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The Carbon Boomerang

Litigation Risk as a Driver and Consequence of the Energy Transition





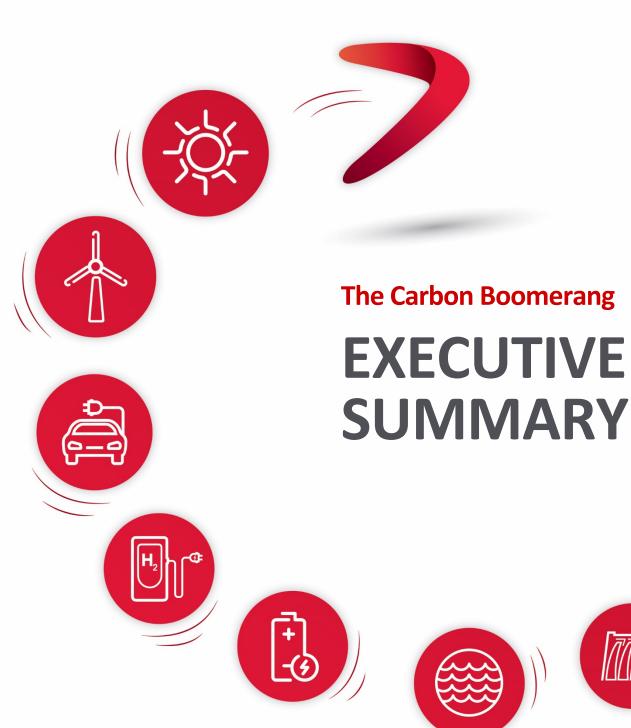


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The Energy Transition Risks & Opportunities (ET Risk) research consortium seeks to provide research and tools to assess the financial risk associated with the energy transition. The project will deliver 3 tools— transition scenarios, asset-level data across 6 energy-relevant sectors, and new credit risk and valuation models to assess transition risk and opportunity.	ENERGY TRANSITION RISKS & OPPORTUNITIE
The Consortium is funded by the European Commission and brings together academic researchers (University of Oxford, think tanks (Carbon Tracker Initiative, Institute for Climate Economics, and 2°Investing Initiative), industry experts (The CO- Firm), and financial institutions (Kepler Cheuvreux, S&P Global). A summary of the initiative can be found <u>here</u> .	THE-CONTRACTOR Kepler Cheuvreux S&P Global
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EXECUTIVE SUMMARY

Overview: ET claims taxonomy

Climate change-related litigation risks have the potential to act as both a material driver, and consequence, of the energy transition (or 'ET'). This Report offers a general taxonomy of litigation risks that may catalyse, and/or result from, the transition.

It proposes eight categories of claim, grouped within three broad classes:

- **1.** Failure to mitigate claims seeking to establish liability for emissions and/or associated climate change impacts;
- Failure to adapt (including failure to report or disclose) claims deriving from commercial failures to risks associated with climate change into account, and/or to accurately disclose related exposures; and
- **3.** ET-specific regulatory compliance claims arising from laws and standards introduced to implement energy transition policies, and related consumer protection law claims.



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This taxonomy is summarised in **Table ES-1** overleaf, and further particularised in **Table ES-2**.

The Report analyses the nature of claims within each category, along with an overview of relevant cases. It also provides specific, additional analysis of securities fraud and misleading disclosure laws following the recent release of the Final Recommendations of the G20 Financial Stability Board's Taskforce on Climate-related Financial Disclosures ('**TCFD**').

The Report is part of a broader research effort - the ET Risk research consortium - and thus focuses on the intersection of litigation risk and the *energy transition*. It does not, therefore, purport to cover other categories of climate litigation that relate to the *physical impacts* of climate change, unless those claims are themselves a direct and significant driver of ET policy reform.

Companies, their investors and financial services providers should seek to understand each relevant category of claim to enable a diligent assessment of their bearing on risk and value in specific circumstances.

INTRODUCTION

Scope

A full analysis of the litigation risks arising in the ET requires four tiers of examination. This Report addresses Tier One.



This Report addresses **Tier One** of such analysis, offering a general taxonomy of claims that are likely to arise in the ET, by reference to the policy and/or market variables identified by 2°ii in its ET risk taxonomy. It also offers preliminary observations on the likelihood of litigation over mainstream investment horizons on a sectoral basis, pursuant to Tiers Two and Three. This provides a foundation for further risk assessment under adverse scenarios in development by the ET Risk research consortium (page 3) (Tiers Two and Three), and subsequent application of company- and jurisdictional- risk factors (Tier Four).

The findings of this Report are summarised in Table ES-2.

This Report is part of a broader research effort - the ET Risk research consortium - and thus focuses on the intersection of litigation risk and the *energy transition*. It does not, therefore, purport to cover other categories of climate litigation that relate to the *physical impacts* of climate change, unless those claims are themselves a direct and significant driver of ET policy reform.



CLAIMS TAXONOMY OVERVIEW

Table 1. ES-1

FAILURE TO MITIGATE

1 (ie claims seeking to establish liability for emissions that cause the physical impacts of climate change)



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Citizens/states vs emitters/states (including 'carbon-debt' claims): claims by citizens/states against large emitters (or other states) seeking compensation for damages caused by, or costs incurred due to, climate change. Causes of action generally include **tort (negligence, nuisance, trespass), international law and human rights law**

Citizens/states vs states: claims by citizens (or sub-national governments) against their own state for a failure to restrict emissions. Causes of action may arise under **constitutional**, **human rights or tort (negligence) laws**, for **breach of statutory obligation**, or under the **public trust doctrine** (including 'atmospheric trust' claims)

Regulatory investigations and claims against corporations (and/or their directors) who fail to accurately manage, report or disclose the risks associated with climate change. Causes of action may arise under securities laws (misleading disclosure/ securities fraud) and/or (in some jurisdictions) corporate governance laws (directors' statutory and fiduciary duties)

Investor/beneficiary claims against corporations/trustees (and/or their directors) who fail to accurately manage, report or disclose the risks associated with climate change to their business. Claims may include 'stock-drop claims' under securities laws (misleading disclosure/securities fraud) and/or derivative actions against directors/fund trustees for breach of fiduciary/statutory duty

Corporation/investor claims against professional advisors (eg accountants, consultants, investment brokers, asset managers or credit ratings agencies) for negligent service provision in failing to adequately account for energy transition risks. Causes of action may include **misrepresentation**, **tort (negligence) and breach of contract**

Contractual disputes: litigation between counterparties seeking to avoid or repudiate contractual obligations under evolving ET market norms, and insured vs insurer disputes over the scope of policy indemnities. Claims are likely to turn on **contract law**

ET-SPECIFIC REGULATORY COMPLIANCE

3

(ie claims relating to compliance with emissions-related laws and standards introduced to implement energy transition policies, and/or related misrepresentations to consumers) G

Regulatory claims for a breach of emissions- (or adaptation-) related regulations introduced to give effect to ET policies. The relevant causes of action include breaches of transition-related statutes or regulations, and/or consumer protection / consumer fraud laws. Claims in this category may also give rise to secondary litigation exposures under corporate and securities laws (discussed under C and D above)

Anti-regulatory litigation (emitters as plaintiffs): companies materially impacted by national and supra-national governments' ET regulations (or related trade associations, sub-national governments or other interest groups) may challenge their validity, bringing claims under **international trade, administrative** or **constitutional laws.**

FAILURE TO ADAPT (including failure to report or disclose)

 (ie claims deriving from commercial failures to take the physical and economic transition risks associated with climate change into account, and/or to accurately disclose related exposures)

Litigation as a strategic tool in the ET

The incentive for claimants to deploy litigation as a *strategic* tool in the ET cannot be underestimated: as a mechanism to raise the profile of a particular issue, as a procedural mechanism to obtain the defendant's internal documents or information, to impact on a corporation's social licence to operate and/or to apply pressure on governments to introduce relevant regulation.

This may mean that claimants will pursue actions that are credible, but not necessarily strong. Claimants may also take a 'lowest common denominator' approach: targeting claim filings in those jurisdictions that they perceive to have the most permissive legal frameworks, and using the outcomes from those cases to drive settlements in countries where judgment is more difficult to secure. Political, social and reputational impacts may bring significant settlement pressures to bear even where legal liability is contested.

To some extent, litigation risks may be *inversely related* to the strength of regulatory controls in the ET. This is because the absence of strong regulatory policy drivers in a given jurisdiction can compound litigation risks, as plaintiffs look to alternative avenues of legal pressure to protect their interests.

Likelihood of litigation within mainstream investment horizons under various ET scenarios

A key output of the ET Risk research program is the identification of alternative transition scenarios. That work stream remains in progress. In the interim, however, high-level preliminary observations may be made of the nature and magnitude of litigation risks across the spectrum of potential transition scenarios.

As a general proposition, all the categories of litigation risk identified have the potential to become material drivers and/or consequences of the energy transition, under any transition scenario. However, the nature of claims may skew more heavily towards particular categories depending on the timing of the transition, and the manner in which the transition occurs (all else being equal).

For example, at one transition extreme - a co-ordinated, uniform and swift transition to a global low-carbon energy paradigm (ie. consistent with the agreed Paris Agreement target of keeping global warming to well below 2°C) - may result in an increase in litigation against corporations (and their directors and advisors) who fail to adequately manage the foreseeable financial risks associated with that transition (claim categories (D) and (E)), as well as contractual disputes (category (F)), and 'anti-regulatory' litigation as emitters resort to the courts in 'last-ditch' efforts to block transition-related legislation (category (H)). Conversely, a swift transition may reduce the incidence of 'strategic' claims against emitting states and companies (ie. where plaintiffs turn to litigation as a mechanism to drive policy- and market-based reform), limiting the consequential role of claims categories (A) and (B).

At the other extreme, a slower, delayed energy transition may be characterised by a greater volume of litigation against governments, emitters and corporations within mainstream investment horizons, as stakeholders turn to litigation as a strategic transition driver in the face of perceived policy and market failures, and to pursue damages for greater levels of climate-related harms (claim categories (A), (B), (C), (D)). Conversely, in that scenario emitters may not perceive the same need to bring 'anti-regulatory' claims against government entities, limiting the role of claims under category (h) as a consequence of the energy transition, within mainstream investment horizons.

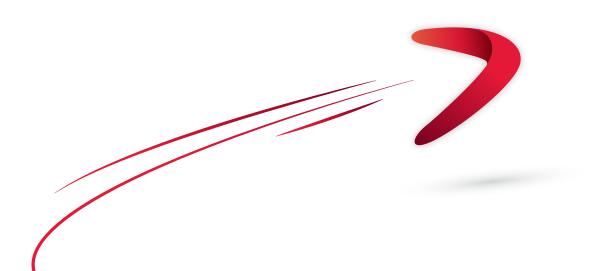
These directions are indicated, at a high-level, in Table ES-2.

Materiality & valuation

As shown in **Table ES-2** overleaf, climate litigation risks can be material for potential defendants in a number of ways. First, and most obviously, regulatory and private claims have a direct impact on earnings (in the form of legal expenses, penalties and damages, as well as market / reputational impacts) and liabilities (litigation reserves and contingencies). Thus, residual exposure uncertainties should factor into discount rates, and as a 'key driver' in ratings metrics or outlooks. In addition, regulatory scrutiny can also cause significant reputational damage, loss of political/social capital, market exclusions and restriction of insurances, and provide a platform for subsequent private damages settlements. Finally, as recently experienced by the pharmaceutical and banking industries in a non-ET context, emerging claims patterns can drive industry-wide strategic pivots as regulators tighten rules and disclosure requirements.

The pricing of litigation risk in the energy transition is inherently complex. It involves a high proportion of what may be considered tail risks and large losses, and complicated by dynamic regulatory exposures, aggressive litigation environments, a paucity of reliable data and pervasive uncertainty in risk accumulation and aggregation. It will require the specific and significant application of judgment in its input to valuation and underwriting problems. And engagement with the business being valued or underwritten will be critical to providing fit for purpose technical analysis and commercially actionable insights.

Accordingly, it is difficult to prospectively quantify the financial risks associated with litigation in any specific sector, or for any specific company, in an overview Report such as this. However, it is possible to offer observations on those sectors and industries for which such claims are not only foreseeable but, all else being equal, more likely to be material in scope and impact. Where possible, this Report does so by reference to industry categories adopted by the G20 Financial Stability Board's Taskforce on Climate-Related Financial Disclosures **(TCFD)** (June 2017).



