Does firm's silence drive media's attention away?*

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ABSTRACT

In this study, using a comprehensive dataset on business media coverage and textual analysis of the discussions in firms' quarterly earnings conference calls, I show that when management fails to satisfy the demand for information, ceteris paribus, their firms receive less media coverage. Poor information environment hurts the information-creation capacity of the media, while such an environment does not show a similar association with the media's information-dissemination role. Furthermore, this association is more prominent for professional business media, compared to their non-professional counterparts such as blogs and alternative articles. Results add nuance to the literature on media coverage bias by showing that supply-side factors, i.e. the factors affecting the suppliers of the coverage, mainly drive the coverage of firms, not the demand.

Keywords: non-answers; conference calls; media coverage; non-professional business media.

JEL-Classification: D82, G14, G30.

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1 Introduction

Among different information intermediaries, media platforms enjoy the broadest audience (Zingales, 2000). This enables media to play a crucial role in the financial markets in several ways. Media coverage can cause stock prices to move (Fang and Peress, 2009; Hillert et al., 2014), force decisions in corporate governance (Dyck et al., 2008) and firm behavior (Baloria and Heese, 2018), and act as a whistle-blower of corporate wrongdoings (Dyck et al., 2010; Miller, 2006). Despite the abundance of literature on the effects of media attention, we know less about the driving forces behind media coverage.

In this paper, we examine the media coverage of big corporations and test two competing hypotheses regarding media attention towards firms. We use the variations in the quality of information environment around the firms, and ask if the media coverage is associated with the richness of this information environment. Specifically, media attention is ''demand-driven'' if business media respond to the stakeholders' demand for more information/analysis about firms with less robust information environments. For firms with less robust information environments, it is more challenging for media sources to gather enough publishable materials. In other words, a firm's media exposure is ''supply-driven'', if the media sources, as suppliers of information, reduce their coverage of firms that are more difficult to cover.

To measure the quality of the information environment surrounding a firm, we rely on the literature on the informativeness of their quarterly earnings conference calls and advancements in computational linguistics. The Q&A sessions of earnings conference calls offer a unique setting for our study. In these calls, investors can glean information about the company by questioning senior managers directly. When responding to a question, the management decides whether to fulfill this need for information or leave the demand for information "non-answered". We quantify the level of non-answers in a call using the non-answer score proposed by Barth et al. (forthcoming). This metric is trained on a set of Q&As between equity analysts and management during earnings calls, and is calculated using a bag-of-words approach with a glossary of 1,227 trigrams like '[let me get] back to you', '[I] do not know', '[it's] hard to predict', '[let's] wait and see', '[it's] too early to', etc.. These trigrams are frequently used to refrain from factually answering a question – either a direct rejection, i.e. refusal to answer a question, as documented by Gow et al. (2019), or a less noticeable

symptom of non-answers, i.e. beating around the bush by blathering, as outlined in Barth et al. (2020).

We follow a survivorship bias-free sample of firms appearing in the S&P 500 index for the period 2007 to 2019, and analyze the transcripts from their quarterly earnings conference calls to measure the non-answer score in the management responses. Furthermore, we collect the media coverage information before and after each earnings call using Ravenpack (RP). RP includes millisecond-timestamped media coverage data from tens of thousands of news sources like Dow Jones Newswires, the Wall Street Journal, the Financial Times, Bloomberg, Reuters, Seeking Alpha, as well as blogs like Zero Hedge and The Motley Fool. Our analysis window spans from the day after the earnings call until 60 days later to capture the period between the current call and a company's next call.[1] We measure the media coverage by considering the number of unique news sources that publish content during our analysis window, i.e. *Sources*, and the number of pieces published about the firm during the same window, *Counts*.

Our analysis first examines the association of non-answers in the calls with the media coverage that the firm receives in the next quarter. Figure 1 illustrates binned scatter plots of our media coverage variables versus the non-answers in earnings calls. We scrutinize the negative correlation shown in Figure 1 using a regression analysis framework and find that, in line with the supply-driven media coverage hypothesis, the more a firm turns down the demand for information in its earnings call, the less media attention it receives in the coming quarter. In other words, while the demand for firm-specific information increases due to non-answers, media also supply less content due to supply-side difficulties of acquiring and providing content.

[Figure 1 about here]

Next, we investigate if the supply-driven decrease in coverage is more substantial for content that is more difficult to create. Ravenpack categorizes the coverage as either a full article, a (hot-)newsflash, or tabular material. We differentiate between different types of coverage based on their production cost for the media sources, i.e. full articles versus other types, and repeat our analysis. The results confirm the supply-driven coverage hypothesis for full articles only. Contrarily,

[1] While it seems natural to consider a 90-day window between two calls, in 25% of the cases, companies hosted two calls less than 90 days apart from one another. Less than 1% of companies held two calls in less than 60 days. The window was also fixed at 60 days to allow for the media coverage measures to be comparable across firms.

the firm's initiated press releases mainly explain the variation in the non-full articles' coverage. Overall, this suggests that the poor information environment around the firm only curtails the information-production role of the media and does not hurt their information-dissemination role.

Business media exist on a spectrum of professionalism, and both professional and non-professional media play significant roles in shaping investors' opinions (Chen et al., 2014; Drake et al., 2017).[2] Our analysis continues by asking how non-answer earnings calls associate with the extent of (non-)professional media coverage. First, in line with the previous results, we find there are fewer media sources of both categories that publish content for the firms with less robust information environment. The professional media, however, publish significantly fewer articles, which results in a lower ratio of professional coverage for the non-answering firms.

All of the above-mentioned results are robust to controlling for several confounding factors. First, we control for common factors that previous literature find to drive media attention, such as size, profitability and book-to-market ratio. Second, we control for the common language measures of the management answers that contain value-relevant information for the stock market, e.g., tone, uncertainty and complexity. Furthermore, we include the difference between the market (analyst) expectations and the actual quarterly results, i.e. earnings surprise. Third, we use a topic-modeling algorithm to develop and control for 25 news topics to address the topic-specific tendencies in attracting more media coverage. Finally, we absorb several observable and unobservable factors by incorporating several fixed effects; we remove common time trends with quarter fixed effects and control for any time-constant firm-specific factors by firm fixed effects. In some specifications, instead of firm fixed effects, we either include industry-year fixed effects or, more conservatively, firm-year fixed effects, which allow us to study the same firm within a year.

Finally, we verify these findings from the perspective of the media sources' coverage portfolio, and specifically ask if the non-answer earnings calls shift media attention to a firm's peers. We restrict our sample to earnings calls of firms in the same industry that hold their conference calls on the same day, and measure the share of the articles belonging to each of these firmsf in the media one month before and after the date of the earnings call. We find that media sources shift their coverage from the non-answering firms to the firms with more informative earnings calls. This result is robust to the inclusion of media fixed effects.

[2]In this analysis, we instead divide the media sources into two categories as defined in Subsection 3.2.

Our paper contributes to the existing literature in number of ways. First, we add to the literature on the factors that skew media attention. Previous literature has uncovered several factors such as media-linked directors (Di Giuli and Laux, 2021), advertisements (Reuter and Zitzewitz, 2006), local proximity (Gurun and Butler, 2012), and firm size and reputation (Miller, 2006). We add to this literature by showing that media coverage is inclined toward firms with a better information environment. Second, the literature of accounting and finance separates the role of media that a) disseminates the currently available information, and b) creates new information through active journalism (Bushee et al., 2010). We add to this literature by showing that the"supply-driven" decrease of media coverage is associated only to the information-creation role of the media. Third, Ravenpack News Analytics provides very detailed data on media coverage (Miller and Skinner, 2015), and our topic-modeling approach enables researchers to enhance the practicality of the news taxonomy data provided in Ravenpack. Finally, we further demonstrate the importance of non-professional business media for the financial markets (Chen et al., 2014; Drake et al., 2017), and show that they are less susceptible to reducing coverage in poor information environments as compared to their professional counterparts.

The remainder of this paper is organized as follows: section 2 reviews the relevant literature and outlines the testable hypotheses. Section 3, provides a detailed description of the dataset for our empirical analyses. We describe our empirical analyses and show the results in section 4. Section 5 concludes the paper.

2 Background literature and hypotheses

2.1 Information content of earnings calls

Firms voluntarily hold earnings conference calls on a regular basis to fill the information gap among their equity investors (Brown et al., 2004). Compared to firm's other types of disclosures, earnings calls are indeed very informative for market participants (Bushee et al., 2004; Matsumoto et al., 2011), as they contain more forward-looking details about the firm's expected performance and direction (Kimbrough and Louis, 2011). Earnings calls usually begin with the management presenting the previous quarter's earnings results followed by a Q&A session between the management and participants who are mainly equity analysts. While both the presentation and the Q&A session are

enlightening for the market, Matsumoto et al. (2011) show that the latter is more informative.

