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SYMPOSIUM ARTICLE

Climate Litigation in Financial Markets: A Typology[†]

Javier Solana*

Abstract
Over the past few years, the number of climate cases being filed against corporations and public authorities around the world has been on the rise. Aware of the central role of finance in economic development, the financial sector has remained vigilant. Traditionally, climate litigation in financial markets had been rare, but that seems to be changing: in 2018 there were more cases filed than in any previous year. The development of existing and forthcoming private and public sector initiatives with the aim of promoting sustainable finance may usher in even greater numbers in the next few years. This article provides the first systematic overview of climate cases in financial markets and introduces a typology to classify this type of climate case. This classification reveals common issues across different financial systems and raises questions for further enquiry that define a new research area within the emerging literature on climate litigation.

Keywords: Climate change, Climate litigation, Climate finance, Sustainable finance, Disclosure, Fiduciary duties

1. INTRODUCTION

Mobilizing finance is essential for addressing the climate crisis effectively. It is essential to support mitigation actions that aim to reduce emissions that aggravate climate change, and to support actions that aim to adapt to the adverse effects and reduce the impacts of a changing climate.[1] I shall refer to finance that aims to support these mitigation and adaptation actions as 'climate finance'.[2]

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* University of Glasgow School of Law, Glasgow (United Kingdom (UK)).
Email: Javier.solana@glasgow.ac.uk.

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1 See UN Climate Change, 'Introduction to Climate Finance', 2019, available at: https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance.

2 This article adheres to the UN's broad understanding of the term 'climate finance' in the context of the UNFCCC (n. 3 below): 'Climate finance refers to local, national or transnational financing—drawn

Since the 21st Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC),[3] held in Paris (France) in December 2015,[4] the promotion of climate finance has become a prominent political issue in many countries around the world.[5] According to the latest report from the Intergovernmental Panel on Climate Change (IPCC), the United Nations (UN) body for assessing the science related to climate change, the world needs to invest USD 2.4 trillion in clean energy every year between 2016 and 2035 to keep global temperatures within 1.5°C of pre-industrial levels.[6] In the European Union (EU) alone, achieving the 2030 targets agreed in Paris will require an additional investment of EUR 180 billion per year.[7] Conscious of the limitations of public finances, in March 2018 the European Commission presented an action plan that aims to incentivize the financial sector to fill that investment gap.[8] Other countries have recently adopted, or are in the process of adopting, similar measures.[9]

In recent years there has also been a growing number of climate litigation cases. As of May 2018, more than 1,000 cases had been filed in 25 jurisdictions.[10] Most of these cases have been filed against public authorities and corporations, mainly in the fossil

from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change': UN Climate Change, ibid.

3 New York, NY (US), 9 May 1992, in force 21 Mar. 1994, available at: http://unfccc.int.

4 For an overview of the introduction of climate finance into the negotiations of the UNFCCC and its accompanying protocols and agreements, see UN Climate Change, 'Climate Finance', 2019, available at: https://unfccc.int/topics/climate-finance/the-big-picture/climate-finance-in-the-negotiations.

5 China and the European Union (EU) have taken a leading role. See, e.g., The People's Bank of China, The Ministry of Finance, National Development and Reform Commission, The Ministry of Environment Protection, China Banking Regulatory Commission, China Securities Regulatory Commission & China Insurance Regulatory Commission, 'Guidelines for Establishing the Green Financial System', 31 Aug. 2016, available at: http://www.pbc.gov.cn/english/130721/3133045/index.html; Communication from the European Commission, 'Action Plan: Financing Sustainable Growth', 8 Mar. 2018, COM(2018)97 final, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097 (EC Sustainable Finance Action Plan).

6 This represents approximately 2.5% of the world's gross domestic product: IPCC, 'Global Warming of 1.5°C: Summary for Policy Makers', Oct. 2018, para. D.5.3, available at: https://www.ipcc.ch/sr15.

7 EC Sustainable Finance Action Plan, n. 5 above, p. 2.

8 Ibid. Shortly thereafter, the European Commission adopted a package of measures implementing several key actions announced in its action plan: European Commission, 'Sustainable Finance', available at: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en.

9 Together with the EU, China has taken a leading role in promoting sustainable finance. See, e.g., the Green Investment Guidelines adopted by the Asset Management Association of China, 10 Nov. 2018, available at: http://www.gflp.org.cn/index/index/newsdetail/id/31.html; and H. Peng, X. Lu & C. Zhou, 'Introduction to China's Green Finance System' (2018) 11(1) *Journal of Service Science and Management*, pp. 94–100. In the United Kingdom (UK) and California (United States (US)), recent legislative initiatives will require pension funds to start disclosing their climate change strategy as soon as Oct. 2019: see S. Rust, 'DWP Drops "Statement on Member Views" Requirement from ESG Rules', *IPE*, 11 Sept. 2018, available at: https://www.ipe.com/news/esg/dwp-drops-statement-on-member-views-requirement-from-esg-rules/10026589.article; J. Thompson, 'California Turns up the Heat on Climate Change Disclosures', *Financial Times*, 29 Sept. 2018, available at: https://www.ft.com/content/a4c8fffa-869a-3e76-8e05-e8acc572d293.

10 See M. Nachmany & J. Setzer, 'Global Trends in Climate Change Legislation and Litigation: 2018 Snapshot', *Grantham Research Institute Report*, May 2018, p. 5, available at: http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/04/Global-trends-in-climate-change-legislation-and-litigation-2018-snapshot-3.pdf.

fuel industry.[11] Climate litigation in financial markets is a relatively recent phenomenon, but the number of cases is increasing rapidly: in 2018 more cases were filed than in any previous year. Moreover, the growing prominence of climate finance in political agendas worldwide is leading to new private and public sector initiatives that will arguably usher in even more cases in the next few years.[12]

In parallel, a growing body of academic literature explores climate litigation. According to Peel and Osofsky,[13] this literature explores climate litigation from three angles. One body of literature provides detailed analyses of specific climate cases or examines developments in climate litigation in specific jurisdictions.[14] Another attempts to systematize the different cases in climate litigation;[15] and a third aims to explore the role of litigation in the governance of climate change.[16]

Climate litigation in financial markets has not attracted as much attention from academics as other types of climate case.[17] In addition, the few academic studies that explore climate litigation in financial markets tend to focus on very specific claims and are circumscribed to individual jurisdictions.[18] So far, no attempt has been made to classify the different types of case.

This article provides the first systematic overview of climate cases in financial markets. The analysis covers all cases filed before 31 December 2018 that meet certain criteria specified in Section 2. Section 3 summarizes all the relevant cases, using a typology

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[11] Ibid.

[12] See, e.g., Task Force on Climate-related Financial Disclosures (TCFD), 'Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures', 29 June 2017, available at: https://www.fsb-tcfd.org/publications/final-recommendations-report; Prudential Regulation Authority, 'The Impact of Climate Change on the UK Insurance Sector', Sept. 2015, pp. 57–65, available at: https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/impact-of-climate-change-on-the-uk-insurance-sector.pdf.

[13] See J. Peel & H.M. Osofsky, 'Litigation's Regulatory Pathways and the Administrative State: Lessons from U.S. and Australian Climate Change Governance' (2013) 25 *Georgetown International Environmental Law Review*, pp. 207–59, at 210–11.

[14] For prominent examples of this literature, see the list of works in J. Setzer & M. Bangalore, 'Regulating Climate Change in the Courts', in A. Averchenkova, S. Fankhauser & M. Nachmany (eds), *Trends in Climate Change Legislation* (Edward Elgar, 2017), pp. 175–92, at 177.

[15] Ibid., pp. 177–8.

[16] Ibid., pp. 178–80. For a more recent review on the literature, see J. Setzer & L. Vanhala, 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Government (2019) 10(3) *Wiley Interdisciplinary Reviews: Climate Change* online articles, available at: https://onlinelibrary.wiley.com/doi/abs/10.1002/wcc.580.

[17] N. 10 above.

[18] See, e.g., P. Wallace, 'Climate Change, Corporate Strategy, and Corporate Law Duties' (2009) 44(3) *Wake Forest Law Review*, pp. 757–76; S. Barker, 'Directors Duties in the Anthropocene: Personal Liability for Corporate Inaction on Climate Change' (Master's thesis, University of Melbourne, Victoria (Australia), 2013), available at: http://responsible-investmentbanking.com/wp-content/uploads/2014/11/Directors-Duties-in-the-Anthropocene-December-2013.pdf; M. Gold & A. Scotchmer, 'Climate Change and Fiduciary Duties of Pension Fund Trustees in Canada', Koskie Minsky LLP, 18 Sept. 2015, available at: https://www.turnbackthetide.ca/tools-and-resources/whatsnew/2015/KoskieMinskyLLP.pdf; S. Barker et al., 'Climate Change and the Fiduciary Duties of Pension Fund Trustees: Lessons from the Australian Law' (2016) 6(3) *Journal of Sustainable Finance & Investment*, pp. 211–44; G. Erion, 'The Stock Market to the Rescue? Carbon Disclosure and the Future of Securities-Related Climate Change Litigation' (2009) 18(2) *Review of European, Comparative & International Environmental Law*, pp. 164–71; J. Solana, 'The Power of the Eurosystem to Promote Environmental Protection', (2019) *European Business Law Review* (forthcoming), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3241341.

to classify them according to the underpinning claims. This section also considers how climate litigation in financial markets might evolve on the basis of existing climate cases in other industries and/or existing non-climate cases in the financial sector. Section 4 concludes by tracing potential avenues of future research.

2. SCOPE OF THE REVIEW

2.1. *Case Selection Methodology*

Before presenting the typology, a few methodological clarifications are necessary in order to understand the scope of the review. A fundamental question is what constitutes 'climate change litigation' (or 'climate litigation' for short). The concept has two clear elements: the 'climate change' element and the 'litigation' element. The definition adopted is based on a narrow scope of the first element and a broad scope of the second. Peel and Osofsky have conceptualized the first element of the definition using a series of concentric circles. In the innermost circle or 'core', litigation has climate change as a central issue; in the three outer circles, climate change becomes a more peripheral issue.[19] The definition of 'climate change litigation' adopted here includes cases at the 'core' of the framework and in the second innermost circle – cases with climate change as the central issue, and cases with climate change as one of the key issues.

In relation to the second element, I adopt a relatively broad interpretation of 'litigation'. It goes beyond judicial authorities to include administrative bodies with regulatory enforcement powers and the authority to issue binding decisions, as well as claims that have not yet been resolved.[20] In the specific context of financial markets, this includes ordinary courts as well as financial supervisory authorities and ombudsman schemes. The definition, however, includes only cases of an adversarial nature. Adversarial cases may include situations where there is only one party if that party's motivation for initiating legal proceedings is litigious, such as filing a complaint against a financial institution before a supervisory authority.

The focus of the analysis is on financial markets. Following Armour and his co-authors, financial systems play five roles:

> (i) providing a secure mechanism for *payments* at a distance; (ii) *mobilizing capital* from savers who have more financial resources than uses for them; (iii) *selecting projects* from amongst those seeking investment to capital; (iv) *monitoring* the performance of those executing projects in which investment has been made; and (v) *managing risk*.[21]

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[19] The three other circles include, in order of proximity to the core: (i) litigation with climate change as a peripheral issue; (ii) litigation with climate change as one motivation but not raised as an issue, e.g., cases against coal brought on environmental grounds; and (iii) litigation with no specific climate change framing but implications for mitigation or adaptation, e.g., fracking cases: J. Peel & H.M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015), p. 8.

[20] This is in line with empirical analyses of climate litigation: see, e.g., D. Markell & J.B. Ruhl, 'An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual' (2012) 64(1) *Florida Law Review*, pp. 15–86, at 27.

[21] J. Armour et al., *Principles of Financial Regulation* (Oxford University Press, 2016), pp. 22–3 (emphasis in original).

As a result, most cases examined in this article involve the provision of financial services that fall into at least one of those five categories and are typically documented in a contract. They include the execution of financial transactions such as insurance, loans and other credit facilities, and the sale and purchase of equity and debt securities. Importantly, this definition captures cases that involve two financial actors (e.g., a bank makes a loan to another bank), financial and non-financial actors (e.g., a bank makes a loan to an oil company), and two non-financial actors (e.g., an individual investor purchases equity securities issued by an oil company). As a result, the financial nature of the actors is not an essential criterion. Moreover, the financial transactions falling within the scope of the definition need not be restricted to climate finance. For example, non-financial corporations raising finance in capital markets to develop projects that do not necessarily seek to advance climate change adaptation or mitigation projects are included. However, the projects being financed may have a different connection with climate change – namely, a seemingly negative impact.