FAILURE TO MITIGATE

ET DRIVER OR CONSEQUENCE?	TYPE OF LAW	DESCRIPTION OF CLAIM	PLAINTIFF(S)	DEFENDANT(S)	PRELIMINARY OBSERVATIONS RE SECTORAL RISKS + HEAT MAP (TCFD HIGH-RISK SECTORS + GOVERNMENT)	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: SWIFT, CO-ORDINATED (<2°C) (CET PAR)	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: DELAYED / LATE, UNCO- ORDINATED (CET PAR)
A	CLAIMS AGAINST L	ARGE EMITTERS				\frown	
Driver	Tort, human rights, environmental	Tort, statutory or international law claims by citizens/vulnerable states seeking compensation for climate change damages/ adaptation costs	Public or State	Large emitters or other states	Low likelihood but high consequence: energy (coal, oil, gas, electric utilities), metals and mining, government	(although prospect of such litigation may catalyse market drivers	(litigation employed as a strategic policy driver in the absence of regulatory reform)
B	CITIZEN/STATE CLA	IMS AGAINST STATES (INCLUDING	'ATMOSPHEI	RIC TRUST' CLAIMS)		

and the second sec						\bigcirc	\bigcirc
Driver	Constitutional law, tort, human rights, statutory breach, public trust doctrine	Claims by citizens (or sub- national governments) against their own state for a failure to restrict emissions, under Constitutional, human rights or torts laws, or under the public trust doctrine	Public or States	States	Potentially material driver of policy given critical mass of claims: government	(although prospect of such litigation may catalyse policy drivers)	(litigation employed as a strategic policy driver in the absence of regulatory reform)

Page 8

TABLE 2. ES-2

ET DRIVER OR CONSEQUENCE?	TYPE OF LAW	DESCRIPTION OF CLAIM	PLAINTIFF(S)	DEFENDANT(S)	PRELIMINARY OBSERVATIONS RE SECTORAL RISKS + HEAT MAP (TCFD HIGH-RISK SECTORS + GOVERNMENT)	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: SWIFT, CO-ORDINATED (<2°C) <i>(CET PAR)</i>	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: DELAYED / LATE, UNCO- ORDINATED (<i>CET PAR</i>)
c 🕞	REGULATORY INVE	STIGATIONS AND CLAI	MS (CORPOF	RATIONS/SEC	CURITIES)	\frown	\frown
Both	Corporations, securities and consumer protection statutes (breach of duty, misleading disclosure (securities fraud/ consumer fraud))	Claims by regulators against corporations, fund trustees and/ or their directors for failures to adapt to or accurately disclose ET risks	Financial/ consumer regulators	Companies, fund trustees, directors	Energy (oil and gas coal, electric utilities), transport (trucking, automotive), materials & building (mining & metals, construction materials, real estate), financial services (banks, asset owners, asset managers, insurers), agriculture & forestry products (agriculture, beverages)	(as consequence of the ET)	(as driver of the ET)
D	INVESTOR CLAIMS	(CORPORATIONS/SECU	JRITIES)			\bigcirc	\bigcirc
Both	Corporations and securities statutes, fiduciary law (breach of duty/negligence, misleading disclosure (securities fraud/consumer fraud))	Shareholder class and derivative actions against corporations, fund trustees and/or their directors for failures to adapt to or accurately disclose ET risks (including 'stock drop' claims)	Shareholders, beneficiaries	Companies, fund trustees, directors	Energy (oil and gas coal, electric utilities), transport (trucking, automotive), materials and building (metals & mining, construction materials, real estate), financial services (banks, asset owners, asset managers, insurers), agriculture & forestry products (agriculture, beverages)	(as consequence of the ET)	(as driver of the ET)

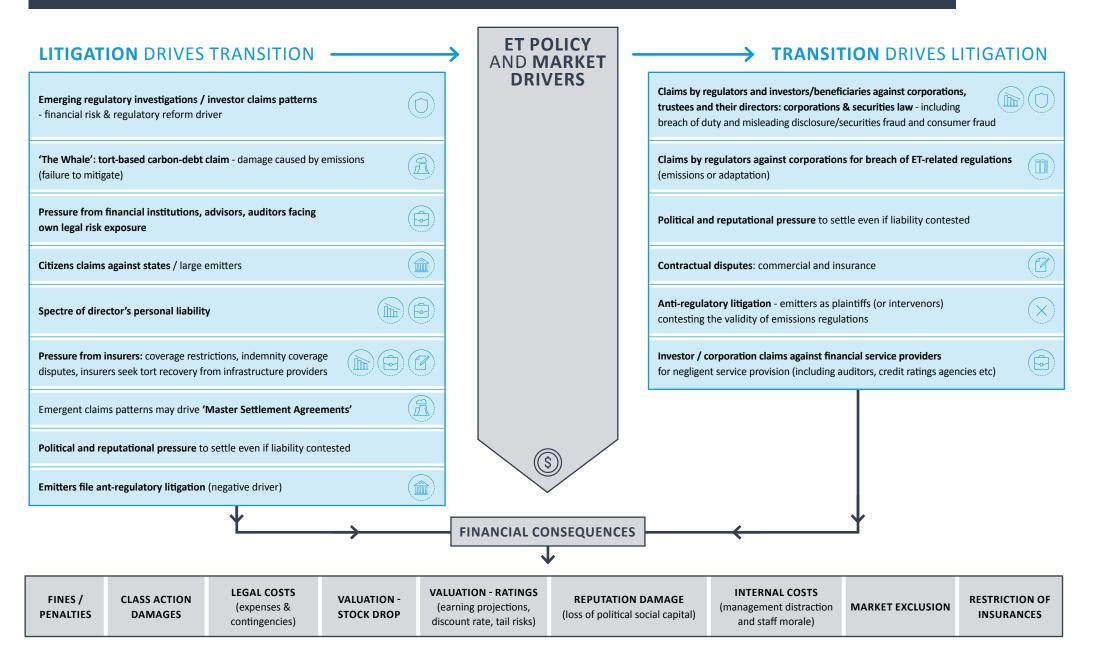
ET DRIVER OR CONSEQUENCE?	TYPE OF LAW	DESCRIPTION OF CLAIM	PLAINTIFF(S)	DEFENDANT(S)	PRELIMINARY OBSERVATIONS RE SECTORAL RISKS + HEAT MAP (TCFD HIGH-RISK SECTORS + GOVERNMENT)	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: SWIFT, CO-ORDINATED (<2°C) <i>(CET PAR)</i>	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: DELAYED / LATE, UNCO- ORDINATED (<i>CET PAR</i>)
E	FINANCIAL SERVIC	ES					
Both	Tort (negligence, nuisance), contract	Claims against professional advisors (eg accountants, auditors, consultants, funds originators, investment brokers, asset managers or credit ratings agencies etc) for negligent service provision in failing to adequately account for ET risk	Companies, investors	Financial services advisory firms (including accountants and auditors)	Financial services, insurance	(as consequence of the ET)	(as driver of the ET)
F	CONTRACTUAL DIS	PUTES				\bigcirc	
Consequence	Contract	Litigation between counterparties seeking to avoid or repudiate contractual obligations under evolving ET market norms, and insured vs insurer disputes over	Companies	Companies	Potentially material for individual companies: energy, materials & building (all), financial services, insurance		

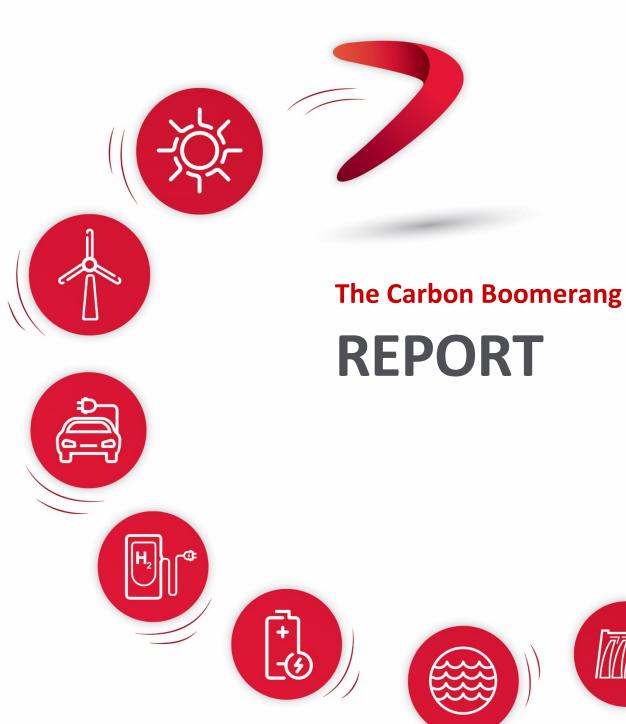
the scope of policy indemnities

ET DRIVER OR CONSEQUENCE?	TYPE OF LAW	DESCRIPTION OF CLAIM	PLAINTIFF(S)	DEFENDANT(S)	PRELIMINARY OBSERVATIONS RE SECTORAL RISKS + HEAT MAP (TCFD HIGH-RISK SECTORS + GOVERNMENT)	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: SWIFT, CO-ORDINATED (<2°C) (CET PAR)	RELATIVE LIKELIHOOD BY TRANSITION SCENARIO: DELAYED / LATE, UNCO- ORDINATED <i>(CET PAR)</i>
G	REGULATORY AND	CONSUMER PROTECTI	ON CLAIMS -	- BREACH OF	ET REGULATIONS AN	ID/OR CONSUMER	FRAUD
Consequence	Emissions restriction and adaptation statutes Consumer protection / consumer fraud laws	Claims against companies for breach of ET emissions/ adaptation regulations Related claims under consumer protection laws where corporations misrepresent the characteristics, price, utility or performance of their goods and services in the energy transition	Environment and energy regulators Consumer protection regulators Consumers	Companies/ government agencies	Energy (coal, oil and gas, electric utilities), transport (all), materials & building (mining & metals, construction materials, real estate, chemicals, manufacturing) government, agriculture		(∽)
H	ANTI-REGULATION	LITIGATION					
Driver (negative), Consequence	Emissions restriction and adaptation statutes, international trade, administrative law, constitutional law	Companies (and economically- dependent states) materially impacted by ET regulations may challenge their validity under international trade, administrative or constitutional laws	Large emitters	Climate/ energy policy makers (government)	Energy, automotive, materials & building (mining & metals, construction materials), government		(although may as a 'negative catalyst' that prevents policy drivers to swift transition)

THE LITIGATION BOOMERANG: DRIVER AND CONSEQUENCE OF THE ET

FIGURE 1. ES-1











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The Carbon Boomerang: Litigation as a Driver & Consequence of the Energy Transition

1. Introduction

1.1 Background & scope

Litigation risks manifest as both a material *driver* of the energy transition (**ET**), and as a *consequence* of it.

A full analysis of the litigation risks arising in the ET requires four tiers of examination:

Tier One

what forms of claim are likely to arise?

Tier Two

- is litigation likely over mainstream investment horizons?
 Tier Three
- which sectors are materially exposed?

Tier Four

which corporations within those sectors are materially exposed?

This Report focuses on **Tier One** of such analysis, offering a general taxonomy of claims that may be a driving factor in, or consequence of, the energy transition, by reference to the policy and/or market variables identified by 2°ii in its ET risk taxonomy. It also offers preliminary observations on the likelihood and potential materiality of litigation over mainstream investment horizons on a sectoral basis, pursuant to Tiers Two and Three. This provides a foundation for further risk assessment under adverse scenarios in development by the ET Risk research consortium (Tiers Two and Three), and subsequent application of company - and jurisdictional - risk factors (Tier Four). This Report is part of a broader research effort—the ET Risk research consortium – and thus focuses on the intersection of litigation risk and the *energy transition*. It does not, therefore, purport to consider the direct financial implications of emissions pricing or control regulations (beyond litigation exposures for a failure to comply with such regulations), nor cover other categories of climate litigation that relate exclusively to the *physical impacts* of climate change, unless those claims are themselves a direct and significant driver of ET policy reform. These distinctions are explored further in **Section 1.2** below.

This Report considers litigation risks associated with the ET within three broad categories, as illustrated in **Figure R1** below:

- Failure to mitigate claims seeking to establish liability for emissions that cause the physical impacts of climate change (and the costs attributable to those impacts);
- Failure to adapt (including failure to report or disclose) claims deriving from commercial failures to take the physical and economic transition risks associated with climate change into account, and/or to accurately disclose related exposures; and
- ET-specific regulatory compliance claims relating to emissions-related laws and standards introduced to implement energy transition policies, and related consumer protection law claims.

Figure R1: Overview of potential claims in the ET

1. Failure to mitigate

A A

Citizens/states vs emitters/states – 'carbon-debt' claims: tort or statutory claims by citizens/states against large emitters (or other states) seeking compensation for damages caused by climate change.

