

# Changing the Subject: How Managerial Attention Reallocation Obscures Bad News

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## Abstract

I propose a measure of managerial attention reallocation from a manager's own historical baseline, constructed using BERTopic applied to earnings call transcripts from 2007 to 2023. I find that unusual attention reallocation predicts negative abnormal returns, elevated crash risk over horizons up to two years, persistently lower long-run returns, greater analyst forecast dispersion, and elevated options market jump risk. It further predicts a significant rise in bad-news mandatory disclosures and adverse incidents in subsequent months. Markets and analysts consistently fail to extract this signal at the time of the call, suggesting that the structure of managerial attention allocation embeds information about deteriorating fundamentals that investors do not fully price.

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**JEL Classification:** G14, G02, G12, G30, L21, D21

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# 1. Introduction

In a world of fully attentive investors, managerial communication during earnings calls would serve as a transparent window into firm fundamentals, leaving little room for strategic obfuscation. In practice, managers do not simply report results. They make active choices about which topics to emphasize, which questions to engage, and which to answer briefly and move past. Those choices create a distribution of attention and they are made under a time constraint. When that distribution departs sharply from a manager’s own historical pattern, it signals that something about the firm has changed. If investors fail to recognize the departure, the seeds of future crashes, analyst disagreement, and mandatory bad news disclosures are quietly sown.

In this paper, I study a dimension of managerial communication that the existing literature has largely overlooked. Prior work establishes that the language of corporate disclosures and news carries information. The sentiment and tone of managerial speech predict returns, analyst revisions, and future firm performance, and changes in the content of disclosure documents predict subsequent firm outcomes (Tetlock, 2007; Loughran and McDonald, 2011; Matsumoto et al., 2011; Mayew and Venkatachalam, 2012; Cohen et al., 2020; Bybee et al., 2024). These studies ask what managers say, how they say it, and whether it differs from what was said before. I ask something different: where managers direct their attention across topics, and what an unusual shift in that allocation reveals. The distinction matters because the two dimensions move independently. A manager facing a developing problem may hold tone within its usual range, avoid negative language, and deliver a call that closely resembles the prior quarter in overall content, while moving a substantial share of the discussion toward subjects that do not require the problem to be confronted. It is this dimension of managerial communication, incremental to sentiment and to document similarity but detectable through the structure of attention, that I measure.

I show that firms whose managers depart sharply from their historical attention allocation earn negative abnormal returns around the call. A one standard deviation increase in the attention reallocation score is associated with a 16 basis point decline in cumulative abnormal returns over the three days surrounding the call,  $CAR(-1,+1)$ . The effects extend beyond the announcement window. The high attention reallocation predicts size adjusted buy and hold abnormal returns lower by 70.5 basis points over the following year, an effect present from three months to next two years. A cumulative abnormal returns measured against a market model estimated before the

call show the same pattern. Crash risk rises over the same period. The negative return skewness increases with the reallocation score at every horizon from one quarter to two years, with the effect strongest in the quarter following the call, a pattern consistent with gradual revelation of bad news rather than immediate market correction.

Attention reallocation also coincides with a deterioration in the analyst information environment. Following high reallocation calls, forecast boldness declines while revision intensity, cross analyst dispersion, and disagreement all rise. A one standard deviation increase in reallocation lowers the likelihood that an analyst issues a bold revision by 1.6 percentage points. Analysts revise more often while anchoring more closely to consensus, and the consensus they anchor to is itself revised downward. The behavior reflects uncertainty about what the call implies rather than the arrival of an interpretable signal.

I next turn to the information that surfaces after high reallocation calls. Attention reallocation predicts a 9.4 percent increase in bad news 8-K filings in the 90 days following the call, controlling for prior filing frequency, with the effect persisting at 5.1 percent over the following year. The predicted disclosures are concentrated in officer departures, contract terminations, delisting notices, and non-reliance on previously issued financial statements. Beyond mandatory filings, attention reallocation predicts a rise in adverse ESG incidents recorded in the RepRisk database at the firm over the subsequent three months to one year, spanning fraud, violations of national legislation, and environmental harm. High reallocation firms also exhibit lower operating performance, measured by return on assets and Tobin's  $q$ . These outcomes establish that reallocation precedes deterioration in the firm itself rather than a statistical regularity in returns, and that the deterioration is broad rather than confined to a single dimension of risk.

The findings are robust to alternative constructions of the attention reallocation measure. Using a rolling four-quarter average as the baseline rather than the prior quarter produces consistent results across all outcome variables. I also construct an industry-adjusted measure by regressing each topic share on its own lags with industry-by-year-quarter fixed effects and computing the reallocation score from the residuals, which isolates the firm-specific component of attention reallocation after removing common industry shifts. The results are again consistent with this adjusted measure.

The results are robust to the inclusion of additional controls for earnings surprises,

institutional ownership, firm complexity, business segment concentration, [Loughran and McDonald \(2011\)](#) net tone, and cosine similarity with the prior quarter transcript. The last two controls are important because they absorb the channels identified in the existing literature on disclosure sentiment and disclosure change, confirming that attention reallocation captures a distinct dimension of managerial communication. The findings are stable across firm size, industry, and time period.

To validate the attention reallocation measure, I examine its behavior across time, across firms, and in placebo settings. I begin with the topics used to build the measure and show that they respond to identifiable events that alter managerial attention. For example, attention to tax issues increases in the quarter following the passage of the Tax Cuts and Jobs Act of 2017, with larger increases among firms with high pre reform effective tax rates. Attention to supply chain issues rises during the 2021 global logistics disruptions, attention to cybersecurity increases around major breach periods, and attention to labor shortages peaks during the post pandemic labor market tightening. The measure also exhibits reasonable cross sectional variation. Topics that are naturally tied to specific sectors show higher prevalence in those industries, such as energy topics in oil and gas firms, supply chain topics in manufacturing and retail, and labor shortage topics in service industries.

In aggregate, attention reallocation rises during the 2008 financial crisis and again in the first half of the 2020 pandemic period, when the issues facing firms changed abruptly. Further, I show that the measure is distinct from mechanical features of earnings calls. It is weakly correlated with call length, the number of speakers, the number of analysts, and the number of topics discussed, and the residual from regressing the measure on these call structure variables continues to predict the outcomes studied in the paper. The measure is also weakly correlated with other textual variables, including similarity to the prior call and net tone as defined in [Loughran and McDonald \(2011\)](#). Reallocation increases when the chief executive officer changes and when firms experience large acquisitions, restatements, or major litigation filings, consistent with changes in the person allocating attention or major events within the firm that shift managerial focus. Finally, placebo versions of the measure that remove the true time series structure or firm identity do not display event related patterns and do not predict any outcomes.

The paper contributes to several streams of literature that uses text to extract economically meaningful information from corporate disclosures. Existing approaches

measure the sentiment and tone of managerial language (Tetlock, 2007; Loughran and McDonald, 2011; Mayew and Venkatachalam, 2012; Davis et al., 2015), detect changes in overall disclosure content across filings (Cohen et al., 2020), or apply topic models to news and corporate documents to study macroeconomic dynamics and asset pricing (Hassan et al., 2019; Sautner et al., 2023; Bybee et al., 2024; Harford et al., 2026). These approaches ask what managers say, how they say it, or whether the overall content of their disclosures changed. I ask something different: how managers allocate attention across topics relative to their own historical baseline, and what an unusual shift in that allocation reveals about future firm outcomes. The distinction matters because a manager can maintain neutral tone, avoid negative language, and produce a transcript that looks similar to prior calls in overall content while shifting the distribution of emphasis across topics in ways that obscure deteriorating fundamentals. I show that this dimension of communication carries predictive power for returns, crash risk, analyst behavior, options pricing, and mandatory disclosures after controlling for Loughran and McDonald (2011) tone and document similarity, confirming that attention reallocation is distinct from and incremental to existing textual measures.

Methodologically, the measure is based on BERTopic (Grootendorst, 2022), a recent advance in natural language processing that uses transformer-based sentence embeddings and density-based clustering to discover topics endogenously from the data. This approach addresses limitations of traditional methods in text-based finance research, including dictionary methods, which require pre-specified vocabulary and cannot capture evolving corporate language (Loughran and McDonald, 2016), and LDA-based topic models, which discard word order and require the number of topics to be fixed ex ante (Huang et al., 2018; Xiao, 2024; Bybee et al., 2024). The within-manager comparison of topic distributions across quarters isolates the strategic component of disclosure from persistent cross-sectional differences in communication style that confound existing measures.

The paper also contributes to the literature on stock price crash risk. The theoretical foundation, developed by Jin and Myers (2006), holds that managerial opacity allows bad news to accumulate until it crosses a threshold and crashes the stock price. Subsequent empirical work identifies crash risk determinants using accounting-based proxies for opacity, including earnings management (Hutton et al., 2009), corporate tax avoidance (Kim et al., 2011a), and executive equity incentives

([Kim et al., 2011b](#)). These measures are constructed from financial statements and capture opacity in reported numbers. I introduce a communication-based measure of opacity constructed from the earnings call itself and show that it predicts crash risk over horizons from one quarter to two years, with effects that survive standard crash risk controls including prior skewness, detrended turnover, and accruals-based opacity. The results suggest that managerial communication behavior captures a dimension of information that accounting-based measures do not.

I also contribute to the literature on analyst forecasting behavior and information production. A large body of work establishes that analyst forecasts are shaped by career concerns, with analysts facing implicit penalties for bold forecasts that deviate from consensus, generating systematic herding incentives ([Hong et al., 2000](#); [Hong and Kubik, 2003](#); [Clement and Tse, 2005](#); [Clarke and Subramanian, 2006](#)). Separate from career concerns, the informativeness and timing of forecast revisions vary systematically with the firm information environment, with greater uncertainty producing wider forecast dispersion and weaker revision quality ([Ivković and Jegadeesh, 2004](#); [Diether et al., 2002](#); [Zhang, 2006](#)). A related strand shows that specific features of managerial communication during earnings calls shape analyst uncertainty, with unusual managerial tone increasing forecast dispersion and revision intensity even after controlling for fundamental news ([Larcker and Zakolyukina, 2012](#); [Mayew and Venkatachalam, 2012](#)). I extend this literature by showing that earnings calls with unusually reallocated managerial attention produce a measurable deterioration in the analyst information environment: forecast boldness declines, cross-analyst disagreement widens, and revision intensity rises simultaneously, pointing to genuine information uncertainty created by strategic managerial communication as a distinct mechanism shaping analyst forecast behavior.

Finally, I contribute to the literature on the real consequences of corporate disclosure choices. Prior work documents that corporate disclosures carry information beyond their immediate market reactions, predicting future firm operations, mandatory filings, and real economic outcomes ([Skinner, 1994](#); [Kasznik and Lev, 1995](#); [Kasznik, 1999](#); [Kothari et al., 2009](#); [Cohen et al., 2020](#)). In the mandatory disclosure literature shows that 8-K filings carry significant information about future firm performance and that their content reflects managerial incentives to strategically time the release of bad news ([Carter and Soo, 1999](#); [Lerman and Livnat, 2010](#); [McMullin et al., 2019](#); [Watkins, 2022](#)). I extend this literature by showing that managerial

attention reallocation predicts a significant increase in bad-news 8-K filings in the months following the call, concentrated in officer departures, contract terminations, delisting notices, and non-reliance on previously issued financial statements. I further show that attention reallocation predicts a rise in adverse ESG incidents, including fraud, misleading communication, and violations of national legislation, consistent with the concealed information extending to real operational deterioration. These real outcome results are important because they establish that attention reallocation is not merely a statistical predictor of returns, but a leading indicator of actual firm deterioration that investors and analysts fail to anticipate.

The remainder of the paper is organized as follows. Section 2. presents the theoretical framework motivating my measure. Section 3. describes the BERTopic methodology and the construction of the attention reallocation variable. Section 4. describes the data and sample construction. Section 5. presents the main empirical results and the identification strategy. Section 6. presents the mechanism behind the results. Section 7. concludes.

## 2. Theoretical Framework

### 2.1 Overview

This section develops a model in which managers strategically reallocate communicative attention during earnings calls. A manager privately observes information about firm fundamentals and chooses how to allocate communicative attention across topics. Investors observe the allocation, but cannot distinguish strategic reallocation from benign shifts in business emphasis. Because attention is a flexible and legally unconstrained disclosure margin, managers with unfavorable private information shift attention away from revealing topics and toward less informative ones. Investors partially infer this behavior, but noise from benign reallocation prevents full separation. The resulting equilibrium generates testable predictions for announcement returns, crash risk, analyst behavior, options pricing, and subsequent mandatory disclosures.

### 2.2 Setup

Consider a firm managed by a risk-neutral manager over three dates,  $t \in \{0, 1, 2\}$ . The firm’s fundamental value is  $V = \bar{V} + \theta + \epsilon$ , where  $\bar{V}$  is a known baseline,  $\theta$  is a

persistent component privately observed by the manager at date 0, and  $\epsilon$  is mean-zero noise realized at date 2. The component  $\theta$  is drawn from a distribution  $F(\theta)$  with full support on  $[\underline{\theta}, \bar{\theta}]$ , where  $\underline{\theta} < 0 < \bar{\theta}$ .

At date 1, the manager holds an earnings call and chooses an attention allocation vector  $a = (a_1, \dots, a_K)$  with  $a_k \geq 0$  and  $\sum_k a_k = 1$  across  $K$  topics. Each manager has a historical baseline allocation  $\bar{a}$  established over prior calls. The manager's payoff is:

$$U_M = \alpha P_1 + (1 - \alpha)V - \frac{\gamma}{2}(P_1 - V)^2$$

where  $P_1$  is the post-call stock price,  $\alpha \in (0, 1)$  captures short-term price sensitivity (from equity compensation, career concerns, or planned transactions), and  $\gamma > 0$  governs ex-post penalties for mispricing (litigation, reputational damage). The manager faces a tension: inflating  $P_1$  yields short-term benefit  $\alpha P_1$  but incurs expected cost when the gap between  $P_1$  and  $V$  is resolved.

Topics partition into revealing topics  $\mathcal{R}$ , whose discussion conveys information about  $\theta$ , and deflecting topics  $\mathcal{D}$ , which are uninformative about  $\theta$ . When the manager allocates share  $a_{\mathcal{R}} = \sum_{k \in \mathcal{R}} a_k$  to revealing topics, investors receive a signal  $s = \theta + \eta$ , where  $\eta \sim N(0, \sigma_{\eta}^2/h(a_{\mathcal{R}}))$  and  $h(\cdot)$  is strictly increasing and concave with  $h(0) = 0$ . Devoting more attention to revealing topics makes the signal more precise; reallocating toward deflecting topics degrades precision.

Investors are risk-neutral, observe  $a$  and  $s$ , and set  $P_1 = \bar{V} + E[\theta|a, s]$  using Bayes' rule. With probability  $\mu$ , a manager faces an exogenous business shift that generates high reallocation for benign reasons, creating a signal extraction problem: investors cannot perfectly distinguish strategic concealment from legitimate emphasis changes. At date 2, the true value is realized. With probability  $\lambda(\theta)$ , decreasing in  $\theta$ , bad news triggers mandatory disclosure (8-K filing, adverse incident) before the terminal date.

Attention reallocation is measured as  $S_i = \sum_{k=1}^K |a_k - \bar{a}_k|$ , corresponding to the empirical attention measure  $AttnRealloc_t^{1Q}$  defined in Section 3.

### 2.3 Equilibrium and Predictions

In equilibrium, the manager's optimal attention to revealing topics  $a^{\mathcal{R}(\theta)}$  is increasing in  $\theta$ . Managers with favorable private information allocate attention

close to the baseline, allowing precise signal transmission. Managers with unfavorable information reallocate toward deflecting topics, reducing signal precision and increasing  $S_i$ . Because benign reallocation (probability  $\mu$ ) generates noise, the mapping from  $S_i$  to  $\theta$  is imperfect, and investors only partially discount high-reallocation calls.

The model generates five testable predictions.

**Proposition 1 (Announcement Returns):** Attention reallocation  $S_i$  is negatively associated with abnormal returns around the earnings call.

Managers with  $\theta < 0$  reallocate more; investors partially infer this but underreact due to noise from benign reallocation.

**Proposition 2 (Crash Risk):** Crash risk is increasing in  $S_i$ , with the association present across horizons from one quarter to two years, consistent with gradual revelation of information.

The gap between  $P_1$  and the true value is resolved asymmetrically through discrete revelation events. When concealed  $\theta$  is negative, price adjustments concentrate on the downside, producing negative return skewness. The mandatory revelation probability  $\lambda(\theta)$  generates a fatter left tail for high-reallocation firms.

**Proposition 3 (Analyst Response):** Following high-reallocation calls, analyst forecast boldness declines, forecast dispersion increases, and revision intensity rises.

When signal precision  $h(a_{\mathcal{R}})$  is low, each analyst's posterior is more diffuse. This produces smaller revisions relative to consensus (lower boldness), wider cross-analyst disagreement (higher dispersion), and more frequent updating as subsequent information partially resolves the uncertainty. The combination reflects information degradation rather than inattention.

**Proposition 4 (Options Market Pricing):** Implied volatility jump risk is increasing in  $S_i$ .

Concealed negative information surfaces through discrete events rather than smooth information arrival, producing a fatter left tail in the expected return distribution. Options traders price this through higher premiums for downside protection.

**Proposition 5 (Mandatory Disclosures and Adverse Incidents):** Attention

reallocation predicts a higher probability of bad-news mandatory disclosures and adverse operational incidents in subsequent months.

Because  $\lambda(\theta)$  is decreasing in  $\theta$  and managers with low  $\theta$  reallocate more aggressively, high- $S_i$  calls are disproportionately associated with states in which mandatory filings and adverse events are probable. The effect is strongest in the first 90 days and attenuates over the following year. Attention reallocation delays recognition of deteriorating fundamentals but does not prevent the underlying problems from eventually surfacing through mandatory disclosure requirements and operational consequences.

## 2.4 Discussion

Two features of the mechanism merit emphasis. First, the manager does not misstate facts, they adjust the allocation of attention. Direct misstatement carries severe legal penalties under securities regulation, but choosing which topics to emphasize violates no disclosure rule. Attention reallocation is therefore a low-cost, low-detection-risk channel, analogous to the strategic emphasis concept in Bayesian persuasion ([Kamenica and Gentzkow, 2011](#)). Second, the model provides a microfoundation for concealment in the spirit of [Jin and Myers \(2006\)](#), where opacity is reduced-form. Here, concealment arises endogenously through the managerial choice of attention allocation, generating predictions for analyst behavior, options pricing, and mandatory disclosures. The framework is also consistent with organizational attention theory, in which managers allocate limited cognitive resources across structured attention channels. Formal proofs are provided in [Appendix C1](#).

### 3. Measures for Managerial Attention Reallocation

#### 3.1 Methodology Summary

My empirical strategy begins by constructing a high-resolution representation of managerial narratives from earnings calls. I segment each transcript into sentences and embed each sentence using a transformer-based language model (MPNet), which captures contextual meaning and semantic similarity across firms and over time. I then apply the BERTopic algorithm, which combines nonlinear dimensionality reduction, density-based clustering, and class-based TF-IDF representations, to identify coherent themes that emerge endogenously from the data. This procedure yields a rich set of economically interpretable topics, such as earnings and profitability, supply chain constraints, employee safety, acquisitions, leverage & net debt, tax issues, sustainability, and COVID-19 disruption. In a typical earnings call, managers allocate attention across approximately 40 to 60 distinct topics, reflecting the breadth of issues covered in a single call.

For each firm-quarter, I aggregate sentence-level topic assignments to construct a topic attention distribution  $A_{i,t} = (A_{i,t,1}, \dots, A_{i,t,K})$  that summarizes how the manager allocates communicative attention across topics. The main measure of attention reallocation is the L1 distance between the current distribution and the firm’s own prior quarter distribution:  $Attn\ Realloc_{i,t}^{1Q} = \sum_{k=1}^K |A_{i,t,k} - A_{i,t-1,k}|$ . This within-firm comparison isolates the strategic component of communication from persistent cross-sectional differences in what firms discuss. A high score indicates that the manager’s topic allocation departed sharply from the firm’s own historical pattern. I verify robustness using a four-quarter rolling average as the baseline and an industry-adjusted measure that removes common industry-wide narrative shifts. By leveraging contextual embeddings and data-driven topic discovery, the approach captures semantic nuance and evolving corporate language in a way that traditional dictionary, similarity, or LDA-based methods cannot.

#### 3.2 Topic Modeling of Managerial Narratives

Earnings calls provide a uniquely rich window into managerial beliefs, priorities, and interpretations of the firm’s operating environment. Unlike structured financial statements, the language used in these calls is flexible, forward-looking, and highly contextual. Managers discuss demand conditions, cost pressures, regulatory

developments, supply chain disruptions, capital allocation, and a wide range of firm-specific risks. Capturing this variation requires a modeling framework capable of recognizing semantic nuance, distinguishing closely related concepts, and adapting to the evolving vocabulary of corporate communication. To meet these objectives, I construct a topic model based on transformer-based sentence embeddings and density-based clustering, implemented through the BERTopic architecture of Grootendorst (2022). This approach yields a high-resolution, economically interpretable representation of managerial attention that is comparable across firms and over time.

**Sentence segmentation and preprocessing.** I begin by processing each transcript using the spaCy natural language processing pipeline (Honnibal and Montani, 2017).<sup>1</sup> I segment transcripts into sentences and retain only the portions spoken by firm executives. I apply minimal preprocessing to preserve economically meaningful phrasing: I convert text to lowercase, remove boilerplate disclaimers and standard stopwords, and normalize punctuation. I deliberately avoid aggressive stemming or lemmatization, as these procedures can collapse economically distinct concepts—such as “pricing power” versus “price increases,” or “tax regulation” versus “deferred tax assets”—into the same root form. Preserving these distinctions is essential for accurately capturing the themes managers emphasize.

**Sentence embeddings.** Each sentence is mapped into a dense semantic vector using the MPNet transformer model, which performs well on semantic similarity tasks and is widely used in modern text-as-data applications.<sup>2</sup> Let  $x_s$  denote sentence  $s$ . The embedding model implements

$$f(x_s) = z_s \in \mathbb{R}^d,$$

where  $z_s$  captures the contextual meaning of the sentence. Sentences that discuss similar economic concepts—such as regulatory scrutiny, supply chain normalization, tax planning, or capital expenditures—are positioned close to one another in this embedding space, even when firms use different terminology to describe comparable issues. This semantic representation is critical in settings like earnings calls,

<sup>1</sup>See spaCy documentation at <https://spacy.io/>.

<sup>2</sup>I use the sentence-transformer implementation of MPNet; see Song et al. (2020); Reimers and Gurevych (2019) for details.

where managers often describe the same underlying phenomenon using firm-specific language.

**Topic discovery with BERTopic.** I use BERTopic to discover topics from the sentence embeddings. BERTopic combines three components: nonlinear dimensionality reduction, density-based clustering, and class-based TF-IDF (c-TF-IDF) for topic representation.

First, the high-dimensional embeddings  $\{z_s\}$  are projected into a lower-dimensional manifold using UMAP, which preserves local semantic neighborhoods while reducing noise:

$$r(z_s) = y_s \in \mathbb{R}^{d'}.$$

Second, the reduced vectors  $\{y_s\}$  are clustered using HDBSCAN, a density-based algorithm that identifies coherent groups of semantically similar sentences without requiring the number of topics to be specified ex ante. Let

$$c(y_s) = g_s \in \{1, \dots, K\} \cup \{\text{noise}\}$$

denote the cluster assignment. This procedure allows topics to emerge endogenously from the data, reflecting the actual structure of managerial communication rather than imposing a fixed set of themes.

**Topic representation and labeling.** For each topic  $k$ , BERTopic constructs a topic representation using a class-based TF-IDF weighting scheme. Let  $tf_{k,v}$  denote the frequency of term  $v$  in sentences assigned to topic  $k$ , and let  $df_v$  denote the number of topics in which term  $v$  appears. The c-TF-IDF weight is

$$w_{k,v} \propto tf_{k,v} \cdot \log \left( \frac{K}{df_v} \right),$$

normalized within topic  $k$ . This weighting scheme highlights terms that are distinctive to each topic, yielding sparse, interpretable representations. I manually review the highest-weighted unigrams, bigrams, and trigrams and assign concise, economically meaningful labels (e.g., “Demand Conditions,” “Cost Pressures,” “Tax

Planning,” “Regulatory Environment,” “Supply Chain Constraints”). This step ensures that the resulting topics align with constructs commonly analyzed in corporate finance and asset pricing.

**Firm-quarter topic distributions.** I aggregate sentence-level topic assignments to construct a topic distribution for each firm-quarter. Let  $n_{i,t,k}$  denote the number of sentences in firm  $i$ ’s call in quarter  $t$  assigned to topic  $k$ . The topic attention vector is

$$A_{i,t,k} = \frac{n_{i,t,k}}{\sum_{j=1}^K n_{i,t,j}},$$

with  $\sum_{k=1}^K A_{i,t,k} = 1$ . These distributions form the basis for all subsequent measures of managerial attention reallocation.

**Contrast with dictionary, similarity, and LDA approaches.** A large literature in empirical finance has demonstrated the value of text based measures constructed from corporate disclosures, news, and regulatory filings. Early approaches relied on dictionary methods, in which researchers classify words into pre specified economic categories and compute document level frequencies. These methods have been used to measure sentiment, risk, and disclosure tone in settings such as annual reports, MD&A sections, and earnings announcements. The approach builds on, but differs fundamentally from, the dictionary-based, similarity-based, and LDA-based methods widely used in empirical finance. Dictionary methods provide transparency and interpretability, but they require researchers to pre-specify the vocabulary of interest. As corporate language evolves, fixed dictionaries struggle to capture new terminology, contextual nuance, and semantic drift. This limitation is particularly acute in earnings calls, where managers discuss complex topics such as tax regulation, deferred tax assets, supply chain bottlenecks, or regulatory headwinds using firm-specific phrasing that may not appear in any pre-defined dictionary.

Similarity-based approaches, such as those in [Cohen et al. \(2020\)](#) and the MD&A modification literature, quantify how much a document changes relative to prior filings. These methods are powerful in detecting disclosure changes, but they do not identify *what* managers are discussing or how attention is allocated across themes. Similarity is inherently unidimensional: it measures distance, not content.

Latent Dirichlet Allocation (LDA)-based topic models, such as those used in [Bybee et al. \(2024\)](#), represent documents as mixtures of latent topics and have been influential in macro-finance applications. However, LDA relies on a bag-of-words representation, which discards word order and contextual meaning. As a result, LDA struggles to distinguish between economically distinct concepts that share vocabulary (e.g., “tax regulation” vs. “deferred tax assets”) and words that conveyed meaning through multi word expressions (“pricing power,” “supply chain normalization,” “regulatory headwinds”). This makes LDA struggle to group together conceptually similar sentences that use different terminology. LDA also requires researchers to fix the number of topics ex ante, which limits its ability to adapt to the evolving structure of managerial communication. Supervised classification approaches, such as those using fine-tuned BERT models ([Harford et al., 2026](#)), address some of these limitations by leveraging contextual embeddings, but it require manual labeling of a training corpus and the construction of a keyword filter to identify candidate sentences before classification. The performance of such approaches depends on the quality of the keywords for all the topics in the document and representativeness of the labeled training data.

In contrast, BERTopic leverages transformer-based embeddings that encode contextual meaning, allowing it to differentiate between nuanced economic concepts and to recognize when managers discuss the same underlying issue using different language. Its density-based clustering identifies topics endogenously, and its c-TF-IDF representation yields sparse, interpretable topic summaries. This architecture is particularly well-suited for earnings calls, where managers often discuss multiple, overlapping themes whose economic implications depend on context. For example, discussions of “taxes” may refer to regulatory changes, deferred tax assets, international tax arbitrage, or the impact of tax credits on capital expenditures—concepts that dictionary or LDA approaches cannot reliably distinguish.

By capturing semantic nuance, contextual variation, and topic evolution, BERTopic provides a richer and more accurate representation of managerial attention than traditional dictionary, similarity, or LDA approaches. This makes BERTopic the appropriate tool for measuring how managers allocate attention across themes and how these allocations evolve in response to firm-level and industry-level developments.

**Insert Table 1**

Table 1 illustrates the output of this procedure for 20 representative topics and example sentences. The topics span a range of economically relevant themes, including financial performance (Earnings & Adjusted Results, Margins & Profitability, EBITDA & Turnaround), corporate strategy (Acquisitions & M&A, Synergies & Deal Rationale, Capital Expenditures), risk factors (Leverage & Net Debt, FX & Currency Translation, Supply Chain Constraints), stakeholder and regulatory considerations (Sustainability & Climate, Customer Experience & Proposition, Cost Savings & Efficiency), and external shocks (COVID-19 Disruption). The example sentences confirm that the model groups semantically related content even when firms use different terminology to describe similar issues. For instance, the Supply Chain Constraints topic captures sentences referencing product availability problems, interrupted supply chains, and organizational capacity to manage growth, all of which pertain to the same underlying operational concern despite varying phrasing across firms. The model identifies 1,074 topics in the entire corpus. Figure 1 provides a semantic map of the topics discussed in the earnings call. The visualization highlights how topics naturally cluster into coherent thematic regions, revealing the conceptual domains across which managers allocate attention.

### 3.3 Construction of Attention Reallocation Measures

A central premise of this paper is that managers allocate their limited communicative bandwidth across a set of strategic topics, and that meaningful shifts in this allocation reflect changes in the firm’s information set, priorities, or risk exposures. To capture these shifts, I construct a measure of attention surprise, defined as the deviation of the current quarter’s topic distribution from the firm’s own historical pattern. The intuition is straightforward: managers typically exhibit stable attention profiles, revisiting similar themes quarter after quarter as they update investors on ongoing initiatives, operational performance, and strategic direction. When a firm’s topic distribution departs sharply from this baseline, it signals that management is responding to new developments or reinterpreting existing information in a way that alters the narrative they present to the market. Formally, I compute attention surprise as the distance between the current topic vector and a benchmark constructed from the firm’s past disclosures.

Let  $A_{i,t} = (A_{i,t,1}, \dots, A_{i,t,K})$  denote the topic attention vector for firm  $i$  in quarter  $t$ , where  $A_{i,t,k}$  is the share of managerial attention allocated to topic  $k$  and  $\sum_{k=1}^K A_{i,t,k} =$

1. I define two firm-specific benchmarks. The short-run benchmark is the topic distribution for the previous quarter, which captures abrupt changes in managerial emphasis.

$$B_{i,t}^{SR} = A_{i,t-1},$$

and the long-run benchmark is the trailing four-quarter average, which captures persistent departures from the firm's typical communication pattern.

$$B_{i,t}^{LR} = \frac{1}{4} \sum_{s=t-4}^{t-1} A_{i,s}.$$

The short-run attention reallocation is defined as the L1 distances between the current topic vector and the short-run benchmark:

$$AttnRealloc_t^{1Q} = \sum_{k=1}^K |A_{i,t,k} - B_{i,t,k}^{SR}| = \sum_{k=1}^K |A_{i,t,k} - A_{i,t-1,k}|. \quad (1)$$

Similarly, the long-run attention reallocation is:

$$AttnRealloc_t^{4Q} = \sum_{k=1}^K |A_{i,t,k} - B_{i,t,k}^{LR}| = \sum_{k=1}^K \left| A_{i,t,k} - \frac{1}{4} \sum_{s=t-4}^{t-1} A_{i,s,k} \right|. \quad (2)$$

As shown from the equations 1 and 2, I considered two horizons. The first (equations 1) is a short run measure that compares the current quarter to the immediately preceding quarter, capturing abrupt shifts in emphasis. The second (equations 2) is a long run measure that compares the current quarter to the trailing four quarter average, capturing more persistent departures from the firm's typical communication pattern. These measures allow us to distinguish between incremental updates and substantive narrative changes, and they provide a continuous, interpretable metric of how surprising a firm's communication is relative to its own historical narrative.

### 3.4 Validation of the Managerial Attention Reallocation Measure

I validate the attention reallocation measure along several dimensions before turning to the main empirical results. The goal is to establish that the measure captures meaningful shifts in managerial focus rather than mechanical features of earnings calls or artifacts of the topic model.

**Face Validity.** I begin by examining whether the underlying topics respond to well known events. For each of the topics that represent major themes in managerial communication, I compute quarterly average topic shares and study their evolution over time. The topics include tax reform, supply chain disruptions, cybersecurity incidents, labor market conditions, inflation, regulation, and energy markets. Each topic displays clear time series patterns that align with the timing of major events. The tax topic rises around the Tax Cuts and Jobs Act period, the COVID topic increases during 2020, the cybersecurity topic shows elevated prevalence around major breach events, and the inflation topics increase during the post pandemic inflation period. These patterns appear across firms and industries and indicate that the topic model identifies economically meaningful themes. Figure 4 plots mean quarterly topic shares for 12 topics and associate it with major economic or policy events.

