

Shareholder activism and firms' voluntary disclosure of climate change risks

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Research Summary

This article examines whether—in the absence of mandated disclosure requirements—shareholder activism can elicit greater disclosure of firms' exposure to climate change risks. We find that environmental shareholder activism increases the voluntary disclosure of climate change risks, especially if initiated by institutional investors, and even more so if initiated by long-term institutional investors. We also find that companies that voluntarily disclose climate change risks following environmental shareholder activism achieve a higher valuation postdisclosure, suggesting that investors value transparency with respect to firms' exposure to climate change risks...

1 INTRODUCTION

Managers increasingly face shareholder pressure to disclose and manage their exposure to climate change risks. For example, in May [2017](#), the shareholders of ExxonMobil voted for a comprehensive assessment of risks related to climate change (New York Times, [2017](#)). Shareholders of Occidental Petroleum Corporation, PPL Corp, and many other companies have also demanded greater disclosure of climate change risks (Wall Street Journal, [2018a](#)). More generally, companies faced a record number of climate-related shareholder proposals at their 2019 shareholder meetings (Wall Street Journal, [2019](#)). This increase in shareholder pressure is not only reflected in the exploding number of shareholder proposals submitted, but also in the increasing shareholder support and approval rates (Flammer, [2015](#); Wall Street Journal, [2018a](#)).

One reason for this surge in climate-related shareholder activism is the growing recognition of increased costs and risks associated with climate change (New York Times, [2018](#), [2020](#); World Economic Forum, [2020](#)). Many companies—from Silicon Valley tech firms to European financial institutions—are increasingly bracing for the direct and indirect impacts of climate change on their bottom lines, as extreme weather conditions pose major risks to their operations and supply chains (CDP, [2016](#); New York Times, [2019](#)). Given the global reach of climate change, firms across industries and regions are exposed to climate change risks, regardless of their own emission levels.

The second reason for climate-related shareholder activism is the fact that, in many countries (including the United States), the disclosure of nonfinancial information is not mandated by law. For example, the U.S. Securities and Exchange Commission currently merely recommends that companies disclose their climate change risks, but neither mandates such disclosure nor offers any guidance on what information to provide. As a result, companies often provide limited (if any) information.

For the above reasons, it is not surprising that investors incorporate the climate risk exposure of their portfolio companies into their decision-making and are increasingly vested in companies' disclosure of climate risks and their efforts to manage those risks (Ceres, [2018](#); Financial Times, [2017](#), [2018](#), [2020](#); Krueger, Sautner, & Starks, [2020](#); New York Times, [2017](#); Wall Street Journal, [2018a](#), [2019](#)). In fact, a recent survey of 439 institutional investors paints a striking picture: the majority believe that climate risk reporting is *as important as* financial reporting, and one-third believe that climate risk reporting is *even more important* (Krueger et al., [2020](#)).

Despite the growing importance of climate change risks, little is known about companies' exposure to climate change risks, their disclosure of such risks, and what strategic actions they take to manage and mitigate those risks. Instead, scholarly attention has focused on the participation in voluntary initiatives (e.g., the Climate Leaders Program) and the disclosure of greenhouse gas emissions (e.g., Fisher-Vanden & Thorburn, [2011](#); Jira & Toffel, [2013](#); Kim & Lyon, [2011a](#), [2011b](#); Krueger, [2015a](#); Lewis, Walls, & Dowell, [2014](#); Lyon & Maxwell, [2011](#); Matisoff, [2013](#); Reid & Toffel, [2009](#)). Yet, a firm's carbon footprint and participation in climate-related initiatives are very different from a firm's exposure to climate change risks. The latter pertains to the threat of damage, injury, liability, loss, or any other harm to the company that could be caused by climate-related events. In particular, climate change risks include physical risks (such as flooding, fierce storms, drought, and extreme temperatures), regulatory risks arising from current and expected governmental policies related to climate change (such as energy efficiency standards and carbon trading schemes), and other climate-related risks (such as reputation, changing consumer behavior, and increasing humanitarian demands). Importantly, firms across industries face exposure to climate change risks, *regardless* of their own emission levels.

