 (1.154)
<i>Ret_Vol</i>	-0.001 (-0.022)	-0.060*** (-2.578)	-0.007 (-0.243)
<i>LnATQ</i>	0.003 (0.604)	-0.022*** (-3.019)	-0.011* (-1.862)
<i>LnAnalyst</i>	-0.003 (-0.433)	-0.037*** (-6.139)	-0.035*** (-5.549)
<i>BTM</i>	-0.000 (-0.035)	0.042*** (4.738)	0.022** (2.099)
<i>MBE</i>	0.121*** (24.708)	0.116*** (33.199)	0.107*** (25.272)
<i>Surp</i>	-1.799*** (-9.595)	-1.711*** (-12.123)	-1.676*** (-9.155)
<i>Loss</i>	0.009 (1.040)	-0.026*** (-4.656)	-0.009 (-1.273)
<i>CAR_Q</i>	-0.038*** (-3.972)	-0.038*** (-5.101)	-0.062*** (-6.442)
<i>Growth</i>	0.045*** (6.470)	0.046*** (8.734)	0.036*** (5.294)
<i>ROA</i>	-0.185** (-2.204)	-0.125* (-1.938)	0.010 (0.112)
<i>Fut_ROA</i>	0.231* (1.847)	1.077*** (8.922)	0.984*** (6.736)
<i>Constant</i>	-0.099*** (-3.190)	0.188*** (3.468)	0.127*** (2.911)
<i>N</i>	98,528	101,032	64,723
<i>Adjusted R-squared</i>	1.62%	35.60%	45.90%
<i>Within R-squared</i>	1.69%	2.85%	2.41%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Table 7: Descriptive statistics and univariate correlations – analyst-firm-quarter level

This table presents descriptive statistics and univariate correlations of variables used in analyst-firm-quarter level tests. Panel A (B) presents descriptive statistics for the analyst participation (order) sample. Panel C (D) presents univariate correlations for the analyst participation (order) sample. Pearson (Spearman) correlations are reported on the bottom left (top right). Coefficients significant at the 5% level or below are in bold. See Appendix I for variable definitions.

Panel A: Descriptive Statistics - Analyst participation

Variable	N	Mean	Min	p25	Median	p75	Max	Std Dev
<i>Participate</i>	991,977	0.514	0	0	1	1	1	0.500
<i>IR</i>	991,977	0.449	0	0	0	1	1	0.497
<i>Buy</i>	991,977	0.507	0	0	1	1	1	0.500
<i>Sell</i>	991,977	0.058	0	0	0	0	1	0.235
<i>Prior_Acc</i>	991,977	0.940	0	0.944	0.978	0.992	1	0.127
<i>Firm_Exp</i>	991,977	0.210	0	0.083	0.125	0.292	1	0.199
<i>Gen_Exp</i>	991,977	0.414	0	0	0	1	1	0
<i>Inds</i>	991,977	0.235	0	0	0.143	0.429	1	0.241
<i>Companies</i>	991,977	0.361	0	0.182	0.364	0.500	1	0.238
<i>ForFreq</i>	991,977	0.325	0	0.179	0.282	0.410	1	0.193
<i>Prior_Participate</i>	991,977	0.984	0	1	1	1	1	0.124
<i>CC_User</i>	991,977	8.227	0	4	8	11	58	5.781
<i>Rec_Horizon</i>	991,977	541.726	0	175	363	715	6482	563.217
<i>QAMin</i>	991,977	37.904	0.280	28.427	37.465	46.5733	271.535	14.198
<i>Num_Analyst</i>	991,977	14.548	2	8	13	20	38	8.339

