

The Impacts of High-Profile Litigation against Major Fossil Fuel Companies

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10.1 INTRODUCTION

Climate change litigation has been growing in importance over the past three decades as a way of either advancing or delaying effective action on climate change.¹ Of particular interest to the present analysis are the various legal strategies that have been developed and are being used against major fossil fuel companies. The trend is underpinned by the idea that high-profile climate litigation in private law has the potential to effectively target a relatively small group of corporations who are responsible for a large percentage of emissions.² The cases filed in this new wave of litigation against major emitters (the ‘Carbon Majors’) have been supported by Richard Heede’s work, as well as by advancements in the science of climate attribution.³ See Richard Heede’s chapter (Chapter 12) and Michael Burger, Jessica Wentz, and Daniel Metzger’s chapter in this volume (Chapter 11) for more on this. But questions

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¹ See Jacqueline Peel and Hari M. Osofsky, *Climate Change Litigation Regulatory Pathways to Cleaner Energy* (Cambridge: Cambridge University Press, 2015); see also Jacqueline Peel and Hari M. Osofsky, ‘Climate Change Litigation’ (2020) 16 *Annual Review of Law and Social Science* 2021; see also Joana Setzer and Rebecca Byrnes, ‘Global Trends in Climate Change Litigation: 2020 Snapshot’ (2020) Grantham Research Institute on Climate Change and the Environment.

² See Geetanjali Ganguly et al., ‘If at First You Don’t Succeed: Suing Corporations for Climate Change’ (2018) 38 *Oxford Journal of Legal Studies* 841.

³ See Richard Heede, ‘Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010’ (2014) 122 *Climatic Change* 229.

about whether the outcomes of such litigation actually help to address climate change in a meaningful way remain unanswered.⁴

Measuring the impact of strategic litigation is never easy. When looking at climate litigation against governments, there are successful landmark cases where it has been possible to identify pro-regulatory impacts that resulted from this type of legal strategy.⁵ In the *Urgenda* case, for example, following the Supreme Court decision, the Dutch government committed to reducing the capacity of its remaining coal-fired power stations by 75 per cent and implementing a three-billion-euro package of measures to reduce Dutch emissions by 2020. Regulatory challenges to permits authorizing high emitting projects can also be considered successful in regulating emissions. These decisions could lead to effective mitigation or adaptation action, provided that the court mandates are not overturned by ministerial action or inaction.⁶

The impacts of high-profile litigation against major fossil fuel companies, however, are less clear. To start, the majority of high-profile cases filed against Carbon Majors are still ongoing, and it can take many years before nuisance and fraud cases are decided in court. Also, many of these cases are legally difficult, in that they face both procedural and substantive doctrinal hurdles. For these reasons, before high-profile nuisance and fraud cases against major fossil fuel companies reach a decision in court, litigants often use intermediate steps to apply pressure on companies. Even before they get to a trial on the merits and an eventual judgment, litigants use the cases to influence different audiences – not just the companies directly, but also the public, investors or financiers, insurers, and regulators. Another strategy is to bring cases against

⁴ See Sabrina McCormick et al. 'Strategies in and Outcomes of Climate Change Litigation in the United States' (2018) 8 *Nature Climate Change* 829; see also Joana Setzer and Lisa C. Vanhala, 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance' (2019) 10 *WIREs Climate Change* e580; see also Kim Bouwer and Joana Setzer, 'New Trends in Climate Litigation: What Works?' Working paper presented at the New Trends in International Climate and Environmental Advocacy Workshop, Johns Hopkins University SAIS Europe and European University Institute (2020).

⁵ See Lesley Hughes, 'The Rocky Hill Decision: A Watershed for Climate Change Action?' (2019) 37 *Journal of Energy and Natural Resources Law* 341; see also Jonathan Verschuuren, 'The State of the Netherlands v Urgenda Foundation: The Hague Court of Appeal upholds judgment requiring the Netherlands to further reduce its greenhouse gas emissions' (2019) 28 *Review of European, Comparative and International Environmental Law* 94; see also Jacqueline Peel and Hari M. Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7 *Transnational Environmental Law* 37.

