

The influence of MNE's local reputation on the financial rents from responding to large disasters

Ballesteros, Luis, The Influence of MNE's Local Reputation on the Financial Rents from Responding to Large Disasters (February 09, 2024). Available at SSRN:

<https://ssrn.com/abstract=4721289> or <http://dx.doi.org/10.2139/ssrn.4721289>

<https://hdl.handle.net/2144/48508>

"Downloaded from OpenBU. Boston University's institutional repository."

The Influence of MNE's Local Reputation on the Financial Rents from Responding to Large Disasters

Luis Ballesteros

Global Business Career Development Professor

Questrom School of Business
Boston University
Rafik B. Hariri Building
595 Commonwealth Avenue, Boston, MA 02215
617-358-2740, luis@bu.edu

Abstract

This study explores the financial implications of multinational enterprises' (MNEs) philanthropic responses to international disasters. While MNEs have been the fastest-growing sector in disaster relief philanthropy, there is ambiguity surrounding the financial consequences of their donations. Using a firm's country reputation as a theoretical lens, I posit that stakeholders are more influenced by a company's pre-existing reputation than the actual donation amount when its social value is ambiguous. Employing a staggered difference-in-differences approach on data from 2005 to 2019, I find that initial donors with favorable country reputations experience unexpected gains compared to initial donors with an unfavorable reputation. Additionally, subsequent firms matching the donations of initial donors with good reputations also observed positive revenue effects. However, the impact is less clear for subsequent donors that diverged in donation amounts. The findings underscore the significance of MNE reputation in influencing stakeholder perceptions and consequent financial outcomes in disaster philanthropy. Furthermore, they challenge the prevailing notion that swift, large donations invariably lead to positive financial results, offering insights for more strategic philanthropic engagements in volatile contexts.

Keywords: multinational enterprises, corporate philanthropy, disaster relief, nonmarket strategy

Funding: Support for this research comes from the University of Pennsylvania Global Initiatives Research Program, The Wharton Social Impact Initiative, the Travelers-Wharton Risk Management and Leadership project; the Alfred P. Sloan Foundation (G-2018-11100 / SUB18-04), and The Wharton Risk Management and Decision Processes Center's Extreme Events Project.

Acknowledgments: The author is grateful for invaluable feedback from Tyler Wry, Vit Hennisz, Mike Useem, Heather Berry, and Uri Simonsohn, as well as seminar participants at The Wharton School, the London Business School, George Washington University the 24th Annual Conference of the Society for Institutional & Organizational Economics. An earlier version of the study was part of the 2018 Peter J. Buckley and Mark Casson AIB Dissertation Award and won the Best PhD Paper Award at the Strategic Management Society Annual Meeting.

INTRODUCTION

Multinational enterprises (MNEs) are increasingly called upon to support countries by funding large public goods, and nowhere is this more evident than in the wake of large disasters (Asmussen, Fosfuri, Larsen, & Santangelo, 2023; Barnett, Henriques, & Husted, 2020; Mithani, 2017; Muller & Kräussl, 2011a). MNEs have become the fastest growing sector in international disaster relief, outpacing governments, multilateral agencies, nonprofit organizations, and public charity. Donations to natural disasters, epidemics, and terrorist attacks account for more than 50% of philanthropy from major MNEs in the last 15 years. Yet, the determinants of the financial returns of such behavior are less clear than for other types of company prosocial behavior (Cuypers, Koh, & Wang, 2015; Mithani, 2017; Muller & Kräussl, 2011a).

The prevailing wisdom suggests that firms benefit when their deeds align with stakeholder preferences and genuinely address social needs (Cuypers et al., 2015; Seo, Luo, & Kaul, 2021). However, in turbulent philanthropic settings, the assumption that stakeholders can discern effective from ineffective firm behavior may not stand ground. With most MNE donations made within one month after a disaster and reliable information about the human and material loss taking several months to emerge (HLPFH, 2016), both companies and stakeholders grapple to understand the contextual appropriateness of firm action (or inaction) (Li, Tong, Xiao, & Zhang, 2022; Liu, Li, Eden, & Lyles, 2022). This inherent ambiguity, combined with the urgency to respond, raises the question of whether the material characteristics of the donation can sufficiently explain its financial outcomes.

Systematic evaluation of international philanthropy, which has predominantly focused on one or few disasters, has delivered mixed results. Some studies associate rents or related benefits, such as mitigating a firm's "liability of foreignness" (Mithani, 2017), with large donations (Crampton & Patten, 2008; Madsen & Rodgers, 2015; Patten, 2008). In contrast, others find negligible financial correlations or even negative impacts from early and substantial donations (Muller & Kräussl, 2011b, 2011a). Anecdotal evidence suggests that the explanation of these results transcends traditional philanthropic norms. For instance, in the aftermath of 2018's Hurricane Florence in the US, Southwest spearheaded the airline

industry with a \$1 million donation, which was quickly matched by American Airlines, Delta and other competitors. However, these firms faced backlash, accused of prioritizing corporate interests over sincere aid (Wagner, 2019), and observed a drop in country revenue seemingly unrelated to market operations, the disaster, and other factors. In contrast, United Airlines, which donated a later gift of \$500,000, evaded criticism and observed an unexpected boost in country revenue. A different scenario played out after the 2010 earthquake and tsunami in Chile. Mining MNE Anglo American donated \$10 million, setting a trend for major competitors Antofagasta, Barrick, and BHP Billiton. While the first mover and matching companies earned unanticipated rents, Rio Tinto, a late donor of a smaller amount, saw a revenue dip.

Thus, what truly explains the financial consequences of international disaster philanthropy?

Addressing this question requires theorizing about how stakeholders evaluate firm behavior in highly ambiguous settings, and the literature on firm reputation offers a solid theoretical cornerstone (Barnett, 2007; Bitektine, 2011; Fombrun & Shanley, 1990). Work in this literature shows that stakeholders often rely a firm's reputation to make inferences about its actions (Bundy, 2021; Weigelt & Camerer, 1988). We extend this idea to argue that, in settings when the social value of firm behavior is ambiguous, stakeholders will anchor their judgments on the reputation of the MNE in the national market more than on the characteristics of its donation.

To build our theoretical argumentation, we start by considering that, unlike philanthropy toward chronic issues, there is an observable donation order when firms give after disasters that may yield different results for early and late donors. Regarding first donations, stakeholders face the difficult task of judging these pledges without a clear evaluative precedent and (dis)confirming information and are likely to assume that a firm's actions align with its past behavior (McDonnell & King, 2018). Thus, instead of trying to answer "is this an appropriate donation?", stakeholders may instead focus on the question "is this a good firm?" to then make extensional judgements about the donation (Weigelt & Camerer, 1988). A favorable reputation may lead stakeholders to view an early donation positively, leading responses that contribute to financial gains. A poor reputation, on the other hand, may support the inference that the

company is donating fast to meet strategic goals rather than help the affected communities, potentially leading to the opposite outcome (Muller & Kräussl, 2011a).

Different evaluative dynamics are likely in play for subsequent donations. Once stakeholders have observed and judged the initial donation, this may serve as a referent for determining if later pledges “appear to be good or bad donations.” This becomes straightforward if a firm matches a first donor, especially if it is an industry competitor. This could result in perceptions of the initial donation spilling over to those that match their donations. If the first donor has a favorable reputation, then matching donations might be received just as positively, leading to beneficial financial outcomes for the donating company. Conversely, adverse outcomes might occur if a firm matches the donation from a poorly regarded initial donor. This type of transference becomes less likely if a firm donates a different amount than the first donor. This discrepancy may lead stakeholders to question the contextual appropriateness of the follower’s donation and revert to making inferences based on the reputation of the follower’s reputation. This suggests that there might be instances where a late donor gives more than the first, but stakeholders view its philanthropy less positively (e.g., if a firm with a bad reputation donates more than one with a good reputation). Conversely, a firm might donate less but achieve better outcomes (e.g., if a well-regarded firm donates less than a poorly regarded initial donor).

We test these argumentation using a staggered difference-in-differences strategy (Callaway & Sant’Anna, 2021). Our data include all reported corporate donations pledged in the aftermath of every major epidemic, natural disaster, and terror attack worldwide from 2005 to 2019. To calculate an MNE’s country reputation, we rely on a widespread measure in the literature to calculate the relative proportion of positive, neutral, and negative media reports about the firm in the affected country for one year before the disaster. This measure controls for the amount of media coverage and is not simply a measure of visibility (see Bansal & Clelland, 2004; Deephouse, 2000; Zhang, 2016 for surveys). This measure fits well with our argument, as it reflects the overall evaluation of an MNE within a focal nation and can take negative to positive values. We estimate post-event country revenue differences by comparing firms

based on their donation timing and reputations, while accounting for other characteristics of the donation and donor, and a vector of industry, country-, event-, and time-specific factors.

We observe that MNEs with a favorable reputation in the affected country donating first in their industry (three-code SIC) observe an average excess of USD \$43 million in post-event revenue as compared to first donors that have an unfavorable reputation. We find a similar pattern for followers that match these donations: firms that pledge the same amount as a well-regarded first donor accrue an average of USD \$28 million more in post-event revenue as compared to followers who match an ill-reputed first donor. Notably, this relation holds regardless of the follower's own reputation.

Supplementary models show that, on average, first donors with an unfavorable reputation realize losses from their donations, as do followers who match these initial donations. We find mixed results for followers that donate a different amount than the industry's first donor. While our first evaluation finds no sizeable revenue differences by these firms, when we consider the deviating firm's own reputation, we observe that those with a favorable reputation realize average returns USD \$33 million greater than counterfactual firms with an unfavorable reputation, regardless of whether the first donor realized a positive or negative outcome.

