Bad News Bearers:
The Financial Press and Firm Performance

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Abstract

We show that increases in media coverage offer strong predictive power for declines in firms' subsequently announced profitability, cash flows, and analyst-based earnings surprises. Media coverage also signals an increased likelihood that the firm will file for bankruptcy, cut dividends, and delist from stock exchanges. A simple long-short strategy betting against firms with high media coverage yields an average return of roughly 40 basis points per month. Remarkably, our results hold even though we focus only on the media's story selection process rather than conditioning on what is reported. Collectively, our results indicate that the media's story selection process is tilted toward transmitting negative information.

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1. Introduction

The financial press plays a critical role in capital markets by serving as an informational intermediary among market participants. Recognition of this role has given rise to a substantial literature examining the influence of the financial press on various market outcomes including, but not limited to, investor attention, information asymmetries, and the efficiency of market prices (e.g., Solomon et al. (2014)). A central inference from this literature is that the press helps create, validate, and disseminate information to market participants.

Much of the prior research on the financial press takes media coverage as given and instead focuses on its impact on market outcomes. This focus has engendered a relative scarcity of research on the incentives that shape the amount and content of media coverage. As noted in Dougal et al. (2012), media coverage is often treated as stemming from a 'faceless institution,' rather than a byproduct of utility maximizing agents. Perhaps as a result, relatively little attention has been paid to the nature and implications of the financial press' incentives for which events it deems as newsworthy. Our study attempts to fill this void by studying the tilt in the media's selection process (i.e., the prioritization of certain stories) toward negative versus positive events.

Broadly speaking, one of the primary goals of this paper is to refine how researchers and market participants view media coverage. Specifically, we highlight the importance of separately considering two dimensions of media coverage: (1) what events the media chooses to cover, and (2) how events are portrayed when providing coverage. Whereas most prior research focuses on the latter, our study focuses on the former.

For some readers, the idea that the media prefers to cover more sensational stories is intuitive and perhaps even conventional wisdom (e.g., the old adage "If it bleeds, it leads"). However, academic evidence documenting the media's preference for covering negative versus positive events remains elusive, in part, because doing so requires an objective benchmark for what the media's selection process would be like in its absence.

Prior research shows, for example, there is more media coverage of violent crime than property crime relative to their base rates (e.g., Marsh (1991)), and that news outlets are more likely to prioritize stories involving violence, conflict, or suffering (e.g., Johnson (1996)). However, in these contexts researchers lack the ability to observe the distribution of potentially covered events and/or objectively rank the underlying events in terms of their badness, which makes it unclear what media coverage would look like under the counterfactual where coverage is allocated without a directional tilt.

An important innovation of our paper is that our main tests study media coverage through the lens of prediction, rather than reaction. Specifically, we focus on the link between media coverage of publicly traded firms and cross-sectional variation in their *subsequently observed* earnings, actions, and risk-adjusted stock returns. This combination of these prediction tests allows us to show that the media story selection process is tilted toward negative events and that the media plays an important complementary role to short-sellers by conveying novel negative news to investors. Moreover, our approach allows us to objectively rank firms in terms of their fundamentals and realized returns to empirically disentangle the sign of firms' performance (i.e., good vs. bad) from its intensity (i.e., significant vs. insignificant), which is unavailable in most other research settings.

Our central hypothesis is that the media is more likely to tilt its coverage toward negative events for two primary reasons. The first is that the media relies on readership to sustain its operations and bad events may be viewed as sensational and draw greater attention (e.g., Gieber (1955), Stone and Grusin (1984), Solomon et al. (2014)). This link may help explain why news outlets are drawn toward conflicts and violence (Campbell and Jamieson (2006)). A second reason is that the media competes for the investing public's attention with alternative information sources such as sell-side analysts that are more likely to disseminate positive information (e.g., McNichols and O'Brien (1997), Lee and So (2017)). Thus, we expect that media coverage is titled toward negative events and declining firm performance because they are more likely to be sensational and attract readership.

There are several sources of tension for our main hypothesis. First, there is evidence that the media may cater to firms' preferences to encourage informational exchanges and/or advertising revenues by covering more positive news about the firms (e.g., Besley and Prat (2006), Dyck and Zingales (2003), Reuter and Zitzewitz (2006), Umar (2016)). Second, prior research provides evidence of the media covering firms' management team when their performance is strongest (e.g., Malmendier and Tate (2009)), which suggests the media may devote greater coverage to firms with more *positive* news events. Finally, to the extent that institutional frictions, such as short-sale costs, reduce the usefulness of negative news for informing trading decisions, the media may focus on positive information to cater to its target audience.

The construct of interest in our study is the "tilt" of the financial press that captures the likelihood that the media covers firms experiencing deteriorating, compared to improving, fundamental performance, all else equal. Following Fang and Peress (2009), our empirical tests rely on a sample of manually-collected articles from four of the largest national newspapers: the Wall Street Journal, USA Today, New York Times, and Washington Post. We match our news database to a broad cross-section of roughly 4,000 firms each quarter, which spans more than 250,000 firm-quarters.

Prior research suggestive of the media's tilt tends to focus on its intensity or impact within a specific context. For example, Miller (2006) focuses on firms' subject to SEC investigations and shows the media tends to provide more coverage of larger and more material allegations. However, by focusing on SEC investigations, which are inherently bad news for the firm, the estimated relation between news and outcomes is not informative of the tilt in the news selection process because the materiality and badness of the underlying event are essentially equivalent. By contrast, we take a broader cross-sectional view by building a large sample of national media stories and measuring their predictive power for firms' subsequently reported performance. In doing so, our tests assess the magnitude of media tilt and establish several important regularities regarding the relation between media coverage and firms' performance.

Our first main tests show that variation in media coverage foreshadows firms' subsequently announced earnings news. Specifically, greater media coverage negatively forecasts firms' seasonally-adjusted changes in earnings, profitability, and cash flows despite media coverage being observed months before firms publicly announce earnings. Similarly, we show that media coverage foreshadows an increased likelihood of firms' cutting dividends, bankruptcy, and delisting from Nasdaq or NYSE, indicating that journalists tend to tilt their story selection process toward struggling firms.

Media coverage also has strong predictive power for expectation errors among market participants. For example, firms with high media coverage are significantly more likely to subsequently fall short of analysts' earnings forecasts and earn lower stock returns during their next earnings announcement. These results are pronounced for coverage by the Wall Street Journal and New York Times, which tend to cater toward financially-oriented customers. The combination of these prediction-based results is consistent with the media cultivating and producing novel negative information to attract and retain readership, rather than the media simply summarizing negative public information events.

We next conduct calendar time asset pricing tests illustrating that media coverage offers strong predictive power for firms' future returns. An investment strategy that bets against firms with high coverage and bets on firms with low coverage during the prior month produces an average return of approximately 40 basis points per month. Our return results align with evidence in Fang and Peress (2009) that higher coverage is associated with lower firms' expected returns by garnering greater visibility and liquidity. Building upon Fang and Peress (2009), we find that return predictability is concentrated among high momentum firms, suggesting the media is more likely to convey novel negative news when coverage applies to firms that appear to be performing well based on ascending stock prices. By contrast, alternative channels related to greater visibility and liquidity would, if anything, predict that our results should be concentrated among neglected underperforming stocks, where visibility and liquidity are low. Thus, our findings suggest that a complementary explanation for why

coverage negatively forecasts returns is that the media focuses on covering negative events and that prices reflect this information with a delay.