The identification of cases has relied primarily on two specialized databases: the Sabin Center for Climate Change Climate Litigation Chart (Sabin database)[22] and the Grantham Research Institute on Climate Change and the Environment Climate Change Laws of the World (GRI database).[23] Both databases are updated regularly through standard legal research methods. As of 31 December 2018, the Sabin database contained 977 cases under 'U.S. Litigation' and 275 cases under 'Non-U.S. Litigation', and the GRI database contained 274 cases, which exclude United States (US) litigation. A search of these databases using keywords such as 'financ*', 'equity', 'debt', 'securities', 'loan' returned 46 cases that met the definitions described in the preceding paragraphs. Most of these cases were in the US (23). Other jurisdictions where cases were found include Australia (11), the United Kingdom (UK) (8), Canada (2), Germany (1) and Poland (1). The preponderance of cases in these jurisdictions is in line with broader surveys of climate litigation.[24]

2.2. *Climate Litigation Typologies*

Most systematic analyses of climate litigation in the academic literature adopt typologies that focus on the types of claim that underpin the cases.[25] Following this generalized approach, I have distinguished eight types of claim by analyzing the 46 cases identified in the database search that meet the definitions presented above and by

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22 Database available at: http://climatecasechart.com.

23 Database available at: http://www.lse.ac.uk/GranthamInstitute/climate-change-laws-of-the-world.

24 See Nachmany & Setzer, n. 10 above.

25 See, e.g., N.S. Gahleigh, '"Six Honest Serving-Men": Climate Change Litigation as Legal Mobilization and the Utility of Typologies' (2010) 1(1) *Climate Law*, pp. 31–61; B.J. Preston, 'Climate Change Litigation (Part 1)' (2011) 5(1) *Carbon & Climate Law Review*, pp. 3–14; B.J. Preston, 'Climate Change Litigation (Part 2)' (2011) 5(2) *Carbon & Climate Law Review*, pp. 244–63; D. Markell & J.B. Ruhl, n. 20 above; M. Wilensky, 'Climate Change in the Courts: An Assessment of Non-U.S. Climate Litigation' (2015) 26(1) *Duke Environmental Law & Policy Forum*, pp. 131–79; Setzer & Bangalore, n. 14 above.

reflecting on existing or upcoming regulatory initiatives that aim to promote sustainable finance. As a result, each type of claim may include one or several of the 46 cases identified in the search, one or several potential cases, or a combination of both. Under each category of claims, when climate cases have been identified in financial markets, these are examined first. Potential cases are examined last. Where appropriate, sub-types of claim are identified under each category.

3. TYPOLOGY OF CLAIMS

3.1. *Fundamental Rights*

There is an increasing trend to incorporate rights claims in climate litigation cases and a growing receptivity of courts to this framing.[26] Most fundamental rights arguments rely on the protection of the right to life,[27] the right to home and family life,[28] the right to a safe and healthy environment,[29] and the right to human dignity.[30] An analysis of these rights-based climate cases reveals that, so far, fundamental rights have underpinned claims that seek to advance and promote climate regulation ('pro-regulatory' cases). Litigants have not relied on fundamental rights to challenge climate regulation ('anti-regulatory' cases).[31]

There is at least one case in which human rights were invoked as an argument to challenge a financial investment. In 2008, the UK government provided major financial support to Royal Bank of Scotland (RBS), which resulted in the government owning 70% of the issued shared capital in the bank. In *RBS*, the claimant sought permission to bring judicial review proceedings in relation to the policy adopted by the UK Treasury in its investment in RBS, arguing, among other things, that the said policy was unlawful on human rights grounds under section 6 of the Human Rights Act 1998.[32] This section provides a general prohibition on public authorities against acting

[26] See J. Peel & H.M. Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7(1) *Transnational Environmental Law*, pp. 37–67, 48–60.

[27] See *Stichting Urgenda* v. *Government of the Netherlands (Ministry of Infrastructure and the Environment)*, ECLI:NL:RBDHA:2015:7145, Rechtbank Den Haag, C/09/456689/HA ZA 13-1396 (*Urgenda*); *Ashgar Leghari* v. *Federation of Pakistan* (W.P. No. 25501/2015), Lahore High Court Green Bench, Orders of 4 Sept. and 14 Sept. 2015 (*Leghari*), para. 7; *Juliana* v. *United States*, No. 6:15-cv-01517, (D.Or., 10 Nov. 2016) (Aiken, J.) 46 ELR 20175 (*Juliana*).

[28] See *Urgenda*, ibid.

[29] See *Leghari*, n. 27 above, para. 7; Case No. W109 2000179-1/291E, Federal Administrative Court, Austria, 2 Feb. 2017 (*Vienna International Airport*); *Earthlife Africa Johannesburg* v. *Minister of Environmental Affairs & Others*, Case No. 65662/16, Judgment of the High Court of South Africa, Gauteng Division, Pretoria (South Africa), 8 Mar. 2017.

[30] Ibid. Other fundamental rights arguments rely on the right to liberty and property (see *Juliana*, n. 27 above) and the principles of sustainability and environmental protection (see *Leghari*, n. 27 above, para. 7; *Vienna International Airport*, ibid.).

[31] For an analysis of this typology, see Peel & Osofsky, n. 19 above, pp. 30–2.

[32] See *The Queen (on the Application of People and Planet)* v. *HM Treasury*, High Court of Justice, Queen's Bench Division, Administrative Court, 20 Oct. 2009, [2009] EWHC 3020 (Admin) (*RBS*), para. 10.

in a way that is incompatible with a 'Convention right'.[33] The court, however, dismissed the claim without discussing it in substance.[34]

In line with the trend observed in climate litigation more generally, there are no known 'anti-regulatory' climate cases in financial markets that rely on fundamental rights arguments. Nevertheless, there are precedents where investors and other interested parties have challenged policy measures, alleging that their fundamental rights had been violated. For example, in the context of the same financial crisis that led the UK government to support RBS, the government also supported another bank, Northern Rock. Unlike RBS, however, Northern Rock was ultimately taken into public ownership. The legislation that effected the nationalization of Northern Rock provided for the assessment by an independent valuer of compensation payable to the bank's shareholders. In addition, the statutory instrument making provision for the determination of the compensation payable by the UK Treasury to the bank's shareholders required the independent valuer to assume that Northern Rock was unable to continue as a going concern and was in administration. This effectively meant that there would be no residual value in the company and that shareholders would be paid no compensation.[35]

In *Grainger*, several shareholders of Northern Rock challenged the decision of the UK government to nationalize the bank before the European Court of Human Rights (ECtHR) on the grounds that the decision had been disproportionate, alleging, among other things, that 'two other major United Kingdom institutions, [RBS] and HBOS, [had been] treated entirely differently by the Government barely a year after the nationalisation of Northern Rock'.[36] The applicants did not expressly allege a violation of the principle of non-discrimination and therefore the ECtHR did not examine the case within that framework. Nevertheless, *Grainger* ushered in a series of cases in which claimants relied on the principle of non-discrimination to challenge the management of recent financial crises in Iceland, Portugal, and the Netherlands.[37] In these cases, foreign investors alleged that national bank resolution authorities had given domestic investors more favourable treatment when putting a domestic financial institution into resolution. None of the courts in these cases, however, found that public authorities had violated the principle of non-discrimination in treating the various investors differently.

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33 The UK Human Rights Act (HRA) 1998 gives further effect to rights and freedoms guaranteed under the European Convention on Human Rights (ECHR) (Rome (Italy), 4 Nov. 1950, in force 3 Sept. 1953, available at: http://www.echr.coe.int/pages/home.aspx?p=basictexts). Art. 1 HRA identifies the specific provisions of the ECHR that comprise the category of 'Convention rights' under the HRA.

34 See *RBS*, n. 32 above, para. 12.

35 ECtHR, 10 Jul. 2012, *Dennis Grainger and Others* v. *United Kingdom*, Appl. No. 34940/10 (*Grainger*), paras 3–18.

36 Ibid., para. 32.

37 See EFTA Court, Case E-16/11 *European Free Trade Association (EFTA) Surveillance Authority* v. *Iceland*, 28 Jan. 2013 [2013] *EFTA Court Reports* (nyr) (*Icesave*); ECtHR, 14 Jan. 2014, *Adorisio* v. *The Netherlands*, Appl. No. 47315/13 (*Adorisio*); *Goldman Sachs International* v. *Novo Banco S.A.*, UK Supreme Court, 4 July 2018 [2018] UKSC 34 (*Novo Banco*).

An analysis of the merits of these claims is beyond the scope of this article.[38] Nevertheless, these cases illustrate that policy measures in financial markets are very susceptible to discriminatory claims, particularly during times of emergency. Arguably, the decision to promote sustainable finance in order to accelerate the transition to a low-carbon economy could raise similar concerns among investors. For example, there has been discussion about the feasibility of using macroprudential policy to promote sustainable finance. The two main approaches rely on adapting regulatory capital requirements (the amount of capital that banks have to hold to absorb losses if their loans default) to reflect banks' exposure to climate risk, for instance, by lowering capital requirements for 'green assets' and/or raising them for 'brown assets'.[39] Under either approach, banks holding more brown assets might try to challenge these new macroprudential regulations on grounds of discrimination, particularly if such an adaptation of capital requirements can undermine their very rationale, as some central banks have already argued.[40]

In the context of bank resolution, investors have typically complemented their discrimination claims with the argument that the application of regulatory measures also violated their fundamental right to private property.[41] The application of some of these measures, such as the bail-in tool, constitutes a frontal attack on private property because shareholders and holders of junior debt in the financial institution are deprived of their rights in that property.[42] At first sight, however, the implementation of regulatory initiatives to promote sustainable finance that are known to date do not have such dramatic implications for the right to private property: investors could continue to hold, and profit from, their assets. Nevertheless, an effective policy could erode the profitability of brown assets and undermine the expectations of investors. On these grounds, affected investors might indeed seek to challenge the policy, alleging a violation of the principle of legitimate expectation.[43] *A priori*, however, courts are likely to dismiss these claims. When facing similar claims, the ECtHR and the Court of Justice of the European Union (CJEU), for example, have concluded that legitimate expectation cannot arise from a situation that depends on a public authority's exercise of a wide political discretion.[44]

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38 For a critical analysis of these decisions, see D. Ramos & J. Solana, 'Fundamental Rights: A Limit to Bail-in?', 31 May 2019 (on file with the author).

39 'Green assets' refers to assets in low-carbon industries and 'brown assets' to assets in carbon-intensive industries: see P. D'Orazio & L Popoyan, 'Fostering Green Investments and Tackling Climate-Related Financial Risks: Which Role for Macroprudential Policies?', *LEM Working Paper Series ISSN (Online) 2284-0400 2018/33*, 12 Nov. 2018, available at: https://ssrn.com/abstract=3106350.

40 See, e.g., J. Dankert et al., 'A Green Supporting Factor: The Right Policy?', *SUERF Policy Note*, Issue No. 43, Oct. 2018, available at: https://www.suerf.org/policynotes/3473/a-green-supporting-factor-the-right-policy.

41 See, e.g., *Grainger*, n. 35 above, para. 33.

42 See Ramos & Solana, n. 38 above.

43 See, e.g., Case C-526/14, *Tadej Kotnik and Others* v. *Slovenia* [2016] ECLI:EU:C:2016:570 (*Kotnik*), para. 65.

44 Ibid., para. 66; *Grainger*, n. 35 above, para. 39. Both cases confirm that public authorities will enjoy wide political discretion when the exercise of their powers 'involves complex economic and social assessments': see, e.g., *Kotnik*, ibid., para. 38.