I next examine cross sectional variation in topic prevalence within industries. Topics that are naturally tied to specific sectors show higher shares in those industries. For example Energy topics are concentrated in oil and gas firms, supply chain topics are more prevalent in manufacturing and retail, and labor shortage topics are more common in service industries. This cross sectional structure supports the interpretation that the topics capture real differences in firm environments. Again, I assess the coherence of the topics using representative sentences and word clouds. The examples in Table 1 show that the topics are distinct and capture interpretable concepts. The model separates boilerplate language from substantive managerial discussion and assigns sentences to topics in a manner consistent with economic intuition. Figures 2 and 3 further reinforce this coherence by showing that managerial attention is systematically distributed across economically meaningful domains and that the largest micro-topics align with intuitive sub-themes. Together, these patterns confirm that the model captures an interpretable hierarchy of managerial attention.

**Convergent Validity.** I examine the correlation between the attention reallocation measure and other observable features of earnings calls. The measure is weakly

correlated with call length, the number of analysts, and the number of topics discussed. I also compare the measure with other text-based variables, including tone and cosine similarity to the prior call. Attention reallocation is essentially uncorrelated with net tone, but is negatively correlated with cosine similarity ( $\rho = -0.497$ ). This relation is expected because a larger redistribution of attention across topics should make the current call less similar to the prior call. However, the two measures are not interchangeable. Their squared correlation is approximately 0.247, implying that roughly three-quarters of the variation in attention reallocation is not shared with cosine similarity. Moreover, attention reallocation continues to predict the outcomes studied in the paper after controlling for these alternative text-based measures. The correlation matrix are reported in Appendix Tables [B7](#).

To further establish that the results are not driven by these alternative textual characteristics, I residualize  $Attn\ Realloc^{1Q}$  with respect to net tone, cosine similarity to the prior call, and the call length. The residualized attention reallocation measure continues to predict announcement returns, subsequent crash risk, long-run returns, and future bad-news 8-K filings. The results are also unchanged when I use number of topics in place of the call length in the residualization. Together, these findings indicate that attention reallocation captures a distinct dimension of managerial communication rather than mechanical differences in call structure or other text-based features of the call. The residualized-measure tests are reported in Appendix Tables [B8](#).

In addition, I examine the association of the attention reallocation measure ( $Attn\ Realloc^{1Q}$ ) with other firm fundamentals. I regress the reallocation measure on a broad set of firm characteristics while absorbing firm and year quarter fixed effects. The results show that reallocation is higher for firms with more volatile operating environments and lower for firms with stable fundamentals. Firms with greater segment diversification, higher leverage, and higher return volatility exhibit larger attention shifts, while firms with stronger profitability, higher Tobins q, and higher investment intensity exhibit smaller shifts. Reallocation is not strongly related to call breadth, as measured by the number of topics discussed, and is not driven by research and development intensity or institutional ownership. These patterns indicate that the measure varies systematically with the economic conditions facing the firm. The estimates are reported in the Appendix [B6](#).

**Placebo Validation.** I further evaluate whether the measure reflects genuine managerial behavior rather than statistical artifacts by constructing two placebo versions of the measure. The first placebo randomly permutes the order of transcripts within each firm and recomputes attention reallocation relative to the preceding call in the randomized sequence. This preserves firm identity and transcript content while destroying the actual time-series sequence of managerial communication. The sequence placebo does not reproduce the systematic relations between attention reallocation and the outcomes documented in the paper. The second placebo randomly assigns transcripts to firms within the same quarter and recomputes attention reallocation relative to the preceding call. This preserves quarter-level conditions while destroying both firm identity and firm-specific time-series structure. The random-firm placebo is unrelated to announcement returns, subsequent crash risk, long-run returns, and bad-news 8-K filings across the horizons examined. Together, these placebo tests indicate that the explanatory content of attention reallocation arises from genuine within-firm changes in managerial attention rather than mechanical quarter-level variation or common shocks. Table B9 reports the results.

## 4. Data

### 4.1 Earnings Conference Call Data

I collect earnings conference call transcripts from Capital IQ covering the period 2007 through 2023. The dataset provides the company name, company identifier, call date, full transcript text, and section labels that identify whether each portion of the transcript corresponds to a prepared remark, an analyst question, an executive response, or a moderator comment. I use these labels to exclude moderator comments and other procedural content before preprocessing and training the model.

Earnings calls are among the most important recurring corporate disclosure events, in which financial analysts listen to management presentations and ask questions about developments material to the firm (Hollander et al., 2010). Prior work establishes that these calls convey valuable information beyond what is available in financial statements, including forward-looking assessments of firm strategy, risk exposures, and operational priorities (Frankel et al., 1999; Li et al., 2021; Garcia et al., 2023; Sautner et al., 2023). The primary purpose of these calls is to review

the firm’s recent performance while also providing forward-looking commentary that reflects management’s assessment of the firm’s current state and future direction. A key advantage of earnings calls for this purposes is that managers make active choices about which topics to emphasize each quarter, producing a revealed distribution of attention across themes that can be compared to the manager’s own historical baseline. This within-manager variation in topic allocation is not available from structured filings, where the format and content categories are largely prescribed by regulation.

I use the transcripts to construct a time-varying measure of managerial attention reallocation at the firm-quarter level. My primary measure is based on the prepared remarks section delivered by executives, where the manager has full discretion over which topics to emphasize. This section reflects the manager’s ex ante communication choices, uninfluenced by analyst questioning. As a complementary analysis, I also construct the measure using executive responses during the question-and-answer section, and the results are consistent across both specifications.

#### **Insert Figure 5**

Figure 5 plots the quarterly cross-sectional mean of the two attention reallocation measures from 2007 through 2023. Both measures spike during the 2007–2008 financial crisis and again during the onset of the COVID-19 pandemic in early 2020, consistent with managers shifting their communication to address new and unfamiliar developments during periods of aggregate uncertainty. Outside of these episodes, the measures are relatively stable, with a gradual upward trend over the sample period. The 1Q baseline measure is consistently above the 4Q baseline measure, as expected: quarter-to-quarter shifts in attention are larger than deviations from a four-quarter rolling average because the longer baseline smooths transitory variation. The co-movement between the two measures is high, providing assurance that both capture the same underlying variation in managerial communication behavior.

#### **Insert Figure 6**

Figure 6 disaggregates the time series by Fama-French 12 industry groups. The crisis and pandemic spikes are present across all industries, indicating that these episodes produced economy-wide shifts in managerial communication rather than being concentrated in particular sectors. At the same time, there is meaningful cross-industry variation in the level of attention reallocation: Energy

and Manufacturing firms exhibit higher average reallocation than Nondurables and Wholesale/Retail firms, consistent with industries facing more volatile operating environments requiring more frequent narrative adjustment. Figure 7 presents the cross-sectional density of the two measures. Both distributions are approximately symmetric and unimodal, with the 4Q baseline measure exhibiting a tighter distribution reflecting the smoothing effect of the longer baseline. The right tail of both distributions contains the high-reallocation observations that are central to the empirical analysis.

**Insert Figure 7**

## 4.2 Analyst Forecast Data

I obtain individual analyst forecasts and consensus statistics from the I/B/E/S detail and summary files. I restrict the sample to earnings per share forecasts, exclude observations with absolute forecast values or actuals exceeding 25 following [Livnat and Mendenhall \(2006\)](#), drop duplicate records, and require non-missing forecast values following standard procedures in [Diether et al. \(2002\)](#). From the detail file, I construct analyst-level forecast revisions, forecast errors, and a measure of forecast boldness following [Clement and Tse \(2005\)](#) and [Hong and Kubik \(2003\)](#). From the summary file, I obtain consensus forecast dispersion and analyst coverage. I link forecasts to earnings calls using a bridge file mapping I/B/E/S tickers to transcript identifiers and call dates, and construct pre-call and post-call windows by matching each forecast to the nearest call within specified horizons. The primary post-call window is  $[0, 10]$  trading days, with alternative  $[0, 5]$  windows used in robustness tests.

## 4.3 Options Data

I obtain implied volatility data from the OptionMetrics IvyDB volatility surface file for the period 2006 through 2024. I extract standardized implied volatilities for 30-day, 50-delta call options and apply standard filters: I require positive implied volatility below 200 percent, positive implied premium, and dispersion below 10 percent, consistent with conventions in the options literature ([Xing et al., 2010](#); [Cremers and Weinbaum, 2010](#); [An et al., 2014](#)). I link options data to earnings calls using CRSP permno identifiers and a trading day calendar. For each call, I construct pre-call implied volatility (PCIV) as the average implied volatility over trading days

$-5$  to  $-1$ , and implied volatility jump (IVJUMP) as the change in implied volatility from trading day  $-1$  to trading day  $+1$  (Pan, 2002). I also construct abnormal pre-call implied volatility by subtracting the firm’s historical average implied volatility computed over trading days  $-65$  to  $-6$ . To capture the persistence of options market responses, I compute one-quarter-ahead lead values of PCIV and IVJUMP by matching each firm-quarter to its subsequent quarter.

#### 4.4 Mandatory Disclosure Data

I collect all Form 8-K and 8-K/A filings from the SEC’s EDGAR database for firms in my sample over the period 2003 through 2024. I obtain filing dates and item codes through the EDGAR submissions API and classify filings as bad news based on their item content. Following the item classification in Lerman and Livnat (2010) and McMullin et al. (2019), I identify bad news items as those reporting termination of a material agreement (Item 1.02), bankruptcy or receivership (Item 1.03), triggering events affecting debt (Item 2.04), exit or disposal costs (Item 2.05), material impairments (Item 2.06), notice of delisting (Item 3.01), auditor changes (Item 4.01), nonreliance on previously issued financial statements (Item 4.02), departure of directors or officers (Item 5.02), and suspension of trading in benefit plans (Item 5.04). For each earnings call, I count the number of bad news 8-K filings within forward windows of 90, 180, 365, and 730 days, as well as backward windows for use in placebo tests (Carter and Soo, 1999; Kothari et al., 2009; Watkins, 2022). The results hold using total 8-K filing counts and when examining individual item categories separately.

#### 4.5 RepRisk Data

I obtain data on adverse environmental, social and governance (ESG) incidents that occur within the firm from RepRisk, which screens media, regulatory, and commercial documents across more than 150,000 public sources in over 20 languages to identify firm-level ESG risk events (Berg et al., 2022; Gantchev et al., 2022). RepRisk categorizes each incident by severity (high, medium, or low) and reach (the breadth of media coverage), and eliminates duplicate reports when a single event is covered by multiple sources. A key advantage of RepRisk for this purposes is that it captures adverse incidents from external sources rather than firm self-disclosures, reducing concerns about reporting bias. For each earnings call, I measure the total number of adverse incidents, their average severity, and their average reach

within forward windows of 3, 6, and 12 months. These measures allow us to test whether managerial attention reallocation predicts subsequent real operational and reputational deterioration beyond what is captured by mandatory filings.

#### 4.6 Financial Statement Data

I obtain firm-level accounting data from Compustat Fundamentals Quarterly and Annual files, including total assets, book-to-market ratio, cash holdings, leverage, capital expenditures, return on assets, Tobin’s  $q$ , R&D expenditures, and investment. Stock return data, share prices, trading volume, and shares outstanding are from the Center for Research in Security Prices (CRSP). I use CRSP daily returns to compute cumulative abnormal returns around earnings calls using a market model estimated over trading days  $-255$  to  $-46$ . I compute crash risk measures following [Kim et al. \(2011a\)](#): firm-specific weekly returns are obtained as the residuals from a market model with two leads and two lags of market returns to account for nonsynchronous trading ([Dimson, 1979](#); [Kim et al., 2011a](#)), and negative return skewness (NCSKEW) and down-to-up volatility (DUVOL) are computed over forward windows of 3, 6, 12, and 24 months following each earnings call. I also compute detrended turnover (DTURN) and earnings opacity (ACCM) as standard crash risk controls following [Kim et al. \(2011a\)](#) and [Hutton et al. \(2009\)](#).

I obtain institutional ownership data from the Thomson Reuters S-34 database of 13F filings. Business segment concentration is measured using a Herfindahl index constructed from Compustat segment data. I control for firm complexity using the measure developed by [Loughran and McDonald \(2024\)](#). All continuous control variables are winsorized at the 1st and 99th percentiles.

#### 4.7 Descriptive Statistics

Table 2 reports summary statistics for the main variables used in the analysis. The sample consists of 4,332 unique firms and 131,379 firm-quarter observations from 2007 through 2023. Observation counts vary across panels due to differences in data availability; in particular, the analyst variables in Panel E require matched I/B/E/S data within the post-call window, and the options variables in Panel D require OptionMetrics coverage.

Insert Table 2

Panel A reports the distribution of the attention reallocation measures.  $Attn\ Realloc_t^{1Q}$ , which measures the total shift in the distribution of managerial attention across topics relative to the prior quarter, has a mean of 1.203 and a standard deviation of 0.322. The four-quarter benchmark measure,  $Attn\ Realloc_t^{4Q}$ , has a lower mean of 1.137 and a standard deviation of 0.237, as expected given that averaging over four quarters smooths transitory variation in the baseline. The interquartile ranges of 0.49 and 0.29 indicate that there is considerable variation across firm-quarters in the degree to which managers shift their topic emphasis from one call to the next.

Panel B reports cumulative abnormal returns around earnings calls. The mean  $CAR(-1, +1)$  is close to zero with a standard deviation of 8.8 percent, consistent with standard properties of abnormal returns around earnings announcements. Panel C reports crash risk measures over forward horizons of 1 to 8 quarters. Mean  $NCSKEW$  is positive across all horizons, ranging from 0.071 at one quarter to 0.087 at eight quarters, and the standard deviation declines with the horizon from 1.243 to 0.938. Mean firm-specific weekly returns are slightly negative across all horizons.

Panel D reports options market variables.  $Abn\ PCIV_t$  averages 2.6 percentage points above the firm’s historical baseline, consistent with the typical elevation in implied volatility before earnings announcements.  $IV\ JUMP_t$  averages  $-5.0$  percentage points, reflecting the well-documented decline in implied volatility once earnings uncertainty is resolved. Panel E reports analyst behavior variables, including forecast boldness (mean 0.487), dispersion (mean 0.193), and revision intensity (mean 0.743).

Panels F and G report bad-news mandatory disclosures and adverse ES incidents. The average firm has 0.73 bad-news 8-K filings in the 90 days following an earnings call and 3.02 over the following year. Among individual item categories, director and officer departures are the most frequent (mean 2.60 per year), while nonreliance on prior financial statements (mean 0.015) and material impairments (mean 0.031) are rare. Adverse ES incidents average 0.77 over 12 months, and the median is zero across all horizons, reflecting the concentration of incidents among a subset of firms. Panel H reports subsequent operating performance and Panel I reports firm-level control variables. The distributions of all controls are consistent with those reported in comparable samples in the literature.

## 5. Empirical Results

This section presents the main empirical findings. I begin with the relationship between managerial attention reallocation and announcement returns, then examine crash risk, analyst behavior, options market pricing, mandatory disclosures, and adverse ES incidents. Each set of results corresponds to a proposition from the theoretical framework in Section II.

### 5.1 Attention Reallocation and Announcement Returns

I first test Proposition 1, which predicts that attention reallocation is negatively associated with abnormal returns around the earnings call. I estimate the following specification:

$$CAR_{i,t}(w_1, w_2) = \alpha + \beta \text{Attn Realloc}_{i,t}^{1Q} + \gamma' X_{i,t-1} + \mu_i + \delta_t + \varepsilon_{i,t} \quad (3)$$

where  $CAR_{i,t}(w_1, w_2)$  is the cumulative abnormal return for firm  $i$  over the window  $(w_1, w_2)$  around the earnings call in quarter  $t$ , computed using a market model estimated over trading days  $-255$  to  $-46$ .  $\text{Attn Realloc}_{i,t}^{1Q}$  is my measure of managerial attention reallocation, defined as the total shift in the topic attention distribution relative to the prior quarter.  $X_{i,t-1}$  is a vector of lagged firm-level controls including firm size, prior year return, standardized unexpected earnings, investment, leverage, Tobin's  $q$ , book-to-market, R&D expenditures, firm complexity, institutional ownership, business segment concentration, pre-call realized volatility, and pre-call illiquidity. All specifications include firm fixed effects ( $\mu_i$ ) and year-quarter fixed effects ( $\delta_t$ ). Standard errors are clustered at the firm level.

#### Insert Table 3

Table 3 reports the results. Across all announcement windows, the coefficient on  $\text{Attn Realloc}^{1Q}$  is negative and statistically significant at the 1% level. In column (1), a one standard deviation increase in attention reallocation is associated with a 0.16 percentage point decline in  $CAR(-1, +1)$  ( $\beta = -0.005$ ,  $t = -4.57$ ). The estimate is stable across wider announcement windows: the coefficient ranges from  $-0.005$  to  $-0.006$  for  $CAR(-1, +2)$ ,  $CAR(-1, +3)$ ,  $CAR(-2, +2)$ , and  $CAR(0, +1)$ , with  $t$ -statistics between  $-4.22$  and  $-4.57$ . Column (6) extends the horizon to the post-earnings announcement drift window,  $CAR(+2, +60)$ . The coefficient remains

negative and significant ( $\beta = -0.006$ ,  $t = -2.24$ ), indicating that the market does not fully incorporate the information in attention reallocation at the time of the call. The persistence of the return effect beyond the announcement window is consistent with Proposition 2 and with the model’s prediction that investors underreact to the reallocation signal due to the signal extraction problem created by benign reallocation.

The economic magnitude is meaningful in the context of earnings announcement returns. The standard deviation of  $Attn\ Realloc^{1Q}$  is 0.322, so a one standard deviation increase corresponds to approximately  $0.322 \times 0.005 = 0.16$  percentage points of  $CAR(-1, +1)$ . Relative to the unconditional standard deviation of  $CAR(-1, +1)$  of 8.8 percent, this represents a modest but statistically reliable effect. The stability of the coefficient across windows of different lengths suggests that the result is not driven by microstructure effects or bid-ask bounce concentrated on a single day.

Among the control variables, the coefficients are consistent with the existing literature. Firm size enters positively, prior year return enters negatively consistent with short-term reversal, standardized unexpected earnings enters positively, and Tobin’s q and book-to-market enter negatively.

## 5.2 Attention Reallocation and Crash Risk

I next test Proposition 2, which predicts that crash risk increases with attention reallocation and that the association is present across multiple horizons, consistent with gradual revelation of concealed bad news. I estimate:

$$NCSKEW_{i,t+h} = \alpha + \beta\ Attn\ Realloc_{i,t}^{1Q} + \gamma' X_{i,t-1} + \mu_i + \delta_t + \varepsilon_{i,t} \quad (4)$$

where  $NCSKEW_{i,t+h}$  is the negative coefficient of skewness of firm-specific weekly returns over the forward window of horizon  $h \in \{1Q, 2Q, 4Q, 8Q\}$  following the earnings call, computed following [Kim et al. \(2011a\)](#). The control vector  $X_{i,t-1}$  includes the standard crash risk determinants: detrended turnover, lagged  $NCSKEW$ , lagged return volatility, and lagged mean firm-specific return, as well as firm size, prior year return, institutional ownership, ROA, standardized unexpected earnings, book-to-market, segment concentration, earnings opacity, investment, leverage, Tobin’s q, R&D, and firm complexity. All specifications include firm and year-quarter fixed effects, with standard errors clustered at the firm level.

#### Insert Table 4

Table 4, Panel A reports the results. The coefficient on  $Attn\ Realloc^{1Q}$  is positive and statistically significant across all four horizons. At the one-quarter horizon, a one standard deviation increase in attention reallocation is associated with a 0.014 standard deviation increase in  $NCSKEW$  ( $\beta = 0.042$ ,  $t = 3.31$ ). The coefficient declines monotonically with the horizon: 0.032 ( $t = 2.58$ ) at two quarters, 0.029 ( $t = 2.42$ ) at four quarters, and 0.022 ( $t = 1.87$ ) at eight quarters. This pattern is consistent with the theoretical prediction. The model implies that concealed bad news surfaces gradually through mandatory disclosures, adverse incidents, and other information events. The strongest effect at the shortest horizon reflects the period in which revelation is most concentrated, while the persistence of the effect at two years indicates that some concealed information takes longer to surface.

The declining but persistent coefficient profile distinguishes attention reallocation from transitory information shocks, which would produce a concentrated effect at one horizon that disappears at longer horizons. Instead, the monotonic decline is consistent with a stock of concealed information that is progressively revealed over time, as modeled by the mandatory revelation probability  $\lambda(\theta)$  in Section II.

Among the crash risk controls, lagged  $NCSKEW$  enters negatively, consistent with mean reversion in skewness. Lagged mean firm-specific return enters with a large positive coefficient, consistent with the finding in [Chen et al. \(2001\)](#) that firms with higher past returns are more prone to subsequent crashes. Prior return volatility is positively associated with crash risk at shorter horizons. These patterns are consistent with the prior literature and indicate that the attention reallocation measure predicts crash risk after absorbing the standard determinants.

Panel B examines whether attention reallocation predicts lower long-run returns, providing a complementary test of the model’s prediction that high-reallocation firms are overpriced at the time of the call. The dependent variable is the size adjusted buy and hold return over the same forward windows. The coefficient on  $Attn\ Realloc^{1Q}$  is negative and statistically significant across all four horizons:  $-0.007$  ( $t = -3.45$ ) at one quarter,  $-0.011$  ( $t = -3.31$ ) at two quarters,  $-0.015$  ( $t = -2.72$ ) at four quarters, and  $-0.020$  ( $t = -1.88$ ) at eight quarters. These results confirm that firms whose managers reallocate attention more aggressively earn persistently lower returns for up to two years after the call. The combination of elevated crash risk and lower buy and hold returns is consistent with the model’s prediction that attention

reallocation conceals negative information that is eventually impounded in prices through asymmetric downside corrections.

### 5.3 Attention Reallocation and Analyst Behavior

I next test Proposition 3, which predicts that high-reallocation calls degrade the analyst information environment, producing lower forecast boldness, greater disagreement, and higher revision intensity. I estimate:

$$Y_{i,t} = \alpha + \beta \textit{Attn Realloc}_{i,t}^{1Q} + \gamma' X_{i,t-1} + \mu_i + \delta_t + \varepsilon_{i,t} \quad (5)$$

where  $Y_{i,t}$  is an analyst behavior outcome measured within the 10-day window following the earnings call. I examine six outcomes organized in three groups. The first group captures analyst activity: revision intensity (the fraction of analysts who revise within the window) and forecast boldness (following [Clement and Tse, 2005](#), whether the analyst’s revision magnitude exceeds the median peer revision). The second group captures the information environment: forecast dispersion (the cross-sectional standard deviation of outstanding forecasts, following [Diether et al., 2002](#)) and analyst disagreement (the mean absolute deviation of individual forecasts from the consensus). The third group captures earnings outcomes in the subsequent quarter: standardized unexpected earnings scaled by price (following [Livnat and Mendenhall, 2006](#)) and consensus forecast dispersion scaled by price. The control vector  $X_{i,t-1}$  includes lagged firm characteristics. All specifications include firm and year-quarter fixed effects, with standard errors clustered at the firm level.

#### Insert Table 5

Table 5 reports the results. The coefficient on  $\textit{Attn Realloc}^{1Q}$  is statistically significant across all six outcomes, and the pattern across columns is consistent with the theoretical prediction that attention reallocation degrades the quality of the information available to analysts.

Columns (1) and (2) examine analyst activity. Revision intensity increases with attention reallocation ( $\beta = 0.044$ ,  $t = 2.98$ ), indicating that analysts revise their forecasts more frequently after high-reallocation calls. At the same time, forecast boldness declines ( $\beta = -0.049$ ,  $t = -7.76$ ): analysts revise more often but with less independent judgment, shading their revisions toward the consensus rather than

staking out distinctive positions. This combination is consistent with the model’s prediction. When signal precision is low because the manager has redirected attention to uninformative topics, each analyst’s posterior is more diffuse, and the career cost of deviating from consensus rises relative to the informational benefit of expressing a private view.

Columns (3) and (4) examine the information environment. Forecast dispersion increases ( $\beta = 0.020$ ,  $t = 2.67$ ), as does analyst disagreement ( $\beta = 0.011$ ,  $t = 2.13$ ). The widening of cross-analyst disagreement following high-reallocation calls indicates that different analysts draw different inferences from the same call, consistent with a noisy signal environment in which the manager has not provided clear guidance on the dimension that matters.

Columns (5) and (6) examine earnings outcomes. Standardized unexpected earnings in the subsequent quarter are negatively associated with attention reallocation ( $\beta = -0.001$ ,  $t = -2.48$ ), indicating that firms whose managers reallocate attention more aggressively deliver worse earnings surprises in the following quarter. Consensus dispersion scaled by price is marginally positively associated with reallocation ( $\beta = 0.000$ ,  $t = 1.85$ ). Together, the earnings outcome results indicate that the uncertainty created by high-reallocation calls is not resolved by the next earnings announcement; instead, the news that arrives tends to be negative, consistent with the concealment interpretation.

The joint pattern across all six columns is important. If attention reallocation simply reflected benign shifts in business emphasis with no informational consequences, I would expect analysts to process the call normally, with no systematic change in boldness, dispersion, or subsequent forecast accuracy. Instead, the simultaneous increase in revision intensity, decline in boldness, widening of dispersion, and deterioration in subsequent earnings surprises points to genuine information degradation created by the manager’s communication choices.

## 5.4 Attention Reallocation and Options Market Pricing

I next test Proposition 4, which predicts that implied volatility jump risk increases with attention reallocation as options traders price the elevated left-tail risk associated with concealed bad news. I estimate:

$$Y_{i,t} = \alpha + \beta \text{ Attn Realloc}_{i,t}^{1Q} + \gamma' X_{i,t-1} + \mu_i + \delta_t + \varepsilon_{i,t} \quad (6)$$

where  $Y_{i,t}$  is an options market outcome. I examine three variables. Abnormal pre-call implied volatility ( $Abn PCIV_t$ ) measures whether the options market anticipates elevated uncertainty before the call. The implied volatility jump ( $IV JUMP_t$ ) captures the change in implied volatility from trading day  $-1$  to trading day  $+1$  around the call, reflecting how options prices adjust to the information revealed during the call. The lead implied volatility jump ( $IV JUMP_{t+1}$ ) tests whether the options market response persists into the following quarter. All implied volatilities are from the OptionMetrics volatility surface for 30-day, 50-delta call options.

### Insert Table 6

Table 6 reports the results. Column (1) shows that abnormal pre-call implied volatility is negatively associated with attention reallocation ( $\beta = -0.030$ ,  $t = -11.82$ ). This result indicates that high-reallocation calls are not preceded by elevated implied volatility; if anything, the options market assigns lower pre-call uncertainty to firms that will subsequently reallocate attention, suggesting that the reallocation signal is not anticipated by options traders before the call.

Column (2) provides the central result for the options market analysis. The implied volatility jump is positively and significantly associated with attention reallocation ( $\beta = 0.036$ ,  $t = 15.74$ ). Because the average IVJUMP in the sample is negative (implied volatility typically declines after earnings calls as uncertainty resolves), a positive coefficient means that high-reallocation calls produce a smaller decline in implied volatility, or equivalently, that options traders revise upward their assessment of future uncertainty after observing a high-reallocation call. This is consistent with the model's prediction: the concealed information embedded in the attention reallocation signal implies elevated left-tail risk that is not resolved by the call itself, and options traders price this residual uncertainty through higher post-call implied volatility relative to what would be expected if the call had resolved the prevailing uncertainty.

Column (3) shows that the effect persists into the following quarter. The lead implied volatility jump is positively associated with attention reallocation ( $\beta = 0.002$ ,  $t = 2.05$ ), indicating that the elevated uncertainty is not fully resolved within the current quarter. The smaller magnitude relative to column (2) is consistent with

gradual information revelation: some of the concealed information surfaces between the two calls, partially resolving the uncertainty, but a residual effect remains.

The combination of results across the three columns tells a coherent story. The options market does not anticipate the reallocation signal before the call (column 1), adjusts upward its assessment of future risk after observing the call (column 2), and maintains an elevated risk assessment into the following quarter (column 3). This pattern is consistent with Proposition 4 and complements the crash risk findings in Table 4: the same concealed information that produces elevated negative return skewness over subsequent quarters also produces elevated implied volatility as options traders price the left-tail risk in real time.

## 5.5 Attention Reallocation and Mandatory Disclosures

I next test Proposition 5, which predicts that attention reallocation is followed by a higher probability and greater intensity of bad-news mandatory disclosures. I estimate a Poisson pseudo-maximum likelihood (PPML) model with high-dimensional fixed effects:

$$E[\text{Bad News } 8K_{i,t+h} | X] = \exp\left(\alpha + \beta \text{Attn Realloc}_{i,t}^{1Q} + \gamma' X_{i,t-1} + \mu_i + \delta_t\right) \quad (7)$$

where  $\text{Bad News } 8K_{i,t+h}$  is the count of bad-news 8-K filings for firm  $i$  within horizon  $h \in \{90d, 180d, 1Y, 2Y\}$  following the earnings call. Bad-news items are classified following [Lerman and Livnat \(2010\)](#) and include officer departures, contract terminations, delisting notices, nonreliance on prior financial statements, material impairments, and related items. The control vector includes the lagged count of bad-news 8-K filings (to control for the firm’s baseline filing propensity), along with the standard set of firm characteristics. All specifications include firm and year-quarter fixed effects, with standard errors clustered at the firm level.

### Insert Table 7

Table 7, Panel A reports the results. Attention reallocation predicts a significant increase in bad-news 8-K filings across all four horizons. At the 90-day horizon, a one standard deviation increase in attention reallocation is associated with a 9.4 percent increase in the expected count of bad-news filings ( $\beta = 0.094$ ,  $t = 5.31$ ). The effect

remains significant at 180 days ( $\beta = 0.062$ ,  $t = 4.76$ ), one year ( $\beta = 0.051$ ,  $t = 5.51$ ), and two years ( $\beta = 0.035$ ,  $t = 4.54$ ). The declining magnitude across horizons is consistent with the theoretical prediction: the concealed problems are most likely to surface in the months immediately following the call, with the marginal effect attenuating as the stock of hidden information is progressively revealed.

Panel B examines which types of bad-news disclosures drive the aggregate result. Among the individual 8-K item categories, delisting notices ( $\beta = 0.112$ ,  $t = 2.35$ ) and contract terminations ( $\beta = 0.092$ ,  $t = 3.39$ ) are significantly predicted by attention reallocation over the one-year horizon. These categories represent concrete adverse events — the loss of a material business relationship and failure to meet exchange listing requirements — that are consistent with the deteriorating fundamentals the manager sought to divert attention from during the call. Nonreliance on prior financial statements, which signals accounting problems, is significant in the probit specification ( $t = 3.20$ ) though not in the Poisson count model, likely reflecting the rarity of this event. Material impairments show no significant association, suggesting that the information concealed through attention reallocation pertains more to operational and contractual deterioration than to asset write-downs.

The results are robust to using total 8-K filing counts rather than restricting to bad-news items; these results are reported in the Appendix. The lagged bad-news filing count enters positively and significantly, confirming that firms with a higher baseline filing propensity continue to file at elevated rates, but the attention reallocation effect is incremental to this baseline.

These findings provide direct evidence that the information managers conceal through attention reallocation is real. The negative abnormal returns and elevated crash risk documented in the preceding sections could in principle reflect a risk premium rather than the revelation of concealed information. The mandatory disclosure results rule out this alternative: 8-K filings are triggered by specific corporate events that are not mechanically linked to stock returns, and their prediction by attention reallocation supports the interpretation that managers who reallocate attention are withholding information about deteriorating fundamentals that eventually surfaces through required disclosures.

## 5.6 Attention Reallocation and Adverse Incidents

The mandatory disclosure results establish that attention reallocation predicts the filing of bad-news 8-K reports. I next test whether the information concealed through reallocation extends beyond financial disclosures to real operational and reputational outcomes. Proposition 5 predicts that attention reallocation is followed by adverse incidents that occur within the firm, consistent with deteriorating fundamentals that the manager sought to obscure during the call. I estimate:

$$Y_{i,t+h} = \alpha + \beta \textit{Attn Realloc}_{i,t}^{1Q} + \gamma' X_{i,t-1} + \mu_i + \delta_t + \varepsilon_{i,t} \quad (8)$$

where  $Y_{i,t+h}$  is an adverse incident outcome measured over forward windows of 3, 6, and 12 months. I examine three dimensions of incident activity: the log count of incidents, their average severity, and their average media reach. The incident data are from RepRisk, which screens external media, regulatory, and commercial sources to identify adverse events. The control vector includes the lagged incident count (to absorb persistent differences in firms' baseline exposure to incident risk), along with the standard set of firm characteristics. All specifications include firm and year-quarter fixed effects, with standard errors clustered at the firm level.

### Insert Table 8

Table 8 reports the results across three panels. Panel A examines incident counts. The coefficient on  $\textit{Attn Realloc}^{1Q}$  is positive and significant at the 1% level across all three horizons: 0.010 ( $t = 3.64$ ) at 3 months, 0.014 ( $t = 3.97$ ) at 6 months, and 0.023 ( $t = 5.08$ ) at 12 months. The increasing magnitude with the horizon indicates that the adverse incidents associated with attention reallocation are not concentrated in the immediate post-call period but continue to accumulate over the following year. This pattern is consistent with the gradual materialization of operational problems that managers attempted to divert attention from during the earnings call.

