Climate Litigation as a Financial Risk: Evidence from a Global Survey of Equity Investors*

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Preliminary. Please do not cite.

Abstract

We survey equity investors and analysts regarding their beliefs on climate litigation risk, an emerging issue that has seen an exponential rise in recent years. There are three main insights. First, nearly 80% of investors perceive climate litigation risk as important, even for non-carbon majors. Second, climate litigation risk is ranked more important than physical climate risk, but less than regulatory risk. Third, there exists a large geographical and institutional heterogeneity: North American investors place a greater emphasis on damage claims and greenwashing, larger investors are more concerned about government-led cases, and investors are more concerned about climate litigation risk in a hotter world. Our results highlight the importance of climate litigation risk in shaping investment decisions, particularly in scenarios where global temperature rise exceeds 2°C.

*Gostlow acknowledges funding from the Swiss National Science Foundation (grant agreement No. 207800). Chan, Higham, Sato, Setzer, and Venmans acknowledge funding from the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and the ESRC Centre for Climate Change Economics and Policy (CCCEP) (ref. ES/R009708/1).

1 Introduction

Investor beliefs play a critical role in shaping financial markets, yet they remain fundamentally unobservable (Giglio et al., 2021). In particular, while there is growing interest in understanding how investors perceive and respond to climate-related risks, most research has focused on archival evidence—such as stock market reactions—rather than directly assessing subjective expectations (e.g., see Kruttli et al., 2025; Sautner et al., 2023b; Pástor et al., 2022; Bolton and Kacperczyk, 2021; Hong et al., 2019). These risks are typically classified into three categories: physical climate risks, stemming from the direct impacts of climate change; transition risks, linked to regulatory, technological, and market shifts in the low-carbon transition; and litigation risks, associated with legal claims arising from firms' contributions to, or failure to manage, climate change. Importantly, while physical climate risk and transition risk have been the focus of recent survey work (Giglio et al., 2025; Bauer et al., 2024; Stroebel and Wurgler, 2021; Krueger et al., 2020), perceptions of climate litigation risk remains significantly underexplored.

This gap is striking given the growing prominence of climate litigation (The Wallstreet Journal, 2025). Since the 1990s, lawsuits targeting governments and corporations have expanded rapidly—especially since 2015—encompassing damage claims, shareholder actions, greenwashing allegations, and human rights-based cases (Setzer and Higham, 2024; Ganguly et al., 2018). Legal scholars have argued that climate litigation may affect firm value through direct financial penalties, reputational harm, operational disruption, and shifts in regulatory or investor expectations (Peel and Osofsky, 2020; Peel et al., 2022). Yet, because data on investor's interpretation of climate-related legal risks are scarce, most empirical work has focused on market responses to specific events (Sato et al., 2024; Kolaric, 2024; Voeten, 2024). While these studies find evidence of negative market reactions, they give limited insights into the more precise perceptions behind these market impacts. In essence, they provide an average effect across market participants at a point in time. Such outcomes can be the result of very different views among investors, especially among important marginal (i.e., sophisticated) investors that drive the formation of asset prices.

This paper fills this gap. Collecting original survey data from 811 equity investors and

analysts in 2024, we present the first systematic analysis of how investors perceive climate litigation risk and how these perceptions vary across geographies, investment strategies, and climate expectations.

Our survey reveals that investors overwhelmingly view climate litigation as a financially material risk. Nearly 80% of respondents consider it at least moderately important, and 41% believe the risk has already materialised, with an additional 29% believing it will be material within 5 years. Notably, the proportion of surveyed investors that believe climate litigation risk is the most important risk is 6% higher than those that believe physical climate risk is the most important risk. This is striking since the literature has tended to binarize climate risk into physical and transition risks, yet we find that climate litigation is just as important. Regulatory risk is ranked the highest (14% higher than climate litigation risk), in line with previous findings around the top climate risks for businesses and investors (Stroebel and Wurgler, 2021). Overall, our survey results reveal that climate litigation is not just a legal or reputational issue — it is increasingly percieved as a financial risk with immediate implications for financial markets. Climate litigation has become part of the financial risk landscape and investors are actively evaluating its relevance.

A key strength of the survey is that it can uncover heterogeneity in perceptions across different respondent groups. Investors with exposure to North American markets are 41% and 33% more likely to be concerned about damage claims and greenwashing litigation, respectively, compared to other investors, reflecting both the volume and visibility of such cases in North America. Larger investors managing assets over $100 billion are between 59% (carbon majors) and 28% (non-carbon majors) more likely to increase their conviction on the importance of climate litigation when assessing climate-related risks. Growth investors, with longer investment horizons, are 71% more likely to consider climate litigation risk as financially material—perhaps because of the potential for climate lawsuits to alter corporate strategy or governance over time (Setzer, 2022). Investors who believe there is a high probability of exceeding 2°C by 2100 consistently rank climate litigation risk as more important than those that do not believe we will exceed 2°C, and they are particularly concerned about government cases aimed at halting carbon-intensive projects or enforcing emissions reduc-

tions. This "hot-world" group also ranks regulatory risk as less important, suggesting that, conditional on believing we are heading towards a hot world, litigation may be viewed as a disciplinary mechanism, where physical impacts and legal accountability converge.

Through dimension-reduction techniques, we then identify three investor profiles among our respondents: unconcerned (those unconcerned with climate-related risks, Profile A); regulatory risk-averse (those more concerned with regulatory risk than climate risk, Profile B); and physical-litigation risk-averse (those more concerned with physical and litigation risks, Profile C). Specifically, we can explain 25% of the variation in our respondents by a simple concerned/not concerned group classification that separates Profile A from the climate-concerned respondents (Profile B and Profile C). The climate-concerned respondents naturally load strongest on answers that demonstrate they believe the world is likely to exceed an increase in temperatures of 2°C by 2100, that climate litigation is important for carbon-majors and non-carbon majors, that damage cases, human rights cases, and greenwashing cases are important, that climate litigation has spillover effects, and that climate litigation is already material.

Within the climate-concerned group, we can explain a further 13% of our respondents' answers by splitting this group into the regulatory risk-averse (Profile B) and the physical-litigation risk-averse (Profile C). Intuitively, while Profile B reflects the view that regulatory risk is a major concern (e.g., see Stroebel and Wurgler, 2021; Sautner et al., 2023a), Profile C appears to capture a group that relates climate litigation risk to physical climate risk. The intuition is that more litigation cases are filed in an attempt to influence firm behavior. Overall, we argue that these three profiles provide useful insights into the heterogeneous investor beliefs about climate litigation risk.

Our paper is most closely related to the recent literature quantifying the impacts of climate litigation on stock returns (Sato et al., 2024; Kolaric, 2024; Voeten, 2024). Although these studies find evidence of a market reaction to climate litigation against firms, we explore to *what* degree and *why* investors appear to price this risk. Our survey evidence provides a deeper insight that cannot be explained by the average market-wide reaction to these events and offers a forward-looking view on investor beliefs.