Our findings underscore the value of theorizing about how a firm's local reputation may affect how stakeholders respond to firm philanthropy in ambiguous settings (Dorobantu, Kaul, & Zelner, 2017; Wang, Gibson, & Zander, 2020). In this way, our study contributes with insights on the determinants of the financial outcomes of philanthropy when social needs are unclear and stakeholders lack relevant information for calculated judgments. Collectively, our results indicate that stakeholders may not possess definite expectations for how a firm should behave in such settings. This can lead to a diminished significance of a donation's features and an increased importance of a firm's reputation in the performance implications of international philanthropy. Of particular relevance to the extant literature, donation magnitude may be not a reliable predictor of these implications when the social need is poorly understood. Additionally, our theoretical framework helps explain how, in some contexts, the engagement of MNEs in societal issue can result in negative financial impacts for reasons unrelated to traditional explanations, such

as agency problems or the dilution of managerial attention (Ferrell, Liang, & Renneboog, 2016; Gupta & Misangyi, 2018; Masulis & Reza, 2015).

From a practical standpoint, our findings challenge the prevalent notion that firms reliably benefit from large and swift donations. In the face of disruptions, this could result in strategic errors, particularly if a firm is using philanthropy to mend a tarnished image. Echoing previous research, our data reveal that the majority of first donors hold unfavorable reputations in the countries where they donate (Muller & Kräussl, 2011a). Such donations can frequently result in adverse financial outcomes. We also note that most follower donors match the amount pledged by the first donor in their industry. Since most first donors have negative reputations, these followers tend to observe losses associated with their philanthropy.

These findings offer guidance for managers grappling with the inherent ambiguity that characterizes a large portion of philanthropic decisions. As MNEs increasingly participate in novel and changing societal issues, our study identifies strategies to enhance the likelihood of positive financial results in such settings.

THEORY AND HYPOTHESES

Firm Reputation and Stakeholder Assessments of Philanthropy in Ambiguous Settings

Firm philanthropy can lead to performance advantages (Awaysheh, Heron, Perry, & Wilson, 2020; Bertrand, Bombardini, Fisman, Hackinen, & Trebbi, 2021; Chen, Dong, & Lin, 2020; Seo et al., 2021). The magnitude and direction of this association often depends on whether stakeholders perceive philanthropic actions as contextually appropriate (Lee, 2020; Seo et al., 2021). In this way, past studies have delved into on the factors explaining why stakeholder perceptions vary. This work has drawn on constructs such as stakeholder influence capacity (Barnett & Salomon, 2012), legitimacy (Li & Lu, 2020), and symbolic action (Cuypers et al., 2015). The findings indicate that positive returns are comparatively likely when stakeholders perceive corporate actions as substantial, genuine, and altruistic instead of insufficient, insincere, and self-serving (Cassar & Meier, 2021; Cuypers et al., 2015; List & Momeni, 2021; Madsen & Rodgers, 2015).

However, there is scarce investigation of how stakeholders evaluate the contextual appropriateness of firm prosocial actions. Scholars have drawn attention to this gap by noting that the literature often

implicitly assumes that philanthropy is positively perceived, rather than directly theorizing and testing this relation (Aguinis & Glavas, 2012; Dorobantu et al., 2017; Wang, Tong, Takeuchi, & George, 2016). Wang et al. (2020: 4) assert that “how stakeholders perceive [corporate social responsible] acts is important [yet we do not] understand systematically when and to what extent stakeholder responses are affected by their perception of such acts...This suggests that there are ample opportunities to advance theory development in this area.”

We thus argue that to fully grasp the financial returns of philanthropy, we must theoretically account for how perceptions of what constitutes a good donation may vary across philanthropic settings. A key reason is that the assumption that stakeholders have well defined expectations and can assess differences between firm behavior and their expectations can be difficult to support in ambiguous settings (Camerer & Kunreuther, 1989).

Typically, studies of philanthropy in ambiguous settings lean on arguments that, while widespread in the broader corporate philanthropy literature, may be more relevant for stable settings like when firms donate toward chronic conditions, such as homelessness or chronic poverty. It is assumed that stakeholders value disaster aid and react positively to known firm donations (Madsen & Rodgers, 2015). In turn, these actions are expected to bolster market operations in the afflicted area by mitigating liability of foreignness (Mithani, 2017), fostering stakeholder support (Henisz, Dorobantu, & Nartey, 2013), or offsetting disaster losses (Muller & Kräussl, 2011a). This reasoning aligns with situations where donations target well-understood causes and referents are available to assess the generosity—and thus the likely sincerity—of a donation (Cuypers et al., 2015). In the face of a sudden disruption, however, local stakeholders need to judge early firm donations absent information about the social need and without clear referents to benchmark against.

In emergencies like earthquakes or hurricanes, an a-priori expectation of what a “generous or substantial” donation looks like becomes elusive. The nature and scale of the social need only becomes clear after lengthy assessments, (Becerra, Cavallo, & Noy, 2014) often fraught with disagreements among agencies and experts (HLPFH, 2016; Holguín-Veras, Jaller, Van Wassenhove, Pérez, & Wachtendorf,

2012). While, firms face pressure from stakeholders to offer donations (Crampton & Patten, 2008; Mithani, 2017; Muller & Kräussl, 2011a), both firms and stakeholders struggle to understand what an appropriate response looks like. *Is a \$10 million donation appropriate, and enough to address suffering? How about \$9 million?* There is not enough information. Moreover, the uniqueness of disruptions makes past philanthropy less informative of new donations (Ballesteros & Magelssen, 2022). Under these conditions, the objective features of a donation are unlikely to be very useful for making inferences about a firm's sincerity or the likely effectiveness of its pledge (Lamont, 2012).

It is thus plausible that the financial impacts of corporate philanthropy do not follow a deliberative process that calculates its alignment with an objective measure of the social need. Rather, stakeholders may infer the value of firm actions based on other indicators (Elfenbein, Fisman, & Mcmanus, 2012; Festinger, 1954), such as the firm's previous behavior, to evaluate its present actions (Fombrun & Shanley, 1990).

MNEs' country reputation, a reflection of their local market standing compared to peers, becomes paramount in this context. Once an impression forms, people view actions through that lens, unless met with contrary evidences (Kahneman & Frederick, 2002). Stakeholders, hence, look at a firm's reputation to infer its culpability in scandals (McDonnell & King, 2013), its responsibility for earnings shocks (Pfarrer, Pollock, & Rindova, 2010), and to judge whether an acquisition is a good or bad deal (Campbell, Sirmon, & Schijven, 2016). A positive reputation can foster perceptions of social legitimacy (Bitektine, 2011) and give some firms the benefit of the doubt even when making incorrect choices. Conversely, the prosocial behavior of firms with bad reputations are scarred by perceptions of impure intent (Barnett & Salomon, 2012). In our setting, a firm's country reputation elucidates its motives and capacities to help market recovery following disruptions.

Early-Mover Rents

The role of reputation in shaping the financial outcomes of corporate disaster philanthropy should be comparatively prominent. By the time that first donors donate, sometimes hours after the catastrophe, there is a vacuum of understanding about what constitutes appropriate behavior. We expect that this is

especially pertinent for the first firm that responds to a disaster, as it is acting in a vacuum of understanding about what constitutes an appropriate response.

Consider the case of Southwest when donating a large amount to lead the business response to Hurricane Florence. The firm, which had been accused of safety violations, faced a backlash after its pledge which contributed to negative off-trend revenue in the U.S. In comparison, when Anglo American was the first company to donate after the earthquake and tsunami in Chile, it had been lauded for its work with small farms and rural schools. The company observed an unexpected bump in revenue in Chile, suggesting that local stakeholders responded favorably to its donation.

Considered in tandem with the academic literature, these examples suggest that a firm's pre-disaster reputation may shape stakeholder perceptions about the sufficiency and desirability of its response, whatever it might be. We hypothesize that a positive reputation will foster the belief that a firm is a reliable actor providing meaningful humanitarian aid. This *halo* effect may support the view that the firm's response is contextually appropriate, proportional to the destruction caused, and consistent with local norms and practices (Asmussen & Fosfuri, 2019; Soleimani, Schneper, & Newburry, 2014). By contrast, stakeholders may ascertain that responses are less appropriate and potentially even harmful when initiated by a firm with a negative pre-disaster reputation, resulting in a *horns* effect where donations are viewed as insufficient, self-serving, or misdirected (Cuypers et al., 2015). As such, the main determinant of rents from disaster giving, especially among firms that respond first, may not be the size of the firm's donation, but rather its reputation in the disaster afflicted nation. Formally, we predict:

Hypothesis 1 (H1). Donating first in the industry will result in comparatively high financial returns when the first mover's country reputation is positive.

Responses to Subsequent Donations

When an early donor makes a pledge, its choices can influence subsequent giving from other firms, regardless of its reputation in the country. With little clarity about the potential outcomes of specific choices, firms often look to peers for clues about how to behave as a mechanism to navigate the ambiguity of their

own strategic options (Liu & Li, 2020). We expect that this also applies when companies decide how to respond in a crisis given that this is often a loosely structured activity for the average MNE and a detailed description of what aid is needed is rare (Wassenhove, Tomasini, & Stapleton, 2008). Even if an MNE has experience in disaster giving, geographic and cultural idiosyncrasies mean that responses that were effective in one context may not be well-suited to other regions and nations (Ballesteros & Magelssen, 2022; Becerra et al., 2014).

One might contend that companies should hold-off on donating until the outcomes of doing so become apparent, and the firm can thus imitate successful practices. However, there is a decisive tradeoff when engaging in company disaster philanthropy. Waiting can bring more data forward to mitigate causal ambiguity, resulting in a better understanding about how stakeholders are likely to react to different levels of aid. Yet, because of the urgency that accompanies a disaster, firms face pressure to respond in a timely manner, and there is evidence that stakeholders discount the value of donations that come after the most acute hardship has passed (Crampton & Patten, 2008; Madsen & Rodgers, 2015). The implication is that the window for capturing rents from disaster giving is shorter than for other types of firm prosocial behavior—our data show that over 98% of MNE disaster donations are pledged within two months after the shock.