3.2. *Authority or Mandate*

Since the adoption of the Paris Agreement in December 2015[45] there have been several regulatory initiatives with the aim of promoting climate finance and sustainable finance more broadly.[46] In recent years financial market participants have been very sensitive to innovative approaches to financial regulation and supervision, often leading to litigation. For example, the design and implementation of new measures of monetary policy in the eurozone by the European Central Bank (ECB) has been challenged several times before the CJEU.[47] Moreover, several banks have recently challenged the ECB's exercise of its new powers as bank supervisor.[48]

The policy proposals that aim to promote sustainable finance are generating intense debates among policymakers and the financial services industry. For example, banks and other interested parties have already expressed their concerns with regulatory initiatives that contemplate lowering the capital requirements of banks for green financial assets.[49] Public authorities' mandates are at the heart of some of these debates.[50] In such a sensitive environment, when new policy measures with the aim of promoting sustainable finance are implemented, we can expect financial market participants – and, in particular, supervised institutions – to resort to litigation in an attempt to restrict their implementation. Considering recent precedents in the EU, this litigation is likely to focus on the scope of the mandates of public authorities to design and implement such measures.[51]

On the other hand, climate litigation in financial markets might seek to challenge the failure of public authorities to assume a more proactive role in promoting sustainable finance. Where these authorities' mandates do not make express reference to sustainability

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45 Paris (France), 12 Dec. 2015, in force 4 Nov. 2016, available at: http://unfccc.int/paris_agreement/items/9485.php.

46 For a list of examples, see n. 9 above.

47 See, e.g., Case C-370/12, *Thomas Pringle* v. *Government of Ireland and Others* [2012] ECLI:EU:C:2012:756; Case C-62/14, *Peter Gauweiler and Others* v. *Deutscher Bundestag* [2015] ECLI:EU:C:2015:400 (*Gauweiler*); Case C-493/17, *Heinrich Weiss and Others* [2018] ECLI:EU:C:2018:1000 (*Weiss*).

48 See D. Ramos & J. Solana, 'Bank Resolution and Creditor Distribution: The Tension Shaping Global Banking – Part I: "Individual *v.* Bank Group" and "Ex Ante *v.* Ex Post" Dimensions' (2019) 28 *University of Miami Business Law Review* (forthcoming); D. Ramos & J. Solana, 'Bank Resolution and Creditor Distribution: The Tension Shaping Global Banking – Part II: The Cross-border Dimension' (2019) 28 *University of Miami Business Law Review* (forthcoming).

49 This is a common measure across different regulatory initiatives that aim to promote sustainable finance. See, e.g., EC Sustainable Finance Action Plan, n. 5 above, p. 9. One of the main arguments against lowering capital requirements for green financial assets is that there is no direct relationship between sustainability and lower credit risk: see, e.g., F. van Lerven & J. Ryan-Collins, 'Adjusting Banks' Capital Requirements in Line with Sustainable Finance Objectives', 28 Feb. 2018, available at: https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/briefing-note-capital-requirements-for-sustainable-finance-objectives.pdf.

50 For an overview of these debates with regard to the ECB's mandate, see Solana, n. 18 above, pp. 2–3.

51 The European Commission has proposed broadening the scope of the mandates of the European Supervisory Authorities (ESAs) to include the supervision of sustainability issues: see EC Sustainable Finance Action Plan, n. 5 above, p. 12. This kind of initiative might help to forestall claims of *ultra vires* but would still leave the door open to claims seeking to challenge the actual exercise of new powers. In this context, potential claimants are likely to rely on fundamental rights arguments. See Section 3.1 above.

and are therefore open to interpretation, litigation will be more likely. In these cases, plaintiffs might seek to interpret the scope of the authorities' mandates under the light of general principles such as the principle of integration. For instance, under EU law, Article 11 of the Treaty on the Functioning of the European Union (TFEU)[52] requires public authorities to integrate environmental protection objectives when designing and implementing EU policies and activities. Nevertheless, at least in the EU, courts are likely to give preference to the political discretion of authorities when designing and implementing their policy measures.[53]

Issues of authority might also be relevant in a private law context. For example, a trust deed might state explicitly, among the purposes of an investment fund, that any investment of the trust property should contribute to the mitigation of the climate crisis. If the trustees or the fund managers decide to buy shares in an oil company, some investors may be tempted to sue the trustees or the managers for breach of trust.[54] A similar set of facts, in *Harvard Climate Justice*, led to litigation. An unincorporated student association and several Harvard University students filed a suit against the university and the corporation responsible for investing the university's endowment.[55] The claimants argued that the respondents' investment in fossil fuel companies would breach their duty to apply the trust funds for the trust's charitable purposes, including its 'special obligation and accountability to the future', and sought an injunction ordering the defendants to withdraw any direct or indirect holdings in fossil fuel companies.[56] On 17 March 2015, the Massachusetts Superior Court dismissed the action on the grounds that the individual claimants lacked legal standing.[57] On 6 October 2016, the Massachusetts Appellate Court affirmed the dismissal on similar grounds.[58]

3.3. *Decision-Making Processes*

In addition to the scope of their mandates, the regulation of internal decision-making processes is another important source of potential climate litigation for public authorities operating in financial markets. In at least eight out of the 46 cases identified in the

[52] Lisbon (Portugal), 13 Dec. 2007, in force 1 Dec. 2009 [2012] OJ C 326/47, available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:326:FULL:EN:PDF.

[53] For a critical analysis of the Eurosystem's monetary policy under Art. 11 TFEU, see Solana, n. 18 above.

[54] Under English law, this type of breach would give rise to different remedies, e.g., restoration of the trust property that was removed from the trust such as by selling the shares or seeking compensation for any loss to the trust: see I.G. MacNeil, *An Introduction to the Law of Financial Investment* (Hart, 2012), p. 177. Similar issues could arise in the context of corporate law. For example, a bank's constitution might provide for a similar purpose. Under UK law, company directors are bound by a statutory duty to act in accordance with the company's constitution: Companies Act 2006, s. 171(a). I describe the potential remedies available to a company in the event of a breach of directors' duties in Section 3.6 below.

[55] B. Franta, 'Litigation in the Fossil Fuel Divestment Movement' (2017) 39(4) *Law & Policy*, pp. 393–411.

[56] See *Harvard Climate Justice Coalition and Others* v. *Harvard Corporation and Others*, Complaint for Declaratory and Injunctive Relief, 19 Nov. 2014, paras 41–62, available at: http://climatecasechart.com/case/harvard-climate-justice-coalition-v-president-fellows-of-harvard-college.

[57] *Harvard Climate Justice Coalition and Others* v. *Harvard Corporation and Others*, Massachusetts Superior Court, 17 Mar. 2015, Civil Action No. 2014-3620-H.

[58] *Harvard Climate Justice Coalition and Others* v. *Harvard Corporation and Others*, Massachusetts Appellate Court, 6 Oct. 2016, No. 15-P-905.

database, the claimants rely on arguments that a public authority was in breach of an obligation that required it to take into consideration environmental protection concerns when designing and/or implementing specific policies. Typically, these obligations concerned the elaboration of environmental impact assessments. In some cases, as we shall see, the claimants also alleged a potential breach of their procedural rights in the authority's decision-making process.

In *RBS*, in addition to the human rights claims referred to above, the claimants argued that the UK Treasury had not carried out a proper Green Book assessment before taking the decision to provide financial support to RBS.[59] Their claim was based on three grounds. On the first ground, the most relevant for our purposes, the claimants argued that the UK Treasury had 'failed properly to evaluate arguments in favour of a more interventionist policy for UKFI [i.e. the Treasury-owned company used to channel financial support to RBS] on environmental grounds and human rights grounds, as was required by the Green Book'.[60] The court dismissed this first ground, as it did for the remaining two. In particular, the court recognized that the UK Treasury 'had a very wide discretion as to matters which should be taken into account or left out of account in formulating [the RBS] policy'[61] and concluded that the Treasury's regard for environmental and human rights considerations in the Green Book assessment was proper.[62]

Importantly, however, the breadth of the UK Treasury's discretion in *RBS* relied greatly on the non-prescriptive nature of the Green Book.[63] More prescriptive rules could cast doubt on the breadth of that discretion. For example, under EU law the aforementioned integration principle is binding on the ECB and the national central banks (NCBs) of the EU Member States that comprise the Eurosystem, which are responsible for the monetary policy of the eurozone.[64] The Eurosystem's failure to take into account environmental protection objectives when designing and implementing monetary policy measures in the eurozone would expose the ECB and the relevant NCBs to litigation risk.[65] In light of recent case law of the CJEU, which regards procedural guarantees as a strict limit to wide political discretion, even in the context of financial crises, that litigation risk seems considerably high.[66]

In the US, financial projects developed by public authorities have been the object of judicial review on grounds of breach by these authorities of procedural obligations. In *Spinelli*, for example, several US city governments and environmental groups filed a

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[59] The Appraisal and Valuation in Central Government (the 'Green Book') sets out HM Treasury guidance regarding decision making in central government: see *RBS*, n. 32 above, para. 8.

[60] *RBS*, n. 32 above, para. 9. The same paragraph describes the other two grounds: regard to industry-wide regulation to deal with environmental problems as an irrelevant consideration; and a misapplication of s. 172 Companies Act 2006, which sets out basic corporate governance rules.

[61] *RBS*, n. 32 above, para. 21.

[62] Ibid., paras 26–30.

[63] Ibid., paras 22, 25.

[64] Solana, n. 18 above.

[65] Ibid., n. 18 above, pp. 17–19

[66] Ibid.

lawsuit against the Overseas Private Investment Corporation, the US government's development finance institution, and the US Export-Import Bank (Ex-Im Bank), the official export credit agency of the US,[67] for their failure to assess carbon dioxide (CO_2) emissions of the projects they support, as required under US statutory law.[68] On 23 August 2005, a federal district court recognized the claimants' right to sue the agencies to seek compliance.[69] On 6 February 2009, the two agencies settled the lawsuit and agreed, among other things, to consider greenhouse gas (GHG) emissions from the projects they finance and to revise their environmental policies in consultation with representatives of the claimants.[70]

Similarly, in *Sierra Club* v. *US Department of Agriculture*, a federal district court held that the US Department of Agriculture's Rural Utilities Service should have prepared an environmental impact statement concerning the use of low-interest loans to finance the construction of new generating units at a coal-fired power plant in western Kansas.[71] Later, the same court prevented the respondent from issuing any approvals or arrangements directly related to the project until an environmental assessment had been completed.[72]

There have also been less successful examples. In *Ex-Im Bank*, three environmental groups challenged the authorization by Ex-Im Bank of nearly USD 4.8 billion in financing for two liquid natural gas projects near the Great Barrier Reef in Australia on grounds that Ex-Im Bank had violated the claimants' procedural rights under federal legislation.[73] In particular, the claimants alleged that, before approving the loans for each of the projects, Ex-Im Bank did not engage in a statutory consultation and that its review of the environmental impact of the two projects did not satisfy its statutory duty to take into account the impacts of the projects on the Great Barrier Reef World Heritage Area.[74] On 31 March 2016, the district court dismissed the claims on the ground of the claimants' lack of standing. In particular, the district court found that the claimants had failed to establish redressability, necessary for standing, because they had not offered a sufficient basis to determine that there was a reasonable probability that the two projects would be halted if the Ex-Im Bank's funding was withdrawn.[75] On 28 June 2018, the US Court of Appeals confirmed the decision of the district court, emphasizing two additional points: firstly, in the absence of the funding contracts from

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67 *Center for Biological Diversity and Others* v. *Export-Import Bank of the US and Others*, US Court of Appeals for the Ninth Circuit, 16-15946, 28 June 2018 (*Ex-Im Bank*), pp. 4–5.

68 See also *Mississippi Insurance Department* v. *US Department of Homeland Security and Others*, Federal District Court for the Southern District of Mississippi, Complaint, 26 Sept. 2013, 1:13-cv-379-LG-JMR (*Mississippi Insurance Department*).

69 *Friends of the Earth, Inc. and Others* v. *Peter Watson and Phillip Merrill*, US Federal District Court for the Northern District of California, 23 Aug. 2005, No. C 02-4 106 JSW.

70 For details see http://climatecasechart.com/case/friends-of-the-earth-v-watson.

71 *Sierra Club* v. *US Department of Agriculture, Rural Utilities Service*, US District Court for the District of Columbia, Order, 29 Mar. 2011, Case 1:07-cv-01860-EGS.

72 *Sierra Club* v. *US Department of Agriculture, Rural Utilities Service*, ibid., Memorandum of Opinion, 31 Jan. 2012.

73 *Ex-Im Bank*, n 67 above.