We also relate to a general literature on litigation risk that finds ex-ante litigation risk is predictable based on observables such as firm size, industry, performance, volatility, skewness, and turnover (Freund et al., 2023; Duanmu et al., 2022; Huang et al., 2019; Kim and Skinner, 2012). Whether these findings apply to climate litigation is not clear ex ante, because most climate litigation is strategic. That is to say that plaintiffs often target firms based on the perceived societal benefit of winning cases (such as setting a precedent or sending a signal to similar firms), rather than on the likelihood of success which may not correlate with firm size or performance. Differences in perceptions of climate litigation by observable respondent characteristics are well-suited to be explored through survey evidence.

We also relate to the rich literature that conducts surveys to learn about investor beliefs on nascent topics. Giglio et al. (2021) claim surveys are "here to stay" since they correlate strongly with actions. Of relevance to this paper, others have assessed investor beliefs about physical and transition risks (Giglio et al., 2025; Bauer et al., 2024; Stroebel and Wurgler, 2021; Krueger et al., 2020). Although we follow the methodologies used in this literature, to the best of our knowledge, we are the first to focus on climate litigation and we make an effort to categorize different profiles of investors. This has important implications for future work since we can then make predictions. For example, since we find that the concern for climate litigation risk increases when investors believe the world will warm by more than 2°C, we can predict that climate litigation will become more important if a) transition risk decreases and b) global temperatures increase. We can only extract the nuances of such beliefs through our survey approach.

2 Methods

2.1 Survey Approach

Our approach is like others in the field (e.g., see Krueger et al., 2020; Edmans et al., 2023). We first discussed a draft survey in a closed-door roundtable with 18 expert practitioners working in the financial sector based in London including asset managers, asset owners, analysts, insurers, rating agencies, lawyers and academics. The roundtable lasted approximately four

hours. We also ran beta tests with fund managers and sustainability researchers at a boutique investment firm to ensure the wording of questions would be clear to those working in the field. After meeting them for in-person feedback in London, we further revised the survey. A similar approach is adopted by Krueger et al. (2020).

The survey consists of 19 questions: six cover respondent characteristics and their outlook on climate change, and 13 cover respondent perspectives of climate litigation risk. Based on feedback by the roundtable participants that perceptions are likely to differ depending on the type of investment professional, a subset of questions was different for fund managers and research analysts, as they may have different risk tolerance, time horizons, and mandate. Asset managers were targeted as they are directly involved in managing equity portfolios. Whilst there may be respondents who work at asset owners, question 1 is designed to ensure that respondents either manage funds directly, or provide analysis for those who manage funds. Analysts were targeted as they are perceived as close contacts of portfolio firms' investor relations teams. Feedback from the roundtable suggested analysts have a broader remit of resources (presentations, reports, earning calls, conference calls). To test whether their perspectives and knowledge of climate litigation risk differs from managers, most questions were identical for both groups.

The survey was distributed to investment professionals compiled by a survey service provider, which offers a panel of pre-screened individuals with more than 5 million active members. This service provider was recommended to us by other academics who have published survey papers. We agreed with the service provider that the primary target audience would be asset, fund or investment managers, who invest or manage investments in equities and are based in Europe (including the UK), North America, and Australia. The secondary target audience would be ESG and non-ESG analysts or researchers who work within asset management firms based on the same geographies, to support managers in their investment decisions. North America, Australia and Europe were chosen as target geographies, as these are the regions with the highest concentration of known corporate climate litigation cases (Setzer and Higham, 2024). The service provider sent invitations to 5,138 respondents: 1181 in Australia; 1104 in Canada; 1409 in the US; and 1444 in the UK. To boost participation,

the respondents received a small number of 'reward points', which they can redeem through various online platforms like Amazon. Second, the authors emailed personal contacts who work at asset management firms, yielding 20 additional responses. In total, we received 1136 responses to our online survey across the two delivery channels.

We filter our survey to remove poor quality responses. We remove respondents who do not answer all questions (98.18% of respondents answer all questions), that take less than 1 minute to complete the survey, who do not provide research to investment managers (if they are an analyst), and who respond before our pilot cut-off date. To mitigate the risk of careless responses, we also remove 38 responses based on a simple qualitative assessment. These responses were removed either because the text was (a) nonsensical grammatically; (b) nonsensical as a response to the question; (c) an unfinished response, indicating carelessness; or (d) oddly duplicative responses (e.g., same misspelling), indicating a potential risk of redundancy. We show the list of removed responses and the reason for their exclusion in the Online Appendix. We also show the number of respondents that are dropped at each filter stage in the Online Appendix and provide more tests on the sensibility of these filters.

Our final sample size consists of 811 respondents: 528 investors and 283 analysts working in, or providing support to, asset management firms. This reflects a reasonably large sample for the task at end. For example, Krueger et al. (2020) and Giglio et al. (2025) obtain 439 respondents and 2,000 respondents, respectively, for surveys on climate beliefs. The average time taken to complete the survey is 7 minutes 37 seconds.

2.2 Respondent Characteristics and Bias

Table 1 provides summary statistics. Our respondents invest primarily in North America (41.63%) and Europe (36.38%). They are generally associated with large asset managers, with the highest proportion of responses stating that their assets under management fall within the category $1 billion - 20$ billion (43. 53%). Most have an ESG mandate and believe that exceeding 2°C by 2100 has a likelihood of 25% or 50%.

Table 1: Respondent characteristics. This table reports the characteristics of respondents (n=811).

Primarily Invested	Percent	Exceed 2C by 2100	Percent
North America	41.63	Very likely (75%)	13.93
Europe	36.38	Relatively likely (50%)	28.61
Global	11.47	More or less likely (25%)	33.05
Asia-Pacific	9.49	Low likelihood (<5%)	17.88
Other	1.23	Very low likelihood (<1%)	6.54

Assets Under Management	Percent	Position	Percent
More than $100 billion	4.07	Investment Manager	65.11
$20 billion - $100 billion	18.00	Analyst	27.50
$1 billion - $20 billion	43.53	Researcher	7.40
Less than $1 billion	34.03		

ESG Mandate or Specialism	Percent	Style (Managers only)	Percent
Yes	78.30	Growth	37.61
No	21.70	Value	16.52
		Income	10.60
		NA[1]	35.26

[1] NA contains all analysts since they were not asked this question. It also contains managers that skipped the question.

We acknowledge our sample may be non-representative. For example, those concerned about climate litigation risk may be more inclined to respond to the survey. We attempt to partially mitigate this by using a high-quality survey provider, promising anonymity, and sharing the survey with our professional network.

Where we can obtain data, we also compare the characteristics of our respondents with the wider investment universe. Large investors are overrepresented (Figure 1). We also sample more investors who invest in North America and Europe compared to the universe of equity investors (Figure 2). This is on purpose, since we explicitly directed our survey provider to target respondents from these regions because they have historically had the greatest number of climate litigation cases (Setzer and Higham, 2024).