Given these challenges, we expect that subsequent donors will frequently match first donations in the industry, regardless of the first-mover's country reputation. Managers recurrently use the imitation of peer firms when the merits of a particular course of action are unclear (Hsieh & Vermeulen, 2014). To the extent that disaster giving from industry first movers creates a referent that subsequent firms conform to, this may contribute to a bandwagon effect that creates further matching pressure (Semadeni & Anderson, 2010). Aligning with this argument, roughly 60% of donations *exactly* match the amount given by the first donor within an industry despite significant differences in market share, size, and financial performance.

Late-Mover Rents

We argue that the country reputation of the first mover will influence how stakeholders evaluate follower donations. While first donors have little precedent to determine whether or not a particular level of giving is desirable, evaluative benchmarks may begin to emerge as stakeholders interpret and react to these early gifts (Powell & Colyvas, 2008). Once the first donor has been evaluated, stakeholders can use this assessment as a more proximate cue to evaluate follower firms. Actors look for referents to facilitate judgements about a focal entity (i.e., target) and, at base, this is a feature-matching process. When stakeholders recognize features that are shared between the target and a referent, they may transfer their evaluation of the referent to the target instead of following a more deliberative process to analyze the target directly (Kahneman, 2011).

We argue that such reputational spillovers will supersede a firm's own reputation when stakeholders evaluate its donation. Rather than considering the follower's reputation, stakeholders can compare its pledge to the first donation and use this as a referent for their evaluation. Firms in an industry thus share a "reputational commons" that is only as good as that of its leaders (Barnett & King, 2008). Frequently, the negative perceptions caused by corporate misconduct diffuse throughout an affected industry, staining the reputations of all firms in the industry (Jonsson, Greve, & Fujiwara-Greve, 2009; Zavyalova, Pfarrer, Reger, & Shapiro, 2012). Stakeholders that lack the information necessary to accurately judge the relevance of information about one organization may seek similarity of easily observable characteristics. For instance, misconduct by one industry organization puts similar others under suspicion, as stakeholders decouple their judgements from a firm's actual behavior and make quick extensional judgements about kindred, but non-deserving firms (Barnett & King, 2008; Jonsson et al., 2009; Zavyalova, Pfarrer, & Reger, 2012). As a result, otherwise well-regarded firms can be punished for their mere association with stigmatized entities (Pontikes, Negro, & Rao, 2010). Judgements are most likely to transfer between firms that share easily observable attributes. A similar donation may play such a role.

When a firm donates the same amount as the first donor from its industry, the similarities between the companies and their behavior may lead stakeholders to cognitively group the two and extend their evaluation of one firm to the other. If the first corporate donor has a negative reputation in a nation,

followers that match its pledge may be marred for behaving like a “bad” company, even if their own reputation is good. Conversely, if the first donor is a well-regarded company, followers that match its donation may benefit from the positive assessments that stakeholders associate with the initial pledge. We hypothesize that:

Hypothesis 2 (H2). Imitating the donation of the industry’s first mover will result in comparatively high financial returns when the first mover’s country reputation is positive.

Judgements are less likely to diffuse among dissimilar donations. It is possible that deviating from the first pledge interrupts the quick extensional judgements associated with the first donor’s local reputation. This interruption may prompt stakeholders to question why a focal firm is giving a different amount. Rather than extending their judgement of the first donor, stakeholders may thus revert to cues such as reputation to make inferences about the focal firm’s behavior (Fiske & Pavelchak, 1986). For example, Vergne (2012) found that the stigma associated with arms production was less likely to transfer to firms whose attributes differed from industry norms. Phung et al (2021), similarly, found that differences in industry, technology, and underlying behaviors may explain why the stigma of taxi driving did not transfer to Uber drivers in Toronto.

In the case of philanthropy in ambiguous settings, stakeholders may not view the first donor as a useful referent when judging disaster aid from firms in different industries, or that give different amounts. In these situations, stakeholders will likely fall back on the reputation that the firm has in the local market as a cue to judge the sincerity and sufficiency of a firm’s disaster aid. This would also align with the insight that the size of a donation does not reliably predict its effectiveness when the nature of the social need is ambiguous or changing (Ballesteros & Magelssen, 2022; Barnett et al., 2020).

Revisiting the cases in point, BHP’s reputation in Chile had been struggling since accused of damaging environmental practices. The company matched the donation of the well-regarded Anglo American and subsequently benefited from a similar upward bump in off-trend revenue. By comparison, when Delta matched the donation of Southwest, which had an ongoing process for safety violations, Delta

was arguably stung by their association with the latter's ongoing regulatory issues, suffering negative off-trend revenue. Notably, though, United gave 50% less and later than Southwest, but its country reputation had been favorable, and it accrued positive post-donation off-trend revenue. By deviating from Southwest's donation, it appears that United's own more reputable brand came into play. We formalize predictions in the following way:

Hypothesis 3 (H3). Deviating from the donation of the industry's first mover will result in comparatively high financial returns when the first mover's country reputation is negative.

EMPIRICAL STRATEGY

Data

To collect donation data, we run automated searches of reports in Python and manual random checks. Specifically, we conduct Boolean searches in Google, LexisNexis, and Factiva APIs combining the name of a firm's ultimate parent and synonyms of the act of donating. The sources included newspapers, trade press, magazines, newswires, press releases, TV and radio transcripts, digital video and audio clips, corporate websites and reports, institutional websites and reports, and government websites.

Next, we apply natural language processing to extract details from the reports. We code the name of the firm donor, donation characteristics (i.e., in-kind or cash, amount, purpose, and timing), and target beneficiaries. We converted nonmonetary donations using prices in the affected country and non-US dollar amounts based using the exchange rate corresponding to the donation date. To ensure the quality of the data, we conduct quality checks using third-party sources, such as the United Nations Office for Coordination of Humanitarian Affairs UNOCHA and Candid (formerly Foundation Center). The online OSF Appendix at https://osf.io/yxn2z/?view_only=6516635a9fe845608bb6ec2e46bbd4c5 has procedural details.

We focus on donations to every major epidemic, natural disaster, and terrorist attack that affected the world from 2005 to 2019. Research indicates that these shocks generate substantial environmental uncertainty and explain a country's GDP (Baker, Bloom, & Terry, 2020; Barro, 2007). We omit slowly unfolding disasters, such as droughts and heatwaves, since they often transition into chronic problems

resulting in a gradual outpouring of aid. We code the event's start and end date, classification, and human and economic loss. UNOCHA and the reinsurance company Swiss Re provided us with these data.

To characterize major shocks, we adhere to the International Disaster Database (EM-DAT) criteria: a minimum of 10 fatalities, 100 individuals affected, an emergency declaration, or a plea for humanitarian aid. From this catalog, we only include events that inflicted damages equivalent to or surpassing 0.01% of the GDP of the impacted nation. Consequently, our analysis incorporates 4,507 incidents: 20% epidemics, 65% natural disasters, and 15% terrorist attacks affecting resulting in 1.86 billion fatalities and incurring costs exceeding USD 3.04 trillion.

We collect country-level data from the World Bank World Development Indicators and the Worldwide Governance Indicators for control variables and robustness tests. Our dataset spans 129 countries representing the four levels of country income according to the World Bank.

Our study focuses on the world's 2,000 largest publicly traded firms by December 2020 revenue. This focus ensures reliable data while still covering over 92% of reported disaster firm donations in our analysis period. We rely on Bureau van Dijk's Orbis for data on the geographic distribution of company operations and performance. Every firm variable in our dataset reflects an MNE's country operation. That is, we test how disaster philanthropy affects the aggregate financial performance of a firm's local affiliates.

Accurately representing MNE performance by country is complex due to inconsistent data coverage across firms and missing ownership data in some subsidiaries, which affect all different firm-level databases. We tackle this problem with apply the following strategy: First, we use the last year with static company-affiliate ownership percentages in Orbis and the first year that provided a decade's worth of financial data for each company. Second, we individually extract data for each firm's subsidiaries, encompassing 567,228 entities representing over 9.3 million entity-shareholder-year records. This approach ensures each subsidiary is correctly linked to its parent company without any data loss. To validate the accuracy of our data, we perform random checks on 5% of the dataset three times. During

these checks, we verify affiliate ownership using shareholder and legal details from public records, company websites, government documents, and financial data from Orbis.

After grouping firms from conglomerate groups under their respective parent on the legal event dates, the final set covers 1,891 companies, including 10,874 subsidiaries with multiple owners and 534,790 subsidiaries with a single owner. These MNEs have median total revenue of over USD \$9.3 billion and almost 25,000 employees and span 63 origin countries and a wide variety of industries.

To address missing country and firm data, we employ a multiple-input bootstrapping algorithm. This method accounts for consistent time trends, variations in cross-sectional factors, and correlations in both time and space (Blackwell, Honaker, & King, 2017). It offers an advantage over other methods like listwise deletion or mean substitution, which may elevate the likelihood of Type II errors in difference-in-differences analyses. Details can be found in the online Appendix at https://osf.io/yxn2z/?view_only=6516635a9fe845608bb6ec2e46bbd4c5.

Method

Our theoretical argumentation predicts that the returns to philanthropy in ambiguous settings will largely depend on the reputation of the first donor and the matching behavior of followers. Testing these relations is complicated because reputation and donation choices are likely endogenous to firm performance. Philanthropic decisions and stakeholder responses may also be inherently linked to context-specific factors (Asmussen & Fosfuri, 2019; Hornstein & Zhao, 2018; Husted & Allen, 2006). The decision to donate—including when, and how much likely varies across firms, as well as disasters and nations, due to factors that are independent of a firm’s reputation and philanthropy. In short, expecting heterogeneity in reputation or donation timing, while assuming homogeneity in everything else is difficult to meet. This poses an estimation challenge for conventional techniques. Additionally, there is a risk of documenting a spurious relation since financial performance and philanthropy may move in the same direction to unobserved factors, such as an MNE’s philanthropic efficiency.