⁶ See Emily Barritt and Boitumelo Sediti, 'The Symbolic Value of *Leghari v. Federation of Pakistan*: Climate Change Adjudication in the Global South' (2019) 30 *King's Law Journal* 203; see also Tracy-Lynn Humby, 'The Thabametsi Case: Case no 65662/16, Earthlife Africa Johannesburg v Minister of Environmental Affairs' (2018) 30 *Journal of Environmental Law* 145.

other actors that will have indirect effects on Carbon Major companies (e.g., divestment cases)⁷ or to use alternative legal interventions that have more immediate results and easier wins (e.g., bringing claims of deceptive 'green-washing' marketing campaigns by Carbon Major companies to courts or non-judicial bodies).

Ultimately, strategic climate litigation directly against and/or indirectly targeting Carbon Majors aims to help reshape narratives about energy production and the consequences of global warming. This type of litigation advocates a shift from fossil fuels to renewables and draws attention to the vulnerability of coastal communities and infrastructure to extreme weather and rising sea levels. In addition, it articulates climate change as a legal and financial risk with the aim of driving behavioural change and guiding climate change-responsive adjudication in the longer term. As such, this type of litigation not only seeks the provision of effective legal remedies for climate harms but also aims to transform how climate change is defined and how it should be addressed.⁸

This chapter considers key characteristics of high-profile climate litigation brought against Carbon Majors, while also taking into consideration some of the impacts that climate litigation brought against governments and against other private actors might have on Carbon Majors. The chapter examines the different types of cases using a temporal framing: cases that look into the past (liability cases) and cases that look into the present and the future (fraud claims, disclosure claims, and human rights procedures). It then introduces a discussion on how to assess some of the direct and indirect regulatory and financial impacts of such cases. Focusing on the indirect financial impacts, this chapter suggests that event studies could be applied to assess the potential impact of climate litigation on the stock prices of defendant companies.

The structure of this chapter is as follows. Section 10.2 presents key aspects of strategic private climate litigation against Carbon Majors. Section 10.3 discusses some of the ways in which climate litigation can potentially impact major emitters and contemplates the possibility of using event studies to assess the eventual impact of climate litigation on the market valuation of listed Carbon Majors companies. Lastly, Section 10.4 presents conclusions and issues for further exploration.

⁷ See generally Benjamin Franta, 'Litigation in the Fossil Fuel Divestment Movement' (2017) 39 *Law and Policy* 393.

⁸ See Grace Nosek, 'Climate Change Litigation and Narrative: How to Use Litigation to Tell Compelling Climate Stories' (2018) 42 *William & Mary Environmental Law and Policy Review* 733.

10.2 LITIGATION AGAINST CARBON MAJORS

Up until the end of 2020, there were at least forty-seven ongoing climate cases worldwide against Carbon Major companies.⁹ The majority of these cases have been brought in the United States, starting in 2005, and more significantly beyond the United States since 2015. Following a first wave of unsuccessful lawsuits against oil, gas, and electric companies in the early 2000s in North American courts, a new wave of climate change lawsuits have been filed over the past five years against major fossil fuel companies.¹⁰ These two waves of climate litigation against Carbon Majors can be visualized in Figure 10.1. The Carbon Majors research helped drive this second wave, singling out a list of corporations that historically have contributed the most to GHG emissions.¹¹ This research mapped and quantified the cumulative emissions of the ninety largest carbon producers from 1854 to 2010.

