

Shifting the Spotlight: Do Firms Change Their Advertising Strategies after ESG Reputational-Damaging Events?

ABSTRACT

This study uses granular data on firms' advertising expenditures to examine how firms adjust advertising spending following ESG incidents across local markets. We find that firms on average reduce advertising immediately after ESG incidents, consistent with a visibility reduction strategy aimed at managing negative stakeholder perceptions. These reductions are concentrated in environmental and social (E&S) incidents and are stronger in regions with higher E&S sensitivity. Further analyses show that reductions are not driven by efforts to address underlying E&S issues but instead reflect a tactical reallocation of advertising expenditures away from high-sensitivity regions to low-sensitivity regions. The negative valuation effects of E&S incidents are significantly mitigated when firms reduce advertising spending in the month following the incidents. We also find spillover effects, as firms cut advertising when their suppliers or product-market peers experience E&S incidents. Our findings uncover a complex corporate visibility strategy varying across geographic market and over time.

Data Availability: Data is publicly available from the sources identified in the text.

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I. INTRODUCTION

Firms' environmental, social, and governance (ESG) practices have become increasingly important factors in influencing various stakeholders' decisions and actions.¹ A growing number of studies document that firms suffer from a reputation damage and significant devaluation after experiencing ESG incidents (i.e., ESG reputational-damaging events) (Glossner 2021; Akey, Lewellen, Liskovich, and Schiller 2023; Derrien, Krueger, Landier, and Yao 2025). Key stakeholders, such as lenders, investors, analysts, employees, and corporate customers, place significant emphasis on a firm's ESG profile during contractual engagements (Chava 2014; Dai, Liang, and Ng 2021; Houston and Shan 2022; Krueger, Metzger, and Wu 2023; Bisetti, She, and Zaldokas 2025). Several recent studies (Houston, Lin, Shan, and Shen 2022; Duan, Li, and Michaely 2023; Meier, Servaes, Wei, and Xiao 2023; Dube, Lee, and Wang 2026) further show that end-consumers are increasingly concerned with firms' ESG practices, leading to boycotts of products from firms with negative ESG reputations. In light of the significant economic and financial impacts of ESG incidents, it is important to understand how firms adapt their operations and business strategies to mitigate these negative impacts.

Prior research shows that firms respond to misconduct by adjusting communication strategies, such as increasing disclosure, emphasizing corrective actions, and engaging in impression management across various channels (Benoit 1997; Coombs 2007; Ho, Shin, and Pang 2016; Bundy, Pfarrer, Short, and Coombs 2017; Crowley, Huang, Lu, and Luo 2019; Cohen and Gurun 2024; Pu, Shan, and Yuan 2024; Cai, Raghunandan, Rajgopal, and Wang 2025; Fritsch, Zhang, and Zheng, 2025; Larcker, McClure, Shi, and Watts 2025). These studies primarily examine how firms communicate about and address the misconduct itself, and how such strategies shape stakeholders' interpretations of the adverse event. This perspective emphasizes reputation formation through belief updating about

¹ We use the term "ESG" (environmental, social, and governance) and acknowledge that other scholars may refer to similar initiatives as "CSR" (corporate social responsibility). For the purposes of our study, we find that ESG metrics are more easily quantifiable, providing a clearer framework for analysis compared to the broader and sometimes more subjective measures often associated with CSR.

misconduct per se. However, reputational consequences following the misconduct also depend on whether and how often stakeholders encounter the misconduct firm in ordinary economic settings. Even holding beliefs about the incident and its communication constant, firm-level visibility in normal business affects which stakeholders consider the firm, how frequently these stakeholders are exposed to it, and, as a result, the scale of economic interactions influenced by reputational concerns (Rindova, Pollock, and Hayward 2006; Barber and Odean 2008; Fang and Peress 2009; Pfarrer, Pollock, and Rindova 2010; Da, Engelberg, and Gao 2011). We therefore study how firms manage firm-level visibility and stakeholder attention following ESG incidents. Specifically, we focus on advertising expenditures as a mechanism through which firms influence their public exposure in routine market interactions. Although advertising is a form of communication, it differs from disclosures examined in prior work in that advertising primarily affects reach and salience rather than directly addressing the incident or conveying corrective narratives (Grullon, Kanatas, and Weston 2004; Pfarrer et al. 2010; Lou 2014; Wang 2018; Madsen and Niessner 2019; Focke, Ruenzi, and Ungeheuer 2020; Koo, Wang, Wang, and Zhang 2025). By focusing on advertising, we examine a complementary margin of reputation management that operates through attention allocation to the firm in routine market interactions, alongside, but distinct from, incident-focused communication.

Advertising is a primary driver of firm-level visibility and attention in ordinary economic settings, increasing awareness among consumers, investors, and the media (Lou 2014; Madsen and Niessner 2019; Focke et al. 2020). This makes advertising a double-edged sword after ESG incidents: On the one hand, advertising can support persuasion and market engagement in routine business contexts. On the other hand, it can also intensify scrutiny by drawing additional attention to the firm at moments of heightened reputational risk, such that greater visibility may backfire rather than mitigate reputational damage (Wagner, Lutz, and Weitz 2009).

We formally hypothesize two opposing predictions regarding how firms would adjust advertising expenditures following ESG incidents. The first prediction is that firms deliberately choose

to reduce their visibility to consumers and other stakeholders by temporarily scaling back or suspending advertising activities. Because advertising mechanically increases a firm's salience and exposure, maintaining advertising in the aftermath of an ESG incident can heighten attention at a time when reputational risks are elevated. Reducing advertising limits the frequency with which stakeholders encounter the firm, thereby mitigating additional reputational costs driven by amplified visibility rather than by new information. In this sense, pausing advertising serves as a strategic tool to control attention and avoid exacerbating negative associations that arise from increased exposure during periods of heightened scrutiny. We refer to this response as a *visibility reduction strategy*. Empirically, this strategy is associated with a decline in advertising expenditures for firms following ESG incidents.

Alternatively, a firm may choose not to pause advertising and may even increase advertising expenditures following an ESG incident. This response is consistent with a demand-defense view in which firms use advertising primarily to secure attention and preserve market presence when consumers are likely to disengage. In particular, ESG incidents can generate real consumer pullback: Duan et al. (2023) show that adverse ESG events are followed by declines in consumer store visits, implying heightened risk of sales losses and customer switching. When demand becomes fragile, increasing advertising can serve as an attention stabilizer, raising the possibility that consumers continue to encounter the firm in their consideration set and limiting competitor encroachment. This logic aligns with evidence from crisis and scandal settings showing systematic increases in advertising activity when firms face acute threats: in product-harm crises, managers often increase advertising support in an attempt to regain lost consumers and cushion share erosion (Cleeren, van Heerde, and Dekimpe 2013). Research in product-harm crisis management shows that increasing advertising around recall events can mitigate market penalties in certain conditions, underscoring that advertising intensity is actively adjusted as firms manage exposure during crisis periods (Gao, Xie, Wang, and Wilbur 2015). More specifically in our ESG incident setting, advertisement can help maintain visibility.

Staying visible in the market is crucial, and maintaining a presence in the midst of a crisis can help prevent competitors from seizing the market share. Increased advertising expenditures may ensure that the firm remains top-of-mind. We refer to this response as a *proactive demand-defense strategy*. Empirically, it predicts an increase (or at least no reduction) in advertising expenditures following ESG incidents. Taken together, whether firms reduce advertising to limit exposure or increase advertising to defend demand remains an empirical question.

To examine this question, we obtain monthly advertising expenditure data from Strategy by Kantar Media during 2007 and 2022. Kantar Media tracks advertising activities in real time by brand and product across all the major media outlets and properties in the U.S.. It calculates the advertising broadcast costs for each piece of advertisement according to the broadcast rate in each media property, which captures the reach of advertisement to the audience. These costs are recorded at a granular level by brand, product, media, and market location, measured both U.S. dollars and by the number of advertisements. Our access to detailed and high-frequency data on firms' advertising expenditures at the local market level enables a comprehensive analysis. We can examine not only the short-run and long-run changes in a firm's advertising expenditures as a measure of firms' visibility and attention control, but also the geographic heterogeneity in such changes as a function of local stakeholders' awareness of ESG issues. The reallocation of firms' advertising expenditures across different geographical markets allows us to better understand the motivations behind the advertising adjustments and distinguish among alternative explanations. Specifically, compared to the conventional advertising expenditure data from Compustat, the Strategy data from Kantar Media used in this study offers two advantages. First, Kantar Media's real-time tracking of advertising expenditures enables us to closely monitor how firms respond to ESG incident revelations within a relatively short timeframe. Second, the Strategy data is not subject to the self-reporting biases often present in managerial disclosures of advertising expenditures in 10-K or 10-Q filings. This bias is significant, as Liang (2024) reports that nearly 70 percent of firm-years with advertising activity have

incomplete advertising expense data in Compustat. For our empirical analyses, we aggregate the advertising expenditure data to the firm-market-month level.² This approach allows us to investigate potential allocations of advertising expenditures across different geographic markets within a firm.

We use ESG news data from RepRisk to identify ESG incidents during the same period, which we consider as negative shocks to firms' ESG reputations. This approach offers two benefits. First, focusing on ESG news, and well-defined severity and novelty of ESG incidents, it helps us pinpoint significant reputational shocks that adversely affect both firm value and consumer demand. Unlike firm-level ESG ratings, which are typically persistent and subject to less pronounced changes, ESG news from RepRisk provides a more immediate reflection of reputational impacts. Second, relying on incident data also helps circumvent the issue of inconsistent ESG ratings provided by different rating agencies (Berg, Koelbel, and Rigobon 2022).

Based on 41,435,452 firm-market-month observations among the U.S. publicly listed firms from 2007 to 2022, our baseline tests regress the advertising expenditures of a firm in a local market (i.e., Designated Marketing Area, or DMA) in the month $m+1$ on the number of ESG incidents experienced by a firm in month m . The granular data allows us to control for various high-dimensional fixed effects, including $\text{firm} \times \text{DMA}$, $\text{firm} \times \text{year-quarter}$, and $\text{DMA} \times \text{industry} \times \text{year-month}$ fixed effects. The $\text{firm} \times \text{DMA}$ fixed effects effectively account for time-invariant differences in firms' advertising expenditures across different locations. The $\text{firm} \times \text{year-quarter}$ fixed effects control for time-varying firm fundamental characteristics that may lead to the occurrence of ESG incidents and drive the firm's advertising spending. The $\text{DMA} \times \text{industry} \times \text{year-month}$ fixed effects help absorb any heterogeneous impacts of local economic shocks on the advertising spending of firms in different sectors. We find that firms on average reduce advertising expenditures after experiencing ESG incidents, suggesting that the visibility concern primarily drives firms' advertising spending decision.

² Kantar Media, following the model of the Nielsen Company, defines a market based on a Designated Market Area (DMA), also known as a media market. This term refers to a U.S. region designated for media market analysis. Section 3 provides the detail.

While our findings align with the visibility reduction strategy, we validate that this is indeed likely the case by examining its basic assumptions. This essential underlying requirement for the strategy to occur is predicated on managers' expectations regarding the potential intensity of stakeholders' negative reactions. To test this, we investigate whether our baseline results vary in accordance with the strength of stakeholders' negative responses. First, not all ESG incidents are of equal importance to stakeholders. Duan et al. (2023) show that consumers' negative responses to ESG incidents are more pronounced for incidents related to environmental and social issues (E&S incidents) than those related to governance issues (G incidents). We expect firms' motivations to adjust advertising expenditures to vary with the type of incidents involved. Consistent with this idea, when we examine environmental, social, and governance incidents separately, we find that the reductions in advertising expenditures are primarily seen in firms affected by E&S incidents. Specifically, a firm cuts advertising spending by 1.7 percent per DMA in the month after experiencing an E&S incident, indicating an economically sizeable effect. In contrast, the reductions on firms with G incidents are statistically insignificant and economically minor. Second, prior research (Duan et al. 2023; Derrien et al. 2025) shows that consumers and analysts respond more negatively to severe and novel incidents. Consistent with this expectation, our analysis, utilizing severity and novelty indicators from RepRisk, shows that firms decrease their advertising expenditures to a greater extent when faced with more severe and novel E&S incidents. The magnitude of a firm's advertising cut increases to 3.6 percent and 2.1 percent per DMA in the month, respectively. These findings suggest that firms may have stronger incentives to reduce visibility and maintain a low profile following such incidents to mitigate negative public and market reactions. This strategic reduction aligns with an intent to minimize attention during periods of heightened scrutiny. When we further separate ESG incidents into those related to product quality and non-product related incidents, we find both lead to significant reduction in firms' advertising expenditures, suggesting that our result is not entirely explained by consumers inferring deteriorating product quality from ESG incidents.