To overcome these challenges, we implement a staggered difference-in-differences design (Callaway & Sant’Anna, 2021). To summarize our strategy for causal inference, we start by constructing treatment

and control groups following our theoretical argumentation on reputation and donation timing. We then test for differences in post-disaster firm revenue for treatment and control groups. Our underlying assumption is that, barring the philanthropic decision (whether to donate, its timing, and amount), the trajectory of firm performance would have mirrored each other. Our models incorporate fixed effects and also account for firm-specific, country-specific, and disaster-specific controls. This enables us to account for consistent location-based variables, evolving firm and market dynamics, and particular contextual factors that might influence the pros and cons of philanthropy. Detailed procedures follow below.

We run models with the following form:

$$\Delta Y_{fcd} = \sum_{t-5}^{t-1} \beta_0 + \beta_1 \times 1[\tau = t + 1] \times [reputation|matching] + \alpha_f + \lambda_c + \delta_d + \gamma_t + \tau_i + \chi_{fc} + \mu_{jd} + \varepsilon_{fcdt} \quad (1)$$

where f indexes firms from industry, i , responding to a disaster, d , that affected a country, c , in year, t . Thus, α , λ , δ , and γ are vectors of firm-, country-, disaster-, and time-specific control variables and fixed effects, and ε_{fcdt} is the error term. To correct for serial correlation, we cluster standard errors by MNE (Bertrand, Duflo, & Mullainathan, 2004). Our most stringent specification applies a battery of single (firm, industry, country, and year) and joint fixed effects. First, we use Firm \times Country fixed effects to account for the possibility that companies sort into countries where stakeholders particularly expect or appreciate corporate philanthropy. It could also be that firms with similar abilities to benefit from philanthropy are likely to donate to specific countries. This is expected because a country's likelihood of receiving donations seems to rise with its economic importance to a firm. Second, we include Firm \times Disaster fixed effects to address the possibility that some events heterogeneously affect the revenue of specific firms. For instance, a construction company may observe an increase in revenue following an earthquake, and a pharmaceutical firm may experience a similar bump during an epidemic. Firms that donate frequently to specific types of disasters may also be better able to read the local environment and target aid more effectively. The performance value of donating is also likely to fluctuate within industries, which makes controlling individually by industry and disaster type insufficient.

The dependent variable represents the post-donation change in an MNE's country revenue. This variable reflects the segment of the combined revenue from the MNE's affiliates located in the disaster-stricken country not significantly explained by market performance determinants, other forms of prosocial actions, contextual elements, or the disaster's direct impact. The results displayed in the tables show the portion of a company's revenue change within a country that can be linked to disaster relief.

Choosing revenue as a performance metric aligns well with our theoretical argumentation. It is arguably the most immediate and discernible gauge of stakeholder endorsement. Specifically, it mirrors the support and loyalty a company garners from various stakeholders, such as customers, employees, governments, suppliers, and financiers within a specific country (Rangan & Sengul, 2009; Seo et al., 2021). Revenue is also less susceptible to factors outside the country that are outside the subsidiary's control and still influence performance indicators like stock prices.

MNE's country reputation. We rely on the Janis-Fadner imbalance coefficient of imbalance (JFC) that considers the relative proportion of positive, neutral, and negative media articles about a company in a specific country. This variable is widely used in business literature and has been validated as capturing corporate reputation through several studies (see Zhang, 2016 for a review). The JFC provides insights into how local stakeholders perceive a company's actions (Bansal & Clelland, 2004; Deephouse, 2000; Zavyalova, Pfarrer, Reger, et al., 2012). We prefer the JFC because it controls for the total number of media articles about a firm, ensuring that differences in media visibility among firms do not skew the results. In other words, the JFC is not measure of celebrity or prestige.

To calculate the JFC, we search Factiva for articles referencing a given firm, using the ultimate parent's name, in specific country within a year preceding the focal disaster. We quantify the tone of each article using Factiva's native linguistic software and count the number of positive, e , negative, c , and total reports, t , which also include neutral articles. We then apply the following formula:

$$JFC = \begin{cases} \frac{e^2 - ec}{t^2} & \text{if } e > c \\ \frac{ec - c^2}{t^2} & \text{if } c > e \\ 0 & \text{otherwise} \end{cases} \quad (2)$$

Treatment and control groups. We classify the *first donor* as the MNE that pledges the initial donation in the three-digit SIC industry following a focal disaster. For testing H1, the treatment group consists of first donors with positive reputations in the affected nation (i.e., their JFC for the year prior to the disaster is between 0 and 1). In contrast, control firms are first donors with negative reputations (i.e., their JFC is between -1 and 0). The matching occurs for a given country-disaster pair, given that catastrophes can multiple countries.

Imitators are firms that contribute the same amount as the industry's first donor, while *deviators* donate different amounts. To test H2, the treatment group comprises imitators of first donors with positive reputations in the focal country, while the control group consists of imitators of first donors with negative reputations. For testing H3, the treatment group comprises deviators from first donors with negative reputations, and deviators from well-reputed first donors are in the control group.

Control variables. Our difference-in-differences models include a set of variables potentially impacting a firm's country revenue and the performance implications of philanthropy. At the MNE subsidiary level, we account for *Tobin's Q*, *R&D intensity*, logarithms of the *number of employees*, *advertising* and *administrative expenses*, and the total dollar amount of all past philanthropic donations reported by a firm the year before a disaster, accounting for *donor experience*. In addition to industry fixed effects, we include a business-to-consumer (B2C) binary indicator based on Orbis data regarding a firm's end customers. Such an orientation might attract distinct strategic stakeholders that differ in their philanthropic responses compared to business-to-business (B2B) firms.

Using a Google API through Python, we identified and included 3,050 non-disaster donations. To validate our web scraping accuracy, we contrast donation details (i.e., amount, type, beneficiary name, and location) with data from the U.S. Internal Revenue Service (IRS), maintained by the Foundation Center. This center employs the National Taxonomy of Exempt Entities (NTEE) from the IRS to categorize U.S. company donations into various nonprofit sectors. Using the same procedure, we include

the number of media articles at the country level that report a focal firm’s donation. This count, once logged, addresses the potential influence of donation *media visibility* on stakeholder reactions.

At the country level, a firm’s decision to donate may be related to the attractiveness of the focal market (Hornstein & Zhao, 2018) and factors that affect a firm’s ability to execute and benefit from philanthropy (Bertrand, Bombardini, Fisman, & Trebbi, 2020; Marquis & Tilcsik, 2016). Therefore, we control for the disaster country’s logged *GDP* and *population*, the percent of *urban population*, and an index of *control of corruption* from the World Governance Indicators database.

At the disaster level, we account for the number of *deaths*, *victims*, economic *damage*, and the type of catastrophe (e.g., terrorist attack, epidemic, flood, earthquake), given their known influence on global philanthropy (Stromberg, 2007). We also factor in the logged count of disasters both locally and globally in the year preceding a focal event, as these can affect the volume of aid a country receives (Eisensee & Strömberg, 2007). Lastly, to control for news salience, we consider the median duration news broadcasts dedicate to their top three segments daily for 40 days post-disaster to adjust for other newsworthy events that might overshadow the disaster.

Table 1 provides a dataset summary; Table 2, correlations. During our analysis period, the mean company donation was \$1.69 million, with a peak of \$54 million and a standard deviation of \$220,000. On average, the off-trend revenue companies attain across all aid donations is negative (-\$2.08 million). Approximately 60% of initial donors had negative pre-disaster reputations in the affected country, and around 60% of all subsequent donations precisely matched the initial corporate pledge.

INSERT TABLE 1 AND 2 ABOUT HERE

RESULTS

Early-Mover Rents

H1 predicts that the first company in an industry to pledge aid after a disaster will be rewarded if it has a positive pre-disaster reputation, but punished if has a negative pre-disaster reputation. As expected, the difference-in-differences estimates in Table 3 show that first donors with a positive pre-disaster reputation

obtain substantially more off-trend revenue than similar donors with negative reputations. This amount is, on average, over \$61 million using the most stringent specification that includes all single and joint fixed effects and all control variables (Model 5). We include significance levels for reference, but the most important information is the economic magnitude of the effect: the revenue gain for first donors with a positive reputation is 36 times the amount of the average company donation.

INSERT TABLE 3 ABOUT HERE

Late-Mover Rents

H2 argues that judgements of the first donor will transfer to other firms in the same industry that match this initial donation. Regardless of their own reputation, imitators will benefit from following a first donor that has a positive reputation, but they will see a negligible or negative outcome when they follow a first donor that has a negative reputation. The results in Table 4 indicate such a dynamic. Model 5, which includes the combination of single and joint fixed effects and control variables, shows that the difference in off-trend revenue is over \$45 million greater for firms that match the donation from a first donor with a positive versus negative reputation.

INSERT TABLE 4 ABOUT HERE

Regarding H3, the results presented in Table 5, Model 1, show no substantial difference between firms giving amounts different from those of an ill-regarded first donor (i.e., treatment) and those donating different amounts than a well-regarded first donor (i.e., control). This observation aligns with the notion that deviating from the initial pledge prevents perceptions of the first donation from extending to followers who diverge from this amount. Although the direction of the results implies a benefit in distancing themselves from negatively perceived first movers, more in-depth analyses are required to understand the revenue implications for deviators.

To do this, we follow our arguments underpinning H3 and run additional a model comparing off-trend revenues for deviators with positive country reputations (i.e., treatment) and deviators with negative

reputations (i.e., control). The results in Model 2 show a clear pattern where deviators with positive reputations see much greater off-trend revenue than deviators with negative firms, holding donation amount constant and regardless of how the first donor's pledge was perceived.

These results provide additional evidence that local stakeholders use feature matching related to donation size to judge firms that follow the first donor. This process appears to be interrupted when a follower deviates from the initial pledge, leading stakeholders to revert to reputation to navigate the ambiguity associated with the social value of a donation.

INSERT TABLE 5 ABOUT HERE

Additional Robustness and Tests of Confounders

Donation Mode. Prior research has found that firms benefit more from their philanthropy when they donate in-kind instead of cash (Cuypers et al., 2015). We test for this using a version of original difference-in-differences model (1) where treated firms made in-kind donations and control firms pledged cash. We control for media reputation as well as donation size and timing. Per Table 6 in the online Appendix, the gap in off-trend revenue between the groups is not sizeable.