Figure 1: Assets under management. This figure plots the distribution of the answer to the question "What is the total value of assets that you manage?" (managers) and "What is the total value of assets managed under your institution?" (analysts) for our sample and for the wider universe of equity investors. For the latter, we obtain the Factset Owner Identifiers dataset for the full year 2023. We filter the dataset to include only holdings in equity and calculate the sum of all equity holdings for each unique fund ID, using the *last* date in which they report.

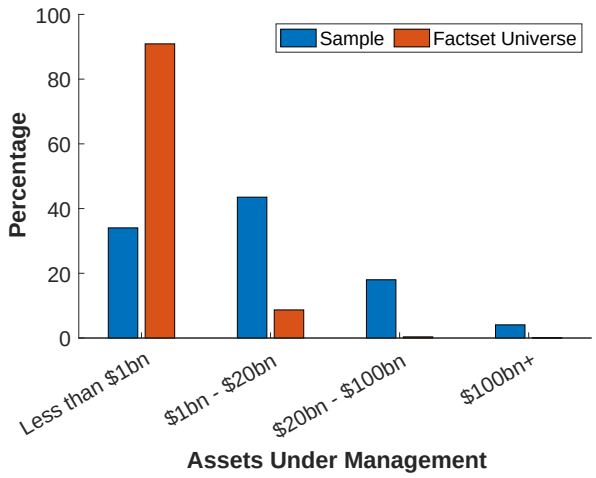
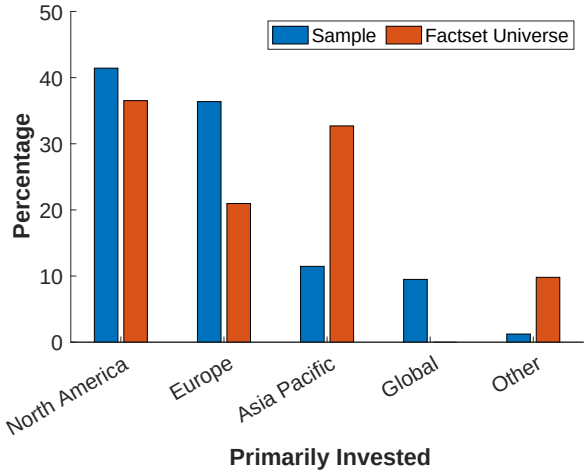


Figure 2: Primarily invested. This figure plots the distribution of the answers to the question "Where are your equity securities primarily invested?" (managers) and "Where is your research on equity securities primarily focused in?" (analysts) for our sample and the primary investment region for the wider universe of equity investors. For the latter, we obtain the Factset Owner Identifiers dataset for the full year 2023. We filter the dataset to include only holdings in equity and match the ISO code of each security to the regions North America, Europe, Asia Pacific, and Other. We then calculate the sum of all equity holdings per region for each unique fund ID, using the *last* date in which they report. We take the region that has the highest market value for each fund ID. Our survey includes a category called "Global" but for the Factset universe we cannot measure this. Instead, we put all non-North American, non-European, and non-Asian answers in the category "Other".



A large proportion (78.30%) of our respondents state they have an ESG-mandate. This appears high. However, many investors have signed the United Nations Principles for Responsible Investment (UNPRI). Kim and Yoon (2023) state that, in 2020, $100 trillion was managed by a signatory to the UNPRI (this is over 50% of global assets under management. In 2024, the UNPRI reported a similar proportion). Pastor et al. (2023) also state that 76% of the assets under management in their sample belong to institutions that are signatory to

UNPRI. These results give us some reassurance that our sample is somewhat representative.

The next sections present the core findings from our survey, offering new empirical insights into how investors perceive climate litigation risk.

3 Climate litigation is a financially material risk

3.1 Overall importance

Our survey suggests that overwhelmingly, climate litigation risk is already deemed important and financially material. Nearly 80% of respondents consider it at least moderately important, of which around half consider it very important (Table 2). While climate litigation is a relatively new class of corporate litigation that has only recently began to find success in the courts (Setzer, 2022; Peel et al., 2022), 41% of respondents believe the risk has already materialised, with an additional 29% believing it will be material within 5 years (Figure 4).

Table 2: Importance of climate litigation risk. This table reports results from the question "When assessing climate-related risk exposure, how important is climate litigation risk". The same question is asked about carbon majors and non-carbon majors. We compare the difference between proportions in the column "Difference" and label their statistical significance.

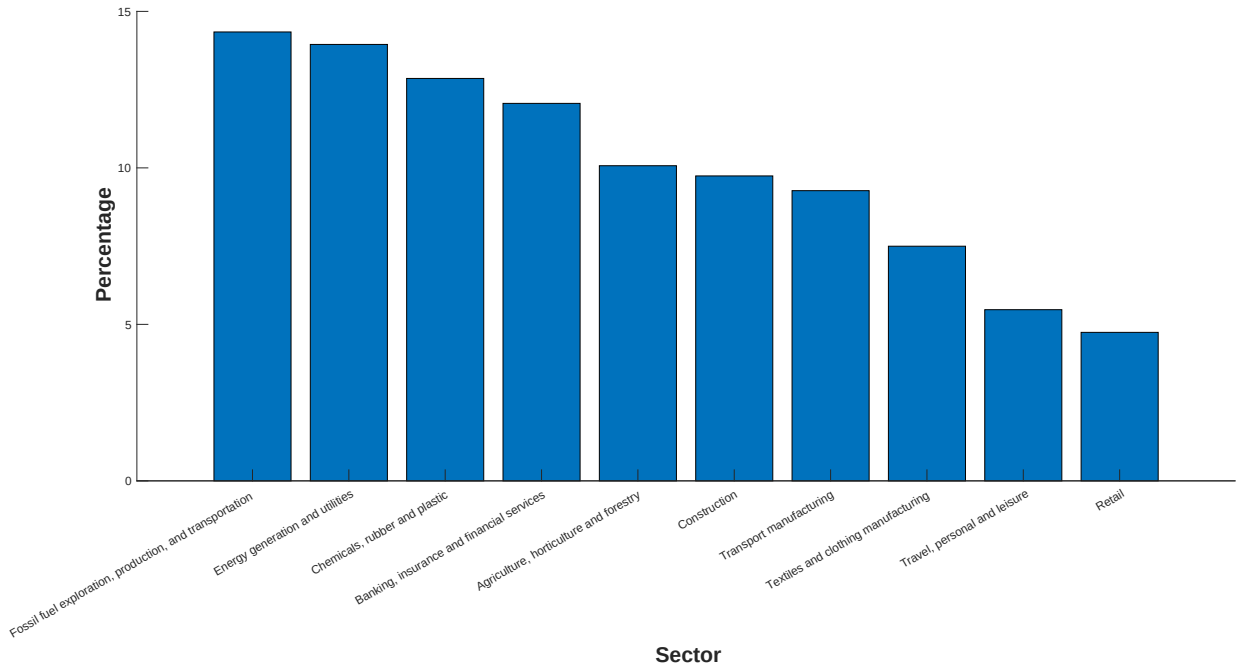
	Carbon Majors	Non-Carbon Majors	
Answer	Percent		Difference
Not at all important	2.10	2.34	-0.25
Slightly important	18.62	20.35	-1.73
Moderately important	38.10	42.79	-4.69*
Very important	40.93	34.03	6.91***

* $p < .10$, ** $p < .05$, *** $p < .01$.