In the last section of our paper, we estimate the magnitude of the media's tilt toward disseminating news from negative events. We do so by using event-time tests that examine the media's response to firms' earnings announcements where we can directly quantify the nature of the information release. Using this setting, we estimate that a firm is 11-to-19 percent more likely to receive media coverage conditional on the sign of the earnings announcement news being negative. These estimates indicate the magnitude of the tilt in the financial press is economically large and thus is relevant for the way academics study media coverage in financial markets.

A particularly powerful feature of our earnings announcement tests is that we can look within the subsample of announcements where firms' stock prices did not meaningfully move (i.e., prices do not react), indicating that the announcement did not convey novel news. Even among these 'non-news' announcements, we still observe that the media is significantly more likely to cover firms reporting losses (i.e., negative GAAP earnings), consistent with the media's story selection process favoring articles with negative headlines.

Our findings are particularly relevant for the way researchers conduct and interpret evidence in settings where media coverage proxies play a first-order role. For example, researchers commonly infer whether an information event occurred based on the existence of a media article (e.g., Hendershott et al. (2015), Foucault et al. (2016)). Similarly, researchers often use the extent of media coverage to infer the quality of firms' information environment (e.g., Bushman and Smith (2003), Blankespoor et al. (2013)). Our evidence of a negative tilt suggests the usefulness of standard media proxies in these settings is limited by the media's incentive to forgo coverage of positive information events in favor of negative ones.

The broader contribution of this paper extends beyond the goal of forecasting firms' performance. In particular, our findings inform the extensive literature using media coverage as a proxy for the presence of an information event or extent of dissemination. Because firms'

performance influences which investors choose to hold a stock, how frequently they trade, and the price they pay when trading, the media's tilt toward negative events can create a mechanical correlation between media coverage proxies and various market outcomes. Thus, a key inference from our paper is that researchers may incorrectly attribute this mechanical correlation to the impact of the media's role as intermediary, when the associations are likely confounded by their tendency to cover firms with deteriorating performance.

In sum, this paper provides three main insights. Conceptually, this study contributes to our understanding of the media's production function and role as an informational intermediary by showing the media tends to allocate coverage inversely to firms' operating performance. Practically, this study provides a simple methodology for forecasting firms' earnings news and returns using widely observable news coverage data. Finally, methodologically, this study shows the use of media coverage in capital market settings is complicated by the fact that coverage decisions also reflect information about firms' operating performance.

The rest of the paper is organized as follows. Section 2 discusses our data. Sections 3 through 5 discuss our main results. Section 6 concludes.

2. Data

Our main dataset of newspaper articles comes from Factiva.com (a business information tool owned by Dow Jones). To construct our dataset, we first restrict our sample to firms with stock price and quarterly accounting data from CRSP and COMPUSTAT. We then manually match firm names to the corresponding Factiva Data Codes, and use these codes to search for articles about each firm in The Wall Street Journal (WSJ), the New York Times (NYT), USA Today (USAT), and the Washington Post (WP), between 2001 and 2019 (the time period during which Factiva has consistent coverage of these newspapers).

For each article about a given firm, we record its date, title, and location of the article in the paper. The Wall Street Journal, the New York Times, and USA Today are the top three newspapers by weekday circulation, and the Washington Post is the seventh top paper

by weekday circulation in the US.[1] Factiva's academic license does not allow us to access articles for the other newspapers on the top circulation list. However, these four newspapers are in line with national newspaper coverage used in the prior literature (e.g., Fang and Peress (2009); Gurun and Butler (2012); and Solomon et al. (2014)).

Our main analyses examine the predictive power of media coverage for firms' subsequently reported operating performance and stock returns. To provide initial summary statistics, we measure the extent of media coverage in a given firm-quarter in the 50 trading days ending 5 days before firms' quarterly earnings announcement date (i.e., t-55 to t-5 where t denotes firms' announcement date).

We present the summary statistics for our media dataset in Table 1, Panel A. Overall we have 325,718 firm-quarter observations covering 9,870 unique firms. The first two columns show the distribution of firm-quarter observations by year as well as the percent of those firm-quarters with at least one article in one of the four newspapers. We can see that the number of articles covering companies has decreased over time.

Overall, we have 324,103 firm-article observations (if Factiva deems an article as being relevant to two firms, we count the article twice - once for each firm). The fourth column of Panel A reports the annual number of firm-article observations, and the remaining columns show the breakdown by year and newspaper. The Wall Street Journal has the most articles that cover firms, consistent with it being the most business-oriented newspaper. However, the number of business-related articles in the WSJ has declined in recent years consistent with the paper's move to become a more general-audience newspaper.[2]

In Panel B of Table 1, we examine how the average firm characteristics relate to the amount of media coverage firms receive. Every quarter we sort firms into terciles, based on the number of articles about the firm during the quarter. On average, 3,575 firms receive no coverage during the quarter, 431 firms receive medium amount of coverage (1.3 articles, on average) and 279 firms receive a high amount of coverage (13.3 articles, on average). Firms

[1] wikipedia.org/wiki/List_of_newspapers_in_the_United_States#Top_25_newspapers.
[2] http://www.journalism.org/2011/07/20/wall-street-journal-under-rupert-murdoch/.

with the high level of coverage tend to be larger, have slightly higher book to market ratios and slightly lower momentum. Similarly, highly covered firms have higher average share turnover during the quarter, which is consistent with media coverage being associated with higher levels of trading (Barber and Odean (2008)).

In Panel C of Table 1, we show the distributions of our main variables. The first row shows the distribution of the number of articles about the firms per quarter in our sample. Similar to what we observe in Panel B, the distribution of articles at the firm/quarter level is highly skewed - with many firms receiving no media coverage and some firms receiving a lot of media coverage. ROA is defined as the net income scaled by total assets. $Gross\ Profits$ is defined as revenue minus COGS, scaled by total assets. $Cash\ Flow\ from\ Ops$ is defined as cash flow from operations scaled by shares outstanding. For all ROA, $Gross\ Profits$, and $Cash\ Flow\ from\ Ops$, Δ is defined as the year-on-year change. $Delisting\ Dummy$ is defined as 1 if a firm is delisted from Nasdaq/NYSE as identified in CRSP and 0 otherwise. $Bankruptcy\ Dummy$ is defined as 1 if a firm files for bankruptcy as indicated by an 8K filing, and 0 otherwise. We multiply the Delisting and the Bankruptcy indicator variables by 100 for exhibition purposes. ΔEPS is defined as the year-on-year change in earnings per share. $SURP$ is defined as the firm's earnings per share minus the consensus median analyst earnings forecast measured five days before the firm's earnings announcement scaled by beginning of quarter price.

3. Media Coverage and Firm News

Prior literature links media coverage to firms' expected returns (e.g., Fang and Peress (2009)) based on the idea that the media attracts attention from individual investors, which lower expected returns by raising awareness of the stock's existence and improving liquidity. However, an additional, and non-mutually-exclusive explanation is that the media tilts its coverage toward negative events, and therefore high media coverage may negatively predict returns because prices incorporate signals of a deterioration in firms' fundamental perfor-

mance with a lag. Therefore, in this section we examine the relationship between media coverage and information disclosed after the end of the quarter. In particular, we focus on measures of firm fundamentals, firm actions, like changes in dividend policies, and firm's earnings at the end of the quarter.