Donation Magnitude. There is also evidence that the strategic benefits of philanthropy increase with donation size (Madsen & Rodgers, 2015). We argue that this pattern is unlikely to hold for corporate disaster philanthropy, given its attendant uncertainty. Our main analysis aligns with this expectation and supplementary models offer further support. Table 7 in the online Appendix shows the differences-in-differences estimates of off-trend revenue for large versus small donations, i.e., firms that pledged at least one standard deviation more than the mean disaster donation versus those that pledged at least one standard deviation below the mean. We control for reputation as well as donation timing and type (i.e., cash or in-kind). The difference in off-trend revenue between the two groups of firms is not significantly different. This suggests that reputation, and not donation size, is the main driver of the returns that a firm realizes from pledging disaster aid.

Firm Media Visibility. We test for the possibility that a firm's prominence in public media monopolizes the reported associations. We define treated firms as those with media coverage at least one standard deviation above the mean in a focal nation the year before a disaster (based on article-count), and control firms as those with coverage at least one standard deviation below the mean. We control for donation amount, timing, and type. In Table 8 in the Appendix, we observe a negative and marginally significant effect on off-trend revenue, suggesting that firms with more media visibility are somewhat less likely to benefit from corporate disaster philanthropy than less visible firms.

Publicity of the Donation. A related concern is that stakeholders may respond more favorably if there is more media coverage of a firm's disaster philanthropy. We address this by splitting our sample based on the level of coverage that a firm's donation received in the year following a disaster. Table 9 in the Appendix compares firms whose donation attracted media coverage at least one standard deviation above the mean (i.e., treatment) to similar firms with donations with media coverage at least one standard deviation below the mean (i.e., control) and shows no significant difference in off-trend revenue.

Reputation of Non Donors. A more consequential potential confound is that reputable firms may be rewarded following a disaster, regardless of whether they provide aid. For instance, government stakeholders may ally with or support high reputation firms, and this may enhance post-disaster revenue growth regardless of a firm's donation (Ahuja & Yayavaram, 2011). We investigate this by restricting our sample to firms with positive media reputations ($JFC > 0$) and running an analysis where we define treated firms as those that donate following a disaster and control firms as those that do not donate. Here, our algorithm adds reputation as a matching variable to ensure we are comparing similarly regarded firms. The model controls for donation amount, timing, and type. The results in Table 10 in the online Appendix suggest that, on average, donating firms see an off-trend revenue bump of \$45 million, as compared to non-donors. This provides robust evidence that our observed results are contingent on the philanthropic act.

Philanthropic Efficiency and Reputation. Another potential issue is that firms with good reputations may be better at reading the environment, and thus offer aid that is better suited to the needs

of the moment, than firms with negative reputations. If true, our results might reflect the underlying quality of a firm's aid, and not external judgements. To investigate, we compare the average donations adjusted by disaster impacts from firms with positive and negative reputations. We observe that the value of donations from firms with negative reputations relative to economic damage (Table 11 in the Appendix) and the number of victims (Table 12) are significantly larger than those from firms with positive reputations.

We also observe in Table 13 that reputable firms often match the pledges of ill-regarded first donors rather than crafting individualized responses. This suggests that well-regarded firms are no better at reading and responding to the post-disaster environment.

Type of Disaster. We investigate whether the studied relation between philanthropy and revenue varies substantially across specific types of shocks. To do this, we run our original difference-in-difference model (1) after splitting the dataset by epidemics, natural disasters, and terrorist. Table 14 in the online Appendix reports the results and show no significant difference in the direction and magnitude of the correlation across shock type.

DISCUSSION

We have argued that the extant literature offers limited insight into the outcomes of international corporate philanthropy in settings characterized by ambiguity and urgency to respond. We were motivated by puzzling several empirical observations. First, MNEs are increasingly stepping in to aid countries in financing their recovery after catastrophic events. The outcomes of these interventions vary significantly, ranging from praise and improved financial outcomes to criticism and unexpected losses. Second, the characteristics of giving that MNEs offer appear to be influenced more by peer effects than by the actual magnitude of the social need. This need and what stakeholder prefer are not well understood by the time the firm donates. Finally, firms frequently miss the mark by modeling their contributions after first donors with tainted reputations. This often leads to their philanthropic endeavors being met with skepticism or disdain. Our data indicates that while some firms experience benefits after being the initial donor following a catastrophe, others face adverse reactions for comparable donations. Similarly, subsequent

donors might either benefit or suffer depending on their similarity with the industry first mover's donation. Existing research offers little to explain these patterns.

Consistent with previous studies, we anchor our theoretical argumentation on the premise that local stakeholders want firms help to fund the large public goods created by catastrophes by pledging aid motivated by genuine concerns for local communities (Barnett et al., 2020; Cuypers et al., 2015; Wang et al., 2016). However, we argued that the environmental disruption surrounding sudden, large-scale disasters complicates the understanding of the contextual appropriateness of donations. Objective measures, such as donation amount, that are used to judge philanthropy toward chronic issues or in stable contexts may not explain financial rents. Precisely, this ambiguity to understand the social value of international company philanthropy leads to novel predictions about its performance implications.

In our theoretical framework, which emphasizes the significance of firm reputation in ambiguous settings, we posit that responses to corporate disaster philanthropy may hinge more on an MNE's standing in the impacted country than on the specific attributes of the donation. When faced with the aftermath of a disaster, there is a lack of clarity for corporations regarding what is deemed an apt contribution. Our findings suggest that the reputation of a firm in the local context becomes especially critical for early movers. Given that these initial donations are made in the absence of established benchmarks or references, stakeholders might lean on a company's reputation as a reliable indicator, operating under the belief that reputable firms are likely to extend meaningful aid.

Furthermore, the reputation of the initial donor can set a precedent, influencing the perception of subsequent contributors. The data show that there is a high incidence of followers matching the pledge from the first donor in their industry. This pattern seems to play a pivotal role in determining the financial outcomes for subsequent donors. Local stakeholder perceptions of the first donor seem to transfer to industry imitators because donation size is a visible relevant cue for making quick, extensional judgments across firms. Followers benefit from imitating the gifts of well-regarded first movers, but do not benefit from following poorly viewed first-movers, regardless of their own reputations. Then, these extensional

judgements seem to be interrupted if a firm pledges a different amount than the first donor, though, and reputation again becomes a key consideration.

Limitations

Our study has limitations that point to future research opportunities. Most notably, while our approach is consistent with previous published work (Bertrand et al., 2020; Cuypers et al., 2015; Lins, Servaes, & Tamayo, 2017; Odziemkowska & Henisz, 2021), we are unable to model stakeholder perceptions directly. Results align with our theoretical argument and provide broad and generalizable evidence about the outcomes of corporate disaster aid, but we cannot test the underlying mechanism. Future studies should examine how stakeholders perceive a firm's actions under uncertainty and try to more cleanly isolate the attribute substitutions that guide these evaluations. The literature on heuristics provides useful methodological guidance for how to undertake such study.

Likewise, we attribute changes in off-trend revenue to changes in stakeholder cooperation, support, and loyalty; yet we cannot observe these directly. Our approach mirrors the common strategy of inferring stakeholder responses from financial outcomes, but it would be useful for future studies to provide direct evidence in support of this mechanism.

Also, while we find strong support for our predictions, our arguments are intentionally broad and may thus overlook underlying variance in how particular firms, offering particular types of aid, are judged in particular contexts. For instance, we do not have data on how firms rationalize their donations or portray their motives for giving. Such impression management has been shown to affect perceptions of a firm's behavior in other contexts (Marquis, Toffel, & Zhou, 2016) and it is reasonable to think that it might also create variance in perceptions of disaster giving. Lastly, while our approach and findings align with what Gigerenzer and Gaissmaier (2011) call one-reason decision making—where people base their judgements on a single useful cue—some stakeholders might consider multiple cues when assessing a firm's disaster aid. Evaluations may start by considering a firm's reputation or similarity to the first donor, but then move-on to other cues that result in more fine-grained assessments. Future studies should investigate these potential nuances.

Implications for Research on Corporate Philanthropy

In many studies, the link between corporate philanthropy and financial outcomes is attributed to a causal chain that assumes stakeholders perceive donations favorably, and respond with increased loyalty, cooperation, and support that ultimately leads to improved financial performance. Yet, as recent reviews have asserted, stakeholder perceptions are rarely theorized or tested directly, leaving important gaps in our understanding of when and why firms realize different outcomes from philanthropy (Wang et al., 2020, 2016). Notably, even studies that have directly theorized stakeholder perceptions have been scattershot, offering interesting but thinly connected insights that anchor on different theoretical traditions, as opposed to advancing a cohesive research program. Our approach does not challenge the value or validity of these studies; however, it does offer a framework that can integrate prior work and provide a foundation for more programmatic research going forward.

To this end, our approach draws on insights that are directly relevant to understanding how actors engage in judgement and decision tasks. In turn, this yields a general framework that calls attention to the uncertainties associated with specific judgments and invites theorization about which cues might be useful proxies for assessing data that is missing or difficult to access. From this perspective, it is unsurprising that prior studies have identified such a diverse range of factors that shape stakeholder perceptions, since people should logically rely on different cues to assess different actions in different contexts at different points of time. Moreover, by highlighting attribute substitution as mechanism that guides evaluation, our approach suggests that cues like legitimacy (Koh, Qian, & Wang, 2014), the generosity of a firm's giving (Cuypers et al., 2015), the nature of its products or services (Lins et al., 2017), and its broader reputation (Deephouse & Carter, 2005) may all guide stakeholder perceptions in certain situations, and are thus manifestations of a common underlying process.