This result also aligns to effects observed empirically by Sato et al. (2024), that found negative impacts on defendant firms' stock prices around the filing and decisions dates of climate related litigation in the last decade. Contrary to Sato et al. (2024), however, our survey found that climate litigation risk is deemed important not only for carbon major but also non-carbon major firms, though the effect is significantly larger for the former (Table 2).

This is important because climate litigation is rapidly spreading beyond carbon majors, for example food, aviation and finance as litigants seek to influence change across the whole value chain. (Setzer and Higham, 2024). Indeed, while fossil fuel exploration and energy utilities are deemed the most exposed, investors consider climate litigation risk to be material to all sectors (Figure 3).

Figure 3: Sectors considered exposed to climate litigation risk. This table reports results from the question "When pricing a firm's climate-related risk exposure, for which sectors do you actively consider climate litigation risk? Select all that apply".



3.2 Relative importance

Recent literature assessing climate-related financial risks highlight that investor concerns are highest around transition risks (regulatory and technology risks) (e.g. Krueger et al., 2020; Stroebel and Wurgler, 2021), than physical risk. Interestingly, our results reveal that climate litigation risk is perceived to be more important than physical risk (Figure 1). While

regulatory risk is ranked the highest (14% higher than climate litigation risk), in line with the literature, the proportion of investors that believe climate litigation risk is the most important risk is 6% higher than those that believe physical climate risk is the most important risk.

The inattention to climate litigation risk in the extant literature may suggest that investors see climate litigation risk as a type of transition risk. The understanding of legal risk was mainstreamed by the TCFD, in their Recommendations published in June 2017. Under this framework, 'policy and legal risks', which explicitly includes climate litigation in its explanation, are a subset of transition risks. The Network for Greening the Financial System also identified liability risk as a subset of physical and transition risks in 2019 (Network for Greening the Financial System, 2019). However, our results suggests that climate litigation might warrant its own categorization.

Overall, our survey results substantiate concerns (e.g. by NGFS) that climate litigation is not just a legal or reputational issue — it is increasingly perceived as a financial risk with immediate implications for financial markets. Climate litigation has become part of the financial risk landscape and investors are actively evaluating its relevance.

Figure 4: Timescale of climate litigation risk. This figure reports results from the question "Do you think climate litigation risk has already materialised financially? If not, when do you expect it to materialise".

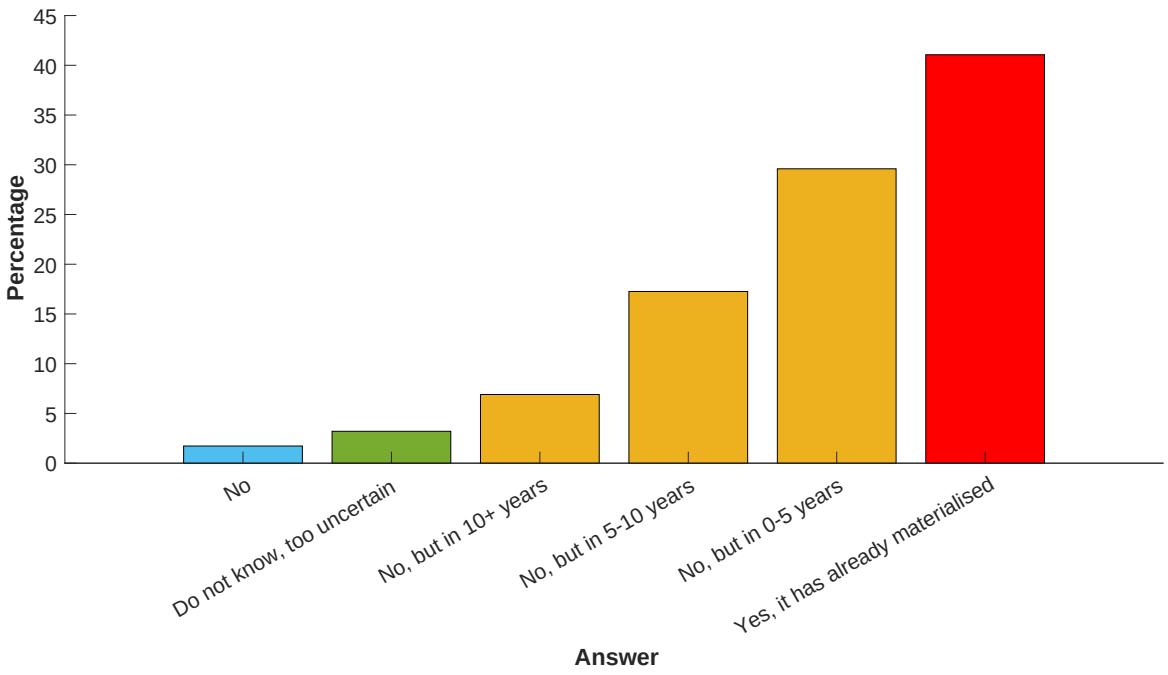
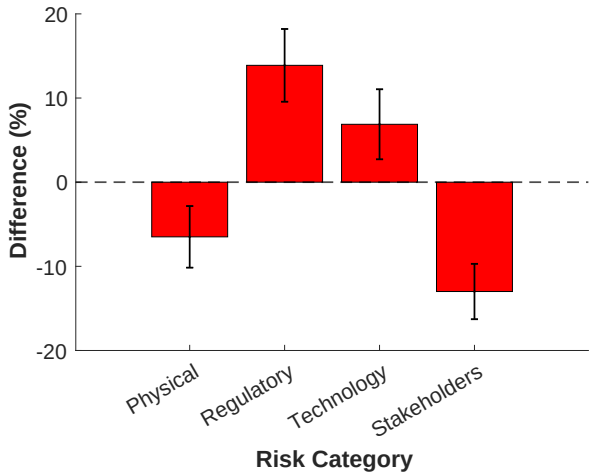


Figure 5: Climate litigation versus other risks. This figure plots the difference between the proportion of respondents that ranked climate litigation as the most important risk and the proportion of respondents that ranked each other risk category as the most important risk when asked "Please rank the general importance of these climate-related risks to typical businesses and investors in terms of financial risk. (1 being the most important, and 5 the least important)". We plot the confidence interval at the 95% level.



3.3 Why are investors concerned about climate litigation?

Strengthen the argument around reputational risk: Justify the link between early-stage litigation concern and reputational risk. Provide evidence that reputational risk translates into financial risk.