74 Ibid., p. 7.

75 Ibid., p. 8.

the record, it was very difficult for the claimants to provide evidence of the action that Ex-Im Bank could take to alter the course of the projects if the statutory procedures were to reveal a negative environmental impact;[76] and, secondly, given the relatively small financial contribution to the project, other lenders could have stepped in to replace Ex-Im Bank's finance were it to withdraw from the project.[77] It is interesting to note that, in 2015, a federal district court had already dismissed a similar claim in relation to Ex-Im Bank's provision of a USD 90 million loan guarantee to support the export of coal from Appalachian coal mines on similar grounds.[78]

Environmental concerns might also be relevant in the evaluation of a public authority's compliance with obligations to produce financial assessments. For example, in *EFIC*, Environmental Justice Australia, an environmental law non-governmental organization (NGO), filed a complaint with the Commonwealth Ombudsman requesting an official investigation into the Export Finance and Insurance Corporation (EFIC), Australia's export credit agency, and its failure to publish its Board's assessment of a proposal related to the Adani Carmichael mine and rail project.[79] According to the complainants, EFIC is required by law to provide the Department of Foreign Affairs and Trade with an assessment of the transaction's compliance with a list of criteria, including the financial viability of the project.[80] In the complainants' opinion, '[EFIC's] directors are guided by the Australian Prudential Regulation Authority (APRA), and are unlikely to finance Adani-related loans due to their requirement to take into account APRA's comments on 1.5–2°C base case global warming scenarios'.[81] The Board's financial assessment has an instrumental value: if the Board did take into consideration the effects of the climate crisis when deciding to finance the Adani-related project, these considerations must have been included in the assessment.[82] As of 31 December 2018, the Commonwealth Ombudsman was still investigating Environmental Justice Australia's complaint.

76 Ibid., p. 16. The court also relied on the absence of the funding contracts from the record to dismiss the respondents' arguments that the claims were moot because the projects had been completed, the loans disbursed, and one of them fully repaid, therefore leaving Ex-Im Bank no channel to affect the environmental impact of the project: ibid., p. 10.

77 Ibid., p. 17.

78 *Chesapeake Climate Action Network* v. *Export-Import Bank of the United States*, US District Court for the District of Columbia, Memorandum Opinion, 21 Jan. 2015, 13-1820 (RC).

79 Complaint to the Commonwealth Ombudsman presented by Environmental Justice Australia, 6 July 2018: Environmental Justice Australia, 'EJA Files Complaint with Ombudsman about EFIC', available at: https://www.envirojustice.org.au/projects/eja-files-complaint-with-ombudsman-about-efic.

80 Letter from Environmental Justice Australia to EFIC, 13 June 2018: Environmental Justice Australia, ibid.

81 Environmental Justice Australia, 'The Real Risks of EFIC Support for Adani', 6 June 2018, available at: https://www.envirojustice.org.au/projects/eja-files-complaint-with-ombudsman-about-efic. Environmental Justice Australia had made a similar, yet more elaborate, argument in relation to the financing by Northern Australia Infrastructure Facility of a railway project tied to the exploitation of a coal mine: see Environmental Justice Australia, Submission to the Senate Standing Committee on Economics, 28 July 2017, paras 9–33, available at: https://www.envirojustice.org.au/our-work/climate/climate-and-finance/adani-naif-and-efic.

82 The Commonwealth Ombudsman has the power to compel EFIC to disclose internal documents, such as the Board's assessment: see Environmental Justice Australia, n. 79 above.

While the majority of recorded cases in this category are 'pro-regulatory', there is at least one 'anti-regulatory' case, which suggests that the decision-making processes of public authorities may be an additional litigation front for market participants interested in forestalling the impact of sustainable finance initiatives.[83] In *Institute for Energy Research*, a non-profit public policy institute filed a Freedom of Information Act lawsuit in the Federal District Court for the District of Columbia against the US Department of the Treasury.[84] The claimant is seeking to compel the US Treasury to respond to an earlier request to disclose internal correspondence in relation to the Task Force on Climate-related Financial Disclosures (TCFD).[85]

Institute for Energy Research also evidences that formal access to information requests may have an instrumental value in the preparation of cases in this category as potential claimants seek to gain an insight into the decision-making processes of public authorities. A refusal to furnish the information requested in itself could give rise to litigation. In these cases, claimants will need to persuade the court or the competent administrative body that the information requested falls within the scope of the relevant statute recognizing the right to access information. Information that is financial in nature may lead to more scrupulous examination.[86]

All of these cases concern alleged violations of procedural obligations by public authorities.[87] Nevertheless, there are some countries where private financial institutions are required by law to incorporate environmental due diligence into their credit risk assessments. For example, in a recent case, Chinese financial supervisory authorities imposed a fine on Ping An Bank for its failure to conduct pre-loan investigations in relation to its customers' compliance with environmental standards.[88] Banks, as

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83 Another evident litigation front is public authority mandates: see Section 3.2 above.

84 *Institute for Energy Research* v. *US Department of the Treasury*, US District Court for the District of Columbia, Complaint, 17 Jul. 2018, C.A. No. 18-1677 (*Institute for Energy Research*).

85 N. 12 above.

86 E.g., Art. 2.3 of the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus (Denmark), 25 June 1998, in force 30 Oct. 2001, available at: https://www.unece.org/env/pp/treatytext.html) does not seem to regard financial data as 'environmental information'. In *Friends of the Earth Germany*, two environmental NGOs challenged the refusal by the Federal Ministry of Economic Affairs and Labour (BMWA) to provide them with certain environmentally sensitive information relating to export credit support and/or guarantees provided by BMWA. The Berlin Administrative Court examined whether the information requested by the claimants fell within the scope of the German Access to Environmental Information Act of 2003 as amended, and proposed a settlement to the parties detailing the elements that BMWA would have to disclose: *Bundes fur Umwelt und Naturschutz Deutschland e.V. & Germanwatch e.V.* v. *Bundesrepublik Deutschland, vertreten durch Bundesminister fur Wirtschaft und Arbeit*, Verwaltungsgericht Belin, 10 Jan. 2006, VG 10 A 215.04 (*Friends of the Earth Germany*). An unofficial translation of the German original is available at: http://climatecasechart.com/non-us-case/german-federation-for-environment-and-conservation-bund-ev-v-minister-for-commerce-and-labor-on-behalf-of-federal-republic-of-germany.

87 In addition to the public authorities in the jurisdictions mentioned above, most multilateral financial institutions engage in environmental impact assessment: see W.V. Kennedy, 'EIA and Multi-lateral Financial Institutions', conference paper presented at OECD Conference on FDI and the Environment, The Hague (The Netherlands), 28–29 Jan. 1999, available at: http://www.oecd.org/daf/inv/investmentfordevelopment/2076277.pdf.

88 See W.X. Ming, 'The Banking Regulatory Bureau Imposed Penalties for the First Time on the Basis of Green Credit Guidelines: How Should the Banking Industry Respond to the New Requirements

suppliers of financial resources that enable companies to develop new projects, are well placed to complement the monitoring efforts of supervisory authorities. As political momentum to promote sustainable finance grows, we can expect regulators in other countries to impose similar gatekeeping obligations on banks to buttress the implementation of sustainable finance policies. Such regulatory measures would increase compliance costs for banks, so we can reasonably expect some opposition from the industry. In some countries such opposition might be channelled through litigation.

3.4. *Disclosure*

The disclosure of climate-related information to investors underpins a high proportion of the 46 cases found in the database search. This type of claim is divided into two subcategories: (i) primary market disclosure obligations, and (ii) secondary market disclosure obligations.

Primary market disclosure obligations

Securities regulation in many jurisdictions requires companies that seek to raise finance by issuing securities in capital markets, or who want to have securities admitted to trading in regulated markets, to produce a legal document giving detailed information about the company (such as its main line of business, its finances and shareholding structure) and the securities being issued. This legal document is often referred to as a 'prospectus'.[89] The main rationale for requiring issuers to disclose specific information in these cases is to protect investors from fraud and other malpractices associated with the issuing and trading of securities, and to facilitate assessment by investors of the risks associated with purchasing securities.[90]

In May 2014, Chesapeake Climate Action Network (CCAN), an environmental group, and Ruth McElroy Amundsen, a shareholder of US natural gas company Dominion Resources, Inc., filed a complaint with the US Securities and Exchange Commission (SEC) urging the latter to require Dominion Midstream Partners LP to update the registration statement it had filed with the SEC on 28 March 2014 to include, among other things, adequate information relating to environmental risk and impact, particularly the potential physical impacts of climate change on a liquefaction project.[91] The complainants argued that the disclosure that Dominion had made in its registration statement was too vague to meet the risk disclosure criteria required under the SEC Guidance Regarding Disclosure Related to Climate Change.[92] As of 31 December 2018, the SEC was yet to publish a decision on the matter.

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for Green Credit?', *Blue Map*, 12 July 2018, available at: https://mp.weixin.qq.com/s/T8VcbIZFIVMv40AAodnRSA.

89 See, e.g., Regulation (EU) 2017/1129 on the Prospectus to be Published when Securities Are Offered to the Public or Admitted to Trading on a Regulated Market [2017] OJ L 168/12 (Prospectus Regulation).

90 See Armour et al., n. 21 above, pp. 62–4.

91 See Letter, CCAN and Ruth McElroy Amundsen to the SEC in the matter of Dominion Midstream Partners LP Registration Statement, 6 May 2014, available at: http://climatecasechart.com/case/letter-to-securities-and-exchange-commission-regarding-dominion-midstream-partners-lp-registration-statement.

92 For details see ibid., pp. 6–7.

In May 2017, Greenpeace Canada, an environmental NGO, requested the Alberta Securities Commission to halt the initial public offering (IPO) of Kinder Morgan of its Canadian business alleging, among other things, incomplete disclosure of climate-related risks in the IPO prospectus.[93] After the Alberta securities regulator agreed to review Greenpeace Canada's request, Kinder Morgan amended its prospectus.[94]

The successful challenge to Kinder Morgan's IPO prospectus might lead to similar challenges against companies seeking to issue or trade securities in regulated markets the business activities of which contribute to aggravating the climate crisis. These companies will need to ensure that their prospectuses provide sufficient information on climate-related risks; otherwise, insufficient disclosure might lead to the suspension of the IPO.

The development of new taxonomies for green financial products[95] may also impose additional disclosure obligations on financial market participants. Companies seeking to use these taxonomies when advertising their securities may have to disclose specific elements to assure potential investors that the products fall within a certain 'green' category. Besides increasing the costs of issuing and trading securities, these disclosures might expose financial market participants to an increased risk of litigation. For example, investors might claim that an issuer misrepresented information which they relied on to make an investment decision and might litigate to seek compensation for loss.[96] Moreover, public authorities may initiate investigations against issuers and sellers of 'green' financial products to protect consumers and promote fair competition. For example, between 2008 and 2010 the Australian Competition and Consumer Commission initiated legal action against six companies the business conduct of which it had previously investigated in relation to 'false green advertising' (i.e., making misleading claims to potential customers about the environmental benefits of products and services being sold). When the companies were unable to substantiate the environmental benefits they had claimed, they agreed to compensate affected customers, and committed to publish a corrective notice and halt its false advertising.[97] As issuers and financial services providers begin to rely on 'green' taxonomies, they too will be exposed to the risk of public authorities initiating these types of investigation.

93 See Letter from 20 NGOs to the 14 banks that underwrote the Kinder Morgan Canada IPO and the 14 other banks involved in current and past Kinder Morgan revolving credit facilities, 6 June 2017, available at: http://www.amisdelaterre.org/IMG/pdf/final_trans_mountain_letter_june_2017.pdf. Kinder Morgan is one of the largest energy infrastructure companies in North America, with its headquarters in Houston, TX (US).

94 Ibid.

95 See, e.g., EC Sustainable Finance Action Plan, n. 5 above.

96 As we shall see in the next subsection, there are precedents of investors suing issuers for loss compensation on grounds that the latter misrepresented information in their statutory reports.

97 See, for all, Australian Competition and Consumer Commission, 'Goodyear Tyres Apologises, Offers Compensation for Unsubstantiated Environmental Claims', 26 June 2008, available at: http://climatecase-chart.com/non-us-case/australian-competition-and-consumer-commission-v-goodyear-tyres.