2. Failure to adapt (including failures to report/disclose)

Regulatory investigations and claims – corporations/securities laws: against corporations (and/or their directors) who fail to accurately manage, report or disclose the risks associated with climate change to their business, under securities (misleading disclosure/securities fraud) and/or (in some jurisdictions) corporate governance (directors' statutory and fiduciary duties) laws.

B

Citizens vs states: claims by citizens against their own state for a failure to restrict emissions, under Constitutional, human rights or tort laws, or under the public trust doctrine (including 'atmospheric trust' claims).



С

Investor/beneficiary claims against corporations/trustees (and/or their directors)

who fail to accurately manage, report or disclose

the risks associated with climate change to their business, including 'stock-drop claims' under securities laws (misleading disclosure/securities fraud) and/or breach of fiduciary/statutory duty claims against directors/fund trustees.

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Investor claims against professional advisors (e.g. accountants, consultants, investment brokers, asset managers or credit ratings agencies) for negligent service provision in failing to adequately account for energy transition risks.

Contractual disputes: litigation between counterparties seeking to avoid or repudiate contractual obligations under evolving ET market norms, and insured vs insurer disputes over the scope of policy indemnities.

3. Breach of ET-specific regulation



Regulatory investigations and claims – breach of emissions- (or adaptation-) related regulations introduced to give effect to ET policies. This may give rise to secondary litigation exposures under corporate and securities laws.



Anti-regulatory litigation (emitters as plaintiffs): companies materially impacted by national and supra-national governments' ET regulations (or related trade associations or interest groups) may challenge their validity under international trade, administrative or constitutional laws.



1.2 Scope: ET vs physical impact litigation risks

In proposing this taxonomy, it is acknowledged that relevant claims rarely fall neatly and solely into a discrete category. Moreover, many claims categories may not strictly arise due to the *financial or market dynamics* in the energy transition, but rather the *physical impacts* of climate change (even though the scope, scale and speed of the physical impacts (and thus the litigation risks they present) are themselves substantially dependent on the ET)). Claims that may fall into the latter category relevantly include those arising from failures to mitigate emissions, *viz* 'carbon debt' and/or adaptation cost claims by citizens against large emitters (or other states), and citizen claims against their states for a failure to implement policies consistent with restricting emissions. However, it is recognised that these forms of claim are also a significant driver of the energy transition, as they provide a direct incentive for states to implement strong ET policies. They *are* therefore included in this Report's substantive discussion.

Other forms of litigation that may present material risks to particular corporations (or government agencies) during the ET, but that primarily result from the *physical* impacts of climate change, bear noting, but are *not* otherwise discussed in this Report.¹ Categories of claim excluded from scope include:

- (a) claims by neighbours or other third parties against corporations, infrastructure owners or government agencies where damage is caused by the corporation/owner/agency's failure to adapt their plant/infrastructure to the physical impacts of climate change under tort (negligence, nuisance) and Constitutional laws (including 'uncompensated takings' claims);²
- (b) client claims for professional negligence against built/natural environment professionals such as planners, architects, engineers, developers et cetera, where real assets are not designed or built to be resilient to foreseeable the physical impacts of climate change over a foreseeable range of climate futures; and
- (c) claims alleging improper exercise of an administrative discretion (cf. obligation) ie claims that an administrative decision failed to take into account (or to give proper weight to) the physical impacts of climate change where this is a factor relevant to the exercise of the discretion. This notably includes permit disputes under planning and environment laws, designations of threatened or endangered species, and determinations of refugee status.³

temporary uncompensated taking of the plaintiff's storm-damaged property, in violation of the US Constitution (a cause of action for which sovereign immunity was not available). The Army Corps has appealed this decision. See generally recent discussion of 'physical damage' claims in United Nations Environment Programme (UNEP) and Columbia Law School Sabin Center for Climate Change Law, *The Status of Climate Change Litigation – A Global Review*, May 2017 http://wedocs.unep.org/handle/20.500.11822/20767>.

³ For recent overviews of litigation arising from the physical impacts of climate change in various jurisdictions, see for example Boom, Keely, Julie-Anne Richards and Stephen Leonard, *Climate justice: The international momentum towards climate litigation*, Climate Justice Program, May 2016, <http://climatejustice.org.au/wp-content/uploads/2017/05/Report-Climate-Justice-2016.pdf>; Lin, Joeline 'Climate Change and the Courts' (2012) 32 Legal Studies 35, 41ff, Peel, Jacqueline and Hari M Osofsky, 'Sue to Adapt?' (2015) 99:6 Minneota Law Review 2177; Peel, Jacqueline and Hari M Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015); Jefferies, Cameron 'Filling the Gaps in Canada's Climate Change Strategy: "All Litigation, All the Time..."?, (2015) 38 Fordham International Law Journal 1371; Bank of England Prudential Regulation Authority, *The Impact of Climate Change on the UK Insurance Sector*, Climate Change Adaptation Report, London, September 2015, Chapter 5,

http://www.bankofengland.co.uk/pra/Documents/supervision/activities/pradefra0915.pdf; UNEP and Columbia Law School Sabin Center for Climate Change Law, above n2.

¹ For a comprehensive database of climate change litigation in US and non-US jurisdictions, including physical risk cases beyond the scope of this report, see Sabin Center (Columbia University) & Arnold & Porter Kaye Scholer LLP Climate Change Litigation Database, http://climatecasechart.com/>.

² These types of claim are already emerging in practice. See for example Illinois Farmers Insurance Co. et al. v. Metropolitan Water Reclamation District of Greater Chicago et al. 1:14-cv-03251 (2014) (in which Illinois Farmers Insurance (a subsidiary of global insurance giant Zurich) issued multiple class action subrogation claims against Chicago-area municipalities in relation to business and residential policy holder payouts made in the wake of Super Storm Sandy. The claims essentially alleged negligent failure by the municipalities to prevent flood-related damage by upgrading their stormwater and sewerage networks, despite their knowledge that climate change would cause more frequent and intense rainfall. The case was later withdrawn); CIF, Inc. v ExxonMobil 1:16-cv-11950-MLW (2016) (in which a private damages claim was filed in the District Court of Massachusetts by community group Conservation Law Foundation. Inc alleging that ExxonMobil has failed to prevent toxic pollutant discharges from storage facilities at its Everett Terminal due to its failure to take climate change impacts into account in its stormwater pollution prevention plan, spill prevention, control and countermeasures plan and facility response plan). Although the plaintiffs did not expressly raise climate change in their claims, parallels may also be drawn to cases seeking damages for storm surge losses following Hurricane Katrina: In re Katrina Canal Breaches Litig., 696 F.3d, cert, denied sub, nom., Lattimore v U.S. S. Ct. 2855 (2013) the Fifth Circuit Court of Appeals held that sovereign immunity applied to protect the Army Corps of Engineers against a claim of negligent construction and maintenance of the Mississippi River Gulf Outlet shipping channel, and St Bernard Parish Government v United States 121 Fed. Cl. 687 (2015), the Federal Court of Claims held that the Army Corps of Engineers' management of the Mississippi River Gulf Outlet effectuated a

1.3 A note on jurisdictional boundaries

A company's litigation risk exposures may extend beyond the jurisdictions in which they are incorporated. Depending on the relevant circumstances, both investor institutions and investee corporations may be subject to claims by shareholders, stakeholders or third parties in other jurisdictions in which they transact. Accordingly, in order to provide a broad overview of the nature of the risks faced in this context, this report takes a thematic approach to legal risks, augmented by statutory and case-law examples drawn from multiple jurisdictions. It is not intended as a survey of all climate-related litigation risks under all relevant laws. Rather, it provides commentary on a number of the most significant litigation risks that may have the most material impact as a driver, or consequence, of the energy transition.

1.4 The nature of financial harms

The material financial impacts of litigation on a company may extend far beyond the 'headline penalty'. They may include, for example:

- Fines and penalties
- Compensation and damages
- Legal costs
- Remediation costs
- Management time, cost and resources (forensics and investigations, dealing with regulators and lawyers)
- Reputational damage
- Inability to attract and retain premium talent: impact on staff morale and stigma amongst external recruits (particularly in younger people)
- Valuation, finance availability and credit rating effects
- Insurance costs, coverage limitations and exclusions
- Contractual defaults
- Tender process exclusions.

⁴ Preston, Justice Brian J., 'The Influence of Climate Change Litigation on Governments and the Private Sector' (2011) 2 *Climate Law* 485.

Perhaps most significantly, litigation can have a far broader impact than the direct financial impost on the claimant(s) and defendant(s): as a *driver of regulatory reform and/or on corporate strategy and governance within the relevant industry*. Claimants may also seek to deploy litigation as a *strategic* tool, recognising the value of even of 'ostensibly unsuccessful' litigation⁴ as a mechanism to raise the profile of a particular issue, as a procedural mechanism to obtain the defendant's internal documents or information, to impact on a corporation's social licence to operate, to raise potential defendants' costs, and/or to apply pressure on governments to introduce relevant regulation.⁵ And a single successful claim may have significant, broader impacts as a driver and/or consequence of the energy transition. In the words of one commentator in relation to shareholder claims for climate-related damages:

[A] single decision favouring plaintiffs ... would create drastic and rapid changes in the industry's conception of liability.⁶

One function of the nascent stage of many (although not all) these forms of litigation in a climate change (and, more specifically, ET)context is that there may be few decided case examples in each field whose facts specifically relate to failures in climate risk management. Accordingly, this Report makes use of cases from other sectors where there are evident analogies to claims that may be brought in the ET. Such analogies may also assist as 'lead indicators' in the assessment of the materiality of litigation risks in a particular sector or under given transition or physical risk assumptions.

⁶ Cosman, Brian, 'Green Derivatives: Extorting Reductions in Greenhouse Gas Emissions via Shareholder Derivative Suits' (2008) 40 Arizona State Law Journal 743, 761.

⁵ For an overview of the early literature on the potential for, and centrality of, litigation as an element of regulatory reform in relation to climate change see for example Barker, Sarah, *'Directors Duties in the Anthropocene: Liability for Corporate Harm for Inaction on Climate Change*, December 2013 < http://responsible-investmentbanking.com/wp-content/uploads/2014/11/Directors-Duties-in-the-Anthropocene-December-2013.pdf >.

1.5 Litigation risk as a product of regulatory uncertainty

It bears note that many of the litigation risks associated with the ET are not dependent on developments in emissions regulation or controls. Rather, they turn on economic / market factors, and/or enliven existing, broad commercial laws in the ET context. Accordingly, whilst the vagaries of ET policy or regulation under any given state's political administration may be important to the speed and scale of the ET itself, they are less determinative of the degree of litigation exposure in that transition. In fact, the absence of strong regulatory policy drivers in a given jurisdiction can actually <u>compound</u> litigation risks, as plaintiffs look to alterative avenues of legal pressure to advance or protect their interests.

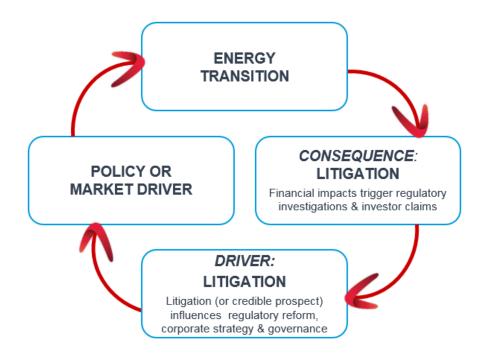
1.6 Report structure

This Report analyses litigation risks in the ET within four sections: Litigation risk in the ET: driver and consequence, Parties & Claims, Materiality & Pricing Litigation Risks, and High Risk Areas & Adverse Scenarios. In practice, the subject matter in each of these chapter both builds on, and feeds, each other section:



2. Litigation risk in the ET: *driver* vs. *consequence*

Litigation risk factors are likely to act as both a *driver* of the energy transition, as a significant spur to market conduct and policy reform, and as a *consequence* of it – particularly where corporations who are not strategically positioned for the transition suffer loss. Of course, this distinction somewhat circular, as the credible prospect of litigation also acts as a driver of corporate and policy action. However, the division is a useful tool to conceptualise how litigation risks are likely to manifest.