In addition, by focusing on how uncertainty affects judgement tasks, our approach can help to identify the boundaries of prior research findings. For instance, studies have found that stakeholders react more positively to generous and innovative philanthropy, since these cues are seen as proxies for the sincerity of a firm's motives. This finding likely applies to donations that address well-understood problems

through accepted means. In other situations, though, there may be uncertainty about the type and level of giving that is required to meet the needs of the moment, making donation size a less useful cue, and leading to different attribute substitutions. Such uncertainty is arguably becoming ever more relevant as ecological trends like climate change, the polarization of social issues, and decreasing real financial capacity of government expenditure to finance large public goods give rise to a larger role of companies in addressing issues for which there are few clear a-priori expectations for what constitutes appropriate action (Ballesteros & Magelssen, 2022; Gupta, Briscoe, & Hambrick, 2017; HLPFH, 2016).

As our theory and results show, such uncertainty can lead to outcomes that diverge from existing research findings in important ways. For example, it is well-accepted that firms benefit less from acting in prosocial ways if stakeholders believe that their motives are insincere or self-serving (Wang et al., 2020). Yet under the acute uncertainty that follows a sudden and large-scale disaster, our results suggest that evaluations are guided almost entirely by a firm's reputation and have little to do with the amount or type of aid that is pledged. As such, ours is the first study that we know of to identify conditions where philanthropy may be negatively viewed and contribute to adverse financial performance. Given that our approach emphasizes the contextual nature of stakeholder judgements, though, we would not expect our findings to generalize to situations where there is more certainty about the appropriateness of a firm's philanthropy.

Implications for Research on MNE Giving after Shocks

In addition to its general applications, our approach is particularly relevant to the study of corporate disaster aid. As in the broader literature on corporate philanthropy, studies commonly assume that stakeholders perceive disaster aid positively, and reward firms that engage in this behavior. Empirical results belie this expectation, however, and point to a more complex and contingent relationship. For instance, some studies report that firms can benefit from offering generous aid (Crampton & Patten, 2008; Madsen & Rodgers, 2015; Mithani, 2017), but others find that this has no financial benefits (Muller & Kräussl, 2011a). There are also conflicting findings about donation timing, and whether firms benefit from being among the first to pledge aid following a disaster. Some work indicates that firms benefit

when they quickly pledge aid after a disaster (Madsen & Rodgers, 2015), but others have found that this has no effect (Patten, 2008).

Our approach helps to make sense of these findings by loosening the assumption that stakeholders reliably view corporate disaster aid favorably. Instead, we show that firms may be variously rewarded or punished when they are the first to pledge aid after a disaster, and that followers experience similar outcomes unless they deviate from this first response. Seen through this lens, it is unsurprising that prior studies have failed to provide consistent evidence for the financial outcomes of corporate disaster aid.

Managerial Implications

Our findings offer practical guidance for how to approach corporate philanthropy in situations when the social need and stakeholder preferences are unclear, but the firm faces urgency to respond. We show how these approaches differs from those that have been found to work in stable settings. Indeed, rather than offering blanket advice, we suggest that different firms should take different approaches and that managers would be well-advised to be aware of how their firm is perceived among local stakeholders before plotting their response.

Our findings suggest that firms with good and bad reputations can both benefit financially from providing philanthropy, but that different approaches are required. If a firm is well-regarded, it will benefit from having its aid judged through a reputational lens. The surest way to do this is to move quickly and lead the corporate response to a focal disaster. Our results show that, in this situation, a firm will likely benefit regardless of the amount of aid that it gives. If such firms move later, though, it is important to consider the reputation of the first donor in their industry. If the first donor has a negative reputation, even a well-intentioned and well-reputed follower may be unfairly marred if it matches this initial donation.

For a firm with a bad reputation, though, our results show the peril of moving quickly to donate. Our results here challenge the conventional link between philanthropy and reputation-repair. It is well known that firms use philanthropy to atone for prior bad acts and build goodwill with stakeholders: firms that have bad reputations, or that are known for socially irresponsible action, often engage in generous

philanthropy (Barnett & Salomon, 2012; Vishwanathan, van Oosterhout, Heugens, Duran, & van Essen, 2020). However, this strategy may backfire in contexts like ours where urgency and uncertainty are high. Ill-regarded firms are unlikely to benefit—and may be punished—when they are the first to pledge disaster aid, no matter how much they donate. For managers in these companies, it is best to wait and follow the lead of a first donor that has a good reputation, as the positive views of this initial gift will likely transfer to their own donation.

The managerial implications of our study are particularly important because they uncover common strategic errors that firms make when engaging in philanthropy. Our data show that, over 60% of the time, the first firm to pledge disaster philanthropy is unfavorably viewed in the local market and is likely donating to atone for its poor reputation. We also see that, rather than taking the time to plot a well-considered response, most later donors match the amount pledged by the first donor in their industry. Strikingly, firms with good and bad reputations are equally likely to match this initial gift. This is not wholly surprising given the uncertainty that surrounds disasters and disaster responses (Baker et al., 2020), but it does result in a pattern where the leaders of well-regarded firms systematically make decisions that undermine the benefits they would otherwise receive from pledging aid. Indeed, our data show that almost 52% of company disaster donations result in negative revenue not explained by the determinants of market performance, other types of company prosocial behavior, contextual factors, or by the impact of the disaster itself.

Looking beyond our findings, our approach also points to other potentially interesting implications. For example, to the extent that attribute substitution guides how stakeholders react to disaster aid, there may be opportunities for managers to influence which cues are used to evaluate their firm's actions. For instance, an ill-regarded firm might benefit from partnering with a well-regarded non-profit, the local government, or community groups when responding to a disaster, as this may offer a more proximate cue for judging the sincerity and sufficiency its aid. Poorly regarded multinational firms may also benefit from delegating disaster aid decisions to their local subsidiaries, as stakeholders might interpret this as an attempt to target on-the-ground needs, as opposed to throwing money from afar. Similarly, if a firm is

offering genuinely thoughtful aid, it may benefit from actively communicating the rationale behind its donation, and how it is expected to help with relief and recovery efforts.

REFERENCES

- Aguinis, H., & Glavas, A. 2012. What we know and don't know about corporate social responsibility a review and research agenda. *Journal of Management*, 38(4): 932–968.
- Ahuja, G., & Yayavaram, S. 2011. PERSPECTIVE--Explaining Influence Rents: The Case for an Institutions-Based View of Strategy. *Organization Science*, 22(February 2015): 1631–1652.
- Asmussen, C. G., & Fosfuri, A. 2019. Orchestrating corporate social responsibility in the multinational enterprise. *Strategic Management Journal*, 40(6): 894–916.
- Asmussen, C. G., Fosfuri, A., Larsen, M. M., & Santangelo, G. D. 2023. Corporate social responsibility in the global value chain: A bargaining perspective. *Journal of International Business Studies*, 54(7): 1175–1192.
- Awaysheh, A., Heron, R. A., Perry, T., & Wilson, J. I. 2020. On the relation between corporate social responsibility and financial performance. *Strategic Management Journal*, (January): 965–987.
- Baker, S. R., Bloom, N., & Terry, S. J. 2020. Using Disasters to Estimate the Impact of Uncertainty. *NBER Working Paper Series*, 40.
- Ballesteros, L., & Magelssen, C. 2022. Institutional Disruptions and the Philanthropy of Multinational Firms. *Organization Science*, 33(4): 1501–1522.
- Bansal, P., & Clelland, I. 2004. Talking trash: Legitimacy, impression management, and unsystematic risk in the context of the natural environment. *Academy of Management Journal*, 47(1): 93–103.
- Barnett, M. L. 2007. Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *Academy of Management Review*, 32(3): 794–816.
- Barnett, M. L., Henriques, I., & Husted, B. W. 2020. Beyond good intentions: Designing CSR initiatives for greater social impact. *Journal of Management*, 46(6): 937–964.
- Barnett, M. L., & King, A. A. 2008. Good fences make good neighbors: A longitudinal analysis of an industry self-regulatory institution. *Academy of Management Journal*, 51(6): 1150–1170.
- Barnett, M. L., & Salomon, R. M. 2012. Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. *Strategic Management Journal*, 33(11): 79–95.
- Barro, R. J. 2007. Rare disasters, asset prices, and welfare costs. *American Economic Review*, 99(1): 243–264.
- Becerra, O., Cavallo, E., & Noy, I. 2014. Foreign aid in the aftermath of large natural disasters. *Review of Development Economics*, 18(3): 445–460.
- Bertrand, M., Bombardini, M., Fisman, R., Hackinen, B., & Trebbi, F. 2021. Hall of Mirrors: Corporate Philanthropy and Strategic Advocacy. *Quarterly Journal of Economics*, 136(4): 2413–2465.
- Bertrand, M., Bombardini, M., Fisman, R. J., & Trebbi, F. 2020. Tax-Exempt Lobbying: Corporate Philanthropy as a Tool for Political Influence. *American Economic Review*, 110(7): 2065–2102.
- Bertrand, M., Duflo, E., & Mullainathan, S. 2004. How much should we trust differences-in-differences estimates? *Quarterly Journal of Economics*. <https://academic.oup.com/qje/article/119/1/249/1876068>.
- Bitektine, A. 2011. Toward a Theory of Social Judgments of Organizations: the Case of Legitimacy, Reputation, and Status. *Academy of Management Review*, 36(1): 151–179.
- Blackwell, M., Honaker, J., & King, G. 2017. A Unified Approach to Measurement Error and Missing Data: Details and Extensions. *Sociological Methods and Research*, 46(3): 342–369.
- Bundy, J. 2021. Reputations in flux : How a firm defends its multiple reputations in response to different violations. *Strategic Management Journal*, (March): 1109–1138.
- Callaway, B., & Sant'Anna, P. H. C. 2021. Difference-in-Differences with multiple time periods. *Journal of Econometrics*, 225(2): 200–230.
- Camerer, C. F., & Kunreuther, H. 1989. Decision Processes for Low Probability Events: Policy Implications. *Journal of Policy Analysis and Management*, 8(4): 565.
- Campbell, J. T., Sirmon, D. G., & Schijven, M. 2016. Fuzzy logic and the market: A configurational approach to investor perceptions of acquisition announcements. *Academy of Management Journal*, 59(1): 163–187.
- Cassar, L., & Meier, S. 2021. Intentions for Doing Good Matter for Doing Well: The Negative Signaling Value of Prosocial Incentives. *Economic Journal*, 131(December): 1988–2017.
- Chen, T., Dong, H., & Lin, C. 2020. Institutional shareholders and corporate social responsibility. *Journal of Financial Economics*, 135(2): 483–504.
- Crampton, W., & Patten, D. 2008. Social responsiveness, profitability and catastrophic events: Evidence on the corporate philanthropic response to 9/11. *Journal of Business Ethics*, 81(4): 863–873.
- Cuypers, I. R. P., Koh, P.-S., & Wang, H. 2015. Perceptions and Firm Value Sincerity in Corporate Philanthropy, Stakeholder Perceptions and Firm Value. *Organization Science*, 27(1): 173–188.