Our survey also provides new insights as to why investors might care about climate litigation. Respondents rank "avoid indirect financial impacts" as the strongest motivation for considering climate litigation risk, followed by "avoid direct costs" (Table 3). These were not strictly defined in the question. Rather, the examples were provide to illustrate both

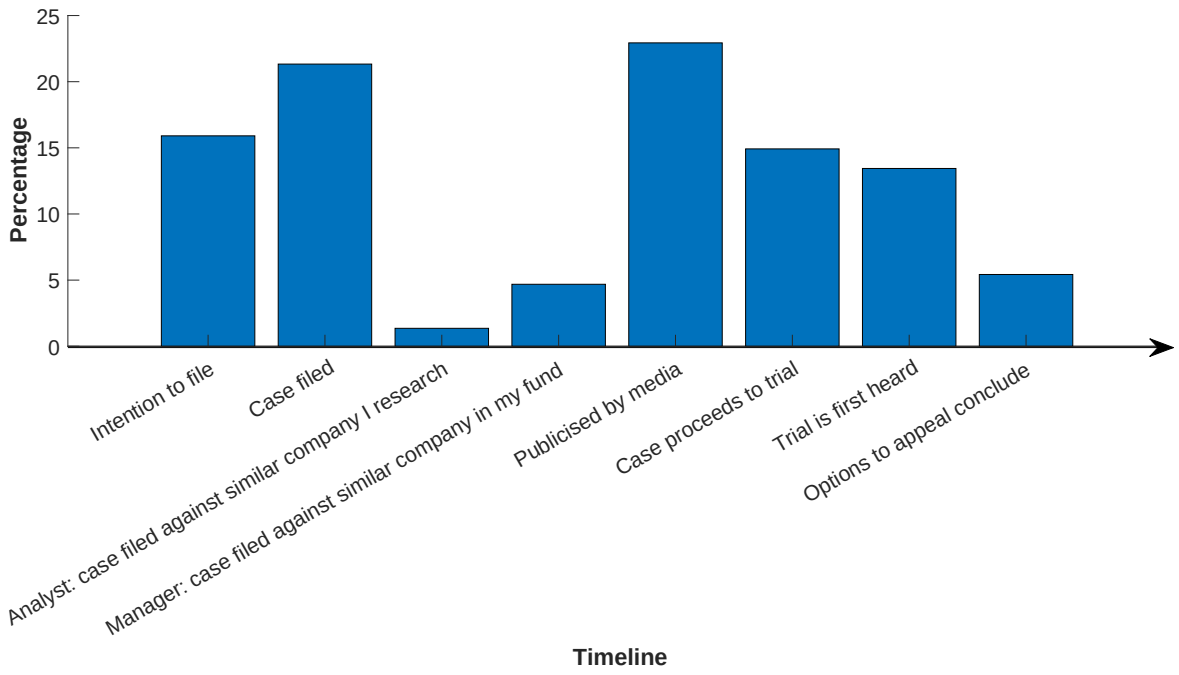
direct financial impacts arising directly from the case (i.e., legal fees and damages. court fees, and any fines, penalties or damages imposed from a judgment) and indirect ones arising outside of court procedures and outcomes (i.e. premiums under liability insurance, capital costs). Interestingly, we find evidence that avoiding damaging their own reputational also matters for investors, with over 20% of respondents selecting this and ranking third, followed by the need to comply with investment mandates and reflecting the asset owners' preferences.

Table 3: Reasons for considering climate litigation risk. This table reports the proportion of all responses (n=811) that selected each answer from the question "Do you agree with the following statements? Select all that apply: Considering climate litigation risk when making investments in firms is (necessary)...".

Answer	Percent
Not necessary	3.67
To reduce our own reputational risk	20.38
For investment mandate/reflects asset owners' preferences	17.69
To avoid direct costs (legal fees, damages)	24.77
To avoid indirect costs (premiums under liability insurance, capital costs)	25.82
To reflect our clients' preferences	7.67

These concerns around reputational damage are also reflected in the findings around when, in the life of a climate litigation case, the risk materialises. The highest share of respondents indicated that risks become significant when a case is publicised by the media and second, when the case is filed (Figure 6).

Figure 6: Materiality stage of climate litigation risk. This figure plots the results from the question "At what point would a climate litigation case become significant in your pricing of a firm's climate-related risk exposure".



This somewhat surprising results suggest that previous studies that only examined impacts around the filing or decision dates may have underestimated the extent to which investors are is responding to climate litigation. Our finding also that litigation risk become significant at an early stage indicates that investors, in practice, they may perceive litigation to exert pressure on firms' "social licence to operate" (Gunningham, 2020). In other words, investors' believe that publicity of the threat of litigation can already carry financially material costs for firms. Further, since empirical research on the impact of strategic climate litigation on firms has so far been mainly speculative or based on anecdotal reports (Peel et al., 2022), and legal scholars have theorised that reputational costs can arise at all stages of a case (Solana, 2020), our evidence sheds new light on the materiality of these tactics.

4 Characterizing investor profiles

Narratives have proven powerful ways to characterize the formation of expectations (Andre et al., 2024; Roos and Reccius, 2024). We build on this literature by identifying investor profiles among our respondents using principal component analysis and k-means clustering. We convert key answers to numerical and standardize them to have mean 0 and variance 1. The Calinski-Harabasz psuedo F-value equals 119 for 3 clusters and 106 for 4 clusters, hence we prefer to use 3 clusters. We identify three investor profiles from this result:

Profile A: Unconcerned - Those unconcerned with climate-related risks.

Profile B: Regulatory risk-averse - Those more concerned with regulatory risk than other climate risks.

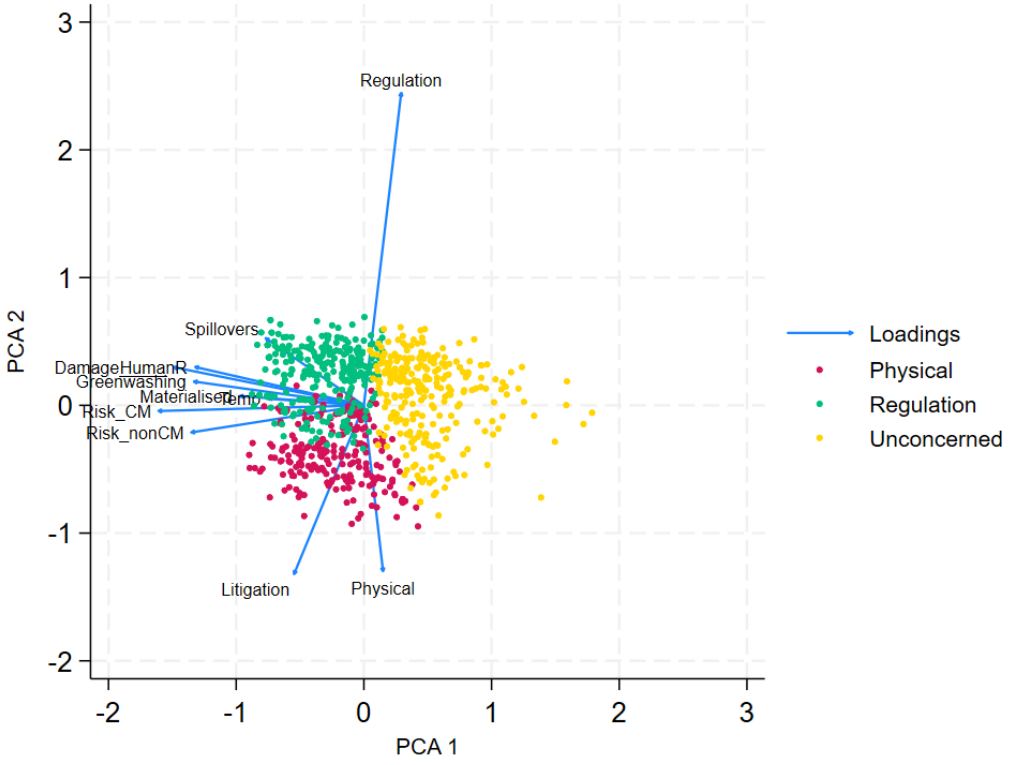
Profile C: Litigation-physical risk-averse - Those more concerned with physical and litigation risks, owing to their interaction.