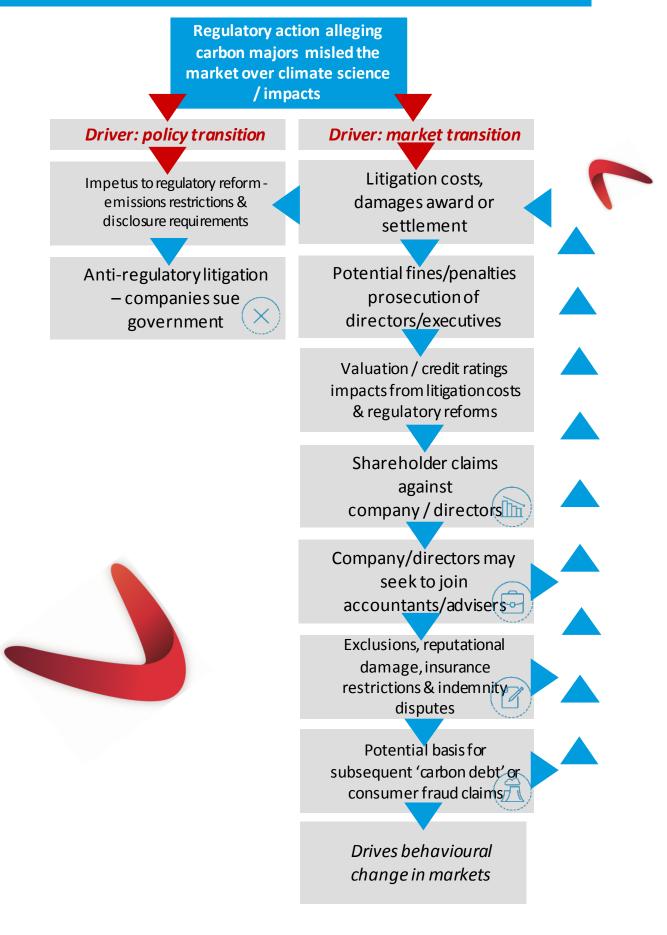


2.1 Litigation risk as a *driver* of the energy transition

Litigation may be a significant driver of other market conduct and policy reform factors inherent in the energy transition. From a **policy** perspective, it is likely to act as a powerful spur to **regulatory reform** (in terms of both emissions restrictions and disclosure requirements). From a **market** perspective, the **credible prospect** of significant **corporate (and board) liability exposure**, and associated financial, insurance and reputational consequences, is likely to put significant pressure on corporations to adjust their disclosures, governance and strategy.

Specific forms of litigation that may become material drivers of the ET are illustrated in **Figure R2**, below. The causes of action relevant to these claims are analysed in further detail in **Section 3**.

Figure R2: Litigation as a *driver* of the ET – example pathway: regulatory action



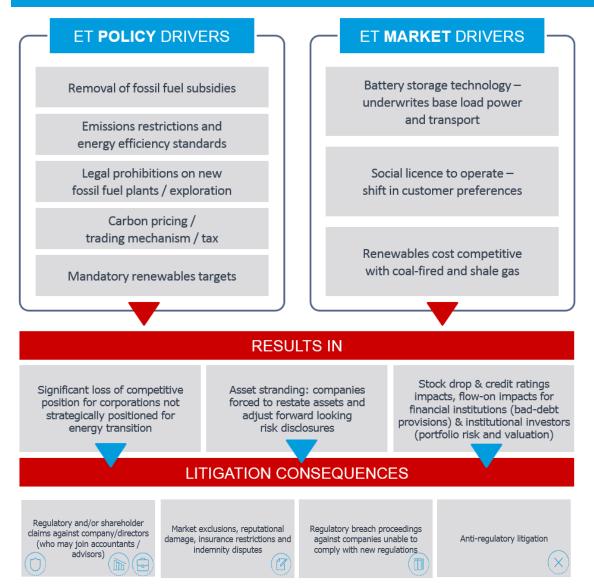
2.2 Litigation risk as a *consequence* of the energy transition

As the energy transition develops, policy (in the form of regulatory reform) and market drivers (economic impacts and associated disclosure requirements) are also likely to present material litigation risk exposures to corporations, asset owners and their insurers. Such litigation risks may arise from either (or both) claims by private parties who have suffered loss or damage due to a market participant's failure to manage or disclose energy transition risks, and investigations/proceedings by government or regulatory bodies. The claims, or the credible prospect of them, may have material impacts on financial risk/return factors at all levels of the investment supply chain, from valuation to credit ratings and insurances – and thus circle back as a driver of the energy transition.

Investors commonly 'chase their losses' where the value of their investment is materially impacted. Where the energy transition provokes a drop in a corporation's share price or negative outlook on credit assessments, investors may pursue damages claims against the corporation or its directors on the basis of misleading disclosure, negligence or breach of duty. Such 'consequential' litigation can compound, or add to, the material financial impacts on a company, and enliven associated risk/return impacts such as the cost or availability (and profitability) of insurance.

These potential consequences are illustrated in an example set out in **Figure R3**, right. The relevant causes of action are analysed in **Section 3**.

Figure R3: Litigation risk as a consequence of the ET



3. Overview of material potential claims: parties and primary causes of action

3.1 Overview

This section examines the nature of claims that may drive, or be driven by, the ET by reference to the parties who may be involved in such litigation. Observations on the potential materiality of such claims are offered by way of analogy to existing cases, along with preliminary observations on sectors most likely to be impacted (all else being equal). Where case examples are yet to emerge in an energy transition context, analogous claims have been used as proxy 'lead indicators' to illustrate how the relevant cause of action has been applied in response to other market events or stimuli.

Whilst the different forms of claim have been separated for the sake of explanation and illustration, it is noted that multiple claims commonly emanate from a single event trigger: occurring in clusters under different causes of action, brought by different plaintiffs, and occasioning varied forms of loss.

As a precursor to the analysis of claims in **Section 3.3**, more detailed analysis and discussion is devoted to **misleading disclosure and securities fraud** in **Section 3.2** below. This additional emphasis is given for a number of reasons. First, the Bank of England Prudential Regulation Authority has explicitly warned that claims alleging misleading disclosure are likely to be amongst the 'quickest to evolve' in the energy transition.⁷ Secondly, this warning is increasingly borne out, with a number of significant regulatory investigations and private claims of this kind already evident in the ET. Thirdly, benchmarks for the 'true and fair' disclosure of material financial risks associated with climate change, and their impact on corporate performance and prospects, are currently subject of intense focus with the release of the Final Recommendations of the G20 Financial Stability Board's Taskforce on Climate-related Financial Disclosures in June 2017. Finally, such claims are likely to have material valuation and risk rating implications for individual corporations and sectors, and are thus likely to be of particular interest to financial analysts.

3.2 Misleading disclosure & securities fraud

Capital markets cannot operate efficiently unless they are fully informed. Corporate disclosures form the basis of assessments about a company, and the risks and opportunities it faces, by investors and beneficiaries, financial sector stakeholders such as creditors and insurers, marketplace stakeholders such as customers and suppliers, and policy-makers. Accordingly, it is a universal cornerstone of commercial law that corporations publish information that presents a true and fair view of their overall financial position. In order to be meaningful and decision-useful for external users, bare quantitative reports on assets, liabilities, profits and losses should be accompanied by additional information regarding material trends, business strategies and prospects that enables a fair assessment of the business's competitive strategy, and its viability in the context of prevailing and anticipated market conditions. This applies not only in their periodic reports, but in offer documents (such as prospectuses, fundraising and takeover documents), investor briefings and statements made under continuous disclosure obligations.

Each jurisdiction has laws that prescribe the nature of information that must be disclosed (both quantitative and qualitative), and prohibit disclosures that are misleading or deceptive. Such prohibitions variously attract civil or criminal (eg securities fraud) penalties.

Misleading disclosure laws apply not only to statements made in relation to listed equities, but in respect of derivative and fixed-income instruments in both primary and secondary markets.

Forward-looking risk disclosures often appear in directors' narrative 'management discussion and analysis' reports.⁸ In some jurisdictions (such as Germany, the UK, US and Canada), there is specific provision for risk reports in the management report section of annual reports.⁹

 ⁸ Michael Dobler, Kaouthar Lajili, and Daniel Ze´ghal, 'Attributes of Corporate Risk Disclosure: An International Investigation in the Manufacturing Sector', (2010) 10(2) *Journal of International Accounting Research*, 1.
 ⁹ Dobler, above n8, 2.

⁷ Bank of England Prudential Regulation Authority, *The Impact of Climate Change on the UK Insurance Sector*, September 2015, 59.

Misleading disclosure – general principles

A misleading disclosure, or securities fraud, claim will typically arise where a group of investors allege that they have suffered loss through the purchase of shares (or other instrument) at a price that was artificially-inflated (or maintained) by the effect of misleading disclosure(s) (or failures to disclose/omission(s)) regarding the company's financial position, strategies or prospects. The loss usually crystallises when the misrepresentative character of the disclosure is revealed or corrected, such that the value of the investment is materially reduced (or its risk materially increased). Claimants may generally seek to recover the value of their investment at the time it was purchased (a 'no transaction' claim) or the difference between the price paid and the true value but for the misrepresentation. Jurisdictions with the most permissive securities class action regimes include the United States, Australia, the Netherlands, Japan and Canada. Claims in these jurisdictions are on an upwards trajectory in both number and quantum of damages - contributed to, in part, by the emergence of professional litigation funders as underwriters of claimant risk.

Misleading disclosure provisions are also commonly enforced by securities regulators (such as the French Autorité des marches financiers, the German Financial Supervisory Authority, US Securities & Investments Commission, the Australian Securities & Investments Commission, China Securities Regulatory Commission and sub-national regulators such as the New York Attorney-General). This regulatory enforcement overly adds a significant level of litigation risk. First, regulators are typically considered to be well-resourced litigants, and commonly have statutory powers to compel information disclosure and production even in a preliminary investigation phase. Secondly, regulator's enforcement activities are not necessarily constrained by the need to prove causation, reliance and loss – factors commonly cited as significant barriers to private litigants claiming damages under similar causes of action (see for example **NYAG Peabody Coal** case study, below).

Although jurisdictional specificities prevail, in general terms the following factors may be relevant to a determination whether a particular disclosure is misleading or deceptive:

- Silence or omission may be misleading the absence of commentary in relation to a material risk may be misleading, where such omission creates the erroneous impression that the risk is not material. This is sometimes referred to as the failure to disclose "material adverse facts".
- Selective disclosure (ie of only favourable factors) may be misleading.
- Statements which are literally true may be presented in a misleading manner.
- The users of such disclosures are not necessarily obliged to have made their own inquiries, nor imputed with 'expert' or specialist knowledge.
- It is not always necessary to demonstrate knowledge, intent or recklessness. For example, while these *are* elements of a securities fraud claim under section 10(b) of the federal *Securities Exchange Act of 1934* in the United States, they are not preconditions of liability under many State 'blue-sky laws' (such as, for example, the New York *Martin Act*). In yet other jurisdictions, the absence or presence of these elements may determine whether liability exposure is civil or criminal in nature.
- It may also be misleading to repeat a misleading statement made by a third party where the representor knows, or ought to know, that the statement is misleading.
- Statements framed as being of **opinion** rather than fact may also be misleading where the maker either does not genuinely hold that view, and/or it has not been reached on the basis of a robust process of deliberation.
- 'Forward-looking statements' (or the absence of such statements) are subject to special rules. In recognition of the inherent tension between future uncertainties and informed analysis / relevant disclosure, specific rules relating to forward-looking statements apply under the disclosure laws in many jurisdictions. Although these rules differ by jurisdiction, under some regulatory frameworks a forward-looking statement may be misleading where the representor does not have reasonable grounds to support their prediction, as at the time it was made, or have failed to adequately disclose associated limitations or uncertainties that materially

and their directors in their disclosures to market, but to institutional investors in their disclosures to beneficiaries, and professional advisors in the provision of services to investors.

impact on its achievement. And there may be an obligation to update or correct the forward-looking statement if the passage of time indeed proves it to be inaccurate. In other jurisdictions, intent or recklessness is required to establish liability in respect of forward looking statements.

- For example, in the United States, a 'safe harbour' from federal securities fraud liability applies to liability under section 10(b) of the Securities Exchange Act statements that are identified as forward-looking and are 'accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ'. To enliven the safe harbour, Courts require such statements to be meaningful and specific: relevant, current and considered, rather than boilerplate, and fit for purpose for the particular disclosure (eg earnings guidance vs transaction announcement) (see for example *In re Harman*).¹⁰ And cautions must be tailored to the predictions being made:¹¹
- Generalisations, or boilerplate language, may be misleading as to the extent of relevant risks. General disclaimers may not neutralise the impact of a specific misleading disclosure of either current or forwardlooking matters.

As a financial risk/return issue, climate change is particularly notable for the

fact that historical exposures are not representative of current and forward-

looking risks. This gives rise to litigation risk exposures not only to companies

Application of principles in an energy transition context

Areas of particular relevance in the context of climate risk disclosures include:

- quantitative asset valuations and revaluations, bad debt provisioning, growth forecasts, methodologies and assumptions; and
- qualitative notes to the financial statements, risk reporting (sources, assessment, management), forward-looking disclosures, which fail to adequately account for (or disclose) the material financial risks associated with the energy transition.