This study advances the literature by focusing on firms' exposure to climate change risks. Specifically, we theoretically and empirically examine whether, in the absence of public governance, private governance—in the form of shareholder activism—can elicit greater disclosure of firms' exposure to climate change risks along with information on how firms are managing those risks (henceforth “climate risk information”). We further explore the heterogeneity among shareholders, characterizing which shareholders are particularly effective in eliciting such disclosure. Finally, we examine the valuation implications to assess whether investors value the disclosure of climate risk information...

[T]he findings of this study have important implications for practice. In particular, they highlight investors' ability to elicit greater corporate transparency with respect to climate change risks and thereby contribute to their portfolio companies' governance. In absence of mandatory disclosure requirements, this greater ability also implies that investors have a greater responsibility to be active owners and engage with their portfolio companies to elicit the disclosure of their climate risk exposure.

2 THEORY

2.1 Voluntary disclosure of climate risks as a governance issue

Disclosing climate risk information provides companies with several benefits, but also has downsides. First, one benefit is that transparency can increase firms' accountability in the public's eye and, as a result, strengthen their commitment to manage and mitigate these risks going forward. Second, transparency allows the firms' investors, business partners, and other stakeholders to engage with the disclosing firms in a more informed fashion, enabling them to be more effective in helping them manage and mitigate their climate risks. For example, they may advise firms to diversify their supplier base across geographic regions to minimize disruptions due to severe weather events, or advise them to shift their product mix toward energy-efficient products to cater to changing consumer preferences, improve their reputation, and comply with current or expected future governmental climate policies. Third, transparency can foster trust, allowing companies to strengthen their (long-term) relationships with investors and other stakeholders. As these examples illustrate, the disclosure of climate risk information—describing the firm's exposure to climate risks as well as the firm's efforts to manage and mitigate these risks—can improve the governance of the firm, which in turn can contribute to the firm's long-term value...

[T]he disclosure of climate risk information also has potential downsides. In particular, it may reveal vulnerabilities that companies would prefer to keep from investors, competitors, customers, and other stakeholders. These vulnerabilities may include risks pertaining to the damage, injury, liability, loss, or any other climate-related harm to the company...

We expect this reluctance to disclose climate change risks to be further accentuated by the temporal separation between the potential downsides (which tend to occur primarily in the short run) and upsides (which tend to materialize in the long run) of disclosing climate risk information. A large literature in psychology and economics suggests that individuals are “hyperbolic discounters,” that is, they have an excessive preference for the present, preferring short-term rewards over long-term rewards even if the latter are substantially higher (e.g., Ainslie, 1975; Frederick, Loewenstein, & O'Donoghue, 2002; Loewenstein & Prelec, 1992; O'Donoghue & Rabin, 1999; Thaler & Shefrin, 1981). This preference for short-term results is likely reinforced for executives as they face short-term pressures, such as career concerns (e.g., Gibbons & Murphy, 1992) and pressures to meet or beat analysts' quarterly earnings expectations (e.g., DeGeorge, Patel, & Zeckhauser, 1999). As a result, managers tend to favor investments that pay off in the short run at

the expense of long-term investments (e.g., Graham, Harvey, & Rajgopal, 2005; Holmstrom, 1999; Stein, 1988, 1989). It follows that shareholders face a “time-based agency conflict” (Flammer & Bansal, 2017)—that is, managers have an excessive preference for the present, and hence might not act in shareholders' (long-term) best interest. This time-based agency conflict implies that managers will likely put more weight on the potential short-term downsides of climate risk disclosure, as opposed to the potential long-term upsides of managing and mitigating climate risks.

A second implication of this time-based agency conflict is that managers may focus their attention on stakeholders that have short-term financial performance implications (e.g., customers and employees) at the expense of stakeholders that may be financially material to the company's operations in the long run but not necessarily in the short run (e.g., communities and the natural environment). Accordingly, as managers devote less attention to the natural environment, they may simply be unaware of the risks climate change poses to their business.