Secondary market disclosure obligations

Inadequate disclosure of climate-related risks in relation to the statutory reporting obligations of companies has given rise to many cases. In the US, the Office of the Attorney General (AGO) of the State of New York has been particularly active in scrutinizing companies' reporting to financial supervisors, mainly the SEC. To date, there are five reported cases in which the New York AGO has required corporations, including Exxon Mobil, to provide the AGO with information regarding analyses by these companies of their climate risks and their disclosures of such risks in SEC reports.[98] The Massachusetts AGO and the US Virgin Islands AGO have issued similar civil investigative demands to Exxon Mobil.[99]

At the time of writing, in three out of these six investigations the corporations have reached a settlement with the New York AGO in which they have agreed to begin or to continue to disclose, as applicable, in their periodic reports to the SEC several elements concerning climate-related risks. These include (i) an analysis of financial risks arising from regulations of GHG emissions in relation to climate change; (ii) an analysis of financial risks arising from climate litigation involving the company or otherwise; (iii) an analysis of financial risks from the physical impacts of climate change; and (iv) a strategic analysis of climate risk and emissions management.[100]

Some of the investigations that remain open have led to litigation against these companies on grounds that they had fraudulently misrepresented information about themselves or the securities they were issuing. For example, on 24 October 2018, building on the investigation that it had begun in 2015,[101] the New York AGO filed a fraud action against Exxon for alleged misrepresentations in climate disclosure.[102] The AGO has relied on similar claims to those presented in *Ramirez*, in which an Exxon investor

[98] Letter from New York AGO to the Chairman of Dominion Resources, Inc., 14 Sept. 2007, available at: http://climatecasechart.com/case/in-re-dominion-resources-inc (*In Re Dominion Resources*); Assurance of Discontinuance in the Matter of Dynegy Inc., AOD #08-132, 23 Oct. 2008, available at: http://climatecasechart.com/case/in-re-dynegy-inc (*In re Dynegy*); Assurance of Discontinuance in the Matter of The AES Corp., AOD # 09-15, 19 Nov. 2009, available at: http://climatecasechart.com/case/in-re-aes-corp (*In re AES*); Assurance of Discontinuance in the Matter of Peabody Energy Corp., AOD # 15-242, 8 Nov. 2015, available at: http://climatecasechart.com/case/in-re-peabody-energy-corp (*In re Peabody*); Letter from New York AGO to S. Jack Balagia Jr., Vice-President and General Counsel of Exxon Mobil Corporation, 4 Nov. 2015, available at: http://climatecasechart.com/case/new-york-attorney-general-investigation-of-exxonmobil (*In re Exxon Mobil (NY)*).

[99] See Letter from Massachusetts AGO to Exxon Mobil Corp., 2016-EPD-36, 19 Apr. 2016 (*In re Exxon Mobil (MA)*). See also *US Virgin Islands Office of the Attorney General* v. *Exxon Mobil Corporation*, 4 Apr. 2016, Case No. 2016 CA 002469. Both documents are available at: http://climatecasechart.com/case/in-re-civil-investigative-demand-no-2016-epd-36.

[100] See *In re Dynegy*, n. 98 above; *In re AES*, n. 98 above. In *In re Peabody* (n. 98 above) the company agreed to disclose similar information in its regular reports to the SEC and to avoid disclosing information to 'shareholders, the financial industry, investors, the general public and others' that is inconsistent with certain guidelines regarding the company's projections of the impact of climate change on its business.

[101] See *In re Exxon Mobil (NY)*, n. 98 above. Similar fraud investigations have been launched by the Massachusetts AGO and the US Virgin Islands AGO. See *In re Exxon Mobil (MA)*, n. 99 above; *US Virgin Islands Office of the Attorney General* v. *Exxon Mobil Corporation*, 4 Apr. 2016, Case No. 2016 CA 002469.

[102] See *People of the State of New York* v. *Exxon Mobil Corporation*, Supreme Court of the State of New York, 28 Oct. 2018, No. 452044/2018.

filed a securities fraud class action against Exxon Mobil and three Exxon officers alleging that, between 19 February 2016 and 27 October 2016, the company's reports were materially false and misleading because they had not disclosed relevant climate-related risks, some of which had been identified in the company's internal reports. The suit, filed on 7 November 2016,[103] followed Exxon's publication of its third quarter financial results on 28 October 2016, in which the company disclosed that it might have to write down 20% of its oil and gas assets, which led to the company's stock price falling by more than USD 2 per share. The claimant has requested the court to award compensatory damages against all defendants, jointly and severally, for all loss sustained as a result of their wrongdoing. On 14 August 2018, the US Federal District Court for the Northern District of Texas allowed the suit to proceed.[104] The court confirmed its decision in an order on 5 November 2018 after the respondents filed a motion for reconsideration.[105]

In Canada, the successful challenge to Kinder Morgan's IPO prospectus led the company to amend the prospectus in 2017 to include certain information about climate-related risks. A year later, these climate-related risks were carried over into the company's 2017 annual report, one of the documents that the company is required to file with the SEC.[106] On 27 March 2018, Greenpeace Canada filed a complaint before the Ontario Securities Commission, alleging that the company had disclosed insufficient information about its climate-related risks in the 2017 annual report.[107] The complaint is based on the recommendations presented by the TCFD,[108] a private sector initiative coordinated by the Financial Stability Board (FSB), an international body that monitors and makes recommendations about the global financial system.[109] In particular, the complainants argue that the company's 2017 annual report does not include information about climate-related legal risks, such as the risk that some of its customers face as a result of pending climate litigation cases and fraud investigations against them related to climate change, and it does not disclose the resilience of the company's business in a low-carbon scenario, as the TCFD recommends.[110] The Ontario Securities Commission passed on the complaint to the Alberta Securities Commission,

[103] On 26 July 2017, the claim was expanded to include additional investors who had acquired Exxon's publicly traded common stock between 31 Mar. 2014 and 30 Jan. 2017: *Pedro Ramirez, Jr. and Others* v. *Exxon Mobil and Others*, US District Court of the Northern District of Texas, Dallas Division, Complaint, 7 Nov. 2016, Case No. 3:16-cv-3111.

[104] See *Pedro Ramirez, Jr. and Others* v. *Exxon Mobil and Others*, ibid., Opinion and Order, 14 Aug. 2018, Civil Action No. 3:16-cv-3111-K.

[105] Ibid.

[106] Greenpeace Canada, 'Investor Beware: Kinder Morgan Canada's Climate Risk', 9 Apr. 2018, available at: https://www.greenpeace.org/canada/en/publication/1290/investor-beware-kinder-morgan-canadas-climate-risk.

[107] Greenpeace Canada, 'Alberta Securities Commission Reviewing Greenpeace Complaint of Inadequate Disclosure of Climate Risk by Kinder Morgan', 9 Apr. 2018, available at: https://www.greenpeace.org/canada/en/press-release/285/press-release-alberta-securities-commission-reviewing-greenpeace-complaint-of-inadequate-disclosure-of-climate-risk-by-kinder-morgan.

[108] TCFD, n. 12 above.

[109] For more information about the TCFD, see https://www.fsb-tcfd.org/about. For more information about the FSB, see http://www.fsb.org/about.

[110] Greenpeace Canada, n. 106 above, pp. 6–9; see also TCFD, n. 12 above, pp. 5, 25–31.

the principal regulator for Kinder Morgan. On 6 April 2018, the Alberta Securities Commission notified Greenpeace Canada that it would review the complaint.[111]

Similar cases have arisen in other jurisdictions. In 2017, two shareholders of Commonwealth Bank of Australia challenged several of the bank's 2016 annual reports,[112] alleging that the bank had failed to disclose climate-related risks. In particular, the claimants argued that, by failing to disclose specific aspects of its climate-related risks, the bank had failed to give a true and fair view of its financial position and performance and had prevented its members from making an informed assessment of the bank's operations and future prospects, in violation of the 2001 Corporations Act.[113] The claimants sought a declaration that the bank had contravened the 2001 Corporations Act by failing to disclose climate-related risks and an injunction requiring the bank to report on those risks.[114] The claimants discontinued proceedings a few weeks later, after the bank's 2017 annual report included, for the first time, an acknowledgement from the bank's directors that 'climate change posed a significant risk to the bank's operations, with a promise to undertake climate change scenario analysis on its business in the upcoming year to assess the risk'.[115] In other cases, shareholders have used requisitions to encourage banks to disclose climate-related financial information and when directors have tried to block, or have failed to respond to, these requisitions, shareholders have filed complaints before financial supervisory authorities or ordinary courts seeking the removal of any obstacles.[116]

In the UK, ClientEarth, an environmental law NGO, recently filed three complaints before the Financial Conduct Authority (FCA) against three insurance firms on grounds

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111 Greenpeace Canada, n. 107 above.

112 These included the Annual Report, Directors' Annual Report and Financial Report for the 2016 financial year.

113 *Guy Abrahams (and Another)* v. *Commonwealth Bank of Australia*, Federal Court of Australia, General Division, Victoria District Court Registry, Concise Statement filed on 7 Aug. 2017, paras 16–19, available at: https://www.envirojustice.org.au/sites/default/files/files/170807%20Concise%20Statement%20(as%20filed).pdf (*Abrahams*).

114 Ibid., para. 20.

115 G. Hutchens, 'Commonwealth Bank Shareholders Drop Suit over Nondisclosure of Climate Risks', *The Guardian*, 21 Sept. 2017, available at: https://www.theguardian.com/australia-news/2017/sep/21/commonwealth-bank-shareholders-drop-suit-over-non-disclosure-of-climate-risks.

116 In *ACCR*, e.g., a bank published its notice of meeting for the annual general meeting but failed to include the vote on several resolutions advanced by a group of shareholders, who proposed that the bank disclose certain climate-related information. The shareholders filed a suit before the Federal Court of Australia seeking an injunction that the bank ensured that the first two resolutions be considered or moved at its next annual general meeting. The first instance court dismissed the shareholders' claims and concluded that the proposed resolutions fell within the power of management, which the bank's constitution vested exclusively in the board: *Australasian Centre for Corporate Responsibility* v. *Commonwealth Bank of Australia*, Federal Court of Australia, General Division, Victoria District Court Registry, 31 July 2015, [2015] FCA 785 (*ACCR*), paras 16–40. The Federal Court of Australia confirmed the primary judge's decision: *Australasian Centre for Corporate Responsibility* v. *Commonwealth Bank of Australia*, Federal Court of Australia, 10 June 2016, 248 FCR 280 (2016). In the US, similar complaints have been filed before the SEC but, as of 31 Dec. 2018, none involved financial market participants. There are several examples of boards of directors that have supported shareholder resolutions seeking to enhance transparency on climate risks: see, e.g., A. Raval & O. Walker, 'BP Agrees to Greater Climate Disclosure', *Financial Times*, 1 Feb. 2019, available at: https://www.ft.com/content/60638ece-25b0-11e9-8ce6-5db4543da632. Despite cases like *ACCR*, the example of BP suggests that shareholder resolutions may be an effective mechanism to influence boards' decision-making processes.

that they had failed to disclose climate-related risks adequately in their annual reports, which could hamper the ability of investors to make an informed assessment about the future prospect of the companies.[117] In particular, ClientEarth contends that climate-related risks fall within the category of 'principal risks' – as referred to in the UK's Disclosure Guidance and Transparency Rules (DTR),[118] which implement the EU Transparency Directive[119] – because they can be interpreted as material information, as defined in the 2014 Guidance on the Strategic Report published by the Financial Reporting Council (FRC).[120] ClientEarth is requesting the FCA to impose a financial penalty on these firms in an amount that it considers appropriate and to require them to publish information so as to rectify the deficiencies in their annual reports, or, in the alternative, to publish a statement censuring these firms.[121]

Building on similar arguments, at the beginning of September 2018, ClientEarth filed four complaints before the FRC, alleging that four companies with a premium listing on the London Stock Exchange had failed to disclose adequate information about climate-related risks in their annual reports.[122] By failing to do so, these companies are allegedly in breach of DTR provisions that require all issuers to disclose all 'principal risks', as described above, and to 'take all reasonable care to ensure that any information [they] notif[y] to a [FCA-approved primary information provider] is not misleading, false or deceptive and does not omit anything likely to affect the import of the information'.[123] In relation to the alleged breaches of DTR provisions, ClientEarth has requested that the FCR Conduct Committee appoint a review group to consider these matters and/or to refer them to the FCA.[124]

All the climate cases referred to in this subsection are based on existing securities laws and regulations that have a general scope of application.[125] Nevertheless,

[117] All complaints are available at: https://www.documents.clientearth.org/library/download-info/fca-complaint-lancashire-holdings-limited.

[118] FCA Handbook, DTR 4.1.8 R, available at: https://www.handbook.fca.org.uk/handbook/DTR.

[119] Directive 2004/109/EC on the Harmonisation of Transparency Requirements in relation to Information about Issuers whose Securities are Admitted to Trading on a Regulated Market and Amending Directive 2001/34/EC [2004] OJ L 390/38 (as amended) (Transparency Directive).