Although k-means clustering can inform us about the number of investor profiles, we rely on principal component analysis to understand how much variation we can explain and to characterize these clusters into interpretable groups. The first principal component can explain 25% of the variation in our respondents by a simple concerned/not concerned group classification that separates the unconcerned (Profile A) from the concerned (Profile B and Profile C). We plot this on the x-axis in Figure 7. The climate-concerned respondents naturally load strongest on answers that signal they believe the world is likely to exceed an increase in temperatures of 2°C by 2100, that climate litigation is important for carbon-majors and non-carbon majors, that damage cases, human rights cases, and greenwashing cases are important, that climate litigation has spillover effects, and that climate litigation is already material (Figure 7). In particular, the question on how to rank regulatory risk, litigation risk, and physical climate risk drives most of the variance.

The second principal component can explain 13% of the variation in respondents' answers. We plot this on the y-axis in Figure 7. It captures variation in concerns about regulatory risk. We colour Profile B as green, who clearly view regulation as the most important risk

(Stroebel and Wurgler, 2021; Sautner et al., 2023a), while the red group (Profile C) sees physical climate risk and litigation risk as the most important. This is an important insight, as previously we found that there is an association between physical climate risk and litigation risk.

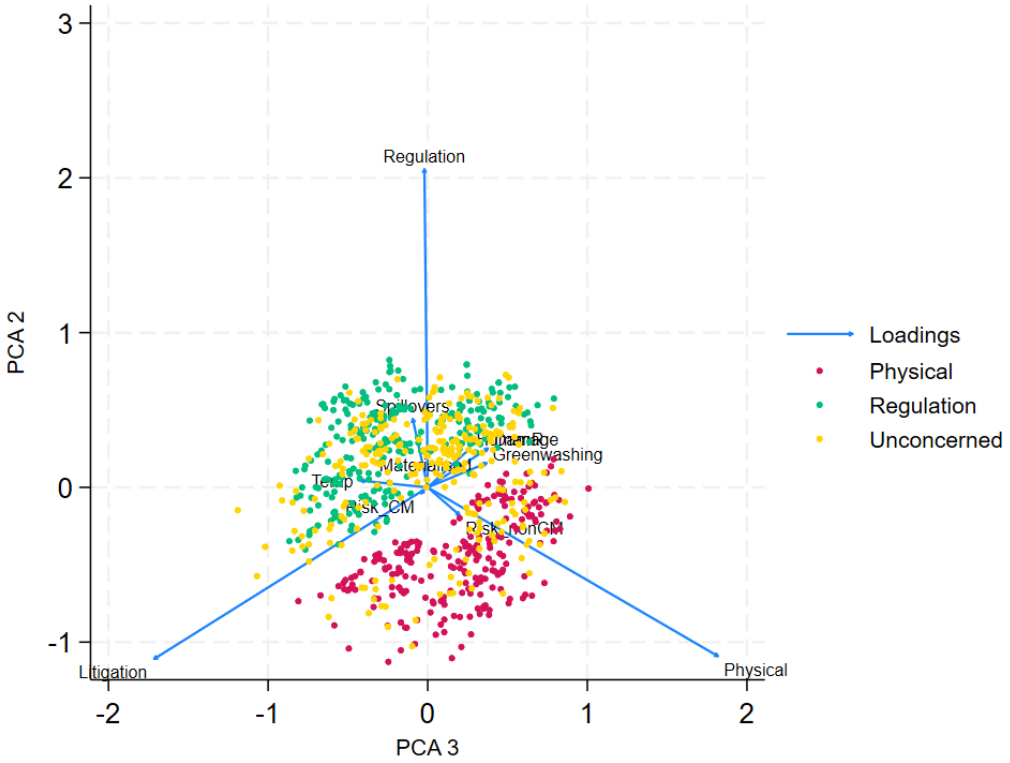
Figure 7: Concerned and unconcerned investor profiles. This figure plots respondents relative to principal component 1 and principal component 2. Each arrow represents the loadings on PC1 and PC2. Each dot is a respondent. Included questions are the relative ranking of regulation, physical, and litigation risk, the likelihood of exceeding 2°C by 2100 (Temp), the importance of litigation risk for carbon majors (Risk CM) and non-carbon majors (Risk nonCM), the importance of litigation claims for damages (Damage), human rights (HumanR) and greenwashing (Greenwashing), how litigation will affect other companies (Spillovers), and the horizon at which litigation risk will materialise (Materialise). Answers are standardized (mean 0, variance 1, higher values indicate higher concern). Calinski-Harabasz pseudo F-value=119 for 3 clusters (106 for 4 clusters).



In Figure 8, we plot PCA2 with the third principal component (PCA3). We know that PCA2 captures regulatory concerns (Figure 7). The question remains whether we can further separate the physical and litigation risk group (i.e., Profile C). We find that PCA3 captures

concern about physical climate risk and separates Profile C. Further, there is some indication that some respondents feel strongly about physical climate risk *and* regulation, since PCA2 and PCA3 are positively correlated.

Figure 8: Separating physical and litigation risk. This figure plots respondents relative to principal component 2 and principal component 3. Each arrow represents the loadings on PC2 and PC3. Each dot is a respondent. Included questions are the relative ranking of regulation, physical, and litigation risk, the likelihood of exceeding 2°C by 2100 (Temp), the importance of litigation risk for carbon majors (Risk CM) and non-carbon majors (Risk nonCM), the importance of litigation claims for damages (Damage), human rights (HumanR) and greenwashing (Greenwashing), how litigation will affect other companies (Spillovers), and the horizon at which litigation risk will materialise (Materialise). Answers are standardized (mean 0, variance 1, higher values indicate higher concern). Calinski-Harabasz pseudo F-value=119 for 3 clusters (106 for 4 clusters).