Panel B: Descriptive Statistics - Analyst order

Variable	N	Mean	Min	p25	Median	p75	Max	Std Dev
<i>Order</i>	444,270	0.511	0	0	1	1	1	0.500
<i>IR</i>	444,270	3.442	1	2	3	5	21	2.446
<i>Buy</i>	444,270	0.575	0	0	1	1	1	0.494
<i>Prior_Acc</i>	444,270	0.928	0	0.926	0.970	0.992	1	0.137
<i>Firm_Exp</i>	444,270	0.223	0	0.083	0.167	0.292	1	0.202
<i>Gen_Exp</i>	444,270	0.391	0	0	0	1	1	0
<i>Inds</i>	444,270	0.172	0	0	0.000	0.200	1	0.228
<i>Companies</i>	444,270	0.265	0	0.000	0.200	0.400	1	0.252
<i>ForFreq</i>	444,270	0.336	0	0.209	0.302	0.419	1	0.195
<i>Prior_Participate</i>	444,270	0.893	0	1	1	1	1	0.310
<i>CC_User</i>	444,270	2.832	0	1	2	4	18	2.672
<i>Rec_Horizon</i>	444,270	539.097	0	164	362	720	6327	567.086
<i>QAMin</i>	444,270	39.129	0.025	29.675	38.611	47.6242	271.535	13.992
<i>Num_Analyst</i>	444,270	6.564	1	4	6	9	18	3.621

Panel C: Univariate Correlations - Analyst Participation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Participate	1.00	-0.01	0.12	-0.05	0.04	0.03	0.01	0.03	0.01	0.13	0.00	0.01	-0.03	0.08	-0.13
(2) IR	-0.01	1.00	0.00	0.01	-0.04	0.04	0.01	-0.01	0.03	0.04	0.01	0.03	0.01	0.05	0.15
(3) Buy	0.12	0.00	1.00	-0.25	0.02	-0.03	0.00	0.01	-0.01	0.02	0.00	-0.01	0.07	0.01	0.00
(4) Sell	-0.05	0.01	-0.25	1.00	-0.03	0.01	-0.01	-0.01	0.00	0.01	-0.01	0.00	-0.08	-0.01	0.01
(5) Prior_Acc	0.04	-0.02	0.03	-0.04	1.00	-0.02	0.00	-0.03	-0.07	-0.08	0.00	-0.07	-0.02	0.04	0.03
(6) Firm_Exp	0.02	0.04	-0.02	0.00	0.01	1.00	0.45	0.08	0.19	0.07	0.12	0.18	0.30	0.05	0.13
(7) Gen_Exp	0.00	0.01	0.00	-0.01	0.01	0.45	1.00	0.14	0.24	-0.01	0.06	0.23	0.13	0.02	0.04
(8) Inds	0.03	-0.02	0.01	-0.01	0.01	0.06	0.14	1.00	0.43	0.03	0.03	0.41	0.06	-0.01	-0.09
(9) Companies	0.00	0.03	-0.01	0.01	-0.02	0.14	0.23	0.43	1.00	0.16	0.05	0.95	0.12	-0.03	0.02
(10) Forfreq	0.11	0.05	0.01	0.01	-0.03	0.04	-0.02	0.00	0.16	1.00	0.03	0.14	-0.05	0.09	0.19
(11) Prior_Participate	0.00	0.01	0.00	-0.01	0.01	0.09	0.05	0.02	0.04	0.03	1.00	0.04	0.14	0.02	0.05
(12) CC_User	-0.01	0.03	-0.01	0.01	-0.02	0.12	0.21	0.40	0.93	0.13	0.04	1.00	0.11	-0.03	0.01
(13) Rec_Horizon	-0.01	0.01	0.07	-0.07	0.01	0.29	0.16	0.07	0.12	-0.03	0.09	0.09	1.00	-0.02	0.02
(14) QA_min	0.09	0.05	0.01	-0.01	0.05	0.06	0.02	-0.03	-0.04	0.09	0.02	-0.04	-0.01	1.00	0.42
(15) Num_Analyst	-0.14	0.15	0.01	0.00	0.05	0.11	0.04	-0.12	0.01	0.21	0.04	0.00	0.03	0.35	1.00