Other advancements in climate science are also contributing to the development of climate litigation against major emitters. In terms of the science, there is robust evidence to establish a strong causal connection between historic and future anthropogenic greenhouse gas emissions, an increase in the global mean surface temperature, and the likelihood of individual severe weather and climate-related events.¹² But in an increasing number of climate litigation cases, challenges remain when attributing specific climate-related events to global GHG emissions or specific emitters. Legal scholars and climate scientists are making a clear effort to make findings in climate attribution research more accessible to litigants. Interdisciplinary research has started to offer approaches that enable causal statements to be made in law about the physical reality of climate phenomena, side by side with the

⁹ Thirty-three lawsuits in the United States; two lawsuits in France (*Friends of the Earth et al. v. Total* and *Notre Affaire à Tous and Others v. Total*); one lawsuit in Argentina (*Mapuche Confederation of Neuquén v. YPF et al.*); one lawsuit in Germany (*Lliuya v. RWE*); one lawsuit in the Netherlands (*Milieudefensie et al. v. Royal Dutch Shell plc.*); one lawsuit in Nigeria (*Gbemre v. Shell Petroleum Development Company of Nigeria Ltd et al.*); one inquiry in the Philippines (Carbon Majors Inquiry, Human Rights Commission); and one lawsuit and one complaint in the United Kingdom (*Deutsche Bank AG v. Total Global Steel Ltd.* and *Complaint against BP in respect of violations of the OECD Guidelines*).

¹⁰ See Ganguly et al., 'If at First You Don't Succeed: Suing Corporations for Climate Change', above note 2.

¹¹ See Heede, 'Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010', above note 3.

¹² See Petra Minnerop and Friederike Otto, 'Climate Change and Causation: Joining Law and Climate Science on the Basis of Formal Logic' (2020) 27 *Buffalo Journal of Environmental Law* 49.

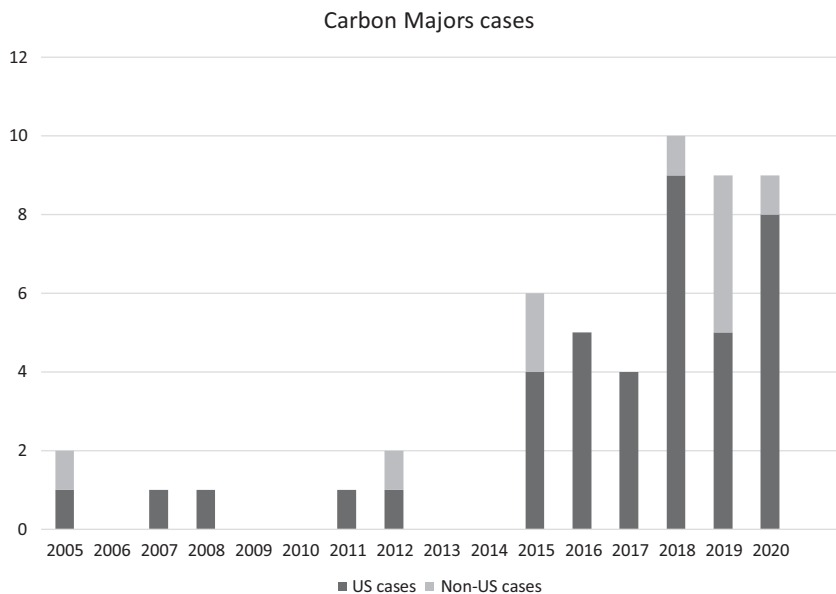


FIGURE 10.1 Numbers of cases against the Carbon Majors, January 2005–December 2020.
SOURCE: Setzer and Byrnes (2020), based on CCLW and Sabin Center data

presentation of probabilistic evidence that defines the relationships between factors in and events caused by a changing climate.¹³

This litigation against Carbon Majors has different aims.¹⁴ Some cases are directed at changing corporate behaviour directly, for example, by seeking an order requiring the targeted company to change its policies. Other cases provide the basis on which different groups and individuals can subsequently pressure major emitters to change their corporate behaviour. This section examines different types of climate litigation filed against major emitters, taking into consideration a temporal framing: cases that look into the past (liability cases) and cases that look into the present and/or the future (fraud claims, disclosure claims, and human rights procedures).¹⁵

¹³ See, e.g., Michael Burger et al., ‘The Law and Science of Climate Change Attribution’ 2020 45 *Columbia Journal of Environmental Law* 57; see also *ibid*.

¹⁴ See Bower and Setzer, ‘New Trends in Climate Litigation: What Works?’ above note 4.