Panel B examines incident severity. The coefficient is positive and significant across all horizons: 0.013 ( $t = 2.51$ ) at 3 months, 0.016 ( $t = 2.50$ ) at 6 months, and 0.023 ( $t = 3.24$ ) at 12 months. Attention reallocation predicts not only more incidents but incidents of greater severity, suggesting that the concealed information pertains to substantive operational or reputational problems rather than minor or routine events.

Panel C examines incident reach, which captures the breadth of media coverage associated with each incident. The coefficient is again positive across all horizons: 0.011 ( $t = 2.51$ ) at 3 months, 0.010 ( $t = 1.93$ ) at 6 months, and 0.012 ( $t = 2.01$ ) at 12 months. The incidents that follow high-reallocation calls receive wider media attention, consistent with these events being more consequential and more visible to stakeholders.

The consistency of results across incident counts, severity, and reach strengthens the interpretation. If the association between attention reallocation and subsequent incidents were driven by noise or measurement error in the RepRisk data, I would not expect it to appear simultaneously across three distinct dimensions of the same underlying events. The results instead point to a coherent pattern: firms whose managers reallocate attention during earnings calls subsequently experience more frequent, more severe, and more widely reported adverse incidents. Combined with the mandatory disclosure findings in Table 7, these results establish that the information concealed through attention reallocation is not limited to financial or accounting outcomes but extends to real operational deterioration that affects the firm’s relationships with employees, communities, regulators, and the environment.

## 5.7 Attention Reallocation and Subsequent Firm Performance

To assess whether attention reallocation is associated with deterioration in real firm fundamentals, I examine whether shifts in managerial attention predict subsequent operating performance and firm valuation. Table 9 reports estimates of return on assets and Tobin’s Q, measured one to three quarters ahead, on the attention-reallocation score, with firm and year-quarter fixed effects and the standard set of controls. Panel A shows that firms that reallocate attention experience lower operating performance over the next one to two quarters. Panel B shows a similar pattern for Tobin’s Q: attention reallocation predicts lower future valuation over horizons up to three quarters ahead, with no evidence of attenuation over this window. These results indicate that the return and disclosure patterns documented above are accompanied by a deterioration in fundamentals, suggesting that attention reallocation contains information about the firm’s subsequent performance trajectory rather than reflecting a purely informational or sentiment-driven repricing.

**Insert Table 9**

## 6. Mechanism

In this section, I examine the mechanisms through which managerial attention reallocation affects the announcement returns, crash risk, and subsequent bad-news disclosures documented above.

### 6.1 Content Decomposition of Attention Reallocation

I begin by decompose the attention reallocation measure into economically distinct content categories and examine how each category relates to announcement returns, long-run returns, crash-risk predictability, and subsequent bad-news disclosures. Each BERTopic topic is assigned to a category—such as risk factors, corporate actions and capital structure, financial performance, and people and governance—using a large language model calibrated on a manually labeled training set and validated against an independently labeled, blind human sample; the full set of categories and the classification procedure appear in Appendix C1 This decomposition allows me to address two questions the aggregate measure cannot resolve: which types of content drive the announcement-return response and its associated long-run outcomes, and whether the cross-category pattern is more consistent with managers revealing information the market has not yet priced, concealing adverse information behind favorable language, or reallocating toward content that carries no incremental information.

Table 10 reports category-level coefficients for the announcement-return, long-run-return, crash-risk, and bad-news 8-K specifications. Reallocation toward risk-factor and uncertainty content produces the strongest negative announcement reaction: a one-standard-deviation increase in this category predicts a decline of roughly 10 basis points in the three-day announcement return. The subsequent outcomes move in the opposite direction. Long-run returns are significantly positive from the next quarter through two years, crash risk is significantly lower at the same horizons, and the relation to bad-news 8-K filings is weak and inconsistent. The pattern resembles an initial reaction that overshoots, followed by a correction rather than further deterioration, in contrast to the accumulation-and-release framework of Jin and Myers (2006) and Hutton et al. (2009), in which managerial opacity predicts higher future crash risk through the buildup and eventual release of undisclosed adverse information.

### Insert Table 10

Reallocation toward corporate action and capital structure content exhibits the opposite pattern. A one-standard-deviation increase in this category predicts a significantly positive announcement return of 3.2 basis points, yet long-run returns are significantly negative from the next quarter through two years, crash risk is significantly higher at every horizon, and bad-news 8-K filings rise persistently for up to two years. The market appears to treat this content favorably at the call, but every subsequent outcome moves against that initial reading. This trajectory is consistent with [Rau and Vermaelen \(1998\)](#) and [Loughran and Vijh \(1997\)](#), who show that acquirers earning favorable announcement returns subsequently underperform as optimistic initial assessments prove difficult to sustain; the results here suggest that a similar dynamic is visible in managerial communication itself, even before or independent of a transaction being formally announced.

Content describing industry conditions and macroeconomic or geopolitical developments—public information available to all market participants—shows no significant relation to announcement returns, long-run returns, crash risk, or bad-news disclosures at any horizon, indicating that the category-level results are not driven by common shocks. Other categories exhibit significant announcement-window effects but do not map cleanly into a single mechanism, and their long-run and crash-risk coefficients vary in sign and significance across horizons; I therefore do not assign these categories to a specific mechanism.

To evaluate whether the predictive power of attention reallocation arises from increases in attention to a category, decreases, or both, I estimate joint regressions that decompose each category-level measure into its positive and negative components. Positive components capture increases in attention to the category relative to the prior quarter, while negative components capture decreases. Table 11 reports the announcement-return and long-run-return results, and Appendix Table B6 reports the corresponding crash-risk and bad-news 8-K specifications.

### Insert Table 11

The signed decomposition shows that the announcement-return response to risk-factor and uncertainty content is driven almost entirely by increases in attention to this category. A one-standard-deviation increase in risk-factor attention predicts a decline of roughly 30 basis points across announcement windows, while a decrease

predicts a significantly positive announcement return. The long-run outcomes move in the opposite direction: increases in risk-factor attention predict significantly higher returns from the next quarter through two years, whereas decreases carry little long-run information. This asymmetry indicates that the mechanism operates primarily through the revelation of new risk information rather than the concealment of existing information. The crash-risk and disclosure results in Appendix Table B6 reinforce this interpretation: increases in risk-factor attention predict lower future crash risk and no systematic rise in bad-news filings, consistent with an initial reaction that overshoots rather than with the accumulation-and-release dynamics emphasized in prior work.

Corporate action and capital structure content exhibits the opposite signed pattern. Increases in attention to this category predict significantly positive announcement returns, while decreases predict weakly negative returns. Yet only increases carry information about subsequent outcomes: they predict significantly negative long-run returns from the next quarter through two years and significantly higher crash risk and bad-news 8-K filings at every horizon. The market appears to treat managerial emphasis on corporate actions favorably at the call, but every subsequent outcome moves against that initial reading, consistent with the overextrapolation documented in [Rau and Vermaelen \(1998\)](#) and [Loughran and Vijh \(1997\)](#).

The category-level and signed-decomposition results indicate that both revelation and concealment mechanisms can operate, but the dominant mechanism behind the announcement-return response is revelation. An increases in attention to economically meaningful content especially risk-factor information drive the strongest announcement-window reactions and the cleanest patterns in subsequent outcomes.

## 6.2 Investor Sophistication and Attention Reallocation

A second mechanism examines heterogeneity in investor sophistication. If institutional investors monitor managers more closely or process narrative information more efficiently, the announcement-return response to attention reallocation should be stronger in firms with higher institutional ownership. To test this prediction, I interact the attention-reallocation measure with institutional ownership in the announcement-return specification. Table 12 shows that the interaction term is negative and significant across all announcement windows, indicating that the market

reacts more strongly to managerial attention shifts when institutional ownership is high. This pattern is consistent with evidence that institutional investors play a central role in monitoring and information production ([Bartov et al., 2000](#); [Dyck and Zingales, 2004](#); [Chen et al., 2007](#); [Boone and White, 2015](#)).

**Insert Table 12**

## 7. Conclusion

This paper introduces a measure of managerial attention reallocation based on the shift in the distribution of topics managers discuss during earnings calls relative to their own historical baseline. The measure is constructed using BERTopic applied to the full text of earnings call transcripts from 2007 through 2023, and it captures a dimension of managerial communication that existing text based approaches, which focus on sentiment, tone, or document similarity, do not measure. The central finding is that unusual reallocation of managerial attention predicts a broad set of adverse outcomes for the firm, and that markets and analysts consistently fail to extract this signal at the time of the call.

The empirical evidence is organized around six predictions from a model in which managers strategically redirect communicative attention to obscure deteriorating fundamentals. Firms whose managers reallocate attention more aggressively experience negative abnormal returns around the earnings call, elevated crash risk over horizons from one quarter to two years, persistently lower long run returns, greater analyst forecast dispersion, reduced forecast boldness, elevated options implied jump risk, a significant increase in bad news mandatory disclosures in subsequent months, and a rise in adverse environmental and social incidents. These results survive instrumentation using attention shocks to product market peers identified through the Hoberg and Phillips text based network, and they are robust to alternative constructions of the reallocation measure, additional controls, and sample restrictions.

The findings carry implications for several areas of finance. For the literature on corporate disclosure, the results suggest that the structure of managerial communication, specifically the allocation of attention across topics, contains information that is distinct from and incremental to the content captured by existing textual measures. A manager determined to obscure bad news need not misstate facts or alter the tone of the discussion; redirecting attention to other topics is sufficient to delay the incorporation of adverse information into prices. For the literature on stock price crash risk, the results provide a communication based mechanism through which bad news accumulates inside the firm, complementing the accounting based opacity measures that dominate existing work. For analysts and investors, the results identify an observable signal, the degree to which a manager’s topic allocation departs from its historical pattern, that predicts adverse outcomes across multiple dimensions.

## References

- An, B.-J., Ang, A., Bali, T. G., and Cakici, N. (2014). The joint cross section of stocks and options. *The Journal of Finance*, 69(5):2279–2337.
- Bartov, E., Radhakrishnan, S., and Krinsky, I. (2000). Investor sophistication and patterns in stock returns after earnings announcements. *The accounting review*, 75(1):43–63.
- Berg, F., Koelbel, J. F., and Rigobon, R. (2022). Aggregate confusion: The divergence of esg ratings. *Review of Finance*, 26(6):1315–1344.
- Boone, A. L. and White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of financial economics*, 117(3):508–533.
- Bybee, L., Kelly, B., Manela, A., and Xiu, D. (2024). Business news and business cycles. *The Journal of Finance*, 79(5):3105–3147.
- Carter, M. E. and Soo, B. S. (1999). The relevance of form 8-k reports. *Journal of Accounting Research*, 37(1):119–132.
- Chen, J., Hong, H., and Stein, J. C. (2001). Forecasting crashes: Trading volume, past returns, and conditional skewness in stock prices. *Journal of financial Economics*, 61(3):345–381.
- Chen, X., Harford, J., and Li, K. (2007). Monitoring: Which institutions matter? *Journal of financial Economics*, 86(2):279–305.
- Clarke, J. and Subramanian, A. (2006). Dynamic forecasting behavior by analysts: Theory and evidence. *Journal of Financial Economics*, 80(1):81–113.
- Clement, M. B. and Tse, S. Y. (2005). Financial analyst characteristics and herding behavior in forecasting. *The Journal of finance*, 60(1):307–341.
- Cohen, L., Malloy, C., and Nguyen, Q. (2020). Lazy prices. *The Journal of Finance*, 75(3):1371–1415.
- Cremers, M. and Weinbaum, D. (2010). Deviations from put-call parity and stock return predictability. *Journal of Financial and Quantitative Analysis*, 45(2):335–367.
- Davis, A. K., Ge, W., Matsumoto, D., and Zhang, J. L. (2015). The effect of manager-specific optimism on the tone of earnings conference calls. *Review of accounting studies*, 20(2):639–673.
- Diether, K. B., Malloy, C. J., and Scherbina, A. (2002). Differences of opinion and the cross section of stock returns. *The journal of finance*, 57(5):2113–2141.
- Dimson, E. (1979). Risk measurement when shares are subject to infrequent trading. *Journal of financial economics*, 7(2):197–226.
- Dyck, A. and Zingales, L. (2004). Private benefits of control: An international comparison. *The journal of finance*, 59(2):537–600.
- Frankel, R., Johnson, M., and Skinner, D. J. (1999). An empirical examination of conference calls as a voluntary disclosure medium. *Journal of Accounting Research*, 37(1):133–150.
- Gantchev, N., Giannetti, M., and Li, R. (2022). Does money talk? divestitures and corporate environmental and social policies. *Review of Finance*, 26(6):1469–1508.

- Garcia, D., Hu, X., and Rohrer, M. (2023). The colour of finance words. *Journal of Financial Economics*, 147(3):525–549.
- Grootendorst, M. (2022). Bertopic: Neural topic modeling with a class-based tf-idf procedure. *arXiv preprint arXiv:2203.05794*.
- Harford, J., He, Q., and Qiu, B. (2026). Firm-level labor shortage exposure. *The Review of Financial Studies*, page hhag049.
- Hassan, T. A., Hollander, S., Van Lent, L., and Tahoun, A. (2019). Firm-level political risk: Measurement and effects. *The Quarterly Journal of Economics*, 134(4):2135–2202.
- Hollander, S., Pronk, M., and Roelofsen, E. (2010). Does silence speak? an empirical analysis of disclosure choices during conference calls. *Journal of Accounting Research*, 48(3):531–563.
- Hong, H. and Kubik, J. D. (2003). Analyzing the analysts: Career concerns and biased earnings forecasts. *The Journal of Finance*, 58(1):313–351.
- Hong, H., Kubik, J. D., and Solomon, A. (2000). Security analysts’ career concerns and herding of earnings forecasts. *The Rand journal of economics*, pages 121–144.
- Honnibal, M. and Montani, I. (2017). spacy 2: Natural language understanding with bloom embeddings, convolutional neural networks and incremental parsing. (*No Title*).
- Huang, A. H., Lehavy, R., Zang, A. Y., and Zheng, R. (2018). Analyst information discovery and interpretation roles: A topic modeling approach. *Management science*, 64(6):2833–2855.
- Hutton, A. P., Marcus, A. J., and Tehranian, H. (2009). Opaque financial reports, r2, and crash risk. *Journal of financial Economics*, 94(1):67–86.
- Ivković, Z. and Jegadeesh, N. (2004). The timing and value of forecast and recommendation revisions. *Journal of Financial Economics*, 73(3):433–463.
- Jin, L. and Myers, S. C. (2006). R2 around the world: New theory and new tests. *Journal of financial Economics*, 79(2):257–292.
- Kamenica, E. and Gentzkow, M. (2011). Bayesian persuasion. *American Economic Review*, 101(6):2590–2615.
- Kasznik, R. (1999). On the association between voluntary disclosure and earnings management. *Journal of accounting research*, 37(1):57–81.
- Kasznik, R. and Lev, B. (1995). To warn or not to warn: Management disclosures in the face of an earnings surprise. *Accounting review*, pages 113–134.
- Kim, J.-B., Li, Y., and Zhang, L. (2011a). Cfos versus ceos: Equity incentives and crashes. *Journal of financial economics*, 101(3):713–730.
- Kim, J.-B., Li, Y., and Zhang, L. (2011b). Corporate tax avoidance and stock price crash risk: Firm-level analysis. *Journal of financial Economics*, 100(3):639–662.
- Kothari, S. P., Shu, S., and Wysocki, P. D. (2009). Do managers withhold bad news? *Journal of Accounting research*, 47(1):241–276.
- Larcker, D. F. and Zakolyukina, A. A. (2012). Detecting deceptive discussions in conference calls. *Journal of Accounting Research*, 50(2):495–540.
- Lerman, A. and Livnat, J. (2010). The new form 8-k disclosures. *Review of Accounting Studies*, 15(4):752–778.

- Li, K., Mai, F., Shen, R., and Yan, X. (2021). Measuring corporate culture using machine learning. *The Review of Financial Studies*, 34(7):3265–3315.
- Livnat, J. and Mendenhall, R. R. (2006). Comparing the post-earnings announcement drift for surprises calculated from analyst and time series forecasts. *Journal of accounting research*, 44(1):177–205.
- Loughran, T. and McDonald, B. (2011). When is a liability not a liability? textual analysis, dictionaries, and 10-ks. *The Journal of finance*, 66(1):35–65.
- Loughran, T. and McDonald, B. (2016). Textual analysis in accounting and finance: A survey. *Journal of Accounting Research*, 54(4):1187–1230.
- Loughran, T. and McDonald, B. (2024). Measuring firm complexity. *Journal of Financial and Quantitative Analysis*, 59(6):2487–2514.
- Loughran, T. and Vijh, A. M. (1997). Do long-term shareholders benefit from corporate acquisitions? *The Journal of finance*, 52(5):1765–1790.
- Matsumoto, D., Pronk, M., and Roelofsen, E. (2011). What makes conference calls useful? the information content of managers’ presentations and analysts’ discussion sessions. *The Accounting Review*, 86(4):1383–1414.
- Mayew, W. J. and Venkatachalam, M. (2012). The power of voice: Managerial affective states and future firm performance. *The Journal of Finance*, 67(1):1–43.
- McMullin, J. L., Miller, B. P., and Twedt, B. J. (2019). Increased mandated disclosure frequency and price formation: Evidence from the 8-k expansion regulation. *Review of Accounting Studies*, 24(1):1–33.
- Pan, J. (2002). The jump-risk premia implicit in options: Evidence from an integrated time-series study. *Journal of financial economics*, 63(1):3–50.
- Rau, P. R. and Vermaelen, T. (1998). Glamour, value and the post-acquisition performance of acquiring firms. *Journal of financial economics*, 49(2):223–253.
- Reimers, N. and Gurevych, I. (2019). Sentence-bert: Sentence embeddings using siamese bert-networks. In *Proceedings of the 2019 conference on empirical methods in natural language processing and the 9th international joint conference on natural language processing (EMNLP-IJCNLP)*, pages 3982–3992.
- Sautner, Z., Van Lent, L., Vilkov, G., and Zhang, R. (2023). Firm-level climate change exposure. *The Journal of Finance*, 78(3):1449–1498.
- Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of accounting research*, 32(1):38–60.
- Song, K., Tan, X., Qin, T., Lu, J., and Liu, T.-Y. (2020). Mpnet: Masked and permuted pre-training for language understanding. *Advances in neural information processing systems*, 33:16857–16867.
- Tetlock, P. C. (2007). Giving content to investor sentiment: The role of media in the stock market. *The Journal of finance*, 62(3):1139–1168.
- Watkins, J. (2022). Consequences of prescribed disclosure timeliness: Evidence from acceleration of the form 8-k filing deadline. *The Accounting Review*, 97(7):429–463.
- Xiao, Z. (2024). Measuring information quality by topic attention divergence: Evidence from earnings calls. *Available at SSRN 4723491*.
- Xing, Y., Zhang, X., and Zhao, R. (2010). What does the individual option volatility smirk tell us about future equity returns? *Journal of Financial and Quantitative*

*Analysis*, 45(3):641–662.  
Zhang, X. F. (2006). Information uncertainty and stock returns. *The journal of Finance*, 61(1):105–137.

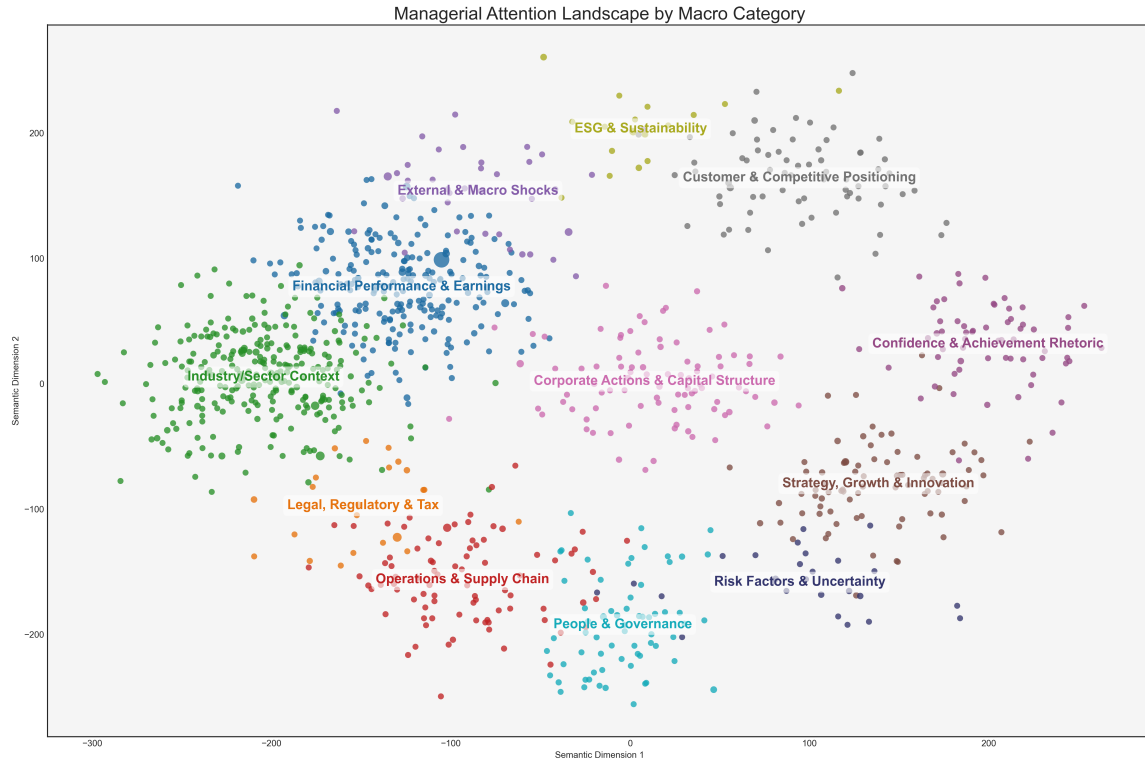


Figure 1. This figure presents the semantic map of managerial discussion derived from earnings-call transcripts. Each point represents a topic, and colors denote macro-categories. The spatial arrangement reflects similarity in managerial language: topics that appear closer together share related linguistic and conceptual content. The figure illustrates that managerial attention is not diffuse but instead clusters into coherent thematic regions that correspond to economically meaningful domains.

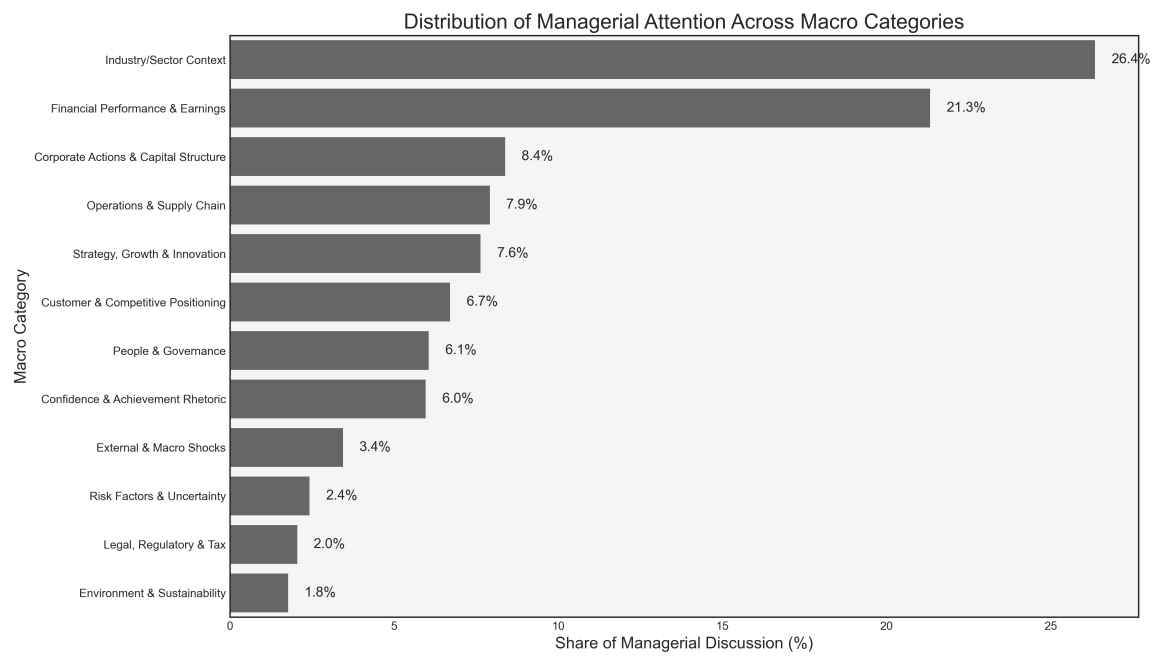


Figure 2. This figure shows the share of managerial discussion allocated to each macro category based on sentence-level topic assignments. Shares are computed as the proportion of all topic-assigned sentences falling into each category.

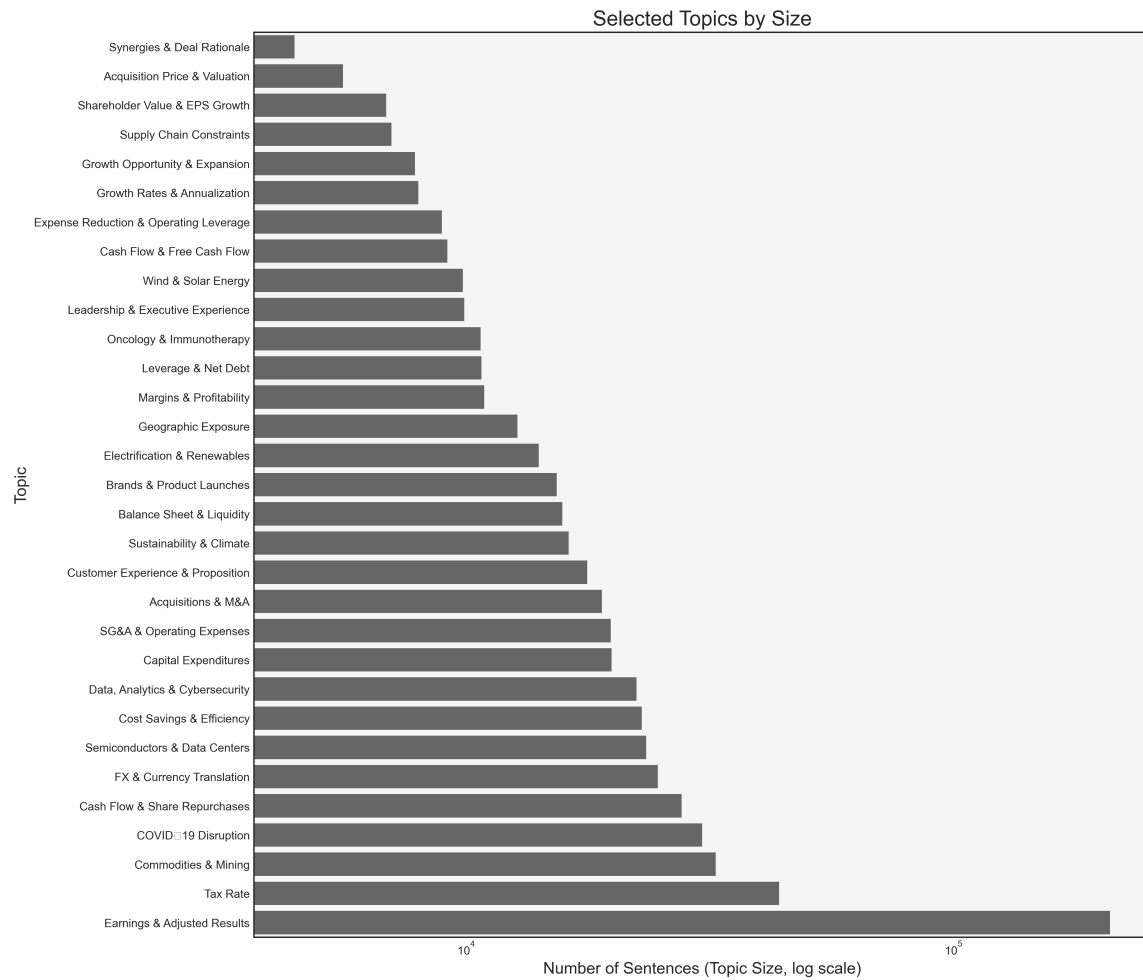


Figure 3. This figure plots the relative size of top thirty managerial attention topics derived from earnings-call transcripts. The x-axis uses a logarithmic scale to display proportional differences across topics.

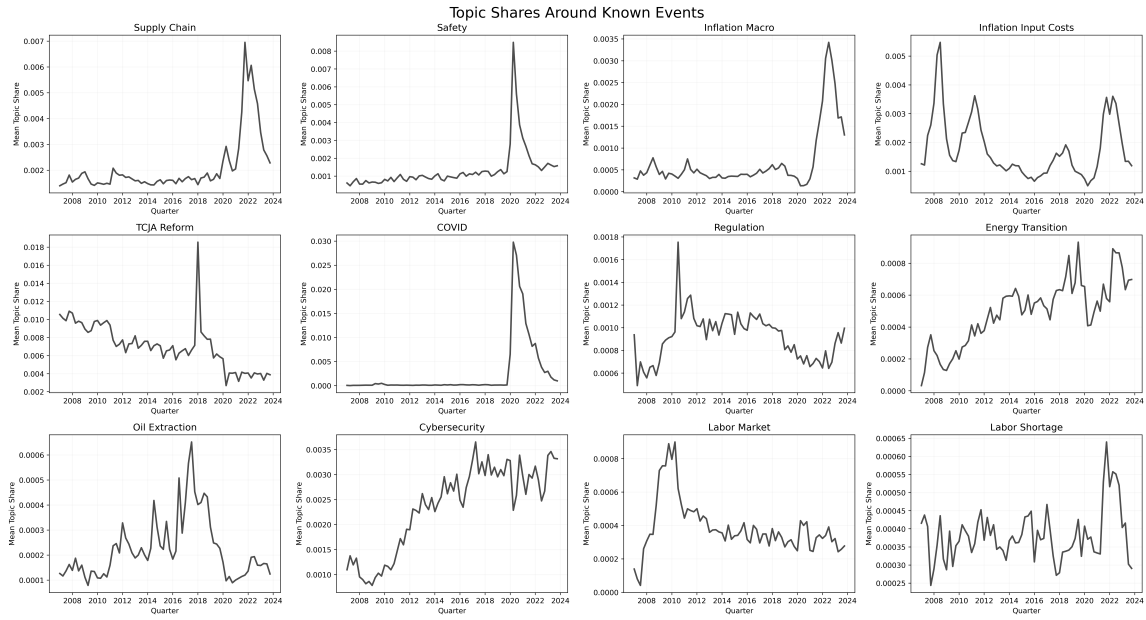


Figure 4. This figure plots mean quarterly topic shares for twelve topics and highlights periods associated with major economic or policy events relevant to each topic. The patterns show clear increases in topic emphasis during these windows, indicating that the topics capture meaningful variation in managerial discussion rather than noise.

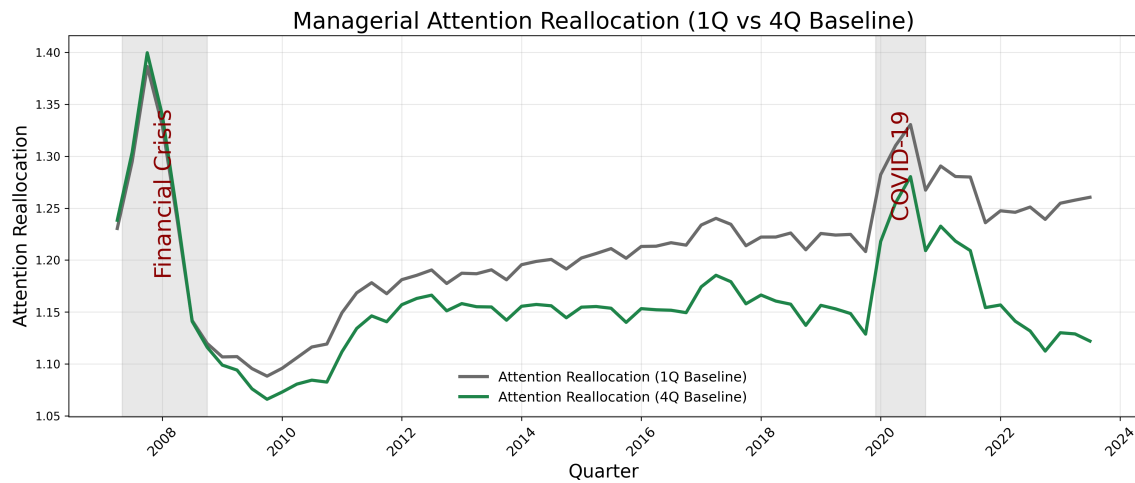


Figure 5. Time series of managerial attention reallocation. This figure plots the quarterly cross-sectional mean of  $Attn\ Realloc^{1Q}$  (gray) and  $Attn\ Realloc^{4Q}$  (green) from 2007 through 2023. Shaded regions indicate the 2007–2008 financial crisis and the COVID-19 pandemic.