3.1. Media Coverage and Firm Fundamentals

First, we test whether firms' pre-announcement media coverage forecasts levels and changes in firms' fundamentals measured by earnings, ROA, gross profits, and cash flows from operations. In this regard, our tests examine the ability of coverage to forecast firms' fundamentals disclosed at the end of the quarter. Specifically, we estimate the following model:

$$\begin{aligned} Firm\ Fundamentals_{i,q} &= \alpha + \beta_1 \log(Articles_{i,q} + 1) + \gamma_1 Size_{i,q} + \gamma_2 LBM_{i,q} \\ &+ \gamma_3 Momentum_{i,q} + \gamma_4 Turnover_{i,q} + \delta Controls_{i,q} \\ &+ \rho_t + \psi_i + \epsilon_{i,q}, \end{aligned} \tag{1}$$

where we measure $Firm\ Fundamentals_{i,q}$ at the end of the quarter, as the year-on-year change in earnings per share (ΔEPS), as well as return on assets (ROA), gross Profit, and cash flows from operations, as well as year-on-year changes in those measures. We want to ensure that are results are driven by a conscious decision of the media to tilt its coverage more towards negative news, rather than the media's tendency to cover firms' disclosures, which could to increase when a firm is performing poorly. Therefore, we also control for the extent of firms' managerial guidance as well as the number of firms' 8-K filings with the SEC. The latter reflects a mandatory disclosure of material economic events such as gain or loss of supply contracts (see Noh et al. (2017) for further details). To the extent our estimates of tilt are driven by the media 'blindly' covering regulatory filings or managerial guidance, we would expect the coefficients on media coverage to become insignificant once we control for the extent of firms' filings and guidance.

When estimating Eq. (2), we include firm and quarter fixed effects in our regressions to control for constant firm-specific unobserved characteristics and for contemporaneous shocks

to all firms. To the extent the media prefers to cover negative events, we expect media articles to negatively forecast firms' fundamentals such that the β_1 coefficient when estimating Eq. (2) is negative.

The results are presented in Table 2. In columns (2), (4), and (6) we find that the number of articles leading up to the announcement are negatively correlated with the levels of ROA, gross profit, and cash flows from operations. In columns (1), (3), (5), and (7) we find highly significant negative relations between firms' pre-announcement media coverage and changes in their subsequently announced performance (t-statistics from 1.77 to 8.24). The findings in Table 2 are consistent with the media being more likely to cover firms experiencing a decline in performance, and therefore the amount of coverage a firm receives forecasts the content of their subsequent earnings announcements.

3.2. Media Coverage and Firm Actions

Next we examine whether firms' pre-announcement media coverage forecasts actions actively taken by companies such as levels and changes in dividends, filing for bankruptcy or being delisted. A key feature of these tests is that we study the ability of media coverage to forecast these actions ahead of firms' announcing them to the public. We estimate Eq. (2), except we use firms' actions as the dependent variable. The results are presented in Table 3. The results suggest that companies that receive more media coverage leading up to earnings announcements are more likely to decrease their dividend, declare bankruptcy, or be delisted. These results are especially striking, since we control for firms' momentum, and thus recent stock market performance. Together with the evidence that higher media coverage during the quarter is associated with worse fundamental performance, this provides corroborative evidence that media outlets tilt their financial coverage towards negative news.

3.3. Media Coverage and Future Earnings News

The tests in this section are designed to address potential concerns that our findings are driven by the media reporting stale information, which Tetlock (2011) suggests is sometimes the case. Specifically, we hypothesize and find that media articles predict expectation errors

among market participants, consistent with the media's selection process conveying novel negative information.

In Table 4, we measure expectation errors as changes in firms' analyst-based earnings surprises and earnings announcement returns. Specifically, we estimate the following model:

$$\begin{aligned} Earnings\ News_{i,q} &= \alpha + \beta_1 \log(Articles_{i,q} + 1) + \gamma_1 Size_{i,q} + \gamma_2 LBM_{i,q} \\ &+ \gamma_3 Momentum_{i,q} + \gamma_4 Turnover_{i,q} + \delta Controls_{i,q} + \rho_t + \psi_i + \epsilon_{i,q} \end{aligned} \tag{2}$$

When estimating Eq. (2), we continue to include firm and quarter fixed effects in our regressions to control for constant firm-specific unobserved characteristics and for contemporaneous shocks to all firms. To the extent the media prefers to cover negative events, we expect media articles to negatively forecast firms' earnings news such that the β_1 coefficient when estimating Eq. (2) is negative.

In columns (1) through (4) of Table 4 we find highly significant negative relations between firms' pre-announcement media coverage and their subsequently announced earnings news (t-statistics from 2.15 to 5.12). These findings are consistent with the media both cultivating and disseminating novel negative information, and therefore the amount of coverage a firm receives negatively forecasts expectation errors by market participants.

The results in Table 4 are unlikely to be driven by the media simply covering negative returns. This is because we control for momentum contemporaneous to the media coverage in our regressions, and therefore capture the incremental association between media coverage and performance beyond what is reflected in the firms' returns.

3.4. Difference between Financial and Non-Financial Coverage

We next examine whether coverage by the four newspapers in our sample varies in its predictive power for firms' performance. In particular, because different newspapers cater to different types of readers, we might expect that more investor-oriented newspapers (such as the Wall Street Journal and New York Times) are more likely to cover under-performing businesses. To test this hypothesis, we augment Eq. (2) to allow for separate measures for

media coverage for financial-oriented newspapers (Wall Street Journal and New York Times) and non-financial-oriented newspapers (Washington Post and USA Today). For example, $log(Fin.\ Articles_{iq} + 1)$ is the log of one plus the number of articles published about firm i during quarter q in the Wall Street Journal or the New York Times.

We repeat the analysis from Tables 2, 3, and 4. The results are presented in Table 5, Panels A through C. Columns (2) and (5) of Table 5 show that the negative relationship between media coverage and fundamental firm performance is primarily driven by articles in the Wall Street Journal and the New York Times. This provides corroborative evidence that newspapers that are more likely to target investors, are also more likely to print the types of stories that are likely to attract investors – negative stories about companies.

4. Calendar-Time Return Tests

The tests in this section use calendar-time return tests to illustrate the value of media coverage as a signal of novel negative news. These tests explore whether monthly media coverage in month M predicts firms' future returns in month $M+1$. We implement these tests by assigning firms to tercile portfolios of media coverage each month following Fang and Peress (2009), where firms in the lowest tercile have received zero coverage and the remaining observations are sorted based on whether they are above or below the median for that month.

Table 1 shows media coverage can be somewhat bimodal (firms have a lot of coverage or none), and therefore the number of firms can vary substantially across low-, medium-, and high-coverage bins. To mitigate the influence of the bimodal distribution, we also sort firms by the total number of words written about a firm across all articles. Using the number of words provides us with greater cross-sectional variation for our portfolio-based tests.

Panel A of Table 6 presents time-series averages of month $M+1$ raw returns to a strategy that bets on firms without media coverage and against firms with high coverage. The 'Alpha' column reflects the intercept from a time-series regression of the equal-weighted long-short

portfolio hedge return on the standard three Fama-French factors (HML, SMB, and MKT-RF) as well as the Carhart momentum factor (UMD).

Panel A shows that a long position in firms without media coverage and simultaneous short position in firms with high media coverage produces a monthly return spread of roughly 34 basis points (t-statistics = -2.47 to -2.61) and a corresponding alpha ranging from 25 to 29 basis points (t-statistics = -2.138 to -2.539). The negative relation between media coverage and future returns is consistent with our findings of the media's tilt toward firms with deteriorating operating performance, but also mirrors the findings in Fang and Peress (2009).

To extend the inferences in Fang and Peress (2009), we next examine whether the link varies predictably across subsamples of firms. We hypothesize that strategy returns vary with indicators of firms' past performance because it signals whether negative news is more likely to be novel, and thus more appealing for media to cover. To test this prediction, we independently double sort firms into terciles of media coverage as well as terciles of firms' trailing return momentum, where we expect negative news to be most novel among better-performing, high-momentum firms.