With advances in computational linguistics and development of finance-specific glossaries like Loughran and McDonald (2011), a growing body of empirical literature deals with the information content of management responses to the question asked during the earnings calls. Price et al. (2012) show that investors react to the soft information during the call, i.e. the tone of management's answers. While the market digests the hard information (e.g. earnings surprise) in the one-day window of the call, they further show that tone predicts the stock price drift up to 60 days post-call. Furthermore, Dzielinski et al. (2021) and Zhou (2018) show, respectively, that uncertain language from management, as well as the ratio of numeric contents in the management responses, contain value-relevant information.

Although earnings calls are a medium to provide investors with value-relevant information, management can obscure the flow of information in several ways. Most severely, Mayew (2008) and Cohen et al. (2013) provide evidence showing that management discriminates against questions raised by the analysts whose stock recommendations are considered unfavorable. Moreover, management can avoid answering unfavorable questions by ''obfuscating'' through complex language (Bushee et al., 2018), ''blathering'', i.e. beating around the bush (Barth et al., 2020), directly refusing/rejecting (Hollander et al., 2010; Gow et al., 2019), or a mix of all of these techniques (Barth et al., ming).

Investors react to the discussions in the earnings calls; yet, they also rely on information intermediaries to digest the content of these calls. Sell-side analysts are one of the most studied information intermediaries. Frankel et al. (2006) show that the information content of the analysts' report complements the firms' disclosures. Huang et al. (2018) show that when the management withholds value-relevant information during the call, equity analysts intensify their ''discovery'' role (as opposed to solely ''interpreting'' discussions). In this study, we shed light on the other types of information intermediaries, namely the business media, and verify how they respond to the management withholding information.

2.2 Media as an information intermediary

Media causally affects firms' security prices, corporate governance and investors' attention.[3] The media coverage takes two main roles, namely disseminating/packaging the available information

[3]See Tetlock (2015); Miller and Skinner (2015); Blankespoor et al. (2020) for a comprehensive literature review.

and stale news or creating new information through active journalism practices. A growing body of accounting literature deals with the disentangling of these two roles. Bushee et al. (2010) eliminate the journalists' interpretations from media coverage and show that the further dissemination of available information leads to lower information asymmetry among investors. Drake et al. (2014) confirm the role of media dissemination in incorporating accounting information into stock prices. Blankespoor et al. (2018) similarly show that disseminating information, identified by the introduction of robo-journalism, increases the trading volume and liquidity. Controlling for the available information, Engelberg and Parsons (2011) show that local media coverage of S&P500 companies strongly predicts local trading.

In addition to dissemination, media coverage can influence investors' behavior by creating new content (Dougal et al., 2012; Guest, 2018). Above all, the information-creation role makes the media a watchdog for accounting fraud (Miller, 2006)[4]. More generally, media is one of the most diligent whistle-blowers for corporate fraud (Dyck et al., 2010). Investors also value media's monitoring role. (Di Giuli and Laux, 2021) show that media coverage offers an external governance mechanism that substitutes for monitoring by banks and equity blockholders. Moreover, Gao et al. (2020) show that the closure of local newspapers results in an increase in municipal borrowing costs of 5 to 11 basis points. We contribute to this literature by investigating whether the media's information-creation ability declines when firm's management withholds value-relevant information.

Media coverage is prone to several biases.[5] Media may engage in ''sensationalism'' by disproportionately covering stories that may be interesting to a broad audience. For example, media tend to cover the CEOs with more option exercises, disproportionately more negatively, and ignore the total salary (Core et al., 2008). Moreover, the media's watchdog role is mostly limited to the cases where the fraudulent activities are related to a famous/large corporation that could be interesting to a wide audience (Miller, 2006). There are also shreds of evidence concerning other sources of bias, e.g., advertisement pressure (Reuter and Zitzewitz, 2006), reciprocity between journalists and corporations (Dyck and Zingales, 2003; Westphal and Deephouse, 2011), and favoritism toward

[4]Compared to other information intermediaries, media benefit from a broader audience that enables it to play a governance role by shaping investors' beliefs (Zingales, 2000) by only disseminating the available information (Rogers et al., 2016).

[5]There are many empirical papers showing the existence of media bias in political coverage. See Puglisi and Snyder Jr (2015) for a comprehensive literature review. Here, we only discuss the case of media bias regarding coverage of corporations.

socially-responsible firms (Zavyalova et al., 2012; Cahan et al., 2015).

Finally, we contribute to the discussion on professional versus non-professional business media. Drake et al. (2017) argue that professionalism exists on a spectrum. Their study classifies the sample of media into three groups: professional, semi-professional and non-professional. They show that the coverage by the first two groups has positive capital market effects, while the coverage by the latter contains more noise than real information. Drake et al. (2017) classify Seeking Alpha (SA) as a semi-professional media outlet. SA is a platform where non-professional analysts share their stock recommendations. Chen et al. (2014) show that the articles as well as the commentaries on SA predict future stock returns and earnings surprises. In this study, we compare the coverage behavior of professional and non-professional business media when they face firms with less robust information environment.

2.3 Research question

This section examines two main ''demand-driven'' versus ''supply-driven'' media coverage hypotheses[6].

A demand-driven media coverage hypothesis postulates that several stakeholders in a firm demand information and a media source addresses this demand in its coverage of a firm. Stakeholders in a company rely on the discussions in earnings calls to expand their ''understanding'' of the company (Barker et al., 2012). The management's refusal to provide the requested information in an earnings call keeps the demand for value-relevant information unfulfilled. Therefore, the stakeholders rely on other intermediaries to acquire the missing information that they demand. Investors are especially receptive to the missing value-relevant information from earnings call discussions (Huang et al., 2018). Since investors' demand for more information and analyses is one of the most important drivers behind equity analysts' decision what to cover (Brown et al., 2015), as an important information intermediary, greater media coverage is expected of firms for which the management rejects investors' demand for information.

Hypothesis (''Demand-driven coverage''). *Firms with more non-answers in their earnings calls receive c.p. coverage from* ***more*** *media sources.*

[6]See Puglisi and Snyder Jr (2011) for the literature review on different supply- versus demand-side factors contributing to the bias of political newspapers.

A supply-driven media coverage hypothesis, on the other hand, suggests that media sources cover firms based on their own preferences rather than the level of demand by their readers/subscribers. Firms deliberately reject the demand for more information because of the proprietary costs associated with providing such information (Gow et al., 2019). These costs affect the firms' disclosure preferences and put them in a poorer information environment (Ellis et al., 2012). Such an environment makes it more difficult for media sources and journalists to acquire enough information to publish news articles about a firm (Guest and Kim, 2020). According to the theoretical model of Bhushan (1989), a poorer information environment shifts the supply curve of media to the left, resulting in less total supply of coverage[7].

Hypothesis (''Supply-driven coverage''). *Firms with more non-answers in their earnings calls receive c.p. coverage from* ***fewer*** *media sources.*

3 Data

For our study, we construct a survivorship bias-free S&P 500 dataset, which resolves any concerns over unobservable factors that may factor into the media coverage of smaller firms. First, the media (Miller, 2006; Hillert et al., 2014) and analysts (Martineau and Zoican, 2020) put S&P500 firms in the spotlight. Second, these firms are all high-volume publicly traded companies, for which investors have a strong demand for information. Finally, the substantial cost of wrongdoing discourages management from using non-answers to conceal potential fraudulent activities.

The following subsections define the main variables used in this paper. Subsection 3.4 provides the descriptive statistics of the main variables in our empirical analyses. Table A1 summarizes the variables used in this study and their corresponding definitions.

3.1 Measurement of management's withholding information

This study uses the ''non-answer'' score proposed by Barth et al. (forthcoming). to quantify the management's withholding of information. This metric is based on the two symptoms, ''rejecting'' (Gow et al., 2019) and ''blathering'' (Barth et al., 2020), by employing a Multinomial Inverse

[7]Lang and Lundholm (1996) show empirically that more equity analysts tend to follow the firms with more clear disclosure policies.

Regression (MNIR) technique (Taddy, 2013). Barth et al. (forthcoming) identify a glossary of 1,227 trigrams such as ''back to you'', ''do not know'', ''hard to predict'', etc., which are frequently used in English Q&As[8] to refrain from answering a question concisely and factually. Figure 2 shows the word cloud of the most important trigrams of this glossary.

[Figure 2 about here]

We collect transcripts of every earnings call held by S&P 500 companies from Thomson Reuters' StreetEvents for 2007 to 2019. [9] These calls are released quarterly and usually take place on the same day as the corresponding earnings release. Calls mostly start with the management presenting a (prepared) statement, and then analysts (and investors) are invited to a Q&A session. The spontaneous nature of the Q&A session is a unique laboratory to measure the degree to which the management avoids providing factual responses to analysts' questions. All earnings calls without a Q&A session are excluded from the dataset, since this area is the focus of our study.