¹⁵ Note that this is different from the approach used by Hilson to explore the temporal framing in high-profile climate litigation. Hilson’s analysis focuses on cases brought against governments, emphasizing the tension between a future-looking scientific framing of time and both an environmentalist policy framing of time and a present-based scientific time frame. This chapter considers the temporal framing of cases brought against Carbon Majors and the remedies they

10.2.1 *Looking into the Past*

Several high-profile cases against Carbon Majors have been sought in tort, including public nuisance, private nuisance, and negligence. The premise of such cases is that Carbon Majors have contributed a significant amount to the greenhouse gases that cause climate change and understood the consequences of burning fossil fuels and, yet, continued to do so; therefore, they should be held liable for the consequent damages.¹⁶ Further, some litigants argue that Carbon Major corporations have taken actions to confound or mislead the public about climate science.¹⁷ These cases typically rely on tort law and advancements in climate science, particularly climate attribution. Liability cases against major emitters include *Lliuya v. RWE AG*,¹⁸ the case brought in Germany by a Peruvian farmer against RWE, the German electric utilities company, and the thirteen lawsuits brought in the United States by subnational governments – cities, counties, and one state – against a number of Carbon Major companies.

10.2.2 *Cases Looking into the Present and the Future*

In addition to cases that focus on the impacts of past emissions, litigants have brought cases seeking to change current and future corporate behaviour. Several lawsuits have asserted that companies are misleading consumers about the central role that their products play in causing climate change and/or intentionally misleading investors about material climate-driven risks to their business. Importantly, in some cases, litigants are seeking an injunction relief, a remedy that would require Carbon Majors to refrain from performing a particular act.

In the unsuccessful civil case of *New York v. Exxon Mobil Corporation*,¹⁹ the state's Attorney General argued that the company had engaged in fraud

seek. See Chris Hilson, 'Framing Time in Climate Change Litigation' (2018) 9 *Oñati Socio-legal Series* 361.

¹⁶ See Vic Sher, 'Forum versus Substance: Should Climate Damages Cases Be Heard in State or Federal Court?' (2020) 72 *Stanford Law Review* 134; see generally Peter C. Frumhoff et al., 'The Climate Responsibilities of Industrial Carbon Producers' (2015) 132 *Climatic Change* 157.

¹⁷ See Geoffrey Supran and Naomi Oreskes, 'Assessing ExxonMobil's Climate Change Communications (1977–2014)' (2017) 12 *Environmental Research Letters* 084019; see also Sophie Marjanac and Lindene Patton, 'Extreme Weather Event Attribution Science and Climate Change Litigation: An Essential Step in the Causal Chain?' (2018) 36 *Journal of Energy and Natural Resources Law* 265.

¹⁸ See 'Luciano Lliuya v. RWE', Climate Change Laws of the World, LSE-Grantham Research Institute on Climate Change and the Environment.

¹⁹ See 'People of the State of New York v. Exxon Mobil Corporation,' Sabin Center Climate Change Litigation Databases.

through its statements about how it accounted for the costs of climate change regulation. The case started in 2015, with a four-year investigation that led ultimately to a lawsuit alleging that Exxon's publicly disclosed projections of climate change-related costs were inconsistent with its internal projections and were therefore fraudulent. The court held that the majority of investment decisions are not based on climate change cost assumptions and therefore the Attorney General had not been able to prove material misrepresentation. However, the court was careful to note that its decision did not excuse Exxon from any responsibility that it may have for causing climate change as the case related only to issues of fraud and not to climate change more broadly.

Another modality of climate litigation that addresses a discrepancy between discourse and action, sometimes referred to as 'greenwashing', manifests when products, services, or advertising campaigns mislead consumers about their overall environmental performance or benefits. An example of a greenwashing (or 'climawashing') case against a Carbon Major is the Complaint against BP,²⁰ filed by the environmental law firm/NGO ClientEarth before the UK Contact Point under the OECD Guidelines for Multinational Enterprises. The complaint alleged that a BP advertising campaign had misrepresented the scale of BP's low-carbon activities, provided inaccurate information about the emissions savings from its natural gas activities, and overemphasized the importance and desirability of increasing primary energy demand. The complaint did not proceed further as BP ended the advertising campaign in question. Nevertheless, the UK Contact Point analyzed the filing and found that the complaint was material and substantiated.