[120] For all, see ClientEarth, 'Complaint to the FCA: Lancashire Holdings Limited', 2 Aug. 2018, paras 143–50, available at: https://www.documents.clientearth.org/library/download-info/fca-complaint-lancashire-holdings-limited

[121] For all, see ibid., paras 166, 168.

[122] All complaints are available at: https://www.documents.clientearth.org/library/download-category/company-reporting.

[123] FCA Handbook, n. 118 above, DTR 1A.3.2 R. FCA-approved primary information providers act as regulatory information services and disseminate regulatory announcements required by the Listing Rules and DTR on behalf of listed companies by passing the announcements to news vendors (i.e., secondary information providers). See Art. 89P Financial Services and Markets Act 2000. In addition to a breach of specific reporting requirements for listed companies under the DTR, the complaints further alleged that the failure of these four companies to disclose climate-related information in their annual reports had breached specific provisions of the 2006 Companies Act and the Listing Rules. For all, see ClientEarth, 'Complaint to the FRC Conduct Committee: Bodycote PLC', 7 Sept. 2018, paras 73–111, available at: https://www.documents.clientearth.org/library/download-category/company-reporting.

[124] For all, see ibid., para. 116.

[125] In certain cases, regulators have published formal guidance regarding existing disclosure requirements as they apply to climate change: see, e.g., Securities and Exchange Commission, 'Commission Guidance regarding Disclosure related to Climate Change', 8 Feb. 2010, available at: https://www.sec.

legislators have started to adopt more specific legislation requiring companies to disclose climate-related financial risks. For example, on 11 September 2018, the Department of Work and Pensions presented a set of investment regulations before the UK Parliament that will require trustees to update their statement of investment principles by October 2019 'with a policy on how they take account of financially material [Environmental, Social and Governance (ESG)] considerations, including specifically climate change, "over the appropriate time horizon of the investments"'.[126] Similarly, in California, new legislation will require two large public pension funds to report publicly on the climate-related financial risks in their portfolios, beginning in 2020.[127] As this new legislation comes into force and other jurisdictions begin to adopt similar initiatives, the risk of litigation on grounds of inadequate climate-related financial disclosure will increase.

3.5. *Breach of Contract*

The development of markets for green financial products such as 'green bonds' or 'green loans' will inevitably lead to litigation related to the performance of contractual obligations. For example, one of the elements that typically defines green financial products is the environmental impact of the project for which finance is being raised. In the Green Bond Principles (GBP), published by the International Capital Markets Association (ICMA) in June 2018, the use of proceeds is described as an essential feature of these products: 'Green Bonds are any type of bond instrument where the proceeds will be *exclusively* applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects (see section 1 Use of Proceeds) and which are aligned with the four core components of the GBP'.[128] In addition, according to Section 1 of the Principles:

> The cornerstone of a Green Bond is the utilisation of the proceeds of the bond for Green Projects, which should be appropriately described in the legal documentation for the security. All designated Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.[129]

Investors interested in purchasing green bonds may be very concerned with the securities retaining that classification.[130] Concerns with issuers raising funds through green

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gov/rules/interp/2010/33-9106.pdf; Canadian Securities Administrators, 'CSA Staff Notice 51-333 Environmental Reporting Guidance', 27 Oct. 2010, available at: https://www.osc.gov.on.ca/documents/en/Securities-Category5/csa_20101027_51-333_environmental-reporting.pdf.

126 See Rust, n. 9 above.

127 See Thompson, n. 9 above.

128 See ICMA, Green Bond Principles, June 2018, p. 3 (emphasis added). The Green Loan Principles (GLP) published by the Loan Market Association (LMA) include a very similar definition which emphasizes the need for green loans to '*exclusively* … finance or re-finance, in whole or in part, new and/or existing eligible Green Projects': LMA, Green Loan Principles, 21 Mar. 2018, p. 2 (emphasis added).

129 ICMA, ibid., p. 3. See also LMA, ibid., p. 2.

130 E.g., investment funds seeking to commercialize green portfolios among their customers will be keen to guarantee that all the assets in that portfolio meet certain standards, including compliance with the GBP, lest those customers initiate legal proceedings for misrepresenting information: see Section 3.4 above.

financial products to finance non-environmentally friendly projects do exist among investors.[131] In order to address these concerns, green bond and green loan contracts might include provisions that require the issuer or borrower to guarantee that the finance raised will be used only to fund specific projects and/or to guarantee that it will *not* be used to finance certain others.[132] A breach of these contractual obligations could lead investors and lenders to enforce early termination rights that would trigger an acceleration of payments. Investors and lenders might also seek compensation for any loss or damage that might arise as a result of the contractual breach.

Even if the funds raised through green bonds or green loans are being used exclusively to (re)finance eligible green projects, investors and lenders could still seek compensation for loss or damage that result from the failure of the issuer or borrower to meet the environmental sustainability objectives communicated to investors and lenders.[133] Investment funds that advertise green portfolios might fear the risk of litigation from their own investors, who might seek compensation for loss resulting from the misrepresentation of the environmental impact of the portfolio.

Moreover, banks may also have an incentive to conduct environmental due diligence of the projects they finance.[134] They may require borrowers to represent in the loan contract that all the environmental information they furnish the bank with is true and accurate. This environmental information can include not only environmental permits and licences relevant to the development of the project, but also documents evidencing internal risk management policies and operational policies. A breach of these representations could give rise to the early termination of the finance contract and could potentially lead to litigation against the borrower for repayment of any amounts due under the contract and for compensation for any potential loss resulting from the breach.

Cutting across these and other potential contractual claims is the problem of contractual interpretation. For example, some terms used in the GBP to define the scope of eligible Green Projects, such as 'biodiversity conservation' or 'circular economy', are purposefully vague.[135] Moreover, the parties might disagree as to the process necessary to appoint an external reviewer to confirm the alignment of the bond or bond programme with the four core components of the GBP.[136]

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[131] See, e.g., K. Allen & J. Shotter, 'Environmental Qualms Cloud Poland's Green Bond Sale', *Financial Times*, 6 Feb. 2018, available at: https://www.ft.com/content/634b4fe8-074b-11e8-9650-9c0ad2d7c5b5.

[132] E.g., the Final Terms of a EUR 300 million bond issue by a Polish energy company, Energa, in 2017 included an express restriction on the use of proceeds: 'Proceeds will be used for funding distribution capex and for general corporate purposes. *This facility will not be used for new power generation projects*' (emphasis added). The Final Terms are available at: https://www.bourse.lu/security/XS1575640054/248345.

[133] These objectives are identified as one of the elements that issuers and borrowers should communicate to investors and lenders, respectively, as part of the Process for Project Evaluation and Selection: see ICMA, n. 128 above, p. 4; LMA, n. 128 above, p. 2.

[134] In recent years, there have been several initiatives that aim to promote sustainable banking practices, e.g., the Equator Principles, which focus on Project finance, and the Principles for Responsible Banking, which have a more general application. Financial institutions subscribe voluntarily to these sets of principles. In order to comply with them, banks may be required to engage in environmental due diligence exercises.

[135] See ICMA, n. 128 above, p. 4.

[136] See ibid., p. 6; see also, LMA, n. 128 above, p. 3.

Interpretation problems will be central to disputes arising from insurance contracts. *Steadfast Insurance* constitutes a prominent example. In this case, an insurance company disputed the claim raised by an energy company for indemnification in underlying litigation where the latter had been ordered to pay damages relating to a changing climate. Ultimately, the Virginia Supreme Court concluded that the insurance company had no duty to defend or indemnify the energy company.[137] If physical risks lead to an increase in the number of claims from policyholders where the effects of climate change damage insured property, or to an increase in the number of claims under liability policies,[138] the probability that insurance companies will be involved in this type of litigation will increase. We can expect the insurance industry to react to this risk by narrowing the coverage of insurance policies.[139]

3.6. *Breach of Fiduciary Duties*

The fiduciary duties of directors and trustees of financial institutions has been at the centre of the policy debate about the potential contribution of private finance to the development of projects and technologies that aim to mitigate or adapt to the effects of climate change. In general terms, there seem to be two contrary positions. One position is that the fiduciary duties of fund trustees to protect the best interests of members translates into the need to give preference to financial returns over other environmental, social and ethical considerations. This argument relies on narrow legal interpretations that assimilate members' best interests with financial interests,[140] and on a poor understanding of the connection between climate change and financial returns.[141] It also seems to rely on the assumption that socially and environmentally responsible investments have a lower rate of return than investments that do not take those factors into consideration. A growing body of empirical evidence, however, counters this assumption.[142]

Others argue that investment decisions that disregard environmental and social factors may actually undermine the financial returns of the fund, particularly in the long

[137] *The AES Corporation* v. *Steadfast Insurance Company*, Virginia Supreme Court, Record No. 100764, 20 Apr. 2012 (*Steadfast Insurance*).

[138] Ibid., paras 21, 78. For an overview of the types of claim that policyholders might raise in relation to failure to mitigate or to adapt to the impacts of climate change, see ibid., paras 63–74.

[139] See J. Reeves & J.M. Umbert, 'Climate Change and Insurance: Litigation Risks for Insurers', *Insurance Law360*, 23 Jan. 2019, available at https://www.zelle.com/news-publications-626.html.

[140] For an analysis of the primacy of beneficiary interests in the duty of loyalty under US and UK law, see C. Woods, 'Funding Climate Change: How Pension Fund Fiduciary Duty Masks Trustee Inertia and Short-Termism', Oxford University Research Archive Working Paper, 2009, available at: https://ora.ox.ac.uk/objects/uuid:f8296faa-6757-4246-a8e7-c9894fe01fec. See also Freshfields Bruckhaus Deringer, 'A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment', Oct. 2005, available at: http://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf.

[141] See J. Solomon, 'Pension Fund Trustees and Climate Change' (2009) ACCA Research Report No. 106, p. 22, available at: https://www.accaglobal.com/content/dam/acca/global/PDF-technical/climate-change/rr-106-001.pdf.

[142] See, e.g., R. Nash, 'Why Investors Should Act in Response to Climate-Related Risks and Opportunities: A Survey of Current Evidence', report prepared for ClientEarth, Aug. 2018, available at: https://www.clientearth.org/top-uk-pension-funds-put-on-notice-over-climate-risk.

term.[143] Indeed, by way of example, there seems to be a general consensus among financial regulators and supervisory authorities worldwide about the stability risks facing the financial system as a result of countries transitioning to low-carbon economic models.[144] In short, the profitability of carbon assets will drop progressively as demand for low-carbon technologies grows. Moreover, according to Barker and her co-authors, traditional legal defences that aim to protect the discretion of business people when making commercial decisions, such as the 'business judgment rule' in common law jurisdictions, would not be available to pension fund trustees in this context because these defences tend to protect governance failures of a substantive nature, whereas adequate consideration of climate-related risks when making investment decisions is a procedural failure.[145] In this vein, early reports had already concluded that 'integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions'.[146]

Both positions are closer than they seem: each operates firmly on the understanding that members' best interests are primarily their financial interests. This basic similarity, however, underpins an important difference between them: the time horizon for each position. The second perspective reflects the view that short-term profitability does not guarantee long-term profitability, particularly in relation to climate change.[147] The time horizon of investment activities may thus be more relevant to evaluate the potential discharge of fiduciary duties.

Before examining fiduciary duties in further detail, a word of caution is necessary. The term 'fiduciary duty' applies in a wide variety of contexts and is therefore very elusive,[148] especially when one approaches fiduciary duties from a transnational perspective. Examining the duty of reasonable care and skill from this perspective is particularly challenging. Courts in the US, for example, seem to describe it as a fiduciary duty, whereas English courts make a clear distinction between these two categories.[149] Given that the remedies available under each category are different, at least under

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143 See The Economist Intelligence Unit, 'The Cost of Inaction: Recognising the Value at Risk from Climate Change", *The Economist*, 2015, available at: https://eiuperspectives.economist.com/sites/default/files/The%20cost%20of%20inaction_0.pdf.

144 See, e.g., M. Carney, 'A Transition in Thinking and Action', speech at International Climate Risk Conference for Supervisors, De Nederlandsche Bank, Amsterdam (The Netherlands), 6 Apr. 2018, available at: https://www.bankofengland.co.uk/speech/2018/mark-carney-speech-at-international-climate-risk-conference-for-supervisors. Institutional investors are increasingly aware of these risks: see, e.g., letter signed by 95 institutional investors representing USD 11.5 trillion of assets under management on 20 Dec. 2018, available at: https://www.iigcc.org/download/investor-letter-on-power-sector-decarbonisa tion/?wpdmdl=1832&refresh=5cefc0f1d7f421559216369.