We define $NonAnswer$ as the weighted count of the terms in the glossary provided by Barth et al. (forthcoming) for every answer in the earnings call of company i in quarter t:

$$NonAnswer_{it} = \frac{\#Non\text{-}Answer\ Glossary\ Token_{it}}{Total\ Words_{it}},$$

We limit our observations to the transcripts where the total management's answers are at least 100 words long.[10] This helps to avoid the extreme values of the non-answer measure due to a small denominator.

3.2 Media coverage

We use RavenPack News Analytics (RPNA) to obtain the media coverage of the firms in our sample. The RavenPack dataset consists of three main editions; Dow Jones Edition provides the historical coverage, since 2000, of Dow Jones Newswires, regional editions of the Wall Street Journal, Barron's, and MarketWatch. The Web Edition, starting from January 2007, includes hundreds of

[8] Barth et al. (forthcoming) show that their glossary measures non-answers in the financial context as well as the political context (e.g. US presidential interviews and US Senate hearings) and sport press conferences.

[9] Data is available starting in 2002, but we cut the data points before 2007 because of the missing data in our media coverage dataset. We use the full data for some of the robustness checks in Appendix **??**.

[10] This affect only 21 observations.

thousands of articles a day from leading publishers and web aggregators with more than 22,000 sources (Hafez and Xie, 2014). Finally, the PR Edition includes the PR-Newswire. News coverage of RPNA is timestamped to the millisecond and includes several sentiment metrics as well as the news taxonomy. These features make RP an interesting dataset for asset managers, investment bankers, and hedge funds(RavenPack, 2017).

We merge our sample of firms with RP using the 8-digit CUSIP code. For the unmatched sample, we perform a fuzzy match of the company names in Compustat with the company name in RP and manually check if the matching score is less than 95%. We further filter for all the news contents that have a "Relevance" score of at least 90% to the firm.

Coverage *Sources* is the main coverage measure used throughout this paper. It is defined as the natural logarithm of one plus the count of unique media sources (or channels) that publish content – a full article, (hot-)newsflash, and/or tabular material – in a two-month period after a firms' earnings call. Similarly, $Sources^F$ if we filter only for the full articles, and $Sources^{NF}$ if we only consider the (hot-) news flashes and tabular materials. Additionally, *Counts* is defined as the natural logarithm of one plus the count of all the above-mentioned types of content. We exclude the day of the conference call as well as the day after, to avoid overloading our metrics with lots of news regarding the company's quarterly earnings results.

Figure 3 shows the time trends for the average distinct Sources and news Counts for all the firms in a given quarter. The spike of both scores at the beginning of 2007 coincides with the introduction of RavenPack Web Edition, which has continuously added the coverage of many news sources since. Although we can address this problem with quarter fixed effects, we trim the sample and focus only on the observations from 2007, as our analyses require a consistent sample. For the robustness check of the main results, we repeat our analysis with the full sample as well.

[Figure 3 about here]

Press releases Furthermore, we control for the number of press releases in our analysis window, i.e. PR. To do so according to Bushee and Miller (2007); Core et al. (2008); Bushee et al. (2010) and assume all the articles on the press release wire as well as the entries with ''NEWS_TYPE" as ''PRESS-RELEASE" are firm-initiated disclosures.

Professional versus non-professional business media Inspired by Drake et al. (2017), we divide the sample of sources into either professional or non-professional business media. We consider a media professional if it or its parent company is listed among Barron's (with RavenPack ID: 18A55F), Bloomberg News (208421), Business Insider (C75B8C), CNBC (AA1167), Dow Jones Newswires (B5569E), Entrepreneur (938822), the Financial Times (FD0B00), Forbes (22AC8B), MarketWatch (1E5E35), Morningstar (E04BE4), Reuters (751371) or the Wall Street Journal (AA6E89). By this definition, our list of professional business media includes sources like "FT Alphaville - Hedge funds" (parent company: Financial Times) and "Bloomberg Businessweek" (Bloomberg), for example. This list includes 65 sources as listed in Appendix B. Non-professional media included in this study are mostly blogs and news websites associated with the non-professional analysts/journalists, e.g., Seeking Alpha (B61D8F), Zero Hedge (5E506B), and The Motley Fool (C81722).

Similar to our coverage variables, $Sources_{Pro}(Sources_{N-Pro})$ and $Count_{Pro}(Count_{N-Pro})$ refer to the coverage filter the media sources according to (non-)professional.

Newsworthiness Inspired by Dyck et al. (2008), we define $NewsWorthiness$ as the natural logarithm of one plus the number of articles referring to a company in the Wall Street Journal (RavenPack ID "AA6E89") and the Financial Times (RavenPack ID "FD0B00") during the 6-month period before the earnings call (excluding the day of and immediately before the earnings call).

News contents To control for the news content relevant to the firms in our analysis window, we collect news topic information for all the entries of the firms in our analysis window from one day to 60 days after the call. RavenPack detects the role of the firms in each news entry and categorizes the event in four layers of granularity. We rely on the "GROUP" taxonomy provided by the RavenPack as it offers a balance between the granularity and specificity of the news topics that are suitable for controlling in a regression setting. We identify 36 news topics for our sample firms ranging from mergers & aquisions to analyst ratings, as well as news regarding the stock prices or technical analyses.

3.3 Other variables

Alternative speech characteristics Finance and accounting literature offers several standard metrics to quantify earnings calls' language content. Following the literature, we adopt a dictionary (bag-of-words) approach, in which one calculates the desired sentiment by counting the occurrence of words in a corresponding word list divided by the total words in the document.

We calculate the *Negativity* (as a measure of tone) and *Uncertainty* of management answers using the "negative" and "uncertainty" word lists offered by Loughran and McDonald (2011). We do not consider the "positive" word list for the tone calculations, as suggested by Loughran and Mcdonald (2016).

Additionally, we control for the *Complexity* in the management language using the word-list of Loughran and McDonald (2020). Loughran and McDonald (2020) show that the complexity measure of 10-k filings[11], is associated with the stock returns around the filing date and unexpected earnings.

Earnings surprise We collect analysts' Earnings per Share (EPS) forecasts for the firms in our sample from Institutional Brokers' Estimate System (IBES) database and define $EarnSurp$ following Dzielinski et al. (2021). More precisely, we calculate Earnings Surprises as the difference between the actual and consensus forecast earnings, divided by the closing share price on the 5^{th} trading day before the earnings announcement in every quarter. We then group the (zero and) positive as well as the negative numbers separately into five quantiles (i.e. quintiles). Finally, we sort these ten categories and label the earnings surprises from 1 (most negative) to 5 (least negative) and from 6 (least positive) to 10 (most positive).

Firm characteristics We use Compustat to obtain quarterly balance sheet data. We control for book-to-market (BTM) ratio and the firm size as the natural logarithm of total assets($ln(Assets)$). We calculate Tobin's Q as the book value of assets minus the book value of common equity plus the market value of common equity, divided by the total book value of assets.

[11] Here, we deviate from Loughran and McDonald (2020) in the sense that they measure complexity by counting the number of unique words, in a given document, that appear in their word list of 374 words. We use a dictionary approach of counting the frequency of the words in their word list divided by the total words.

3.4 Descriptive statistics

[Table 1 about here]

Table 1 presents descriptive statistics for the variables in this analysis. For $NonAnswer$, the magnitude is in line with the distribution presented in Barth et al. (forthcoming). The median firm in our sample receives coverage in 200 published pieces from around 30 media sources, and the firm itself initiates around 4 press releases during our analysis window of two months after the earnings call.

4 Empirical analysis

Section 4.1 analyzes the association of our media coverage measure with the management withholding of information in earnings calls. We further explore this relationship by separating several types of media coverage in section 4.2. Section 4.3 compares the coverage choice of professional versus non-professional business media. Finally, section 4.4 investigates the above-mentioned association from the perspective of media preferences.

4.1 Media coverage

We first investigate if non-answers by management during earnings calls are associated with the media coverage that their firm receives during the following quarter. We model the count of media sources that cover firm i in a window of two months after the call[12] in quarter t, as indicated in the following equation:

$$\begin{aligned} MediaCoverage_{it} = \beta_0 + \beta_1 \cdot NonAnswer_{it} + \beta_2 \cdot PR_{it} \\ + \beta_3 \cdot X_{it} + \alpha_{iT} + \alpha_t + \epsilon_{it}, \end{aligned} \tag{1}$$

$MediaCoverage_{it}$ interchangeably refers to the coverage variables ($Sources$ & $Counts$) as defined in Subsection 3.2. $NonAnswer_{it}$ is the main variable of interest, measuring management's degree of non-answers in the call. According to the ''demand-driven coverage'' hypothesis, $NonAnswer_{it}$ is a proxy for the demand for a firm's information after the earnings call, and therefore, a positive β_1

[12] Results for a short window analysis, i.e. the first 48 hours after the call, are consistent with this analysis, and are provided in the appendix Table D1.

means that the media answers this demand by increasing their coverage of the firms that withhold more information. On the contrary, the ''supply-driven coverage'' predicts a negative β_1 reflecting less media coverage of the firms for which the cost of acquiring information is higher.