5 Further heterogeneity

Next, we examine additional variation in perceptions of climate-litigation risks across investors. Recent literature investigating factors influencing climate related and socially re-

sponsible investment highlight investor heterogeneity, for example investor type and ESG mandate (e.g. Krueger et al., 2020; Barber et al., 2021). We build on this literature, and first assess the role of geography, which has received less attention in the literature so far.

5.1 Exposure to North America

Geography can be expected to shape investors' exposure to, and perceptions of, climate litigation risk through several channels—including legal culture, prevalence of litigation, and regulatory trends. Among global jurisdictions, North America—particularly the United States—stands out as a focal point for climate litigation activity. The U.S. has a long-standing tradition of using litigation as a mechanism for policy change and corporate accountability, which may influence how investors with North American exposure evaluate related financial risks. To explore this geographical dimension, we assess whether investment in North America is associated with heightened perceptions of the materiality of climate litigation.

We find that investing in North America, relative to other regions, increases the perceived importance of climate litigation for carbon majors by 28% (Table 4). Further, we find that respondents that are invested in North America are 41% more likely to believe damage cases against firms are very important compared to respondents invested in other regions (Table 5). We find similar but weaker evidence for greenwashing cases (33% more likely). Climate litigation is most prevalent in the United States, with the first case documented in 1986, and since then it has remained the jurisdiction with the highest number of cases every year (Setzer and Higham, 2024). It also has the highest number of 'non-climate aligned' cases. These are cases seeking to delay or derail climate action. This creates further uncertainty for investors, as they face challenges from those seeking to increase climate action, and those seeking to reduce action.

Table 4: The importance of climate litigation risk and respondent characteristics. This table reports the results of estimating ordered logistic regressions of respondent characteristics on the perceived importance of climate litigation for carbon majors and non-carbon majors. Respondents are asked "When assessing climate-related risk exposure for (non-)Carbon Majors, how important is climate litigation risk?". The answer is on an ordered scale: Not at all important (1), slightly important (2), moderately important (3), and very important (4). Invested North America is a dummy equal to 1 if the respondent primarily holds equities in North America. Small is a dummy equal to 1 if the reported assets under management are less than $1 billion. Prob. Exceed 2C > 50% is a dummy equal to 1 if the respondent believes the probability of exceeding 2C by 2100 have a higher than 50% chance. ESG Mandate is a dummy equal to 1 if the respondent reports they have a ESG mandate or specialism. Manager is a dummy equal to 1 is the respondent is an investment manager.

	Carbon Major Importance	Non-Carbon Major Importance
Invested North America	1.281*	0.987
	(1.802)	(-0.09)
Small	0.411***	0.720**
	(-5.818)	(-2.166)
Growth Style	1.459**	1.377*
	(2.214)	(1.855)
Prob. Exceed 2C > 50%	1.979***	1.908***
	(4.881)	(4.518)
ESG Mandate	1.326	1.980***
	(1.498)	(3.540)
Manager	0.638**	0.613***
	(-2.484)	(-2.713)
Psuedo-R^2	0.05	0.03

t-statistics (z-scores) based on standard errors clustered at the respondent level are reported in parentheses.

Coefficients are odds ratios.

* $p < .10$, ** $p < .05$, *** $p < .01$.

Table 5: Concern, types of cases, and respondent characteristics. This table reports the results of estimating a logistic regression of respondent characteristics on whether they view a particular case type as very concerning. Respondents are asked "What types of climate litigation cases would you consider most concerning when assessing a firm's climate-related risk exposure". We code the answer as 1 if the respondent answers "Very concerning" and 0 if they answer "Not at all concerning", "Slightly concerning", or "Moderately concerning". We consider three cases against firms: a firm is taken to court and asked to pay damages for contributing to climate change by releasing high historic greenhouse gases (Damages), a firm is sued for violating human rights by not doing enough to cut emissions (Human Rights), and a firm is sued for greenwashing (i.e., misleading advertising about their products or operations) (Greenwash). We consider two cases against governments: a government is sued for not doing enough to address climate change (Emissions) and a government is sued for approving high-emitting projects (Projects). Invested North America is a dummy equal to 1 if the respondent primarily holds equities in North America. Small is a dummy equal to 1 if the reported assets under management are less than $1 billion. Prob. Exceed 2C > 50% is a dummy equal to 1 if the respondent believes the probability of exceeding 2C by 2100 have a higher than 50% chance. ESG Mandate is a dummy equal to 1 if the respondent reports they have a ESG mandate or specialism. Manager is a dummy equal to 1 is the respondent is an investment manager.

	Firm Cases			Government Cases	
	Damages	Human Rights	Greenwash	Emissions	Project
Constant	0.118***	0.279***	0.372***	0.138***	0.213***
	(-7.478)	(-5.365)	(-4.230)	(-7.445)	(-6.357)
Invested North America	1.407**	1.226	1.328*	1.277	1.259
	(2.080)	(1.318)	(1.843)	(1.441)	(1.470)
Small	1.244	0.998	0.872	1.05	1.194
	(1.229)	(-0.011)	(-0.832)	(0.268)	(1.049)
Growth Style	1.201	1.215	1.712***	1.214	1.198
	(0.887)	(1.019)	(2.752)	(0.918)	(0.913)
Prob. Exceed 2C > 50%	1.923***	1.667***	1.355**	2.265***	2.219***
	(3.987)	(3.283)	(1.980)	(4.815)	(5.067)
ESG Mandate	2.423***	1.322	1.327	1.636**	1.945***
	(3.710)	(1.400)	(1.413)	(2.094)	(3.155)
Manager	0.753	0.914	0.609**	0.955	0.638**
	(-1.331)	(-0.450)	(-2.450)	(-0.203)	(-2.232)
Psuedo-R^2	0.04	0.02	0.02	0.04	0.04

t-statistics (z-scores) based on standard errors clustered at the respondent level are reported in parentheses. Coefficients are odds ratios. * $p < .10$, ** $p < .05$, *** $p < .01$.

The concern over damage cases may reflect awareness of stronger prevalence of cases, and previous legal precedent in the US. There are a series of 'climate liability' lawsuits filed by US state governments against carbon majors, seeking to make them responsible for the costs

of climate adaptation (ibid). These cases receive significant attention from scholars and the media (Wentz and Franta, 2022). Most of these cases rely on arguments about the harm caused by the companies' involvement in disinformation campaigns about fossil fuels. At the time of the survey delivery, these cases had moved closer to trial, after many years of dispute over whether the cases should proceed in state (considered potentially more favourable to plaintiffs) or federal court (considered potentially more favourable to defendant companies) had been settled. In 2023, the US Supreme Court ruled that they should proceed in state courts. Investors' beliefs may also be influenced by trends in US state-level legislative bills with a similar objective, seeking to impose strict liability on carbon majors for emissions and require them to contribute to costs of adaptation. For example, Vermont's Climate Superfund Act (S.259), which came into force in 2024, establishes a new Climate Superfund Cost Recovery Program, where fossil fuel extractors and crude oil refiners are required to pay certain costs incurred by the state due to climate change. Similar bills were proposed in New York, California, Maryland and Massachusetts in 2024.