We conduct several cross-sectional tests to further validate the findings of visibility reduction strategy using the granular demographic characteristics of firms' local markets. If minimizing visibility to manage reputational risk is indeed the motivation, we expect to observe a more pronounced reduction in advertising expenditures in locations where stakeholders have, on average, a stronger sustainability preference. To test whether firms adjust their advertising expenditures based on local sustainability preferences, we consider demographic factors such as age, household income, educational background, and political leanings as proxies across different local markets within the same firm. First, survey evidence suggests that younger, wealthier, and more educated individuals exhibit a stronger concern for E&S issues (Giglio et al. 2025). Empirically, we analyze this by segmenting our DMA-level samples based on the percentage of adults older than 60 years, the median household income, and the percentage of adults with bachelor's degrees. We find that more pronounced reductions in advertising spending in regions with a higher proportion of young, high-income, and educated populations. Second, we measure the local sustainability preference with the residents' political leanings, as captured by the share of the presidential vote in a county that went to democratic candidates in the most recent prior presidential election. Both anecdotal and empirical evidence suggests that Democrats, in contrast to Republicans, are more concerned with sustainability issues (Hong and Kostovetsky 2012; Di Giuli and Kostovetsky 2014). We find that firms cut advertising spending more significantly in Democratic areas compared to those in Republican areas. Taken together, these findings suggest that demographics associated with sustainability awareness significantly influence how firms adjust their advertising expenditures following E&S incidents. This validates the premise that firms strategically reduce the negative impact of "visibility" or avoid unwarranted attention after the E&S incidents exposed to the local community.

One may be concerned that our finding of a negative effect of E&S incidents on a firm's advertising expenditures is driven by the firm's proactive resource reallocation to address the underlying E&S issues. Specifically, firms may reduce advertising spending and reallocate the saved

financial resources to adopt green technologies for lowering carbon emissions or investing in workplace programs to improve employee welfare. We conduct two tests to evaluate this alternative explanation regarding resource reallocation. First, if firms are reallocating resources from advertising to addressing E&S issues, this behavior should be more pronounced among financially constrained firms. These firms, constrained by limited financial resources, are more likely to face trade-offs between expenditures such as advertising and efforts to improve sustainability performance. Using cash holdings as a proxy for financial constraint, however, we find the reduction in advertising spending is greater for firms with higher level of cash holdings. When employing the leverage ratio as another proxy for financial constraint, we do not find that reductions in advertising spending systematically vary with a firm's leverage ratio. These results do not support the alternative explanation of proactive resource reallocation.

Our second test investigates whether firms that cut advertising spending in response to E&S incidents show long-term improvements in sustainability performance, which would support the resource reallocation explanation. On the contrary, if firms temporarily and tactically cut advertising spending to reduce visibility without reallocating the resources saved to enhance E&S initiative efforts, their sustainability performance may not change subsequently. We use E&S scores from Sustainalytics to measure a firm's sustainability performance and examine changes over various post-incident windows up to 36 months. However, we find no significant improvement in the sustainability performance of firms involved in incidents that subsequently reduce advertising spending compared to other firms involved in incidents. This finding further mitigates the concern that the observed reductions in advertising expenditures following E&S incidents are primarily driven by the need to reallocate resources to sustainability efforts. Instead, these findings suggest that our primary results align more with the notion that firms strategically reduce advertising spending following E&S incidents to temporarily decrease their visibility. This strategy reflects a tactical approach, aimed at minimizing negative exposure and avoiding unwarranted attention from stakeholders, rather than a

transformative approach that would indicate a firm's substantive effort to change its sustainability practices.

Does the strategic action of adjusting advertising spending pay off? To answer this question, we test the value implication of firms' decision to cut advertising spending following E&S incidents in the capital markets. Consistent with prior studies, we show that firms generally experience a significant reduction in market value subsequent to their E&S incidents, in particular for those without an adjustment in advertising expenditures. However, this negative effect of E&S incidents on firm value could be significantly alleviated when firms cut their advertising spending in the month following the incidents. Similarly, firms cutting advertising spending also experience a smaller decline in sales after E&S incidents. These findings suggest that adopting a lower profile and maintaining reduced visibility following E&S incidents seem to mitigate some of the adverse financial consequences typically associated with E&S incidents, ultimately benefiting shareholders.

We conduct a battery of robustness tests to ensure that our key findings are not driven by specific ways to construct variables or empirical specifications. First, we find similar results when we replace the advertising spending variable with an indicator variable of whether there is any advertising spending of the firm in a DMA in the month. Second, the negative effect of E&S incidents on advertising activities is also significant when the advertising spending variable is measured as the number of advertisements (instead of the U.S. dollar amount). Third, to mitigate concerns that our results are driven by a specific media channel, we further examine the heterogeneous effects across different channels by decomposing overall advertising spending into categories such as outdoor displays, spot TV, newspapers, radio, and internet displays. We find that firms significantly reduce advertising spending across all channels, with the strongest effect observed for spot TV, followed by internet displays, newspapers, radio, and outdoor displays.

Finally, we conduct several additional analyses to further understand the dynamics of firm visibility management. First, our main tests focus on the short-term effects of how firms adjust their

advertising expenditures in the month immediately following an E&S incident. To determine whether these effects are transient or enduring, we extend our analysis to a post-incident window of up to 12 months. We find that there is, on average, a significant reversal in advertising spending starting from the seventh month after the incident. This pattern suggests that firms initially halt advertising campaigns to reduce visibility and then ramp up spending as the public memory of the E&S incidents begins to fade. In addition, we also find some consistent evidence on the demand-defense strategy. Specifically, we observe that firms increase their advertising spending more rapidly and to a greater extent in areas where there is less concern about E&S issues. This includes regions with demographics characterized by lower education levels, lower income, older age groups, and predominantly Republican political leanings. These findings indicate that firms adopt a mixed strategy that prioritizes visibility reduction while not fully abandoning demand defense. Accordingly, our results suggest that firms use advertising strategically to manage its double-edged nature, adjusting visibility and stakeholder exposure in a manner that balances reputational concerns with sales performance over time.

Second, we extend the analysis of advertising spending to firms whose suppliers and product-market peers experience ESG incidents. This analysis is motivated by prior research documenting the spillover effects of ESG practices along the supply chain and within product markets (Cao, Liang, and Zhan 2019; Lin, She, Yoon, and Zhu 2023). Advertising by a firm could inadvertently draw more public attention if there is a perceived connection between the firm and a troubled supplier. Similarly, when ESG incidents impact one firm, the ripple effects can alter perceptions of other firms within the same product market, due to the notion of collective reputations (Tirole 1996). Managers may fear that the negative perception could extend to their firms along the supply chain and within product markets, leading stakeholders to question their ESG practices as well. In such scenarios, reducing advertising spending may be viewed as a damage control strategy aimed at preventing an association with negativity and avoiding potential public scrutiny. Consistent with the predicted spillover effect, the visibility reduction strategy persists following ESG incidents within a broader network, even after

controlling for the focal firm's own ESG incidents. Specifically, we observe that focal firms also significantly cut advertising spending following E&S incidents involving their suppliers and product-market peers. Interestingly, there is still no significant reaction in focal firms' advertising spending following governance-related incidents among their connected firms.

II. RELATED LITERATURE AND CONTRIBUTIONS

Our study contributes to several strands of literature. First, our study is closely related to the growing literature on the impacts of ESG practices on firm performance and corporate policies. Empirical studies so far have documented mixed evidence regarding the relation between a firm's ESG practices and its financial performance and shareholder value. While many studies document that better ESG or CSR performance is positively associated with firm operating performance and market value (Flammer 2015; Ferrell, Liang, and Renneboog 2016), other studies (Masulis and Reza 2015; Cheng, Hong, and Shue 2023) document the opposite and argue that ESG is often simply a manifestation of managerial agency problems inside the firm. Still, some studies show that investment in ESG can pay off especially during crisis periods. For example, Lins, Servaes, and Tamayo (2017) show that during the 2008–2009 financial crisis, firms with high CSR performance had stock returns that were four to seven percentage points higher than firms with low CSR performance. Albuquerque, Koskinen, Yang, and Zhang (2020) find that stocks with higher E&S ratings have significantly higher returns, lower return volatility, and higher operating profit margins during COVID-19. Khan, Serafeim, and Yoon (2016) argue that not all ESG issues are equally important to firm performance, and only investment in material ESG issues benefit the firm and its shareholders.³

³ One reason why prior studies find inconclusive evidence on the impacts of ESG practices is due to the persistence of ESG ratings at firm level, which may be correlated with confounding factors such as managerial quality or corporate culture. Compared to these earlier studies, we follow the more recent literature that looks at the reaction of important stakeholders, including investors, analysts, corporate customers, and end-consumers, to ESG scandals to better isolate the direction of causality (Krüger 2015; Duan et al. 2023; Bisetti et al. 2025; Derrien et al. 2025). Compared to ESG rating changes, the timing of ESG news is less expected and well identified, which allows us to look at the firms' immediate responses to ESG incidents.

One novelty of our study is that while most previous studies look at the impacts of ESG practices on firm performance, we examine how firms can actively adjust policies regarding firm visibility to contain the negative impacts of ESG incidents. Among a few notable exceptions, previous studies have highlighted various strategies that firms employ in response to ESG incidents: Alkadi, Rao, and Koirala (2022) show an increase in political contributions, Akey et al. (2023) document enhanced charitable contributions, and Pu et al. (2024) observe a ramp-up in social media postings. These studies suggest proactive engagement strategies of increasing corporate communication to manage public perceptions and stakeholder reactions. Our research uncovers a complex set of firms' tactical responses to ESG incidents in terms of their visibility in normal business settings, varying by geographic market and over time. Specifically, firms strategically decrease advertising spending immediately following ESG incidents, aiming to minimize exposure and mitigate negative impacts, particularly in regions with higher sensitivity to ESG issues. However, as stakeholders' memories of the incidents begin to fade, firms gradually increase their advertising expenditures, adopting a more proactive demand defense approach to offset potential sales losses. This reversal is more pronounced and occurs faster in areas less sensitive to ESG concerns. These nuanced responses highlight the uniqueness of our findings and enhance our understanding of the diverse strategies firms may deploy to manage visibility after reputation-damaging ESG events.

Our study also contributes to the literature on the strategic use of advertising, which traditionally focuses on its effects on consumer behavior, reputation management, and, more recently, investor attention. Earlier research indicates that advertising boosts brand awareness by providing information about verifiable attributes (e.g., price and physical characteristics: Stigler 1961; Keller 1993), enhances product perceptions (Nelson 1974), and influence consumers' perceptions of products (Hoch and Ha 1986; Simon and Sullivan 1993), ultimately fostering consumers' positive brand evaluation attitudes (Farquhar 1989). More recent studies demonstrate that advertising increases visibility and influences the investor attention (Grullon et al. 2004; Lou 2014; Wang 2018; Madsen

and Niessner 2019; Focke et al. 2020; Koo et al. 2025), highlighting its strategic value in managing salience and stakeholder attention. For example, the finance literature documents that advertising increases investors' attention to a firm's stock (Lou 2014; Focke et al. 2020), which can temporarily enhance trading activity, increase stock liquidity, and potentially boost firm value, thereby reducing the cost of equity issuance (Grullon et al. 2004; Madsen and Niessner 2019). Similarly, Jain and Wu (2000) find that mutual fund advertising effectively attracts investor attention and drives fund flows. Liaukonyte and Zaldokas (2022) show that TV advertising not only influences investor attention towards the advertising firm but also impacts its close rivals. A recent study by Cohen and Gurun (2024) examines how firms use advertising strategies to manage reputational crises following negative events. Using the court trial data, they show that firms facing litigation ramp up targeted local advertising, especially before jury trials, to influence potential jury pools and secure favorable verdicts.

We extend this body of the literature by showing that firms intentionally reduce their short-term advertising spending to decrease visibility and maintain a low profile among stakeholders following ESG incidents. However, they quickly revert to normal or even increase advertising in areas where stakeholders are less sensitive to ESG issues. Although these strategic advertising behaviors may not reflect actual improvements in ESG practices, we demonstrate that this approach can benefit shareholders. Our findings illustrate a tactical shift in advertising across different markets over time, providing a more comprehensive view of how firms mitigate negative perceptions and balance the overall business performance geographically related to the heterogeneous concerns of local stakeholders. Collectively, these insights help uncover the multifaceted role of advertising as a tool in crisis management.