Taken together, the above arguments suggest that, in the absence of public governance, managers may prefer to not disclose their company's exposure to climate change risks. In the following, we explore circumstances under which *private* governance—through pressure from different types of shareholders—might induce companies to nevertheless disclose their climate change risks...

[Our findings] suggest that companies are more likely to disclose climate risk information when facing shareholder pressure. This motivates our baseline hypothesis:

Hypothesis (H1). *Environmental shareholder activism increases companies' voluntary disclosure of climate change risk information.*

2.3 Heterogeneity in shareholders demanding climate risk disclosure

Investors are not one homogenous group. Rather, there is considerable heterogeneity in terms of their objectives, preferences, and time horizons, among others. These differences are likely to have important implications for their interactions with their portfolio companies...

[Our data] suggest that institutional investors are likely to be more effective in inducing their portfolio companies to disclose climate-related risks. Their influence is likely reinforced by the potential downside of not addressing their demands. Failing to disclose climate risk information may lead institutional investors to sell their shares and rebalance their portfolios toward companies that are willing to disclose climate risk information. Even if disclosing climate risk information reveals vulnerabilities that the companies would prefer to keep private, the downside of not complying with the demands of institutional investors may be higher, tilting the balance closer toward disclosure.

In sum, we expect that environmental shareholder activism initiated by institutional investors is more likely to induce managers to report on the firm's climate risk information. This motivates the following hypothesis:

Hypothesis (H2). *Companies are more likely to voluntarily disclose climate change risk information if the environmental shareholder activism is initiated by institutional investors.*

2.3.2 Institutional investors' time horizons

Institutional investors differ in their time horizons. In particular, “transient” investors tend to hold companies' stocks on a short-term basis (e.g., driven by speculation motives), while long-term investors hold stocks for a longer period of time, taking a vested interest in the companies' long-term success (Bushee, [1998](#), [2001](#); Gaspar, Massa, & Matos, [2005](#)). In the following, we decompose the effect of institutional investors on the disclosure of climate change risks by the institutional investors' time horizon. We expect that shareholder activism initiated by long-term institutional investors is more effective in inducing the management to voluntarily disclose climate change risk information (compared to shareholder activism initiated by short-term institutional investors). The rationale is twofold.

First, when the activism is initiated by long-term institutional investors, we expect managers to put less weight on the short-term downsides of climate risk disclosure. As long-term institutional investors tend to hold stable portfolios, they are less likely to withdraw their funds in the short run upon the announcement of negative information (Starks, Venkat, & Zhu, [2017](#)). Instead, they take a vested interest in improving the firms' business practices and are more inclined to actively engage with their portfolio companies in order to improve corporate governance and the long-term value of the firm (Krueger et al., [2020](#); Neubaum & Zahra, [2006](#)). Building on these insights, we expect that long-term institutional investors are less likely to reallocate their holdings away from the disclosing companies in case the disclosure reveals unexpected vulnerabilities to climate risks. Accordingly, management is less likely to face an “exit” (i.e., a divestment) of these investors in case the voluntarily disclosed information on climate risks sheds a negative light on the company, which mitigates the potential downside of disclosing climate change risks. Moreover, managers are likely to put more weight on the long-term upsides of disclosure given that long-term institutional investors have a vested interest in the company's long-term success. When demanding the disclosure of climate change risk information, long-term institutional investors are more likely to do so for the sake of being informed and in an effort to help their portfolio companies develop strategies to manage and mitigate their climate risk exposure going forward. This, in turn, elevates the potential upside of disclosure.

Second, shareholder activism initiated by long-term institutional investors might trigger managers to pay more attention to the natural environment, thereby increasing their awareness of the potential impact of climate change on their organization, and inducing them to invest resources in the assessment, management, and disclosure of their climate risk exposure. Indeed, climate change

is an especially complex issue and—despite extensive scientific evidence—it has been disputed by climate change deniers and other vocal critics. Given the complex and contested nature of climate change, we expect that management is more likely to listen to shareholder demands and consider the disclosure of their climate risk information if brought forward by shareholders whose interests are more closely aligned with the firm's ability to thrive in the long run.