Disclosures that are *unlikely* to provide a true and fair view of a company's risk exposure in the energy transition are summarised in **Figure R4**, below (along with relevant case examples, which are in turn discussed further in **Section 3.3** below). Such 'high-risk' disclosures include:

- inconsistency between internal assessments of the potential impacts of climate-related risks, and market disclosures;
- omitting to disclose material climate-related financial risks to corporate performance and prospects;
- asset over-valuation and liability under-valuation (ie. where financial statements fail to account for ET risks that materially impact on recognition or impairment principles);
- non-specific, boilerplate risk disclosures that fail to convey the materiality of climate-related risks on the achievement of stated objectives; similarly
- misrepresentation of expected market conditions (eg potential impact of climate change on demand growth assessments);
- material understatement of climate-related risk exposures, or material overstatement of the company's management of those risks (or capacity to do so);
- risk disclosure based on historical data or performance, or outdated climate risk methodologies or assumptions;
- material overstatement of corporate compliance with regulatory standards (eg emissions performance requirements);

¹¹ See for example European Securities and Markets Authority (ESMA), *ESMA urges companies to improve quality of disclosures in financial statements*, Press Release, 27 October 2015.

¹⁰ In Re: Harman International Industries, Inc. Securities Litig., (No. 14-7017) (D.C. Cir. June 23, 2015). The United States Supreme Court declined to consider Harman's petition for review, without comment, on 29 February 2016.

content/uploads/Understanding_article173-French_SIF_Handbook.pdf>.

Climate Reporting, FIR Handbook No.1, October 2016 <http://www.frenchsif.org/isr-esg/wp-

Practices, May 2016.

- material differences in risk representations made in mandatory reports (eg. financial statements and annual report filings) vs those in voluntary disclosures (eg. 'sustainability reports' and questionnaire responses (eg. to CDP)); and
- disclosures based on analysis that employs inappropriate or immaterial climate risk metrics, parameters or assumptions.

It is likely that the rules applicable to forward-looking disclosures will assume particular importance in forthcoming reporting seasons given the focus of the Final Recommendations of the G20 Financial Stability Board's Taskforce on Climate-related Financial Disclosures (**TCFD**) on assessment and disclosure of forward-looking risks (June 2017). The Recommendations emphasise the importance of scenario planning and stress-testing as mechanisms to enable analysis (and fair representation) of the potential impacts of climate change on corporate performance and prospects. The application of these principles will require specific analysis in each corporate and jurisdictional context far beyond the confines of this overview Report. However, as a general proposition, corporations will need to take care to ensure that their use (or failure to use) these risk management tools is accurately represented, and that reports do not present only favourable scenario outcomes as justification of optimistic management outlook assessments.

Further, whilst 'voluntary', the TCFD Recommendations (or other climate risk disclosure frameworks such as those published by the Climate Disclosure Standards Board, or under Article 173 of the French Energy and Ecology Transition Law (which are mandatory for French pension funds, insurers and asset managers))¹² may increasingly be seen as benchmark for assessment of 'true and fair' transition-risk disclosure (and adequate underlying analysis).¹³

¹² For a summary of prevailing disclosure tools and standards, see 2dii, *Investor Climate Disclosure: Stitching Together Best*

¹³ See for example Forum Pour L'Investissement Responsable. Article 173-VI: Understanding the French Regulation on Investor

¹⁴ See for example a recent speech to the Insurance Council of Australia by Australian Prudential Regulation Authority Board

Member Geoff Summerhayes. Mr Summerhayes announced the Authority's view that stress-testing and scenario planning

In short, even where climate risk disclosure standards remain 'voluntary ', with widespread adoption they may become the proxy for that information which is necessary to present a true and fair view of corporate performance, risk and prospects, and inform the content of directors' duties of due care and diligence in discharging their obligations to the firm.¹⁴

A note on the overlap between misleading disclosure and consumer protection law

It is noted that **consumer protection and/or fraud** claims (generally, where corporations engage in unfair business practices that misrepresent the characteristics, utility or performance of their goods or services to consumers) that may arise in the energy transition can often raise similar issues of legal principle as those for misleading disclosure in a securities law context. Consumer fraud claims are subject of further discussion under **Section 3.3** below, as a subset of a failure to comply with ET-related performance regulations (claim category **(G)**).

against a range of plausible futures should be seen as 'the new normal' for its regulated entities (including banks, insurance companies, asset managers and pension funds). The (then draft) Recommendations of the TCFD were cited in support of the Authority's view. See Summerhayes, Geoff, *Australia's New Horizon: Climate Change Challenges and Prudential Risk*, speech by the Australian Prudential Regulation Authority at the Annual Conference of the Insurance Council of Australia, 24 February 2017,

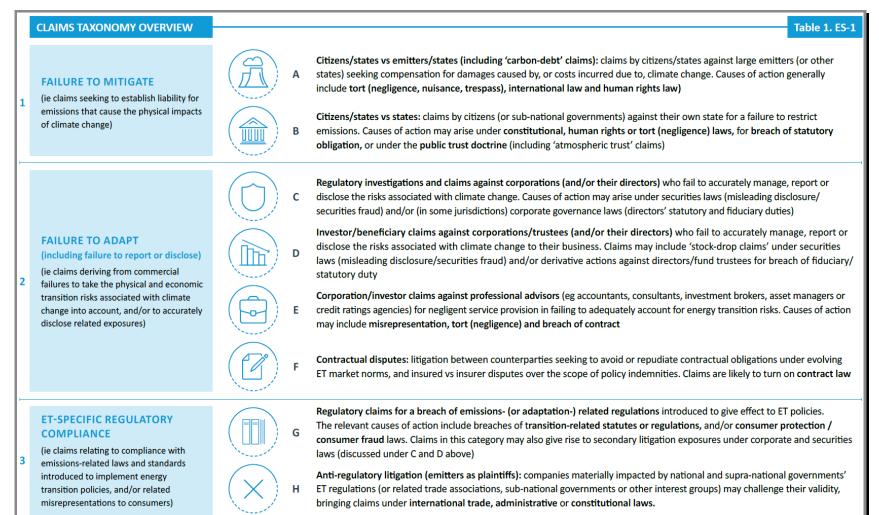
<http://www.apra.gov.au/Speeches/Documents/ICA%20Speech%20Geoff%20Summerhayes%2017%20February%202017.pd f>.

Figure R4: forms of disclosure that may be misleading or deceptive and ET-relevant case examples

Climate science or risk: inconsistency between internal and external statements	Omission (silence) of discussion of energy transition-related risk factors: in general, or in disclosure of material risks in statutory filings	Asset recognition or over- valuation (eg fossil fuels at risk of 'stranding') or liability under-valuation	Generalised disclosure of ET-related risk factors, with boilerplate language
 Californian municipalities v carbon majors & directors SEC & State AG investigations of ExxonMobil disclosures NYAG v Peabody Coal 	 Coal pension claims Abrahams v Commonwealth Bank 	 SEC & State AG investigations of ExxonMobil disclosures (+PwC) Shareholder class action v ExxonMobil & directors Shell reserves restatement 	• NYAG v Peabody Coal
Misrepresentation of expected conditions eg business risks or projected demand growth	Denial or material understand of risk exposure or management	Risk disclosures based on historical data, or outdated climate risk methodologies and assumptions	Compliance with regulatory standards (eg emissions, disclosures, product emissions performance)
 NYAG v Peabody Coal SEC & State AG investigations of ExxonMobil disclosures (+PwC) Shareholder class action v ExxonMobil & directors 	 BP Deepwater Horizon (lead indicator) National Australia Bank (lead indicator) Fortis NV (lead indicator) 	• Genworth (<i>lead indicator</i>)	∙ VW 'Dieselgate'
Disclosures or projections selectively optimistic	Adoption of misleading or negligent claims made by other participants in the investment supply chain	Mandatory filings differ from voluntary sustainability report, or responses to climate risk questionnaires (eg CDP)	Use of immaterial climate risk metrics (eg bank discloses the emissions from its
 NYAG v Peabody Coal James Hardie <i>(lead indicator)</i> SEC & State AG investigations of ExxonMobil disclosures (+PwC) Shareholder class action v ExxonMobil & directors 	 Bathurst v ABN Amro / S&P (lead indicator) 	 Client Earth Cairn Energy / SOCO FRC referrals 	operations, ignoring impacts on credit risk / loan book)

3.3 Analysis of material potential claims – all categories

This section analyses claims in categories (A) – (H) (as summarised in Table ES-1 above, reproduced below) in further detail. Discussion of elements including the nature of each claim and its potential valuation impacts is followed by leading case examples arising both in a climate change context, and as a result of other market drivers (as 'lead indicators').





Tort (negligence, nuisance, trespass), international law, human rights violations *As discussed in Section 1.2* above, whilst this category of claim primarily relates to the physical impacts of climate change, the prospect of such litigation is likely to be a material driver of market responses to the ET. It has therefore been included as a litigation risk relevant to the ET.

Nature of claim(s)

- Collective tort claims by individual citizens or states seeking damages for losses caused by physical impacts of climate change from major emitters (including costs of adaptation).
- Tort law is set out under statute in some jurisdictions (such as France and Germany),¹⁵ and primarily under judge-made law in others (such as the UK, with some statutory gloss such as under the Occupiers' Liability Act 1957). In many jurisdictions only civil negligence claims may be brought, although in others (such as France) they may also be brought criminally.¹⁶
- Public nuisance may be alleged where there is substantial, unreasonable interference with a public right. Private nuisance occurs where the defendant has unreasonable interfered with the use or enjoyment of private property, or a right connected with that property.
- Potential claimants may include the AOSIS the Alliance of Small Island States – a coalition of 48 low-lying island and coastal nations against carbon majors, seeking damages based on the company's proportionate contribution to anthropogenic CO2-e emissions.
- Potential defendants include the 90 'carbon majors' identified by Heede (2014).

- In general terms, a cause of action in negligence will be established where:
 - the defendant owes a duty of care to the plaintiff;
- the defendant fails to take reasonable precautions against a reasonably foreseeable risk of injury to the plaintiff;
- that failure caused the plaintiff's loss; and
- the defendant did not voluntarily assume the relevant risk.
- Concurrent claims may be filed in multiple jurisdictions against multiple large emitters.

¹⁵ French Code Civil Article 1382-1386; German BGB §§823-53.

¹⁶ Victims of crime in France may be able to claim compensation as a *partie civile* in criminal proceedings – see Article 2 of the Code of Civil Procedure.

¹⁷ Heede, Richard, 'Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854-2010', (2014) *Climatic Change* 122(1-2), pp229-241.



Tort (negligence, nuisance, trespass), international law, human rights violations

Continued

Comment

- Tort-based claims against major emitters have been widely (although not universally) considered unlikely to stand in Anglo-American jurisdictions following Kivalina v ExxonMobil (2009) (although discussion of the potential application of such causes of action in relation to property rights impacted by climate change has continued in cases such as American Electric Power Co. v Connecticut¹⁸ (public nuisance) and Macquarie Generation v Hodgson (private nuisance)).¹⁹ Claimants have faced significant barriers to standing and justiciability. Beyond this, duty and causation have been considered near 'insurmountable' evidentiary hurdles due to the disconnect between the global nature of emissions and their collective, cumulative effect, versus the localised nature of their impacts. However, the potential for tort-based damages claims against large emitters is subject of renewed focus, with the filing of three 'tobacco-style' claims by Californian municipalities against 37 'carbon majors' and their directors on 17 July 2017 (see Imperial Beach, Country of Marin and County of San Mateo claims, below).
- The laws and judicial systems developing countries may be more amenable to a tort liability finding than those of developed jurisdictions. The Environmental Law Alliance (2014) suggests that Brazil, Ecuador, Mexico, Colombia and India and Kenya as potentially attractive jurisdictional alternatives. This is on the basis that their legislation permits direct enforcement of fundamental human rights (including to a healthy environment) against private entities (Brazil, Columbia, Kenya), and/or they take a progressive, dynamic approach to legal development (India). It is not clear, however, whether such rights would ultimately extend to 'carbon debt' damages awards. In one current example (discussed further below), the Philippines Commission on Human Rights is conducting an independent investigation into the responsibilities of the carbon majors (Gazprom, Exxon, Glencore etc) for human rights violations or threats of violations resulting from the impacts of climate change. Whilst the Commission is not empowered to settle legal disputes, its conclusions on the application of relevant legal principles and any factual determinations on the causal impact of the activities of the carbon majors could be used to underpin future causes of action.

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¹⁸ 206 F Supp 2d 265 (SDNY, 2005).