Our paper differs from studies that document advertising reductions around financial misconduct but rely on settings in which advertising changes may be endogenously driven by firms' financial conditions rather than by deliberate reputation management. In particular, Sharpe (2020) documents a decline in advertising expenditures around financial fraud announcements. However, a

large accounting literature shows that firms engaging in financial misreporting are often financially constrained or under economic pressure prior to the misconduct, which simultaneously limits discretionary expenditures such as advertising (Dechow, Sloan, and Sweeney 1996; Dechow, Ge, Larson, and Sloan 2011; Kedia and Philippon 2009). As a result, observed advertising reductions in financial fraud settings may reflect binding financial constraints rather than a strategic choice to manage visibility. In contrast, our setting of ESG incidents is less mechanically tied to contemporaneous financing frictions, allowing us to more cleanly interpret advertising adjustments as a visibility and attention management response. Our study also differs from Andina-Díaz, Campos, Jimenez, and Perdiguero (2024), which examines advertising responses surrounding the Volkswagen emissions scandal. While that study provides valuable insights into firm behavior following a prominent corporate scandal, its focus on a single, highly salient event limits the generalizability of the conclusions. By contrast, we analyze a large sample of ESG incidents across firms, industries, and time, combined with granular advertising data at more granular geographic and temporal levels. This empirical design enables us to systematically examine heterogeneity in firms' advertising responses and to draw broader inferences about how firms manage visibility and attention following ESG-related reputational shocks.

III. DATA AND VARIABLE MEASUREMENT

3.1. Data and Sample

3.1.1. ESG Incident Data

We obtain firms' ESG incidents from the RepRisk Data Feed, which screens over 100,000 public sources and stakeholders in 23 languages. These include print media, online media, social media, blogs, government bodies, regulators, think tanks, newsletters, and other online sources. The data vendor provides the negative ESG news covering 28 ESG issues as a form of ESG incidents to users. Environmental issues include news about climate change, pollution, waste issues, and others. Social

issues include child labor, human rights abuses, and others. Governance issues include executive compensation issues, tax evasion, corruption, and others.⁴ The data is available from 2007.

3.1.2. Advertising Spending Data

We obtain monthly advertising data from Strategy by Kantar Media. Kantar Media records advertising activities in real time by brand and product across all the major media outlets and properties. It calculates the advertising broadcast costs for each piece of advertisement according to the broadcast rate in each media property. Advertising broadcast costs, observed at the granular brand, product, media, and location levels, are matched to the advertiser's parent firm by the data vendor.

The advantages of using Strategy data from Kantar Media are two folds. First, Kantar Media tracks and records advertising broadcast spending in real time, which allows us to identify more closely how firms would react to the revelation of ESG incidents in a relatively short window. Conventional information about advertising expenses is the annual accrued expenses in financial statements that are collected in Compustat. Second, Strategy data is not subject to the self-selection issue emerging from the manager's discretion of reporting advertising expenditures in the financial statements to the public. In 1994, to avoid disclosing proprietary information, such as R&D and advertising expenditures, to a firm's competitors, the SEC's Financial Reporting Release 44 removed the explicit materiality threshold (i.e., 1 percent of sales) for the disclosure of advertising expenses in the financial reports by publicly listed firms. As a result, managers have discretion to determine their own materiality threshold in the disclosure of advertising expenses in the financial reports and to avoid reporting advertising spending separately by combining it with all other expenses in the broader category of Sales, General and Administrative expenses (SG&A). Liang (2024) finds that nearly 70 percent of firm-year observations with advertising activity have missing information for advertising expenses in Compustat. Kantar Media, on the other hand, is a third-party data provider that constantly tracks firms' advertising

⁴ One incident can be associated with multiple issues and two or more ESG categories.

activities and the associated costs, whose Strategy data is then not subject to managers' discretion in reporting advertising expenses.

To measure the intensity of a firm's advertising activities, we consider the advertising expenditures from Strategy across all available media outlets including newspapers, spot TV, radio, outdoor and internet displays. To facilitate the investigation on the heterogeneity effect on advertising spending across different geographic locations within a firm, we decompose the total advertising expenditures of a firm into 101 DMAs in the U.S. provided by the data vendor. Specifically, we merge the Strategy advertising data from Kantar Media with Compustat's dataset of publicly listed U.S. firms available in RepRisk that experienced ESG incidents from January 2007 to November 2022, during which data from Kantar Media and RepRisk are both available. We then construct a complete and balanced panel dataset that includes all 101 DMAs for each firm-incident-month pair, continuously throughout the entire sample period. This sampling procedure yields a final sample of 410,252 firm-months, comprising 41,435,452 firm-incident-DMA-month observations.

3.2. Main Variables and Summary Statistics

Our variable of interest, *Ln ESG Incidents*, is defined as the natural logarithm of one plus *ESG Incidents*, which is measured as the number of ESG incidents a firm experiences in a month, based on data from the RepRisk dataset.⁵ Table 1 Panel A presents the descriptive summary. The mean value of *ESG Incidents* is 0.16. It suggests that, firms experience approximately 0.16 ESG incidents per month, which equates to about one incident every 6.25 months on average. To better understand the nature of these incidents, we decompose *ESG Incidents* into three variables: *E Incidents* for environmental issues, *S Incidents* for social issues, and *G Incidents* for governance issues. Our findings indicate that firms experience slightly more S incidents, averaging 0.08 per month (or one every 12.5 months),

⁵ The ESG incident variables are constructed at the firm-month level with a complete and balanced panel data sample of 410,252 observations.

compared to E and G incidents, which occur at rates of 0.05 and 0.06 per month, respectively (or approximately one every 20 months for each category). We also construct a variable, *ES Incidents*, for E&S incidents, which includes both environmental (E) and social (S) incidents but excludes governance (G) incidents. This distinction is made for further analysis since prior studies suggest that stakeholders react differently to E&S incidents compared to G incidents (e.g., Duan et al. 2023). We then construct the natural logarithm form of these incident-related variables, and report their statistics in Table 1 Panel A.

Our dependent variable, $\ln AD$, is the natural logarithm of one plus AD , which is the advertising spending measured in U.S. dollar amount of a firm in a DMA in a month, obtained from the Kantar Media Strategy dataset. On average, a firm experiencing ESG incidents spends USD 3,289 (or 19 advertisement units, as measured by AD^{Units}) per DMA per month. Across all 101 DMAs, this expenditure totals approximately USD 332,189 per month, or 1,920 advertisement units (untabulated).⁶

We further break down the advertising spending by media channel and find notable differences in expenditures among them. Table 1 Panel B presents the details of the decomposition of advertising spending. On average, a firm spends the most on advertising through the spot TV channel ($AD^{Spot TV}$), at USD 1,534 per month per DMA (equivalent to USD 154,912 across all 101 DMAs). This is followed by newspapers ($AD^{Newspapers}$), where spending amounts to USD 974 per month per DMA (or USD 98,370 across all DMAs). Outdoor displays ($AD^{Outdoor}$) rank the third, with expenditures of USD 451 per month per DMA (or USD 45,585 in total). Radio advertising (AD^{Radio}) costs USD 257 per month per DMA, which aggregates to USD 259,993 across all DMAs of a firm. The least is spent on internet displays ($AD^{Internet}$), at USD 72 per month per DMA (or USD 7,304 across all DMAs of a firm).

⁶ The advertising variables are constructed at the firm-DMA-month level with a complete and balanced panel data sample of 41,435,452 observations.

Table 1 Panel C reports the time-series variation for annual advertising spending and ESG incidents. On average, the annual total advertising spending for a firm that has experienced at least one ESG incident during our sample period shows a gradual decline over time, decreasing from USD 6.52 million in 2007 to USD 2.16 million in 2022. However, the number of ESG incidents per firm among our sample firms has increased over time, from 0.30 incidents in 2007 to 3.20 incidents in 2022. Similarly, E&S incidents exhibit a similar upward trend, rising from 0.24 incident in 2007 to 1.87 incidents in 2022.

Table 1 Panel D presents the distribution of advertising expenditures for our sample firms across 101 DMAs. Out of the 101 DMAs, New York DMA represents the highest advertising spending with USD 929 million per year across all the firms that experience ESG incidents, while Springfield in Massachusetts observes the lowest advertising expenditures with USD 7 million per year. The significant variations in advertising expenditures across DMAs suggest the need to control for DMA-related characteristics in our empirical analysis, as these characteristics can influence the advertising spending of firms in different DMAs.

IV. EMPIRICAL RESULTS

4.1. Baseline Tests

To test our question of whether firms reduce their advertising spending when experiencing ESG incidents, we estimate the following OLS regression using our main panel data sample of 41,435,452 firm-DMA-month observations:

$$\ln AD_{m+1} = a_1 + a_2 \ln ESG\ Incidents_m + \text{Fixed Effects} + \varepsilon \quad (1)$$

where the variable of interest $\ln ESG\ Incidents_m$ is measured as the natural logarithm of one plus the number of ESG incidents a firm experiences in month m ; the dependent variable, $\ln AD_{m+1}$, is defined as the natural logarithm of one plus advertising spending in U.S. dollar amount of a firm in a DMA in

month $m+1$. In Equation (1), we include $\text{firm} \times \text{DMA}$, $\text{firm} \times \text{year-quarter}$, and $\text{DMA} \times \text{industry} \times \text{year-month}$ fixed effects to control for the confounding effects emerged at different levels. We define industry using the 2-digit Standard Industrial Classification (SIC) codes. Standard errors are clustered at the firm by DMA level.

Table 2 Panel A presents the estimation results. We find that the coefficients on the variable in relation to different categories of the incidents, *Ln ESG Incidents* in Column (1), *Ln E Incidents* in Column (2), *Ln S Incidents* in Column (3), and *Ln ES Incidents* in Column (5) are all negative and statistically significant at the 1 percent level, after controlling for the aforementioned fixed effects. The coefficient on *Ln G Incidents* in Column (4), however, is not statistically significant. Our baseline results suggest that, on average, firms tend to take the visibility reduction strategy by reducing their advertising spending in a DMA in the month immediately following an increase in ESG incidents, particularly for E&S incidents.

Economically speaking, as indicated in Column (5), a firm on average cuts advertising spending per DMA per month by approximately 1.7 percent in the month after experiencing an E or S incident.⁷ We also follow Dey and White (2021) and Dichev and Qian (2022) to evaluate the economic magnitude of the coefficients on *Ln ES Incidents* with respect to our fixed-effect structure. Specifically, we transform *Ln AD* by regressing this variable only on the $\text{firm} \times \text{DMA}$, $\text{firm} \times \text{year-quarter}$, $\text{DMA} \times \text{industry} \times \text{year-month}$ fixed effects in Equation (1) and retaining the residual values. Using the residual values provides a benchmark that removes the portion of variations in *Ln AD* attributable to unobservable factors along the dimensions described above (Breuer and deHaan 2024). Untabulated results indicate that the standard deviation of the residualized *Ln AD* is 1.058. Accordingly, the

⁷ Interpreting the economic magnitude by examining the impact of an increase in *ES Incidents* from zero to one provides a concrete example of how changes in ES Incidents can affect *AD* under the logarithmic model setup. In the model, Increasing *ES Incidents* from 0 to 1 changes *Ln ES Incidents* from $\ln(1) = 0$ to $\ln(2)$, or about 0.693. With the coefficient of 0.024, the change in *Ln AD* due to an increase in *ES Incidents* from 0 to 1 can be calculated as the product between 0.024 and 0.693, or 0.0166. An increase in *Ln AD* by approximately 0.0166 suggests that $1+AD$ is multiplied by $e^{0.0166}$, or 1.1067. Therefore, *AD* itself increases by about 1.67 percent. We use the same procedure to evaluate the economic magnitude for the remainder of the study.

coefficient of 0.024 on *Ln ES Incidents* corresponds to approximately 2.3 percent ($= 0.024 / 1.058$) of a standard deviation of residualized *Ln AD* within $\text{firm} \times \text{DMA}$, $\text{firm} \times \text{year-quarter}$, and $\text{DMA} \times \text{industry} \times \text{year-month}$ in our sample. This magnitude indicates an economically meaningful effect.

Importantly, the different results between E&S incidents and G incidents help validate the key assumption of the visibility reduction strategy. The essential underlying requirement for the strategy to occur is predicated on managers' expectations regarding the potential intensity of stakeholders' negative reactions. Duan et al. (2023) show that consumers' negative responses to ESG incidents are more pronounced for E&S incidents than G incidents. Therefore, a firm's motivation to reduce advertising expenditures is expected to be greater for E&S incidents than for G incidents. Our results are in line with this notion.

Taken together, our baseline results are consistent with the prediction that firms strategically reduce advertising spending after E&S incidents to minimize negative visibility and avoid unwarranted attention from the public. Given the significant results for E&S incidents and the insignificant results for G incidents in the baseline model, we will focus on tests within the subcategory of E&S incidents for the remainder of the study.

4.2. Types of E&S Incidents

We then examine three settings in relation to the types of E&S incidents to reinforce our inference. The first two settings, in which the potential intensity of stakeholders' negative reactions may vary, are designed to further validate the basic assumption of the visibility reduction strategy. The third setting is to help shed light on whether our results are driven by the consumers' concerns on product quality inferred by E&S issues, or preference for E&S issues per se.