We present the returns to these portfolios in Panels B and C of Table 6. In Panels B we show the relation between media coverage and future returns is mostly concentrated among high-momentum firms. We proxy for media coverage with the number of articles written about the firms. These findings suggest that media coverage decisions reveal new information for firms, particularly those with ascending stock prices over the past year. For high momentum firms, the portfolio of firms with high media coverage significantly underperforms the low-media-coverage group in the following month by 53 basis points (t-statistic = 3.21) on a raw return basis and 40 basis points (t-statistic = 2.66) on a risk-adjusted basis. By contrast, for firms whose returns have been decreasing, high-coverage firms do not appear to underperform low-coverage firms.

In Panel C, we show that the relation between media coverage and future returns is pro-

nounced among low-volatility firms. For low-volatility firms, the portfolio of firms with high media coverage significantly underperforms the low-media-coverage group in the following month by 44 basis points (t-statistic = 3.153) on a raw return basis and 38 basis points (t-statistic = 3.902) on a risk-adjusted basis.

The results in Table 6 suggest the media is more likely to convey novel negative information when coverage applies to firms that appear to be performing well based on contemporaneous market prices. By contrast, alternative channels (e.g., that media lowers expected returns by generating greater visibility and liquidity) would, if anything, predict that our results are concentrated among neglected underperforming stocks, where visibility and liquidity are low. Thus, our findings point toward the media's tilt toward negative news as a complementary explanation for why media coverage negatively forecasts returns.

5. Exploring the Media's Coverage Decisions

In this section, we conduct two tests to examine more directly whether media is more likely to write stories about negative events relative to positive ones. The common thread among these tests is that they focus on the sign on firms' earnings news as a key driver of the media's decision to cover some earnings announcements but not others. We first examine whether earnings announcements with negative earnings surprise are more likely to be covered than earnings announcements with positive earnings surprise. Then, we examine how this effect varies with the size of the earnings news and the size of the firm.

A central challenge with estimating media tilt in alternative, non-financial settings is that it is difficult to observe the distribution of potentially covered events and/or objectively rank the underlying events in terms of their badness. By contrast, focusing on media coverage and earnings news of publicly traded firms allows us to simultaneously observe the distribution of potentially covered firms, objectively rank firms in terms of their fundamental performance, and empirically disentangle the sign of firms' reported performance (i.e., good vs. bad) from its intensity (i.e., significant vs. insignificant).

In our first set of tests, we examine the general cross-sectional relation between firms' earnings news and media coverage during their earnings announcements. Specifically, we estimate the following regression model:

$$\begin{aligned} \log(Articles_{i,q}+1) &= \alpha+\beta_1\mathbb{1}_{(SURP<0)_{i,q}}+\gamma_1 Size_{i,q}+\gamma_2 LBM_{i,q} \\ &+ \gamma_3 Momentum_{i,q}+\gamma_4 Turnover_{i,q}+\delta Controls_{i,q}+\rho_t+\psi_i+\epsilon_{i,q} \end{aligned} \tag{3}$$

where $\log(Articles_{i,q}+1)$ is the log of one plus the number of articles printed about firm i aggregated across the NYT, WP, WSJ, and USAT, measured from t-1 to t+1, where t is the announcement date.[3] Throughout, we include calendar year-quarter (i.e., ρ_t) and firm fixed effects (i.e., ψ_i), and cluster standard errors at the firm and quarter level.

$\mathbb{1}_{(SURP<0)}$, is an indicator variable for whether $SURP$ is less than zero. $SURP$ is the firm's earnings per share minus the consensus median forecast measured five days before the firm's earnings announcement scaled by beginning of quarter price. To control for coverage mechanically driven by firm-level attributes (e.g., larger firms receiving greater coverage), we include controls for $Size_{iq}$, defined as the log of market capitalization and LBM_{iq}, defined as the log of one plus firms' book-to-market ratio. Similarly, $Momentum_{iq}$ is the firm's cumulative market adjusted return and $Turnover_{iq}$ is the ratio of trading volume to shares outstanding, both measured over the fifty trading days ending on $t-10$.

Furthermore, we are mindful that our proxies for earnings news may not fully capture the importance of the news. Even with the same absolute surprise, negative earnings might convey more information than positive earnings (e.g., Kothari et al. (2009)). Therefore, we also present results when controlling for firms' returns and turnover reactions in the months surrounding their announcements, as earnings surprises that carry more information should have a stronger return and turnover reactions. The quantity of information should eventually manifest in prices and trading volumes, and thus using wider windows of measurement allow

[3]We focus on the three-days surrounding firms' earnings announcements to be consistent with a broad literature measuring announcement returns and include articles observed on t-1 because the media often conveys the content of the announcement immediately before its official release. See, for example, https://www.nytimes.com/2016/12/18/business/commerce-dept-to-revise-growth-figures-nike-and-fedex-to-announce-earnings.html.

us to more cleanly focus on the sign rather than quantity of information. We measure the absolute price reaction as $|CAR(m)|$ defined as the absolute value of the market-adjusted return in month m. Similarly, $ABTO(m)$ is the abnormal announcement turnover in month m minus the average from $m-5$ to $m-55$ days. Finally, as another way to control for different amounts of information disclosed in earnings news, we control for the total length of the earnings call transcripts. This helps us control for cases where the company might not have disclosed any more market-relevant information, but if managers talk more when they disclose negative news, journalists would have more to write about. We want to make sure that that is not a driver of the differences in coverage.

In Panel A of Table 7, we show the β_1 coefficient from estimating Eq. (3) is significantly negative, indicating that media coverage is negatively related to firms' earnings announcement news. These results suggest the media writes more articles in response to deteriorating and/or disappointing earnings, consistent with the media tilting coverage toward negative news. Having established the general negative relation between media coverage and firms' earnings news, we shift focus toward estimating the economic magnitude of the tilt in the media's selection process.

5.1. Estimating the Magnitude of Tilt

In Table 7, we provide evidence of the media's tilt by regressing announcement media coverage on earnings news. Next, we use a complementary approach for assessing the media's tilt using an interaction term between the sign and the absolute magnitude of firms' earnings news. This interactive approach allows us to measure the difference in likelihood of an announcement being covered, across negative versus positive outcomes, controlling for the absolute value of the earnings news. Specifically, we estimate the following model:

$$\begin{aligned} \log(Articles_{i,q}+1) &= \alpha + \beta_1 \text{SURP}_{i,q} + \beta_2 \mathbb{1}_{(SURP<0)_{i,q}} \\ &+ \beta_3 \mathbb{1}_{(SURP<0)_{i,q}} \times SURP + \gamma_1 Size_{i,q} + \gamma_2 LBM_{i,q} \\ &+ \gamma_3 Momentum_{i,q} + \gamma_4 Turnover_{i,q} + \delta Controls_{i,q} + \rho_t + \psi_i + \epsilon_{i,q} \end{aligned} \tag{4}$$

Our main coefficient of interest when estimating Eq. (4) is β_3, which measures how

much more/less likely a firm is to receive media coverage if its earnings news is negative, conditional on the size of the news. The results are presented in Panel B of Table 7 and show that the β_3 coefficient from estimating Eq. (4) is consistently negative. More specifically, the probability of having media coverage is 4.6 percent, which given the magnitude of the coefficient in column (2) corresponds to a 19 percent higher probability of being covered if the earnings surprise is negative, relative to a positive surprise, controlling for the absolute value of the surprise. We find the coefficient on interaction terms is negative, whereas the main effect on $SURP_{i,q}$ is positive. These findings suggest an asymmetric treatment in which the media is more likely to cover negative stories independent of the magnitude, whereas the media is likely to cover positive stories only the magnitude is sufficiently large.