¹⁹ [2011] NSWCA 424.



Tort (negligence, nuisance, trespass), international law, human rights violations

Continued

Comment (continued)

Even where a damages award is made in a developing country, enforcement remains an issue – particularly if the defendant company has no assets in the jurisdiction. The plaintiff would then need to seek enforcement in another jurisdiction - in which the company as domiciled, listed or had assets (depending on relevant laws). For example, in 2011 an Ecuadorian Court awarded US\$9.5 billion in damages in an environmental pollution claim (not directly relating to climate change) against Chevron. Chevron has no remaining assets in Ecuador, and the plaintiffs have been seeking to have the judgment enforced in other jurisdictions, including Canada, the US, Brazil and Argentina. Although enforcement is by no means assured (and has in fact recently been denied in Canada and the US), significant litigation costs may be incurred (for example, Chevron \$400 million/year at the height of its defense) and material provisions for contingent liabilities raised. In other examples, UK courts have recently exercised jurisdiction over a Nigerian subsidiary of a UK-based parent company,²⁰ and a claim by Zambian nationals against a UK-listed company in respect of its African subsidiary's copper mining operations.²¹

ET: Driver or consequence?

 Market driver (legal costs, damages – esp if Master Settlement Agreement), policy driver (international agreement on losses).

Valuation impacts – financial materiality?

There is no 'standard' for calculation of either the loss and damage incurred by developing nations or their citizens from the physical impacts of climate change, nor the costs of adaptation. One methodology may be for injured States to apply the company's proportionate contribution to anthropogenic CO2-e emissions to the countries' estimated adaptation costs over a particular period (eg 50 years). For example, the UNEP 2014-2016 Adaptation Finance Gap Reports estimates that total costs of adaptation by developing countries (of approximately \$100 billion per annum now) may reach \$300 billion per year to 2030 and \$500 billion per year by 2050. An NPV calculation assuming \$100b per annum for the next 10 years, \$200b per annum for the following 10, \$300b per annum for the 10 after that, and \$500 billion per annum for the final 20 in the period, with a 3% discount rate, produces an estimate of adaptation costs of \$6.6 trillion (NPV).

²⁰ Bodo Community & Ors v Shell Development Company of Nigeria (Bodo Community v Shell Petroleum Development Co of Nigeria Ltd [2014] EWHC 1973 (TCC),

²¹ Lungowe v Vedanta [2016] EWHC 975 (TCC).



Tort (negligence, nuisance, trespass), international law, human rights violations

Continued

Valuation impacts – financial materiality? (continued)

- Plaintiffs may conceivably seek damages for a carbon major's proportionate share of anthropogenic emissions (based, for example, on Heede et al's 2014 emissions contributions calculations. A 'proportionate responsibility' methodology was proposed in the *Lliuya v RWE* claim in Germany (below) and has been used as the basis for identifying defendants in the Philippines human rights-based case (above) and the Californian municipalities' tort-based claims (above and below).
- Particularly where concurrent claims are filed in multiple jurisdictions, the scale of litigation costs, combined with the risk and uncertainty associated with their exposures, may incline emitters to enter into a 'Master Settlement Agreement' with the governments of developing nations, even if their liability remains vigorously contested.

CLAIMS CATEGORY A: CONCLUSION

Not highly likely (although *cf.* Californian municipality claims against 37 carbon majors (July 2017)), but high consequence for carbon majors. These forms of claim may be strategically deployed by plaintiffs to raise the profile of climate risk issues, and to cause the targeted defendant corporations to incur significant legal costs, even where their claim does not appear to be strong. High-risk sectors: energy (oil & gas, coal, electric utilities), metals and mining.

Tort – negligence and nuisance

Native Village of Kivalina v. ExxonMobil Corp., et al, 663 F.Supp. 2d 863 (ND Cal 20 September 2009); 696 F.3d 849 (9th Cir. 2012)

Claim

A village of native Alaskan Inupiats sought US\$400 million in damages from ExxonMobil (and 23 other major fossil fuel emitters) to pay for the relocation of their village necessitated by the loss of ancestral lands to sea level rise caused by climate change.

Outcome

The claim was held not to be justiciable under the political question doctrine (District Court, 2009) and under federal law displacement principles (Court of Appeal in the Ninth Circuit, 2012). The Court also made (obiter) comments regarding the difficulty such claims would have to satisfy the requirements to establish a duty of care, and causation of the claimed loss: '[T]he harm from global warming involves a series of events disconnected from the discharge itself. In a global warming scenario, emitted greenhouse gases combine with other gases in the atmosphere which in turn results in the planet retaining heat, which in turn causes the ice caps to melt and the oceans to rise, which in turn causes the Arctic sea to rise'.

American Electric Power Co., Inc. et al v. Connecticut, 206 F Supp 2d 265 (SDNY, 2005); 564 U.S. (2011)

Claim

Several US States claimed that the combined emissions of the defendant companies (which approximated 10% of total US carbon emissions) created a public nuisance, due to the contribution of those emissions to climate change.

Outcome

Upon appeal, the US Supreme Court held that the common law nuisance claim was displaced by the authority of the Environmental Protection Agency to regulate emissions under federal clean air statutes. However, the Supreme Court declined to find whether the federal regulatory authority would also displace tort-based claims brought under *State* law.

Country of Marin et al v Chevron, ExxonMobil, BP, Shell, Citigo Petroleum, ConocoPhillips, Peabody Energy, Arch Coal, Total, Eni, Rio Tinto, Statoil, Anadarko Petroleum, Occidental Petroleum, Repsol, Marathon Oil, Hess Corporation, Devon Energy, Encana Corp, Apache Corp and Does 1-100 Case No. CIV1702586 (Cal. Super. Ct., filed 17 July 2017)

County of San Mateo et al v Chevron et al Case No. 17CIV03222 (Cal. Super. Ct., filed 17 July 2017)

Imperial Beach et al v Chevron at al Case No. C17-01227 (Cal. Super. Ct., filed 17 July 2017)

Claim

Three Californian municipalities filed separate claims against 37 large fossil fuel corporations and their directors (with an alleged collective responsibility for more than 1/5 of global carbon emissions between 1965 and 2015). The complaints allege that the defendants:

- had internal knowledge of the link between fossil fuel emissions and climate change as early as 1965; but, to the contrary of that knowledge:
- actively worked to foment public uncertainty about climate science, publicly downplayed the nature and severity of climate change impacts, and obstructed emissions regulations; and
- were, collectively, directly responsible for 20.3% of global greenhouse gas emissions between 1965 and 2015 and therefore also for a significant proportion of committed climate impacts (including sea level rise in the plaintiff municipalities).

The claims allege that the defendants' production, promotion and marketing of their fossil fuel products despite their internal knowledge of associated climate-related hazards, and their active efforts to obfuscate or conceal those hazards by championing of anti-regulation and anti-science campaigns, gives rise to causes of action including negligence, public nuisance, private nuisance, trespass, failure to warn and defective products, under Californian state law.

Tobacco Master Settlement Agreement (1998)

Outcome

The complaints were filed shortly before the publication of this Report, on 17 July 2017, and the proceedings remain on foot. The plaintiff municipalities are seeking remedies that include compensatory damages (for the cost of assessing climate impacts and adaptive civil works), punitive damages and an account of profits.

The complaints do not yet seek to quantify damages sought. However, in its press release announcing the complaint filing, San Mateo county reported that it had already spent US\$40 million on assessing climate-related risks within the municipality, and that county properties threatened by rising sea levels have been assessed at over US\$39 billion (including freeway infrastructure, San Francisco International Airport and other real estate).

Human rights

Greenpeace et al v Chevron, ExxonMobil, BP, Royal Dutch Shell, Conoco Phillips, Peabody Energy and Total, Petition Requesting Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change, Commission on Human Rights of the Philippines, Case No.: CHR-NI-2016-0001

Claim

In December 2015 a petition was filed by Greenpeace and the Philippine Reconstruction Movement requesting that the Philippines Human Rights Commission investigate 'the human rights implications of climate change and ocean acidification and the resulting rights violations in the Philippines and whether the investor-owned Carbon Majors have breached their responsibilities to respect the rights on the Filipino people'. The petition requests that the Commission make findings of fact in respect of the contribution to climate change of the named 'Carbon Majors' (by reference to the oft-cited analysis of Heede (2014)), and that the Philippines Government implement an effective accountability mechanism that can be accessed by climate change victims.

Outcome

The corporate respondents filed a consolidated response to the petition in February 2017. The Commission's investigation remains on foot as at 30 June 2017. See http://198.23.173.74/chr/climate-justice/

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

Claim

In December 2015 a Peruvian farmer commenced action in the Regional Essen Court in Germany against energy giant RWE under paragraph 1004 of the German Civil Code, seeking damages of €20,000 as RWE's proportionate contribution to the farmer's costs of adapting his valley in Hauraz, Peru to climate change (which is threatened from inundation by a rising glacial lake). The damages sum claimed was based on the costs of the engineering project x 0.47% (being RWE's alleged share of global emissions from 1751-2010).

Outcome

In late 2016 the Court dismissed Lliuya's claim on the basis that Court did not find any "linear causal chain" linking RWE's emissions and the damages alleged. The Court was also unconvinced about the identity of the community association that Lliuya had identified. An appeal in this matter has been set down for November 2017.

'Master Settlement' agreements

Tobacco Master Settlement Agreement (1998)

Claim

In 1998 the American tobacco industry agreed to a 'Master Settlement Agreement' to resolve litigation brought by a number of US States seeking damages for public health expenses associated with smoking. Following a settlement of US\$40 billion with Texas, Minnesota and Mississippi, the other States agreed to drop all claims in exchange for tobacco industry payments totalling US\$206 billion over 25 years.

Outcome

Section 1 of the MSA makes clear the parties' settlement rationale to 'avoid further expense, delay, inconvenience, burden and uncertainty of continued litigation (including appeals from any verdicts)'.





Citizen/state v state

Constitutional law, human rights, tort (negligence), statutory breach, public trust *As discussed in section* **1.2** *above, whilst this category of claim primarily relates to the physical impacts of climate change, the prospect of such litigation is likely to be a material driver of ET policy. It has therefore been included as a litigation risk relevant to the ET.*

Nature of claim(s)

Citizens (and sub-national governments) may take action against their governments in domestic courts alleging breach of their duty of care to their citizens and/or the environment. Claims are variously founded under
 Constitutional law, tort, human rights and/or the public trust doctrine (ie a duty of the sovereign to act as trustee of natural resources in their jurisdiction for the benefit of current and future generations). Claims of this nature are sometimes referred to as 'Atmospheric Trust' litigation.²²

Comment

 Plaintiffs ordinarily seek declaratory orders rather than 'carbon debt' damages. For a discussion of the precedent value of these claims between jurisdictions, see Boom et al (2016), above n3, pp27-41. International law and human rights

- The United Nations Committee on Economic, Social and Cultural Rights has stated that, in its view, climate change interferes with international human rights obligations. In a recent example, it issued a statement on Australia's implementation of obligations under the International Covenant on Economic, Social and Cultural Rights that referenced that State's (a) ongoing policy support for new coal mines and coal-fired power stations, and (b) failure to implement policies consistent with emissions reduction obligations under the Kyoto Protocol and Paris Agreement commitments, as 'principal subjects of concern'.²³
- There is also the potential for vulnerable States to seek injunctive relief and/ or compensation from high-emitting States for transboundary harm caused by anthropogenic greenhouse gas emissions, based on the international law principles of transboundary harm and State Responsibility. From a political perspective this avenue is considered less likely. Article 8 of the Paris Agreement provides for the UNFCCC's Warsaw International Mechanism for Loss & Damage and expressly 'recognize[s] the importance of ...addressing loss and damage associated with the adverse effects of climate change'. However, paragraph 51 of the Decision specifically provides that Article 8: 'does not involve or provide a basis for any liability or compensation'.²⁴

- 23 United Nations Economic and Social Council, Committee on Economic, Social and Cultural Rights, Concluding observations on the fifth periodic report of Australia, E/C.12/AUS/CO/5, 7 July 2017.
- ²⁴ See also Boom et al (2016), above n3, p13: 'There is a widespread reluctance among states to pursue interstate claims for environmental liability of other states'.

²² See generally discussion in Tuhus-Dubrow, Rebecca 'Climate Change on Trial' (2015) 62:4 *Dissent* 152; Kassandra Castillo, 'Climate Change & The Public Trust Doctrine: An Analysis of Atmospheric Trust Litigation' (2015) 6 San Diego Journal of Climate & Energy Law 221); Boom et al (2016), above n3.