First, RepRisk evaluates the severity of ESG incidents based on its estimation on the potential impact on a firm's reputation and operations. This involves RepRisk assessing the intensity of the

incident, the scale of harm done (or potential harm), and the extent of legal or regulatory repercussions. Higher severity incidents, as defined by RepRisk, are more likely to cause significant environmental damage, have serious human rights implications, involve substantial legal violations, or result in considerable financial losses. Second, RepRisk also assesses the novelty in the context of ESG incidents, referring to how unique or unprecedented the incident is within the industry or for the firm. An incident is considered novel if it involves new types of ESG issues, occurs under unusual circumstances, or happens in a context that has not been widely reported or understood previously. Prior research (Duan et al. 2023; Derrien et al. 2025) shows that consumers and analysts respond more negatively to more severe and novel incidents. If the basic assumption of the visibility reduction strategy holds, these findings suggest that firms may have stronger incentives to reduce visibility and maintain a low profile following more severe or novel incidents to mitigate negative public and market reactions.

To test this prediction, we first decompose the key variable of interest *Ln ES Incidents* into two separate variables: *Ln ES Incidents^{More Severe}* and *Ln ES Incidents^{Less Severe}*, based on the severity score of E&S news defined by RepRisk. Similarly, for the novelty test, we create two distinct variables: *Ln ES Incidents^{Novel}* and *Ln ES Incidents^{Non-Novels}*, conditioning on the novelty of E&S news also defined by RepRisk. Appendix A provides the detailed variable definition. We re-estimate Equation (1) by replacing *Ln ES Incidents* with the decomposed variables.

Table 2 Panel B presents the results. In Column (1), both variables *Ln ES Incidents^{More Severe}* and *Ln ES Incidents^{Less Severe}* are significantly negative at the 1 percent level, suggesting that firms indeed reduce advertising spending in a DMA after being exposed to more E&S incidents regardless of the severity. More importantly, the difference between the coefficients on the variables conditioning on the level of severity is statistically significant at the 1 percent level, suggesting that the reduced advertising spending in a DMA is driven more by more severe E&S incidents than by less severe ones. The effect of more severe E&S incidents suggests that a firm on average cuts advertising spending per

DMA per month by approximately 3.6 percent in the month after experiencing a severe E or S incident, which is more than twice the magnitude of the baseline effect in Panel A of Table 2.

Similarly in Column (2), the coefficients on *Ln ES Incidents^{Novel}* and *Ln ES Incidents^{Non-Novel}* are both significantly negative at the 1 percent level, and the difference between the two coefficients is statistically significant at the 1 percent level. These results suggest that both novel (i.e., first-time public exposure) and non-novel (i.e., other) E&S incidents a firm experiences in a month are associated with a reduction in its advertising spending at the DMA level in the following month, and this reduction is driven primarily by incidents that are exposed to the public for the first time. The effect of more novel E&S incidents corresponds to an average reduction in a firm's advertising spending of approximately 2.1 percent per DMA per month in the month following a novel E or S incident, which is slightly larger than the baseline effect reported in Panel A of Table 2.

Third, an interesting question is whether the change in advertising spending is driven by the “values” channel or the “value” channel (Duan et al. 2023). In the values channel, consumers have non-pecuniary preferences for corporate sustainability and are less willing to purchase from firms with poor E&S reputations. In the value channel, a firm's E&S profile conveys information about product quality or longevity, which can also influence purchase decisions. If the values channel dominates, the marginal return on advertising would be expected to decline unambiguously after E&S incidents, absent real deterioration in product quality, because consumers' preferences shift away from the firm. If the value channel dominates, the effect on the marginal return to advertising could be either positive or negative. Our baseline results support both channels.

To examine which channel is more relevant in our setting, we decompose E&S incidents into product-related and non-product-related categories and construct *Ln ES Incidents^{Product}* and *Ln ES Incidents^{Non-Product}*.⁸ If the results are primarily driven by the value channel, they should be

⁸ Product-related E&S incidents include incidents related to the controversial products and services issue, the products (health and environmental issues) issue, and the access to products and services topic.

concentrated among product-related E&S incidents. If we find firms are willing to cut advertising even for incidents unrelated to product quality, this suggests that managers also believe the return on advertising is lower even when product quality remains the same, due to consumer preference for sustainability. Panel C of Table 2 shows that the coefficients on $\ln ES\ Incidents^{Product}$ and $\ln ES\ Incidents^{Non-Product}$ are both negative and statistically significant, suggesting that the effect is not driven solely by concerns about product quality but also reflects consumer preferences related to sustainability issues unrelated to product quality. Following Duan et al. (2023), we also examine heterogeneity by residents' political leanings, a proxy for their sustainability preferences, and we reach a similar inference (Section 4.3). In sum, our results conditioning on the various types of E&S incidents collectively help reinforce our baseline findings of a visibility reduction strategy.

4.3. Heterogeneity of DMAs

As discussed, our access to detailed data on firms' advertising expenditures at the local market level enables us to explore the geographic heterogeneity within a firm. The reallocation of a firm's advertising expenditures across different markets allows us to better understand the motivations behind these adjustments. In this section, we further investigate the internal validity of our baseline findings by examining whether changes in advertising expenditures vary as a function of local stakeholders' awareness of ESG issues within a firm. If minimizing visibility to manage reputational risk is indeed the motivation, we would expect to observe a more pronounced reduction in advertising expenditures in locations where stakeholders are, on average, more concerned about firms' E&S reputations.

According to the prior research (e.g., Hong and Kostovetsky 2012; Di Giuli and Kostovetsky 2014; Giglio et al. 2025), younger population, households with higher income, people with higher education background, and Democrats are more concerned with E&S issues. Thus, we focus on the variation in age, household income, education background, and political leanings of the local community in each DMA for a firm, and we examine its interactive effect with E&S incidents on the

firm's subsequent advertising spending. We predict that the negative effect of E&S incidents on a firm's advertising spending is more pronounced in areas with a higher proportion of younger, wealthier, more educated, and Democrat individuals. These demographics typically exhibit a stronger preference for sustainability and a heightened concern for E&S issues, which would increase a firm's motivation to strategically manage its advertising in response to incidents.

Empirically, we construct indicator variables based on demographics to highlight the variations in preference for sustainability across DMAs. First, we define variables related to age using indicator variables for the population aged 60 or above within a DMA. Specifically, the indicator variable $D(60 \text{ population} < \text{median})$ is set to one if the population aged 60 or above in a DMA is below the annual median across all 101 DMAs for the previous year, and zero otherwise. Conversely, the indicator variable $D(60 \text{ population} \geq \text{median})$ equals one if the population aged 60 or above in a DMA meets or exceeds the annual median of all 101 DMAs from the previous year, and zero otherwise. Similarly, we create two indicator variables based on DMA median household income: $D(\text{Income} > \text{median})$ and $D(\text{Income} \leq \text{median})$, comparing it against the annual median of all 101 DMAs. As for the dimension of education background, we also create the indicator variables: $D(\text{Bachelor ratio} > \text{median})$ and $D(\text{Bachelor ratio} \leq \text{median})$, based on whether the proportion of the population with a bachelor's degree or higher in a DMA is above or below the annual median of all 101 DMAs. Finally, political leanings are quantified using another two indicators: $D(\text{Democratic votes ratio} > \text{median})$ and $D(\text{Democratic votes ratio} \leq \text{median})$, indicating whether the fraction of Democratic votes in a DMA is above or below the median across all 101 DMAs. These votes are specifically derived from the share of the presidential vote in each county that was cast for democratic candidates in the most recent presidential election prior to the incidents. Appendix A provides a detailed variable definition.

We interact the abovementioned eight indicator variables with our variable of interest $\ln ES \text{ Incidents}$, and re-estimate Equation (1). Table 3 presents the results. Across all four columns,

the coefficients of the interaction terms between *Ln ES Incidents* and the indicator variables are negative and statistically significant at the 1 percent level. In addition, the differences between the coefficients of interaction terms for high versus low attributes of sustainability preference are statistically significant at the 1 percent level, except for the education dimension in Column (3). These results suggest that the negative effect of E&S incidents on a firm's advertising spending is stronger in DMAs with a higher fraction of younger population, with a higher median household income, and with a higher fraction of votes to Democratic parties, which collectively are consistent with the notion that firms tend to reduce more advertising spending after E&S incidents in the areas where local community is more concerned about the E&S issues.

4.4. Resource Reallocation to Address the Underlying E&S Issues

By far we document that the E&S incidents are negatively associated with the firm's advertising spending in a DMA in the following month, which is consistent with the notion that firms tend to reduce visibility after the ESG incidents are exposed to the public. A key question arises as to whether the adjustment in advertising expenditures is primarily driven by a firm's visibility reduction strategy, or simply a by-product of the firm's reallocating resources to make tangible improvements in their E&S practices after incidents are revealed. It is also possible that the adjustment in advertising expenditures is for the purpose of specific public relations campaigns to address E&S issues (e.g., Alkadi et al. 2022; Akey et al. 2023; Pu et al. 2024). However, it is important to note that our framework remains applicable even if firms shift resources from advertising to other business areas, provided that there is a strong motivation to reduce visibility in advertising as documented.

Nevertheless, we conduct two tests to examine whether our findings are driven by the resource reallocation to address the underlying E&S issues. First, if firms are reallocating resources from advertising to addressing E&S issues, this behavior should be more pronounced among financially constrained firms. These firms, constrained by limited access to financial resources, are more likely to

face trade-offs between various expenditures, such as sustainability improvements and advertising. We conduct two cross-sectional analyses based on (1) cash holdings, and (2) financial leverage, both of which are proxies for a firm's financial constraints commonly used in the literature. Second, we examine whether firms that reduce advertising spending subsequently exhibit any improvement in the E&S performance, which helps identify whether reduced advertising spending is reallocated toward more direct investment aimed at improving the E&S performance.

4.4.1. Financial Constraints

To measure financial constraints of a firm, we first create an indicator variable of a firm's cash holdings, $D(Cash > median)$, which equals one if a firm's cash holdings at the end of the previous quarter is greater than the quarter median of the sample firms, and zero otherwise. Secondly, we measure the leverage by an indicator variable, $D(Leverage < median)$, which equals one if a firm's financial leverage ratio at the end of the previous quarter is lower than the quarter median of the sample firms, and zero otherwise. The rest of the model specification is the same as Equation (1). We predict that if firms tend to reallocate resources to address the underlying E&S issues by reducing the advertising spending due to financial constraints, we expect the negative effect of E&S incidents on advertising spending to be weaker for firms with higher cash holdings. Table 4 Panel A presents the results. In Column (1), the coefficient of the interaction term $Ln ES Incidents \times D(Cash > median)$ is negative and statistically significant at the 1 percent level, suggesting that the reduction in advertising spending is more significant in firms with higher level of cash holdings, those are less financially constrained. This result is inconsistent with the notion that the reduction of advertising spending is due to deteriorating fundamentals, and it also helps demonstrate the opposite effect of the resource reallocation argument.

Second, when firms face with financial constraints, they may increase leverage to meet financial needs. Thus, we use leverage as a proxy for financial constraint to examine whether advertising spending cut is greater for firms with lower leverage ratios. We construct an indicator

variable, $D (Leverage < median)$, set the value to be one if financial leverage of the firm at the end of previous quarter is lower than the quarter median of the sample firms, and zero otherwise. Again, we then interact this indicator variable with our variable of interest, $Ln ES Incidents$, to form an interaction term $Ln ES Incidents \times D (Leverage < median)$. The rest of the model specification is the same as Equation (1). Column (2) in Table 4 Panel A presents the results. The coefficient of the interaction term $Ln ES Incidents \times D (Leverage < median)$ is not statistically significant, suggesting that the adjustment in advertising expenditures is not associated with a firm's financial constraint, measured by its demand for additional borrowings.

4.4.2. Future ESG Performance

Next, we examine whether reductions in advertising spending following the incidents are associated with improvements in firms' future E&S performance. On the one hand, if we observe a significant improvement in subsequent E&S performance, it would align more with the notion that firms are reducing advertising spending and reallocating resources to address the fundamental concerns related to the exposed E&S issues, rather than reducing visibility and maintaining a low profile following ESG incidents. On the other hand, if there is no improvement in E&S performance, it tends to help provide more confidence upon our assertion that cutting advertising expenditures is not relevant to a firm's effort to address the underlying E&S issues, rather firms prioritize cutting advertising expenditures when reducing negative visibility is the primary concern.