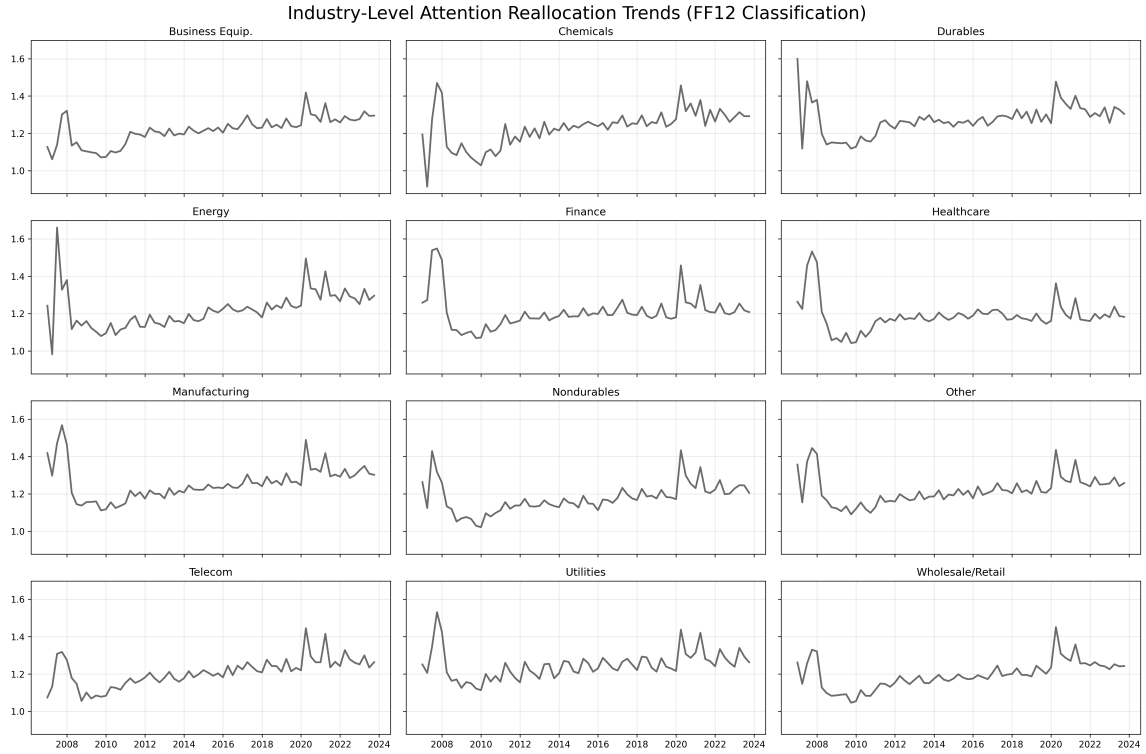


Figure 6. Attention reallocation by industry. This figure plots the quarterly mean of  $Attn\ Realloc^{1Q}$  separately for each Fama-French 12 industry group from 2007 through 2023.

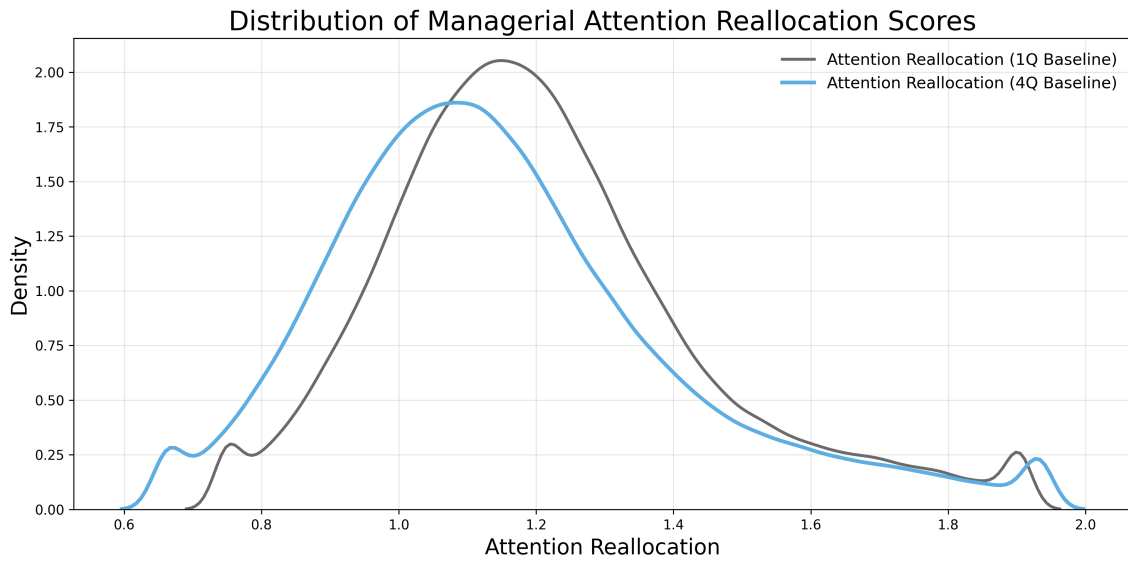


Figure 7. Cross-sectional distribution of attention reallocation. This figure presents kernel density estimates of the pooled cross-sectional distribution of  $Attn\ Realloc^{1Q}$  (gray) and  $Attn\ Realloc^{4Q}$  (blue) across all firm-quarter observations.

**Table 1: Sample Topics and Example Sentences**

This table presents a sample of 20 topics identified by the BERTopic model applied to earnings call transcripts from 2007 through 2023. For each topic, I report the manually assigned label and five example sentences assigned to that topic by the model. Topics are identified endogenously through density-based clustering of transformer-based sentence embeddings, and labels are assigned by reviewing the highest-weighted terms from the class-based TF-IDF representation.

| Topic ID | Label                             | Example Sentences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0        | Earnings & Adjusted Results       | <p>Earnings growth of 13% contributed £295 million to returns compared to a decline of 8% in the prior year.</p> <p>And 16 companies, 27%, were valued using current year forecast earnings.</p> <p>That strong performance also reflects the fact that we have only used lower forecast earnings for 2 portfolio companies, with a total value of GBP 63 million.</p> <p>At the group level, we have achieved an annual cash operating profit of GBP 28 million, and that's a very real increase from our first time profit of GBP 5 million in 2014.</p> <p>We valued 30 companies on an earnings basis at the 30th of September.</p>                                                                                                                                                                                |
| 25       | Customer Experience & Proposition | <p>So in most cases – in many cases, we have to put an employee at the front of the door to basically control and monitor the customer flow into the store because we have to commit to certain restrictions per – of customer numbers per square meter.</p> <p>In addition to the international expansion, we continue to strengthen our unique customer proposition.</p> <p>So we have a very distinct proposition which drives customers to the store.</p> <p>Most of our customers are giving back to us, and also when you compare that to the closest competitor.</p> <p>Since the first year of our investment in Action when we bought the company from the founders, we've jealously guarded the original customer-centric values of the business as well as bringing an ambitious and long-term mindset.</p> |
| 43       | Margins & Profitability           | <p>Third, Eversholt has high margins with a low cost base.</p> <p>We have made further improvement in the operating margin and absolute profitability of our Fund Management activities, as you can see here.</p> <p>And that increase in scale delivers a group EBITDA margin in excess of 12%.</p> <p>Beyond this plan, we would expect to see the margin move up further as our younger countries continue to scale and move towards the margins of our more established countries.</p> <p>Over the course of the plan, we expect group EBITDA margin will improve to a little over 12%.</p>                                                                                                                                                                                                                        |
| 8        | COVID-19 Disruption               | <p>The world has truly been turned upside down by this global health and economic crisis.</p> <p>This year, we had also asked the investment teams to put each company through a COVID-19 filter, and to reset forecasts and cash flows for any pandemic effect.</p> <p>We're also preparing for the real risk of a second peak of infections at some point somewhere, and have asked management to maintain a minimum EUR 500 million cash position from July onwards.</p> <p>If it were not for the pandemic, we would be marking Action up again to reflect the strong Q1 trade.</p> <p>As I said earlier, we came into the COVID-19 crisis in a very good position.</p>                                                                                                                                            |

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| Topic ID | Label                           | Example Sentences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32       | Brands & Product Launches       | <p>Each is differentiated in their respective markets by the strength of 3i's brand.</p> <p>The brand is very well regarded internationally, and we've recently made some attractive investments, which you can see on this slide.</p> <p>Personally, I've been most struck by the energy of the company and the laser-like focus on very low prices and how the exact same store format works in every country Action enters. And we have plenty of other strong performers, including Basic-Fit, Scandlines and ATESTEO, which I haven't talked about today.</p> <p>Ponroy has strong brands, and it sits right on the megatrend of natural health care and well-being.</p>                               |
| 71       | Shareholder Value & EPS Growth  | <p>Earnings growth in our portfolio is being good.</p> <p>And of course, the real test of whether this strategy delivers value will be our long-term financial performance.</p> <p>In the short term, our priorities are to continue to deliver good financial performance, to integrate our businesses, and to continue to see strong earnings growth in much of our portfolio, notwithstanding the challenges we face.</p> <p>As I've already said, we continue to see strong earnings growth in much of our portfolio, notwithstanding the challenges we face.</p> <p>And of course, we're working very hard with the companies that showed earnings decreases to get them back on track.</p>            |
| 13       | Cost Savings & Efficiency       | <p>The benefits of the tough decisions we've taken in our own business is reflected in our operating costs, which have continued to fall.</p> <p>As I mentioned earlier, we have taken tough actions ourselves to improve cost efficiency. This will allow operating efficiencies to be achieved, which in turn, enables a reduction of operating expenses by at least GBP 15 million a year from financial year 2012-13.</p> <p>We have made a lot of progress in reducing costs under Michael's leadership.</p> <p>Costs are approximately GBP 110 million lower than 3 years ago, but there is more to do, and Simon will be addressing this alongside determining the right shape for the business.</p> |
| 14       | Data, Analytics & Cybersecurity | <p>And through our monthly dashboard monitoring process, we are very focused on supporting our management teams where they have exposure to slowing sectors or geographies or where they face other factors, which were outside their control.</p> <p>We'll look at transaction data if we can get reliable inputs.</p> <p>Fifth, proprietary analytics.</p> <p>With the recent acquisition of Claro, Wilson has added a proprietary workforce analytics offering.</p> <p>But there were also other areas such as data centers and smart grid and energy efficiency that we wanted to focus on also.</p>                                                                                                    |
| 369      | Positive EBITDA & Turnaround    | <p>EBITDA has tripled during our investment period.</p> <p>EBITDA has grown 68% since our investment in 2007.</p> <p>Through acquisitions, growth and operational improvement, EBITDA is up 21% from the time of our investment in 2008.</p> <p>Positively, it includes a reversal of £18 million in relation to an additional asset, which is showing signs of good earnings recovery after significant intervention on our part.</p> <p>As a result, underlying business performance contributed a 10p improvement.</p>                                                                                                                                                                                   |
| 21       | Acquisitions & M&A              | <p>We continue to provide acquisition funding as we see our portfolio companies able to do transactions which are not subject to the same high prices we see elsewhere.</p> <p>And this made it a really attractive acquisition target.</p> <p>The acquisition of MIM from Mizuho was therefore a natural step.</p> <p>This next slide shows you the shape of the business once the MIM acquisition is complete, which we expect to be at the end of January 2011.</p> <p>Our Buyout and Growth Capital businesses have the same mid-market focus, targeting companies with an enterprise value in the range of EUR 100 million to EUR 1 billion.</p>                                                       |

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| Topic ID | Label                       | Example Sentences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 195      | R&D Investment & Innovation | <p>We made a significant follow-on investment in Scandlines, which has already been a strong investment for 3i.</p> <p>That change of focus means a good share of our recent investments have been sourced directly, away from competitive bank-driven auction processes.</p> <p>3iN and Scandlines keep delivering the cash, and we have some very interesting platform assets in Cirtex and Q which are set to achieve very good growth over the coming years.</p> <p>I'm proud to say that we already did the first investment, the first add-on, and we hope to be able to announce a few further ones over the next 12 months.</p> <p>And our bolt-on activity creates even more strategic and financial upside over time, which will become obvious when we finally move to realization of these investments.</p> |
| 44       | Leverage & Net Debt         | <p>However, the net debt of GBP 352 million is comfortably within our GBP 1 billion limit.</p> <p>As an example, the average debt multiple in our buyout portfolio now stands at 4.4x, down from almost 6x, which gives greater headroom to cope with any temporary fluctuations in performance.</p> <p>Our gross debt currently stands at GBP 1.7 billion, and taking into account our cash balances, we have net debt of GBP 531 million.</p> <p>You can see from this slide that we finished the period of investment assets of GBP 3.4 billion and gross debt of GBP 1.7 billion.</p> <p>We've also reduced the leverage across the buyout portfolio from around 6x EBITDA to 4.4x, with over 85% of the portfolio not having any maturities due before 2014.</p>                                                   |
| 70       | Supply Constraints          | <p>Chain</p> <p>As we told you last May, we've struggled with operational issues in the supply chain of Action, and that has led to product availability problems, particularly in France, our largest market.</p> <p>It needs solid foundations and a resilient supply chain to really capitalize on the attraction of the format to consumers wherever it opens.</p> <p>But the detail has been carefully considered against our rollout experience so far, and we're well underway in building an organization and a supply chain to manage that growth.</p> <p>We're also concerned about the behaviors arriving as of the need of many PE firms to put dry powder to work.</p> <p>The supply chain was interrupted.</p>                                                                                            |
| 2        | Tax Rate                    | <p>We reduced investments in expansion, and we've used the facilities that governments put in place to postpone tax payments, including corporate income taxes, VAT and wage taxes where applicable.</p> <p>Also in 2020, sales was held in Germany by the reduction of VAT from 19% to 16% for the high rate and 7% to 5% for the lower rate.</p> <p>In 2021, our stores were impacted by 2 periods of low tax.</p> <p>Also in 2020, sales were helped by the reduction of VAT from 90% to 60% for the high rate and 75% for the lower rate.</p> <p>Carry deductions reduced our NAV by 39p and the surplus income over costs added 41p.</p>                                                                                                                                                                           |

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| Topic ID | Label                      | Example Sentences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 118      | Synergies & Deal Rationale | <p>The combination of the MIM team's track record and capabilities and 3i's brand and financial strength position us well to take advantage of these opportunities.</p> <p>We've improved where necessary, for example, in bringing together our buyout and growth capital businesses, so that they might operate more effectively in the market.</p> <p>Management was attracted to 3i's track record in the automotive industry, our ability to further internationalize businesses, along with our active partnership approach to drive further efficiencies from across the business.</p> <p>We're satisfied that in all 3 cases, we have bought promising businesses at fair prices with realistic plans to achieve our 2x hurdle.</p> <p>The sale simplifies the group and focuses our people and resources on 2 high-quality businesses.</p> |
| 18       | Capital Expenditures       | <p>We estimated then that implementation cost will be about GBP 30 million, and we have provided for GBP 25 million in this period.</p> <p>At the highest level, we started the year with a run rate cost base of GBP 185 million or 1.8% of our assets under management.</p> <p>And that means we finished the year, at March 31, 2013, with a cost run rate of GBP 140 million or 1.1% of AUM.</p> <p>In 2021, our CapEx increased by EUR 10 million or 5.8% to EUR 183 million.</p> <p>The driver is the sales of our assets of DC Osla, which was recorded in 2021 and concerns the de facto shift of EUR 21.4 million CapEx between 2021 and 2019, which was the year in which the majority of the CapEx for DC Osla was incurred.</p>                                                                                                         |
| 10       | FX & Currency Translation  | <p>The earning hedging in operation in the six-month period was that affected by our core currency borrowings.</p> <p>So for example, we have limited exposure in European financials, which had a significant impact on total market movements, and our value exposure to consumer is much more heavily weighted to Asia.</p> <p>This is principally due to currency and specifically, the share price performance of Adani Power.</p> <p>And finally, as a sterling investor, currency markets have also proved challenging with weakness in the euro and the rupee being particularly relevant for us.</p> <p>We did see some pullback in the valuations of some of our Indian assets, given the challenging supply-side and macroeconomic conditions we face in India.</p>                                                                      |
| 29       | Sustainability & Climate   | <p>So moving on to sustainability or ESG, a very big and important, I would say, point of differentiation.</p> <p>And therefore, we have updated our sustainability strategy, and we've decided that we want to commit ourselves to 4 specific developmental goals which are also being embraced by the United Nations.</p> <p>So the first one is about responsible consumption, and we've developed a philosophy around the product pillar.</p> <p>We have committed ourselves to the environmental pillar.</p> <p>So when we launched strategy make sustainability accessible, I think sustainability speaks for itself, but I think the word accessibility requires some explanation.</p>                                                                                                                                                       |

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| Topic ID | Label                      | Example Sentences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 53       | Cash Flow & Free Cash Flow | <p>So last year's return benefited from the realization of the original debt warehouse. Debt Management makes significant contribution to our operating cash flow. We've seen considerable improvement in our Private Equity performance, including an impressive run of cash realizations.</p> <p>But strong realizations, good earnings growth and net fee income have been a big contributor at 41p, and 20p of that performance relates to cash realized profits. We've generated very strong realized profits, good earnings growth and a reduction in operating costs.</p> |
| 38       | Geographic Exposure        | <p>The market opportunity in Europe and North America is driven by similar factors. In five out of these six, we supported their international development.</p> <p>I believe this is unique in the European mid-market, particularly when combined with our presence and experience of markets such as India, China, and most recently, Brazil. Northern Europe has provided our strongest realizations in the year.</p> <p>Another observation I would make is that many of the challenged investments from 2007 to 2009 came out of the U.K. and the Spanish offices.</p>      |

**Table 2: Summary Statistics**

This table reports summary statistics for the main variables used in the analysis. The sample consists of 4,332 unique U.S. listed firms and 131,379 firm-quarter observations from 2007 through 2023. Panel A reports the attention reallocation measures.  $Attn\ Realloc_t^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter, constructed from earnings call transcripts (Capital IQ) using the BERTopic methodology described in Section III.  $Attn\ Realloc_t^{4Q}$  measures the corresponding shift relative to the trailing four-quarter average. Panel B reports cumulative abnormal returns computed using a market model estimated over trading days  $-255$  to  $-46$  (CRSP).  $PEAD_t$  is the cumulative abnormal return over trading days  $+2$  to  $+60$ . Panel C reports crash risk measures following Kim, Li, and Zhang (2011).  $NCSKEW$  is the negative of the third moment of firm-specific weekly returns scaled by the cubed standard deviation, computed over forward windows of 1, 2, 4, and 8 quarters.  $W$  is long run buy and hold return over the same windows. Panels D and E report options market and analyst outcomes, respectively. Panels F and G report subsequent bad-news 8-K filings and adverse environmental and social incidents. Panel H reports subsequent operating performance, and Panel I reports the firm-level control variables. Detailed variable definitions and data sources are provided in Appendix Table A1. All continuous variables are winsorized at the 1st and 99th percentiles.

|                                          | Dependent Variable = Number of Incidents |           |        |        |       |        |
|------------------------------------------|------------------------------------------|-----------|--------|--------|-------|--------|
|                                          | (1)                                      | (2)       | (3)    | (4)    | (5)   | (6)    |
|                                          | Mean                                     | Std. Dev. | P25    | Median | P75   | N      |
| Panel A: Attention Reallocation Measures |                                          |           |        |        |       |        |
| $Attn\ Realloc_t^{1Q}$                   | 1.203                                    | 0.322     | 0.960  | 1.145  | 1.447 | 131379 |
| $Attn\ Realloc_t^{4Q}$                   | 1.137                                    | 0.237     | 0.975  | 1.109  | 1.264 | 131379 |
| Panel B: Abnormal Returns                |                                          |           |        |        |       |        |
| $CAR(-1, +1)$                            | 0.001                                    | 0.088     | -0.040 | 0.000  | 0.042 | 131379 |
| $CAR(-1, +2)$                            | -0.000                                   | 0.094     | -0.044 | -0.000 | 0.044 | 131379 |
| $CAR(-1, +3)$                            | -0.000                                   | 0.099     | -0.047 | -0.000 | 0.046 | 131379 |
| $CAR(0, +1)$                             | -0.000                                   | 0.084     | -0.039 | -0.000 | 0.038 | 131379 |
| $CAR(-2, +2)$                            | 0.000                                    | 0.097     | -0.046 | 0.000  | 0.046 | 131379 |
| $PEAD_t$                                 | -0.005                                   | 0.223     | -0.113 | -0.007 | 0.096 | 131175 |
| Panel C: Crash Risk                      |                                          |           |        |        |       |        |
| $NCSKEW_{t+1Q}$                          | 0.071                                    | 1.243     | -0.837 | 0.081  | 0.986 | 130632 |
| $NCSKEW_{t+2Q}$                          | 0.076                                    | 1.101     | -0.627 | 0.065  | 0.756 | 129950 |
| $NCSKEW_{t+4Q}$                          | 0.083                                    | 1.000     | -0.482 | 0.056  | 0.606 | 128892 |
| $NCSKEW_{t+8Q}$                          | 0.087                                    | 0.938     | -0.391 | 0.052  | 0.524 | 126989 |
| $W_{t+1Q}$                               | -0.005                                   | 0.202     | -0.112 | -0.010 | 0.088 | 130632 |
| $W_{t+2Q}$                               | -0.008                                   | 0.305     | -0.172 | -0.021 | 0.127 | 129950 |
| $W_{t+4Q}$                               | -0.016                                   | 0.470     | -0.273 | -0.042 | 0.183 | 128892 |
| $W_{t+8Q}$                               | -0.031                                   | 0.716     | -0.432 | -0.089 | 0.255 | 126989 |
| Panel D: Options Market                  |                                          |           |        |        |       |        |
| $Abn\ PCIV_t$                            | 0.026                                    | 0.086     | -0.020 | 0.019  | 0.065 | 103828 |

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|                                      | Dependent Variable = Number of Incidents (cont.) |           |        |        |        |        |
|--------------------------------------|--------------------------------------------------|-----------|--------|--------|--------|--------|
|                                      | (1)                                              | (2)       | (3)    | (4)    | (5)    | (6)    |
|                                      | Mean                                             | Std. Dev. | P25    | Median | P75    | N      |
| <i>IV JUMP<sub>t</sub></i>           | -0.050                                           | 0.084     | -0.091 | -0.042 | -0.004 | 97526  |
| <i>IV JUMP<sub>t+1</sub></i>         | -0.053                                           | 0.076     | -0.088 | -0.043 | -0.014 | 91519  |
| Panel E: Analyst Behavior            |                                                  |           |        |        |        |        |
| <i>Rev Intensity<sub>t</sub></i>     | 0.743                                            | 0.431     | 0.500  | 1.000  | 1.000  | 67049  |
| <i>Boldness<sub>t</sub></i>          | 0.487                                            | 0.351     | 0.188  | 0.500  | 0.778  | 53624  |
| <i>Dispersion<sub>t</sub></i>        | 0.193                                            | 0.498     | 0.028  | 0.068  | 0.171  | 58489  |
| <i>Forecast Error<sub>t</sub></i>    | 0.166                                            | 0.309     | 0.028  | 0.066  | 0.165  | 57294  |
| <i>Disagreement<sub>t</sub></i>      | 0.226                                            | 0.360     | 0.040  | 0.097  | 0.240  | 54533  |
| <i>Cons Revision<sub>t</sub></i>     | -0.000                                           | 0.035     | -0.001 | 0.001  | 0.003  | 75851  |
| <i>Cons Dispersion<sub>t</sub></i>   | 0.006                                            | 0.026     | 0.000  | 0.001  | 0.003  | 72345  |
| Panel F: Mandatory Disclosures (8-K) |                                                  |           |        |        |        |        |
| <i>Bad News 8K<sub>t+90d</sub></i>   | 0.729                                            | 0.935     | 0.000  | 0.000  | 1.000  | 130829 |
| <i>Bad News 8K<sub>t+180d</sub></i>  | 1.466                                            | 1.430     | 0.000  | 1.000  | 2.000  | 130829 |
| <i>Bad News 8K<sub>t+1Y</sub></i>    | 3.020                                            | 2.274     | 1.000  | 3.000  | 4.000  | 130829 |
| <i>Bad News 8K<sub>t+2Y</sub></i>    | 5.816                                            | 3.692     | 3.000  | 5.000  | 8.000  | 130829 |
| <i>Departures<sub>t+1Y</sub></i>     | 2.601                                            | 2.003     | 1.000  | 2.000  | 4.000  | 130829 |
| <i>Terminations<sub>t+1Y</sub></i>   | 0.180                                            | 0.453     | 0.000  | 0.000  | 0.000  | 130829 |
| <i>Impairments<sub>t+1Y</sub></i>    | 0.031                                            | 0.204     | 0.000  | 0.000  | 0.000  | 130829 |
| <i>Non Reliance<sub>t+1Y</sub></i>   | 0.015                                            | 0.135     | 0.000  | 0.000  | 0.000  | 130829 |
| <i>Delisting<sub>t+1Y</sub></i>      | 0.125                                            | 0.482     | 0.000  | 0.000  | 0.000  | 130829 |
| Panel G: Adverse ES Incidents        |                                                  |           |        |        |        |        |
| <i>ESG Incidents<sub>t+3M</sub></i>  | 0.193                                            | 0.952     | 0.000  | 0.000  | 0.000  | 123142 |
| <i>ES Incidents<sub>t+6M</sub></i>   | 0.386                                            | 1.783     | 0.000  | 0.000  | 0.000  | 123142 |
| <i>ES Incidents<sub>t+1Y</sub></i>   | 0.770                                            | 3.418     | 0.000  | 0.000  | 0.000  | 123142 |
| <i>Severity<sub>t+3M</sub></i>       | 0.179                                            | 0.581     | 0.000  | 0.000  | 0.000  | 123317 |
| <i>Severity<sub>t+6M</sub></i>       | 0.268                                            | 0.693     | 0.000  | 0.000  | 0.000  | 123317 |
| <i>Severity<sub>t+1Y</sub></i>       | 0.377                                            | 0.795     | 0.000  | 0.000  | 0.000  | 123317 |
| <i>Reach<sub>t+3M</sub></i>          | 0.141                                            | 0.490     | 0.000  | 0.000  | 0.000  | 123317 |
| <i>Reach<sub>t+6M</sub></i>          | 0.207                                            | 0.572     | 0.000  | 0.000  | 0.000  | 123317 |
| <i>Reach<sub>t+1Y</sub></i>          | 0.287                                            | 0.649     | 0.000  | 0.000  | 0.000  | 123317 |
| <i>ES Incidents<sub>t-1</sub></i>    | 0.084                                            | 0.284     | 0.000  | 0.000  | 0.000  | 123317 |
| Panel H: Operational Performance     |                                                  |           |        |        |        |        |
| <i>ROA<sub>t+1Q</sub></i>            | -0.005                                           | 0.056     | -0.005 | 0.007  | 0.019  | 129984 |
| <i>ROA<sub>t+2Q</sub></i>            | -0.005                                           | 0.057     | -0.005 | 0.007  | 0.019  | 128372 |
| <i>Tobin's Q<sub>t+1Q</sub></i>      | 2.146                                            | 1.643     | 1.130  | 1.567  | 2.451  | 130019 |
| <i>Tobin's Q<sub>t+2Q</sub></i>      | 2.143                                            | 1.640     | 1.130  | 1.567  | 2.447  | 128409 |
| Panel I: Control Variables           |                                                  |           |        |        |        |        |

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|                                                    | Dependent Variable = Number of Incidents (cont.) |           |        |        |        |        |
|----------------------------------------------------|--------------------------------------------------|-----------|--------|--------|--------|--------|
|                                                    | (1)                                              | (2)       | (3)    | (4)    | (5)    | (6)    |
|                                                    | Mean                                             | Std. Dev. | P25    | Median | P75    | N      |
| <i>Firm Size</i> <sub><i>t</i>-1</sub>             | 14.193                                           | 2.020     | 12.791 | 14.187 | 15.522 | 131379 |
| <i>Return</i> <sub><i>t</i>-1</sub>                | 0.021                                            | 0.430     | -0.227 | -0.024 | 0.189  | 131379 |
| <i>BEME</i> <sub><i>t</i>-1</sub>                  | 0.600                                            | 0.797     | 0.221  | 0.440  | 0.782  | 131379 |
| <i>Investment</i> <sub><i>t</i>-1</sub>            | 0.023                                            | 0.032     | 0.004  | 0.012  | 0.028  | 131379 |
| <i>Leverage</i> <sub><i>t</i>-1</sub>              | 0.249                                            | 0.219     | 0.064  | 0.213  | 0.372  | 131379 |
| <i>Tobin's Q</i> <sub><i>t</i>-1</sub>             | 2.155                                            | 1.661     | 1.132  | 1.569  | 2.463  | 131379 |
| <i>R&amp;D</i> <sub><i>t</i>-1</sub>               | 0.014                                            | 0.028     | 0.000  | 0.000  | 0.017  | 131379 |
| <i>Dummy R&amp;D Missing</i> <sub><i>t</i>-1</sub> | 0.470                                            | 0.499     | 0.000  | 0.000  | 1.000  | 131379 |
| <i>Complexity</i> <sub><i>t</i>-1</sub>            | 0.447                                            | 0.170     | 0.321  | 0.417  | 0.546  | 131379 |
| <i>Inst Own</i> <sub><i>t</i>-1</sub>              | 0.720                                            | 0.259     | 0.596  | 0.800  | 0.917  | 131379 |
| <i>Segment HHI</i> <sub><i>t</i>-1</sub>           | 0.286                                            | 0.145     | 0.180  | 0.333  | 0.333  | 131379 |
| <i>RVOL</i> <sub><i>t</i>-1</sub> <sup>pre</sup>   | 0.026                                            | 0.017     | 0.015  | 0.021  | 0.032  | 131379 |
| <i>Amihud</i> <sub><i>t</i>-1</sub> <sup>pre</sup> | 0.086                                            | 0.407     | 0.000  | 0.001  | 0.010  | 131379 |
| <i>SUE</i> <sub><i>t</i>-1</sub>                   | -0.161                                           | 3.000     | -0.729 | -0.022 | 0.649  | 131379 |
| <i>DTURN</i> <sub><i>t</i>-1</sub>                 | -0.000                                           | 0.080     | -0.035 | -0.002 | 0.030  | 131183 |
| <i>ACCM</i> <sub><i>t</i>-1</sub>                  | 0.240                                            | 0.209     | 0.106  | 0.181  | 0.307  | 130215 |
| <i>NCSKEW</i> <sub><i>t</i>-1</sub>                | 0.057                                            | 1.246     | -0.870 | 0.067  | 0.981  | 131226 |
| <i>σ</i> <sub><i>t</i>-1</sub>                     | 0.048                                            | 0.031     | 0.027  | 0.040  | 0.060  | 131226 |
| <i>W</i> <sub><i>t</i>-1</sub>                     | -0.002                                           | 0.013     | -0.008 | -0.001 | 0.005  | 131226 |