Taken together, the results in Table 7 indicate that the media is about 19 percent more likely to cover negative compared to positive earnings news. These findings suggest the magnitude of the tilt in the financial press is economically large and thus is relevant for the way academics study news coverage in financial markets.

5.2. Media Coverage and No News

A potential concern with our tilt estimates is that negative surprises may be more informative to investors, perhaps reflecting firms withholding bad news (Kothari et al. (2009)). Under this alternative, the media gravitates to more informative stories that happen to be negative. For example, missing earnings forecasts by 1 cent, might be more informative than beating it by 1 cent, because it suggests that firms' failed to come up with 1 cent to meet the earnings target despite strong incentives to meet or beat analysts' forecasts (Matsumoto (2002)). In this case, we would expect that the newspapers would be more likely to cover the negative 1 cent earnings surprise, even in the absence of a tilt.

A particularly powerful feature of our earnings announcement tests is that we can look within the subsample of announcements where firms' stock prices did not meaningfully move (i.e., prices do not react) or when firms' earn exactly what analysts' forecast for their earnings. By focusing on these subsamples, we can examine how the media chooses stories among

announcements that did not convey novel news.

The first three columns of Table 8 examine earnings announcements whose $SURP$ was zero, and compare companies with positive and negative performance, as measured by ROA. The latter three columns focus on earnings announcements where the absolute value of the earnings announcement returns is within one standard deviation of the trailing 60-day return. Across both subsamples of 'non-news' announcements, we still observe that the media is significantly more likely to cover firms with negative news, consistent with the media's story selection process favoring articles with negative headlines.

6. Conclusion

Our headline result is that greater media coverage foreshadows declines in firms' subsequently announced profits, analyst-based surprises, and risk-adjusted returns. An important innovation of our paper relative to prior research is that our main tests study media coverage through the lens of prediction, rather than reaction. Through these prediction tests, our collective findings illustrate that the media story selection process is tilted toward negative events and that the media plays an important complementary role to short-sellers by conveying novel negative news to investors.

Our findings also inform the way researchers conduct and interpret evidence in settings where media coverage proxies play a first-order role. For example, researchers commonly infer whether an information event occurred based on the existence of a media article and/or use the extent of media coverage to infer the quality of firms' information environment. Our evidence of a negative tilt suggest these inferences are likely confounded by the possibility that the media simply forgoes covering positive information events. Taken together, our findings highlight the usefulness of the media's coverage decisions in estimating expected returns and forecasting firms' performance, suggesting that the financial press tilts its coverage toward the reporting of novel negative events.

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Table 1. Summary Statistics

Panel A presents the summary statistics of our main dataset of media coverage. The second column displays how many firm-quarters are in our sample per year. The third column displays what percent of those quarters have at least one article written about the firm in one of the four national news papers: the New York Times (NYT), USA Today (USAT), Washington Post (WP), and the Wall Street Journal (WSJ). Column four shows the total number of firm-article observations (if an article is relevant to three firms, it will be counted three times towards this number), and columns five through eight show the breakdown of those firm-article observations by individual papers. Panel B displays average firm characteristics across tercile portfolios of media coverage each quarter, where firms in the lowest tercile have received zero coverage and the remaining observations are sorted based on whether they are above or below the median for that quarter.

Panel A: Summary Statistics of Media Coverage by Year

Year	Firm-quarters	News %	All	NYT	USAT	WP	WSJ
2001	19,469	18.00%	17,051	5,385	932	2,095	8,639
2002	19,826	28.71%	34,591	7,541	1,147	5,137	20,766
2003	19,434	24.22%	27,934	5,018	921	5,950	16,045
2004	19,450	17.45%	21,248	7,095	1,306	4,065	8,782
2005	18,565	15.79%	18,374	5,050	1,037	3,741	8,546
2006	18,512	18.02%	20,361	3,988	1,093	3,511	11,769
2007	18,274	15.49%	17,151	4,427	1,323	2,349	9,052
2008	17,227	17.01%	20,086	4,165	1,162	2,084	12,675
2009	16,341	16.25%	17,009	3,649	1,027	1,298	11,035
2010	16,830	18.44%	17,873	3,158	974	1,281	12,460
2011	16,346	15.84%	17,363	3,162	883	1,404	11,914
2012	15,804	17.15%	15,354	3,350	914	1,806	9,284
2013	15,816	15.46%	14,585	3,341	1,209	1,709	8,326
2014	15,929	14.34%	13,361	3,447	1,214	1,676	7,024
2015	15,743	14.14%	12,245	3,512	1,348	1,371	6,014
2016	15,704	12.38%	11,436	3,041	1,634	1,159	5,602
2017	15,775	10.63%	9,874	2,625	1,314	1,117	4,818
2018	15,546	10.25%	9,882	2,511	853	1,363	5,155
2019	15,127	9.65%	8,325	1,868	517	1,329	4,611

Panel B: Mean Statistics by News Tercile

	Firms	Articles	Size	LBM	Momentum	Turnover
Low News	3,575	0.000	12.692	0.545	0.001	0.077
Mid	431	1.260	14.572	0.523	0.003	0.132
High News	279	13.269	16.112	0.591	-0.003	0.124
High-Low		13.269	3.420	0.045	-0.004	0.047
(t-statistic)		(91.65)	(213.95)	(4.30)	-(1.34)	(11.03)

Panel C displays summary statistics of our main variables. *Articles* is the number of articles about a given firm on a given day. *Size* is the log of market capitalization measured on day $t-10$, LBM is the log of one plus the firm's book-to-market ratio using market capitalization on $t-10$, and the firms' most recent book value from Compustat quarterly, $Momentum$ is the firm's cumulative market-adjusted return over the fifty trading days ending on $t-10$. ΔEPS is defined as the year-on-year change in earnings per share. ROA is defined as the net income scaled by total assets. $Gross\ Profits$ is defined as revenue minus COGS, scaled by total assets. $Cash\ Flow\ from\ Ops$ is defined as cash flow from operations scaled by shares outstanding. For all ROA, $Gross\ Profits$, and $Cash\ Flow\ from\ Ops$, Δ is defined as the year-on-year change. $DelistingDummy$ is defined as 1 if a firm is delisted from Nasdaq/NYSE as identified in CRSP and 0 otherwise. $Bankruptcy\ Dummy$ is defined as 1 if a firm files for bankruptcy as indicated by an 8K filing, and 0 otherwise. We multiply the Delisting and the Bankruptcy indicator variables by 100 for exhibition purposes. $SURP$ is defined as the firm's earnings per share minus the consensus median analyst earnings forecast measured five days before the firm's earnings announcement scaled by beginning of quarter price.