In this effort to shift the current and future corporate behaviour of major emitters, an important trend has been for litigants to rely on human rights law to define the scope of corporate duty of care and due diligence. In *Milieudéfensie et al. v. Royal Dutch Shell*,²¹ the plaintiffs claim that Shell committed to support the Paris Agreement and, at the same time, continued to lobby against climate policies and invest in oil and gas extraction. In this case, the applicants rely on human rights to define the contours of the corporate duty of care and due diligence obligations under Dutch tort law, seeking an injunctive relief that would require Shell to align its emissions with

²⁰ See 'Complaint against BP in Respect of Violations of the OECD Guidelines', Climate Change Laws of the World, LSE-Grantham Research Institute on Climate Change and the Environment.

²¹ See 'Milieudéfensie et al. v. Royal Dutch Shell plc.', Climate Change Laws of the World, LSE-Grantham Research Institute on Climate Change and the Environment.

the Paris goals. In *Notre Affaire à Tous and Others v. Total*,²² an alliance of French NGOs and local governments sought a court order forcing Total to issue a new vigilance plan that considered the risks related to global warming beyond 1.5 degrees Celsius, Total's contributions to those risks, and a plan aligning the company's activities with a greenhouse gas emissions reduction pathway compatible with limiting warming to 1.5 degrees Celsius.

The last type of forward-looking cases using human rights as a basis for Carbon Majors litigation argues that corporations have specific human rights responsibilities. However, unlike states' duties to protect,²³ private law is an area in which human rights law is not clear-cut.²⁴ The so-called business and human rights regime is only specified in soft law instruments, such as the UN Guiding Principles on Business and Human Rights. The first of such cases is an extra-judicial investigation – the inquiry initiated by the Commission on Human Rights of the Philippines in response to a petition filed by Greenpeace Southeast Asia and the Philippines in 2015.²⁵

10.3 UNDERSTANDING THE POTENTIAL IMPACTS OF CLIMATE LITIGATION

As climate change litigation is increasingly used as a tool for climate governance, it is important for litigators to understand the potential impacts that litigation against Carbon Majors can have in order to assess its resonance in different circumstances. The impacts of climate litigation can be regulatory and financial, direct and indirect. This section discusses (i) the regulatory and (ii) financial impacts of cases brought against Carbon Majors (described in Section 10.2) as well as cases brought against other actors but that might impact Carbon Majors. It also contemplates (iii) the possibility of using event studies to assess the eventual impact of climate litigation on the market valuation of listed Carbon Majors companies.

²² See 'Notre Affaire à Tous and Others v. Total', Climate Change Laws of the World, LSE-Grantham Research Institute on Climate Change and the Environment.

²³ See César Rodríguez-Garavito, 'Human Rights: The Global South's Route to Climate Litigation' (2020) 114 *AJIL Unbound* 40.

²⁴ See Annalisa Savaresi and Juan Auz, 'Climate Change Litigation and Human Rights: Pushing the Boundaries' (2019) 9 *Climate Law* 244.

²⁵ See Jacqueline Peel and Hari M. Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7 *Transnational Environmental Law* 37; see also Jacqueline Peel and Jolene Lin, 'Transnational Climate Litigation: The Contribution of the Global South' (2019) 113 *American Journal of International Law* 679; see also Joana Setzer and Lisa Benjamin, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law* 77.