**Table 3: Attention Reallocation and Announcement Returns**

This table reports estimates from regressions of cumulative abnormal returns on managerial attention reallocation. The dependent variable in columns (1) through (5) is the cumulative abnormal return over the indicated window around the earnings call, computed using a market model estimated over trading days  $-255$  to  $-46$ . The dependent variable in column (6) is the post-earnings announcement drift,  $CAR(+2, +60)$ .  $Attn\ Realloc^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All control variables are lagged and defined in Table A1. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                        | (1)<br>$CAR(-1, +1)$   | (2)<br>$CAR(-1, +2)$   | (3)<br>$CAR(-1, +3)$   | (4)<br>$CAR(-2, +2)$   | (5)<br>$CAR(0, +1)$    | (6)<br>$PEAD_t$        |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| $Attn\ Realloc_t^{1Q}$ | -0.005***<br>(-4.567)  | -0.005***<br>(-4.360)  | -0.006***<br>(-4.426)  | -0.006***<br>(-4.224)  | -0.005***<br>(-4.369)  | -0.006**<br>(-2.244)   |
| $Firm\ Size_{t-1}$     | 0.027***<br>(19.826)   | 0.029***<br>(19.232)   | 0.031***<br>(19.040)   | 0.031***<br>(19.472)   | 0.026***<br>(20.978)   | -0.016***<br>(-3.850)  |
| $Past\ Return_{t-1}$   | -0.023***<br>(-19.210) | -0.029***<br>(-18.686) | -0.035***<br>(-19.203) | -0.033***<br>(-20.072) | -0.019***<br>(-16.781) | -0.223***<br>(-37.171) |
| $SUE_{t-1}$            | 0.002***<br>(8.431)    | 0.002***<br>(8.150)    | 0.002***<br>(8.227)    | 0.002***<br>(8.143)    | 0.002***<br>(8.249)    | 0.004***<br>(6.903)    |
| $Investment_{t-1}$     | -0.106***<br>(-7.015)  | -0.127***<br>(-7.857)  | -0.129***<br>(-7.168)  | -0.128***<br>(-7.612)  | -0.101***<br>(-6.839)  | -0.028<br>(-0.393)     |
| $Leverage_{t-1}$       | 0.001<br>(0.322)       | -0.002<br>(-0.451)     | -0.003<br>(-0.612)     | -0.003<br>(-0.639)     | -0.001<br>(-0.411)     | 0.005<br>(0.397)       |
| $Tobin's\ Q_{t-1}$     | -0.011***<br>(-18.225) | -0.012***<br>(-18.035) | -0.013***<br>(-17.523) | -0.013***<br>(-19.055) | -0.010***<br>(-17.814) | -0.012***<br>(-5.360)  |
| $Book-to-Market_{t-1}$ | -0.010***<br>(-6.457)  | -0.012***<br>(-6.755)  | -0.013***<br>(-7.471)  | -0.013***<br>(-7.012)  | -0.010***<br>(-7.063)  | 0.012***<br>(2.656)    |
| $R\&D_{t-1}$           | 0.197***<br>(4.979)    | 0.204***<br>(4.339)    | 0.241***<br>(4.719)    | 0.245***<br>(5.216)    | 0.163***<br>(4.205)    | 0.463***<br>(3.339)    |
| $R\&D\ Missing_{t-1}$  | -0.000<br>(-0.067)     | -0.001<br>(-0.422)     | -0.000<br>(-0.086)     | -0.000<br>(-0.189)     | -0.000<br>(-0.251)     | 0.002<br>(0.412)       |
| $Complexity_{t-1}$     | 0.001<br>(0.429)       | 0.000<br>(0.015)       | -0.000<br>(-0.013)     | 0.000<br>(0.010)       | 0.002<br>(0.647)       | -0.010<br>(-1.287)     |
| $Inst\ Own_{t-1}$      | -0.027***<br>(-7.118)  | -0.029***<br>(-6.958)  | -0.031***<br>(-6.758)  | -0.033***<br>(-7.656)  | -0.025***<br>(-7.105)  | -0.039***<br>(-3.595)  |
| $Segment\ HHI_{t-1}$   | 0.007*<br>(1.988)      | 0.007*<br>(1.711)      | 0.008*<br>(1.805)      | 0.007*<br>(1.813)      | 0.005*<br>(1.736)      | 0.038***<br>(4.194)    |
| $RVOL_{t-1}^{pre}$     | 0.441***<br>(9.960)    | 0.482***<br>(9.750)    | 0.535***<br>(9.129)    | 0.623***<br>(11.860)   | 0.375***<br>(9.362)    | 0.916***<br>(4.279)    |
| $Amihud_{t-1}^{pre}$   | 0.013***<br>(9.409)    | 0.014***<br>(9.096)    | 0.015***<br>(9.173)    | 0.015***<br>(9.029)    | 0.012***<br>(8.784)    | 0.028***<br>(5.763)    |
| <i>Constant</i>        | -0.338***<br>(-18.341) | -0.371***<br>(-17.799) | -0.399***<br>(-17.608) | -0.395***<br>(-18.017) | -0.324***<br>(-19.278) | 0.242***<br>(3.874)    |
| <i>Firm FE</i>         | YES                    | YES                    | YES                    | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i> | YES                    | YES                    | YES                    | YES                    | YES                    | YES                    |
| <i>Observations</i>    | 131169                 | 131169                 | 131169                 | 131169                 | 131169                 | 130969                 |
| <i>R-squared</i>       | 0.085                  | 0.090                  | 0.095                  | 0.095                  | 0.085                  | 0.278                  |

**Table 4: Attention Reallocation and Crash Risk**

This table reports estimates from regressions of crash risk and long-run returns on managerial attention reallocation. In Panel A, the dependent variable is  $NCSKEW$ , the negative coefficient of skewness of firm-specific weekly returns, computed over forward windows of 1, 2, 4, and 8 quarters following the earnings call, following Kim et al. (2011b). In Panel B, the dependent variable is  $\bar{W}$ , the mean firm-specific weekly return over the same forward windows.  $Attn\ Realloc^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All specifications include the standard crash risk controls:  $DTURN_{t-1}$ ,  $NCSKEW_{t-1}$ ,  $\sigma_{t-1}$ , and  $\bar{W}_{t-1}$ , as well as  $Firm\ Size_{t-1}$ ,  $Past\ Return_{t-1}$ ,  $Inst\ Own_{t-1}$ ,  $ROA_{t-1}$ ,  $SUE_{t-1}$ ,  $BEME_{t-1}$ ,  $HHI_{t-1}$ ,  $ACCM_{t-1}$ ,  $Investment_{t-1}$ ,  $Leverage_{t-1}$ ,  $Tobin's\ Q_{t-1}$ ,  $R\&D_{t-1}$ , and  $Complexity_{t-1}$ . I suppresses the controls for brevity. Variable definitions are provided in Appendix Table A1. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                           | Dependent Variable = NCSKEW |                       |                       |                     |
|---------------------------|-----------------------------|-----------------------|-----------------------|---------------------|
|                           | (1)                         | (2)                   | (3)                   | (4)                 |
| Panel A: Crash Risk       | $NCSKEW_{t+1Q}$             | $NCSKEW_{t+2Q}$       | $NCSKEW_{t+4Q}$       | $NCSKEW_{t+8Q}$     |
| $Attn\ Realloc_t^{1Q}$    | 0.042***<br>(3.305)         | 0.032***<br>(2.584)   | 0.029**<br>(2.419)    | 0.022*<br>(1.865)   |
| <i>Controls</i>           | YES                         | YES                   | YES                   | YES                 |
| <i>Firm FE</i>            | YES                         | YES                   | YES                   | YES                 |
| <i>Year-Quarter FE</i>    | YES                         | YES                   | YES                   | YES                 |
| <i>Observations</i>       | 129073                      | 128399                | 127355                | 125479              |
| <i>R-squared</i>          | 0.073                       | 0.112                 | 0.173                 | 0.284               |
| <hr/>                     |                             |                       |                       |                     |
| Panel B: Long-Run Returns | $W_{t+1Q}$                  | $W_{t+2Q}$            | $W_{t+4Q}$            | $W_{t+8Q}$          |
| $Attn\ Realloc_t^{1Q}$    | -0.007***<br>(-3.454)       | -0.011***<br>(-3.313) | -0.015***<br>(-2.716) | -0.020*<br>(-1.876) |
| <i>Controls</i>           | YES                         | YES                   | YES                   | YES                 |
| <i>Firm FE</i>            | YES                         | YES                   | YES                   | YES                 |
| <i>Year-Quarter FE</i>    | YES                         | YES                   | YES                   | YES                 |
| <i>Observations</i>       | 129073                      | 128399                | 127355                | 125479              |
| <i>R-squared</i>          | 0.125                       | 0.196                 | 0.303                 | 0.498               |

**Table 5: Attention Reallocation and Analyst Behavior**

This table reports estimates from regressions of analyst behavior outcomes on managerial attention reallocation. Columns (1) and (2) measure analyst activity:  $Rev\ Intensity_t$  is the fraction of analysts who revise their forecast within 10 trading days of the earnings call, and  $Boldness_t$  measures whether the analyst's revision magnitude exceeds the median peer revision, following Clement and Tse (2005). Columns (3) and (4) measure the information environment:  $Dispersion_t$  is the cross-sectional standard deviation of outstanding analyst forecasts following Diether, Malloy, and Scherbina (2002), and  $Disagreement_t$  is the mean absolute deviation of individual forecasts from the consensus. Columns (5) and (6) measure earnings outcomes:  $SUE_{t+1}$  is standardized unexpected earnings scaled by price following Livnat and Mendenhall (2006), and  $Cons\ Dispersion_{t+1}$  is consensus forecast dispersion scaled by price.  $Attn\ Realloc^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All specifications control for firm and analyst characteristics including  $Firm\ Size_{t-1}$ ,  $Past\ Return_{t-1}$ ,  $SUE_{t-1}$ ,  $Investment_{t-1}$ ,  $Leverage_{t-1}$ ,  $Tobin's\ Q_{t-1}$ ,  $BEME_{t-1}$ ,  $R\&D_{t-1}$ ,  $Complexity_{t-1}$ ,  $Inst\ Own_{t-1}$ ,  $HHI_{t-1}$ ,  $RVOL_{t-1}^{pre}$ ,  $Amihud_{t-1}^{pre}$ , and pre-call analyst dispersion; coefficients on controls are suppressed for brevity. Variable definitions are provided in Appendix Table A1. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                        | Dependent Variable = Number of Incidents |                       |                     |                    |                      |                      |
|------------------------|------------------------------------------|-----------------------|---------------------|--------------------|----------------------|----------------------|
|                        | (1)                                      | (2)                   | (3)                 | (4)                | (5)                  | (6)                  |
|                        | $Rev\ Intensity_t$                       | $Boldness_t$          | $Dispersion_t$      | $Disagreement_t$   | $Cons\ Revision_t$   | $Cons\ Dispersion_t$ |
| $Attn\ Realloc_t^{1Q}$ | 0.044***<br>(2.981)                      | -0.049***<br>(-7.761) | 0.020***<br>(2.667) | 0.011**<br>(2.134) | -0.001**<br>(-2.481) | 0.000*<br>(1.847)    |
| <i>Controls</i>        | YES                                      | YES                   | YES                 | YES                | YES                  | YES                  |
| <i>Firm FE</i>         | YES                                      | YES                   | YES                 | YES                | YES                  | YES                  |
| <i>Year-Quarter FE</i> | YES                                      | YES                   | YES                 | YES                | YES                  | YES                  |
| <i>Observations</i>    | 62371                                    | 49084                 | 56242               | 49826              | 69235                | 68316                |
| <i>R-squared</i>       | 0.476                                    | 0.073                 | 0.477               | 0.483              | 0.186                | 0.621                |

**Table 6: Attention Reallocation and Options Market Pricing**

This table reports estimates from regressions of options market variables on managerial attention reallocation. In column (1), the dependent variable is  $Abn\ PCIV_t$ , the average implied volatility over trading days  $-5$  to  $-1$  minus the firm's 60-trading-day historical average (OptionMetrics). In column (2), the dependent variable is  $IV\ JUMP_t$ , the change in implied volatility from trading day  $-1$  to trading day  $+1$  around the earnings call. In column (3), the dependent variable is  $IV\ JUMP_{t+1}$ , the corresponding measure for the following quarter's earnings call. All implied volatilities are from the OptionMetrics volatility surface for 30-day, 50-delta call options.  $Attn\ Realloc^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All specifications control for  $Firm\ Size_{t-1}$ ,  $Past\ Return_{t-1}$ ,  $SUE_{t-1}$ ,  $Investment_{t-1}$ ,  $Leverage_{t-1}$ ,  $Tobin's\ Q_{t-1}$ ,  $BEME_{t-1}$ ,  $R\&D_{t-1}$ ,  $Complexity_{t-1}$ ,  $Inst\ Own_{t-1}$ ,  $HHI_{t-1}$ ,  $RVOL_{t-1}^{pre}$ , and  $Amihud_{t-1}^{pre}$ ; coefficients on controls are suppressed for brevity. Variable definitions are provided in Appendix Table A1. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                        | Dependent Variable =   |                      |                         |
|------------------------|------------------------|----------------------|-------------------------|
|                        | (1)<br>$Abn\ PCIV_t$   | (2)<br>$IV\ JUMP_t$  | (3)<br>$IV\ JUMP_{t+1}$ |
| $Attn\ Realloc_t^{1Q}$ | -0.030***<br>(-11.818) | 0.036***<br>(15.739) | 0.002**<br>(2.051)      |
| <i>Controls</i>        | YES                    | YES                  | YES                     |
| <i>Firm FE</i>         | YES                    | YES                  | YES                     |
| <i>Year-Quarter FE</i> | YES                    | YES                  | YES                     |
| <i>Observations</i>    | 103649                 | 97331                | 91345                   |
| <i>R-squared</i>       | 0.297                  | 0.195                | 0.237                   |

**Table 7: Attention Reallocation and Bad-News Mandatory Disclosures**

This table reports estimates from regressions of bad-news 8-K filings on managerial attention reallocation. In Panel A, the dependent variable is the count of bad-news 8-K filings within forward windows of 90 days, 180 days, 1 year, and 2 years following the earnings call. Bad-news items include termination of a material agreement (Item 1.02), bankruptcy or receivership (Item 1.03), triggering events affecting debt (Item 2.04), exit or disposal costs (Item 2.05), material impairments (Item 2.06), notice of delisting (Item 3.01), auditor changes (Item 4.01), nonreliance on previously issued financial statements (Item 4.02), departure of directors or officers (Item 5.02), and suspension of trading in benefit plans (Item 5.04), classified following Lerman and Livnat (2010). Panel B reports results for individual item categories over the 1-year window. All regressions are estimated using Poisson pseudo-maximum likelihood (PPML) with high-dimensional fixed effects.  $Attn\ Realloc_t^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All specifications control for  $Bad\ News\ 8K_{t-1Y}$  (the count of bad-news filings in the year before the call),  $Firm\ Size_{t-1}$ ,  $Past\ Return_{t-1}$ ,  $SUE_{t-1}$ ,  $Investment_{t-1}$ ,  $Leverage_{t-1}$ ,  $Tobin's\ Q_{t-1}$ ,  $BEME_{t-1}$ ,  $R\&D_{t-1}$ ,  $Complexity_{t-1}$ ,  $Inst\ Own_{t-1}$ ,  $HHI_{t-1}$ ,  $RVOL_{t-1}^{pre}$ , and  $Amihud_{t-1}^{pre}$ ; coefficients on controls are suppressed for brevity. Variable definitions are provided in Appendix Table A1. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. Results using total 8-K filing counts (including non-bad-news items) are reported in the Appendix and are consistent. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                    | (1)                     | (2)                      | (3)                    | (4)                    |
|------------------------------------|-------------------------|--------------------------|------------------------|------------------------|
| Panel A: Bad-news 8-K filings      | $Bad\ News\ 8K_{t+90d}$ | $Bad\ News\ 8K_{t+180d}$ | $Bad\ News\ 8K_{t+1Y}$ | $Bad\ News\ 8K_{t+2Y}$ |
| $Attn\ Realloc_t^{1Q}$             | 0.094***<br>(5.314)     | 0.062***<br>(4.757)      | 0.051***<br>(5.509)    | 0.035***<br>(4.535)    |
| <i>Controls</i>                    | YES                     | YES                      | YES                    | YES                    |
| <i>Firm FE</i>                     | YES                     | YES                      | YES                    | YES                    |
| <i>Year-Quarter FE</i>             | YES                     | YES                      | YES                    | YES                    |
| <i>Observations</i>                | 130296                  | 130501                   | 130574                 | 130580                 |
| <i>Pseudo R-squared</i>            | 0.071                   | 0.093                    | 0.130                  | 0.191                  |
| Panel B: Categories of 8-K Filings | $Departures_{t+1Y}$     | $Terminations_{t+1Y}$    | $Non\ Reliance_{t+1Y}$ | $Delisting_{t+1Y}$     |
| $Attn\ Realloc_t^{1Q}$             | 0.048***<br>(5.148)     | 0.104***<br>(3.593)      | 0.135***<br>(2.871)    | 0.112**<br>(2.348)     |
| <i>Controls</i>                    | YES                     | YES                      | YES                    | YES                    |
| <i>Firm FE</i>                     | YES                     | YES                      | YES                    | YES                    |
| <i>Year-Quarter FE</i>             | YES                     | YES                      | YES                    | YES                    |
| <i>Observations</i>                | 130442                  | 93584                    | 62189                  | 62189                  |
| <i>Pseudo R-squared</i>            | 0.119                   | 0.121                    | 0.067                  | 0.322                  |

**Table 8: Attention Reallocation and Adverse ES Incidents**

This table reports estimates from regressions of adverse environmental and social (ES) incidents on managerial attention reallocation. In Panel A, the dependent variable is the natural logarithm of one plus the count of adverse ES incidents from RepRisk within forward windows of 3, 6, and 12 months following the earnings call. In Panel B, the dependent variable is the average severity of incidents within the same forward windows, where severity is coded by RepRisk on a scale reflecting the potential impact of the event. In Panel C, the dependent variable is the average reach of incidents, reflecting the breadth of media coverage.  $Attn\ Realloc^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All specifications control for  $Past\ Incidents_{t-1}$  (lagged incident count),  $Firm\ Size_{t-1}$ ,  $Past\ Return_{t-1}$ ,  $SUE_{t-1}$ ,  $Investment_{t-1}$ ,  $Leverage_{t-1}$ ,  $Tobin's\ Q_{t-1}$ ,  $BEME_{t-1}$ ,  $R\&D_{t-1}$ ,  $Complexity_{t-1}$ ,  $Inst\ Own_{t-1}$ ,  $HHI_{t-1}$ ,  $RVOL_{t-1}^{pre}$ , and  $Amihud_{t-1}^{pre}$ ; coefficients on controls are suppressed for brevity. Variable definitions are provided in Appendix Table A1. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                | (1)                    | (2)                    | (3)                    |
|--------------------------------|------------------------|------------------------|------------------------|
| Panel A: Number of Incidents   | $ES\ Incidents_{t+3M}$ | $ES\ Incidents_{t+6M}$ | $ES\ Incidents_{t+1Y}$ |
| $Attn\ Realloc_t^{1Q}$         | 0.010***<br>(3.642)    | 0.014***<br>(3.967)    | 0.023***<br>(5.080)    |
| <i>Controls</i>                | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                 | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>         | YES                    | YES                    | YES                    |
| <i>Observations</i>            | 145442                 | 145442                 | 145442                 |
| <i>R-squared</i>               | 0.621                  | 0.706                  | 0.774                  |
| Panel B: Severity of incidents | $Severity_{t+3M}$      | $Severity_{t+6M}$      | $Severity_{t+1Y}$      |
| $Attn\ Realloc_t^{1Q}$         | 0.013**<br>(2.505)     | 0.016**<br>(2.500)     | 0.023***<br>(3.244)    |
| <i>Controls</i>                | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                 | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>         | YES                    | YES                    | YES                    |
| <i>Observations</i>            | 145658                 | 145658                 | 145658                 |
| <i>R-squared</i>               | 0.455                  | 0.518                  | 0.584                  |
| Panel C: Reach of incidents    | $Reach_{t+3M}$         | $Reach_{t+6M}$         | $Reach_{t+1Y}$         |
| $Attn\ Realloc_t^{1Q}$         | 0.011**<br>(2.511)     | 0.010*<br>(1.930)      | 0.012**<br>(2.005)     |
| <i>Controls</i>                | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                 | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>         | YES                    | YES                    | YES                    |
| <i>Observations</i>            | 145658                 | 145658                 | 145658                 |
| <i>R-squared</i>               | 0.436                  | 0.493                  | 0.553                  |

**Table 9: Attention Reallocation and Subsequent Firm Performance**

This table examines the relation between managerial attention reallocation and subsequent firm performance. Panel A reports estimates from regressions of future return on assets ( $ROA$ ) on managerial attention reallocation. Panel B reports estimates from regressions of future Tobin's  $Q$  on managerial attention reallocation. The dependent variables are measured one, two, and three quarters following the earnings call.  $Attn\ Realloc^{1Q}$  measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. All specifications include the full set of control variables used in the baseline regressions, as well as firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

| <b>Panel A: Operating Performance</b> |                            |                            |                            |
|---------------------------------------|----------------------------|----------------------------|----------------------------|
|                                       | (1)<br>$ROA_{t+1Q}$        | (2)<br>$ROA_{t+2Q}$        | (3)<br>$ROA_{t+3Q}$        |
| $Attn\ Realloc_t^{1Q}$                | -0.001**<br>(-2.148)       | -0.001**<br>(-2.214)       | -0.001<br>(-1.273)         |
| <i>Controls</i>                       | YES                        | YES                        | YES                        |
| <i>Firm FE</i>                        | YES                        | YES                        | YES                        |
| <i>Year-Quarter FE</i>                | YES                        | YES                        | YES                        |
| <i>Observations</i>                   | 129695                     | 128076                     | 126361                     |
| <i>R-squared</i>                      | 0.628                      | 0.616                      | 0.608                      |
| <b>Panel B: Firm Valuation</b>        |                            |                            |                            |
|                                       | (1)<br>$Tobin's\ Q_{t+1Q}$ | (2)<br>$Tobin's\ Q_{t+2Q}$ | (3)<br>$Tobin's\ Q_{t+3Q}$ |
| $Attn\ Realloc_t^{1Q}$                | -0.058***<br>(-7.133)      | -0.061***<br>(-6.420)      | -0.049***<br>(-4.451)      |
| <i>Controls</i>                       | YES                        | YES                        | YES                        |
| <i>Firm FE</i>                        | YES                        | YES                        | YES                        |
| <i>Year-Quarter FE</i>                | YES                        | YES                        | YES                        |
| <i>Observations</i>                   | 129713                     | 128107                     | 126412                     |
| <i>R-squared</i>                      | 0.858                      | 0.822                      | 0.799                      |

**Table 10: Category-Level Drivers of Market and Disclosure Outcomes**

This table examines which content categories of managerial attention reallocation drive announcement returns, crash risk, long-run returns, and bad-news 8-K filings. I decomposes attention reallocation into 12 economically distinct content and assigned each BERTopic topic to one of the 12 categories; the classification procedure is described in Appendix C1. All 12 categories enter each regression jointly, so a coefficient reports the outcome associated with shifting attention toward that category while holding attention to the remaining 11 fixed. Panel A reports coefficients from regressions of cumulative abnormal returns (CAR) over the indicated windows around the earnings call, computed using a market model estimated over trading days  $-255$  to  $-46$ ; column (6) reports post-earnings announcement drift,  $CAR(+2, +60)$ . Panel B reports estimates for crash risk, measured as  $NCSKEW$  over forward windows of 1, 2, 4, and 8 quarters following the call. Panel C reports long-run returns, measured as the mean firm-specific weekly return  $\bar{W}$  over the same horizons. Panel D reports Poisson pseudo-maximum-likelihood estimates for the count of bad-news 8-K filings within forward windows of 90 days, 180 days, 1 year, and 2 years following the call. All specifications include firm and year-quarter fixed effects and the full set of controls used in the baseline regressions; variable definitions are provided in Appendix Table A1. Standard errors are clustered at the firm level, and  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

| <b>Panel A: Announcement Returns</b>     | (1)                   | (2)                   | (3)                   | (4)                   | (5)                   | (6)                   |
|------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                          | $CAR(-1, +1)$         | $CAR(-1, +2)$         | $CAR(-1, +3)$         | $CAR(-2, +2)$         | $CAR(0, +1)$          | $PEAD_t$              |
| <i>Risk &amp; Uncertainty</i>            | -0.104***<br>(-6.966) | -0.106***<br>(-6.673) | -0.107***<br>(-6.384) | -0.128***<br>(-7.707) | -0.099***<br>(-6.875) | 0.020<br>(0.552)      |
| <i>Strategy &amp; Growth</i>             | -0.050***<br>(-8.527) | -0.051***<br>(-8.250) | -0.053***<br>(-8.112) | -0.050***<br>(-7.741) | -0.047***<br>(-8.278) | -0.012<br>(-0.828)    |
| <i>Operations &amp; Supply Chain</i>     | -0.047***<br>(-6.230) | -0.049***<br>(-5.980) | -0.051***<br>(-5.961) | -0.049***<br>(-5.717) | -0.041***<br>(-5.676) | -0.066***<br>(-3.539) |
| <i>Corp. Actions &amp; Cap. Struct</i>   | 0.030***<br>(6.296)   | 0.029***<br>(5.707)   | 0.030***<br>(5.709)   | 0.032***<br>(6.050)   | 0.026***<br>(5.736)   | -0.009<br>(-0.761)    |
| <i>People &amp; Governance</i>           | 0.007**<br>(2.552)    | 0.008***<br>(2.878)   | 0.010***<br>(3.337)   | 0.006**<br>(2.255)    | 0.008***<br>(3.367)   | -0.003<br>(-0.404)    |
| <i>Achievement &amp; Confidence</i>      | 0.014*<br>(1.778)     | 0.014*<br>(1.657)     | 0.012<br>(1.266)      | 0.016*<br>(1.750)     | 0.010<br>(1.225)      | 0.014<br>(0.703)      |
| <i>Customer &amp; Competition</i>        | -0.018**<br>(-2.562)  | -0.019**<br>(-2.523)  | -0.017**<br>(-2.112)  | -0.019**<br>(-2.383)  | -0.015**<br>(-2.243)  | -0.031*<br>(-1.802)   |
| <i>Environment &amp; Sustainability</i>  | 0.002<br>(0.183)      | 0.007<br>(0.594)      | 0.006<br>(0.438)      | 0.004<br>(0.294)      | 0.002<br>(0.230)      | 0.057*<br>(1.900)     |
| <i>Financial Perform. &amp; Earnings</i> | 0.004*<br>(1.700)     | 0.006**<br>(2.283)    | 0.006**<br>(2.208)    | 0.007**<br>(2.569)    | 0.005**<br>(1.966)    | 0.016***<br>(2.622)   |
| <i>External &amp; Macro Shocks</i>       | -0.007<br>(-0.667)    | -0.015<br>(-1.369)    | -0.015<br>(-1.378)    | -0.019*<br>(-1.736)   | -0.007<br>(-0.776)    | -0.044*<br>(-1.785)   |
| <i>Industry Context</i>                  | -0.002<br>(-0.515)    | -0.003<br>(-0.755)    | -0.004<br>(-0.980)    | -0.004<br>(-0.907)    | -0.002<br>(-0.594)    | -0.010<br>(-1.086)    |
| <i>Legal &amp; Regulatory</i>            | 0.018*<br>(1.649)     | 0.027**<br>(2.213)    | 0.020<br>(1.582)      | 0.037***<br>(2.988)   | 0.021*<br>(1.958)     | -0.014<br>(-0.471)    |
| <i>Controls</i>                          | YES                   | YES                   | YES                   | YES                   | YES                   | YES                   |
| <i>Firm FE</i>                           | YES                   | YES                   | YES                   | YES                   | YES                   | YES                   |
| <i>Year-Quarter FE</i>                   | YES                   | YES                   | YES                   | YES                   | YES                   | YES                   |
| <i>Observations</i>                      | 131169                | 131169                | 131169                | 131169                | 131169                | 130969                |
| <i>R-squared</i>                         | 0.103                 | 0.107                 | 0.110                 | 0.112                 | 0.103                 | 0.279                 |

| <b>Panel B: Crash Risk for the Next Period</b> |                        |                        |                        |                        |
|------------------------------------------------|------------------------|------------------------|------------------------|------------------------|
|                                                | (1)<br>$NCSKEW_{t+1Q}$ | (2)<br>$NCSKEW_{t+2Q}$ | (3)<br>$NCSKEW_{t+4Q}$ | (4)<br>$NCSKEW_{t+8Q}$ |
| <i>Risk &amp; Uncertainty</i>                  | -0.411**<br>(-1.972)   | -0.150<br>(-0.747)     | -0.302<br>(-1.505)     | -0.513**<br>(-2.561)   |
| <i>Strategy &amp; Growth</i>                   | 0.054<br>(0.610)       | 0.091<br>(1.077)       | 0.117<br>(1.347)       | 0.111<br>(1.295)       |
| <i>Operations &amp; Supply Chain</i>           | 0.033<br>(0.325)       | 0.089<br>(0.884)       | 0.109<br>(1.060)       | 0.138<br>(1.292)       |
| <i>Corp. Actions &amp; Cap. Struct</i>         | 0.226***<br>(3.201)    | 0.277***<br>(4.087)    | 0.177***<br>(2.579)    | 0.228***<br>(3.259)    |
| <i>People &amp; Governance</i>                 | 0.099***<br>(2.641)    | -0.003<br>(-0.076)     | -0.005<br>(-0.175)     | -0.015<br>(-0.495)     |
| <i>Achievement &amp; Confidence</i>            | -0.174<br>(-1.463)     | -0.159<br>(-1.375)     | 0.024<br>(0.195)       | 0.067<br>(0.543)       |
| <i>Customer &amp; Competition</i>              | 0.064<br>(0.601)       | 0.158<br>(1.544)       | 0.006<br>(0.058)       | -0.105<br>(-1.015)     |
| <i>Environment &amp; Sustainability</i>        | 0.130<br>(0.752)       | 0.255<br>(1.459)       | 0.194<br>(1.079)       | 0.516***<br>(2.707)    |
| <i>Financial Perform. &amp; Earnings</i>       | -0.046<br>(-1.248)     | -0.063*<br>(-1.824)    | -0.015<br>(-0.409)     | -0.043<br>(-1.159)     |
| <i>External &amp; Macro Shocks</i>             | 0.069<br>(0.486)       | -0.013<br>(-0.103)     | 0.124<br>(0.913)       | 0.059<br>(0.418)       |
| <i>Industry Context</i>                        | 0.071<br>(1.419)       | 0.054<br>(1.111)       | -0.017<br>(-0.358)     | -0.027<br>(-0.544)     |
| <i>Legal &amp; Regulatory</i>                  | 0.194<br>(1.200)       | -0.001<br>(-0.005)     | 0.082<br>(0.488)       | 0.275<br>(1.571)       |
| <i>Controls</i>                                | YES                    | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                                 | YES                    | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>                         | YES                    | YES                    | YES                    | YES                    |
| <i>Observations</i>                            | 128432                 | 127765                 | 126734                 | 124863                 |
| <i>R-squared</i>                               | 0.074                  | 0.113                  | 0.174                  | 0.285                  |

| <b>Panel C: Long-Run Returns for the Next Period</b> |                       |                       |                       |                       |
|------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                                      | (1)<br>$W_{t+1Q}$     | (2)<br>$W_{t+2Q}$     | (3)<br>$W_{t+4Q}$     | (4)<br>$W_{t+8Q}$     |
| <i>Risk &amp; Uncertainty</i>                        | 0.005**<br>(2.366)    | 0.005***<br>(3.284)   | 0.003***<br>(3.191)   | 0.002***<br>(3.434)   |
| <i>Strategy &amp; Growth</i>                         | -0.000<br>(-0.092)    | 0.000<br>(0.279)      | 0.000<br>(1.107)      | 0.000<br>(0.452)      |
| <i>Operations &amp; Supply Chain</i>                 | -0.002*<br>(-1.692)   | -0.001<br>(-1.560)    | -0.001<br>(-1.069)    | -0.001***<br>(-3.398) |
| <i>Corp. Actions &amp; Cap. Struct</i>               | -0.002***<br>(-2.867) | -0.002***<br>(-3.557) | -0.001***<br>(-3.433) | -0.001***<br>(-2.727) |
| <i>People &amp; Governance</i>                       | -0.002***<br>(-5.500) | -0.000<br>(-0.793)    | -0.000<br>(-1.227)    | -0.000***<br>(-2.795) |
| <i>Achievement &amp; Confidence</i>                  | 0.002<br>(1.428)      | -0.000<br>(-0.013)    | -0.000<br>(-0.671)    | -0.000<br>(-1.315)    |
| <i>Customer &amp; Competition</i>                    | -0.000<br>(-0.181)    | -0.001*<br>(-1.713)   | -0.001**<br>(-2.391)  | -0.000*<br>(-1.722)   |
| <i>Environment &amp; Sustainability</i>              | 0.001<br>(0.268)      | 0.003**<br>(2.198)    | 0.002***<br>(2.906)   | 0.001<br>(1.533)      |
| <i>Financial Perform. &amp; Earnings</i>             | 0.000<br>(1.275)      | 0.000<br>(0.694)      | 0.000**<br>(2.456)    | 0.000**<br>(2.280)    |
| <i>External &amp; Macro Shocks</i>                   | -0.002                | 0.002**               | -0.000                | 0.000                 |

| <b>Panel C: Long-Run Returns for the Next Period (continued)</b> |                                 |                              |                              |                              |
|------------------------------------------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|
|                                                                  | (1)<br>$W_{t+1Q}$               | (2)<br>$W_{t+2Q}$            | (3)<br>$W_{t+4Q}$            | (4)<br>$W_{t+8Q}$            |
| <i>Industry Context</i>                                          | (-1.321)<br>-0.001              | (1.962)<br>-0.001            | (-0.429)<br>-0.000           | (1.107)<br>-0.000            |
| <i>Legal &amp; Regulatory</i>                                    | (-1.397)<br>-0.003*<br>(-1.923) | (-1.418)<br>0.001<br>(0.582) | (-0.078)<br>0.000<br>(0.204) | (-0.957)<br>0.000<br>(0.094) |
| <i>Controls</i>                                                  | YES                             | YES                          | YES                          | YES                          |
| <i>Firm FE</i>                                                   | YES                             | YES                          | YES                          | YES                          |
| <i>Year-Quarter FE</i>                                           | YES                             | YES                          | YES                          | YES                          |
| <i>Observations</i>                                              | 129789                          | 129116                       | 128070                       | 126165                       |
| <i>R-squared</i>                                                 | 0.091                           | 0.143                        | 0.242                        | 0.456                        |

| <b>Panel D: Filing of 8-K Bad News</b>   |                          |                           |                           |                           |
|------------------------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
|                                          | (1)<br>$Bad\ News_{90d}$ | (2)<br>$Bad\ News_{180d}$ | (3)<br>$Bad\ News_{365d}$ | (4)<br>$Bad\ News_{730d}$ |
| <i>Risk &amp; Uncertainty</i>            | 0.271<br>(1.278)         | 0.270<br>(1.511)          | 0.252*<br>(1.806)         | 0.113<br>(1.026)          |
| <i>Strategy &amp; Growth</i>             | 0.287***<br>(3.014)      | 0.220***<br>(3.100)       | 0.163***<br>(2.653)       | 0.129**<br>(2.368)        |
| <i>Operations &amp; Supply Chain</i>     | 0.033<br>(0.320)         | 0.078<br>(0.848)          | 0.215***<br>(2.805)       | 0.225***<br>(3.101)       |
| <i>Corp. Actions &amp; Cap. Struct</i>   | 0.595***<br>(6.987)      | 0.517***<br>(7.334)       | 0.288***<br>(5.347)       | 0.168***<br>(3.708)       |
| <i>People &amp; Governance</i>           | 0.164***<br>(3.177)      | 0.062*<br>(1.848)         | 0.086***<br>(4.380)       | 0.046***<br>(2.835)       |
| <i>Achievement &amp; Confidence</i>      | 0.096<br>(0.766)         | -0.038<br>(-0.374)        | -0.096<br>(-1.025)        | -0.121<br>(-1.533)        |
| <i>Customer &amp; Competition</i>        | -0.093<br>(-0.795)       | 0.066<br>(0.716)          | 0.046<br>(0.627)          | 0.049<br>(0.747)          |
| <i>Environment &amp; Sustainability</i>  | 0.082<br>(0.349)         | 0.052<br>(0.252)          | 0.195<br>(1.322)          | 0.262**<br>(2.013)        |
| <i>Financial Perform. &amp; Earnings</i> | 0.044<br>(1.161)         | -0.027<br>(-0.936)        | -0.035<br>(-1.226)        | -0.026<br>(-1.090)        |
| <i>External &amp; Macro Shocks</i>       | -0.216<br>(-1.223)       | -0.055<br>(-0.426)        | 0.020<br>(0.179)          | 0.019<br>(0.210)          |
| <i>Industry Context</i>                  | -0.034<br>(-0.645)       | -0.015<br>(-0.381)        | -0.010<br>(-0.327)        | 0.025<br>(0.914)          |
| <i>Legal &amp; Regulatory</i>            | 0.048<br>(0.267)         | -0.060<br>(-0.426)        | -0.068<br>(-0.640)        | -0.137<br>(-1.519)        |
| <i>Controls</i>                          | YES                      | YES                       | YES                       | YES                       |
| <i>Firm FE</i>                           | YES                      | YES                       | YES                       | YES                       |
| <i>Year-Quarter FE</i>                   | YES                      | YES                       | YES                       | YES                       |
| <i>Observations</i>                      | 130295                   | 130500                    | 130573                    | 130579                    |
| <i>Pseudo R-squared</i>                  | 0.072                    | 0.094                     | 0.131                     | 0.192                     |