Citizen / state vs company

Constitutional law, human rights, tort (negligence), statutory breach, public trust

Continued

Constitutional law, tort, public trust

Constitutional claims in this category often allege a breach citizens' rights to life and/or a healthy environment. A 2012 report concluded that nearly 100 nations have some form of legal recognition of their citizens' rights to same.²⁵ Such claims often overlap with tortbased causes of action alleging that the government has failed to discharge its 'duty of care' to its citizens and/or the environment (see Urgenda and Juliana v United States, below). The Juliana case also stands for the proposition that the public trust doctrine compels sovereign action to restrict greenhouse gas emissions. The doctrine has also been raised in cases in the Ukraine, the Philippines and Pakistan.²⁶

Domestic law – statutory obligations

Citizen groups (and sub-national governmental entities) may also bring actions against their governments for a failure to comply with legal obligations in relation to the regulation of greenhouse gas emissions (as distinct to challenges for a failure to adequately account for climate change in the exercise of administrative discretions). In a recent example, a coalition of US States and cities have commenced proceedings in the District Court of Northern California against the Federal Department of Energy. The claim asserts that the Department's failure to publish final energy efficiency standards for five categories of appliances and industrial equipment (including portable air conditioners, air compressors and industrial refrigerators and boilers) violates the Department's (non-discretionary) obligations under the Energy Policy and Conservation Act (amongst other laws). Relief sought includes an order compelling the Department to promulgate new standards for immediate publication. A similar claim has been concurrently filed by a coalition of nongovernment organisations.²⁷

²⁵ Boyd, David R., The Right to a Healthy Environment: Revitalizing Canada's Constitution, UBC Press, W. Wesley Pue general ed., 2012.

²⁶ See further discussion in UNEP and Columbia University Sabin Center for Climate Change Law, above n2, pp23-24.

²⁷ California v. Perry, No. 4:17-cv-03406 (N.D. Cal., filed June 13, 2017); Natural Resources Defense Council v. Perry, No. 3:17-cv-03404 (N.D. Cal., filed June 13, 2017).



Citizen / state vs company

Constitutional law, human rights, tort (negligence), statutory breach, public trust

Continued

Valuation impacts – financial materiality?

Litigation defence costs are unlikely to be material in the context of a nation state's budget. However, claims are likely to put significant pressure on the relevant government to introduce policy & regulatory reform consistent with the energy transition. If a critical mass of claims are launched in multiple jurisdictions this may bring broader pressure to bear even if a claim is not replicable under the laws of given jurisdiction. In this regard, it is notable that Our Children's Trust, a US-based NGO that has supported a number of recent Constitutional law and public trust claims against US State entities (including the Juliana case, below), reports that it is currently working with parties in 11 other jurisdictions to determine if the claims are replicable under other laws.

ET driver and consequence

- Driver of ET (policy): pressure on the relevant government to introduce policy & regulatory reform consistent with the energy transition.
- This form of litigation may be deployed strategically by 'climate activists' who do not otherwise have standing to bring (or face evidentiary hurdles in establishing) a claim against a corporate emitter. The rise of such activism may in fact drive (or otherwise support or underwrite) regulatory investigations, or litigation by claimants who do have valid standing.

CLAIMS CATEGORY B: CONCLUSION

Potential material driver of ET where critical mass of claims (policy – regulatory reform driver). Again, such claims may be strategically deployed by plaintiffs even where they are not confident of securing a successful outcome, to raise the profile of the issue and risk to laggard governments. High-risk sector: government.

Claim Category B: CASE EXAMPLES

Constitutional law / tort

Urgenda Foundation v Kingdom of the Netherlands [2015] HAZA C/09/00456689

Claim

Dutch NGO Urgenda claimed that the Dutch Government was in breach of its constitutional duty of care to its citizens by negligently failing to implement emissions controls consistent with the Netherlands' proportionate contribution the <2°C warming limit.

Outcome

In June 2015 The Hague District Court found in favour of Urgenda, and ordered the Dutch government to increase its greenhouse gas emissions mitigation commitment from 17% to 25% below 1990 levels by 2020. The Government is appealing the decision.

Juliana et al v the United States of America, Barak Obama et al (2015) 6:15-cv-01517-TC

Claim

The plaintiffs allege that the US government has violated their constitutional rights to life, liberty and property, and their right to essential public trust resources, by permitting, encouraging, and otherwise enabling continued exploitation, production, and combustion of fossil fuels. The plaintiffs are seeking an order requiring President Obama to immediately implement a national plan to decrease atmospheric concentrations of CO_2^{-e} to 350 ppm by the year 2100.

Outcome

Three fossil fuel industry trade associations (the American Fuel and Petrochemical Manufacturers (representing Exxon Mobil, BP, Shell, Koch Industries and other US-based refiners and petrochemical manufacturers), the American Petroleum Institute (representing 625 oil and natural gas companies), and the National Association of Manufacturers) were granted leave to appear as intervening defendants in the case in January 2016. The District Court of Oregon denied the defendants' and intervenors' motions to dismiss on 8 April 2016 and on 10 November 2016. The claim is expected to go to trial in 2017. Other leading recent citizen/state vs state cases:

- Kain v Massachusetts Department of Environmental Protection (2016) (US) (compliance with statutory obligation)
- Foster v Washington Department of Ecology (US) (2015) (Constitutional law, public trust doctrine, compliance with statutory obligations)
- Ali v Pakistan (filed April 2016, judgment pending) (Pakistan) (Constitutional law, human rights, public trust doctrine)
- Klimaatzaak v Belgium (filed 2015) (Belgium) (human rights, tort (negligence))
- Leghari v Pakistan (2015) (government's failure to carry out articulated statutory adaptation policy contravened Constitutional rights of citizens to life, human dignity and prosperity)
- Thomson v Minister for Climate Change Issues (filed November 2015, judgement pending) (New Zealand) (compliance with statutory obligations)
- Union of Swiss Senior Women for Climate Protection v. Swiss Federal Council [Verein KlimaSeniorinnen Schweiz v. Bundesrat] (filed 2016) (Switzerland) (international law, Constitutional law, human rights)
- Greenpeace Nordic Association v Norway Ministry of Petroleum and Energy (filed 2016) (Norway) (international law, Constitutional law, human rights)
- PUSH Sweden, Nature & Youth Sweden et al v Government of Sweden (filed 2017) (Sweden) (international law, Constitutional law, human rights, tort)
- Client Earth (No.2) v. Secretary of State for the Environment, Food and Rural Affairs (UK) (2016) (compliance with statutory obligations)
- California v. Perry (filed 2017) (US) (compliance with statutory obligations)
- Natural Resources Defense Council v. Perry (filed 2017) (US) (compliance with statutory obligations)





Misleading or deceptive conduct, securities fraud, breach of duty

Nature of claim(s)

Misleading disclosure

- Many market regulators (such as the US Securities & Exchange Commission, and French Autorité des marches financiers, Belgian Banking, Finance and Insurance Commission and Dutch Autoriteit Financiële Markten, the Australian Securities & Investments Commission and subnational regulators such as the New York Attorney-General) have the power to investigate and/or prosecute companies, funds and/or their directors for misleading disclosure or securities fraud (as discussed in Section 3.2 above).
- Misleading conduct / securities fraud may include market deception in relation to climate science (ExxonMobil State AG investigations), a failure to restate assets in response to market or policy developments (including stranded assets) (Shell; ExxonMobil SEC/NYAG investigation and shareholder class action), inadequate disclosure of material financial risks to the business associated with climate change (FRC (UK) investigations of Cairn Energy and SOCO, ExxonMobil SEC/NYAG investigation and shareholder class action), insufficient cautionary statements accompanying forward-looking disclosures (including the use of generalised, 'boilerplate' language) (In re Harman), cheating on emissions compliance standards (VW), and

failing to adequately reserve for future losses or contingencies (*Genworth, James Hardie*).²⁸

In other jurisdictions, legislation has been introduced that in fact *mandates* forms of disclosure (and, by implication, the analysis that sits behind such disclosures) in relation to climate-related financial risks. This notably includes disclosure requirements applicable to insurers, asset managers and pension funds from 1 January 2016 under Article 173-VI of the French Energy & Ecology Transition Law. Article 173 explicitly contemplates disclosure of risks arising from the transition to the lowcarbon economy, and consideration of how respondents' policies and targets align with national energy and ecological targets.

Breach of duty

In some jurisdictions (including, notably, Australia), regulators also have statutory enforcement powers in relation to directors' statutory and fiduciary duties. Such duties commonly relate to **trust/loyalty** (including duties to act honestly, in good faith and in the best interests of the corporation, and to avoid conflicts of interest), and **competence** (including duties to act with prudence and/or due care, skill and diligence, and to avoid the fettering of their discretions).

²⁸ For a detailed discussion of the misleading disclosure investigations on foot against ExxonMobil, see Poon, Ashley, 'An Examination of New York's Martin Act as a Tool to Combat Climate Change', (2017) *Boston College Environmental Affairs Law Review*, 44(1), 115.



Misleading or deceptive conduct, securities fraud, breach of duty

Continued

Breach of duty (continued)

A number of recent opinions by senior corporate barristers in jurisdictions including the United Kingdom²⁹ and Australia³⁰ have expressed the view that a directorial failure to proactively govern for issues associated with climate change is likely to breach the duty of due care and diligence. The Australian Prudential Regulation Authority has subsequently concurred with this view (see note14 above).

Comment

Regulators generally have significant statutory information gathering powers, and the power to seek declaratory or relief – which importantly does not require them to demonstrate loss or damage, or causation. In addition to any headline penalty and legal costs, regulatory investigations can cause significant reputational damage and loss of political capital, a spur to stricter regulatory controls on both corporate conduct and disclosure, and market exclusions (exemplified by the US government's 2-year suspension of BP from federal contracts (including oil exploration licences) following the 2010 *Deepwater Horizon* rig explosion and oil spill in the Gulf of Mexico). Historically, the inherent uncertainty in the scope, distribution and timing of the future impacts of climate change have led many corporations to disclose relevant risks via broad, high level or boilerplate language. Such disclosures are rarely decision-useful for investors, and are increasingly recognised as potentially presenting a misleading picture of a company's financial position. In addition, regulators such as the New York Attorney-General (Peabody Coal) have begun to recognise that compliance with 'universal' corporate reporting laws necessitates disclosure of material climate change-related risks in a manner that is both specific to the performance indicator on which they may impact, and that account for uncertainty via stresstesting across the range of plausible climate futures. Globally, such demands are increasingly reinforced by voluntary corporate reporting guidance issued by organisations such as the Climate Disclosure Standards Board, the US-based Sustainability Accounting Standards Board and, significantly, the Final Recommendations of the G20 TCFD (June 2017). The TCFD Recommendations are widely recognised as setting a benchmark for the 'true and fair' disclosure (and underlying analysis) of material financial risks associated with climate change and their impact on corporate performance and prospects.

²⁹ Mr Keith Bryant QC and James Rickard, *The Legal Duties of Pension Fund Trustees in Relation to Climate Change*, Abridged Joint Opinion for ClientEarth, April 2017 < Opinion from Keith Bryant QC and James Rickards on the legal duties of pension fund trustees in relation to climate change>.

³⁰ Mr Noel Hutley SC and Mr Sebastian Hartford-Davis of Counsel, *Climate Change and Directors Duties*, Memorandum of Opinion to MinterEllison for the Centre for Policy Development and Future Business Council, 7 October 2016 < https://cpd.org.au/wp-content/uploads/2016/10/Legal-Opinion-on-Climate-Change-and-Directors-Duties.pdf>.



Misleading or deceptive conduct, securities fraud, breach of duty

Continued

They place specific emphasis on forward-looking risk disclosure, and the use of scenario-planning and stress-testing as risk management tools in the face of uncertainty. Going forwards, regulators (and, in the event of litigation in relation to corporate disclosure, the courts) may increasingly apply the TCFD Recommendations as an influential compliance proxy for corporate reporting of climate-related impacts and risks under general misleading disclosure provisions, and as an influential benchmark that informs the content of directors' duties of due care and diligence in relation to climate change-related issues.

ET: driver & consequence

- Driver and consequence of ET market drivers: legal costs, penalties, damages and directors' personal exposures drive evolution of corporate governance and strategy; corrective disclosures, stock drop, credit ratings impacts, reputational damage, market exclusions, insurance restrictions, secondary shareholder claims
- Driver and consequence of ET policy drivers: regulatory reform – heightened disclosure requirements and emissions controls. Action by a regulator in a developed market economy is likely to be highly influential across jurisdictions.

Valuation impacts – financial materiality?