145 Barker et al., n. 18 above, p. 226.

146 Freshfields Bruckhaus Deringer, n. 140 above, p. 13. See also R. Sullivan et al., 'Fiduciary Duty in the 21st Century', UNEP Report, Sept. 2015, available at: http://unepinquiry.org/publication/fiduciary-duty-in-the-21st-century.

147 The latest IPCC report has revisited the conclusions reached in earlier reports and presents dire prospects of limiting the warming of the planet to 1.5°C above pre-industrial times: IPCC, n. 6 above, para. D.1.

148 For an attempt to disentangle its intricate scope, see D.A. DeMott, 'Beyond Metaphor: An Analysis of Fiduciary Obligation' (1988) 37(5) *Duke Law Journal*, pp. 879–924.

149 See, e.g., *Bristol and West Building Society* v. *Mothew* [1998] Ch 1, p. 16, para. F (per Millet LJ) (*Mothew*).

English law,[150] I have decided to divide this section into two subsections. I will examine the duty of reasonable care and skill first and will then turn to fiduciary duties proper.

Duty of reasonable care and skill

The long-term nature of pension fund investments makes managers and trustees particularly vulnerable to litigation that seeks to challenge the discharge of their duty of care and skill. For example, in *McVeigh*, the claimant – a 23-year old member and beneficiary of the Retail Employees Superannuation Trust (REST), the default industry pension fund for many retail workers in Australia – filed a lawsuit against the fund for its failure to provide him with adequate information relating to the fund's exposure to climate-related risks and any action being taken to address them.[151] The claimant argued that REST's failure to provide him with adequate information about climate-related risks and practices in place to manage those risks was preventing him from understanding particular investments of REST and the benefit entitlements of his superannuation product, and from making an informed judgment about the management and financial condition of REST.[152] Such inadequate disclosure, the claimant argued, would constitute a breach of the trustee's duties under Australian statutory law and he was seeking an injunction to require REST to provide him with the information requested.[153]

In *Lynn*, a group of employees of Peabody Energy Corporation initiated litigation against various entities and individuals who allegedly had responsibilities in the management and investment of the company's employee retirement plans, building in part on the New York AGO investigation that the company had settled in November 2015.[154] The claimants alleged that the respondents had breached their statutory duty of prudence in continuing to invest in the company's shares despite their knowledge of the dire prospects of the company that were partly a result of non-public information about the impact of potential climate regulatory actions and the company's poor financial situation.[155] They requested the court to order the defendants to compensate for all losses incurred by the retirement plans resulting from the defendants' alleged breach, to impose a constructive trust on any amounts by which any defendant was unjustly enriched as a result of the plan, and to award compensation in the amount of any losses the plans suffered, to be allocated among the individual accounts of participants in proportion to the accounts' losses.

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[150] See, e.g., Companies Act 2006, s. 178(2).

[151] *Mark McVeigh* v. *Retail Employees Superannuation Pty Ltd*, Federal Court of Australia, General Division, New South Wales District, Concise Statement filed on 23 Jul. 2018, available at: https://www.envirojustice.org.au/wp-content/uploads/2018/07/rest-concise-statement.pdf.

[152] *Mark McVeigh* v. *Retail Employees Superannuation Pty Ltd*, Federal Court of Australia, General Division, New South Wales District, Amended Concise Statement filed on 21 Sept. 2018, available at: https://www.envirojustice.org.au/wp-content/uploads/2018/10/180921-Amended-Concise-Statement-STAMPED.pdf.

[153] Ibid., paras 13–8.

[154] *In re Peabody*, n. 98 above.

[155] *Lori J. Lynn and Javier Gonzalez* v. *Peabody Energy Corporations and Others*, US District Court of the Eastern District of Missouri, Eastern Division, 30 Mar. 2017, Case No. 4:15-cv-00916 (*Lynn*), pp. 8–9.

The court dismissed the claim on grounds that the claimants had failed to substantiate the standard applied by the US Supreme Court in non-public information claims: 'that a prudent fiduciary could not have concluded that the alternative [e.g. to stop purchasing the company's stock] would do more harm than good', and had failed to provide facts to support such an allegation.[156] The fact that the company was 'careening to bankruptcy' did not matter.[157]

Similarly, in *Fentress*, a group of current and former Exxon Mobil employees sued senior corporate officers who were fiduciaries of the firm's savings plan for making an imprudent investment in the company's stock when they knew, or should have known, that the value of the stock was inflated as a result of fraud and misrepresentation, and the firm itself for its failure, as an appointing fiduciary, to monitor or remove the individual fiduciaries.[158] As in *Lynn*, the claimants in this case were building on an earlier New York AGO investigation.[159] Their main claim was that the fiduciaries of the firm's savings plan had breached their duty of prudence on the basis of non-public information.[160] They sought very similar remedies to those sought by the claimants in *Lynn*.

The court granted the respondents a motion to dismiss on grounds that the claimants had failed to establish that the price of carbon which Exxon had used to calculate the value of its reserves 'was a misrepresentation or did not account for the current or an anticipated regulatory landscape',[161] including potential climate regulation. Even if the respondents had known that reserves were overvalued before they wrote them down, the court still granted the respondents motion to dismiss because the claimants had failed to meet the same standard mentioned in *Lynn*.[162]

In the UK, pension funds are under growing scrutiny over their practices relating to the management of climate-related risk. In February 2018, as part of the inquiry by the Environmental Audit Committee (EAC) into Green Finance, the EAC wrote to the 25 largest UK pension schemes to ask how they manage the risks that the climate crisis poses to pension savings.[163] Although the process revealed that some schemes were taking positive action to identify and manage climate-related risk, it also confirmed 'that there is widespread misunderstanding amongst trustees on the scope of their fiduciary

156 Ibid., pp. 16–8.

157 Ibid., p. 14.

158 *Bobby D. Fentress and Others* v. *Exxon Mobil Corporation and Others*, US District Court of the Southern District of Texas, Houston Division, 30 Mar. 2018, Civil Action No. 4:16-cv-03484 (*Fentress*), pp. 1–4.

159 *In re Exxon Mobil (NY)*, n. 98 above.

160 *Fentress*, n. 158 above, p. 6. The claimants also argued that the company had breached its duty to monitor the fiduciaries: ibid., pp. 26–7.

161 Ibid., p. 13.

162 Unlike in *Lynn*, however, the claimants in *Fentress* had provided several alternatives to holding company stock that a prudent fiduciary could have considered. The court dismissed all of the claimants' arguments: ibid., pp. 17–26.

163 EAC, 'MPs Seek Answers from Pension Funds on Climate Risk', 5 Mar. 2018, available at: https://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/news-parliament-2017/green–finance-chairs-cooments-17-19.

duty in relation to environmental risks'.[164] On 10 August 2018, ClientEarth put 14 of the UK's largest pension funds on notice that they face an increasing risk of litigation, such as before the Pensions Ombudsman, if trustees fail to develop their approach to climate risk in line with improving data and market practices.[165]

The courts, in deciding the few cases involving pension funds in the US, were quite emphatic in their dismissals and set a high bar for successfully challenging trustees' discharge of fiduciary duties based on non-public information claims. The cases involving pension funds in Australia and the growing pressure on pension funds in the UK have sharpened the focus on the procedural dimension of the fiduciary duties of trustees. As of 31 December 2018, the court had not issued a decision on *McVeigh* and no formal complaints had been submitted before the Pensions Ombudsman in the UK. It is not difficult, however, to imagine that, if trustees were to incorporate climate-related risks and other environmental, social and corporate governance (ESG) considerations into their decision-making processes and the financial returns of the scheme were to drop compared with the returns of alternative funds in the industry, pension fund members might try to challenge the discharge of trustees' fiduciary duties based, precisely, on the incorporation of non-financial considerations into the decision-making process. The emergence of this type of 'anti-regulatory' climate case would nonetheless contribute towards clarifying the actual dimension of climate-related risks in trustees' fiduciary duties.

In addition to investment managers and trustees of pension funds and other investment funds, directors of banks and other financial institutions are bound by a similar duty of care and skill.[166] Although there are no reported cases of this sort, given the litigation risk described in the preceding paragraphs it is not difficult to imagine, for example, legal action against a bank's directors who decide to finance a large fossil fuel extraction project amid growing evidence of the financial risks associated with the climate crisis.[167] A detailed analysis of the feasibility of such legal action is beyond the scope of this article.[168] Suffice it to say that a director who breaches his or her duty to exercise reasonable skill and care may be liable to compensate the company for losses resulting from that breach.[169]

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[164] EAC, 'Greening Finance: Embedding Sustainability in Financial Decision Making', 7th Report of Session 2017–19, 4 June 2018, para. 34.

[165] See, e.g., Letter from ClientEarth to Mr H.C. Mather, Chairman of Trustees, Shell Contributory Pension Fund, 10 Aug. 2018, p. 1. This and the additional 13 letters are available at: https://www.documents.clientearth.org/library/download-category/pensions. The Pensions Ombudsman has legal powers to deal with complaints of maladministration and disputes of fact or law concerning personal and occupational pension schemes in the UK, and to make decisions that are final, binding and enforceable in court: Pension Schemes Act 1993, ss. 146, 150.

[166] Under UK law, see, e.g., Companies Act 2006, s. 174.

[167] See, e.g., the brief description of the financing arrangements of Kinder Morgan's Canada business as described in Greenpeace Canada, n. 106 above.

[168] For a general analysis of directors' duties of care and skill under UK law, see M. Arnold, 'Duty to Exercise Reasonable Care, Skill, and Diligence' in S. Mortimore (ed.), *Company Directors: Duties, Liabilities, and Remedies* (Oxford University Press, 2017), pp. 327–44.

[169] A company may pursue a damages claim in conjunction with contractual claims for breach of the director's service contract: A. Zacaroli, 'The Company's Remedies for Breach of Directors' General Duties', in Mortimore, ibid., pp. 461–502, at 462.

Fiduciary duties proper

There are no reported climate cases in financial markets involving the breach of fiduciary obligations proper.[170] That, however, is not indicative of the potential for such duties to attract litigation in the future.[171] With the exception of the duty of reasonable care and skill, all duties of a director, as recognized in the UK Companies Act 2006, are 'enforceable in the same way as any other fiduciary duty owed to a company by its directors'.[172] Section 172 of the Act, for example, requires directors to act in ways that:

> [they will consider] would be most likely to promote the success of the company for the benefit of its members as a whole and in doing so have regard (amongst other matters) to: (a) the likely consequences of any decision in the long term, … (d) the impact of the company's operations on the community and the environment, (e) the desirability of the company maintaining a reputation for high standards of business conduct.

We can apply a similar rationale to that presented in relation to directors and trustees in relation to their duty of reasonable care: amid the growing evidence of financial risks associated with the climate crisis, a bank's directors who decide to increase the proportion of carbon-intensive assets in the bank's portfolio might be considered to be putting the viability of the bank at risk in the long term. Moreover, given the growing popularity of the TCFD among financial market participants,[173] a bank's directors who refuse to disclose climate-related risks might be exposed to allegations of eroding the bank's reputation for high standards of business conduct.

A detailed analysis of these claims is beyond the scope of this article.[174] Suffice it to say that a breach of the directors' duty to promote the success of the company may give rise to a number of remedies, including avoidance of the controversial transaction, an

[170] In *Mothew*, Millet LJ defined a fiduciary as 'someone who has undertaken to act for or on behalf of another in a particular matter in circumstances which give rise to a relationship of trust and confidence' and her distinguishing obligation as one of loyalty: *Mothew*, n. 149 above, p. 18, para. B.

[171] Indeed, preliminary legal assessments of the discharge of directors' duties in the climate context of Australia, Canada, South Africa, and the UK suggest that there is a legal basis for directors and trustees to take account of physical climate change risk and societal responses to climate change. All reports are available at: https://ccli.ouce.ox.ac.uk/publications.

[172] Companies Act 2006, s. 178(2).