We control for several important variables that contribute to firms' media coverage. PR_{it} is the amount of firm-disseminated news and contributes directly to the firm's coverage because of the dissemination role of the media. We also control for several other firm-quarter observations in X_{it}; Earnings Surprise ($EarningsSurp$) captures the difference between analysts' expectations about earnings and the realized earnings in quarter t. The natural logarithm of total assets ($ln(Assets)$), book-to-market ratio (BTM), and Tobin's Q, as a measure of profitability, are all standard variables to control for determinants of a firm's media coverage (Miller, 2006; Bushee et al., 2010). Furthermore, we control for the information content of the calls via several standard measures available in the literature.

In particular, we control for pessimism in the management's response tone (Neg) as Price et al. (2012) show that tone is a significant predictor of abnormal returns and trading volume in the initial reaction window, and also dominates earnings surprises over the 60 trading days following the conference call. Dzielinski et al. (2021) show that investors punish the $Uncertainty$ of the management's answers and tone with a lower valuation. We further control for $Complexity$ in the answers, as Loughran and McDonald (2020) suggest this measure complements a corporation's size. Complexity also controls the required informativeness of a firm's disclosure (Guay et al., 2016). Inspired by Dyck et al. (2008), X_{it} includes $NewsWorthiness$ to control for the particular newsworthy timings around companies. Finally, X_{it} also includes the prevalence of each of the 25 news topics during the analysis window to address the possibility of certain news categories (e.g. legal issues or M&A) driving more media coverage.

Additionally, we include various fixed effects to capture several unobservable characteristics of the firms and quarters that contribute to both the media coverage and non-answers in earnings calls. α_{iT} controls for firm-year dummy variables to absorb time-varying heterogeneity at the firm level. α_t absorbs time trends of coverage. To allow for a potential serial correlation of media coverage within each firm and within each quarter, we employ a two-way clustering of standard errors (Cameron et al., 2011) to the firm and quarter dimensions.

[Table 2 about here]

Table 2 summarizes the results of this analysis. In all of the specifications, $NonAnswer$ has a negative coefficient for the media coverage, supporting the ‘‘supply-driven coverage’’ hypothesis. In particular, column (2) shows that an increase of one standard deviation in our $NonAnswer$ score is associated with approximately 3% fewer media coverage. The results hold in the within-firm-year variation, i.e. comparing the same firm with different $NonAnswer$ in different quarterly earnings calls in the same fiscal year. A positive and statistically significant coefficient for the number of PR releases also confirms the role of media in disseminating firms' press releases. $NewsWorthiness$ positively contributes to media coverage.

4.2 Coverage type

Media sources/channels spend different amounts of time, energy, and resources to publish different types of content about a firm. Media disseminate the currently available information mostly via "newsflashes" which include a headline or a link to other sources' coverage. On the contrary, publishing a full article requires the media source to put in more effort by providing editorial content (Drake et al., 2014). In line with the supply-driven coverage hypothesis, we postulate that the firms with higher non-answer scores receive fewer media coverage in full articles, as this is more costly the poorer the information environment around the firm is. Moreover, we expect to find no significant correlation between the management withholding information and the publication of content other than full articles.

Our dataset can separate the coverage types into full articles and other types of content according to the tags provided by the RavenPack. We then repeat our analysis of the previous section (Equation 1) except that we differentiate between these two types of coverage.

[Table 3 about here]

Table 3 shows that the decrease in the coverage only occurs in the case of the full articles. The regression coefficient for the non-answer score is negative and statistically significant in the first three columns. Column (1) shows that an increase of one standard deviation in the within-firm non-answer metric is associated with 0.9% fewer media sources that publish at least one full article

about a firm in the two-month window after the earnings call. On the other hand, for other types of coverage, shown in columns (4) to (6), the coefficient of the non-answer variable is not significantly different from zero. Comparing columns (4) and (5), the count of PR releases includes most of the heterogeneity regarding the non-full article coverage.

4.3 Professional and non-professional business media

This section explores whether the source's professionalism influences the reduction in coverage it provides. Non-professional business media play a significant information intermediary role alongside their professional counterparts. Investors react to the tenor of the articles posted by non-professional analysts and journalists (Chen et al., 2014; Drake et al., 2017).

In light of the analyses in section 4.1, we first verify if professional and non-professional business media reduce their coverage equally, i.e., whether a higher non-answer score is related to a firm receiving fewer media coverage, regardless of the media type. We identify the professional business media according to the definition in subsection 3.2 and repeat the analysis using equation 1.

[Table 4 about here]

Columns (1) and (2) of the Table 4 show the result of this analysis with several specifications. The negative coefficient of the $NonAnswer$ variable shows that both professional and non-professional business media reduce their coverage for the non-answering firms.

Next, we ask which of these two media types is more sensitive to the firms' disclosure style. Bloggers and non-professional journalists/analysts have different incentives to cover a company than professional media do. First, skin in the game, i.e. their open positions in the underlying stock, motivates them to follow a specific firm diligently (Campbell et al., 2019). Second, non-professional media are incentivized to signal their quality by covering firms with less available coverage. Third, non-professional media sources are limited in the sense of the alternative choices they have for coverage. Most bloggers/non-professional business journalists are specialized and interested in covering certain firms, whereas professional sources like Bloomberg could easily shift their coverage portfolio. To summarize, although the poorer information environment discourages media sources from covering a firm, non-professional media sources have the incentive to fill the void by publishing more articles about that firm. To clarify this point, we analyze if the number of articles is also

negatively associated with the management withholding information from both the professional and non-professional media. We repeat the analysis using equation 1, where the dependent variable is the count of news divided by the count of sources in professional and non-professional media, separately.

Columns (3) & (4) of the Table 4 show the results of this analysis. In column (3), the negative and statistically significant coefficient of the *NonAnswer* shows that for the professional media sources, the fewer media coverage is followed by the covering media sources producing less content for the non-answering firm. For the non-professional media sources, however, we do not see the same (column (4)). These media sources do not reduce the number of articles when they already cover the non-answering firms.

4.4 Coverage shift within the industry

This subsection verifies the implications of the supply-driven coverage hypothesis for media level observations and asks if media sources shift their coverage of a firm with a poor information environment to a peer firm that provides factual responses to questions during the earnings calls. Unlike the previous analyses, here we limit our focus to the media sources that already have a set of peers in their coverage portfolio, which allows us to compare the change in the coverage weights before and after an earnings call. To do so, we restrict our sample to earnings calls of the firms, within an industry, held on the same day.

First, we define our coverage shift score and then verify the association of coverage shift with management non-answers in a regression analysis.

Coverage shift For the firm i of industry $\mathbb{I}$ on the earnings call day t, we define the ''prior'' coverage weight of ω_{mit} for a source m as:

$$\omega_{mit} = \frac{\sum_d Counts_{mid}}{1 + \sum_{i \in \mathbb{I}} \sum_d Counts_{mid}}, \quad d \in [t-60, ..., t-1] \tag{2}$$

where $Counts_{mid}$ counts the number of full articles, (hot-)newsflashes and tabular material

published on the day d. By definition we have $\omega_{mit} \geq 0$ and $\sum_{i \in \mathbb{I}} \omega_{mit} = 1$. Similar to the prior weights in Equation 2, we define the "posterior" coverage weights, $\omega^{'}_{mit}$, where $d \in [t+1, ..., t+60]$.

We define the coverage shift as the distance between the posterior and prior coverage weights. More specifically, the coverage shift after the earnings call of firm i on earnings call of date t is

$$\Delta\omega_{mit} = ln(\frac{1+\omega^{'}_{mit}}{1+\omega_{mit}}). \tag{3}$$

Here we clarify this definition by an example as shown in the Figure 4. On 14 April 2015 (t), J.P. Morgan (JPM) and Wells Fargo & Co (WFC) held their earnings calls with $NonAnswer$ of 0.12 and 0.07, respectively. These firms both belong to industry 44 based on the 48 Fama-French industry classification ($\mathbb{I}$). Here, we verify the shifts in the coverage of WSJ (m) for these two firms. In the two months before t, WSJ published 23 articles for JPM and 2 for WFC. This translates to the prior weights of $\omega_{m,JPM,t} = 23/(1+(2+23)) = 0.885$ and $\omega_{m,WFC,t} = 2/(1+25) = 0.077$. In the two months after t, WSJ published 14 pieces in total for these two banks, 12 of which were for JPM and 2 were for WFC. So, the posterior coverage weights are $\omega^{'}_{m,JPM,t} = 12/(1+14) = 0.8$ and $\omega^{'}_{m,WFC,t} = 2/(1+14) = 0.133$. Finally, we can use Equation 3 to calculate the shift in coverage, which is $\Delta\omega_{m,JPM,t} = ln(1+0.8/1+0.885) = -0.046$ and $\Delta\omega_{m,WFC,t} = ln(1+0.133/1+0.077) = +0.051$

[Figure 4 about here]

Analysis We model the shift in the firm's coverage weight within industries with the following linear equation:

$$\Delta\omega_{mit} = \beta_0 + \beta_1 \cdot NonAnswer_{it} + \beta_2 \cdot X_{it} + \alpha_m + \alpha_{\mathbb{I}t} + \epsilon_{mit} \tag{4}$$

X_{it} controls for firm-quarter level observations as in Equation 1. We include α_m, media fixed effects, to exploit within-media variations. We also control for $\alpha_{\mathbb{I}t}$ dummies to absorb common characteristics of an industry's earnings calls on a given date[13]. Finally, we cluster the standard

[13]For example, firms tend to shift announcements of bad news to the weekend (Damodaran, 2015) or macro news (Hirshleifer and Sheng, 2019) and policy/regulators announcements may alter the attention to the firm and industry level news.

errors at the earnings call level.