**Table 11: Category-Level Attention Reallocation and Market Outcomes (Positive vs I**

This table decomposes category-level managerial attention reallocation into positive and negative shifts to examine whether the relation between attention reallocation and stock market outcomes is driven by increasing or decreasing attention to particular categories. A positive shift reflects an increase in a category's share of call content relative to the prior quarter, while a negative shift reflects a decrease. Panel A reports announcement returns over five event windows. Panel B reports firm-specific returns over four forward horizons. All specifications include the full set of control variables defined in Table A1, as well as firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

| <b>Panel A: Announcement Returns</b>                |                        |                        |                        |                        |                        |
|-----------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                                                     | (1)<br>$CAR(-1, +1)$   | (2)<br>$CAR(-1, +2)$   | (3)<br>$CAR(-1, +3)$   | (4)<br>$CAR(-2, +2)$   | (5)<br>$CAR(0, +1)$    |
| <i>Risk &amp; Uncertainty</i> <sup>+</sup>          | -0.287***<br>(-13.711) | -0.301***<br>(-13.699) | -0.304***<br>(-13.307) | -0.332***<br>(-14.712) | -0.285***<br>(-14.014) |
| <i>Risk &amp; Uncertainty</i> <sup>-</sup>          | 0.076***<br>(3.981)    | 0.084***<br>(4.034)    | 0.085***<br>(3.830)    | 0.072***<br>(3.325)    | 0.085***<br>(4.705)    |
| <i>Strategy &amp; Growth</i> <sup>+</sup>           | -0.094***<br>(-10.728) | -0.098***<br>(-10.490) | -0.101***<br>(-10.503) | -0.095***<br>(-9.895)  | -0.090***<br>(-10.699) |
| <i>Strategy &amp; Growth</i> <sup>-</sup>           | -0.003<br>(-0.397)     | -0.002<br>(-0.261)     | -0.002<br>(-0.198)     | -0.001<br>(-0.151)     | -0.001<br>(-0.139)     |
| <i>Operations &amp; Supply Chain</i> <sup>+</sup>   | -0.111***<br>(-10.708) | -0.115***<br>(-10.326) | -0.118***<br>(-9.976)  | -0.112***<br>(-9.830)  | -0.102***<br>(-10.327) |
| <i>Operations &amp; Supply Chain</i> <sup>-</sup>   | 0.019*<br>(1.793)      | 0.019*<br>(1.742)      | 0.017<br>(1.471)       | 0.016<br>(1.416)       | 0.021**<br>(2.144)     |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>+</sup> | 0.065***<br>(8.597)    | 0.064***<br>(8.028)    | 0.066***<br>(7.944)    | 0.070***<br>(8.482)    | 0.056***<br>(7.758)    |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>-</sup> | -0.010<br>(-1.409)     | -0.012<br>(-1.632)     | -0.012<br>(-1.546)     | -0.012<br>(-1.550)     | -0.009<br>(-1.356)     |
| <i>People &amp; Governance</i> <sup>+</sup>         | 0.006<br>(1.285)       | 0.008<br>(1.427)       | 0.009*<br>(1.646)      | 0.008<br>(1.424)       | 0.007<br>(1.469)       |
| <i>Controls</i>                                     | YES                    | YES                    | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                                      | YES                    | YES                    | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>                              | YES                    | YES                    | YES                    | YES                    | YES                    |
| <i>Observations</i>                                 | 131169                 | 131169                 | 131169                 | 131169                 | 131169                 |
| <i>R-squared</i>                                    | 0.108                  | 0.111                  | 0.114                  | 0.116                  | 0.108                  |

| <b>Panel B: Long-Run Returns for the Next Period</b> |                    |                     |                     |                     |
|------------------------------------------------------|--------------------|---------------------|---------------------|---------------------|
|                                                      | (1)<br>$W_{t+1Q}$  | (2)<br>$W_{t+2Q}$   | (3)<br>$W_{t+4Q}$   | (4)<br>$W_{t+8Q}$   |
| <i>Risk &amp; Uncertainty</i> <sup>+</sup>           | 0.006**<br>(2.075) | 0.006***<br>(3.339) | 0.005***<br>(4.590) | 0.003***<br>(4.848) |
| <i>Risk &amp; Uncertainty</i> <sup>-</sup>           | 0.004<br>(1.548)   | 0.004**<br>(2.004)  | 0.001<br>(1.077)    | 0.001<br>(1.297)    |
| <i>Strategy &amp; Growth</i> <sup>+</sup>            | -0.001<br>(-0.525) | 0.000<br>(0.573)    | 0.001<br>(1.522)    | 0.000<br>(0.958)    |
| <i>Strategy &amp; Growth</i> <sup>-</sup>            | 0.000              | -0.000              | 0.000               | -0.000              |

| <b>Panel B: Long-Run Returns for the Next Period (continued)</b> |                       |                       |                       |                       |
|------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                                                  | (1)<br>$W_{t+1Q}$     | (2)<br>$W_{t+2Q}$     | (3)<br>$W_{t+4Q}$     | (4)<br>$W_{t+8Q}$     |
| <i>Operations &amp; Supply Chain</i> <sup>+</sup>                | (0.380)<br>-0.002     | (-0.072)<br>-0.000    | (0.159)<br>0.000      | (-0.310)<br>-0.001*** |
| <i>Operations &amp; Supply Chain</i> <sup>-</sup>                | (-1.228)<br>-0.002    | (-0.372)<br>-0.002**  | (0.587)<br>-0.001**   | (-2.766)<br>-0.001*** |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>+</sup>              | (-1.261)<br>-0.002**  | (-2.235)<br>-0.002*** | (-2.432)<br>-0.001*** | (-3.318)<br>-0.001*** |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>-</sup>              | (-2.308)<br>-0.002    | (-3.352)<br>-0.001**  | (-3.773)<br>-0.001*   | (-2.946)<br>-0.000*   |
| <i>People &amp; Governance</i> <sup>+</sup>                      | (-1.516)<br>-0.003*** | (-1.990)<br>-0.001*** | (-1.679)<br>-0.000    | (-1.705)<br>-0.000**  |
|                                                                  | (-4.145)              | (-3.098)              | (-1.437)              | (-2.410)              |
| <i>Controls</i>                                                  | YES                   | YES                   | YES                   | YES                   |
| <i>Firm FE</i>                                                   | YES                   | YES                   | YES                   | YES                   |
| <i>Year-Quarter FE</i>                                           | YES                   | YES                   | YES                   | YES                   |
| <i>Observations</i>                                              | 129789                | 129116                | 128070                | 126165                |
| <i>R-squared</i>                                                 | 0.091                 | 0.143                 | 0.242                 | 0.456                 |

**Table 12: Investor Sophistication and Attention Reallocation**

This table examines whether investor sophistication moderates the relation between managerial attention reallocation and announcement returns. The key variable is the interaction between  $Attn\ Realloc^{1Q}$  and institutional ownership. The dependent variable in columns (1) through (5) is the cumulative abnormal return over the indicated window around the earnings call, computed using a market model estimated over trading days  $-255$  to  $-46$ . Institutional ownership measures the percentage of shares held by institutional investors. The interaction term is negative and significant across all announcement windows, showing that the market reacts more strongly to managerial attention shifts when institutional ownership is high. All specifications include the full set of control variables used in the baseline regressions, as well as firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                                      | (1)<br>$CAR(-1, +1)$  | (2)<br>$CAR(-1, +2)$  | (3)<br>$CAR(-1, +3)$  | (4)<br>$CAR(-2, +2)$  | (5)<br>$CAR(0, +1)$   |
|------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| $Attn\ Realloc_t^{1Q}$                               | 0.002<br>(0.493)      | 0.001<br>(0.264)      | 0.002<br>(0.524)      | 0.002<br>(0.617)      | 0.002<br>(0.609)      |
| $Inst.\ Ownership_{t-1}$                             | -0.017***<br>(-2.940) | -0.020***<br>(-3.203) | -0.020***<br>(-3.013) | -0.022***<br>(-3.280) | -0.015***<br>(-2.706) |
| $Attn\ Realloc_t^{1Q} \times Inst.\ Ownership_{t-1}$ | -0.009**<br>(-2.071)  | -0.008*<br>(-1.757)   | -0.010**<br>(-2.074)  | -0.010**<br>(-2.123)  | -0.008**<br>(-2.120)  |
| <i>Controls</i>                                      | YES                   | YES                   | YES                   | YES                   | YES                   |
| <i>Firm FE</i>                                       | YES                   | YES                   | YES                   | YES                   | YES                   |
| <i>Year-Quarter FE</i>                               | YES                   | YES                   | YES                   | YES                   | YES                   |
| <i>Observations</i>                                  | 128762                | 128761                | 128761                | 128761                | 128762                |
| <i>R-squared</i>                                     | 0.091                 | 0.096                 | 0.101                 | 0.101                 | 0.091                 |

# Internet Appendix Figures and Tables

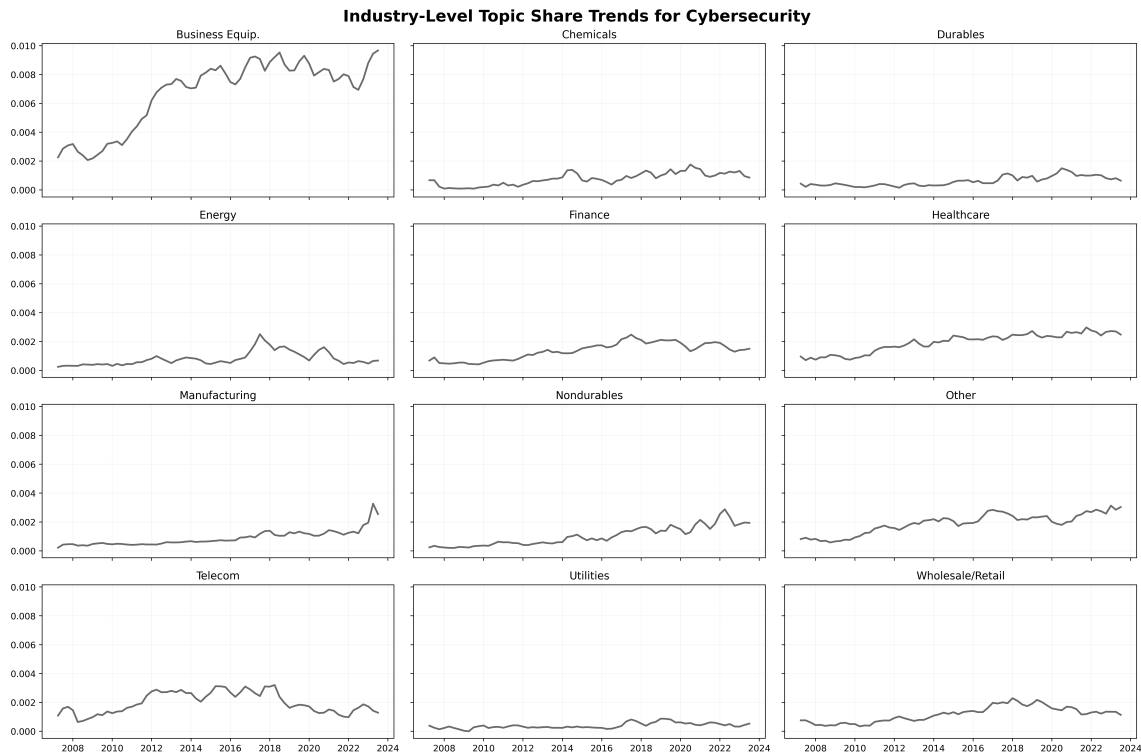


Figure A1. This figure plots the quarterly mean share of the cybersecurity topic across the Fama–French 12 industries.

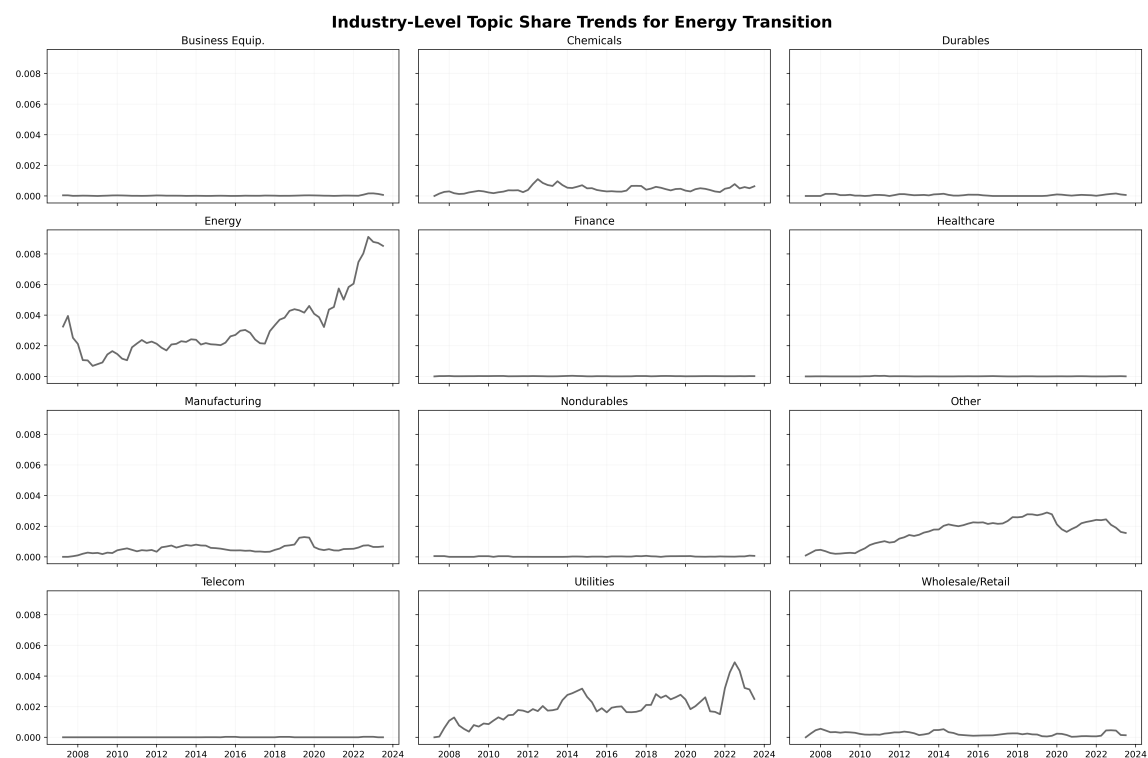


Figure A2. This figure plots the quarterly mean share of the energy-transition topic across the Fama–French 12 industries.

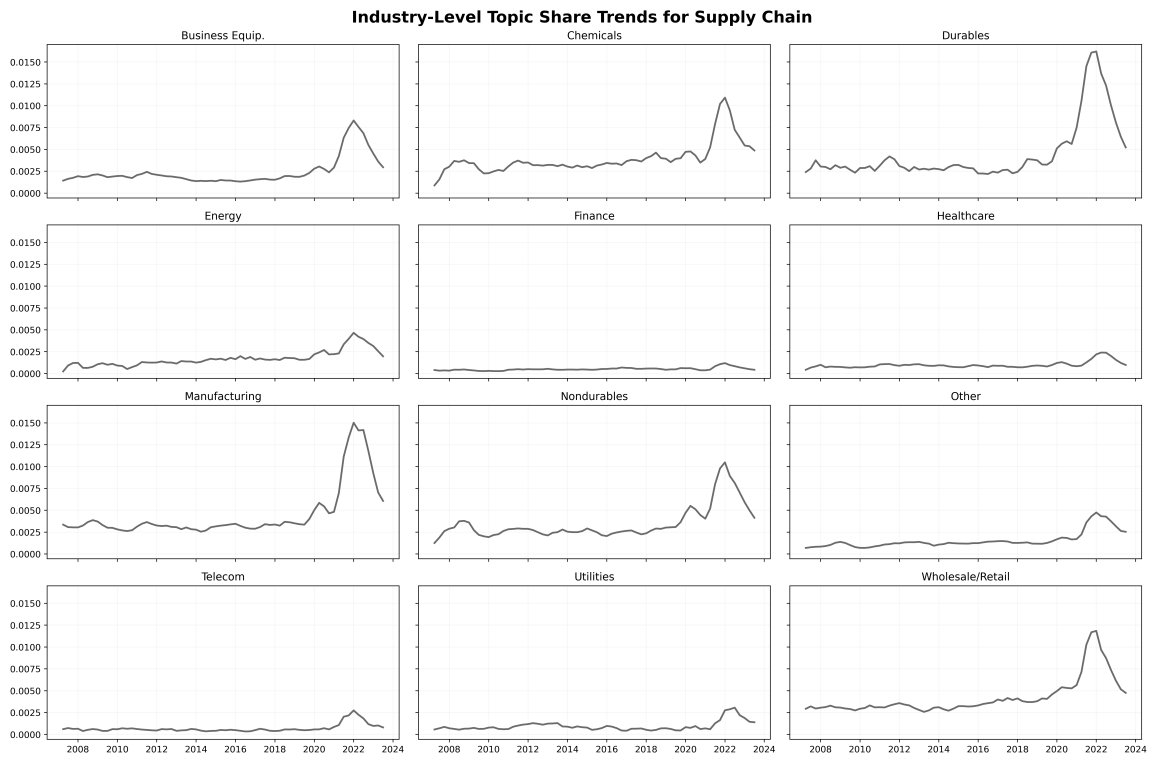


Figure A3. This figure plots the quarterly mean share of the supply-chain topic across the Fama–French 12 industries

## Appendix A1.: Variable Descriptions

| Variable Name                                          | Definition                                                                                                                                                                                                                                                                                                                                                                                                        | Source    |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b><u>Panel A: Attention Reallocation Measures</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                   |           |
| Attn Realloc $_t^{1Q}$                                 | L1 deviation of the current quarter's topic share distribution from the prior quarter's distribution, defined as $S_{i,t}^{1Q} = \sum_{k=1}^K  A_{i,t,k} - A_{i,t-1,k} $ , where $A_{i,t,k}$ is the share of attention allocated to topic $k$ in quarter $t$ . Higher values indicate greater reallocation of managerial attention relative to the preceding quarter. Winsorized at the 1st and 99th percentiles. | CapitalIQ |
| Attn Realloc $_t^{4Q}$                                 | L1 deviation of the current quarter's topic share distribution from the rolling four-quarter average baseline, defined as $S_{i,t}^{4Q} = \sum_{k=1}^K \left  A_{i,t,k} - \frac{1}{4} \sum_{s=t-4}^{t-1} A_{i,s,k} \right $ . Captures deviation from a longer-run managerial communication baseline. Used as a robustness measure. Winsorized at the 1st and 99th percentiles.                                   | CapitalIQ |
| <b><u>Panel B: Abnormal Returns</u></b>                |                                                                                                                                                                                                                                                                                                                                                                                                                   |           |
| CAR(-1, +1)                                            | Cumulative abnormal return over the three-day window centered on the earnings call date, computed using the market model estimated over the (-255, -46) trading day window preceding the call, following MacKinlay (1997). Abnormal returns are the difference between realized returns and expected returns from the market model using CRSP value-weighted returns. Winsorized at the 1st and 99th percentiles. | CRSP      |
| CAR(-1, +2)                                            | Cumulative abnormal return over the four-day window from trading day -1 to +2 relative to the earnings call date. Constructed identically to CAR(-1, +1).                                                                                                                                                                                                                                                         | CRSP      |
| CAR(-1, +3)                                            | Cumulative abnormal return over the five-day window from trading day -1 to +3 relative to the earnings call date. Constructed identically to CAR(-1, +1).                                                                                                                                                                                                                                                         | CRSP      |
| CAR(0, +1)                                             | Cumulative abnormal return over the two-day window from trading day 0 to +1 relative to the earnings call date. Constructed identically to CAR(-1, +1).                                                                                                                                                                                                                                                           | CRSP      |
| CAR(-2, +2)                                            | Cumulative abnormal return over the five-day symmetric window from trading day -2 to +2 relative to the earnings call date. Constructed identically to CAR(-1, +1).                                                                                                                                                                                                                                               | CRSP      |
| PEAD $_t$                                              | Post-earnings announcement drift, measured as the cumulative abnormal return over trading days +2 to +60 following the earnings call date, following Bernard and Thomas (1989). Constructed using the same market model as the CAR measures.                                                                                                                                                                      | CRSP      |

*Continued on next page*

| Variable Name                         | Definition                                                                                                                                                                                                                                                                                                                                                                                                                     | Source        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b><u>Panel C: Crash Risk</u></b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
| $NCSKEW_{t+1Q}$                       | Negative coefficient of skewness of firm-specific weekly returns over the 13-week window following the earnings call quarter, following Chen, Hong, and Stein (2001). Firm-specific weekly returns are computed as the residuals from a market and industry-adjusted return model. Higher values indicate greater left-tail risk.                                                                                              | CRSP          |
| $NCSKEW_{t+2Q}$                       | Negative coefficient of skewness of firm-specific weekly returns over the 26-week window following the earnings call quarter. Constructed identically to $NCSKEW_{t+1Q}$ .                                                                                                                                                                                                                                                     | CRSP          |
| $NCSKEW_{t+4Q}$                       | Negative coefficient of skewness of firm-specific weekly returns over the 52-week window following the earnings call quarter. Constructed identically to $NCSKEW_{t+1Q}$ .                                                                                                                                                                                                                                                     | CRSP          |
| $NCSKEW_{t+8Q}$                       | Negative coefficient of skewness of firm-specific weekly returns over the 104-week window following the earnings call quarter. Constructed identically to $NCSKEW_{t+1Q}$ .                                                                                                                                                                                                                                                    | CRSP          |
| $W_{t+1Q}$                            | Mean firm-specific weekly return over the 13-week window following the earnings call quarter, following Chen, Hong, and Stein (2001). Captures long-run return performance beyond the immediate announcement window.                                                                                                                                                                                                           | CRSP          |
| $W_{t+2Q}$                            | Mean firm-specific weekly return over the 26-week window following the earnings call quarter. Constructed identically to $W_{t+1Q}$ .                                                                                                                                                                                                                                                                                          | CRSP          |
| $W_{t+4Q}$                            | Mean firm-specific weekly return over the 52-week window following the earnings call quarter. Constructed identically to $W_{t+1Q}$ .                                                                                                                                                                                                                                                                                          | CRSP          |
| $W_{t+8Q}$                            | Mean firm-specific weekly return over the 104-week window following the earnings call quarter. Constructed identically to $W_{t+1Q}$ .                                                                                                                                                                                                                                                                                         | CRSP          |
| <b><u>Panel D: Options Market</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                |               |
| $Abn\ PCIV_t$                         | Abnormal pre-call implied volatility, measured as the average implied volatility of at-the-money call options (delta = 0.50, 30-day maturity) over trading days $-5$ to $-1$ relative to the earnings call, minus the firm's historical average implied volatility over trading days $-65$ to $-6$ . Captures whether options market uncertainty is abnormally elevated ahead of the call relative to the firm's own baseline. | OptionMetrics |

*Continued on next page*

| Variable Name                    | Definition                                                                                                                                                                                                                                                                                                                                                                | Source        |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| IV JUMP <sub>t</sub>             | Implied volatility jump, measured as the implied volatility of at-the-money call options (delta = 0.50, 30-day maturity) on trading day +1 minus the implied volatility on trading day -1 relative to the earnings call date. Captures the change in options-implied uncertainty caused by the call itself.                                                               | OptionMetrics |
| IV JUMP <sub>t+1</sub>           | Implied volatility jump for the subsequent quarter's earnings call, constructed identically to IV JUMP <sub>t</sub> . Used to test whether the effect on options market uncertainty persists beyond the current quarter.                                                                                                                                                  | OptionMetrics |
| <b>Panel E: Analyst Behavior</b> |                                                                                                                                                                                                                                                                                                                                                                           |               |
| Rev Intensity <sub>t</sub>       | Revision intensity, measured as the number of non-zero earnings forecast revisions issued by analysts covering the firm in the 10 trading days following the earnings call, scaled by the number of analysts active in that window. Captures how actively analysts update their forecasts in response to the call.                                                        | IBES          |
| Boldness <sub>t</sub>            | Mean forecast boldness, defined as an indicator equal to one if the analyst's absolute revision magnitude exceeds the median absolute revision among all analysts covering the same firm in the same 10-day post-call window, averaged across all analysts, following Clement and Tse (2005). Higher values indicate analysts are more willing to deviate from consensus. | IBES          |
| Dispersion <sub>t</sub>          | Forecast dispersion, measured as the cross-sectional standard deviation of individual analyst EPS forecasts in the 10 trading days following the earnings call.                                                                                                                                                                                                           | IBES          |
| Forecast Error <sub>t</sub>      | Standard deviation of individual analyst forecast errors in the 10-day post-call window, where forecast error is defined as actual EPS minus the analyst's forecast, winsorized at the 1st and 99th percentiles.                                                                                                                                                          | IBES          |
| Disagreement <sub>t</sub>        | Mean analyst disagreement, measured as the average absolute deviation of each analyst's winsorized EPS forecast from the prevailing consensus mean in the 10 trading days following the earnings call.                                                                                                                                                                    | IBES          |
| Cons Revision <sub>t</sub>       | Consensus forecast revision, measured as the change in the mean analyst EPS forecast from the most recent consensus snapshot before the call to the last consensus snapshot in the 10-day post-call window, from the IBES summary file.                                                                                                                                   | IBES          |

*Continued on next page*

| Variable Name                               | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Source      |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Cons Dispersion <sub>t</sub>                | Consensus forecast dispersion, measured as the standard deviation of analyst EPS forecasts from the IBES summary file scaled by the absolute stock price in the month prior to the earnings announcement, following Diether, Malloy, and Scherbina (2002). Winsorized at the 1st and 99th percentiles.                                                                                                                                                     | IBES / CRSP |
| <b>Panel F: Mandatory Disclosures (8-K)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Bad News 8K <sub>t+90d</sub>                | Total count of bad-news 8-K filings by the firm in the 90 days following the earnings call. Bad-news items are defined as SEC Form 8-K disclosures under items 1.02 (contract terminations), 1.03 (bankruptcy), 2.04 (debt triggers), 2.05 (exit costs), 2.06 (asset impairments), 3.01 (delisting notices), 4.01 (auditor changes), 4.02 (non-reliance on prior financials), 5.02 (officer and director departures), and 5.04 (benefit plan suspensions). | SEC EDGAR   |
| Bad News 8K <sub>t+180d</sub>               | Total count of bad-news 8-K filings in the 180 days following the earnings call. Constructed identically to Bad News 8K <sub>t+90d</sub> .                                                                                                                                                                                                                                                                                                                 | SEC EDGAR   |
| Bad News 8K <sub>t+1Y</sub>                 | Total count of bad-news 8-K filings in the 365 days following the earnings call. Constructed identically to Bad News 8K <sub>t+90d</sub> .                                                                                                                                                                                                                                                                                                                 | SEC EDGAR   |
| Bad News 8K <sub>t+2Y</sub>                 | Total count of bad-news 8-K filings in the 730 days following the earnings call. Constructed identically to Bad News 8K <sub>t+90d</sub> .                                                                                                                                                                                                                                                                                                                 | SEC EDGAR   |
| Departures <sub>t+1Y</sub>                  | Count of officer and director departure disclosures (SEC Form 8-K Item 5.02) filed by the firm in the 365 days following the earnings call.                                                                                                                                                                                                                                                                                                                | SEC EDGAR   |
| Terminations <sub>t+1Y</sub>                | Count of material contract termination disclosures (SEC Form 8-K Item 1.02) filed by the firm in the 365 days following the earnings call.                                                                                                                                                                                                                                                                                                                 | SEC EDGAR   |
| Impairments <sub>t+1Y</sub>                 | Count of asset impairment and write-down disclosures (SEC Form 8-K Item 2.06) filed by the firm in the 365 days following the earnings call.                                                                                                                                                                                                                                                                                                               | SEC EDGAR   |
| Non Reliance <sub>t+1Y</sub>                | Count of non-reliance on previously issued financial statement disclosures (SEC Form 8-K Item 4.02) filed by the firm in the 365 days following the earnings call.                                                                                                                                                                                                                                                                                         | SEC EDGAR   |
| Delisting <sub>t+1Y</sub>                   | Count of delisting or transfer of listing disclosures (SEC Form 8-K Item 3.01) filed by the firm in the 365 days following the earnings call.                                                                                                                                                                                                                                                                                                              | SEC EDGAR   |
| <b>Panel G: Adverse ES Incidents</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| ES Incidents <sub>t+3M</sub>                | Count of adverse environmental and social incidents recorded by RepRisk for the firm in the three months following the earnings call. Restricted to incidents classified as medium or high severity.                                                                                                                                                                                                                                                       | RepRisk     |

*Continued on next page*

| Variable Name                             | Definition                                                                                                                                                                                                                      | Source           |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| ES Incidents <sub><math>t+6M</math></sub> | Count of adverse ES incidents in the six months following the earnings call. Constructed identically to ES Incidents <sub><math>t+3M</math></sub> .                                                                             | RepRisk          |
| ES Incidents <sub><math>t+1Y</math></sub> | Count of adverse ES incidents in the 12 months following the earnings call. Constructed identically to ES Incidents <sub><math>t+3M</math></sub> .                                                                              | RepRisk          |
| Severity <sub><math>t+3M</math></sub>     | Average severity score of adverse ES incidents recorded by RepRisk in the three months following the earnings call, based on the RepRisk proprietary severity classification. Zero if no incidents are recorded.                | RepRisk          |
| Severity <sub><math>t+6M</math></sub>     | Average severity score of adverse ES incidents in the six months following the earnings call. Constructed identically to Severity <sub><math>t+3M</math></sub> .                                                                | RepRisk          |
| Severity <sub><math>t+1Y</math></sub>     | Average severity score of adverse ES incidents in the 12 months following the earnings call. Constructed identically to Severity <sub><math>t+3M</math></sub> .                                                                 | RepRisk          |
| Reach <sub><math>t+3M</math></sub>        | Average reach score of adverse ES incidents recorded by RepRisk in the three months following the earnings call, capturing the geographic and stakeholder breadth of each incident. Zero if no incidents are recorded.          | RepRisk          |
| Reach <sub><math>t+6M</math></sub>        | Average reach score of adverse ES incidents in the six months following the earnings call. Constructed identically to Reach <sub><math>t+3M</math></sub> .                                                                      | RepRisk          |
| Reach <sub><math>t+1Y</math></sub>        | Average reach score of adverse ES incidents in the 12 months following the earnings call. Constructed identically to Reach <sub><math>t+3M</math></sub> .                                                                       | RepRisk          |
| ES Incidents <sub><math>t-1</math></sub>  | Indicator equal to one if the firm had at least one adverse ES incident recorded by RepRisk in the six months preceding the earnings call. Used as a control variable to account for firms with pre-existing incident exposure. | RepRisk          |
| <b>Panel H: Operational Performance</b>   |                                                                                                                                                                                                                                 |                  |
| ROA <sub><math>t+1Q</math></sub>          | Return on assets in the quarter following the earnings call, measured as operating income before depreciation scaled by total assets.                                                                                           | Compustat        |
| ROA <sub><math>t+2Q</math></sub>          | Return on assets in the second quarter following the earnings call. Constructed identically to ROA <sub><math>t+1Q</math></sub> .                                                                                               | Compustat        |
| Tobin's Q <sub><math>t+1Q</math></sub>    | Tobin's Q in the quarter following the earnings call, measured as the market value of equity plus the book value of total debt, divided by total assets.                                                                        | Compustat & CRSP |
| Tobin's Q <sub><math>t+2Q</math></sub>    | Tobin's Q in the second quarter following the earnings call. Constructed identically to Tobin's Q <sub><math>t+1Q</math></sub> .                                                                                                | Compustat / CRSP |