To examine this question, we conduct a firm-month level test. First, we construct the dependent variable, $ES Score$, using the average of environmental and social scores from Sustainalytics (legacy). Due to the data restriction in the legacy edition, we can only obtain E&S score data from August 2009 to September 2019. A higher value of the variable $ES Score$ indicates a better E&S performance. Next, we aggregate advertising expenditures in U.S. dollar amount (AD) from the firm-DMA-month level to the firm-month level and calculate the difference of advertising expenditures, $\Delta Ln Firm AD$, between the following month ($m+1$) and the month (m). We then regress $ES Score$, measured over the 12-, 24-,

and 36-month horizons after month m , on the interaction term between $\Delta \ln \text{Firm AD}$ and $\ln \text{ES Incidents}$. We also control for the stand-alone variables, $\Delta \ln \text{Firm AD}$ and $\ln \text{ES Incidents}$, as well as a set of firm characteristics, including firm size ($\ln \text{Market Cap}$), expected market value creation (*Tobin's Q*), financial leverage (*Leverage*), financial performance (*ROA*), and cash holdings (*Cash*). Lastly, we control for the firm and year-month fixed effects. Table 4 Panel B presents the results. We find that the magnitude of interaction term between $\Delta \ln \text{Firm AD}$ and $\ln \text{ES Incidents}$ is small and statistically insignificant across all three columns varying with the measurement window of future E&S performance.⁹

In sum, both cross-sectional analyses on financial constraints and the falsification test evidence of no future E&S performance improvement help potentially alleviate the concerns over the confounding argument that firms may save funds from cutting advertisement expenditures to address underlying E&S issues. Although we cannot completely rule out this confounding resource allocation argument, we believe that these additional results may help alleviate this concern, and our results are more consistent with the notion that firms tend to reduce advertising spending after E&S incidents to reduce negative “visibility”.

4.5. Value Implications of the Reduced Advertising Spending

The next important question is whether firms benefit from reducing negative “visibility” after ESG incidents. If firms benefit from managing negative “visibility” after ESG incidents by cutting advertising spending, we expect to observe that firms which reduce their advertising expenses more significantly have higher firm values compared to other firms with ESG incidents that either do not cut advertising or cut it less extensively. In addition to measuring the magnitude of advertising cuts in

⁹ We also conduct robustness tests for E, S, G and ESG incidents respectively. All results remain qualitatively unchanged.

a relative U.S. dollar term, the value implication test serves as an alternative approach to assess the economic significance of reducing advertising expenditures.

To implement the test, we first create the dependent variable, *Tobin's Q_{q+1}* , the value of Tobin's Q for a firm in the following quarter after the month of ESG incidents, and then we create *Sales Growth $_{q+1}$* , the quarterly growth rate of sales for a firm in the quarter following the month of ESG incidents. We then regress *Tobin's Q_{q+1}* and *Sales Growth $_{q+1}$* on the interaction term between $\Delta \ln \text{Firm AD}$ and $\ln \text{ESG Incidents}$. Similar to the test of future ESG performance, we control for the stand-alone variables, $\Delta \ln \text{Firm AD}$ and $\ln \text{ESG Incidents}$, as well as a set of firm characteristics, firm fixed-effects, and year-month fixed effects in the model.

Table 5 reports the regression results. In Column (1), the coefficient of $\ln \text{ESG Incidents}$ is negative and statistically significant at the 1 percent level, indicating that firms experience lower Tobin's Q in the quarter following ESG incidents if firms do not adjust their advertising expenditures. More importantly, the coefficient of interaction term between $\Delta \ln \text{Firm AD}$ and $\ln \text{ESG Incidents}$ is negative and statistically significant at the 5 percent level, indicating that the reduction in firms' advertising spending could mitigate the value destroying effect of ESG incidents. We find the same results when we focus on E&S incidents only in Column (2). As for the economic magnitude, using the results in Column (2) as an example, the estimated coefficient of $\Delta \ln \text{Firm AD} \times \ln \text{ESG Incidents}$ is -0.005, which indicates a firm reducing its advertising expenditures experiences a 12.8 percent ($=0.005/0.039$) weaker negative reaction to E&S incidents. Similarly, when we replace *Tobin's Q_{q+1}* by *Sales Growth $_{q+1}$* , the coefficients of interaction term between $\Delta \ln \text{Firm AD}$ and $\ln \text{ESG Incidents}$ and the interaction term between $\Delta \ln \text{Firm AD}$ and $\ln \text{ES Incidents}$ are also negative and statistically significant. Collectively, our results suggest that keeping a low profile and remaining less visible after ESG incidents seems to shield firms from some of the adverse economic effects typically associated with ESG incidents and can be financially beneficial overall for shareholders.

V. ROBUSTNESS AND ADDITIONAL TESTS

5.1. Robustness Tests

We conduct a battery of robustness tests to ensure that our baseline findings are not driven by a specific measure of variables. Table 6 Panel A presents the results of alternative specifications including different fixed effects and of using alternative measures of advertising spending. In Columns (1) through (3), the coefficients of $\ln ES\ Incidents$ remain negative and statistically significant at the 1 percent level with different fixed effect specifications. In Column (4), we replace the advertising spending variable by an indicator variable, $D(AD)$. We set it to be one if there is any advertising spending of the firm in a DMA in the month after E&S incidents, and zero otherwise. We employ Poisson regression for estimation, and the coefficient of $\ln ES\ Incidents$ remains negative and statistically significant at the 5 percent level. In Column (5), we use an alternative advertising spending variable, $\ln AD^{Units}$, which captures the number of advertisements in quantity. We calculate it as the natural logarithm of one plus the number of advertisements of a firm in a DMA in a month. The results continue to hold.

In our baseline tests, we use the dependent variable $\ln AD$, which represents aggregated advertising spending across various media channels. To address concerns that our results might be influenced by a specific media channel, we explore heterogeneous effects within individual media channels. We disaggregate the overall advertising spending by media channels: outdoor display ($\ln AD^{Outdoor}$), spot TV ($\ln AD^{Spot\ TV}$), newspapers ($\ln AD^{Newspaper}$), radio ($\ln AD^{Radio}$), and internet displays ($\ln AD^{Internet}$). Table 6 Panel B presents the results. The coefficients of the variable $\ln ES\ Incidents$ remain negative and statistically significant at the 1 percent level. It is worth noting that the effects of E&S incidents on advertising spending are stronger through spot TV channels, followed by internet displays, newspapers, radio, and outdoor displays. This result is consistent with the timeliness,

breadth and depth of media channels with higher access to the audience in the information dissemination process.

5.2. Long-Term Effect of E&S Incidents on Advertising

In the previous sections, we document the short-term effects of E&S incidents on a firm's advertising spending in the month immediately following the incidents. It is equally important to investigate whether these effects are short-lived or if they sustain or reverse over a longer period. This examination helps to understand the persistence and long-term strategic implications of E&S incidents on advertising behavior.

To examine the long-term effect of E&S incidents on advertising spending, we extend the measurement window of the dependent variable $\ln AD$ to cover the 12 months following E&S incidents. Empirically, we decompose these 12-month advertising expenditures into four distinct periods to provide more detailed insights into the dynamics of advertising behavior over time. Table 7 presents the results. In Panel A, we observe a reverse effect of E&S incidents on advertising spending in the 12-month period. Specifically, firms on average stop cutting their advertising expenditures from the 2nd month to 6th month after E&S incidents and then tend to increase advertising spending starting from the 7th month and last until the 12th month after E&S incidents. These results complement our main findings presented in Column (5) of Table 2 Panel A, where advertising spending significantly declines in the month immediately following E&S incidents. This suggests that firms initially reduce negative visibility by cutting advertising expenditures as an immediate response. However, this visibility reduction strategy appears to be transient, as evidenced by an increase in advertising over a longer period. This pattern indicates that firms may gradually resume or increase their advertising as the public memory of the E&S incidents begins to fade.

To further explore the dynamics of advertising expenditures, we apply the same measurement windows in the 12-month period for tests involving heterogeneity of DMAs, including age, household

income, education, and political leanings. Table 7 Panels B through E present the results. We observe that the insignificant changes in advertising expenditures during the second and sixth months following E&S incidents, reported in Panel A, is driven by the diverse strategies adopted by firms across different DMAs. This variation is conditioned on whether a particular DMA exhibits a stronger preference for sustainability and a heightened concern for E&S issues as we document in Table 3. Specifically, on the one hand, we find that firms continue reducing advertising expenditures for up to six months following an incident, particularly in E&S-sensitive DMAs with a higher proportion of younger, wealthier, more educated, and Democrat-leaning individuals. Although these cuts are smaller than those in the month immediately following the incident, they suggest that managers anticipate local communities' concerns about E&S issues to persist over a longer period in these areas. This strategy reflects a sustained effort to reduce visibility in areas where sensitivity to E&S issues is presumably higher. On the other hand, we find that in DMAs with a smaller proportion of younger, wealthier, more educated, and Democrat-leaning individuals, firms switch from a visibility reduction strategy to a visibility enhancing strategy by increasing the advertising expenditures starting from the second month following the incidents. The small difference in the magnitude of changes in advertising expenditures between DMAs with presumably higher sensitivity to E&S issues and those with lower sensitivity suggests that firms may be reallocating their advertising expenditures from areas with higher E&S sensitivity to those with lower E&S sensitivity. In addition, we observe that the increase in advertising expenditures in areas with lower sensitivity to E&S issues is sustained over the next six months, continuing until the 12th month following the incidents. This sustained increase suggests that firms are motivated to boost sales in regions with less sensitivity to E&S issues, potentially to compensate for the losses in sales in areas with higher sensitivity over the long term. This strategic shift highlights a targeted approach to manage visibility and mitigate negative perceptions by adjusting advertising efforts geographically based on the local stakeholder concerns, and how firms manage geographic heterogeneity in E&S concerns to balance overall business performance.

5.3. Suppliers' ESG Incidents

A firm does not operate in isolation but within a broad network of other firms in the market, particularly within customer-supplier chains. In addition to their own incidents, do firms adjust advertising expenditures following their suppliers' ESG incidents? Prior research documents the spillover effect of ESG behaviors along the supply chain (Dai et al. 2021; Duan et al. 2023; Bisetti et al. 2025). When a supplier faces an E&S incident, the most immediate concern for its customer firm—referred to as the focal firm—is to mitigate potential reputational risks. For example, Duan et al. (2023) show that end consumers respond to the ESG incidents of suppliers by reducing visits to stores of the focal firm, indicating that the ESG incidents at the supplier side could also affect the consumer behavior towards the focal firm. Increased advertising by the focal firm, which heightens its visibility, could inadvertently draw greater public attention to the supplier's E&S incident if the stakeholders perceive a connection between the troubled supplier and the focal firm. This could lead to further consumer loss and a decrease in market share for the focal firm. Therefore, we expect that focal firms might manage public perception and minimize collateral damage by reducing advertising following E&S incidents experienced by their suppliers.

To test this prediction, we identify the ranked suppliers of focal firms using FactSet Reverse Supply Chain Relationships data. We construct the variable $\ln ESG\ Incidents^{Supplier}$ as the natural logarithm of one plus the total number of ESG incidents across all ranked suppliers of a focal firm in a month. Similar to our baseline tests in Table 2, we also construct $\ln E\ Incidents^{Supplier}$, $\ln S\ Incidents^{Supplier}$, $\ln G\ Incidents^{Supplier}$, and $\ln ES\ Incidents^{Supplier}$ by considering the E, S, G, and E&S incidents, separately. We then examine the effect of all suppliers' ESG incidents on advertising expenditures to the focal firm in the following month, after controlling for the ESG incidents experienced by the focal firm if any.

Table 8 Panel A reports the results. According to Columns (1) – (3) and (5), we find that the coefficients of $\ln ESG\ Incidents^{Supplier}$, $\ln E\ Incidents^{Supplier}$, $\ln S\ Incidents^{Supplier}$, and $\ln ES\ Incidents^{Supplier}$ are all negative and statistically significant at the 1 percent level, after controlling for the ESG incidents experienced by the focal firm itself in the same period. Similar to that in Table 2, Column (4) shows that the coefficient of $\ln G\ Incidents^{Supplier}$ is negative but statistically insignificant, which is consistent with the intuition of our baseline results and the prior research that the public are more concerned with environmental and social reputations. In terms of economic magnitude, focusing solely on E&S incidents in Column (5), the result shows that a focal firm, on average, reduces its advertising spending by approximately 1 percent per DMA per month following an E or S incident experienced by its suppliers. When combined with instances where the focal firm itself experiences an E or S incident concurrently, the total reduction in advertising spending per DMA per month increases to 2.7 percent (untabulated).¹⁰ This result suggests that focal firms manage public attention by reducing advertising expenditures not only after their own E&S incidents but also after E&S incidents experienced by their suppliers. This indicates a comprehensive approach to minimizing visibility in response to any E&S incidents within their customer-supplier networks.