In sum, we posit that the requests of long-term institutional investors are likely more effective in eliciting the voluntary disclosure of climate change risk information. This leads to the following hypothesis:

***Hypothesis (H3).** Companies are more likely to voluntarily disclose climate change risk information if the environmental shareholder activism is initiated by long-term institutional investors...*

6 IMPLICATIONS FOR VALUATION

Our results so far indicate that environmental shareholder activism induces companies to disclose climate risk information, thereby improving transparency and mitigating information asymmetries between firms and investors. In this section, we examine how the stock market responds to the (shareholder-induced) disclosure of climate risk information.

Greater transparency about a firm's climate risk information may translate into higher valuation. Indeed, the argument that greater transparency brings about higher valuation has a long tradition in the accounting literature (for a survey, see Healy & Palepu, [2001](#)). The rationale is intuitive—investors dislike uncertainty and are willing to pay a premium for less opaque companies. In this vein, greater transparency with respect to climate change risks can be valuable to investors, as it resolves uncertainty with regard to a potentially important source of risk. Investors gain insights not only on the firm's assessment of its exposure to climate change risks but also—and perhaps more importantly—on the actual steps it is taking to manage and mitigate its exposure going forward. From this perspective, the stock market may respond positively to the disclosure of climate risk information.

While transparency per se is positively valued by shareholders, the valuation response also depends on whether the disclosed climate risk information (i.e., the firm's exposure to climate change risks along with information on how the firm is managing those risks) is better or worse than what investors had anticipated—or simply put, whether the disclosed information is good or bad (unexpected) news. If the disclosed climate risk information is better than expected, investors will update their priors accordingly, which can amplify the positive valuation effect gained from greater transparency.

In contrast, if the disclosed climate risk information turns out to be worse than anticipated, this might dampen the positive valuation effect of greater transparency. Whether or not this will occur

is ambiguous because there are two countervailing forces. On the one hand, investors will update upward their perception of the company's risk, which reduces the appeal of holding the company's stock. In fact, some investors (e.g., those that engage in “negative screening” practices) might even divest and reallocate their funds away from the disclosing companies to other companies with a less severe exposure to climate change risks and/or better risk mitigation plans.

On the other hand, by disclosing (unfavorable) climate risk information, firms can convey to their investors that they are well aware of their vulnerability to climate change risks, and that they are taking actions to mitigate these risks. Furthermore, by doing so, they allow their investors to engage with them in a more informed fashion, advise them on how to best move forward in managing and mitigating the risk exposure, and strengthen the trust and relationship between investors and the disclosing company. As the survey by Krueger et al. (2020) suggests, this is likely positively valued by investors who prefer to actively engage with their portfolio companies in order to manage and minimize climate risks, as opposed to divesting from firms with high-risk exposure. Taken together, in situations where the disclosed climate risk exposure is more severe than anticipated, the net effect of these two countervailing forces need not be negative...

7 DISCUSSION AND CONCLUSION

Can shareholder activism successfully induce firms to voluntarily disclose their exposure to climate change risks as well as their efforts to manage those risks? In this study, we shed light on this question and explore what types of shareholders are more effective in improving the voluntary disclosure of climate risk information. In addition, we examine how the stock market responds to such voluntary disclosure.

We find that companies are more likely to disclose climate risk information following environmental shareholder activism. Moreover, we find that environmental shareholder activism is especially effective if initiated by institutional investors, and even more so if initiated by long-term institutional investors. Finally, we find that companies that voluntarily disclose climate risk information following environmental shareholder activism achieve a higher stock market valuation postdisclosure, consistent with the notion that investors value the voluntary disclosure of climate risk information. Overall, our findings indicate that active shareholders can elicit greater climate risk disclosure, thereby improving the governance of their portfolio companies.