*Continued on next page*

| Variable Name                            | Definition                                                                                                                                                                                                                                                                                               | Source                             |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b><u>Panel I: Control Variables</u></b> |                                                                                                                                                                                                                                                                                                          |                                    |
| Firm Size <sub>t-1</sub>                 | Natural logarithm of market capitalization, measured as the product of shares outstanding and stock price at the end of the quarter preceding the earnings call.                                                                                                                                         | CRSP                               |
| Return <sub>t-1</sub>                    | Cumulative stock return over the 12 months preceding the earnings call, used to control for prior momentum.                                                                                                                                                                                              | CRSP                               |
| BEME <sub>t-1</sub>                      | Book-to-market equity ratio, measured as the ratio of book value of equity to market value of equity at the end of the quarter preceding the earnings call. Book equity is shareholders' equity plus deferred taxes and investment tax credits, minus preferred stock, following Fama and French (1992). | Compustat /<br>CRSP                |
| Investment <sub>t-1</sub>                | Capital expenditure scaled by total assets (CAPX/AT) at the end of the quarter preceding the earnings call.                                                                                                                                                                                              | Compustat                          |
| Leverage <sub>t-1</sub>                  | Book value of total debt divided by the market value of equity at the end of the quarter preceding the earnings call.                                                                                                                                                                                    | Compustat /<br>CRSP                |
| Tobin's Q <sub>t-1</sub>                 | Tobin's Q at the end of the quarter preceding the earnings call, measured as the market value of equity plus book value of total debt, divided by total assets.                                                                                                                                          | Compustat /<br>CRSP                |
| R&D <sub>t-1</sub>                       | Research and development expenditure scaled by total assets at the end of the quarter preceding the earnings call. Set to zero when missing.                                                                                                                                                             | Compustat                          |
| Dummy R&D Missing <sub>t-1</sub>         | Indicator equal to one if research and development expenditure is missing in Compustat for the quarter preceding the earnings call.                                                                                                                                                                      | Compustat                          |
| Complexity <sub>t-1</sub>                | Firm complexity index from Loughran and McDonald (2024), downloaded from the authors' website. Higher values indicate greater firm complexity.                                                                                                                                                           | Loughran and<br>McDonald<br>(2024) |
| Inst Own <sub>t-1</sub>                  | Percentage of shares held by institutional investors at the end of the quarter preceding the earnings call, obtained from SEC 13-F filings.                                                                                                                                                              | Thomson<br>Reuters 13-F            |
| Segment HHI <sub>t-1</sub>               | Herfindahl-Hirschman Index of the firm's sales distribution across business segments at the end of the fiscal year preceding the earnings call, constructed as $HHI = \sum_s \left( \frac{Sales_s}{Total\ Sales} \right)^2$ . Lower values indicate greater business diversification.                    | Compustat<br>Segment               |
| RVOL <sub>t-1</sub> <sup>pre</sup>       | Realized return volatility, measured as the standard deviation of daily stock returns over the 30 trading days preceding the earnings call, following Beaver (1968).                                                                                                                                     | CRSP                               |

*Continued on next page*

| Variable Name               | Definition                                                                                                                                                                                                                                             | Source    |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| $\text{Amihud}_{t-1}^{pre}$ | Pre-call market illiquidity, measured as the average ratio of the absolute daily return to daily dollar trading volume over the 30 trading days preceding the earnings call, following Amihud (2002).                                                  | CRSP      |
| $\text{SUE}_{t-1}$          | Standardized unexpected earnings from the most recent earnings announcement preceding the call, measured as actual EPS minus consensus analyst forecast scaled by the standard deviation of analyst forecasts, following Livnat and Mendenhall (2006). | IBES      |
| $\text{DTURN}_{t-1}$        | Detrended share turnover, measured as the average monthly share turnover over the six months preceding the earnings call minus the average monthly share turnover over the six months before that, following Chen, Hong, and Stein (2001).             | CRSP      |
| $\text{ACCM}_{t-1}$         | Accruals-based opacity, measured as the three-year moving sum of the absolute value of annual discretionary accruals, following Hutton, Marcus, and Tehranian (2009). Discretionary accruals are estimated using the modified Jones (1991) model.      | Compustat |
| $\text{NCSKEW}_{t-1}$       | Negative coefficient of skewness of firm-specific weekly returns over the 52 weeks preceding the earnings call. Constructed identically to $\text{NCSKEW}_{t+1Q}$ . Included as a control for prior crash risk.                                        | CRSP      |
| $\sigma_{t-1}$              | Standard deviation of firm-specific weekly returns over the 52 weeks preceding the earnings call, used as a control for prior return volatility in crash risk regressions.                                                                             | CRSP      |
| $\overline{W}_{t-1}$        | Mean firm-specific weekly return over the 52 weeks preceding the earnings call, used as a control for prior return performance in crash risk regressions, following Chen, Hong, and Stein (2001).                                                      | CRSP      |

## Appendix Table B1: Robustness of Announcement Return Results

This table reports robustness checks for the announcement return regressions. In Panel A, the main specification is augmented with controls for Loughran and McDonald (2011) negative and positive tone (*LM Negative*, *LM Positive*) and cosine similarity with the prior quarter transcript (*Cosine Similarity<sub>t-1</sub>*). In Panel B, the main measure is replaced with *Attn Realloc<sup>4Q</sup>*, which uses the trailing four-quarter average as the benchmark. In Panel C, the main measure is replaced with the industry-adjusted attention reallocation score, constructed by regressing each topic share on its own lags with industry-by-year-quarter fixed effects and computing the score from the residuals. All specifications include the full set of firm-level controls as in Table 3. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                                                  | (1)<br><i>CAR</i> (−1, +1) | (2)<br><i>CAR</i> (−1, +2) | (3)<br><i>CAR</i> (−1, +3) | (4)<br><i>CAR</i> (−2, +2) | (5)<br><i>CAR</i> (0, +1) | (6)<br><i>PEAD<sub>t</sub></i> |
|------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|--------------------------------|
| <b>Panel A: Controlling for Tone and Document Similarity</b>     |                            |                            |                            |                            |                           |                                |
| <i>Attn Realloc<sub>t</sub><sup>1Q</sup></i>                     | −0.004***<br>(−3.498)      | −0.004***<br>(−3.248)      | −0.004***<br>(−3.195)      | −0.004***<br>(−3.160)      | −0.003***<br>(−3.130)     | −0.005**<br>(−2.359)           |
| <i>Cosine Similarity<sub>t-1</sub></i>                           | −0.000<br>(−0.200)         | 0.000<br>(0.169)           | 0.001<br>(0.506)           | 0.001<br>(0.535)           | −0.001<br>(−0.329)        | 0.002<br>(0.544)               |
| <i>LM Negative</i>                                               | −2.272***<br>(−26.873)     | −2.315***<br>(−25.670)     | −2.278***<br>(−24.201)     | −2.401***<br>(−25.665)     | −2.169***<br>(−26.749)    | −0.195<br>(−1.104)             |
| <i>LM Positive</i>                                               | 1.359***<br>(25.375)       | 1.419***<br>(24.696)       | 1.438***<br>(23.951)       | 1.456***<br>(24.527)       | 1.346***<br>(26.230)      | 0.181*<br>(1.662)              |
| <i>Controls</i>                                                  | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Firm FE</i>                                                   | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Year-Quarter FE</i>                                           | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Observations</i>                                              | 130,530                    | 130,529                    | 130,529                    | 130,529                    | 130,530                   | 130,330                        |
| <i>R-squared</i>                                                 | 0.101                      | 0.105                      | 0.108                      | 0.110                      | 0.101                     | 0.279                          |
| <b>Panel B: Alternative Measure (4-Quarter Rolling Baseline)</b> |                            |                            |                            |                            |                           |                                |
| <i>Attn Realloc<sub>t</sub><sup>4Q</sup></i>                     | −0.004***<br>(−3.145)      | −0.003**<br>(−2.443)       | −0.003**<br>(−2.248)       | −0.004***<br>(−2.769)      | −0.003***<br>(−3.066)     | −0.003<br>(−1.188)             |
| <i>Controls</i>                                                  | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Firm FE</i>                                                   | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Year-Quarter FE</i>                                           | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Observations</i>                                              | 133,638                    | 133,637                    | 133,637                    | 133,638                    | 133,638                   | 133,428                        |
| <i>R-squared</i>                                                 | 0.085                      | 0.090                      | 0.095                      | 0.095                      | 0.085                     | 0.278                          |
| <b>Panel C: Industry-Adjusted Measure</b>                        |                            |                            |                            |                            |                           |                                |
| <i>Attn Realloc<sub>t</sub><sup>Ind</sup></i>                    | −0.004***<br>(−2.592)      | −0.004**<br>(−2.452)       | −0.004**<br>(−2.524)       | −0.004***<br>(−2.637)      | −0.003*<br>(−1.864)       | −0.003<br>(−0.946)             |
| <i>Controls</i>                                                  | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Firm FE</i>                                                   | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Year-Quarter FE</i>                                           | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Observations</i>                                              | 131,173                    | 131,172                    | 131,172                    | 131,172                    | 131,173                   | 130,972                        |
| <i>R-squared</i>                                                 | 0.085                      | 0.090                      | 0.095                      | 0.095                      | 0.085                     | 0.279                          |

## Appendix Table B1: Robustness of Announcement Return Results

This table reports robustness checks for the announcement return regressions. In Panel A, the main specification is augmented with controls for Loughran and McDonald (2011) negative and positive tone (*LM Negative*, *LM Positive*) and cosine similarity with the prior quarter transcript (*Cosine Similarity<sub>t-1</sub>*). In Panel B, the main measure is replaced with *Attn Realloc<sup>4Q</sup>*, which uses the trailing four-quarter average as the benchmark. In Panel C, the main measure is replaced with the industry-adjusted attention reallocation score, constructed by regressing each topic share on its own lags with industry-by-year-quarter fixed effects and computing the score from the residuals. All specifications include the full set of firm-level controls as in Table 3. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                                                  | (1)<br><i>CAR</i> (−1, +1) | (2)<br><i>CAR</i> (−1, +2) | (3)<br><i>CAR</i> (−1, +3) | (4)<br><i>CAR</i> (−2, +2) | (5)<br><i>CAR</i> (0, +1) | (6)<br><i>PEAD<sub>t</sub></i> |
|------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|--------------------------------|
| <b>Panel A: Controlling for Tone and Document Similarity</b>     |                            |                            |                            |                            |                           |                                |
| <i>Attn Realloc<sub>t</sub><sup>1Q</sup></i>                     | −0.004***<br>(−3.498)      | −0.004***<br>(−3.248)      | −0.004***<br>(−3.195)      | −0.004***<br>(−3.160)      | −0.003***<br>(−3.130)     | −0.005**<br>(−2.359)           |
| <i>Cosine Similarity<sub>t-1</sub></i>                           | −0.000<br>(−0.200)         | 0.000<br>(0.169)           | 0.001<br>(0.506)           | 0.001<br>(0.535)           | −0.001<br>(−0.329)        | 0.002<br>(0.544)               |
| <i>LM Negative</i>                                               | −2.272***<br>(−26.873)     | −2.315***<br>(−25.670)     | −2.278***<br>(−24.201)     | −2.401***<br>(−25.665)     | −2.169***<br>(−26.749)    | −0.195<br>(−1.104)             |
| <i>LM Positive</i>                                               | 1.359***<br>(25.375)       | 1.419***<br>(24.696)       | 1.438***<br>(23.951)       | 1.456***<br>(24.527)       | 1.346***<br>(26.230)      | 0.181*<br>(1.662)              |
| <i>Controls</i>                                                  | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Firm FE</i>                                                   | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Year-Quarter FE</i>                                           | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Observations</i>                                              | 130,530                    | 130,529                    | 130,529                    | 130,529                    | 130,530                   | 130,330                        |
| <i>R-squared</i>                                                 | 0.101                      | 0.105                      | 0.108                      | 0.110                      | 0.101                     | 0.279                          |
| <b>Panel B: Alternative Measure (4-Quarter Rolling Baseline)</b> |                            |                            |                            |                            |                           |                                |
| <i>Attn Realloc<sub>t</sub><sup>4Q</sup></i>                     | −0.004***<br>(−3.145)      | −0.003**<br>(−2.443)       | −0.003**<br>(−2.248)       | −0.004***<br>(−2.769)      | −0.003***<br>(−3.066)     | −0.003<br>(−1.188)             |
| <i>Controls</i>                                                  | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Firm FE</i>                                                   | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Year-Quarter FE</i>                                           | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Observations</i>                                              | 133,638                    | 133,637                    | 133,637                    | 133,638                    | 133,638                   | 133,428                        |
| <i>R-squared</i>                                                 | 0.085                      | 0.090                      | 0.095                      | 0.095                      | 0.085                     | 0.278                          |
| <b>Panel C: Industry-Adjusted Measure</b>                        |                            |                            |                            |                            |                           |                                |
| <i>Attn Realloc<sub>t</sub><sup>Ind</sup></i>                    | −0.004***<br>(−2.592)      | −0.004**<br>(−2.452)       | −0.004**<br>(−2.524)       | −0.004***<br>(−2.637)      | −0.003*<br>(−1.864)       | −0.003<br>(−0.946)             |
| <i>Controls</i>                                                  | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Firm FE</i>                                                   | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Year-Quarter FE</i>                                           | Yes                        | Yes                        | Yes                        | Yes                        | Yes                       | Yes                            |
| <i>Observations</i>                                              | 131,173                    | 131,172                    | 131,172                    | 131,172                    | 131,173                   | 130,972                        |
| <i>R-squared</i>                                                 | 0.085                      | 0.090                      | 0.095                      | 0.095                      | 0.085                     | 0.279                          |

## Appendix Table B2: Robustness of Crash Risk and Long-Run Return Results

This table reports robustness checks for the crash risk and long-run return regressions. Within each panel, the first row controls for Loughran and McDonald (2011) tone and cosine similarity with the prior quarter transcript. The second row replaces the main measure with *Attn Realloc*<sup>4Q</sup>, which uses the trailing four-quarter average as the benchmark. The third row replaces the main measure with the industry-adjusted attention reallocation score. All specifications include the full set of crash risk and firm-level controls as in Table 4. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                                        | (1)                                  | (2)                                  | (3)                                  | (4)                                  |
|--------------------------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Panel A: Crash Risk                                    | <i>NCSKEW</i> <sub><i>t</i>+1Q</sub> | <i>NCSKEW</i> <sub><i>t</i>+2Q</sub> | <i>NCSKEW</i> <sub><i>t</i>+4Q</sub> | <i>NCSKEW</i> <sub><i>t</i>+8Q</sub> |
| <i>Tone and Similarity Controls</i>                    |                                      |                                      |                                      |                                      |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>1Q</sup>  | 0.031**<br>(2.135)                   | 0.028**<br>(2.094)                   | 0.024*<br>(1.777)                    | 0.021<br>(1.612)                     |
| <i>4-Quarter Rolling Baseline</i>                      |                                      |                                      |                                      |                                      |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>4Q</sup>  | 0.037**<br>(2.336)                   | 0.046***<br>(3.103)                  | 0.024<br>(1.545)                     | 0.014<br>(0.892)                     |
| <i>Industry-Adjusted Measure</i>                       |                                      |                                      |                                      |                                      |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>Ind</sup> | 0.036*<br>(1.704)                    | 0.061***<br>(3.089)                  | 0.029<br>(1.501)                     | 0.025<br>(1.275)                     |
| <i>Controls</i>                                        | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| <i>Crash Risk Controls</i>                             | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| <i>Firm FE</i>                                         | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| <i>Year-Quarter FE</i>                                 | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| Panel B: Long-Run Returns                              | $\bar{W}_{t+1Q}$                     | $\bar{W}_{t+2Q}$                     | $\bar{W}_{t+4Q}$                     | $\bar{W}_{t+8Q}$                     |
| <i>Tone and Similarity Controls</i>                    |                                      |                                      |                                      |                                      |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>1Q</sup>  | -0.063***<br>(-5.042)                | -0.025***<br>(-3.226)                | -0.010*<br>(-1.889)                  | -0.013***<br>(-4.433)                |
| <i>4-Quarter Rolling Baseline</i>                      |                                      |                                      |                                      |                                      |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>4Q</sup>  | -0.064***<br>(-5.104)                | -0.028***<br>(-3.559)                | -0.010*<br>(-1.934)                  | -0.009***<br>(-3.062)                |
| <i>Industry-Adjusted Measure</i>                       |                                      |                                      |                                      |                                      |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>Ind</sup> | -0.053***<br>(-4.258)                | -0.033***<br>(-4.266)                | -0.013***<br>(-2.626)                | -0.009***<br>(-3.068)                |
| <i>Controls</i>                                        | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| <i>Crash Risk Controls</i>                             | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| <i>Firm FE</i>                                         | Yes                                  | Yes                                  | Yes                                  | Yes                                  |
| <i>Year-Quarter FE</i>                                 | Yes                                  | Yes                                  | Yes                                  | Yes                                  |

### Appendix Table B3: Robustness of Analyst Behavior Results

This table reports robustness checks for the analyst behavior regressions. In Panel A, the main specification is augmented with controls for Loughran and McDonald (2011) negative and positive tone and cosine similarity with the prior quarter transcript. In Panel B, the main measure is replaced with *Attn Realloc*<sup>4Q</sup>, which uses the trailing four-quarter average as the benchmark. In Panel C, the main measure is replaced with the industry-adjusted attention reallocation score. All specifications include the full set of firm-level controls as in Table 5. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                                                  | (1)<br><i>Rev</i><br><i>Intensity<sub>t</sub></i> | (2)<br><i>Boldness<sub>t</sub></i> | (3)<br><i>Dispersion<sub>t</sub></i> | (4)<br><i>Disagreement<sub>t</sub></i> | (5)<br><i>SUE<sub>t+1</sub></i> | (6)<br><i>Cons</i><br><i>Dispt<sub>t+1</sub></i> |
|------------------------------------------------------------------|---------------------------------------------------|------------------------------------|--------------------------------------|----------------------------------------|---------------------------------|--------------------------------------------------|
| <b>Panel A: Controlling for Tone and Document Similarity</b>     |                                                   |                                    |                                      |                                        |                                 |                                                  |
| <i>Attn Realloc<sub>t</sub></i> <sup>1Q</sup>                    | 0.039***<br>(2.774)                               | −0.049***<br>(−7.979)              | 0.019**<br>(2.262)                   | 0.016***<br>(2.755)                    | −0.001*<br>(−1.822)             | 0.001**<br>(2.315)                               |
| <i>Controls</i>                                                  | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Firm FE</i>                                                   | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Year-Quarter FE</i>                                           | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Observations</i>                                              | 62,329                                            | 49,122                             | 56,431                               | 49,800                                 | 68,747                          | 67,838                                           |
| <i>R-squared</i>                                                 | 0.478                                             | 0.078                              | 0.478                                | 0.487                                  | 0.189                           | 0.625                                            |
| <b>Panel B: Alternative Measure (4-Quarter Rolling Baseline)</b> |                                                   |                                    |                                      |                                        |                                 |                                                  |
| <i>Attn Realloc<sub>t</sub></i> <sup>4Q</sup>                    | 0.154***<br>(4.081)                               | −0.146***<br>(−12.546)             | 0.044***<br>(3.983)                  | 0.017*<br>(1.909)                      | −0.001**<br>(−2.468)            | 0.000<br>(1.529)                                 |
| <i>Controls</i>                                                  | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Firm FE</i>                                                   | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Year-Quarter FE</i>                                           | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Observations</i>                                              | 62,639                                            | 49,355                             | 56,710                               | 50,044                                 | 69,099                          | 68,188                                           |
| <i>R-squared</i>                                                 | 0.480                                             | 0.077                              | 0.476                                | 0.481                                  | 0.187                           | 0.625                                            |
| <b>Panel C: Industry-Adjusted Measure</b>                        |                                                   |                                    |                                      |                                        |                                 |                                                  |
| <i>Attn Realloc<sub>t</sub></i> <sup>Ind</sup>                   | 0.174***<br>(4.008)                               | −0.180***<br>(−12.525)             | 0.025*<br>(1.696)                    | 0.022**<br>(2.185)                     | −0.001**<br>(−2.035)            | 0.001<br>(1.445)                                 |
| <i>Controls</i>                                                  | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Firm FE</i>                                                   | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Year-Quarter FE</i>                                           | Yes                                               | Yes                                | Yes                                  | Yes                                    | Yes                             | Yes                                              |
| <i>Observations</i>                                              | 62,639                                            | 49,355                             | 56,710                               | 50,044                                 | 69,099                          | 68,188                                           |
| <i>R-squared</i>                                                 | 0.480                                             | 0.077                              | 0.476                                | 0.481                                  | 0.187                           | 0.625                                            |

### Appendix Table B4: Robustness of Mandatory Disclosure Results

This table reports robustness checks for the bad-news 8-K filing regressions. In Panel A, the main specification is augmented with controls for Loughran and McDonald (2011) negative and positive tone and cosine similarity with the prior quarter transcript. In Panel B, the main measure is replaced with *Attn Realloc*<sup>4Q</sup>, which uses the trailing four-quarter average as the benchmark. In Panel C, the main measure is replaced with the industry-adjusted attention reallocation score. All regressions are estimated using Poisson pseudo-maximum likelihood (PPML) with high-dimensional fixed effects. All specifications include the full set of firm-level controls and lagged bad-news 8-K count as in Table 7. All specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                                                                  | (1)<br><i>Bad News</i><br><i>8K<sub>t+90d</sub></i> | (2)<br><i>Bad News</i><br><i>8K<sub>t+180d</sub></i> | (3)<br><i>Bad News</i><br><i>8K<sub>t+1Y</sub></i> | (4)<br><i>Bad News</i><br><i>8K<sub>t+2Y</sub></i> |
|------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| <b>Panel A: Controlling for Tone and Document Similarity</b>     |                                                     |                                                      |                                                    |                                                    |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>1Q</sup>            | 0.127***<br>(6.079)                                 | 0.089***<br>(6.275)                                  | 0.069***<br>(6.918)                                | 0.050***<br>(5.795)                                |
| <i>Lagged Bad News 8K</i>                                        | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Controls</i>                                                  | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Firm FE</i>                                                   | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Year-Quarter FE</i>                                           | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Observations</i>                                              | 126,656                                             | 129,867                                              | 129,938                                            | 129,944                                            |
| <i>Pseudo R-squared</i>                                          | 0.072                                               | 0.094                                                | 0.130                                              | 0.191                                              |
| <b>Panel B: Alternative Measure (4-Quarter Rolling Baseline)</b> |                                                     |                                                      |                                                    |                                                    |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>4Q</sup>            | 0.147***<br>(5.460)                                 | 0.111***<br>(5.765)                                  | 0.068***<br>(4.830)                                | 0.040***<br>(3.341)                                |
| <i>Lagged Bad News 8K</i>                                        | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Controls</i>                                                  | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Firm FE</i>                                                   | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Year-Quarter FE</i>                                           | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Observations</i>                                              | 129,587                                             | 132,969                                              | 133,051                                            | 133,058                                            |
| <i>Pseudo R-squared</i>                                          | 0.073                                               | 0.094                                                | 0.131                                              | 0.191                                              |
| <b>Panel C: Industry-Adjusted Measure</b>                        |                                                     |                                                      |                                                    |                                                    |
| <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>Ind</sup>           | 0.165***<br>(5.799)                                 | 0.113***<br>(5.234)                                  | 0.055***<br>(3.617)                                | 0.031**<br>(2.442)                                 |
| <i>Lagged Bad News 8K</i>                                        | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Controls</i>                                                  | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Firm FE</i>                                                   | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Year-Quarter FE</i>                                           | Yes                                                 | Yes                                                  | Yes                                                | Yes                                                |
| <i>Observations</i>                                              | 127,277                                             | 130,505                                              | 130,578                                            | 130,584                                            |
| <i>Pseudo R-squared</i>                                          | 0.072                                               | 0.093                                                | 0.130                                              | 0.191                                              |

**Table B5: Positive and Negative Attention Reallocation: Crash Risk and Bad-News F**

This table decomposes category-level managerial attention reallocation into positive and negative shifts to examine whether changes in attention to particular categories are associated with subsequent crash risk and bad-news disclosures. A positive shift reflects an increase in a category's share of call content relative to the prior quarter, while a negative shift reflects a decrease. Panel A reports estimates for crash risk, measured as *NCSKEW* over forward windows of 1, 2, 4, and 8 quarters following the call. Panel B reports Poisson pseudo-maximum-likelihood estimates for the count of bad-news 8-K filings within forward windows of 90 days, 180 days, 1 year, and 2 years following the call. All specifications include the full set of control variables used in the baseline regressions, as well as firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

| <b>Panel A: Crash Risk for the Next Period</b>      |                                             |                                             |                                             |                                             |
|-----------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
|                                                     | (1)<br><i>NCSKEW</i> <sub><i>t</i>+1Q</sub> | (2)<br><i>NCSKEW</i> <sub><i>t</i>+2Q</sub> | (3)<br><i>NCSKEW</i> <sub><i>t</i>+4Q</sub> | (4)<br><i>NCSKEW</i> <sub><i>t</i>+8Q</sub> |
| <i>Risk &amp; Uncertainty</i> <sup>+</sup>          | -0.464*<br>(-1.728)                         | 0.003<br>(0.013)                            | -0.160<br>(-0.724)                          | -0.454**<br>(-2.146)                        |
| <i>Risk &amp; Uncertainty</i> <sup>-</sup>          | -0.351<br>(-1.325)                          | -0.282<br>(-1.187)                          | -0.436**<br>(-1.968)                        | -0.563***<br>(-2.604)                       |
| <i>Strategy &amp; Growth</i> <sup>+</sup>           | 0.040<br>(0.319)                            | 0.029<br>(0.270)                            | 0.052<br>(0.506)                            | 0.073<br>(0.762)                            |
| <i>Strategy &amp; Growth</i> <sup>-</sup>           | 0.068<br>(0.532)                            | 0.140<br>(1.249)                            | 0.175*<br>(1.756)                           | 0.144<br>(1.526)                            |
| <i>Operations &amp; Supply Chain</i> <sup>+</sup>   | 0.039<br>(0.284)                            | 0.029<br>(0.235)                            | 0.065<br>(0.575)                            | 0.146<br>(1.303)                            |
| <i>Operations &amp; Supply Chain</i> <sup>-</sup>   | 0.027<br>(0.192)                            | 0.152<br>(1.233)                            | 0.151<br>(1.280)                            | 0.122<br>(1.058)                            |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>+</sup> | 0.247**<br>(2.373)                          | 0.347***<br>(3.856)                         | 0.234***<br>(2.850)                         | 0.271***<br>(3.401)                         |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>-</sup> | 0.203*<br>(1.929)                           | 0.203**<br>(2.271)                          | 0.119<br>(1.461)                            | 0.186**<br>(2.397)                          |
| <i>Controls</i>                                     | YES                                         | YES                                         | YES                                         | YES                                         |
| <i>Firm FE</i>                                      | YES                                         | YES                                         | YES                                         | YES                                         |
| <i>Year-Quarter FE</i>                              | YES                                         | YES                                         | YES                                         | YES                                         |
| <i>Observations</i>                                 | 128432                                      | 127765                                      | 126734                                      | 124863                                      |
| <i>R-squared</i>                                    | 0.074                                       | 0.113                                       | 0.174                                       | 0.285                                       |

| <b>Panel B: Filing of 8-K Bad News</b>     |                                       |                                        |                                        |                                        |
|--------------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
|                                            | (1)<br><i>Bad News</i> <sub>90d</sub> | (2)<br><i>Bad News</i> <sub>180d</sub> | (3)<br><i>Bad News</i> <sub>365d</sub> | (4)<br><i>Bad News</i> <sub>730d</sub> |
| <i>Risk &amp; Uncertainty</i> <sup>+</sup> | 0.455<br>(1.543)                      | 0.168<br>(0.699)                       | 0.313*<br>(1.876)                      | 0.143<br>(1.151)                       |
| <i>Risk &amp; Uncertainty</i> <sup>-</sup> | 0.064<br>(0.262)                      | 0.348*<br>(1.689)                      | 0.171<br>(1.161)                       | 0.066<br>(0.602)                       |
| <i>Strategy &amp; Growth</i> <sup>+</sup>  | 0.435***<br>(2.969)                   | 0.325***<br>(3.478)                    | 0.234***<br>(3.105)                    | 0.216***<br>(3.610)                    |
| <i>Strategy &amp; Growth</i> <sup>-</sup>  | 0.130                                 | 0.111                                  | 0.090                                  | 0.044                                  |

| <b>Panel B: Filing of 8-K Bad News (continued)</b>  |                                       |                                        |                                        |                                        |
|-----------------------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
|                                                     | (1)<br><i>Bad News</i> <sub>90d</sub> | (2)<br><i>Bad News</i> <sub>180d</sub> | (3)<br><i>Bad News</i> <sub>365d</sub> | (4)<br><i>Bad News</i> <sub>730d</sub> |
| <i>Operations &amp; Supply Chain</i> <sup>+</sup>   | (0.981)<br>0.058                      | (1.126)<br>-0.019                      | (1.136)<br>0.222***                    | (0.680)<br>0.241***                    |
| <i>Operations &amp; Supply Chain</i> <sup>-</sup>   | (0.442)<br>0.020                      | (-0.190)<br>0.182*                     | (2.644)<br>0.207***                    | (3.136)<br>0.209***                    |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>+</sup> | (0.132)<br>0.707***                   | (1.680)<br>0.590***                    | (2.591)<br>0.342***                    | (2.846)<br>0.193***                    |
| <i>Corp. Actions &amp; Cap. Struct</i> <sup>-</sup> | (5.864)<br>0.479***                   | (7.019)<br>0.424***                    | (5.473)<br>0.224***                    | (3.701)<br>0.141***                    |
|                                                     | (3.887)                               | (4.802)                                | (3.274)                                | (2.897)                                |
| <i>Controls</i>                                     | YES                                   | YES                                    | YES                                    | YES                                    |
| <i>Firm FE</i>                                      | YES                                   | YES                                    | YES                                    | YES                                    |
| <i>Year-Quarter FE</i>                              | YES                                   | YES                                    | YES                                    | YES                                    |
| <i>Observations</i>                                 | 130295                                | 130500                                 | 130573                                 | 130579                                 |
| <i>Pseudo R-squared</i>                             | 0.072                                 | 0.094                                  | 0.131                                  | 0.192                                  |

## Appendix Table B6 : Firm Characteristics and Attention Reallocation

This table examines which firm characteristics are associated with managerial attention reallocation. The dependent variable in column (1),  $Attn\ Realloc_t^{1Q}$ , measures the shift in the distribution of managerial attention across topics relative to the prior quarter. The dependent variable in column (2),  $Attn\ Realloc_t^{4Q}$ , measures the shift in the distribution of managerial attention relative to the average distribution over the prior four quarters. All firm characteristics are lagged and defined in Table A1. Both specifications include firm and year-quarter fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

|                         | (1)<br>$Attn\ Realloc_t^{1Q}$ | (2)<br>$Attn\ Realloc_t^{4Q}$ |
|-------------------------|-------------------------------|-------------------------------|
| $Firm\ Size_{t-1}$      | 0.028***<br>(7.964)           | 0.014***<br>(4.375)           |
| $Past\ Return_{t-1}$    | -0.014***<br>(-4.674)         | -0.011***<br>(-4.497)         |
| $SUE_{t-1}$             | -0.001***<br>(-3.872)         | -0.001***<br>(-3.100)         |
| $Investment_{t-1}$      | -0.154***<br>(-2.961)         | -0.122***<br>(-2.920)         |
| $ROA_{t-1}$             | -0.205***<br>(-5.041)         | -0.182***<br>(-5.149)         |
| $Leverage_{t-1}$        | 0.030**<br>(2.286)            | 0.054***<br>(4.838)           |
| $Tobin's\ Q_{t-1}$      | -0.005***<br>(-3.091)         | -0.007***<br>(-5.037)         |
| $Book-to-Market_{t-1}$  | 0.003<br>(1.370)              | 0.004*<br>(1.946)             |
| $R\&D_{t-1}$            | -0.302***<br>(-2.928)         | -0.247**<br>(-2.485)          |
| $R\&D\ Missing_{t-1}$   | 0.002<br>(0.289)              | 0.002<br>(0.305)              |
| $Complexity_{t-1}$      | 0.021<br>(1.460)              | 0.005<br>(0.428)              |
| $Segment\ HHI_{t-1}$    | 0.038***<br>(3.526)           | 0.017<br>(1.660)              |
| $Inst\ Own_{t-1}$       | 0.003<br>(0.227)              | -0.001<br>(-0.063)            |
| $RVOL_{t-1}^{pre}$      | 1.848***<br>(9.773)           | 1.558***<br>(7.309)           |
| $Amihud_{t-1}^{pre}$    | -0.004<br>(-0.966)            | 0.001<br>(0.144)              |
| $Ln\ No.\ Topics_{t-1}$ | -0.014<br>(-0.913)            | -0.097***<br>(-6.582)         |
| $Firm\ FE$              | YES                           | YES                           |
| $Year-Quarter\ FE$      | YES                           | YES                           |
| $Observations$          | 128762                        | 131148                        |
| $R-squared$             | 0.310                         | 0.356                         |