5.4. Peer Firms' ESG Incidents

Another type of network is product markets. We next examine whether firms' advertising strategy is also affected by their product-market peers' E&S incidents. The prediction is, however, not clear ex ante. On the one hand, the literature documents the spillover effect of product-market peers' adoption of CSR practices (Cao et al. 2019). When a firm is hit by E&S incidents, the ripple effect can impact the perception of other firms within the same product market. Peer firms may fear that the negative sentiment could generalize across the same market, leading stakeholders to doubt their

¹⁰ The untabulated result shows that the coefficient on $\ln ES\ Incident$ in Column (5) of Table 8 Panel A remains at 0.024, consistent with the value reported in Table 2, suggesting that the focal firm's response to its own E&S incidents is not driven by the potential confounding events of its suppliers.

practices as well. In such scenarios, reducing advertising can also be viewed as a visibility reduction strategy to prevent being associated with negativity and avoid exacerbating public scrutiny. Essentially, focal firms may opt to keep a lower profile to distance themselves from the troubled peers with E&S incidents and mitigate the risk of potential reputation damage. Based on this line of argument, we predict that focal firms would tend to reduce the advertising expenditures after product-market peers experiencing negative environmental and social incidents.

On the other hand, focal firms may see a product-market competitor's negative publicity as a chance to differentiate themselves positively. By increasing advertising, they can emphasize their own positive E&S initiatives or highlight their superior practices. This can help them capture market share from the affected competitor and improve their standing with consumers concerned about E&S issues. Following this line of argument, focal firms may increase the advertising spending after their product-market peers experienced E&S incidents.

To test this prediction empirically, we identify the product-market peers of focal firms using 10-K Text-based Network Industry Classifications (TNIC) data from Hoberg and Phillips (2016). We construct the variable $\ln ESG\ Incidents^{Peer}$ as the natural logarithm of one plus the total number of ESG incidents across all product-market peer firms of a focal firm in each month. Similarly, we also construct $\ln E\ Incidents^{Peer}$, $\ln S\ Incidents^{Peer}$, $\ln G\ Incidents^{Peer}$, and $\ln ES\ Incidents^{Peer}$ by considering the E, S, G, and E&S incidents, separately. We then examine the effect of all product-market peers' ESG incidents on advertising expenditures of the focal firm in the following month.

Table 8 Panel B reports the results. After controlling for the focal firm's own ESG incidents, Columns (2)–(3) and (5) show that the coefficients of $\ln ESG\ Incidents^{Peer}$, $\ln E\ Incidents^{Peer}$, $\ln S\ Incidents^{Peer}$, and $\ln ES\ Incidents^{Peer}$ are negative and statistically significant at the 10 percent, 1 percent, and 1 percent levels, respectively. These results indicate that focal firms overall manage to reduce the advertising spending after their product-market peers experience E&S incidents rather than G incidents. Consistent with our first prediction, the evidence implies that peer firms on average fear

that the negative sentiment could generalize across the same market, subsequently leading stakeholders to doubt their practices as well.

In terms of the economic magnitude, focusing solely on E&S incidents in Column (5), the result shows that a focal firm, on average, reduces its advertising spending by less than 1 percent (or 0.21 percent, approaching to zero) per DMA per month following an E or S incident experienced by its peers. When combined with instances where the focal firm itself experiences an E or S incident concurrently, the total reduction in advertising spending per DMA per month increases to 2 percent (untabulated).¹¹ The small economic magnitude of the reaction to peers' incidents could suggest that a large number of focal firms may not change or even increase their advertising expenditures in response to peers' incidents. This observation is consistent with the conjecture that firms might adopt different strategies to maintain or enhance visibility amidst competitors' challenges of E&S incidents.

VI. CONCLUSION

This study examines how firms change advertising strategies in response to ESG incidents, which significantly damage firms' reputation and lead to consumer boycott. We find that firms reduce advertising spending in the month following the revelation of ESG incidents and the reduction is greater for more severe and novel E&S scandals.

Consistent with the idea that firms cut advertising spending to reduce visibility and avoid unnecessary attention from consumers, the strategic adjustment in advertising spending is more pronounced in regions where local communities are more concerned about ESG issues. Specifically, this adjustment is stronger in areas with a greater proportion of younger, higher-income, more educated residents who support the Democratic party. Financial constraints do not affect firms' tendency to reduce advertising spending, and firms that cut advertising spending do not experience improvement

¹¹ The untabulated result shows that the coefficient on *Ln ES Incident* in Column (5) of Table 8 Panel B is 0.026, slightly larger than the value reported in Table 2, suggesting that the focal firm's response to its own E&S incidents is not driven by the potential confounding events of its product-market peers.

in ESG performance over the long run. This suggests that our finding is unlikely to be explained by the alternative explanation that firms preserve financial resources of advertising expenditures to address the underlying ESG issues. Furthermore, we find the negative effect of ESG incidents on firm value is significantly alleviated when the firm reduces advertising spending in the following month, indicating that firms' strategic adjustment of advertising spending pays off in the capital markets.

Over the longer term, firms gradually increase advertising spending when stakeholders' memories of ESG incidents fade away. In addition, our findings suggest that firms may be reallocating their advertising expenditures from areas with higher sensitivity to the ESG issues to those with lower sensitivity. This strategic shift highlights a targeted approach to manage visibility and mitigate negative perceptions by adjusting advertising efforts geographically based on the local stakeholder concerns, and how firms manage geographic heterogeneity in E&S concerns to balance overall business performance.

Finally, we show that firms manage public attention not only by reducing advertising expenditures following their own E&S incidents but also in response to E&S incidents involving their suppliers and product-market peers. This behavior is consistent with the notion that managers are concerned about potential E&S risk spillovers along the supply chain and across the product market. This indicates that a strategic approach to minimize reputational damage extends to a broader network associated with E&S incidents, reflecting a comprehensive visibility reduction strategy that encompasses both direct and indirect relationships.

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Appendix A: Variable Definitions

Variable	Definition	Source
Firm-month level ESG incident variables:		
<i>ESG Incidents</i>	Number of environmental, social, and governance (ESG) incidents a firm experiences in a month. It is coded as zero if there is no incident.	RepRisk
<i>Ln ESG Incidents</i>	Natural logarithm of $(1 + \text{ESG Incidents})$.	RepRisk
<i>E Incidents</i> [<i>S Incidents</i>] { <i>G Incidents</i> }	Number of environmental, [social], and {governance} incidents a firm experiences in a month, respectively. It is coded as zero if there is no incident.	RepRisk
<i>Ln E Incidents</i> [<i>Ln S Incidents</i>] { <i>Ln G Incidents</i> }	Natural logarithm of $(1 + \text{E Incidents})$, $[1 + \text{S Incidents}]$, and $\{1 + \text{G Incidents}\}$, respectively.	RepRisk
<i>ES Incidents</i>	Number of Environmental and/or Social (E&S) incidents a firm experiences in a month. It is coded as zero if there is no incident.	RepRisk
<i>Ln ES Incidents</i>	Natural logarithm of $(1 + \text{ES Incidents})$.	RepRisk
<i>Ln ES Incidents</i> ^{More Severe}	The value of <i>Ln ES Incidents</i> when we focus on more severe E&S incidents. More severe E&S incidents are defined as those with high “severity”.	RepRisk
<i>Ln ES Incidents</i> ^{Less Severe}	The value of <i>Ln ES Incidents</i> when we focus on less severe E&S incidents. Less severe E&S incidents are defined as those with median or low “severity”.	RepRisk
<i>Ln ES Incidents</i> ^{Novel}	The value of <i>Ln ES Incidents</i> when we focus novel E&S incidents, defined as the first time a firm is exposed to a specific issue in a given location, as identified by RepRisk.	RepRisk
<i>Ln ES Incidents</i> ^{Non-Novel}	The value of <i>Ln ES Incidents</i> when we focus on non-novel E&S incidents.	RepRisk
<i>Ln ES Incidents</i> ^{Product}	The value of <i>Ln ES Incidents</i> when we focus on product-related ES incidents including incidents related to controversial products and services, products (health and environmental issues), and access to products and services.	RepRisk
<i>Ln ES Incidents</i> ^{Non-Product}	The value of <i>Ln ES Incidents</i> when we focus on non-product-related ES incidents by excluding incidents related to controversial products and services, products (health and environmental issues), access to products and services.	RepRisk
Firm-DMA-month level advertising expenditure variables:		
<i>AD</i>	Advertising spending in U.S. dollar amount of a firm in a Designated Marketing Area (DMA) in a month. It is coded as zero if there is no advertising for a firm in a DMA of a month.	Strategy
<i>Ln AD</i>	Natural logarithm of $(1 + \text{AD})$.	Strategy
<i>AD</i> ^{Units}	Number of advertisements of a firm in a DMA in a month. It is coded as zero if there is no advertising for a firm in a DMA of a month.	Strategy
<i>Ln AD</i> ^{Units}	Natural logarithm of $(1 + \text{AD UNITS})$.	Strategy
<i>AD</i> ^{Outdoor}	Advertising spending in U.S. dollar amount of a firm through outdoor displays in a DMA in a month. It is coded as zero if there is no advertising through outdoor displays for a firm in a DMA of a month.	Strategy
<i>Ln AD</i> ^{Outdoor}	Natural logarithm of $(1 + \text{AD (Outdoor)})$.	Strategy
<i>AD</i> ^{Spot TV}	Advertising spending in U.S. dollar amount of a firm through spot TV channels in a DMA in a month. It is coded as zero if there is no advertising through spot TV channels for a firm in a DMA of a month.	Strategy
<i>Ln AD</i> ^{Spot TV}	Natural logarithm of $(1 + \text{AD}^{\text{Spot TV}})$.	Strategy
<i>AD</i> ^{Newspaper}	Advertising spending in U.S. dollar amount of a firm through newspapers in a DMA in a month. It is coded as zero if there is no advertising through newspapers for a firm in a DMA of a month.	Strategy
<i>Ln AD</i> ^{Newspaper}	Natural logarithm of $(1 + \text{AD}^{\text{Newspaper}})$.	Strategy
<i>AD</i> ^{Radio}	Advertising spending in U.S. dollar amount of a firm through national spot radios in a DMA in a month. It is coded as zero if there is no advertising through radios for a firm in a DMA of a month.	Strategy

$\ln AD^{Radio}$	Natural logarithm of $(1 + AD^{Radio})$.	Strategy
$AD^{Internet}$	Advertising spending in U.S. dollar amount of a firm through Internet displays in a DMA in a month. It is coded as zero if there is no advertising through internet displays for a firm in a DMA of a month.	Strategy
$\ln AD^{Internet}$	Natural logarithm of $(1 + AD^{Internet})$.	Strategy
$\ln AD_{m+x, m+y}$	Firm-month-level advertising expenditures from month $m+x$ to month $m+y$, whereas (x, y) represents, (2, 3), (4, 6), (7, 9), or (10, 12). We aggregate AD at the firm-DMA-month level to be the sum of advertising expenditures at the firm-month level, and then take the total value over from month $m+x$ to month $m+y$.	Strategy
DMA-level demographic variables:		
$D(60 \text{ population} < \text{median})$ $[D(60 \text{ population} \geq \text{median})]$	An indicator variable equal to one if the population aged 60 or above in a DMA is below [greater than or equal to] the annual median across all 101 DMAs for the previous year, and zero otherwise.	U.S. Census Bureau
$D(\text{Income} > \text{median})$ $[D(\text{Income} \leq \text{median})]$	An indicator variable equal to one if the DMA's median household income is greater than [lower than or equal to] the annual median in the previous year, and zero otherwise.	U.S. Census Bureau
$D(\text{Bachelor ratio} > \text{median})$ $[D(\text{Bachelor ratio} \leq \text{median})]$	An indicator variable equal to one if the proportion of the population with a bachelor or higher degree in a DMA is greater than [lower than or equal to] the annual median of all the 101 DMAs in the previous year, and zero otherwise.	U.S. Census Bureau
$D(\text{Democratic votes ratio} > \text{median})$ $[D(\text{Democratic votes ratio} \leq \text{median})]$	An indicator variable equal to one if the share of votes for democratic candidates in the most recent presidential election in a DMA prior to the incidents is greater than [lower than or equal to] the median of all the 101 DMAs, and zero otherwise.	MIT Election Lab
Variables used for the financial constraint tests:		
$D(\text{Cash} > \text{median})$	An indicator variable equal to one if cash holdings, measured as cash and cash equivalent divided by total assets at the end of the previous quarter, is greater than the quarter median of the sample firms, and zero otherwise.	Compustat
$D(\text{Leverage} < \text{median})$	An indicator variable equal to one if financial leverage, measured as debt divided by total assets at the end of the previous quarter, is smaller than the quarter median of the sample firms, and zero otherwise.	Compustat
Variables used for the firm-month level tests:		
$ES \text{ Score}$	The average of environmental and social scores of a firm during a certain period.	Sustainalytics (legacy)
$\Delta \ln \text{ Firm } AD$	The difference of advertising spending ($\ln AD$) between the following month ($m+1$) and the month (m). We first aggregate the advertising spending in U.S. dollar amount (AD) from the firm-DMA-month level to the firm-month level before we construct $\ln AD$.	Strategy
$\ln \text{ Market Cap}$	Natural logarithm of the market capitalization of a firm.	Compustat
$\text{Tobin's } Q$	The market value of a firm divided by the book value of total assets. The market value of a firm is equal to the market capitalization plus the book value of total assets minus the book value of equity.	Compustat
Leverage	Debt divided by total assets.	Compustat
ROA	Net income divided by total assets.	Compustat
Cash	Cash and cash equivalent divided by total assets.	Compustat
Sales Growth	The quarterly growth rate of sales.	Compustat

Table 1. Descriptive Statistics

This table presents descriptive statistics of our sample. Our main balanced panel data includes 41,435,452 firm-DMA-month observations. In this table, the incident-related variables are measured at the firm-month level with 410,252 firm-month observations from the matched sample of available firms in both RepRisk and Stradegey databases. The advertising variables are constructed at the firm-DMA-month level with a balanced panel data sample of 41,435,452 firm-DMA-month observations during the sample period from 2007 to 2022. In Panel C, we first calculate the total advertising expenditures for each firm-year and then determine the average firm-year level for a given year. Similarly, we first compute the total number of ESG or E&S incidents for each firm-year and then calculate the average firm-year level ESG or E&S incidents for a given year. In Panel D, we first compute the total advertising expenditures at each DMA-year, and then obtain the average values for each DMA. All variables are defined in Appendix A.