Panel D: Univariate Correlations - Analyst Order

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Order	1.00	0.08	-0.06	0.02	0.06	0.02	-0.03	0.00	0.07	0.03	-0.01	0.00	0.34	0.51
(2) IR	0.08	1.00	0.00	-0.05	0.05	0.02	-0.01	0.02	0.06	0.01	0.02	0.01	0.06	0.12
(3) Buy	-0.06	0.00	1.00	0.01	-0.03	0.01	0.00	-0.02	-0.01	0.00	-0.03	0.11	-0.02	-0.01
(4) Prior_Acc	0.04	-0.02	0.02	1.00	-0.03	-0.01	0.00	0.01	-0.11	-0.01	0.01	-0.01	0.03	0.05
(5) Firm_Exp	0.06	0.05	-0.02	0.00	1.00	0.45	0.11	0.20	0.09	0.24	0.20	0.26	0.07	0.14
(6) Gen_Exp	0.02	0.02	0.01	0.01	0.46	1.00	0.17	0.26	0.00	0.10	0.27	0.12	0.03	0.06
(7) Inds	-0.04	-0.02	0.00	0.02	0.09	0.17	1.00	0.61	0.00	0.09	0.56	0.05	0.00	0.00
(8) Companies	-0.01	0.01	-0.03	0.02	0.17	0.24	0.59	1.00	0.06	0.14	0.91	0.08	0.01	0.07
(9) Forfreq	0.06	0.06	-0.01	-0.06	0.08	0.01	-0.02	0.05	1.00	0.09	0.06	-0.02	0.10	0.21
(10) Prior_Participate	0.02	0.01	0.00	0.01	0.17	0.09	0.08	0.13	0.08	1.00	0.15	0.15	0.02	0.11
(11) CC_User	-0.01	0.02	-0.03	0.02	0.16	0.25	0.54	0.91	0.05	0.14	1.00	0.08	0.01	0.07
(12) Rec_Horizon	0.01	0.01	0.09	0.01	0.27	0.14	0.06	0.09	-0.01	0.12	0.09	1.00	-0.02	0.04
(13) QA_min	0.34	0.05	-0.02	0.04	0.07	0.03	-0.01	0.00	0.09	0.02	0.00	-0.01	1.00	0.52
(14) Num_Analyst	0.51	0.11	-0.01	0.07	0.13	0.06	-0.02	0.05	0.23	0.10	0.06	0.04	0.48	1.00

Table 8: IR and Discrimination on the Conference Call

This table reports an analysis of the relation between IR involvement on the quarterly earnings conference calls and discrimination amongst analysts on the call. Panel A summarizes the results of a linear probability model regression of analyst participation on *IR*, controlling for other conference call and analyst-level characteristics. Panel B summarizes the results of the OLS regression of the order of analyst appearance on *IR* for the sample of analysts selected to participate on the call. All analyses are performed on an entropy-balanced sample. Column 2 in Panels A and B presents results including analyst-year fixed effects. Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

Panel A: IR and Analyst Participation

VARIABLES	(1)	(2)
	<i>DV=Participate</i>	
<i>IR</i>	0.040** (2.376)	0.040** (2.376)
<i>Buy</i>	0.468*** (30.758)	0.468*** (30.758)
<i>IR*Buy</i>	-0.002 (-0.103)	-0.002 (-0.103)
<i>Sell</i>	-0.268*** (-9.703)	-0.268*** (-9.703)
<i>IR*Sell</i>	0.028 (0.814)	0.028 (0.814)
<i>Prior_Acc</i>	0.161*** (14.735)	0.033*** (4.881)
<i>Firm_Exp</i>	0.098*** (8.933)	0.130*** (18.307)
<i>Gen_Exp</i>	-0.001 (-0.167)	-0.470*** (-12.134)
<i>Inds</i>	0.010 (1.024)	-0.001 (-0.089)
<i>Companies</i>	0.101*** (7.073)	-0.069*** (-3.803)
<i>ForFreq</i>	0.359*** (30.098)	0.264*** (37.593)
<i>Prior_Participate</i>	-0.010** (-1.973)	-0.009** (-2.081)
<i>CC_User</i>	-0.006*** (-10.566)	0.003*** (4.938)

<i>Rec_Horizon</i>	-0.000*** (-3.806)	-0.000*** (-14.604)
<i>QAMin</i>	0.005*** (31.298)	0.005*** (41.292)
<i>Num_Analyst</i>	-0.014*** (-37.809)	-0.011*** (-42.520)
<i>Constant</i>	0.132*** (10.255)	0.452*** (24.015)
<i>N</i>	988,345	985,017
<i>Adjusted R-squared</i>	8.05%	33.80%
<i>Within R-squared</i>	N/A	1.66%
<i>ANALYST-YR FE</i>	N	Y