It should be noted, however, that while different impacts can be observed among all types of climate litigation, questions about whether the outcomes of these cases actually help to address climate change in a meaningful way remain unanswered.²⁶ Assessing the significance of climate change litigation involves questions of how to define impact, which evidence sources to consider, and the relevant time frame for assessment.²⁷ Time frame is particularly important given that legal cases may take several years to progress through the courts and the full effects may be manifested much later down the line. At the same time, an evaluation of the effectiveness and impacts of climate litigation does not end with the result in the courts; a consideration of what cases or strategies work must include an understanding that a win or loss in litigation may have implications that are complex and difficult to understand.²⁸ Moreover, litigation strategies do not take place in isolation from other political and social mobilization efforts; rather, litigation strategies are combined with other strategies, such as policy advocacy and public campaigns.²⁹

10.3.1 *Direct and Indirect Regulatory Impacts of Litigation*

One way to proceed with an assessment of the regulatory impacts of climate litigation is to follow frameworks such as the one suggested by Peel and Osofsky.³⁰ According to this framework, direct regulatory impacts occur where formal legal change results from the litigation. This may be manifested through targeted rules, policies, or decision-making procedures that are mandated by a judgment or arise out of the legal interpretation developed by the court. Direct regulatory impacts resulting from litigation brought against governments can indirectly affect Carbon Major companies. These forms of litigation, although focused on regulatory behaviour, have the potential to change government policies and thereby affect Carbon Majors. When successful, these cases have implications for the speed and scope of the transition to a lower carbon economy. For example, litigation against governments can

²⁶ See Kim Bouwer, 'The Unsexy Future of Climate Change Litigation' (2018) 30 *Journal of Environmental Law* 483; see also Setzer and Vanhala, 'Climate Change Litigation', above note 4.

²⁷ See Setzer and Vanhala, 'Climate Change Litigation', above note 4.

²⁸ See Kim Bouwer, 'Lessons from a Distorted Metaphor: The Holy Grail of Climate Litigation' (2020) 9 *Transnational Environmental Law* 1.

²⁹ See Scott L. Cummings and Deborah L. Rhode, 'Public Interest Litigation: Insights From Theory and Practice' (2009) 36 *Fordham Urban Law Journal* 603.

³⁰ See Peel and Osofsky, *Climate Change Litigation Regulatory Pathways to Cleaner Energy*, above note 1.

lead to more stringent emissions standards, compel the inclusion of GHG emissions limits in regulatory permits issued to new activities/particular sectors, result in the delay or revocation of permits and licences, or lead to more stringent procedural obligations, such as reporting and disclosure.³¹

Indirect regulatory impacts, in turn, describe pathways that arise due to the incentives that judgments provide for behavioural change by governmental and non-governmental actors. Indirect regulatory impacts include the increased sensitization of legal institutions to the nature of climate change and increased public awareness of climate change and its impacts. Examples of indirect regulatory impacts experienced by corporate actors include the spillover of regulatory actions (e.g., when lawsuits are combined with other forms of activism and public campaigns) and an increased perception of 'litigation risk'.³²

10.3.2 *Direct and Indirect Financial Impacts of Litigation*

Because strategic litigation against Carbon Majors is intended to change the behaviour and, ultimately, the business models of companies that contribute significantly to GHG emissions, understanding the financial impacts of these claims is also critical. For that, it is necessary to pursue a quantitative assessment of the direct and indirect economic costs and financial impacts of climate litigation.³³

Direct financial impacts are easier to calculate. As with other types of litigation, for the defendants, direct impacts usually include legal and administrative costs, legal fees and fines, and, if the case is successful, awards of damages. These financial impacts can occur at a pre-filing stage, during the legal proceeding itself, and after the final judgment, award, or decision.³⁴ The exponential increase in harmful climate impacts globally means that Carbon Major corporations may be liable for billions of dollars' worth of damages for existing as well as future climate impacts, and not all climate change damage

³¹ See Ganguly et al., 'If at First You Don't Succeed: Suing Corporations for Climate Change', above note 2; see also Javier Solana, 'Climate Litigation in Financial Markets: A Typology' (2019) 9 *Transnational Environmental Law* 1.

³² See Bouwer and Setzer, 'New Trends in Climate Litigation', above note 4.

³³ See Joana Setzer, 'Climate Litigation against "Carbon Majors": Economic Impacts', Open Global Rights, 16 July 2020.