[Table 5 about here]

Table 5 shows the results of this analysis. Results in columns (1) & (2) confirm that the top-ranked non-answer firms witness a statistically significant reduction in coverage weight in media level as compared to their peers. Columns (3) & (4) show the same results using the level of $NonAnswer$. In other words, ceteris paribus, media shifts its coverage to firms that obstruct the flow of information less. Similarly, the language complexity of an earnings call is negatively associated with the shift in the coverage weight of the firms. These results hold after controlling for the media fixed effects.

4.5 Coverage topics

In this subsection, we try to shed light on different types of news and investigate which news topics are most likely to be less covered when firms enter a poor information environment. To this end, we model the frequency of topic P's coverage for a firm i and quarter t as follows:

$$\begin{aligned} Coverage_{it}^{P} = \beta_0 + \beta_1 \cdot NonAnswer_{it} + \beta_2 \cdot PR_{it} \\ + \beta_3 \cdot X_{it} + \beta_4 \cdot 1_P + \alpha_{IT} + \alpha_t + \epsilon_{it}, \end{aligned} \tag{5}$$

Where $Coverage_{it}^{P}$ is the logarithm of one plus the number of contents with topic P published in the 60 days window after the firm earnings call. X_{it} controls for firm-quarter level observations as in Equation 1. Most importantly, we control for the 1_P dummy that controls if at least one piece with topic P is published for the firm. α_{IT} and α_t absorb the industry-year and quarter fixed effects.

[Table 6 about here]

Table 6 shows the result of such analysis. The coefficient of $NonAnswer$ for topics 'Analyst Ratings' and 'Price Targest' are negative and statistically significant, showing that the media information creation rule is mainly impaired through the equity analysts.

4.6 Robustness checks

Several robustness checks are available in the Internet Appendix C for the sake of brevity. Specifically, Table D1 shows the robustness of our main findings in the shorter time frame of the first 48 hours after the earnings calls. Furthermore, Table D2 tests our main findings in the broader sample size starting at 2002. We recalculate the *NonAnswer* measure using the token weighting provided by Barth et al. (forthcoming) and show the robustness of the findings in Table D3. Finally, we repeat our analyses using a Poisson regression model and report the results in Table D4.

5 Conclusion

A firm's earnings calls are a type of disclosure designed to reduce information asymmetries among investors, shareholders, and market participants. The management must assure that this information is broadly available (Bushee et al., 2004). During the Q&A section of these conference calls, management should respond to participants' questions directly. Faced with a question, the management can faithfully address the request for information or provide a ''non-answer'', i.e., either in the form of a direct rejection like "we cannot provide this information" or indirectly blathering and beating around the bush. Non-answers leave the request for information unmet. This leads stakeholders to rely on other information intermediaries to provide them with the missing value-relevant knowledge.

This paper examines how the business media cover companies with different information environment richness. We state two competing hypotheses to verify if 1) the media coverage increases when a higher demand for information exists (a 'demand-driven' media coverage hypothesis), or 2) the media coverage decreases as supplying information about firms in poorer information environments is more challenging (a 'supply-driven' media coverage hypothesis).

Using data on media coverage of the S&P 500 firms between 2007 and 2019, I show that the management's decision to provide non-answers to questions during quarterly earnings calls, in line with the supply-driven coverage hypothesis, is associated with significantly fewer media attention on the firm in the next quarter. Separating the types of coverage, we show this decline is mainly due to fewer media sources publishing full articles about a firm, which requires more (editorial) effort and resources to prepare than other types of coverage. Moreover, any drop in the number of

articles published by professional media sources, like Dow Jones Newswire and Bloomberg, is more severe compared to that of the non-professional media like Seeking Alpha or stock blogs. Finally, we verify these findings in the media-level observations and show that within a given industry, media sources rank the firms based on the level of their non-answers and shift their attention to those who provide more answers in their earnings calls.

The recent increase in the body of the literature regarding media coverage is mainly due to the emergence of new datasets, such as RavenPack (Tetlock, 2014), which is still evolving and increasing the scope of its data availability (Miller and Skinner, 2015). Future research will benefit from an extended timeline of coverage provided by ever-growing media sources and focusing on more firms, which will pave the way for deeper media-level analyses in the literature.

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Figure 1: Media coverage and non-answers in earnings calls
This figure displays binned scatter plots for the main analysis of this paper.

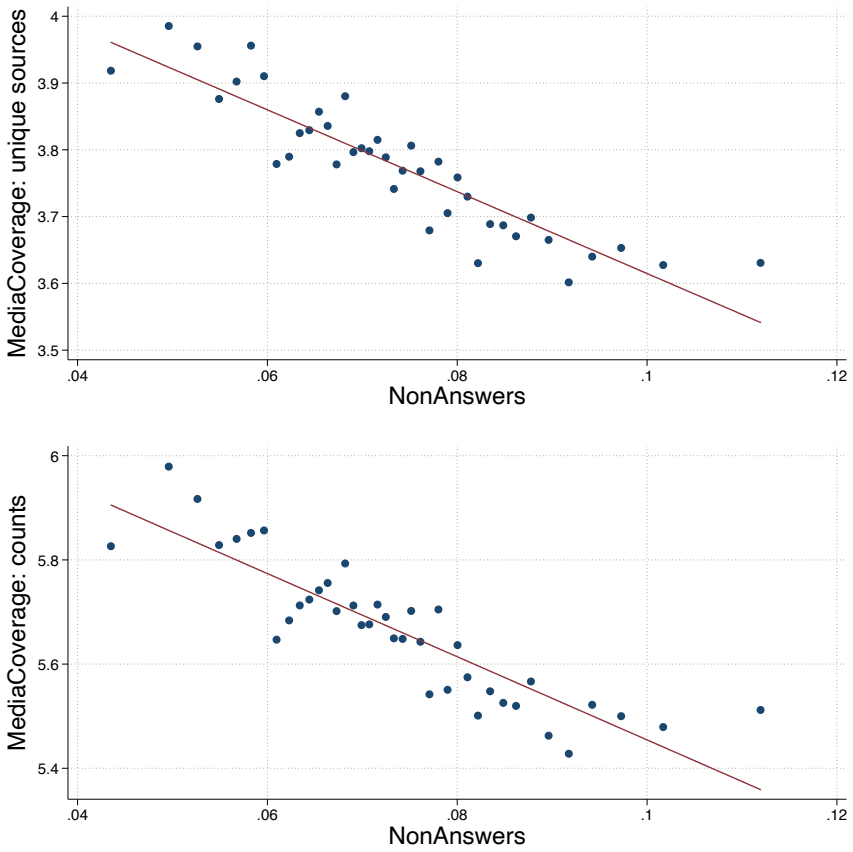


Figure 2: Non-answer glossary
The glossary consists of 1,227 trigrams provided by Barth et al. (forthcoming). Larger font size indicates a higher factor load. A machine-readable version of the glossary is available at econlinguistics.org