Panel B: IR and Analyst Order

VARIABLES	(1)	(2)
	<i>DV=Order</i>	
<i>IR</i>	0.083*** (3.168)	0.076*** (3.370)
<i>Buy</i>	-0.233*** (-9.896)	-0.304*** (-14.479)
<i>IR*Buy</i>	-0.080*** (-3.017)	-0.082*** (-3.446)
<i>Prior_Acc</i>	0.096* (1.774)	0.090** (2.080)
<i>Firm_Exp</i>	0.068 (1.188)	0.104* (1.948)
<i>Gen_Exp</i>	0.022 (0.678)	1.151*** (11.796)
<i>Inds</i>	-0.210*** (-4.358)	-0.103** (-2.092)
<i>Companies</i>	0.109** (1.961)	0.029 (0.542)
<i>ForFreq</i>	-0.772*** (-15.876)	-1.138*** (-22.248)
<i>Prior_Participate</i>	-0.201*** (-13.489)	-0.112*** (-7.490)
<i>CC_User</i>	-0.038*** (-7.224)	-0.015** (-2.351)
<i>Rec_Horizon</i>	0.000 (0.956)	-0.000 (-0.207)
<i>QAMin</i>	0.020*** (22.119)	0.021*** (26.075)
<i>Num_Analyst</i>	0.323*** (48.859)	0.312*** (56.945)
<i>Constant</i>	1.126*** (17.813)	0.759*** (11.391)
<i>N</i>	397,911	387,982
<i>Adjusted R-squared</i>	26.71%	40.80%
<i>Within R-squared</i>	N/A	22.50%
<i>ANALYST-YR FE</i>	N	Y

Table 9: Changes After Hiring IR

This table reports alternative difference-in-difference propensity-score matched specifications for tests of H1-H4. Panel A presents results of a logistic regression of IR initiation. Coefficient z-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. Panel B presents descriptive statistics on covariate matching. Panel C reports difference-in-difference propensity-score matched results for conference call content outcomes. Panel D reports difference-in-difference propensity-score matched results for analyst outcomes. Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

Panel A: Determinants of IR initiation

VARIABLES	(1)	<i>DV=IIR</i>	(2)
<i>Pavg_LnATQ</i>	0.223*** (5.835)		0.004***
<i>Pavg_Age</i>	-0.014*** (-3.077)		-0.000***
<i>Pavg_BTM</i>	-0.284** (-2.136)		-0.006**
<i>Pavg_Lev</i>	0.125 (0.456)		0.002
<i>Pavg_Earn</i>	-0.660** (-2.247)		-0.013**
<i>Pavg_StdEarn</i>	-0.291 (-0.379)		-0.006
<i>Pavg_Ret_Vol</i>	2.357** (2.131)		0.046**
<i>Pavg_LnAnalyst_t-1</i>	-0.110** (-2.300)		-0.002**
<i>Pavg_Litigation</i>	0.061 (0.524)		0.001
<i>Pavg_RD</i>	9.749*** (5.269)		0.191***
<i>Constant</i>	-5.095*** (-17.320)		
<i>N</i>	25,764		
<i>Pseudo R-squared</i>	1.31%		

Panel B: Covariate matching

Variable	Observations	IIR=1		IIR=0	
		Mean	Median	Mean	Median
<i>Pavg_LnATQ</i>	1,036	6.832	6.778	6.773	6.710
<i>Pavg_Age</i>	1,036	16.762	13.688	16.712	14.313
<i>Pavg_BTM</i>	1,036	0.583	0.469	0.600	0.486
<i>Pavg_Lev</i>	1,036	0.191	0.140	0.187	0.130
<i>Pavg_Earn</i>	1,036	-0.013	0.009	-0.006	0.009
<i>Pavg_StdEarn</i>	1,036	0.030	0.009	0.032	0.009
<i>Pavg_Ret_Vol</i>	1,036	0.103	0.092	0.105	0.094
<i>Pavg_LnAnalyst_t-1</i>	1,036	2.507	2.745	2.502	2.732
<i>Pavg_Litigation</i>	1,036	0.326	0.000	0.363	0.000
<i>Pavg_RD</i>	1,036	0.015	0.000	0.016	0.000