Panel A: Baseline variables

Variable	N	Mean	Median	Std. Dev.
<i>ESG Incidents</i>	410,252	0.16	0.00	0.98
<i>Ln ESG Incidents</i>	410,252	0.07	0.00	0.29
<i>E Incidents</i>	410,252	0.05	0.00	0.36
<i>Ln E Incidents</i>	410,252	0.03	0.00	0.16
<i>S Incidents</i>	410,252	0.08	0.00	0.53
<i>Ln S Incidents</i>	410,252	0.04	0.00	0.21
<i>G Incidents</i>	410,252	0.06	0.00	0.47
<i>Ln G Incidents</i>	410,252	0.03	0.00	0.18
<i>ES Incidents</i>	410,252	0.10	0.00	0.62
<i>Ln ES Incidents</i>	410,252	0.05	0.00	0.23
<i>AD</i>	41,435,452	3,288.76	0.00	69,214.09
<i>Ln AD</i>	41,435,452	0.67	0.00	2.20
<i>AD^{Units}</i>	41,435,452	19.01	0.00	297.99
<i>Ln AD^{Units}</i>	41,435,452	0.31	0.00	1.11

Panel B: Decomposition of AD by media outlet

Variable	N	Mean	Median	Std. Dev.
<i>AD^{Outdoor}</i>	41,435,452	451.34	0.00	15,710.17
<i>Ln AD^{Outdoor}</i>	41,435,452	0.14	0.00	1.11
<i>AD^{Spot TV}</i>	41,435,452	1,533.78	0.00	36,623.12
<i>Ln AD^{Spot TV}</i>	41,435,452	0.32	0.00	1.63
<i>AD^{Newspapers}</i>	41,435,452	973.96	0.00	32,790.10
<i>Ln AD^{Newspapers}</i>	41,435,452	0.10	0.00	1.01
<i>AD^{Radio}</i>	41,435,452	257.36	0.00	6,825.98
<i>Ln AD^{Radio}</i>	41,435,452	0.10	0.00	0.93
<i>AD^{Internet}</i>	41,435,452	72.32	0.00	1,814.24
<i>Ln AD^{Internet}</i>	41,435,452	0.30	0.00	1.25

Table 1 (Cont'd)**Panel C: Annual distribution**

Year	Average advertising expenditures per firm (in USD)	Average # of ESG incidents per firm	Average # of E&S incidents per firm
2007	6,523,714	0.30	0.24
2008	5,947,786	0.68	0.56
2009	5,038,890	0.53	0.40
2010	5,039,203	0.79	0.49
2011	4,577,771	1.13	0.75
2012	3,985,226	1.57	0.92
2013	3,995,880	1.87	1.06
2014	3,728,035	2.65	1.49
2015	3,590,797	2.57	1.38
2016	3,446,657	2.16	1.04
2017	3,181,070	2.65	1.44
2018	3,223,356	2.58	1.60
2019	3,285,476	3.13	2.06
2020	2,309,546	2.99	2.04
2021	2,587,424	3.04	1.87
2022	2,163,264	3.20	1.87

Table 1 (Cont'd)

Panel D: DMA distribution

DMA	Average advertising expenditures per year (in USD)	DMA	Average advertising expenditures per year (in USD)	DMA	Average advertising expenditures per year (in USD)	DMA	Average advertising expenditures per year (in USD)
Albany, NY	30,932,843.19	Des Moines	13,815,570.25	Los Angeles	823,306,392.63	Rochester, NY	32,633,957.63
Albuquerque	26,759,961.75	Detroit	180,308,929.06	Louisville	46,564,442.56	Sacramento	91,275,357.13
Atlanta	212,175,292.25	El Paso	17,201,588.94	Madison	15,354,943.69	Salt Lake City	55,380,799.88
Austin	56,663,413.94	Evansville	9,280,888.06	Memphis	41,799,966.44	San Antonio	91,992,969.75
Baltimore	85,558,949.00	Flint	14,952,556.63	Miami	240,302,491.44	San Diego	111,007,201.63
Baton Rouge	13,737,300.06	Fresno	29,033,297.19	Milwaukee	59,762,969.44	San Francisco	376,994,950.25
Birmingham	33,015,260.94	Ft Myers	14,934,748.31	Minneapolis	146,969,037.13	Savannah	12,033,423.19
Boston	236,351,796.38	Grand Rapids	35,158,515.25	Mobile	20,447,365.19	Seattle	149,460,316.00
Buffalo	37,116,779.63	Green Bay	12,935,071.69	Nashville	59,308,658.06	Shreveport	14,051,559.31
Burlington	10,113,126.31	Greensboro	21,333,505.69	New orleans	38,149,566.69	South Bend	10,350,032.31
Cedar rapids	9,141,518.25	Greenville, SC	38,779,363.94	New York	929,469,165.06	Spokane	8,731,488.69
Champaign	8,721,742.13	Harrisburg	28,442,515.31	Norfolk	41,948,024.50	Springfield, MA	7,103,243.31
Charleston, WV	10,224,244.06	Hartford	80,135,208.44	Oklahoma City	45,281,925.38	Springfield, MO	8,067,357.00
Charlotte	72,612,082.56	Honolulu	13,685,044.19	Omaha	29,952,688.50	St Louis	93,843,697.00
Chattanooga	11,946,341.25	Houston	298,813,850.75	Orlando	136,468,715.69	Syracuse	13,400,134.69
Chicago	557,303,669.56	Huntsville	13,306,456.50	Paducah	8,705,863.50	Tampa	163,950,116.06
Cincinnati	73,077,987.19	Indianapolis	87,968,319.25	Philadelphia	302,515,426.56	Toledo	12,200,517.06
Cleveland	123,162,270.19	Jackson, MS	14,519,075.44	Phoenix	160,161,869.25	Tri Cities	8,084,661.06
Colorado Sprgs	10,100,315.00	Jacksonville	39,696,180.50	Pittsburgh	79,441,207.94	Tucson	17,512,752.94
Columbia, SC	11,366,195.81	Johnstown	7,622,494.00	Portland, ME	13,313,817.81	Tulsa	26,405,177.31
Columbus, OH	59,627,657.38	Kansas City	66,066,352.75	Portland, OR	65,666,629.81	Waco	11,296,496.13
Dallas	334,491,949.13	Knoxville	23,120,453.06	Providence	34,503,728.00	Washington, DC	284,275,270.19
Davenport	9,812,809.50	Las Vegas	74,809,558.31	Raleigh	63,020,362.50	West Palm Bch	45,611,289.69
Dayton	26,456,038.44	Lexington	14,471,643.00	Richmond	30,871,650.75	Wichita	10,838,553.56
Denver	142,547,316.69	Little Rock	29,436,628.88	Roanoke	11,663,641.94	Wilkes Barre	21,902,020.19
						Youngstown	10,755,228.56

Table 2. The Effect of ESG Incidents on Advertising Spending

This table presents OLS regressions of a firm's ESG incidents in a month on the firm's advertising spending in the following month. Our main balanced panel data includes 41,435,452 firm-DMA-month observations during the sample period from 2007 to 2022. All regressions include fixed effects as indicated. Industry is defined by the 2-digit SIC codes. *t*-statistics in parentheses are based on standard errors clustered at the firm by DMA market. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Panel A: Baseline results

Variables	(1)	(2)	(3)	(4)	(5)
			<i>Ln AD</i>		
<i>Ln ESG Incidents</i>	-0.009*** (-6.084)				
<i>Ln E Incidents</i>		-0.013*** (-5.702)			
<i>Ln S Incidents</i>			-0.023*** (-12.187)		
<i>Ln G Incidents</i>				0.000 (0.189)	
<i>Ln ES Incidents</i>					-0.024*** (-13.707)
Firm × DMA FEs	Yes	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.760	0.760	0.760	0.760	0.760
N	41,435,452	41,435,452	41,435,452	41,435,452	41,435,452

Panel B: Severity, novelty, and types of E&S incidents

Variables	(1)	(2)	(3)
		<i>Ln AD</i>	
<i>Ln ES Incidents</i> <i>More Severe</i>		-0.051*** (-5.924)	
<i>Ln ES Incidents</i> <i>Less Severe</i>		-0.024*** (-13.490)	
<i>Ln ES Incidents</i> <i>Novel</i>		-0.030*** (-13.160)	
<i>Ln ES Incidents</i> <i>Non-Novel</i>		-0.018*** (-7.644)	
<i>Ln ES Incidents</i> <i>Non-Product</i>			-0.021*** (-10.970)
<i>Ln ES Incidents</i> <i>Product</i>			-0.038*** (-9.608)
Firm × DMA FEs	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes
Adjusted R ²	0.760	0.760	0.760
N	41,435,452	41,435,452	41,435,452
<i>F test between two Ln ES Incidents related variables</i>	0.003	0.001	0.760

Table 3. Demographic Characteristics of Local Markets

This table presents the cross-sectional analyses of a firm's E&S incidents in a month on the firm's advertising spending in the following month. The cross-sectional analyses are based on the variations in age, household income, education, and political leaning of local residents across DMAs of a firm. It reports the OLS regressions using a sample of 41,370,416 firm-DMA-month observations during the sample period from 2007 to 2022. All regressions include fixed effects as indicated. Industry is defined by the 2-digit SIC codes. *t*-statistics in parentheses are based on standard errors clustered at the firm by DMA market. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Variables	(1)	(2)	(3)	(4)
	<i>Ln AD</i>			
<i>Ln ES Incidents</i> × <i>D (60 population < median)</i>	-0.036*** (-10.386)			
<i>Ln ES Incidents</i> × <i>D (60 population ≥ median)</i>	-0.013*** (-3.734)			
<i>Ln ES Incidents</i> × <i>D (Income > median)</i>		-0.034*** (-9.827)		
<i>Ln ES Incidents</i> × <i>D (Income ≤ median)</i>		-0.015*** (-4.643)		
<i>Ln ES Incidents</i> × <i>D (Bachelor ratio > median)</i>			-0.028*** (-8.003)	
<i>Ln ES Incidents</i> × <i>D (Bachelor ratio ≤ median)</i>			-0.022*** (-6.495)	
<i>Ln ES Incidents</i> × <i>D (Democratic votes ratio > median)</i>				-0.035*** (-9.907)
<i>Ln ES Incidents</i> × <i>D (Democratic votes ratio ≤ median)</i>				-0.015*** (-4.229)
Firm × DMA FEs	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.76	0.76	0.76	0.76
N	41,370,416	41,370,416	41,370,416	41,370,416
<i>F</i> -test between two interactive terms with <i>Ln ES Incidents</i>	0.000	0.001	0.295	0.001

Table 4. Resource Reallocation to Address the Underlying E&S Issues

This table presents the results of tests to address the alternative explanation due to a firm's resource reallocation after E&S incidents. Panel A reports the cross-sectional analyses using OLS regressions of a firm's E&S incidents in a month on the firm's advertising spending in the following month. The analyses are based on the variation in the firm's financial constraints (cash holdings and financial leverage). Panel A uses two samples at the firm-DMA-month level during the sample period from 2007 to 2022, whereas the sample size varies due to the data availability of variables used in the tests. Panel B reports OLS regressions of the firm-month level advertising expenditure changes conditional on E&S incidents on its E&S scores in the subsequent periods (i.e., 12, 24, and 36 months after the incidents). Panel B uses three samples at the firm-month level, whereas the sample size varies due to the data availability of variables used in the tests. All regressions include fixed effects as indicated. Industry is defined by the 2-digit SIC codes. *t*-statistics in parentheses are based on standard errors clustered at the firm by DMA in Panel A and at the firm level in Panel B. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Panel A. Cross-sectional analyses of financial constraints