Panel C: Summary Statistics of Main Variables

	Mean	P5	P25	P50	P75	P95	STD
Articles	0.977	0.000	0.000	0.000	0.092	3.461	6.431
Size	13.107	9.975	11.678	13.047	14.438	16.563	2.000
LBM	0.543	0.065	0.261	0.440	0.656	1.317	0.590
Momentum	-0.001	-0.268	-0.102	-0.015	0.074	0.295	0.211
ΔEPS	-0.002	-0.089	-0.009	0.001	0.008	0.072	0.034
ROA	-0.306	-12.121	-0.484	0.496	1.690	4.562	3.883
Δ ROA	-0.032	-6.683	-0.818	-0.014	0.654	6.374	76.859
Gross Profits (GP)	7.113	-2.822	2.444	6.320	10.743	20.425	6.042
Δ GP	-0.117	-5.762	-1.077	-0.020	0.921	5.108	2.421
Cash Flow from Ops. (CFO)	1.737	-1.052	0.005	0.695	1.912	5.558	33.532
Δ CFO	0.047	-2.096	-0.331	0.029	0.426	2.213	0.949
Dividends per share (DIS)	0.219	0.000	0.000	0.005	0.307	1.232	0.355
Δ DIS	0.015	-0.123	0.000	0.000	0.016	0.202	0.068
Delisting Dummy x 100	0.545	0.000	0.000	0.000	0.000	0.000	6.399
Bankruptcy Dummy x 100	0.013	0.000	0.000	0.000	0.000	0.000	0.660
Short of analysts' forecasts	0.330	0.000	0.000	0.000	0.987	1.000	0.469
SURP	0.004	-1.668	-0.104	0.038	0.216	1.239	0.609
Raw EA Window Returns	0.134	-13.847	-3.976	-0.007	3.981	14.190	9.431
Mkt-Adjusted EA Window Returns	0.000	-0.136	-0.039	-0.001	0.037	0.137	0.092

Table 2. Media Coverage and Firm Fundamentals

In this table we examine whether the amount of media coverage during the quarter forecasts firm fundamentals. ΔEPS is the year-on-year change in earnings scaled by beginning of quarter price. ROA is defined as the net income scaled by total assets. $Gross\ Profits$ is defined as revenue minus COGS, scaled by total assets. $Cash\ Flow\ from\ Ops$ is defined as cash flow from operations scaled by shares outstanding. For all ROA, $Gross\ Profits$, and $Cash\ Flow\ from\ Ops$, Δ is defined as the year-on-year change. $Log(Articles+1)$ is the log of one plus the number of articles about the firm in the four newspapers (WSJ, NYT, WP, USAT) between $t-55$ and $t-5$, where t is the earnings announcement day. $Size$ is the log of market capitalization measured on day $t-10$, LBM is the log of one plus the firm's book-to-market ratio using market capitalization on $t-10$, and the firms' most recent book value from Compustat quarterly, $Momentum$ is the firm's cumulative marketed adjusted return over the fifty trading days ending on $t-10$, and $Turnover$ is the average ratio of trading volume to shares outstanding over the fifty trading days ending on $t-10$. $8K$ is the number of 8-K forms filed by the firm during the quarter, and $Guidance$ is the number of managerial guidances issued by the firm during the quarter. $Press\ Releases$ is the number of press releases issued by the firm during the quarter. We include firm and quarter fixed effects. Standard errors are clustered at the firm and quarter level. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

	Δ EPS	ROA	Δ ROA	Gross Profit	Δ Gross Profit	Cash Flow from Ops.	Δ Cash Flow from Ops.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$Log(Articles+1)$	-0.002***	-0.273***	-0.876*	-0.098***	-0.076***	-0.311	-0.032***
	(-3.11)	(-8.24)	(-1.77)	(-2.98)	(-4.55)	(-0.88)	(-3.85)
Size	-0.003**	0.744***	-0.068	-0.165**	-0.288***	0.398***	0.037***
	(-2.81)	(12.22)	(-0.13)	(-2.35)	(-6.62)	(4.86)	(3.33)
LBM	-0.030***	-1.233***	-4.898***	-2.517***	-0.806***	-1.010	-0.105***
	(-3.19)	(-7.95)	(-4.17)	(-16.84)	(-11.99)	(-0.82)	(-6.98)
Momentum	0.008***	0.024	-1.405	0.381***	0.750***	-0.330*	0.073***
	(6.79)	(0.21)	(-1.04)	(4.43)	(8.59)	(-1.97)	(5.42)
Turnover	0.000	0.040***	0.075	0.014**	-0.004	0.016	-0.003
	(0.71)	(4.43)	(1.43)	(2.61)	(-0.31)	(0.62)	(-1.37)
Log(Guidance+1)	-0.001*	0.031	-0.179	0.105***	-0.088*	-0.115	-0.009
	(-2.01)	(0.99)	(-0.88)	(2.92)	(-1.93)	(-0.62)	(-1.11)
Log(8K+1)	-0.002***	-0.145***	-0.728	-0.136***	-0.101***	0.120	-0.017**
	(-4.93)	(-7.48)	(-1.64)	(-5.29)	(-7.12)	(0.69)	(-2.32)
Log(Press Releases+1)	-0.000	-0.077***	-0.539	-0.072***	-0.019	-0.235	-0.006*
	(-1.48)	(-4.22)	(-1.42)	(-3.43)	(-1.01)	(-1.27)	(-2.05)
Obs	319,835	319,835	319,452	281,816	280,607	306,475	301,296
R^2	0.118	0.617	0.208	0.794	0.071	0.349	0.013
Firm & Quarter FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 3. Media Coverage and Firm Actions

In this table we examine whether the amount of media coverage during the quarter forecasts firm actions. Δ *Dividends* denotes year-on-year changes in dividends per share. *Delisting Dummy* is defined as 1 if a firm is delisted from Nasdaq/NYSE as identified in CRSP and 0 otherwise. *Bankruptcy Dummy* is defined as 1 if a firm files for bankruptcy as indicated by an 8K filing, and 0 otherwise. We multiply the Delisting and the Bankruptcy indicator variables by 100 for exhibition purposes. $Log(Articles + 1)$ is the log of one plus the number of articles about the firm in the four newspapers (WSJ, NYT, WP, USAT) between $t - 55$ and $t - 5$, where t is the earnings announcement day. *Size* is the log of market capitalization measured on day $t - 10$, LBM is the log of one plus the firm's book-to-market ratio using market capitalization on $t - 10$, and the firms' most recent book value from Compustat quarterly, $Momentum$ is the firm's cumulative marketed adjusted return over the fifty trading days ending on $t - 10$, and $Turnover$ is the average ratio of trading volume to shares outstanding over the fifty trading days ending on $t - 10$. $8K$ is the number of 8-K forms filed by the firm during the quarter, and *Guidance* is the number of managerial guidances issued by the firm during the quarter. *Press Releases* is the number of press releases issued by the firm during the quarter. We include firm and quarter fixed effects. Standard errors are clustered at the firm and quarter level. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

	Dividends per share (1)	Δ Dividends per share (2)	Bankruptcy Dummy × 100 (3)	Delisting Dummy × 100 (4)
$Log(Articles + 1)$	-0.019**	-0.005***	0.023*	0.167***
	(-2.70)	(-3.96)	(1.84)	(5.27)
Size	0.047***	0.010***	-0.032***	-0.618***
	(8.02)	(7.89)	(-3.24)	(-7.14)
LBM	0.003	-0.007**	-0.014	-0.479***
	(0.35)	(-2.63)	(-0.80)	(-3.97)
Momentum	-0.028***	-0.003**	-0.004	-0.284**
	(-3.41)	(-2.15)	(-0.19)	(-2.45)
Turnover	-0.000	0.000	-0.000	-0.004
	(-0.18)	(0.36)	(-0.33)	(-0.63)
Log(Guidance + 1)	-0.031***	-0.001	-0.000	-0.103*
	(-4.59)	(-1.68)	(-0.03)	(-2.06)
Log(8K + 1)	-0.007**	-0.001*	0.011	0.827***
	(-2.31)	(-1.79)	(0.95)	(7.20)
Log(Press Releases + 1)	-0.004	-0.000	-0.004	-0.049
	(-1.49)	(-0.64)	(-1.06)	(-1.69)
Obs	319,835	317,832	319,835	319,835
R^2	0.643	0.145	0.021	0.048
Firm & Quarter FEs	Yes	Yes	Yes	Yes