³⁴ Javier Solana, 'Climate Litigation as Financial Risk', in *EBI BrieFin: #3 Sustainable Finance* (Frankfurt am Main: European Banking Institute for Research on Banking Regulation, 2020), <<http://xoktk.mjt.lu/nl2/xoktk/5kyimo.html>>.

is covered by the insurance policies held by Carbon Major companies.³⁵ The scale of the liability for damages may vary depending on whether they arise out of past emissions or out of future emissions if there is no change of course in their emissions.

As with indirect regulatory impacts, the indirect financial impacts of climate litigation against major carbon emitters are harder to measure. To start, the regulatory impacts of successful high-profile cases brought against governments (mentioned in Section 10.3.1) can result in economic costs to major emitters. In some instances, Carbon Majors might experience the indirect regulatory impacts of cases brought against financiers, pension funds, and university endowments. Some of these cases might intend to pressure Carbon Majors and are brought as part of a broader strategy by social movements or organizations to increase the viability of ongoing campaigns against major emitters.³⁶ Indirect financial impacts of litigation against Carbon Majors also include increasing premiums under liability insurance policies, increasing capital costs, and the devaluation of shares of listed companies.³⁷

Indirect economic impacts resulting from climate litigation are still speculative.³⁸ In theory, investors may react to the direct cost of the lawsuit and/or perceive that climate cases could undermine companies' reputations and try to anticipate potential reputational losses by selling their shares.³⁹ In addition, climate lawsuits brought by shareholders against Carbon Majors on the basis that these companies will have to radically shift their business model or else risk exposure to stranded assets might also result in investors trying to anticipate potential costs by selling their shares.

10.3.3 *Measuring the Indirect Impact of Litigation on Stock Prices*

When considering the indirect economic impacts of litigation, one of the most common indicators is identifying whether litigation affects the market valuation of listed companies. The impact of litigation on stock prices is measured through event studies – a methodology widely used to examine

³⁵ See Ganguly et al., 'If at First You Don't Succeed: Suing Corporations for Climate Change', above note 2.

³⁶ See Bower and Setzer, 'New Trends in Climate Litigation', above note 4.

³⁷ See Solana, 'Climate Litigation as Financial Risk', above note 34.

³⁸ See Setzer, 'Climate Litigation against "Carbon Majors": Economic Impacts', above note 33.

³⁹ See John Armour et al., 'Regulatory Sanctions and Reputational Damage in Financial Markets' (2017) 52 *Journal of Financial and Quantitative Analysis* 1429; see also Solana, 'Climate Litigation as Financial Risk', above note 34.

the shareholder wealth consequences of different types of lawsuits.⁴⁰ Event studies assessing the impacts of litigation have been undertaken for different types of litigation, including tobacco, asbestos, and environmental litigation in the United States. In tobacco litigation, unfavourable litigation announcements were found to cause share prices to fall relative to those in reference industries.⁴¹ Factors causing this revaluation of share prices include the prospect of high legal fees, significant liability or settlement payments, and reputational costs.⁴² The financial impact of strategic litigation was equally, if not more, significant for the asbestos industry. Researchers estimate that between 1976 and 2004 at least seventy-three companies filed for bankruptcy as a result of the costs of asbestos litigation and the prospect of future liability.⁴³

Within the field of environmental regulation, both actual and potential environmental lawsuits were found to lead to falls in share prices. The Volkswagen emissions scandal of 2015 ('Dieselgate') stands out, with the disclosure of the breach by the Environmental Protection Agency leading to a loss in market value of around 30 per cent in several days.⁴⁴ Dieselgate had significant spillover effects, with American automobile companies all experiencing falls in their share values.⁴⁵ Furthermore, following Dieselgate, share price drop in response to failures to meet environmental standards increased, reflecting heightened scrutiny of the automotive industry by investors.⁴⁶

Although the existing literature analyzed different industries and types of cases, they suggest that strategic litigation can impose detrimental financial impacts on the share prices of the industries against which cases are brought.⁴⁷ These financial impacts were, in the tobacco and asbestos cases, exacerbated by additional suits or the unveiling of damaging internal documents tracing a pattern of concealment and misrepresentation. In environmental cases, the impact of disclosure has been particularly severe, as it unveils greenwashing,

⁴⁰ See Sanjai Bhagat and Roberta Romano, 'Event Studies and the Law: Part I: Technique and Corporate Litigation' (2002) 4 *American Law and Economics Review* 141.