Panel C: IIR and conference call content

VARIABLES	(1) Δ Specific _num	(2) Δ %FCST- LIKE	(3) Δ Specific _qual	(4) Δ %FLS	(5) Δ Opinion	(6) Δ Content_ Diff	(7) Δ Abtone
<i>IIR</i>	-0.014 (-1.049)	-0.006 (-0.314)	0.119* (1.729)	0.337 (1.233)	0.064*** (2.716)	-0.011* (-1.821)	0.007 (0.306)
<i>Pchg_specific_num</i>	0.265*** (4.087)						
<i>Pchg_%FCST-LIKE</i>		0.069* (1.846)					
<i>Pchg_Specific_qual</i>			0.239*** (7.969)				
<i>Pchg_%FLS</i>				0.089** (2.301)			
<i>Pchg_Opinion</i>					0.098*** (2.594)		
<i>Pchg_Content_Diff</i>						0.041 (1.111)	
<i>Pchg_Abtone</i>							0.077* (1.905)
<i>Constant</i>	-0.038*** (-3.543)	-0.022 (-1.583)	-0.006 (-0.123)	-0.202 (-1.036)	0.059*** (3.046)	0.008 (1.640)	0.033 (1.585)
<i>Controls</i>	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	595	595	595	595	595	595	569
<i>Adjusted R-squared</i>	11.20%	1.31%	14.50%	5.24%	6.93%	-0.66%	12.80%

Panel D: IIR and Discrimination Amongst Analysts

<i>VARIABLES</i>	(1) <i>ΔParticipate</i>	(2) <i>ΔOrder</i>
<i>IIR</i>	0.009 (1.140)	-0.078 (-1.326)
<i>ΔBuy</i>	0.015 (0.401)	0.102 (0.711)
<i>ΔSell</i>	-0.112 (-1.373)	
<i>IIR*ΔBuy</i>	0.096 (1.570)	-0.426* (-1.920)
<i>IIR*ΔSell</i>	0.138 (0.974)	
<i>Pchg_Participate</i>	0.089*** (11.927)	
<i>Pchg_Order</i>		0.087*** (7.109)
<i>Constant</i>	0.001 (0.141)	0.059 (1.564)
<i>Controls</i>	Y	Y
<i>N</i>	5,927	2,142
<i>Adjusted R-squared</i>	18.20%	50.50%

Table 10: IR and One-Day Returns

Panel A reports an analysis of the relation between the content of earnings conference calls and one-day absolute abnormal returns on the conference call date. Panel B summarizes results of the regression of one-day returns on IR. Analyses in Column 1 are performed on an entropy-balanced sample with industry and calendar quarter fixed effects. Firm (CEO/CFO) fixed effects are included in Column 2 (3). Panel C presents results of a path analysis between IR, conference call content, and one-day returns. Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

Panel A: CC content and one-day returns

VARIABLES	(1)	(2) <i>DV=AbsCar</i>	(3)
<i>Specific_num</i>	0.001 (0.572)	0.003*** (2.805)	0.002 (1.301)
%FCST-LIKE	0.002*** (2.879)	0.002*** (4.000)	0.001** (2.337)
%FLS	0.000*** (3.335)	0.000*** (5.500)	0.000*** (4.389)
<i>Opinion</i>	0.001*** (2.592)	0.002*** (3.907)	0.001** (2.124)
<i>Specific_qual</i>	-0.001*** (-3.130)	-0.001*** (-5.347)	-0.001*** (-4.452)
<i>Content_Diff</i>	-0.000 (-0.261)	0.000 (0.123)	-0.001 (-0.346)
<i>Abtone</i>	-0.002*** (-2.851)	-0.003*** (-6.809)	-0.003*** (-4.809)
<i>Surp_Abs</i>	0.001*** (12.669)	0.001*** (14.558)	0.001*** (9.522)
<i>Size</i>	-0.002*** (-9.244)	-0.004*** (-6.828)	-0.002*** (-3.602)
<i>BTM</i>	0.009*** (10.490)	0.008*** (9.993)	0.009*** (6.679)
<i>Lev</i>	0.011*** (5.356)	0.013*** (5.466)	0.011*** (3.051)
<i>RevSurp_Abs</i>	0.000 (0.028)	0.000*** (5.930)	0.000*** (3.379)
<i>MFSurp_Abs</i>	-0.000 (-0.358)	0.000*** (2.775)	0.000*** (3.072)
<i>Ret_Vol</i>	0.060*** (17.173)	0.043*** (14.600)	0.025*** (6.442)
<i>lnAnalyst</i>	-0.003*** (-5.586)	-0.001 (-1.515)	-0.001* (-1.883)