This study contributes to several strands of the literature. First, by showing that shareholder activism can elicit greater corporate transparency with respect to climate risks, and that companies achieve higher valuation following this (shareholder-induced) increase in transparency, we contribute to the literature on shareholder engagement (e.g., Aguilera, Bermejo, Capapé, & Cuñat, 2019; Dimson et al., 2015; Ferraro & Beunza, 2018; Gillan & Starks, 2000; Krueger et al., 2020). In particular, our study complements recent work on the value implications of the *mandatory* disclosure of nonfinancial information (e.g., Ioannou & Serafeim, 2019; Krueger, 2015a) by showing that—in absence of mandatory disclosure requirements—shareholder

activism demanding the *voluntary* disclosure of *climate change risk information* has positive value implications, consistent with the notion that investors value the voluntary disclosure of the firm's exposure to climate change risks.

Second, we add to the literature that studies the voluntary disclosure of nonfinancial information. This literature focuses on the firms' *environmental performance* (as opposed to their *exposure* to climate risks) and mainly examines whether a firm discloses environmental information (such as greenhouse gas emissions) or participates in voluntary environmental initiatives (e.g., Jira & Toffel, [2013](#); Kim & Lyon, [2011a](#); Lewis et al., [2014](#); Lyon & Maxwell, [2011](#); Reid & Toffel, [2009](#)). Our data allow us to go deeper: we explore how much and what type of environmental information—and more specifically what type of climate risk information—is disclosed.

More broadly, the disclosure of climate risk information has received surprisingly little attention in the academic literature.³⁷ Yet, it is a key concern for investors (e.g., Financial Times, [2018](#); Krueger et al., [2020](#)). For example, in the aforementioned survey by Krueger et al. ([2020](#)), the majority of investors responded that climate risk reporting is as important as financial reporting, and about one-third reported that climate risk reporting is even more important. Accordingly—while this article provides a first step in this direction—more research is needed to shed light on the determinants and implications of the (voluntary) disclosure of climate risks. Making ground on these questions is both a promising and important avenue for future research.

Third, this study adds to the strategy and management literature by taking a finer-grained view at shareholders and their influence on corporate behavior. The existing literature that studies how shareholders help shape corporate behavior—for example, Chen and Feldman ([2019](#)), David, Hitt, and Gimeno ([2001](#)), Lenox and Eesley ([2009](#)), Reid and Toffel ([2009](#))—typically (a) considers shareholders as one homogenous group (instead of distinguishing between different types of shareholders), or (b) only considers one specific subset of shareholders (such as hedge funds). Yet, there are considerable differences among shareholders (e.g., in terms of their time horizons, preferences, and objectives), and these differences are likely to have important implications for their interactions with their companies. In this study, we account for the heterogeneity among shareholder types and examine how these differences influence corporate behavior (in the specific context of shareholders' ability to elicit greater corporate transparency). As such, our findings add to the small but burgeoning literature that highlights the importance of distinguishing between different types of shareholders in strategy and management research (e.g., Connelly, Shi, Hoskisson, & Koka, [2019](#); Hoskisson, Hitt, Johnson, & Grossman, [2002](#); Tihanyi, Johnson, Hoskisson, & Hitt, [2003](#)).

Our findings have important implications for practice, as they highlight the ability of investors to elicit greater corporate transparency with respect to climate change risks—even in the absence of mandatory disclosure requirements—and thus contribute to their portfolio companies' governance.

In absence of mandatory disclosure requirements imposed by the government, this greater ability also implies that investors (particularly, long-term institutional investors) have a greater responsibility to be *active* owners and engage with management to elicit the disclosure of climate change risks.

On this note, we caution that, while our results indicate that private governance (in the form of shareholder activism) is effective in eliciting the disclosure of climate change risks, it is unlikely to substitute for public governance (Ho, 2018; Light & Orts, 2015; Vandenberg, 2013). Indeed—and this is speculative—the latter might be more effective in (a) improving the quantity and quality of disclosure, (b) fostering standardization of disclosure (thereby facilitating investors' assessments of their portfolio companies), and (c) ultimately making progress in the fight against climate change. Long-term institutional investors may therefore find it worthwhile to both pursue shareholder activism and engage with the government to mandate climate change risk disclosure. Understanding how to effectively engage with companies and governments to induce greater climate risk disclosure—and what the optimal combination of these engagements is—is fertile ground for future research....