- Deephouse, D., & Carter, S. 2005. An Examination of Differences Between Organizational Legitimacy and Organizational Reputation*. *Journal of Management Studies*, 6(March): 3–23.
- Deephouse, D. L. 2000. Media Reputation as a Strategic Resource: An Integration of Mass Communication and Resource-Based Theories. *Journal of Management*, 26(6): 1091–1112.
- Dorobantu, S., Kaul, A., & Zelner, B. 2017. Nonmarket strategy research through the lens of new institutional economics: An integrative review and future directions. *Strategic Management Journal*, 38(1): 114–140.
- Eisensee, T., & Strömberg, D. 2007. News droughts, news floods, and US disaster relief. *The Quarterly Journal of ...*, 122(2): 693–728.
- Elfenbein, D. W., Fisman, R., & Mcmanus, B. 2012. Charity as a Substitute for Reputation: Evidence from an Online Marketplace. *The Review of Economic Studies*, 79(4): 1441–1468.
- Ferrell, A., Liang, H., & Renneboog, L. 2016. Socially responsible firms. *Journal of Financial Economics*, 122(3): 585–606.
- Festinger, L. 1954. A theory of social comparison processes. *Human relations*, 7(2): 117–140.
- Fiske, S. T., & Pavelchak, M. A. 1986. Category-based versus piecemeal-based affective responses: Developments in schema-triggered affect.
- Fombrun, C., & Shanley, M. 1990. What's in a name? Reputation building and corporate strategy. *Academy of management Journal*, 33(2): 233–258.
- Gigerenzer, G., & Gaissmaier, W. 2011. Heuristic decision making. *Annual review of psychology*, 62: 451–482.
- Gupta, A., Briscoe, F., & Hambrick, D. C. 2017. Red, blue, and purple firms: Organizational political ideology and corporate social responsibility. *Strategic Management Journal*, 38(5): 1018–1040.
- Gupta, A., & Misangyi, V. F. 2018. Follow the leader (or not): The influence of peer CEOs' characteristics on interorganizational imitation. *Strategic Management Journal*, 39(5).
- Henisz, W. J., Dorobantu, S., & Narthey, L. J. 2013. Spinning gold: The financial returns to stakeholder engagement. *Strategic Management Journal*, 35(12): 1727–1748.
- HLPFH. 2016. *Too important to fail — addressing the humanitarian financing gap. Report to the Secretary-General*. <http://www.un.org/news/WEB-1521765-E-OCHA-Report-on-Humanitarian-Financing.pdf>, . New York, NY.
- Holguín-Veras, J., Jaller, M., Van Wassenhove, L. N., Pérez, N., & Wachtendorf, T. 2012. On the unique features of post-disaster humanitarian logistics. *Journal of Operations Management*, 30(7): 494–506.
- Hornstein, A. S., & Zhao, M. 2018. Reaching through the fog: Institutional environment and cross-border giving of corporate foundations. *Strategic Management Journal*, 39(10): 2666–2690.
- Hsieh, K. Y., & Vermeulen, F. 2014. The structure of competition: How competition between one's rivals influences imitative market entry. *Organization Science*, 25(1): 299–319.
- Husted, B. W., & Allen, D. B. 2006. Corporate social responsibility in the multinational enterprise : strategic and institutional approaches. *Journal of International Business Studies*, 838–849.
- Hysenbelli, D., Rubaltelli, E., & Rumiati, R. 2013. Others' opinions count, but not all of them: anchoring to ingroup versus outgroup members' behavior in charitable giving. *Judgment and Decision ...*, 8(6): 678–690.
- Jonsson, S., Greve, H. R., & Fujiwara-Greve, T. 2009. Undeserved loss: The spread of legitimacy loss to innocent organizations in response to reported corporate deviance. *Administrative Science Quarterly*, 54(2): 195–228.
- Kahneman, D. 2011. *Thinking, Fast and Slow*. Macmillan.
- Kahneman, D., & Frederick, S. 2002. Representativeness revisited: Attribute substitution in intuitive judgment. *Heuristics and biases: The psychology of intuitive judgment*, 49: 81.
- Koh, P., Qian, C., & Wang, H. 2014. Firm litigation risk and the insurance value of corporate social performance. *Strategic Management Journal*, 35(10): 1464–1482.
- Lamont, M. 2012. Toward a comparative sociology of valuation and evaluation. *Annual review of sociology*.
- Lee, D. 2020. Corporate social responsibility of U.S.-listed firms headquartered in tax havens. *Strategic Management Journal*, advance online publication 1 September. doi:10.1002/smj.3195.
- Li, D., Tong, T. W., Xiao, Y., & Zhang, F. 2022. Terrorism-induced uncertainty and firm R&D investment: A real options view. *Journal of International Business Studies*, 53(2): 255–267.
- Li, S., & Lu, J. W. 2020. A dual-agency model of firm CSR in response to institutional pressure: evidence from Chinese publicly listed firms. *Academy of Management Journal*, 63(6): 2004–2032.
- Lins, K. V., Servaes, H., & Tamayo, A. 2017. Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *Journal of Finance*, 72(4).
- List, J. A., & Momeni, F. 2021. When Corporate Social Responsibility Backfires: Evidence from a Natural Field Experiment. *Management Science*, (January), doi:10.1287/mnsc.2019.3540.
- Liu, C., & Li, D. 2020. Divestment response to host-country terrorist attacks: Inter-firm influence and the role of

- temporal consistency. *Journal of International Business Studies*, 51(8): 1331–1346.
- Liu, C., Li, D., Eden, L., & Lyles, M. A. 2022. Danger from a distance: Executives' social distance and multinationals' responses to host-country terrorist attacks. *Strategic Management Journal*, 43(11): 2414–2443.
- Madsen, P. M., & Rodgers, Z. J. 2015. Looking good by doing good: The antecedents and consequences of stakeholder attention to corporate disaster relief. *Strategic Management Journal*, 36(5): 776–794.
- Marquis, C., & Tilcsik, A. 2016. Institutional equivalence: How industry and community peers influence corporate philanthropy. *Organization Science*, 27(5): 1325–1341.
- Marquis, C., Toffel, M. W., & Zhou, Y. 2016. Scrutiny, norms, and selective disclosure: A global study of greenwashing. *Organization Science*, 27(2): 483–504.
- Masulis, R. W., & Reza, S. W. 2015. Agency problems of corporate philanthropy. *Review of Financial Studies*, 28(2): 592–636.
- McDonnell, M.-H., & King, B. G. 2018. Order in the court: How firm status and reputation shape the outcomes of employment discrimination suits. *American Sociological Review*, 83(1): 61–87.
- McDonnell, M. H., & King, B. G. 2013. *Keeping up Appearances: Reputational Threat and Impression Management after Social Movement Boycotts*. *Administrative Science Quarterly*.
- Mithani, M. A. 2017. Liability of foreignness, natural disasters, and corporate philanthropy. *Journal of International Business Studies*, 48(8): 941–963.
- Muller, A., & Kräussl, R. 2011a. Doing good deeds in times of need: A strategic perspective on disaster donation. *Strategic Management Journal*, 32(January): 911–929.
- Muller, A., & Kräussl, R. 2011b. The Value of Corporate Philanthropy During Times of Crisis: The Sensegiving Effect of Employee Involvement. *Journal of Business Ethics*, 103(2): 203–220.
- Odziemkowska, K., & Henisz, W. J. 2021. Webs of influence: Secondary stakeholder actions and cross-national corporate social performance. *Organization Science*, 32(1): 233–255.
- Patten, D. M. 2008. Does the market value corporate philanthropy? Evidence from the response to the 2004 tsunami relief effort. *Journal of Business Ethics*, 81(3): 599–607.
- Pfarrer, M. D., Pollock, T. G., & Rindova, V. P. 2010. A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors' reactions. *Academy of Management Journal*, 53(5): 1131–1152.
- Phung, K., Buchanan, S., Toubiana, M., Ruebottom, T., & Turchick-Hakak, L. 2021. When Stigma Doesn't Transfer: Stigma Deflection and Occupational Stratification in the Sharing Economy. *Journal of Management Studies*, 58(4): 1107–1139.
- Pontikes, E., Negro, G., & Rao, H. 2010. Stained red: A study of stigma by association to blacklisted artists during the "red scare" in Hollywood, 1945 to 1960. *American Sociological Review*, 75(3): 456–478.
- Powell, W. W., & Colyvas, J. A. 2008. Microfoundations of institutional theory. *The Sage handbook of organizational institutionalism*, 276: 298.
- Rangan, S., & Sengul, M. 2009. The Influence of Macro Structure on the Foreign Market Performance of Transnational Firms: The Value of IGO Connections, Export Dependence, and Immigration Links. *Administrative Science Quarterly*, 54(2): 229–267.
- Semadeni, M., & Anderson, B. S. 2010. The follower's dilemma: Innovation and imitation in the professional services industry. *Academy of Management Journal*, 53(5): 1175–1193.
- Seo, H., Luo, J., & Kaul, A. 2021. Giving a little to many or a lot to a few? The returns to variety in corporate philanthropy. *Strategic Management Journal*, 42(9): 1734–1764.
- Soleimani, A., Schneper, W. D., & Newburry, W. 2014. The impact of stakeholder power on corporate reputation: A cross-country corporate governance perspective. *Organization Science*, 25(4): 991–1008.
- Stromberg, D. 2007. Natural Disasters, Economic Development, and Humanitarian Aid. *The Journal of Economic Perspectives*, 21(3): 199–222.
- Vergne, J.-P. 2012. Stigmatized categories and public disapproval of organizations: A mixed-methods study of the global arms industry, 1996–2007. *Academy of Management Journal*, 55(5): 1027–1052.
- Vishwanathan, P., van Oosterhout, H., Heugens, P. P. M. A. R., Duran, P., & van Essen, M. 2020. Strategic CSR: A Concept Building Meta-Analysis. *Journal of Management Studies*, 57(2): 314–350.
- Wagner, A. 2019. In Fair Bluff, businesses struggle after Hurricane Florence. *Raleigh News & Observer*, July 26. <https://www.newsobserver.com/news/local/article232785972.html>. Accessed 24 September 2023.
- Wang, H., Gibson, C., & Zander, U. 2020. Editors' comments: Is research on corporate social responsibility undertheorized? *Academy of Management Review*, 45(1): 1–6.
- Wang, H., Tong, L., Takeuchi, R., & George, G. 2016. Corporate social responsibility: An overview and new research directions. *Academy of Management Journal*.
- Wassenhove, L. N., Tomasini, R. M., & Stapleton, O. 2008. *Corporate responses to humanitarian disasters: The*