Variables	(1)	(2)
	<i>Ln AD</i>	
<i>Ln ES Incidents</i> × <i>D (Cash > median)</i>	-0.022*** (-6.106)	
<i>Ln ES Incidents</i> × <i>D (Leverage < median)</i>		0.002 (0.486)
<i>Ln ES Incidents</i>	-0.015*** (-6.732)	-0.026*** (-12.547)
Firm × DMA FEs	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes
Adjusted R ²	0.760	0.761
N	40,787,436	40,575,437

Panel B. Future E&S performance

Variables	(1)	(2)	(3)
	<i>n</i> = 12 months	<i>ES Score m+n</i> <i>n</i> = 24 months	<i>n</i> = 36 months
$\Delta \text{Ln Firm AD} \times \text{Ln ES Incidents}$	0.012 (0.602)	0.002 (0.060)	-0.016 (-0.582)
$\Delta \text{Ln Firm AD}$	0.000 (0.141)	-0.002 (-0.502)	0.002 (0.498)
<i>Ln ES Incidents</i>	-0.094 (-0.694)	-0.043 (-0.362)	-0.068 (-0.535)
<i>Ln Market Cap</i>	-0.267 (-0.614)	0.146 (0.357)	0.640* (1.754)
<i>Tobin's Q</i>	0.085 (0.444)	-0.005 (-0.024)	-0.163 (-0.816)
<i>Leverage</i>	2.738** (2.357)	3.008** (2.568)	1.885 (1.442)
<i>ROA</i>	-5.782** (-1.997)	-5.484* (-1.773)	-3.596 (-1.059)
<i>Cash</i>	1.069 (0.821)	1.534 (1.246)	0.533 (0.388)
Firm FEs	Yes	Yes	Yes
Year-Month FEs	Yes	Yes	Yes
Adjusted R ²	0.857	0.875	0.883
N	65,205	56,616	48,572

Table 5. The Value Implication of Adjusting Advertising Expenditures

This table presents OLS regressions on the value implications for firms that reduce the advertising spending after ESG incidents. The analyses are conducted at the firm-month level using a sample of 343,992 firm-month observations during the sample period from 2007 to 2022. All regressions include fixed effects as indicated. *t*-statistics in parentheses are based on standard errors clustered at the firm level. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Variables	(1) <i>Tobin's Q_{q+1}</i>	(2)	(3) <i>Sales Growth_{q+1}</i>	(4)
$\Delta \ln \text{Firm AD} \times \ln \text{ESG Incidents}$	-0.004** (-2.133)		-0.002*** (-2.665)	
$\Delta \ln \text{Firm AD}$	0.001* (1.946)	0.001* (1.707)	0.001*** (4.541)	0.001*** (4.361)
$\ln \text{ESG Incidents}$	-0.048*** (-2.673)		-0.006*** (-3.251)	
$\Delta \ln \text{Firm AD} \times \ln \text{ES Incidents}$		-0.005** (-2.042)		-0.001* (-1.659)
$\ln \text{ES Incidents}$		-0.039** (-2.137)		-0.001 (-0.670)
$\ln \text{Market Cap}$	0.532*** (21.095)	0.532*** (21.086)	0.009*** (7.181)	0.009*** (7.156)
ROA	-1.250*** (-3.320)	-1.249*** (-3.316)	-0.737*** (-15.868)	-0.737*** (-15.865)
Leverage	0.713*** (5.713)	0.713*** (5.707)	-0.003 (-0.457)	-0.003 (-0.481)
Cash	1.513*** (9.830)	1.513*** (9.828)	0.071*** (6.355)	0.071*** (6.349)
Firm FEs	Yes	Yes	Yes	Yes
Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.708	0.708	0.074	0.074
N	343,992	343,992	340,370	340,370

Table 6. Robustness Tests

This table presents robustness test results of E&S incidents on a firm's advertising spending using a sample of 41,435,452 firm-DMA-month observations during the sample period from 2007 to 2022. All regressions include fixed effects as indicated. Industry is defined by the 2-digit SIC codes. *t*-statistics in parentheses are based on standard errors clustered at the firm by DMA market. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Panel A. Alternative measures and specifications

Approach	OLS	OLS	OLS	Poisson	OLS
	(1)	(2)	(3)	(4)	(5)
Variables	<i>Ln AD</i>	<i>Ln AD</i>	<i>Ln AD</i>	<i>D (AD)</i>	<i>Ln AD^{Units}</i>
<i>Ln ES Incidents</i>	-0.021*** (-3.824)	-0.029*** (-16.031)	-0.024*** (-13.559)	-0.010** (-2.456)	-0.014*** (-14.775)
Firm × DMA FEs	Yes	No	Yes	Yes	Yes
Firm × Year-Quarter FEs	No	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	No	No	No	Yes	Yes
DMA × Year-Month FEs	No	No	Yes	No	No
DMA × Industry × Year-Month FEs	No	No	Yes	No	No
Adjusted R ² or Pseudo R ²	0.672	0.590	0.755	0.954	0.770
N	41,435,452	41,435,452	41,435,452	41,435,452	41,435,452

Panel B. Specific media channels

	(1)	(2)	(3)	(4)	(5)
Variables	<i>Ln AD (Outdoor)</i>	<i>Ln AD (Spot TV)</i>	<i>Ln AD (Newspapers)</i>	<i>Ln AD (Radio)</i>	<i>Ln AD (Internet)</i>
<i>Ln ES Incidents</i>	-0.004*** (-3.404)	-0.020*** (-11.989)	-0.005*** (-4.274)	-0.005*** (-3.940)	-0.012*** (-9.107)
Firm × DMA FEs	YES	YES	YES	YES	YES
Firm × Year-Quarter FEs	YES	YES	YES	YES	YES
DMA × Industry × Year-Month FEs	YES	YES	YES	YES	YES
Adjusted R ²	0.622	0.733	0.583	0.530	0.664
N	41,435,452	41,435,452	41,435,452	41,435,452	41,435,452

Table 7. The Long-Term Effect on Advertising Expenditures

This table presents OLS regressions of E&S incidents on the longer-term effects of the firm's advertising spending. The analyses are conducted at the firm-DMA-month level using firm-month observations during the sample period from 2007 to 2022. The sample size varies across columns due to the data availability of key variables. All regressions include fixed effects as indicated. Industry is defined by the 2-digit SIC codes. *t*-statistics in parentheses are based on standard errors clustered at the firm by DMA market. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Panel A: Long-term effects of E&S incidents on advertising spending

Variables	(1) <i>Ln AD_{m+2, m+3}</i>	(2) <i>Ln AD_{m+4, m+6}</i>	(3) <i>Ln AD_{m+7, m+9}</i>	(4) <i>Ln AD_{m+10, m+12}</i>
<i>Ln ES Incidents</i>	-0.000 (-0.132)	0.001 (0.626)	0.009*** (6.546)	0.004*** (2.594)
Firm × DMA FEs	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.790	0.807	0.808	0.808
N	40,818,342	40,022,664	39,226,986	38,431,308

Panel B: Cross-sectional analyses of age population by DMA

Variables	(1) <i>Ln AD_{m+2, m+3}</i>	(2) <i>Ln AD_{m+4, m+6}</i>	(3) <i>Ln AD_{m+7, m+9}</i>	(4) <i>Ln AD_{m+10, m+12}</i>
<i>Ln ES Incidents</i> × <i>D (60 population < median)</i>	-0.015*** (-4.441)	-0.012*** (-3.601)	-0.001 (-0.285)	-0.005 (-1.507)
<i>Ln ES Incidents</i> × <i>D (60 population ≥ median)</i>	0.015*** (4.440)	0.014*** (4.143)	0.019*** (5.578)	0.012*** (3.642)
Firm × DMA FEs	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.790	0.807	0.808	0.809
N	40,757,373	39,967,530	39,177,687	38,387,844

Panel C: Cross-sectional analyses of median household income by DMA

Variables	(1) <i>Ln AD_{m+2, m+3}</i>	(2) <i>Ln AD_{m+4, m+6}</i>	(3) <i>Ln AD_{m+7, m+9}</i>	(4) <i>Ln AD_{m+10, m+12}</i>
<i>Ln ES Incidents</i> × <i>D (Income > median)</i>	-0.014*** (-4.097)	-0.010*** (-2.991)	-0.002 (-0.465)	-0.002 (-0.539)
<i>Ln ES Incidents</i> × <i>D (Income ≤ median)</i>	0.014*** (4.090)	0.012*** (3.540)	0.020*** (5.823)	0.009*** (2.687)
Firm × DMA FEs	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.790	0.807	0.808	0.809
N	40,757,373	39,967,530	39,177,687	38,387,844

Table 7 (Cont'd)

Panel D: Cross-sectional analyses of education background by DMA

Variables	(1) <i>Ln AD_{m+2, m+3}</i>	(2) <i>Ln AD_{m+4, m+6}</i>	(3) <i>Ln AD_{m+7, m+9}</i>	(4) <i>Ln AD_{m+10, m+12}</i>
<i>Ln ES Incidents</i> × <i>D (Bachelor ratio > median)</i>	-0.011*** (-3.189)	-0.010*** (-2.819)	-0.002 (-0.578)	-0.002 (-0.491)
<i>Ln ES Incidents</i> × <i>D (Bachelor ratio ≤ median)</i>	0.010*** (3.181)	0.011*** (3.363)	0.020*** (5.928)	0.009*** (2.623)
Firm × DMA FEs	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.790	0.807	0.808	0.809
N	40,757,373	39,967,530	39,177,687	38,387,844

Panel E: Cross-sectional analyses of political leanings by DMA

Variables	(1) <i>Ln AD_{m+2, m+3}</i>	(2) <i>Ln AD_{m+4, m+6}</i>	(3) <i>Ln AD_{m+7, m+9}</i>	(4) <i>Ln AD_{m+10, m+12}</i>
<i>Ln ES Incidents</i> × <i>D (Democratic votes ratio > median)</i>	-0.015*** (-4.218)	-0.014*** (-4.073)	-0.007** (-2.030)	-0.009** (-2.531)
<i>Ln ES Incidents</i> × <i>D (Democratic votes ratio ≤ median)</i>	0.014*** (4.210)	0.016*** (4.565)	0.025*** (7.190)	0.016*** (4.608)
Firm × DMA FEs	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes
Adjusted R ²	0.790	0.807	0.808	0.809
N	40,757,373	39,967,530	39,177,687	38,387,844

Table 8. The Spillover Effect of ESG Incidents on Advertising Spending

This table presents OLS regressions of the spillover effects of ESG incidents from suppliers (Panel A) and peers (Panel B) on advertising spending of the focal firm, using a sample of 41,338,997 (Panel A) and 35,309,802 (Panel B) firm-DMA-month observations during the sample period from 2007 to 2022. All regressions include controls and fixed effects as indicated. Industry is defined by the 2-digit SIC codes. *t*-statistics in parentheses are based on standard errors clustered at the firm by DMA market. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively. All variables are defined in Appendix A.

Panel A: Focal firm's advertising spending in response to supplier firms' ESG incidents

Variables	(1)	(2)	(3)	(4)	(5)
	<i>Ln AD</i>				
<i>Ln ESG Incidents</i> ^{Supplier}	-0.008*** (-4.597)				
<i>Ln E Incidents</i> ^{Supplier}		-0.014*** (-5.872)			
<i>Ln S Incidents</i> ^{Supplier}			-0.016*** (-7.675)		
<i>Ln G Incidents</i> ^{Supplier}				-0.002 (-0.727)	
<i>Ln ES Incidents</i> ^{Supplier}					-0.016*** (-7.721)
Control for focal firm's own E/S/G incidents	Yes	Yes	Yes	Yes	Yes
Firm × DMA FEs	Yes	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.760	0.760	0.760	0.760	0.760
N	41,338,997	41,338,997	41,338,997	41,338,997	41,338,997

Panel B: Focal firm's advertising spending in response to product-market peer firms' ESG incidents

Variables	(1)	(2)	(3)	(4)	(5)
	<i>Ln AD</i>				
<i>Ln ESG Incidents</i> ^{Peers}	-0.001 (-1.070)				
<i>Ln E Incidents</i> ^{Peers}		-0.001* (-1.937)			
<i>Ln S Incidents</i> ^{Peers}			-0.002*** (-3.512)		
<i>Ln G Incidents</i> ^{Peers}				0.001 (1.153)	
<i>Ln ES Incidents</i> ^{Peers}					-0.003*** (-4.733)
Control for focal firm's own E/S/G incidents	Yes	Yes	Yes	Yes	Yes
Firm × DMA FEs	Yes	Yes	Yes	Yes	Yes
Firm × Year-Quarter FEs	Yes	Yes	Yes	Yes	Yes
DMA × Industry × Year-Month FEs	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.763	0.763	0.763	0.763	0.763
N	35,309,802	35,309,802	35,309,802	35,309,802	35,309,802