Table 4. Media Coverage and Future News

In this table we examine whether the amount of media coverage during the quarter forecasts future information about the firm. $\mathbb{1}(Short\ of\ analyst\ forecasts)$ is a dummy which is 1 if the earnings fell short of analyst forecasts, and 0 otherwise. $SURP$ is defined as the firm's earnings per share minus the consensus median analyst earnings forecast measured five days before the firm's earnings announcement scaled by beginning of quarter price. The raw and market-adjusted earnings announcement window returns are calculated over the window $t-1$ to $t+1$, relative to the earnings announcement. $Log(Articles+1)$ is the log of one plus the number of articles about the firm in the four newspapers (WSJ, NYT, WP, USAT) between $t-55$ and $t-5$, where t is the earnings announcement day. $Size$ is the log of market capitalization measured on day $t-10$, LBM is the log of one plus the firm's book-to-market ratio using market capitalization on $t-10$, and the firms' most recent book value from Compustat quarterly, $Momentum$ is the firm's cumulative marketed adjusted return over the fifty trading days ending on $t-10$, and $Turnover$ is the average ratio of trading volume to shares outstanding over the fifty trading days ending on $t-10$. $8K$ is the number of 8-K forms filed by the firm during the quarter, and *Guidance* is the number of managerial guidances issued by the firm during the quarter. *Press Releases* is the number of press releases issued by the firm during the quarter. We include firm and quarter fixed effects. Standard errors are clustered at the firm and quarter level. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

	1(Short of analyst forecasts) (1)	Analyst base-surprise (SURP) (2)	Raw EA window returns (3)	Mkt-adjusted EA window returns (4)
$Log(Articles+1)$	0.020***	-0.018**	-0.104**	-0.001**
	(5.12)	(-2.79)	(-2.17)	(-2.15)
Size	-0.009*	-0.040***	-1.309***	-0.013***
	(-1.90)	(-3.20)	(-12.07)	(-12.71)
LBM	0.119***	-0.406**	-0.754***	-0.008***
	(8.51)	(-2.74)	(-4.31)	(-4.86)
Momentum	-0.118***	0.163***	-0.029	-0.001
	(-8.17)	(6.09)	(-0.16)	(-0.25)
Turnover	0.033**	-0.063*	-0.007	-0.000
	(2.22)	(-1.95)	(-0.36)	(-0.33)
Log(Guidance + 1)	-0.021***	0.012	0.528***	0.005***
	(-4.01)	(1.03)	(5.94)	(5.35)
Log(8K + 1)	0.017***	-0.022***	-0.067	-0.001
	(5.08)	(-3.03)	(-1.11)	(-1.45)
Log(Press Releases + 1)	0.006**	-0.007**	0.024	0.000
	(2.66)	(-2.25)	(0.61)	(0.91)
Obs	186,252	186,252	319,835	319,835
R^2	0.120	0.113	0.031	0.024
Firm & Quarter FEs	Yes	Yes	Yes	Yes

Table 5. Media Coverage: Difference between Financial and Non-Financial Coverage

In this table we examine whether coverage from more business-focused sources forecasts future firm outcomes differently than coverage from non-business-focused sources. In Panel A, the dependent variables are future firm fundamentals, in Panel B, future firm actions, and in Panel C, future information about the firm. The dependent variables are defined in Tables 2, 3, and 4. $Log(Fin.\ Articles + 1)$ is the log of one plus the number of articles about the firm in WSJ and NYT between $t-55$ and $t-5$, where t is the earnings announcement day. $Log(Non-Fin.\ Articles + 1)$ is the log of one plus the number of articles about the firm in WP and USAT between $t-55$ and $t-5$, where t is the earnings announcement day. ΔEPS denotes year-on-year changes in the dependent variables. We include firm and quarter fixed effects. Standard errors are clustered at the firm and quarter level. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

Panel A: Firm Fundamentals

	ΔEPS	ROA	Δ ROA	Gross Profit	Δ Gross Profit	Cash Flow from Ops.	Δ Cash Flow from Ops.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log(Fin. Articles+1)	-0.002***	-0.289***	-0.797*	-0.088***	-0.087***	-0.352	-0.034***
	(-3.19)	(-9.96)	(-1.82)	(-2.92)	(-5.30)	(-0.96)	(-3.50)
Log(Non-Fin Articles+1)	-0.000	-0.047	-0.308	-0.050	0.018	0.290	-0.009
	(-0.37)	(-1.35)	(-0.81)	(-0.94)	(0.86)	(1.16)	(-0.69)
Obs	319,835	319,835	319,452	281,816	280,607	306,475	301,296
R^2	0.118	0.617	0.208	0.794	0.071	0.349	0.013
Firm & Quarter FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Firm Actions

	Dividends per share (1)	Δ Dividends per share (2)	Bankruptcy Dummy × 100 (3)	Delisting Dummy × 100 (4)
Log(Fin. Articles+1)	-0.019***	-0.005***	0.030*	0.169***
	(-2.98)	(-3.72)	(2.08)	(4.33)
Log(Non-Fin Articles+1)	-0.012	-0.003**	-0.009	0.041
	(-1.36)	(-2.30)	(-0.72)	(0.77)
Obs	319,835	317,832	319,835	319,835
R^2	0.643	0.145	0.021	0.048
Firm & Quarter FEs	Yes	Yes	Yes	Yes

Panel C: Future News

	1(Short of analyst forecasts) (1)	Analyst base-surprise (SURP) (2)	Raw EA window returns (3)	Mkt-adjusted EA window returns (4)
Log(Fin. Articles+1)	0.017***	-0.019***	-0.145***	-0.001***
	(4.26)	(-2.92)	(-3.27)	(-3.35)
Log(Non-Fin Articles+1)	0.012**	-0.006	0.078	0.001
	(2.26)	(-0.77)	(1.08)	(1.09)
Obs	186,252	186,252	319,835	319,835
R^2	0.120	0.113	0.031	0.024
Firm & Quarter FEs	Yes	Yes	Yes	Yes

Table 6. Does Media Provide New Information?

This table contains firms' raw and factor-adjusted monthly returns in month M+1 sorted into portfolios by the number of media articles in month M. We assign firms to tercile portfolios based on the amount of media coverage, where firms in the lowest tercile have received zero coverage and the remaining observations are sorted based on whether they are above or below the median for that month. These tests condition on the number of articles written about a firm in month M to predict returns in month M+1. In Panel A, we examine the returns to a strategy that bets on firms without media coverage and against firms with high coverage. The 'Alpha' column reflects the intercept from a time-series regression of the long-short portfolio hedge return on the standard three Fama-French factors (HML, SMB, and MKT-RF) as well as the Carhart momentum factor (UMD). In Panels B, we independently double-sort firms into portfolios based on media coverage as well as return momentum measured over the twelve months ending in month M-1. In Panel C, we independently double-sort firms into portfolios based on media coverage as well as return volatility measured over the twelve months ending in month M-1. Each panel also reports t-statistics based on the monthly time-series average of returns. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

Panel A: Monthly Returns Sorted by Articles and Word Count

	T1 (Low)	T2	T3 (High)	High-Low	t-stat	Alpha	t-stat
Articles	1.004	0.897	0.664	-0.340	-2.392	-0.246	-2.138
Print & Newswire Articles	1.005	0.908	0.701	-0.304	-2.470	-0.226	-2.310
Word Count	1.004	0.960	0.673	-0.331	-2.610	-0.262	-2.539

Panel B: Monthly Returns Sorted by Articles and Momentum

	T1 (Low)	T2	T3 (High)	High-Low	t-stat	Alpha	t-stat
Low Momentum	0.779	0.733	0.483	-0.296	-1.498	-0.264	-1.535
Mid Momentum	1.121	0.964	0.779	-0.342	-2.291	-0.227	-1.862
High Momentum	1.112	0.950	0.579	-0.532	-3.215	-0.401	-2.668