⁴¹ See Frank A. Sloan et al., 'Litigation and the Value of Tobacco Companies' (2005) 24 *Journal of Health Economics* 427, 427–39.

⁴² Bhagat and Romano, 'Event Studies and the Law: Part I', above note 40.

⁴³ See Stephen J. Carroll et al., 'Asbestos Litigation Costs and Compensation: An Interim Report' (2002) RAND Institute for Civil Justice.

⁴⁴ See Mauro Nunes and Camila Lee Park, 'Caught Red-Handed: The Cost of the Volkswagen Dieselgate' (2016) 7 *Journal of Global Responsibility* 288.

⁴⁵ See Lincoln C. Wood et al., 'Stock Market Reactions to Auto Manufacturers' Environmental Failures' (2018) 38 *Journal of Macromarketing* 364.

⁴⁶ *Ibid.*

⁴⁷ See generally Matteo Arena and Stephen P. Ferris, 'A Survey of Litigation in Corporate Finance' (2017) 43 *Managerial Finance* 4.

which in turn is found to lead to additional litigation, losses in reputation, consumer trust, and corresponding market share.⁴⁸

In a number of cases that have been studied, drops in share value have influenced corporate behavioural change.⁴⁹ One notable example is the signing of the master settlement agreement by tobacco companies, as it indicated a willingness to pay a premium to stabilize share prices and obtain price stability.⁵⁰ Decades of law and finance literature suggest that litigation risk and actual litigation can have significant long-lasting effects on defendant firms and their executives and directors, with further ramifications for corporate activities, policies, behaviours, and outcomes.

Would that also be the case for climate litigation against Carbon Majors? The climate lawsuits filed against Carbon Majors have already imposed significant direct costs on both plaintiffs and defendants. An assessment of indirect costs suffered by Carbon Majors companies could show whether, in addition to the direct costs, these companies are suffering – or will suffer – drops in share values that are significant enough to drive shifts in their policies and behaviour.

10.4 CONCLUSION

Litigation as a governance strategy is costly and risky, and it takes place alongside other political and social mobilization efforts. The indirect impacts of climate litigation against Carbon Major corporations constitute one piece of a larger puzzle that needs to be put together when considering if and to what extent litigation can operate as a governance tool capable of driving change in corporate policies and behaviours. If the costs to defendants associated with defending claims – including reputational costs – do not outweigh the benefits of continuing the impugned conduct or similar practices, the defendants' imperative to change their behaviour will be limited, and the strategy could be ineffectual. This will be the case regardless of the costs and benefits to the plaintiffs.

Event studies have not yet been carried out to assess the eventual impact of climate litigation against major carbon emitters. Considering the findings in studies carried out in other types of litigation, it is possible that strategic

⁴⁸ See Nunes and Park, 'Caught Red-Handed', above note 44.

⁴⁹ See Shameek Konar and Mark A. Cohen, 'Information as Regulation: The Effect of Community Right to Know Laws on Toxic Emissions' (1997) 32 *Journal of Environmental Economics and Management* 109.

⁵⁰ See Sloan et al., 'Litigation and the Value of Tobacco Companies', above note 41.

litigation will impose detrimental financial impacts on the share prices of Carbon Major companies, and such drops in share value could influence corporate behavioural change. But assessing the indirect costs incurred by Carbon Majors as a result of their involvement in climate litigation is not an easy task. Nevertheless, developing an understanding of the costs and impacts of climate litigation is still crucial, not only within academic circles but also for the legal professionals, claimants, defendants, funders, and individuals that are involved in or affected by the outcomes of these cases.