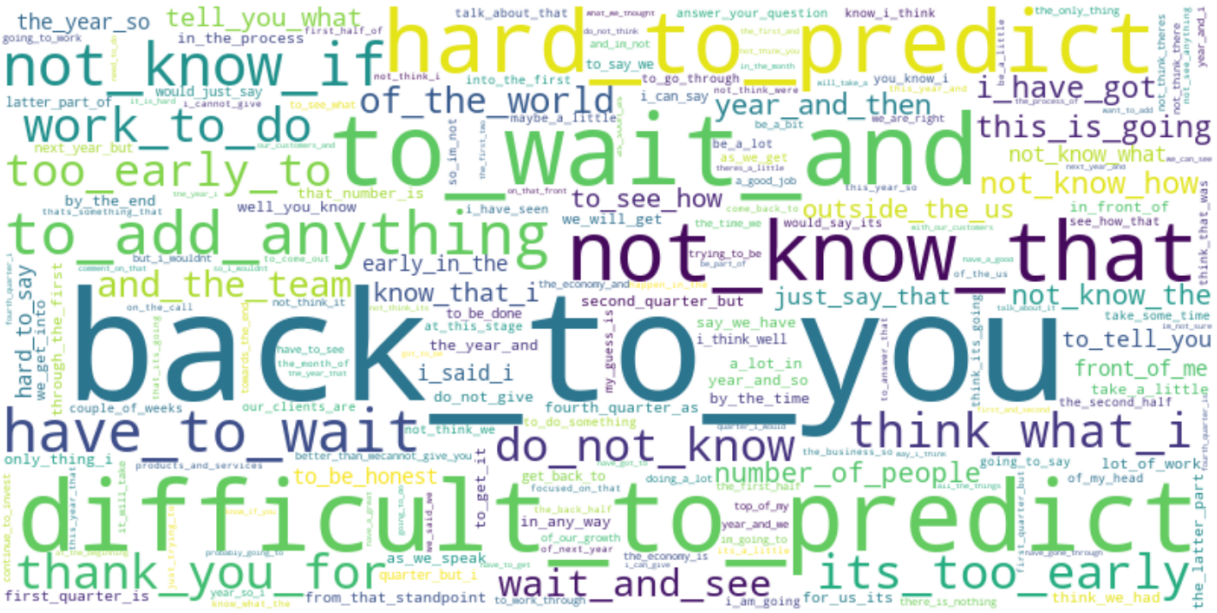
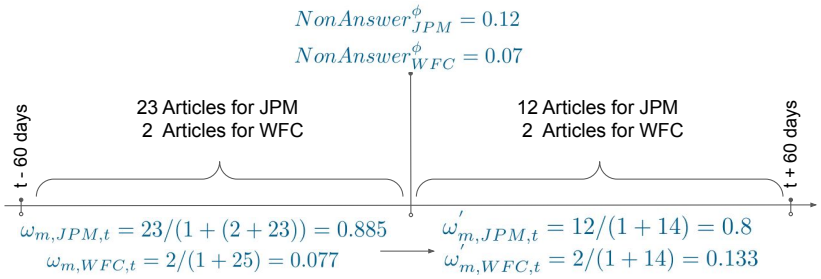


Figure 3: Time-trend of news coverage
This figure shows the number of media sources that published at least one piece with more than 90% relevance to the firms in our sample within two months after the firms' quarterly earnings call (left axis) as well as the total count of publications (right axis). From January 2007, RavenPack includes the WEB Edition (RP-WEB) which covers articles from leading (online) publishers & web aggregators. RavenPack is gradually adding news sources to its universe; e.g., the RP-WEB only includes content for "Reuters" after 2011. In all of the analyses in this paper, we include the quarter-fixed effects to address the time-trends of news coverage.

Figure 4: Graphical example of coverage shift
The figure illustrates the example provided in the section 4.4.



$$\Delta\omega_{m,JPM,t} = ln(1 + 0.8/1 + 0.885) = -0.046$$
$$\Delta\omega_{m,WFC,t} = ln(1 + 0.133/1 + 0.077) = +0.051$$

Table 1: Descriptive statistics

Descriptive statistics of the variables used in the analyses. The sample consists of 18,275 earnings calls of the companies in the S&P 500 index between 2007 and 2019. All variables are defined in Table A1.

Variable	Obs.	Mean	Std. Dev.	Min	P10	P50	P90	Max
$NonAnswer$	18,277	.074	.015	.029	.056	.073	.093	.14
$Sources$	18,277	3.8	.9	.69	2.8	3.6	5	7.6
$Sources^{F}$	18,277	3.7	.92	.69	2.7	3.6	5	7.5
$Sources^{NF}$	18,277	2.3	.8	.69	1.4	2.2	3.4	6.6
$Sources^{F}_{Pro}$	17,663	2	.45	.69	1.4	2.1	2.6	3.3
$Sources^{F}_{N-Pro}$	17,663	3.5	1	.69	2.4	3.4	5	7.5
$Counts^{F}_{Pro}$	17,663	4	1.2	.69	2.7	3.9	5.6	9.1
$Counts^{F}_{N-Pro}$	17,663	5	1.4	.69	3.2	5	6.8	11
$Share - Pro$	17,663	.3	.2	.0027	.084	.25	.61	.99
PR	15,912	1.4	.4	.69	.69	1.4	1.8	2.8
$Tone$	18,277	-.0053	.011	-.063	-.019	-.0051	.0083	.041
$Uncertainty$	18,277	.016	.0056	0	.009	.015	.023	.055
$EarnSurp$	18,277	5.7	2.9	1	2	6	10	10
BTM	18,277	.44	.41	-3.2	.099	.35	.88	17
$ln(Assets)$	18,277	9.8	1.4	6.2	8.2	9.6	12	15
Q	18,277	2.1	1.4	.63	1	1.7	3.8	36
$Complexity$	18,277	.0072	.0039	0	.0028	.0066	.012	.029

Table 2: Management withholding information and media coverage

Notes: OLS regressions for Equation (1). In columns (1) to (5) the dependent variable is the natural logarithm of one plus the number of distinct news agencies that published at least one article about the firm from the day after the earnings call until 60 days later. Firm controls include EarningsSurprise, BTM, ln(Assets), and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	Sources		
	(1)	(2)	(3)
NonAnswer	-6.128***	-0.668***	-0.884***
	(-3.23)	(-2.76)	(-3.92)
PR		0.172***	0.127***
		(14.52)	(10.41)
Tone		0.102	0.158
		(0.34)	(0.48)
Uncertainty		-0.751	-0.793
		(-1.45)	(-1.53)
Complexity		0.231	0.464
		(0.27)	(0.57)
NewsWorthiness		0.050***	
		(8.85)	
Constant	4.228***	1.649***	3.528***
	(26.16)	(6.73)	(8.21)
Observations	18278	15753	15461
R^2	0.010	0.925	0.956
Firm Controls	No	Yes	Yes
QuarterYear FE	No	Yes	Yes
Firm FE	No	Yes	Implied
FirmYear FE	No	No	Yes
News Categories	No	Yes	Yes

Table 3: Management withholding information and different types of media coverage

Notes: OLS regressions for Equation (1). In columns (1) to (3) the dependent variable is the natural logarithm of one plus the number of distinct news agencies that published at least one full article about the firm from the day after the earnings call until 60 days later; columns (4) to (6) show the same metric for all the coverage types except for full articles. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All specifications include dummies for industry multiply by the date of earnings calls. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	$Sources^F$		$Sources^{NF}$	
	(1)	(2)	(3)	(4)
$NonAnswer$	-0.655**	-0.938***	-0.208	-0.066
	(-2.67)	(-3.84)	(-0.91)	(-0.24)
PR	0.180***	0.135***	0.137***	0.101***
	(15.06)	(10.76)	(10.23)	(8.09)
$Tone$	0.017	0.091	0.409	0.378
	(0.05)	(0.27)	(1.10)	(0.90)
$Uncertainty$	-0.644	-0.639	-0.714	-1.050
	(-1.19)	(-1.19)	(-1.13)	(-1.57)
$Complexity$	-0.063	0.152	-0.426	-0.073
	(-0.07)	(0.18)	(-0.45)	(-0.08)
$NewsWorthiness$	0.048***		0.065***	
	(8.41)		(8.62)	
Constant	1.503***	3.404***	0.540**	1.887***
	(5.93)	(7.30)	(2.34)	(4.82)
Observations	15753	15461	15753	15461
R^2	0.922	0.954	0.862	0.912
Firm Controls	Yes	Yes	Yes	Yes
QuarterYear FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Implied	Yes	Implied
FirmYear FE	No	Yes	No	Yes
News Categories	Yes	Yes	Yes	Yes

Table 4: Management withholding information and the professional vs. non-professional media coverage

Notes: OLS regressions for Equation (1). In columns (1) and (2) the dependent variable is the natural logarithm of one plus the number of distinct professional news agencies that published at least one full article about the firm from the day after the earnings call until 60 days later; columns (3) and (4) show the same metric for non-professional media coverage. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the Fama-French 48 industries. All specifications include dummies for industry multiply by the date of earnings calls. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	Sources		*Count per Source*	
	(1) $Sources^{F}_{Pro}$	(2) $Sources^{F}_{N-Pro}$	(3) $\#PerSource^{F}_{Pro}$	(4) $\#PerSource^{F}_{N-Pro}$
$NonAnswer$	-0.388*	-1.003***	-1.034***	0.285
	(-1.79)	(-3.62)	(-2.76)	(0.90)
PR	0.087***	0.147***	0.152***	0.097***
	(7.77)	(9.71)	(6.58)	(8.18)
$Tone$	0.010	0.172	0.211	0.007
	(0.04)	(0.45)	(0.39)	(0.02)
$Uncertainty$	0.299	-0.736	-0.990	0.140
	(0.61)	(-1.25)	(-1.15)	(0.23)
$Complexity$	0.599	0.669	0.163	-1.252
	(0.73)	(0.62)	(0.14)	(-1.49)
Constant	2.124***	3.177***	2.781***	1.018***
	(5.00)	(5.30)	(4.61)	(3.12)
Observations	15009	15009	15009	15009
R^2	0.850	0.953	0.882	0.905
Firm Controls	Yes	Yes	Yes	Yes
QuarterYear FE	Yes	Yes	Yes	Yes
Firm FE	Implied	Implied	Implied	Implied
FirmYear FE	Yes	Yes	Yes	Yes
News Categories	Yes	Yes	Yes	Yes