Although climate litigation and damages cases in this specific context are relatively new, the impact of tobacco, asbestos and environmental corporate litigation is known in the US (Setzer, 2022). This legal context may also bear an influence on their beliefs. Unfavourable tobacco litigation announcements led to falls in share prices, and factors causing this change included the prospect of high legal fees, significant liability or settlement payments, and reputational costs (Bhagat and Romano, 2002; Sloan et al., 2005). In asbestos litigation, it has been estimated that between 1976-2004 at least 73 companies filed for bankruptcy because of the costs of litigation and the prospect of future liability (Carroll et al., 2002). The Volkswagen emissions scandal in 2015, with significant financial impacts and spillover effects, was also significantly publicised by US media, as it was the Environmental Protection Agency that first disclosed the breaches (Nunes and Lee Park, 2016; Wood et al., 2018). These precedents, although in other industries, can be seen by investors to impose similar effects as potential strategic climate litigation. In tobacco and asbestos cases specifically, there are parallels to the US climate damages cases. Previous research shows that financial impacts were worsened by the reveal of internal documents that demonstrated patterns of misrepresentation and concealment (Setzer, 2022).

5.2 Investor horizon, size, mandate and position

Recent research has shown that how much investors care about climate risks is influenced by ESG mandates (Krueger et al., 2020), investor type Barber et al. (2021), and whether institutions are long-term oriented (Gibson et al., 2020).

Our results for climate-litigation specific risk also support the finding that long-term investors are more concerned about climate-related risks than shorter-term investors. Growth investors, which arguably have a longer horizon, are also more likely to consider climate litigation risk important by 71%, compared to value or income investors. Building on assessments of short-term stock market reactions (Sato et al., 2024), this result highlights the potential for litigation to pose long-term risks on financial viability also. Legal scholars have mapped the growth of 'corporate framework' cases, or 'forward-looking' climate cases, which seek to disincentivise companies from continuing with high-emitting activities by requiring changes in group-level decision-making and governance (Setzer, 2022; Setzer and Higham, 2024). At the time of survey delivery, there had been one highly publicised corporate framework case Milieudefensie v Shell, where the Dutch High Court set emissions targets for the company to rapidly reduce emissions across its operations (including scope 3 emissions). This judgment has since been overturned by the Court of Appeal, a higher court. However, it demonstrates the potential for climate cases to challenge the fundamental business model and long-term prospects of a company.

Our survey responses also show that larger equity investors that care more about climate litigation risk. Respondents with assets under management (AUM) above $1 billion are more likely to believe climate litigation is important by 28%-59% for non-carbon majors and carbon majors, respectively. This may reflect that larger AUMs represent institutional investors, whom tend to hold large stakes in portfolio companies (Flammer et al., 2021). This makes them more exposed overall to strategic climate litigation, which aims to change the fundamental business model of carbon-intensive firms, especially in light of the potential spillover effects. Environmental shareholder activism is also especially effective when initiated by institutional investors (Flammer et al., 2021).

Having an ESG mandate, and therefore ESG knowledge, is expected to increase awareness

of it. Responsible investors and ESG professionals have greater understanding of the complexity and feedbacks involved in the risks and impacts of climate change (Harnett, 2017). We confirm that having an ESG mandate increases the probability of viewing climate litigation risk as important, and this effect is much stronger for beliefs about non-carbon majors, suggestive of a ESG mandate driving concern even for lower-carbon firms. We find respondents with a ESG mandate are more likely to believe damage cases and both government cases are very important. Finally, analysts/researchers are more likely to view climate litigation risk as important, relative to managers. Analysts are considered "catalysts in the inflation of asset values", as they provide buy recommendations (Riedl, 2022). They develop industry expertise and a specialised network with targeted industries (ibid).

6 Conclusion

This paper provides the first systematic investigation of investor perceptions of climate litigation risk. Drawing on a novel survey of over 800 equity investors and analysts, we offer direct evidence that climate litigation is widely regarded as a financially material risk—especially for carbon majors, but also increasingly for firms outside the fossil fuel sector. Our findings contribute to both the climate litigation and investor belief literatures by illuminating how investors rank litigation risk relative to other climate-related risks, when they believe it becomes financially relevant, and how these perceptions are shaped by investor characteristics and climate expectations.

The results reveal several important insights. First, climate litigation risk is viewed as more significant than physical climate risk but slightly less than regulatory risk—indicating its perceived position within a broader transition risk framework. Second, investors with larger assets under management, ESG mandates, or exposure to North American markets are more likely to view litigation as a serious risk. Third, expectations about global temperature rise shape how litigation is interpreted: those who anticipate exceeding 2°C are substantially more likely to see litigation risk as already material, and as a likely tool to discipline firms in a warming world.

Using dimension reduction, we identify distinct investor profiles: one focused on regulatory risk, another on physical and litigation risks, and a third with limited concern for climate risks. This clustering underscores that investor beliefs are not homogeneous and suggests that responses to litigation risk will vary across the financial system depending on institutional structure, geography, and investment strategy.

Our findings also suggest that investors do not yet clearly distinguish climate litigation from other forms of corporate litigation, although a subset with greater climate awareness does perceive it as uniquely uncertain and politically complex. Importantly, many investors believe litigation risk has already materialised, not only in court outcomes but also through reputational damage triggered by the threat and publicisation of legal claims.

Our findings have important implications for investors, companies, and climate litigators. For investors, climate litigation should be considered a forward-looking financial risk—both in terms of potential liability and broader reputational and regulatory impacts. Investors may benefit from integrating litigation risk into ESG frameworks, portfolio risk assessments, and engagement strategies, particularly in high-risk jurisdictions like the United States. For companies, especially those in carbon-intensive sectors, the growing perception of litigation risk underscores the need for proactive legal risk disclosure, stronger governance, and alignment with climate targets. Investors are likely to interpret legal threats and lawsuits as signals of broader transition risk and poor climate strategy. For litigators and climate advocates, the results demonstrate that litigation has consequences beyond the courtroom. Strategic lawsuits can shape investor behaviour and corporate reputation, even before legal outcomes are reached. As litigation continues to evolve as a governance tool, its influence on financial markets is likely to grow. Recognising litigation not only as a legal instrument but also as a market signal is therefore essential for all actors involved in the low-carbon transition.

This research also opens multiple avenues for future work. Further studies could examine how these perceptions evolve in response to landmark cases or regulatory developments, whether litigation risk is priced differently in asset valuations across regions, and how investors integrate litigation insights into engagement and divestment strategies. Policymakers and financial regulators seeking to strengthen climate risk disclosure and corporate account-

ability may benefit from recognising that litigation is not only a legal tool, but also an emerging financial signal that shapes market expectations and behaviour.

By bringing investor perceptions into focus, this paper adds an important dimension to the understanding of climate litigation's growing influence—and underscores the need for more sophisticated tools to assess and manage its financial implications.

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