Panel C: Monthly Returns Sorted by Articles and Volatility

	T1 (Low)	T2	T3 (High)	High-Low	t-stat	Alpha	t-stat
Low Volatility	1.197	1.101	0.755	-0.442	-3.153	-0.388	-3.902
Mid Volatility	1.111	1.025	0.650	-0.460	-2.851	-0.407	-2.804
High Volatility	0.707	0.558	0.469	-0.238	-0.855	-0.254	-0.984

Table 7. Media Tilt around Earnings Announcements

In this table we examine directly whether there is a tilt in media coverage by regressing media coverage on earnings news. In Panel B, we estimate the size of the tilt. $Log(Articles_{t-1,t+1}+1)$ is the log of one plus the number of articles about the firm in the four newspapers (WSJ, NYT, WP, USAT) between $t-1$ and $t+1$, where t is the earnings announcement day. $I_{(SURP<0)}$ is an indicator variable for whether $SURP$ is less than zero, where $SURP$ is the firm's earnings per share minus the consensus median forecast measured five days before the firm's earnings announcement scaled by beginning of quarter price. $Size$ is the log of market capitalization measured on day $t-10$, LBM is the log of one plus the firm's book-to-market ratio using market capitalization on $t-10$, and the firms' most recent book value from Compustat quarterly, $Momentum$ is the firm's cumulative marketed adjusted return over the fifty trading days ending on $t-10$, and $Turnover$ is the average ratio of trading volume to shares outstanding over the fifty trading days ending on $t-10$. $|CAR|$ are the absolute value of firm's cumulative stock returns from various months relative to the month of earnings announcement ($m=0$). $ABTO$ is the abnormal announcement turnover over various months relative to the month of earnings announcement. Standard errors are clustered at the firm and quarter level. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

Panel A: Regressions of negative vs. positive SURP

	$Log(Articles_{t-1,t+1}+1)$		
	(1)	(2)	(3)
$I_{(SURP<0)}$	0.008***	0.008***	0.008***
	(6.96)	(6.90)	(6.79)
Size	0.029***	0.032***	0.030***
	(7.98)	(8.38)	(7.96)
LBM	0.049***	0.047***	0.048***
	(7.02)	(6.86)	(6.95)
Momentum	0.094***	0.086***	0.022
	(4.91)	(4.79)	(1.52)
Turnover	-0.008**	-0.010***	-0.010***
	(-2.16)	(-2.69)	(-2.65)
|CAR(m-1)|		0.031***	0.023***
		(4.86)	(3.65)
|CAR(m=0)|		0.072***	0.050***
		(9.53)	(6.00)
|CAR(m+1)|		0.018***	0.008
		(3.31)	(1.17)
ABTO(m-1)			0.001
			(0.93)
ABTO(m=0)			0.004***
			(3.01)
ABTO(m+1)			0.001*
			(1.76)
Obs	186,252	186,173	186,173
R-square	0.654	0.654	0.655
Firm & Quarter FEs	Yes	Yes	Yes

Panel B: Size of Media Tilt

	$Log(Articles_{t-1,t+1}+1)$		
	(1)	(2)	(3)
SURP x $I_{(SURP<0)}$	-0.030***	-0.026***	-0.026***
	(-6.06)	(-5.42)	(-5.53)
SURP	0.022***	0.019***	0.019***
	(7.69)	(6.79)	(6.86)
$I_{(SURP<0)}$	0.012***	0.011***	0.011***
	(7.39)	(7.24)	(7.06)
Size	0.033***	0.034***	0.033***
	(8.43)	(8.68)	(8.28)
LBM	0.045***	0.044***	0.045***
	(6.64)	(6.55)	(6.63)
Momentum	0.093***	0.086***	0.021
	(4.92)	(4.80)	(1.46)
Turnover	-0.008**	-0.010***	-0.010***
	(-2.31)	(-2.76)	(-2.72)
|CAR(m-1)|		0.028***	0.020***
		(4.46)	(3.20)
|CAR(m=0)|		0.066***	0.043***
		(8.98)	(5.31)
|CAR(m+1)|		0.015***	0.005
		(2.82)	(0.75)
ABTO(m-1)			0.001
			(1.06)
ABTO(m=0)			0.004***
			(3.02)
ABTO(m+1)			0.001*
			(1.74)
Obs	186,252	186,173	186,173
R-square	0.654	0.655	0.655
Firm & Quarter FEs	Yes	Yes	Yes

Table 8. No News

In this table we examine whether the size of the tilt varies with the information environment. $Log(Articles_{t-1,t+1}+1)$ is the log of one plus the number of articles about the firm in the four newspapers (WSJ, NYT, WP, USAT) between $t-1$ and $t+1$, where t is the earnings announcement day. In columns (1)-(3) we include earnings announcements with $SURP = 0$, and in columns (4)-(6) we include earnings announcement where the absolute value earnings announcement returns is within one standard deviation of trailing 60-day returns. *Negative Performance* is an indicator for $ROA < 0$. *Size* is the log of market capitalization measured on day $t-10$, LBM is the log of one plus the firm's book-to-market ratio using market capitalization on $t-10$, and the firms' most recent book value from Compustat quarterly, $Momentum$ is the firm's cumulative marketed adjusted return over the fifty trading days ending on $t-10$, and $Turnover$ is the average ratio of trading volume to shares outstanding over the fifty trading days ending on $t-10$. $|CAR|$ are the absolute value of firm's cumulative stock returns over various months relative to the month of earnings announcement ($m = 0$). $ABTO$ is the abnormal announcement turnover over various months relative to the month of earnings announcement. Standard errors are clustered at the firm and quarter level. Statistical significance is denoted at the ten, five, and one percent levels by *, **, and ***, respectively.

	$Log(Articles_{t-1,t+1}+1)$					
	SURP = 0			Within 1 STD		
	(1)	(2)	(3)	(4)	(5)	(6)
Negative Performance	0.021***	0.019***	0.020***	0.016***	0.015***	0.016***
	(3.75)	(3.54)	(3.66)	(8.69)	(8.50)	(8.54)
Size	0.050***	0.051***	0.050***	0.013***	0.014***	0.013***
	(6.17)	(6.29)	(6.10)	(6.60)	(6.85)	(6.80)
LBM	0.068***	0.066***	0.067***	0.019***	0.018***	0.018***
	(2.92)	(2.85)	(2.91)	(5.27)	(5.06)	(4.95)
Turnover	0.189***	0.167***	0.056	0.001*	0.001*	0.000**
	(3.90)	(3.51)	(0.61)	(1.90)	(1.91)	(2.46)
Momentum	-0.007	-0.006	-0.007	-0.002	-0.005**	-0.006**
	(-0.79)	(-0.61)	(-0.73)	(-1.01)	(-2.14)	(-2.25)
|CAR(m-1)|		0.036	0.043*		0.021***	0.021***
		(1.61)	(1.93)		(3.78)	(3.77)
|CAR(m=0)|		0.081***	0.029		0.022***	0.019***
		(3.71)	(1.52)		(3.57)	(3.08)
|CAR(m+1)|		0.055**	0.056**		0.009**	0.008**
		(2.44)	(2.42)		(2.19)	(2.18)
ABTO(m-1)			-0.005			-0.000
			(-1.26)			(-1.63)
ABTO(m=0)			0.013***			0.000**
			(4.44)			(2.28)
ABTO(m+1)			-0.001			0.000
			(-0.70)			(0.07)
R^2	19,519	19,512	19,512	107,207	106,842	106,842
Obs	0.654	0.655	0.656	0.646	0.647	0.647
Firm & Quarter FEs	Yes	Yes	Yes	Yes	Yes	Yes