Table 5: Management withholding information and media coverage shift

Notes: OLS regressions for Equation (4). The sample is limited to 8,893 earnings calls held on dates, on which at least two firms from the same Fama-French industry classification hold their calls. Observations are at the media source level. The dependent variable is a firm's change in weight in a media source's portfolio compared to their peers that hold earnings call on the same day. In columns (1) and (2), the non-answer score is the rank of the non-answer scores of the firms holding their calls on the same date. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	$\Delta\omega$		
	(1)	(2)	(3)
$NonAnswer$	-0.113***	-0.091**	-0.094**
	(-4.16)	(-2.20)	(-2.26)
$Tone$	0.328***	0.579***	0.572***
	(8.44)	(9.19)	(9.01)
$Uncertainty$	0.353***	0.953***	0.946***
	(4.36)	(7.30)	(7.33)
$Complexity$	-0.034	-0.111	-0.145
	(-0.39)	(-0.81)	(-1.06)
$NewsWorthiness$	-0.009***	-0.012***	-0.012***
	(-20.42)	(-16.24)	(-16.43)
PR	0.039***	0.030***	0.030***
	(25.48)	(13.13)	(13.04)
Constant	0.010**	-0.087***	-0.083***
	(2.39)	(-9.38)	(-8.73)
Observations	639445	639445	637669
R^2	0.002	0.054	0.073
Firm Controls	Yes	Yes	Yes
Industry×Call date	No	Yes	Yes
Source FE	No	No	Yes

Table 6: Management withholding information and coverage topics

Notes: OLS regressions for Equation (5). The table contains 36 regressions with the dependant variable being the logarithm of one plus the count of full articles with the identified 36 topics, in the 60 days windows after the earnings calls. The coefficient of interest is the *NonAnswer* score. All the regressions include firm controls, a dummy for at least one coverage in the respective topic, and industry-year as well as quarter fixed effects. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

acquisitions mergers	**analyst ratings**	**assets**	**balance of payments**	**bankruptcy**	**civil unrest**
-0.566	-1.117**	-0.285	-0.015	0.030	0.041
(-0.69)	(-2.03)	(-0.35)	(-1.26)	(0.94)	(1.33)
corporate responsibility	**credit**	**credit ratings**	**crime**	**dividends**	**earnings**
-0.158	0.818*	-0.216	-0.025	0.010	-1.679**
(-1.39)	(1.94)	(-0.49)	(-0.45)	(0.02)	(-2.11)
equity actions	**exploration**	**government**	**indexes**	**industrial accidents**	**insider trading**
0.672	-0.012	-0.040	0.014	0.045	-2.179***
(1.25)	(-0.34)	(-0.75)	(0.32)	(0.57)	(-2.81)
investor relations	**labor issues**	**legal**	**marketing**	**order imbalances**	**partnerships**
-0.422	-1.576*	-1.574*	0.242	0.000	-1.878**
(-0.72)	(-1.90)	(-2.00)	(0.28)	(.)	(-2.06)
pollution	**price targets**	**products services**	**public opinion**	**regulatory**	**revenues**
0.002	-0.851**	-3.418**	0.003	-0.419	-2.534***
(1.56)	(-2.12)	(-2.65)	(0.50)	(-1.06)	(-2.92)
security	**stock prices**	**taxes**	**technical analysis**	**transportation**	**war conflict**
-0.198**	-3.771***	0.010	0.129	-0.030	-0.080
(-2.05)	(-3.67)	(0.78)	(0.34)	(-0.62)	(-1.30)

Appendix A

Table A1: Definition of variables

Variable	Definition
BTM	book-to-market ratio; defined as the total common/ordinary equity divided by the market value of equity (from Compustat)
$Complexity$	the ratio of the complex words to the total words in the answers provided by the management. ''Complexity'' word list provided by Loughran and McDonald (2020)
$EarningsSurp$	represents the grouping of all firms in deciles of earnings surprise following Dzielinski et al. (2021) (defined as the difference between the actual and the consensus forecast earnings (from I/B/E/S) as a ratio to the share price 5 trading days before the announcement)
$ln(Assets)$	the natural logarithm of total assets. (from Compustat)
$Counts$	the natural logarithm of one plus the total number of news pieces in a two-month period after firms' earnings calls
$Sources$	the natural logarithm of one plus the number of unique news sources that publish a piece in a two-month period after firms' earnings calls (From Ravenpack)
$Sources^{F}$	the $Sources$ variable filtered for the news pieces tagged as full article in the Raven Pack dataset.
$Sources^{NF}$	the $Sources$ variable filtered for the news pieces not tagged as full article in the Raven Pack dataset.
$Sources^{F}_{N-Pro}$	the $Sources^{F}$ variable filtered for the sources we identify as non-professional.
$Sources^{F}_{Pro}$	the $Sources$ variable filtered for the sources we identify as professional. We label a source as professional if it is associated with Dow Jones Newswire, Barron's, Marketwatch, Bloomberg News, Thomson Reuters, the Wall Street Journal, the Financial Times, Entrepreneur, Business Insider, CNBC and Forbes.
$Negativity$	the ratio of the negative words to the total words in the answers provided by the management. ''negative'' word list provided by Loughran and McDonald (2011)
$NewsWorthiness$	inspired by Dyck et al. (2008), defined as the natural logarithm of one plus the number of articles in the Wall Street Journal and the Financial Times that refer to a company during the six-month period before its earnings call (excluding the day of earnings call and one day before it)
$NonAnswer$	the ratio of trigrams in the non-answer glossary of Barth et al. (ming) to the total words
$NonAnswer^{\phi}$	the ratio of trigrams weighted by their corresponding loadings in the non-answer glossary of Barth et al. (ming) to the total words

PR	The natural logarithm of one plus the firm's initiated press releases (from Ravenpack PR-edition)
Q	the Tobin's Q; the book value of assets minus book value of common equity plus the market value of common equity, divided by the total book value of assets (from Compustat)
$Uncertainty$	the ratio of the uncertain words to the total words in the management answers. ''Uncertainty'' word list provided by Loughran and McDonald (2011)

Appendix B List of the professional media

RavenPack ID	Name
18A55F	BARRONS
8B4BD7	BARRONS.COM BLOG
97AF0A	BARRONS.COM ONLINE
6DFE43	BLOOMBERG BUSINESSWEEK
5F78A9	BLOOMBERG GOVERNMENT
208421	BLOOMBERG NEWS
CAF003	BLOOMBERG VIEW
FA7478	BLOOMBERG-QUINT
DCD6DA	BREAKINGVIEWS
8B7199	BRUSSELS BLOG
87C2EA	BUSINESS BLOG
C75B8C	BUSINESS INSIDER
E38558	CAPITOL REPORT - MARKET WATCH
AA1167	CNBC
B5569E	DOW JONES NEWSWIRES
A89221	DOW JONES ONLINE
0FDF1E	ECONOMISTS' FORUM
F67012	EMERGING MARKETS DAILY
DF7445	ENCORE
2143AD	ENERGY TICKER
938822	ENTREPRENEUR
931400	FAITHWORLD
0B0728	FAST MONEY
D335E4	FELIX SALMON
35913F	FELIX SALMON - ALL POSTS
90CE21	FINANCIAL REGULATORY FORUM
FD0B00	FINANCIAL TIMES
75B2CD	FINDLAW
DE57D6	FOCUS ON FUNDS
22AC8B	FORBES.COM
BF0799	FROM REUTERS.COM
0EB1B3	FT ADVISER
8E9A55	FT ADVISER MONEY MANAGEMENT
766283	FT ALPHAVILLE
895559	FT DATA
6DDC36	FT INVESTMENT ADVISER
EF1ABD	FT.COM - CREDIT SQUEEZE
F1D2BD	GAVYN DAVIES