## Appendix Table B7: Correlation Matrix

This table reports Pearson correlation coefficients among the main attention, textual, and firm-level variables used in the analysis. *Attn Realloc*<sup>1Q</sup> measures the total shift in the distribution of managerial attention across topics relative to the prior quarter. *Net Tone* measures the net textual tone of the earnings call. *Cosine Similarity* measures the similarity in the distribution of managerial attention relative to the prior quarter. *Ln No. Sentences* is the natural logarithm of the number of content sentences in the earnings call, and *Ln No. Topics* is the natural logarithm of the number of topics discussed during the call. Variable definitions are provided in Appendix Table A1.

|                                                           | (1)    | (2)    | (3)    | (4)    | (5)    | (6)    | (7)    | (8)    | (9)   | (10)  |
|-----------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| (1) <i>Attn Realloc</i> <sub><i>t</i></sub> <sup>1Q</sup> | 1.000  |        |        |        |        |        |        |        |       |       |
| (2) <i>Net Tone</i>                                       | -0.008 | 1.000  |        |        |        |        |        |        |       |       |
| (3) <i>Cosine Similarity</i>                              | -0.497 | 0.001  | 1.000  |        |        |        |        |        |       |       |
| (4) <i>Ln No. Sentences</i>                               | 0.057  | 0.105  | -0.049 | 1.000  |        |        |        |        |       |       |
| (5) <i>Ln No. Topics</i>                                  | 0.063  | 0.114  | 0.006  | 0.930  | 1.000  |        |        |        |       |       |
| (6) <i>Ln No. Analysts</i>                                | 0.110  | 0.104  | -0.131 | 0.153  | 0.140  | 1.000  |        |        |       |       |
| (7) <i>Firm Size</i>                                      | 0.197  | 0.137  | -0.184 | 0.209  | 0.226  | 0.458  | 1.000  |        |       |       |
| (8) <i>SUE</i>                                            | -0.010 | 0.054  | -0.008 | -0.003 | -0.006 | -0.003 | -0.001 | 1.000  |       |       |
| (9) <i>RVOL</i> <sup>pre</sup>                            | -0.027 | -0.227 | 0.042  | -0.057 | -0.086 | -0.121 | -0.355 | -0.057 | 1.000 |       |
| (10) <i>Amihud</i> <sup>pre</sup>                         | -0.050 | -0.067 | 0.063  | -0.072 | -0.068 | -0.164 | -0.231 | -0.001 | 0.160 | 1.000 |

## Appendix Table B8: Residualized Attention Reallocation and Main Outcomes

This table examines whether the main results are robust to removing variation in managerial attention reallocation associated with alternative textual characteristics of the earnings call. I first regress  $Attn\ Realloc^{1Q}$  on net tone, cosine similarity to the prior call, and the number of topics discussed during the call.  $Residual\ Attn\ Realloc^{1Q}$  is the residual from this regression and therefore captures variation in attention reallocation orthogonal to these characteristics. Panel A reports announcement returns over the indicated windows around the earnings call. Panel B reports crash risk, measured as  $NCSKEW$  over forward windows of 1, 2, 4, and 8 quarters. Panel C reports mean firm-specific weekly returns over the same horizons. Panel D reports Poisson pseudo-maximum-likelihood estimates for the number of bad-news 8-K filings within 90 days, 180 days, 1 year, and 2 years following the call. All specifications include the full set of controls used in the corresponding baseline regressions, as well as firm fixed effects and time fixed effects. Standard errors are clustered at the firm level.  $t$ -statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

| <b>Panel A: Announcement Returns</b>                  |                       |                      |                      |                      |                      |
|-------------------------------------------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
|                                                       | (1)<br>$CAR(-1, +1)$  | (2)<br>$CAR(-1, +2)$ | (3)<br>$CAR(-1, +3)$ | (4)<br>$CAR(-2, +2)$ | (5)<br>$CAR(0, +1)$  |
| <i>Residual Attn Realloc<sub>t</sub><sup>1Q</sup></i> | -0.003***<br>(-2.663) | -0.003**<br>(-2.418) | -0.003**<br>(-2.370) | -0.003**<br>(-2.379) | -0.002**<br>(-2.198) |
| <i>Controls</i>                                       | YES                   | YES                  | YES                  | YES                  | YES                  |
| <i>Firm FE</i>                                        | YES                   | YES                  | YES                  | YES                  | YES                  |
| <i>Year-Quarter FE</i>                                | YES                   | YES                  | YES                  | YES                  | YES                  |
| <i>Observations</i>                                   | 130530                | 130529               | 130529               | 130529               | 130530               |
| <i>R-squared</i>                                      | 0.101                 | 0.105                | 0.108                | 0.110                | 0.101                |

| <b>Panel B: Crash Risk for the Next Period</b>        |                        |                        |                        |                        |
|-------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|
|                                                       | (1)<br>$NCSKEW_{t+1Q}$ | (2)<br>$NCSKEW_{t+2Q}$ | (3)<br>$NCSKEW_{t+4Q}$ | (4)<br>$NCSKEW_{t+8Q}$ |
| <i>Residual Attn Realloc<sub>t</sub><sup>1Q</sup></i> | 0.032**<br>(2.222)     | 0.034**<br>(2.556)     | 0.032**<br>(2.400)     | 0.030**<br>(2.374)     |
| <i>Controls</i>                                       | YES                    | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                                        | YES                    | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>                                | YES                    | YES                    | YES                    | YES                    |
| <i>Observations</i>                                   | 128434                 | 127767                 | 126736                 | 124865                 |
| <i>R-squared</i>                                      | 0.073                  | 0.112                  | 0.173                  | 0.284                  |

| <b>Panel C: Long-Run Returns for the Next Period</b>  |                         |                         |                         |                         |
|-------------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                                       | (1)<br>$\bar{W}_{t+1Q}$ | (2)<br>$\bar{W}_{t+2Q}$ | (3)<br>$\bar{W}_{t+4Q}$ | (4)<br>$\bar{W}_{t+8Q}$ |
| <i>Residual Attn Realloc<sub>t</sub><sup>1Q</sup></i> | -0.001***<br>(-5.108)   | -0.000***<br>(-3.654)   | -0.000*<br>(-1.831)     | -0.000***<br>(-4.334)   |
| <i>Controls</i>                                       | YES                     | YES                     | YES                     | YES                     |
| <i>Firm FE</i>                                        | YES                     | YES                     | YES                     | YES                     |
| <i>Year-Quarter FE</i>                                | YES                     | YES                     | YES                     | YES                     |
| <i>Observations</i>                                   | 128434                  | 127767                  | 126736                  | 124865                  |

| <b>Panel C: Long-Run Returns for the Next Period (continued)</b> |                                         |                                         |                                         |                                         |
|------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
|                                                                  | <sup>(1)</sup><br>$\overline{W}_{t+1Q}$ | <sup>(2)</sup><br>$\overline{W}_{t+2Q}$ | <sup>(3)</sup><br>$\overline{W}_{t+4Q}$ | <sup>(4)</sup><br>$\overline{W}_{t+8Q}$ |
| <i>R-squared</i>                                                 | 0.125                                   | 0.197                                   | 0.304                                   | 0.498                                   |

| <b>Panel D: Filing of 8-K Bad News</b>                  |                                                  |                                                   |                                                   |                                                   |
|---------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
|                                                         | <sup>(1)</sup><br><i>Bad News</i> <sub>90d</sub> | <sup>(2)</sup><br><i>Bad News</i> <sub>180d</sub> | <sup>(3)</sup><br><i>Bad News</i> <sub>365d</sub> | <sup>(4)</sup><br><i>Bad News</i> <sub>730d</sub> |
| <i>Residual Attn Realloc</i> <sub>t</sub> <sup>1Q</sup> | 0.112***<br>(6.155)                              | 0.080***<br>(5.911)                               | 0.059***<br>(6.046)                               | 0.041***<br>(4.971)                               |
| <i>Controls</i>                                         | YES                                              | YES                                               | YES                                               | YES                                               |
| <i>Firm FE</i>                                          | YES                                              | YES                                               | YES                                               | YES                                               |
| <i>Year-Quarter FE</i>                                  | YES                                              | YES                                               | YES                                               | YES                                               |
| <i>Observations</i>                                     | 129659                                           | 129867                                            | 129938                                            | 129944                                            |
| <i>Pseudo R-squared</i>                                 | 0.071                                            | 0.093                                             | 0.130                                             | 0.191                                             |

## Appendix Table B9: Placebo Validation of Attention Reallocation

This table reports placebo tests of the attention reallocation measure. *Sequence Placebo* randomly permutes the order of transcripts within each firm and recomputes attention reallocation relative to the preceding transcript in the randomized sequence. This procedure preserves firm identity and transcript content but destroys the actual time-series sequence of managerial communication. *Random-Firm Placebo* randomly assigns transcripts to firms within the same quarter and recomputes attention reallocation relative to the preceding call. This procedure preserves quarter-level conditions but destroys firm identity and firm-specific time-series structure. Panel A reports announcement returns over the indicated windows around the earnings call. Panel B reports crash risk, measured as *NCSKEW* over forward windows of 1, 2, 4, and 8 quarters. Panel C reports mean firm-specific weekly returns over the same horizons. Panel D reports Poisson pseudo-maximum-likelihood estimates for the number of bad-news 8-K filings within 90 days, 180 days, 1 year, and 2 years following the call. All specifications include the full set of controls used in the corresponding baseline regressions, as well as firm and year-quarter fixed effects. Standard errors are clustered at the firm level. *t*-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

| <b>Panel A: Announcement Returns</b> |                            |                            |                            |                            |                           |
|--------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
|                                      | (1)<br><i>CAR</i> (−1, +1) | (2)<br><i>CAR</i> (−1, +2) | (3)<br><i>CAR</i> (−1, +3) | (4)<br><i>CAR</i> (−2, +2) | (5)<br><i>CAR</i> (0, +1) |
| <i>Sequence Placebo</i>              | 0.000<br>(0.216)           | 0.000<br>(0.205)           | 0.000<br>(0.341)           | 0.000<br>(0.286)           | 0.000<br>(0.425)          |
| <i>Random-Firm Placebo</i>           | −0.000<br>(−0.097)         | −0.001<br>(−0.285)         | −0.002<br>(−0.679)         | −0.000<br>(−0.193)         | −0.000<br>(−0.255)        |
| <i>Controls</i>                      | YES                        | YES                        | YES                        | YES                        | YES                       |
| <i>Firm FE</i>                       | YES                        | YES                        | YES                        | YES                        | YES                       |
| <i>Year-Quarter FE</i>               | YES                        | YES                        | YES                        | YES                        | YES                       |

| <b>Panel C: Long-Run Returns for the Next Period</b> |                              |                              |                              |                              |
|------------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
|                                                      | (1)<br>$\overline{W}_{t+1Q}$ | (2)<br>$\overline{W}_{t+2Q}$ | (3)<br>$\overline{W}_{t+4Q}$ | (4)<br>$\overline{W}_{t+8Q}$ |
| <i>Sequence Placebo</i>                              | 0.000<br>(1.521)             | 0.000<br>(1.444)             | 0.000**<br>(2.278)           | 0.000<br>(1.550)             |
| <i>Random-Firm Placebo</i>                           | −0.000<br>(−1.330)           | −0.000<br>(−0.978)           | −0.000<br>(−1.434)           | −0.000<br>(−0.669)           |
| <i>Controls</i>                                      | YES                          | YES                          | YES                          | YES                          |
| <i>Firm FE</i>                                       | YES                          | YES                          | YES                          | YES                          |
| <i>Year-Quarter FE</i>                               | YES                          | YES                          | YES                          | YES                          |

| <b>Panel B: Crash Risk for the Next Period</b> |                        |                        |                        |                        |
|------------------------------------------------|------------------------|------------------------|------------------------|------------------------|
|                                                | (1)<br>$NCSKEW_{t+1Q}$ | (2)<br>$NCSKEW_{t+2Q}$ | (3)<br>$NCSKEW_{t+4Q}$ | (4)<br>$NCSKEW_{t+8Q}$ |
| <i>Sequence Placebo</i>                        | -0.013<br>(-0.846)     | -0.012<br>(-0.830)     | -0.012<br>(-0.921)     | -0.009<br>(-0.794)     |
| <i>Random-Firm Placebo</i>                     | 0.037<br>(1.286)       | 0.012<br>(0.472)       | 0.021<br>(0.974)       | 0.008<br>(0.415)       |
| <i>Controls</i>                                | YES                    | YES                    | YES                    | YES                    |
| <i>Firm FE</i>                                 | YES                    | YES                    | YES                    | YES                    |
| <i>Year-Quarter FE</i>                         | YES                    | YES                    | YES                    | YES                    |

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| <b>Panel D: Filing of 8-K Bad News</b> |                          |                           |                           |                           |
|----------------------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
|                                        | (1)<br>$Bad\ News_{90d}$ | (2)<br>$Bad\ News_{180d}$ | (3)<br>$Bad\ News_{365d}$ | (4)<br>$Bad\ News_{730d}$ |
| <i>Sequence Placebo</i>                | -0.009<br>(-0.618)       | -0.003<br>(-0.251)        | -0.004<br>(-0.526)        | 0.003<br>(0.536)          |
| <i>Random-Firm Placebo</i>             | -0.044<br>(-1.345)       | 0.005<br>(0.226)          | 0.001<br>(0.081)          | -0.005<br>(-0.493)        |
| <i>Controls</i>                        | YES                      | YES                       | YES                       | YES                       |
| <i>Firm FE</i>                         | YES                      | YES                       | YES                       | YES                       |
| <i>Year-Quarter FE</i>                 | YES                      | YES                       | YES                       | YES                       |

## Appendix C. Additional Materials

### C1 Topic Classification Procedure

I classify the 1,074 non-boilerplate BERTopic topics into twelve economic content categories using a supervised large-language-model procedure. The classification is anchored on a set of category definitions developed from an initial manually labeled sample of 70 topics. These definitions include explicit boundary rules for categories that are prone to overlap. For example, *Risk Factors & Uncertainty* captures hedged, cautionary, or exposure-framed language (“could,” “may,” “uncertain,” quantified risk metrics), regardless of subject matter, whereas *External & Macro Shocks* captures content describing macroeconomic or geopolitical conditions as the topic itself (FX movements, regional demand conditions, COVID disruption). Similarly, *Strategy, Growth & Innovation* contains forward-looking business-development intent (R&D, new products, market expansion, general “investing in the business”), *Operations & Supply Chain* contains production, logistics, and execution-layer content, and *Corporate Actions & Capital Structure* contains specific transactional or financing decisions (M&A, divestitures, buybacks, dividends, debt issuance, leverage tied to a named deal).

Each topic is presented to Claude Sonnet 5 with its top-weighted terms and representative example sentences. The model is prompted with the fixed category definitions, boundary rules, and worked examples from the manually labeled training set, and returns a category assignment, a confidence rating, and a one-sentence justification. Topics identified as conversational scaffolding (introductions, speaker transitions, meeting logistics) or as clustering artifacts driven by polysemous terms (“model,” “term,” “size”) are flagged and excluded as boilerplate. These exclusions include the 193 boilerplate topics identified during initial topic review and an additional set identified through a second-stage subtype screen, yielding a final boilerplate list of 477 topics.

The classification is validated in three steps. First, a self-consistency check classifies an independent 30-topic sample twice under identical settings; the two passes agree on all topics. Second, the initial 70-topic training set is reclassified, and category definitions are refined where systematic disagreements arise (e.g., cash-flow topics are assigned to *Financial Performance & Earnings* unless the content specifies a particular use such as funding a buyback or paying down debt, in which case they are

assigned to *Corporate Actions & Capital Structure*). Third, a blind validation sample of 150 topics, stratified to ensure coverage of smaller categories, is manually classified by three PhD students without access to the model’s assignments; agreement between manual and automated classification is 98%.

The resulting twelve categories—*Financial Performance & Earnings, Risk Factors & Uncertainty, Legal, Regulatory & Tax, Corporate Actions & Capital Structure, Operations & Supply Chain, Strategy, Growth & Innovation, Customer & Competitive Positioning, External & Macro Shocks, People & Governance, ESG & Sustainability, Industry/Sector Context*, and *Confidence & Achievement Rhetoric*—provide the content decomposition used in the main analysis. Examples of topics assigned to each category are available upon request.

## Model Proofs

### Appendix C: Proofs of Propositions

This appendix provides formal proofs for the six propositions stated in Section II. I maintain the notation and assumptions defined in the main text throughout.

#### C2 Preliminary Results

Lemma A.1 (Equilibrium Pricing). Given the manager's attention allocation  $a$  and the content signal  $s = \theta + \eta$  with  $\eta \sim N(0, \sigma_\eta^2/h(a_{\mathcal{R}}))$ , and a prior  $\theta \sim N(\theta_0, \sigma_\theta^2)$ , the equilibrium price is:

$$P_1(a, s) = \bar{V} + \theta_0 + \frac{\tau(a_{\mathcal{R}})}{\tau(a_{\mathcal{R}}) + \tau_\theta}(s - \theta_0)$$

where  $\tau(a_{\mathcal{R}}) = h(a_{\mathcal{R}})/\sigma_\eta^2$  is the signal precision and  $\tau_\theta = 1/\sigma_\theta^2$  is the prior precision.

Proof. This follows from standard Bayesian updating with conjugate normal distributions. The posterior distribution of  $\theta$  given signal  $s$  is:

$$\theta|s \sim N\left(\frac{\tau_\theta \cdot \theta_0 + \tau(a_{\mathcal{R}}) \cdot s}{\tau_\theta + \tau(a_{\mathcal{R}})}, \frac{1}{\tau_\theta + \tau(a_{\mathcal{R}})}\right)$$

The posterior mean is:

$$E[\theta|a, s] = \theta_0 + \frac{\tau(a_{\mathcal{R}})}{\tau(a_{\mathcal{R}}) + \tau_\theta}(s - \theta_0)$$

Since  $P_1 = \bar{V} + E[\theta|a, s]$ , the result follows.

Corollary A.1. The weight placed on the signal  $s$  in the pricing function,  $w(a_{\mathcal{R}}) \equiv \tau(a_{\mathcal{R}})/(\tau(a_{\mathcal{R}}) + \tau_\theta)$ , is strictly increasing in  $a_{\mathcal{R}}$ .

Proof. Since  $h(\cdot)$  is strictly increasing,  $\tau(a_{\mathcal{R}})$  is strictly increasing in  $a_{\mathcal{R}}$ . The function  $w(\tau) = \tau/(\tau + \tau_\theta)$  is strictly increasing in  $\tau$  for  $\tau_\theta > 0$ , establishing the result.

Lemma A.2 (Optimal Attention Allocation). The manager's optimal allocation of attention to revealing topics,  $a^{\mathcal{R}(\theta)}$ , is increasing in  $\theta$ .

Proof. The manager's expected payoff given  $\theta$  and allocation  $a$  is:

$$E[U_M|\theta, a] = \alpha \cdot E[P_1(a, s)|\theta] + (1 - \alpha)(\bar{V} + \theta) - \frac{\gamma}{2}E[(P_1(a, s) - V)^2|\theta]$$

Substituting the pricing function from Lemma A.1 and noting that  $E[s|\theta] = \theta$ :

$$E[P_1|\theta] = \bar{V} + \theta_0 + w(a_{\mathcal{R}})(\theta - \theta_0)$$

The expected mispricing cost is:

$$E[(P_1 - V)^2|\theta] = E[(P_1 - \bar{V} - \theta - \epsilon)^2|\theta]$$

$$= E[(\theta_0 + w(a_{\mathcal{R}})(s - \theta_0) - \theta)^2|\theta] + \sigma_{\epsilon}^2$$

$$= (1 - w(a_{\mathcal{R}}))^2(\theta - \theta_0)^2 + w(a_{\mathcal{R}})^2 \cdot \text{Var}(\eta) + \sigma_{\epsilon}^2$$

The manager's first-order condition with respect to  $a_{\mathcal{R}}$  yields:

$$\frac{\partial E[U_M]}{\partial a_{\mathcal{R}}} = \alpha w'(a_{\mathcal{R}})(\theta - \theta_0) - \gamma \left[ -2(1 - w)(w')(\theta - \theta_0)^2 + 2w(w')\frac{\sigma_{\eta}^2}{h(a_{\mathcal{R}})} \right] \cdot \frac{\partial}{\partial a_{\mathcal{R}}} = 0$$

The critical observation is that the marginal benefit of increasing  $a_{\mathcal{R}}$  through the first term,  $\alpha w'(\theta - \theta_0)$ , is increasing in  $\theta$ . When  $\theta > \theta_0$ , higher  $a_{\mathcal{R}}$  increases the expected price (the manager benefits from a more informative signal when the news is good). When  $\theta < \theta_0$ , higher  $a_{\mathcal{R}}$  decreases the expected price. Combined with the second-order condition (which holds by concavity of  $h$  and convexity of the cost), the implicit function theorem implies  $\partial a_{\mathcal{R}}/\partial \theta > 0$ .

### C3 Proof of Proposition 1

Proposition 1 (Announcement Returns). Attention reallocation  $S_i$  is negatively associated with abnormal returns around the earnings call.

Proof. From Lemma A.2,  $a^{\mathcal{R}(\theta)}$  is increasing in  $\theta$ , so managers with lower  $\theta$  choose lower  $a_{\mathcal{R}}$ . Since  $S_i = \sum_k |a_k - \bar{a}_k|$  and strategic reallocation involves shifting weight from  $\mathcal{R}$  to  $\mathcal{D}$  (away from the baseline),  $S_i$  is decreasing in  $a_{\mathcal{R}}$  for the strategic component. Therefore  $S_i$  is negatively associated with  $\theta$  for strategic reallocators.

The expected abnormal return at the announcement is:

$$E[P_1 - P_0 | S_i] = E[w(a_{\mathcal{R}})(\theta - \theta_0) | S_i]$$

where  $P_0 = \bar{V} + \theta_0$  is the pre-call price. In the presence of benign reallocation (probability  $\mu$ ), the conditional expectation  $E[\theta | S_i]$  is a weighted average of the strategic component (where  $E[\theta | S_i, \text{strategic}] < \theta_0$  for high  $S_i$ ) and the benign component (where  $E[\theta | S_i, \text{benign}] = \theta_0$ ):

$$E[\theta | S_i] = (1 - \mu) \cdot E[\theta | S_i, \text{strategic}] + \mu \cdot \theta_0$$

For high  $S_i$ ,  $E[\theta | S_i, \text{strategic}] < \theta_0$ , so  $E[\theta | S_i] < \theta_0$ , producing negative expected abnormal returns. However, the benign component  $\mu$  pulls the expectation toward  $\theta_0$ , so the price adjustment is incomplete—investors underreact.

### C4 Proof of Proposition 2

Proposition 2 (Crash Risk). Crash risk is increasing in  $S_i$ , with the association present from one quarter to two years.

Proof. Define the post-call mispricing gap as  $G = P_1 - (\bar{V} + \theta) = E[\theta | a, s] - \theta$ . For managers who strategically reallocate (low  $a_{\mathcal{R}}$ , high  $S_i$ ), the signal weight  $w(a_{\mathcal{R}})$  is low, and the price is anchored toward the prior  $\theta_0$ . When  $\theta < \theta_0$ , this produces  $G > 0$ : the stock is overpriced relative to fundamentals.

The overpricing is resolved over the interval  $(1, 2)$  through two channels. First, continuous information arrival gradually reveals  $\theta$ , producing a drift toward the true value. Second, discrete mandatory disclosure events occur with probability  $\lambda(\theta)$ ,

producing jumps.

The return over any subinterval  $(1, 1 + \Delta)$  conditional on high  $S_i$  is:

$$r_{1,1+\Delta} = -G \cdot \Phi(\Delta) + \text{noise}$$

where  $\Phi(\Delta)$  is the fraction of the mispricing resolved by date  $1 + \Delta$ , with  $\Phi(0) = 0$  and  $\lim_{\Delta \rightarrow \infty} \Phi(\Delta) = 1$ .

Crash risk, measured by negative return skewness (NCSKEW), depends on the asymmetry of the return distribution. The distribution of  $G$  conditional on high  $S_i$  is right-skewed (the overpricing gap is larger for more negative  $\theta$ , and  $\theta$  has full support on  $[\underline{\theta}, \bar{\theta}]$ ). The negative correction  $-G \cdot \Phi(\Delta)$  therefore produces left-skewed returns: large negative returns are more probable than large positive returns.

The horizon pattern arises because  $\Phi(\Delta)$  is concave: information resolution is fastest initially (when the most salient concealed problems surface) and slows as the remaining concealed information becomes harder to detect. The NCSKEW coefficient is:

$$\text{NCSKEW}(\Delta) \propto E[G^3 | S_i \text{ high}] \cdot [\Phi(\Delta)]^3$$

which is increasing in  $\Delta$  but at a decreasing rate, consistent with the empirically observed pattern of declining but persistently positive crash risk coefficients across horizons.

## C5 Proof of Proposition 3

Proposition 3 (Analyst Response). Following high-reallocation calls, forecast boldness declines, dispersion increases, and revision intensity rises.

Proof. Consider a set of  $N$  analysts, each of whom observes the public signal  $s$  from the earnings call and receives a private signal  $s_j = \theta + \nu_j$ , where  $\nu_j \sim N(0, \sigma_\nu^2)$  independently across analysts. Each analyst's posterior is:

$$E[\theta | a, s, s_j] = \frac{\tau_\theta \cdot \theta_0 + \tau(a_{\mathcal{R}}) \cdot s + \tau_\nu \cdot s_j}{\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu}$$

where  $\tau_\nu = 1/\sigma_\nu^2$  is the precision of the analyst's private signal.

(i) Boldness. Define boldness as the absolute deviation of analyst  $j$ 's forecast from the consensus (the average forecast across analysts). The consensus forecast converges to  $(\tau_\theta \cdot \theta_0 + \tau(a_{\mathcal{R}}) \cdot s + \tau_\nu \cdot \bar{s})/(\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu)$  where  $\bar{s} = \theta + \bar{\nu}$ . The deviation of analyst  $j$  from consensus is proportional to:

$$\frac{\tau_\nu}{\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu}(\nu_j - \bar{\nu})$$

The coefficient  $\tau_\nu/(\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu)$  is the weight on private information. When  $a_{\mathcal{R}}$  is low (high  $S_i$ ),  $\tau(a_{\mathcal{R}})$  is low, and this weight increases mechanically. However, if analysts face career concerns that penalize deviations from consensus (as in Hong, Kubik, and Solomon, 2000), the optimal boldness also depends on the analyst's confidence in the private signal relative to total uncertainty. The posterior variance is  $1/(\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu)$ , which increases when  $\tau(a_{\mathcal{R}})$  falls. Under career concerns, analysts optimally shade their forecasts toward consensus when uncertainty is high, producing lower observed boldness.

(ii) Dispersion. The cross-sectional variance of analyst forecasts is:

$$\text{Var}_j(E[\theta|a, s, s_j]) = \left( \frac{\tau_\nu}{\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu} \right)^2 \sigma_\nu^2$$

Taking the derivative with respect to  $\tau(a_{\mathcal{R}})$ :

$$\frac{\partial \text{Var}_j}{\partial \tau(a_{\mathcal{R}})} = -2 \frac{\tau_\nu^2 \sigma_\nu^2}{(\tau_\theta + \tau(a_{\mathcal{R}}) + \tau_\nu)^3} < 0$$

So forecast dispersion is decreasing in signal precision  $\tau(a_{\mathcal{R}})$ , which means it is increasing in  $S_i$ .

(iii) Revision intensity. After the earnings call, additional information events arrive over time, each providing an incremental signal about  $\theta$ . The magnitude of the forecast revision in response to each subsequent signal depends on the remaining posterior uncertainty. When  $\tau(a_{\mathcal{R}})$  is low, the post-call posterior variance is higher, and each subsequent signal produces a larger revision. Total revision intensity over the post-call period is therefore decreasing in  $\tau(a_{\mathcal{R}})$  and increasing in  $S_i$ .

## C6 Proof of Proposition 4

Proposition 4 (Options Market Pricing). Implied volatility jump risk is increasing in  $S_i$ .

Proof. The return between dates 1 and 2 is:

$$r_{1,2} = V - P_1 = (\theta - E[\theta|a, s]) + \epsilon$$

The first component, the pricing error, has a distribution that depends on  $S_i$  through the signal precision. For high- $S_i$  firms (low  $a_{\mathcal{R}}$ ), the conditional distribution of  $\theta - E[\theta|a, s]$  has two features relevant to options pricing.

First, the variance of the pricing error is higher. The posterior variance of  $\theta$  is  $1/(\tau_{\theta} + \tau(a_{\mathcal{R}}))$ , which is decreasing in  $\tau(a_{\mathcal{R}})$ . Higher posterior variance translates to higher expected return variance, which increases at-the-money implied volatility.

Second, the distribution of the pricing error is left-skewed for high- $S_i$  firms. This arises because high- $S_i$  calls are disproportionately associated with  $\theta < \theta_0$  (Lemma A.2), and the pricing error  $\theta - E[\theta|a, s]$  is more negative in expectation when  $\theta$  is low and the signal is imprecise. The discrete mandatory revelation events (with probability  $\lambda(\theta)$  decreasing in  $\theta$ ) introduce jump risk: with positive probability, a large negative price correction occurs when concealed bad news surfaces. This left-tail risk is priced through out-of-the-money put options, producing higher implied volatility skew and elevated jump risk premiums.

Formally, the risk-neutral expected payoff of an out-of-the-money put with strike  $X < P_1$  is:

$$E^Q[\max(X - P_1 - r_{1,2} \cdot P_1, 0)] = E^Q[\max(X - V, 0)]$$

This expectation is increasing in the left-tail probability of  $V$ , which is increasing in  $S_i$  because high- $S_i$  firms have more negative expected  $\theta$  and higher probability of discrete downward jumps. The implied volatility that equates the Black-Scholes price to this expectation is therefore increasing in  $S_i$ .

## C7 Proof of Proposition 5

Proposition 5 (Mandatory Disclosures and Adverse Incidents). Attention reallocation predicts a higher probability of bad-news mandatory disclosures and adverse incidents in subsequent months.

Proof. The probability of a mandatory disclosure event in the interval  $(1, 1 + \Delta)$  conditional on the manager's type is:

$$\Pr(\text{mandatory disclosure in } (1, 1 + \Delta) | \theta) = 1 - (1 - \lambda(\theta))^{n(\Delta)}$$

where  $n(\Delta)$  is the number of potential triggering events in the interval and  $\lambda(\theta)$  is the per-event disclosure probability. Since  $\lambda(\theta)$  is decreasing in  $\theta$  (worse fundamentals are more likely to trigger disclosure), this probability is decreasing in  $\theta$ .

The conditional probability of a mandatory disclosure given observed reallocation  $S_i$  is:

$$\Pr(\text{disclosure} | S_i) = \int \Pr(\text{disclosure} | \theta) \cdot f(\theta | S_i) d\theta$$

From the equilibrium characterization, the posterior distribution  $f(\theta | S_i)$  first-order stochastically decreases in  $S_i$  for the strategic component: higher reallocation is associated with worse fundamentals. Therefore:

$$\frac{\partial}{\partial S_i} \Pr(\text{disclosure} | S_i) > 0$$

The horizon pattern follows from the functional form. For short horizons (small  $\Delta$ ),  $n(\Delta)$  is small, and the disclosure probability is approximately  $n(\Delta) \cdot E[\lambda(\theta) | S_i]$ , which is increasing in  $S_i$ . For longer horizons,  $n(\Delta)$  is large, and the probability approaches 1 for firms with very negative  $\theta$  regardless of  $S_i$ , attenuating the marginal effect. This produces the empirical pattern of a strong short-horizon effect (90 days) that weakens but remains positive at longer horizons (one year).