<i>lnLength</i>	0.011*** (12.253)	0.010*** (13.168)	0.010*** (9.424)
<i>Constant</i>	-0.055*** (-6.918)	-0.040*** (-5.350)	-0.047*** (-4.520)
<i>N</i>	91,089	90,995	58,888
<i>Adjusted R-squared</i>	11.90%	25.20%	29.30%
<i>Within R-squared</i>	5.28%	2.23%	1.46%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel B: IR and one-day returns

VARIABLES	(1)	(2) <i>DV=AbsCar</i>	(3)
<i>IR</i>	0.001* (1.717)	0.000 (0.105)	-0.000 (-0.297)
<i>Surp_Abs</i>	0.001*** (13.158)	0.001*** (15.286)	0.001*** (9.905)
<i>Size</i>	-0.002*** (-9.434)	-0.004*** (-6.678)	-0.002*** (-3.436)
<i>BTM</i>	0.008*** (10.439)	0.008*** (9.942)	0.008*** (6.482)
<i>Lev</i>	0.011*** (5.315)	0.013*** (5.509)	0.010*** (2.886)
<i>RevSurp_Abs</i>	-0.000 (-0.153)	0.000*** (5.440)	0.000*** (3.079)
<i>MFSurp_Abs</i>	-0.000 (-0.369)	0.000** (2.324)	0.000** (2.491)
<i>Ret_Vol</i>	0.060*** (17.327)	0.043*** (14.682)	0.025*** (6.404)
<i>lnAnalyst</i>	-0.002*** (-4.814)	-0.000 (-0.949)	-0.001 (-1.593)
<i>lnLength</i>	0.011*** (13.278)	0.010*** (14.937)	0.011*** (11.269)
<i>Constant</i>	-0.056*** (-7.886)	-0.043*** (-6.259)	-0.057*** (-5.984)
<i>N</i>	91,792	91,699	59,285
<i>Adjusted R-squared</i>	11.70%	25.00%	29.10%
<i>Within R-squared</i>	5.20%	2.09%	1.29%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel C: Path Analysis

		<i>DV=AbsCAR</i>	
		Standardized Coefficient	z-statistic
<i>Specific_num</i>			
	<i>Direct Path</i>	-0.003***	-4.16
<i>%FCST-LIKE</i>			
	<i>Direct Path</i>	0.002***	4.74
<i>%FLS</i>			
	<i>Direct Path</i>	0.000*	1.86
<i>Opinion</i>			
	<i>Direct Path</i>	0.004***	12.85
<i>Specific_qual</i>			
	<i>Direct Path</i>	-0.001***	-5.03
<i>Content_Diff</i>			
	<i>Direct Path</i>	-0.003**	-2.33
<i>Abtone</i>			
	<i>Direct Path</i>	-0.003***	-7.65
<i>IR</i>			
	<i>Direct Path</i>	0.000	1.15
	<i>Mediated Path</i>	0.000***	4.42

Table 11: IR and Intraday Returns

Panel A reports an analysis of the relation between the content of earnings conference calls and intraday absolute abnormal returns during the conference call window. Panel B summarizes results of the regression of intraday returns on IR. Analyses in Column 1 are performed on an entropy-balanced sample with industry and calendar quarter fixed effects. Firm (CEO/CFO) fixed effects are included in Column 2 (3).

Coefficient t-statistics are in parentheses. ***, **, and * denote significant at the 1%, 5% and 10% levels, respectively, based on the two-tailed tests. All variables are defined in Appendix I.