RavenPack ID	Name
D3E2F8	GLOBAL INVESTING
8A7104	HUGO DIXON
358DFE	INCOME INVESTING
B4A99C	INDIA INSIGHT
A0588D	JAMES SAFT
AF0676	MACROSCOPE
A0099A	MAD MONEY WITH JIM CRAMER
1E5E35	MARKETWATCH
C325FC	MARKETWATCH (ONLINE)
E04BE4	MORNINGSTAR
A92D7D	PHOTOGRAPHERS BLOG
751371	REUTERS
806C8E	SILICON ALLEY INSIDER
C76E42	SMART MONEY
3F9DB7	STOCKS TO WATCH
499718	TECH BLOG
F707BB	TECH CHECK WITH JIM GOLDMAN
9BA337	TECH TRADER DAILY
13A271	THE A-LIST
ADFD64	THE BANKER
DE348B	THE GREAT DEBATE
C0AB6A	THE TELL
F73069	THE WORLD
3EA04F	THOMSON REUTERS FOUNDATION NEWS
AA6E89	WALL STREET JOURNAL
9AE635	WALL STREET JOURNAL (ONLINE)
0BBE7B	WESTMINSTER BLOG

Appendix C Robustness

Table D1: Management withholding information and media coverage -- The first 48 hours after the conference call

Notes: OLS regressions for Equation (1). In column (1) the dependent variable is the natural logarithm of one plus the number of distinct news agencies that published at least one news piece in the first 48 hours after the earnings call. In columns (2) and (3), the dependent variable is restricted to the full articles and non-full articles, respectively. In columns (4) and (5), the dependent variable is further restricted to the professional and non-professional media sources, respectively. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	(1) $Sources$	(2) $Sources^F$	(3) $Sources^{NF}$	(4) $Sources^F_{Pro}$	(5) $Sources^F_{N-Pro}$
$NonAnswer$	-0.573**	-0.532**	-0.325	-0.469*	-0.375
	(-2.51)	(-2.23)	(-1.28)	(-1.79)	(-1.20)
$Tone$	-1.115***	-1.173***	-0.638*	-0.655**	-1.080**
	(-3.77)	(-3.64)	(-1.68)	(-2.12)	(-2.53)
$Uncertainty$	-1.075**	-0.920*	-1.250*	0.329	-1.293**
	(-2.27)	(-1.84)	(-1.99)	(0.57)	(-2.05)
$Complexity$	-0.397	-0.654	-0.269	-1.450**	-0.567
	(-0.49)	(-0.76)	(-0.31)	(-2.06)	(-0.56)
Constant	1.911***	1.797***	0.758**	0.736**	1.386***
	(5.50)	(5.35)	(2.15)	(2.16)	(3.35)
Observations	17731	17731	17731	15034	15034
R^2	0.935	0.931	0.858	0.845	0.931
Firm Controls	Yes	Yes	Yes	Yes	Yes
News Categories	Yes	Yes	Yes	Yes	Yes
QuarterYear FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Implied	Implied	Implied	Implied	Implied
Firm FE	Implied	Implied	Implied	Implied	Implied
FirmYear FE	Yes	Yes	Yes	Yes	Yes

Table D2: Management non-answer and media coverage - Full sample from 2002

Notes: OLS regressions for Equation (1). In column (1) the dependent variable is the natural logarithm of one plus the number of distinct news agencies that published at least one news piece about the firm from the day after the earnings call until 60 days later. In columns (2) and (3), the dependent variable is restricted to the full articles and non-full articles, respectively. In columns (4) and (5), the dependent variable is further restricted to the professional and non-professional media sources, respectively. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	(1) $Sources$	(2) $Sources^F$	(3) $Sources^{NF}$	(4) $Sources^F_{Pro}$	(5) $Sources^F_{N-Pro}$
$NonAnswer$	-0.707***	-0.759***	0.005	-0.388*	-1.003***
	(-2.94)	(-2.99)	(0.02)	(-1.79)	(-3.62)
$Tone$	0.268	0.229	0.298	0.010	0.172
	(0.89)	(0.76)	(0.82)	(0.04)	(0.45)
PR	0.102***	0.110***	0.082***	0.087***	0.147***
	(7.26)	(7.66)	(6.82)	(7.77)	(9.71)
$Uncertainty$	-0.663	-0.522	-1.010*	0.299	-0.736
	(-1.39)	(-1.07)	(-1.82)	(0.61)	(-1.25)
$Complexity$	0.120	-0.168	-0.168	0.599	0.669
	(0.17)	(-0.23)	(-0.22)	(0.73)	(0.62)
Constant	2.853***	2.759***	1.470***	2.124***	3.177***
	(7.10)	(6.51)	(4.34)	(5.00)	(5.30)
Observations	18517	18517	18517	15009	15009
R^2	0.977	0.975	0.943	0.850	0.953
Firm Controls	Yes	Yes	Yes	Yes	Yes
News Categories	Yes	Yes	Yes	Yes	Yes
QuarterYear FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Implied	Implied	Implied	Implied	Implied
Firm FE	Implied	Implied	Implied	Implied	Implied
FirmYear FE	Yes	Yes	Yes	Yes	Yes

Table D3: Management $Non-answer^{\phi}$ and media coverage

Notes: OLS regressions for Equation (1). In column (1) the dependent variable is the natural logarithm of one plus the number of distinct news agencies that published at least one news piece about the firm from the day after the earnings call until 60 days later. In columns (2) and (3), the dependent variable is restricted to the full articles and non-full articles, respectively. In columns (4) and (5), the dependent variable is further restricted to the professional and non-professional media sources, respectively. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	(1) $Sources$	(2) $Sources^{F}$	(3) $Sources^{NF}$	(4) $Sources^{F}_{Pro}$	(5) $Sources^{F}_{N-Pro}$
$NonAnswer^{\phi}$	-0.234***	-0.252***	0.058	-0.107	-0.280***
	(-3.12)	(-3.20)	(0.58)	(-1.41)	(-2.89)
$Tone$	0.128	0.059	0.376	-0.002	0.141
	(0.39)	(0.18)	(0.90)	(-0.01)	(0.37)
PR	0.127***	0.135***	0.101***	0.087***	0.148***
	(10.42)	(10.78)	(8.11)	(7.78)	(9.73)
$Uncertainty$	-0.795	-0.640	-1.058	0.300	-0.735
	(-1.53)	(-1.19)	(-1.58)	(0.61)	(-1.24)
$Complexity$	0.572	0.264	-0.022	0.644	0.784
	(0.70)	(0.31)	(-0.02)	(0.78)	(0.73)
Constant	3.505***	3.381***	1.873***	2.116***	3.155***
	(8.11)	(7.21)	(4.77)	(4.99)	(5.24)
Observations	15461	15461	15461	15009	15009
R^2	0.956	0.954	0.912	0.850	0.953
Firm Controls	Yes	Yes	Yes	Yes	Yes
News Categories	Yes	Yes	Yes	Yes	Yes
QuarterYear FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Implied	Implied	Implied	Implied	Implied
Firm FE	Implied	Implied	Implied	Implied	Implied
FirmYear FE	Yes	Yes	Yes	Yes	Yes

Table D4: Management non-answer and media coverage - Poisson regressions

Notes: Poisson regressions for Equation (1). In column (1) the dependent variable is the natural logarithm of one plus the number of distinct news agencies that published at least one news piece about the firm from the day after the earnings call until 60 days later. In columns (2) and (3), the dependent variable is restricted to the full articles and non-full articles, respectively. In columns (4) and (5), the dependent variable is further restricted to the professional and non-professional media sources, respectively. Firm controls include EarningsSurprise, BTM, ln(Assets) and Tobin's Q. News categories refer to news about a company in the analysis window being associated with the 36 topics of news provided by RavenPack. Industry classification is based on the 48 Fama-French industries. All variables are defined in Table A1. t-statistics are given in parentheses. Standard errors are clustered at the firm and quarter level. ***, **, * indicate significance at the 1%, 5% and 10% levels.

	(1) $Sources$	(2) $Sources^F$	(3) $Sources^{NF}$	(4) $Sources^F_{Pro}$	(5) $Sources^F_{N-Pro}$
$NonAnswer$	-0.908**	-0.872**	-0.792	-0.855	-0.770*
	(-2.51)	(-2.38)	(-0.96)	(-1.47)	(-1.90)
$Tone$	0.136	0.075	0.217	-0.435	0.110
	(0.28)	(0.15)	(0.21)	(-0.73)	(0.20)
PR	0.238***	0.243***	0.268***	0.185***	0.256***
	(11.25)	(11.38)	(3.37)	(2.77)	(11.08)
$Uncertainty$	-1.307	-1.219	-2.767**	-1.160	-1.477
	(-1.50)	(-1.35)	(-2.24)	(-1.06)	(-1.47)
$Complexity$	0.365	0.277	-0.679	0.097	0.408
	(0.27)	(0.20)	(-0.34)	(0.09)	(0.27)
$NewsWorthiness$	0.086***	0.080***	0.168***	0.062	0.088***
	(8.83)	(7.75)	(3.49)	(1.28)	(8.14)
Observations	18923	18923	18923	15400	15400
Firm Controls	Yes	Yes	Yes	Yes	Yes
News Categories	Yes	Yes	Yes	Yes	Yes
IndustryYear FE	Yes	Yes	Yes	Yes	Yes