- mutual benefits of private-humanitarian cooperation*. The Conference Board.
- Weigelt, K., & Camerer, C. 1988. Reputation and corporate strategy: A review of recent theory and applications. *Strategic management journal*, 9(5): 443–454.
- Wry, T., & Zhao, E. Y. 2018. Taking trade-offs seriously: Examining the contextually contingent relationship between social outreach intensity and financial sustainability in global microfinance. *Organization Science*, 29(3): 507–528.
- Zavyalova, A., Pfarrer, M. D., & Reger, R. K. 2012. Managing the message: The effects of firm actions and industry spillovers on media coverage. *Academy of Management Journal*, 55(5): 1079–1101.
- Zavyalova, A., Pfarrer, M. D., Reger, R. K., & Shapiro, D. L. 2012. Managing the message: The effects of firm actions and industry spillovers on media coverage following wrongdoing. *Academy of Management Journal*, 55(5): 1079–1101.
- Zhang, X. 2016. Measuring Media Reputation: A Test of the Construct Validity and Predictive Power of Seven Measures. *Journalism and Mass Communication Quarterly*, 93(4): 884–905.
- Zhang, Y., Wang, H., & Zhou, X. 2020. Dare to be different? conformity versus differentiation in corporate social activities of chinese firms and market responses. *Academy of Management Journal*, 63(3): 717–742.

Table 1.
Descriptive Statistics

Variables	Mean	SD	Min	Max
Panel A. Country				
GDP (PPP current)	740,600,000,000	2,274,000,000,000	198,200,000	18,050,000,000,000
Population	50,000,000	170,100,000	52,045	1,351,000,000
Trade (% of GDP)	87.20	54.98	0.00	391.00
Urban Population (%)	54.10	23.43	10.50	100.00
Control of Corruption	-0.09	1.00	-2.00	2.00
Disasters by Country	0.74	0.14	0.69	1.50
Panel B. Disaster				
Deaths	2,105	16,983	0	222,570
People Affected	2,033,000	8,842,000	0	85,000,000
Econ Damage (USD M)	5,515	18,732	0	210,000
Disruptions Worldwide	29.06	12.25	14.00	57.00
News Pressure	9.24	3.56	0.00	18.50
Panel C. Firm				
Total Revenue	19,940,000	30,530,000	1,346,000	471,900,000
Return on Assets	4.21	4.14	-16.84	32.05
Number of Employees	57,695	83,246	214	2,202,000
Total Assets	82,800,000	249,300,000	246,034	2,899,000,000
Advert & Admin Exp	8,603,000	15,730,000	20,275	119,800,000
Tobin's Q	0.85	0.82	0.01	6.47
R&D Intensity	2.97	4.14	-0.06	35.56
Donor Fatigue	0.06	0.26	0.00	2.69
Panel D. Combined				
Off-trend Revenue	-2,084,994.11	14,276,140.96	-98,307,157	278,713,403.72
Donation	1,697,227.00	11,900,000.00	0	54,000,000
Media Visibility	1.80	2.01	0	13.29
Reputation	0.03	.37	-1	1

Notes: Panel A summarizes data of countries affected by large epidemics, natural disasters, and terrorist attacks from 2005 to 2019 whose impacts are as shown in Panel B. Panel C provides summary statistics of our studied 2,000 largest firms at the international level. Panel D shows the dependent variable of off-trend revenue, this shows the differential effect of corporate donations toward the relief and recovery fund of disasters. Media reputation is calculated with the net pre-event media coverage sentiment score in the year previous to the donation. These two variables are combinations of firm \times year \times disaster-country. We log-transform large covariates in the analyses. See the text for variable definitions and construction.

Table 2.
Relation Variables Correlations

Variable	1	2	3	4
1 Revenue	1.00			
2 USD Donated	0.23	1.00		
3 Media Reputation	0.18	-0.04	1.00	
4 Donation Timing (lag minutes)	-0.14	-0.07	0.25	1.00

Table 3.
The Financial Returns of MNE Disaster Philanthropy for First Donors

	(1)	(2)	(3)	(4)	(5)
Off-Trend Revenue (USD ln)	17.75	17.87	17.86	17.89	17.93
	(1.975)	(1.966)	(1.805)	(1.807)	(1.799)
	[0.004]	[0.004]	[0.006]	[0.0007]	[0.007]
Adjusted R ²	0.608	0.629	0.631	0.631	0.633
Firm, Country, Disaster Controls	No	Yes	Yes	Yes	Yes
Donation Amount and Type Controls	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	No	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	Yes	Yes	Yes
Firm × Country FE	No	No	No	Yes	Yes
Firm × Disaster FE	No	No	Yes	No	Yes

Notes: The table reports difference-in-differences regression results. Treatment firms are those that donated first in the three-digit SIC industry after a disaster and whose media reputation was positive. Control firms are first donors whose media reputation was negative and are matched based on the pre-disaster five-year trajectory of total revenue, return on assets, number of employees, total assets, advertising and administrative expenses, and the number of philanthropic donations. The coefficient estimate of off-trend revenue shows the differential effect of donating toward the relief and recovery fund of epidemics, natural disasters, terrorist attacks on the combined post-disaster revenue of all company affiliates in the disaster country. The firm sample is the 2,000 largest multinational firms at the international level. The disasters affected 129 countries in the period 2005-2019. Media reputation is calculated with the net pre-event media coverage sentiment score in the year before the donation. All right-hand variables are lagged by one year. See text for variable definitions and calculations. Standard errors are clustered by firm and p-values are reported in parentheses. P-values are in brackets.

Table 4.
The Returns of MNE Disaster Philanthropy for Imitators of the Industry's First Donation

	(1)	(2)	(3)	(4)	(5)
Off-Trend Revenue (USD ln)	17.57 (6.488) [0.037]	17.62 (4.211) [0.000]	17.61 (4.803) [0.002]	17.60 (4.806) [0.002]	17.64 (6.881) [0.003]
Adjusted R ²	0.501	0.620	0.625	0.625	0.627
Firm, Country, Disaster Controls	No	Yes	Yes	Yes	Yes
Donation Amount and Type Controls	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	No	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	Yes	Yes	Yes
Firm × Country FE	No	No	No	Yes	Yes
Firm × Disaster FE	No	No	Yes	No	Yes

Notes: The table reports difference-in-differences regression results. Treatment firms are those that donated the same dollar amount than a first donor with positive media reputation in a three-digit SIC industry. Control firms donated the same amount than a first donor with negative media reputation. All right-hand variables are lagged by one year. The coefficient estimate of off-trend revenue shows the differential effect of donating toward the relief and recovery fund of epidemics, natural disasters, terrorist attacks on the combined post-disaster revenue of all company affiliates in the disaster country. The firm sample is the 2,000 largest multinational firms at the international level. The disasters affected 129 countries in the period 2005-2019. Media reputation is calculated with the net pre-event media coverage sentiment score in the year before the donation. See text for variable definitions and calculations. Standard errors are clustered by firm and p-values are reported in parentheses. P-values are in brackets.

Table 5.
The Returns of MNE Disaster Philanthropy for Deviators of First Donors' Donation

	(1) Deviators	(2) Deviators and their Reputations
Off-Trend Revenue (USD MM)	15.08 (14.414) [0.268]	17.23 (5.107) [0.044]
Adjusted R ²	0.189	0.593
Firm, Country, Disaster Controls	Yes	Yes
Donation Amount and Type Controls	Yes	Yes
Firm Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Firm × Country FE	Yes	Yes
Firm × Disaster FE	Yes	Yes

Notes: The table reports difference-in-differences regression results. In model 1, treatment firms are those that donated a different dollar amount than a first donor with positive reputation in a three-digit SIC industry. Control firms donated a different amount than a first donor with negative media reputation in the same industry. In model 2, treatment firms are those that donated a different dollar amount than a first donor in a three-digit SIC industry and had negative media reputation. Control firms donated a different amount than a first donor in the same industry and had positive media reputation. All right-hand variables are lagged by one year. The coefficient estimate of off-trend revenue shows the differential effect of donating toward the relief and recovery fund of epidemics, natural disasters, terrorist attacks on the combined post-disaster revenue of all company affiliates in the disaster country. The firm sample is the 2,000 largest multinational firms at the international level. The disasters affected 129 countries in the period 2005-2019. Media reputation is calculated with the net pre-event media coverage sentiment score in the year before the donation. See text for variable definitions and calculations. Standard errors are clustered by firm and p-values are reported in parentheses. P-values are in brackets.