Panel A: CC Content and intraday returns

VARIABLES	(1)	(2)	(3)
		<i>DV=Absret_TAQ</i>	
<i>Specific_num</i>	0.000 (0.066)	0.003 (0.789)	0.005 (0.728)
%FCST-LIKE	-0.001 (-0.943)	0.000 (0.032)	0.000 (0.008)
%FLS	0.000 (1.435)	0.000 (1.357)	0.000 (0.438)
<i>Opinion</i>	-0.000 (-0.035)	-0.001 (-0.530)	-0.001 (-0.433)
<i>Specific_qual</i>	-0.000 (-0.447)	-0.000 (-0.377)	0.000 (0.263)
<i>Content_Diff</i>	-0.001 (-0.365)	0.002 (0.571)	0.004 (0.611)
<i>Abtone</i>	-0.001 (-0.449)	-0.002 (-1.509)	-0.003* (-1.677)
<i>Surp_Abs</i>	-0.000 (-1.153)	-0.000 (-1.336)	-0.000 (-1.478)
<i>Size</i>	-0.003*** (-6.599)	-0.002 (-1.156)	0.002 (0.705)
<i>BTM</i>	0.010*** (6.451)	0.011*** (4.499)	0.010** (2.066)
<i>Lev</i>	0.004 (1.540)	-0.001 (-0.101)	0.002 (0.252)
<i>RevSurp_Abs</i>	0.000 (0.282)	-0.000 (-0.370)	0.000 (1.613)
<i>MFSurp_Abs</i>	-0.000 (-0.567)	0.000 (0.393)	-0.000 (-0.251)
<i>Ret_Vol</i>	0.021*** (2.817)	0.003 (0.335)	0.007 (0.528)
<i>lnAnalyst</i>	0.000 (0.108)	-0.001 (-0.472)	-0.002 (-0.723)

<i>lnLength</i>	0.005*** (3.570)	0.006** (2.467)	0.006* (1.682)
<i>RetB4</i>	0.088*** (5.389)	0.059*** (6.075)	0.068*** (4.428)
<i>Constant</i>	-0.021 (-1.583)	-0.023 (-0.955)	-0.051 (-1.528)
<i>N</i>	23,578	23,347	13,783
<i>Adjusted R-squared</i>	4.43%	7.23%	10.10%
<i>Within R-squared</i>	3.41%	1.31%	1.59%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y

Panel B: IR and intraday returns

VARIABLES	(1)	(2)	(3)
		<i>DV=Absret_TAQ</i>	
<i>IR</i>	-0.001 (-0.603)	-0.001 (-0.433)	0.001 (0.522)
<i>Surp_Abs</i>	-0.000 (-1.230)	-0.000 (-1.336)	-0.000 (-1.355)
<i>Size</i>	-0.003*** (-6.551)	-0.002 (-1.015)	0.002 (0.737)
<i>BTM</i>	0.010*** (6.617)	0.011*** (4.429)	0.010** (2.139)
<i>Lev</i>	0.004 (1.490)	0.000 (0.016)	0.002 (0.278)
<i>RevSurp_Abs</i>	0.000 (0.535)	-0.000 (-0.152)	0.000* (1.760)
<i>MFSurp_Abs</i>	-0.000 (-0.826)	0.000 (0.278)	-0.000 (-0.402)
<i>Ret_Vol</i>	0.020*** (2.777)	0.002 (0.248)	0.007 (0.558)
<i>lnAnalyst</i>	-0.001 (-0.643)	-0.001 (-0.876)	-0.001 (-0.558)
<i>lnLength</i>	0.006*** (4.505)	0.007*** (3.185)	0.006** (2.133)
<i>Constant</i>	0.087*** (5.474)	0.057*** (6.004)	0.067*** (4.464)
<i>N</i>	23,816	23,587	13,917
<i>Adjusted R-squared</i>	4.46%	7.33%	10.20%
<i>Within R-squared</i>	3.38%	1.23%	1.53%
<i>IND FE</i>	Y	N	N
<i>FIRM FE</i>	N	Y	N
<i>CEO/CFO FE</i>	N	N	Y
<i>QTR FE</i>	Y	Y	Y