[173] As of Sept. 2018, more than 500 firms from a broad range of sectors with a combined market capitalization of over USD 7.9 trillion supported the TCFD. These included over 287 financial firms, responsible for assets of nearly USD 100 trillion: see TCFD, '2018 Status Report', Sept. 2018, p. iv, available at: https://www.fsb-tcfd.org/wp-content/uploads/2018/08/FINAL-2018-TCFD-Status-Report-092518.pdf. Moreover, in some jurisdictions financial regulators have endorsed the TCFD as a reference standard for compliance with climate-related financial disclosures: see, e.g., Prudential Regulation Authority, 'Enhancing Banks' and Insurers' Approaches to Managing the Financial Risks from Climate Change', Supervisory Statement 3/19, Apr. 2019, para. 3.21.

[174] For an analysis of the relevance of directors' duties for climate litigation against fossil fuel companies in the US, see L. Benjamin, 'The Road to Paris Runs Through Delaware: Climate Litigation and Directors' Duties' (2019) *Utah Law Review* (forthcoming). For a general analysis of the directors' duty to promote the success of the company under UK law, see M. Arnold & M. Haywood, 'Duty to Promote the Success of the Company' in Mortimore, n. 168 above, pp. 279–313.

injunction to prevent the transaction from completing, or a personal claim against the directors for equitable compensation.[175]

3.7. *Negligence*

In addition to the negligence claims in tort against directors and trustees for breach of their duty of reasonable care and skill, there is another kind of negligence claim underpinning climate cases in financial markets: claims for compensation for loss and damage resulting from the inaction of public authorities to address the climate crisis. For example, an increase in the number of claims from policyholders might give insurance companies an incentive to seek compensation from public authorities for failure to implement reasonable risk prevention measures.[176]

If financial supervisors were to assume the responsibility of monitoring the sustainability of the operations of certain market participants,[177] they would face similar risks. The manifestation of climate-related financial risks at one of the supervised institutions could inflict losses on investors – for example, shareholders in a bank with a carbon-intensive portfolio could be affected by a drop in the price of their shares or, in a more radical example, the bank might eventually be put into resolution as a result of excessive losses in non-performing loans extended to fossil fuel companies, thereby leaving some of its creditors unable to recover their full claims. In these cases, shareholders and creditors of the bank might attempt to seek compensation for those losses from the relevant supervisory authorities on grounds that their negligent supervision was the ultimate cause of their losses.[178]

3.8. *Public Nuisance*

Climate science has advanced considerably over the last decade. One of the most promising advances relates to the emerging science of extreme weather event attribution, which analyzes the human impact on extreme weather events. In 2014, a landmark paper traced 63% of cumulative worldwide emissions of industrial CO_2 and methane between 1751 and 2010 to 90 individual entities, the 'carbon majors'.[179] In several

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[175] Contractual claims against company directors for breach of their service contract may also be available: Zacaroli, n. 169 above, pp. 461–76.

[176] This is precisely the type of case that the science of extreme weather event attribution might promote: see S. Marjanac & L. Patton, 'Extreme Weather Event Attribution Science and Climate Change Litigation: An Essential Step in the Causal Chain?' (2018) 36(3) *Journal of Energy & Natural Resources Law*, pp. 265–98, at 297. See, e.g., *Illinois Farmers Insurance Co. and Others* v. *Metropolitan Water Reclamation District of Greater Chicago and Others*, US District Court for the Northern District of Illinois, Eastern Division, Notice of Dismissal, 3 June 2014, Case No. 14-CV-03251. The claimants, however, ultimately withdrew the case.

[177] This is one of the objectives of the European Commission's Sustainable Finance Action Plan, n. 5 above.

[178] There are precedents for this type of litigation in financial markets. For example, after the ECB, in the exercise of its resolution powers under the Single Resolution Mechanism, put a Spanish bank, Banco Popular, into resolution in June 2017, some of the banks' creditors sued the ECB before the CJEU in an attempt to recover some of the losses they suffered. For a detailed analysis of these claims, see Ramos & Solana, n. 38 above.

[179] See R. Heede, 'Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010' (2014) 122(1) *Climatic Change*, pp. 229–41.

instances since its publication local governments in the US have brought public nuisance claims in tort against some of these carbon majors, seeking compensatory damages.[180] Similarly, a Peruvian farmer has brought a claim in tort against a carbon major, asking the court to order the respondent to reimburse him for a portion of the costs that he and the local authorities have incurred in establishing flood protection, that portion being equivalent to the claimant's estimate of the respondent's annual contribution to global GHG emissions.[181]

Public nuisance claims so far have targeted emitters of GHG emissions as 'direct polluters'. Given the central role that financiers play in the projects that are ultimately responsible for those emissions by providing the necessary capital to develop the projects, the question arises whether financiers could be held liable in tort as 'indirect polluters'. Establishing causation is one of the main legal hurdles that tort claimants face in climate cases.[182] Bringing 'indirect polluters' into the causal chain may be even more difficult, particularly when attempting to prove proximate and substantial causation.

Nevertheless, that causal link may be stronger in very specific financial transactions, such as project finance transactions, where a syndicate of several financiers provides finance to develop a very specific project. If the borrower faces tort liability claims to compensate a third party for the harm or loss suffered as a result of the manifestation of climate-related events associated with its project, identifying the financiers who funded the project may strengthen their link to the causal chain. In *Ex-Im Bank*, for example, the court dismissed a claim against the bank for failure to conduct statutory environmental assessments before providing financial support partly because of the relatively small contribution that the bank was making to the project.[183] Whether courts could adopt a different standard if the financier were to be responsible for funding a significant part of the project remains an open question.[184]

4. CONCLUSION

Climate litigation started to grow exponentially approximately five years ago. Today, the number of cases being filed continues to grow at a steady pace. Given the central role that finance plays in economic development, the general absence of climate cases in financial markets amidst a growing trend of climate litigation was, at least, surprising. This trend seems to be changing: 14 out of the 46 cases identified in the database search were filed in 2018 alone.

180 Marjanac & Patton, n. 176 above, p. 278.

181 See *Lliuya* v. *RWE AG*, Essen Regional Court, Case No. 2 O 285/15.

182 See D. Grossman, 'Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation' (2003) 28(1) *Columbia Journal of Environmental Law*, pp. 1–62, at 6–7, 22–7. For a more recent review see G. Ganguly, J. Setzer & V. Heyvaert, 'If At First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38(4) *Oxford Journal of Legal Studies*, pp. 841–86.

183 See Section 3.2.

184 The question is particularly relevant in those cases where financiers exert considerable control over the borrower, e.g., if they have one or several seats on the borrower's board of directors or as a result of loan covenants. Where such control exists, there may also be scope for claims of vicarious liability.

Section 3 presented a classification of the different types of claim that underpin all reported climate litigation cases in financial markets as of 31 December 2018 as well as cases that might arise in the future. This final section draws conclusions transpiring from that classification and outlines the questions that emerge for future research.

The first thing to note about the cases is their time distribution: approximately 30% of cases were filed in 2018 alone, 26% in 2017 and 2016 together, and the remaining 44% prior to 2016. The data shows that climate litigation in financial markets is on the rise. The development of existing and forthcoming private and public sector regulatory initiatives with the aim of promoting sustainable finance might usher in greater climate litigation risk.[185] In the near future, given the growing popularity of the TCFD Final Recommendations and their more advanced stage of implementation, compared with other regulatory initiatives to promote sustainable finance, disclosure obligations are likely to attract much attention from potential claimants.

Secondly, most climate litigation cases in the financial markets identified in this article have arisen in three jurisdictions: the US, Australia, and the UK. This is consistent with trends identified in broader analyses of climate litigation. One possible explanation is that climate litigation in financial markets may be concentrated in countries that host major international financial hubs, but the absence of litigation in countries like China and Japan suggests that there must be other reasons. One very important factor may be the geographical bias of the sources that I have consulted,[186] but there may be more complex factors buried in the different legal cultures of these countries that are worth exploring.

Thirdly, a high proportion of cases relate to disclosure obligations. Among these, the vast majority seem to fall into two categories: (i) cases motivated by shareholder resolutions that aim to increase climate transparency, mostly in the US and Australia, with many being filed by companies in an attempt to forestall the resolutions; and (ii) formal complaints to financial supervisors concerning inadequate disclosure by firms of climate-related risks, mostly in the UK. This division raises questions around the nature of the enforcement. For example, it would be interesting to see how financial supervisors in the UK respond to existing complaints and to examine the scope of their future investigations.

Fourthly, procedural claims are also very common in climate litigation cases in financial markets. Claimants focusing on the procedural obligations of decision makers may represent an attempt to circumvent the general reluctance of courts to review the substance of decisions taken by business people and public authorities, particularly when they involve complex and technical issues. Courts unhesitatingly perceive finance to be a complex and technical issue.

The procedural claims, however, have produced mixed results, particularly in the US. This is particularly surprising because in some cases, like *Ex-Im Bank*, the courts gave preference to considerations of economic impact over the protection of adequate

[185] The TCFD has indeed identified climate litigation risk as in important risk in financial markets: TCFD, n. 12 above, p. 5.

[186] This bias is widely acknowledged: see, e.g., Setzer & Bangalore, n. 14 above, p. 181.

decision making. In the EU, in contrast, the CJEU has identified procedural obligations as strict deadlines that wide political discretion cannot ignore. This focus on procedural claims might signal a way forward for regulators that aim to promote sustainable finance, at least in the EU: rules that aim to influence the decision-making process of private actors and public authorities may be the most effective way of integrating environmental concerns in financial markets.

Lastly, cases like *Abrahams* and the Kinder Morgan IPO in Canada illustrate that litigation, or the prospect of it, can be a very powerful tool to shape the incentives of financiers. In the case of the Kinder Morgan IPO, the company decided to amend its prospectus to disclose climate-related information after the Alberta securities regulator confirmed that it would investigate Greenpeace's complaint. Indeed, the most successful litigation strategies are those that do not even reach the complaint stage. This, however, may pose a considerable challenge to future attempts to understand the potential role that litigation could play in shaping the financial sector response to the climate crisis: the most effective strategies may be those that we cannot see.

With this caveat in mind, the classification of climate cases in financial markets also reveals important questions for future enquiries into the potential of litigation to promote sustainable finance. The most obvious is the desirability to expand the geographical scope of the data that is available. In particular, given the growing prominence of Chinese investors and financiers in development projects around the world, it would be useful to expand datasets to include Chinese cases. Building on this broader set of data, a comparative analysis between climate litigation trends in different jurisdictions might reveal insights into the potential role that courts and other law enforcement authorities can play in shaping finance in each of these jurisdictions.

Another promising avenue for future academic enquiry is the examination of the merits of some of the claims identified in this article in key jurisdictions. The academic literature exploring climate litigation claims in financial markets is still incipient and tends to concentrate on three topics: fiduciary duties, disclosure, and the mandates of central banks.[187] This literature could be expanded with further academic enquiries into the merits of other types of claim, such as public nuisance claims against financiers for their role as 'indirect polluters' and fundamental rights claims in financial markets, particularly in 'anti-regulatory' climate regulation cases. Such new enquiries could contribute to enriching our understanding of these claims, which is currently built on insights gained from general studies.[188]

As, and if, climate litigation in financial markets continues to grow, a larger data set might allow for the identification of special features in this litigation – for instance, whether some markets are more prone to litigation than others;[189] whether litigants resort more to financial supervisors and other administrative bodies than to ordinary courts; or whether they resort to alternative dispute resolution mechanisms such as arbitration or mediation. The identification of these special features might reveal that

[187] See n. 18 above.

[188] See, e.g., Grossman, n. 182 above; Peel & Osofsky, n. 19 above.

[189] E.g., insurance companies appear to be particularly vulnerable to climate litigation: see Section 3.7 above.

climate litigation dynamics in financial markets are different from those identified in other industries, such as the fossil fuel industry. Analysis of a greater number of financial sector climate cases might reveal that the regulatory pathways of climate litigation in this context are different from those identified in climate litigation more generally.[190]

Lastly, if and as climate litigation in financial markets continues to grow, empirical studies could aim to quantify the economic impact of such litigation on financial market participants. Climate litigation is likely to impact upon firms on various fronts, including legal fees, potential liability for compensation, and reputational harm. Moreover, at a systemic level, climate litigation could have a destabilizing effect if, for example, the economic impact of litigation puts large financial institutions into financial difficulties, or if litigation results in the annulment of intervention by public authorities in specific markets. These empirical analyses would contribute to our incipient understanding of the relationship between climate change and financial risk, but a much deeper examination of important aspects such as legal remedies, legal standing and enforcement mechanisms will be needed. I hope that the typology of claims that I have presented in this article can help to illuminate the first steps in those quests.

[190] See, e.g., Peel & Osofsky, n. 13 above; Setzer & Bangalore, n. 14 above.