- Whilst the value of a misleading statement may not be material to a corporation of itself, it commonly triggers a 'disproportionate' stock drop and ratings impact, and secondary litigation by shareholders for misleading disclosure, breach of directors' duties and/or negligence (outlined in (F), below). Whilst the financial impacts of any such claim are inherently case-specific, they are often material, and often under-insured (or, in the case of a securities fraud finding, uninsurable). For example, in the United States an analysis of 2015 research produced by COSO and Cornerstone suggests that stock prices decline on average by 17% on the two days following disclosure of an alleged fraud (prior to the GFC), and news of an SEC or Department of Justice investigation resulted in an average 7% abnormal stock price decline. Legal costs average 3-5% of economic damages, or roughly 1% of NPV.
- Regulatory scrutiny can cause significant reputational damage, loss of political/social capital, market exclusions and restriction of insurances, and provide a platform for subsequent private damages settlements. And, as recently experienced by the pharmaceutical and banking industries, emerging claims patterns can drive industry-wide strategic pivots as regulators tighten rules and disclosure requirements.
- The impact of claims patterns may also be material for insurers if financial lines policies have not priced in these risks



Misleading or deceptive conduct, securities fraud, breach of duty

Continued

CLAIMS CATEGORY C: CONCLUSION

Likely significant material driver of ET, and as a consequence of the policy and market drivers. High-risk sectors: energy (oil and gas, coal, electric utilities), transportation (automotive), materials & building (metals and mining, chemicals, construction materials), agriculture & forest products (beverages, agriculture), financial services (banks, asset owners, asset managers, insurance).

Claim Category C: CASE EXAMPLES

Constitutional law / tort

ExxonMobil and PriceWaterhouseCoopers

- SEC and NYAG securities fraud investigation

Claim

In September 2016, it emerged that the US Securities and Exchange Commission, along with the New York Attorney-General, is investigating whether Exxon and its auditors (PwC) have committed securities fraud by filing misleading annual reports. The investigation concerns whether (amongst other claims) Exxon's representations to consumers and investors about the impact of climate change to business performance and prospects are misleading or deceptive.

Outcome

Exxon has reportedly produced over one million documents pursuant to the subpoena issued by the NYAG. On 14 October 2016, the AG moved to compel production by PwC after Exxon asserted that it would not permit PwC to provide certain documents on the basis of "accountant-client privilege". On 26 October 2016, the Supreme Court of the State of New York ordered Exxon and PwC to comply with the subpoena on the basis that no such privilege exists under the relevant Texan law. Investigations are on-going.

ExxonMobil

- Attorneys-General Investigations

Claim

Over the course of 2016, more than a dozen US State Attorneys-General announced investigations into whether Exxon misled the market (and other stakeholders) by publicly promoting climate science scepticism and uncertainty, whilst privately acknowledging its legitimacy and potential impacts. On 15 June 2016, Exxon sought an injunction barring the enforcement of the civil investigation by the Massachusetts Attorney General, claiming that she lacked jurisdiction to investigate, her demand was unreasonable, and politically motivated. Exxon later also joined the New York Attorney General to the proceeding. A Massachusetts court denied Exxon's application on 11 January 2017.

Outcome

Investigations are on-going. Exxon has not disclosed the costs of its compliance with, or challenges to, these investigations.

Misleading disclosure, breach of duty

NYAG v Peabody Coal (In the Matter of Investigation by Eric T Schneiderman, Attorney General of the State of New York of Peabody Energy Corporation, Respondent, Assurance 15-242))

Claim

On 9 November 2015 the New York Attorney announced that it had determined that Peabody had contravened State misleading disclosure laws (Article 23-A, Section 352 *et seq*. of the New York General Business Law (the '*Martin Act*') and Section 63(12) of the New York Executive Law) by filing annual reports that mis-represented the potential impact of energy transition policy and emissions regulations on its business, and selectively disclosing only favourable International Energy Agency energy and fuel-mix projections from a range of growth scenarios.

Outcome

The Attorney-General's investigation was settled pursuant to an 'Assurance of Discontinuance', in which Peabody Energy did not admit or deny the allegations of breach.



ASIC v Centro directors (ASIC v Healey & Ors [2011] FCA 717); subsequent shareholder class action against Centro, its directors and auditors PwC

Claim

In 2011 the Federal Court of Australia upheld the Australian Securities and Investment Commission's claim that the board, CEO and CFO of Centro Ltd (a retail investment trust listed on the Australian Stock Exchange) had breached their duty of due care and diligence under section 180 of the Australian *Corporations Act 2001* by approving misleading financial accounts. The relevant misstatements included the mis-classification of AU\$3 billion of current liabilities (short-term interest bearing debts) as non-current, and the omission in the notes to the accounts of a post-balance date guarantee worth AU\$500 million. More than 6000 institutional and retail shareholders subsequently launched two class actions against Centro and its directors seeking damages for economic losses caused by the misleading accounts. Centro joined its external auditors (who had given an unqualified audit opinion to the misleading accounts), PwC.

Outcome

The class action settled for a then Australian record AU\$200 million, \$67 million of which was borne by PWC (who made certain admissions of negligence in its handling of the relevant accounts), \$95 million by Centro companies and \$38 million by their D&O and professional indemnity insurers. Both class actions were funded by litigation funders, with IMF recouping AU\$60 million of the \$150 million paid to its claimants (against which it booked a pre-tax profit of \$41.8 million).



Investor vs company &/or directors

Misleading or deceptive conduct, securities fraud, breach of statutory or fiduciary duty

Nature of claim(s)

Misleading disclosure As per (C) Regulator vs Company/Directors, above.

Breach of duty

- Shareholders may also bring proceedings against the directors and officers of their corporation (as a 'shareholders' derivative' action, standing in the shoes of the company) alleging a breach of their statutory and fiduciary duties to the company. Such duties commonly relate to **trust/loyalty** (including duties to act honestly, in good faith and in the best interests of the corporation, and to avoid conflicts of interest), and **competence** (including duties to act with prudence and/or due care, skill and diligence, and to avoid the fettering of their discretions).
- The duty to exercise 'due care and diligence' is substantively mirrored in the tort of negligence in many jurisdictions
- Such causes of action are commonly pleaded in 'stock drop' damages claims, in conjunction with a claim for misleading or deceptive conduct, although it is not always necessary to establish deceptive conduct in order to establish a breach of duty.

Comment

Misleading disclosure

- Investors who have suffered loss following a 'corrective disclosure' that prompts asset devaluation or default commonly seek to recover those losses from the corporation and/or its directors. In the ET context, this is a material litigation risk not only for emitters themselves, but for the financial services sector, where there is contagion into its bad debt provisions and financial lines insurance liabilities (NAB).
- In some jurisdictions, shareholders may also file a claim seeking only declaratory or injunctive relief (rather than damages) as a mechanism to increase investee standards of climate risk analysis and disclosure (*Abrahams v CBA*, below).

Breach of duty, negligence

Historically, governance action on climate change has been considered in the context of the scope of directors' obligations to prioritise their corporation's (or beneficiaries') 'best interests', and the extent to which those interests may include 'non-financial' concerns. Within this, climate change has largely been framed as an 'ethical' or 'environmental' issue, whose impact on financial risk/return is largely immaterial. That historical framing is increasingly redundant in the ET, with climate-related policy and market shifts having squarely financial consequences.



Investor vs company &/or directors

Misleading or deceptive conduct, securities fraud, breach of statutory or fiduciary duty Breach of duty, negligence (continued)

- The legal issue then becomes whether, in governing risk and strategy in pursuit of the best (financial) interests of their corporation, directors have acted *competently* under the terms of their statutory and fiduciary duties of prudence, due care, skill and diligence when considering the risks and opportunities associated with climate change. A critical point of tension lies in the courts' general reluctance to 'second-guess' the merits of a substantive business judgment made by directors (a principle that is enshrined in a 'business judgment rule' presumption / defence in many jurisdictions), versus the duty's inherent requirement that directors apply a robust process of informed reasoning in making their decisions. In the contemporary ET context, courts may be reluctant to find that a failure to consider the financial impacts of climate change on a corporation or fund's strategy or risk, due to honest ignorance, wilful blindness or personal ideology, satisfies a directors' duty of due care and diligence.³¹
- The directors of institutional investors / pension fund trustees may also be exposed to a breach of duties claim where the impacts of climate change on portfolio risk and strategy have not been adequately considered (*Coal Pension Cases*).

- As outlined in (C) above, a number of recent opinions by senior corporate barristers and regulators have expressed the view that a directorial failure to proactively govern for issues associated with climate change is likely to breach the duty of due care and diligence.
 Going forwards, the G20 TCFD
 Recommendations (whilst 'voluntary') may become an influential benchmark that informs the content of directors' duties of due care and diligence, and standards of disclosure, in relation to climate change-related issues.
- The three main 'collective action-friendly' jurisdictions include the United States, Australia and The Netherlands. The collective settlement mechanism in The Netherlands, in particular, has emerged as a prominent forum for international shareholders to gain redress against EU-domiciled countries, with recent collective settlements against *Shell* (restatement of 20% reserves as 'probable' rather than proven) (2009) (above), *Converium* and its parent Zurich Re (both Swiss companies) (2012) and *Fortis NV* (2016).
- With a steady increase in the size of securities settlements in 'class-friendly' jurisdictions, and the recent proliferation of professional litigation funders underwriting claimant risks, the prospect of litigation under commercial laws may become a strong driver of corporations' strategic transition to a low-carbon norm.

³¹ See Barker, above n5; and Barker, Sarah, Mark Baker-Jones, Emma Fagan and Emilie Barton, 'Climate Change and the Fiduciary Duties of Pension Fund Trustees – lessons from the Australian Law', Journal of Sustainable Finance & Investment (2016), vol 6(3), 211-244



Investor vs company &/or directors

Misleading or deceptive conduct, securities fraud, breach of statutory or fiduciary duty Breach of duty, negligence (continued)

 This prospect has prompted Swiss Re to predict: '[C]limate change-related liability will develop more quickly than asbestos-related claims...[the pressure from these actions] could become a significant issue.¹³²

ET: driver & consequence

- Consequence of the crystallisation of other ET market and policy drivers:
- Market: legal costs, penalties, damages and directors' personal exposures drive evolution of corporate governance and strategy; corrective disclosures, stock drop, credit ratings impacts, reputational damage, market exclusions, insurance restrictions, secondary shareholder claims.
- Policy: regulatory reform heightened disclosure requirements and emissions controls leading to more detailed and corrective disclosures.
- Claims are highly influential between jurisdictions.

Valuation impacts – financial materiality?

- Both a 'corrective disclosure' by a corporation, and the announcement of a claim by investors, may have a material impact on corporate valuation and risk ratings. Litigation costs may materially impact on earnings, require provisions for contingent liabilities to be raised, and warrant specific disclosure in the notes to financial reports, with uncertainty and tail risks often factoring into corporate credit ratings issued by agencies such as Fitch, Moody's and S&P (as was the case in *Fortis*, below). Significant claims patterns have even been known to bankrupt listed corporate defendants. This was in fact the case in 1982 when the world's largest manufacturer of asbestos building products, Fortune 200 company Manville Corporation, filed for Chapter 11 bankruptcy protection and reorganisation under the weight of thousands of individual asbestosis damages claims (see discussion in Section 4, below). Commentators noted that the bankruptcy petition was filed as a strategic refuge from 'potentially massive but speculative tort liability' by a company that was otherwise 'apparently healthy'.³³
- The impact of claims patterns may also be material for insurers – particularly if these risks have not been adequately priced into financial lines policies.

³² Swiss Re, The Globalisation of Collective Redress, Zurich, 2009.

³³ The Manville Bankruptcy: Treating Mass Tort Claims in Chapter 11 Proceedings, *Harvard Law Review*, 96(5), March 1983, 1121.



Investor vs company &/or directors

Misleading or deceptive conduct, securities fraud, breach of statutory or fiduciary duty

CLAIMS CATEGORY D: CONCLUSION

Likely significant material driver of ET, and as a consequence of the policy and market drivers. High-risk sectors: energy (oil and gas, coal, electric utilities), transport (automotive), materials & building (metals and mining, construction materials), agriculture & forest products (beverages, agriculture), financial services (banks, asset owners, asset managers, insurance).

Claim Category D: CASE EXAMPLES

Coal Pensions Cases – eg Arch Coal,(2015) (*Roe v Arch Coal Inc et al*, Case: 4:15-cv-00910-NAB) and *Peabody Coal* (*Lynn v Peabody Energy Corporation et al*, Case: 4:15-cv-00916-AGF)

Claim

In June 2015, employee beneficiaries of the employee pension plans of the world's two largest publicly-traded coal companies, Peabody Energy and Arch Coal, filed complaints against the trustee directors of the plans (amongst other defendants – including the trustee of the Arch Coal plan, Mercer Fiduciary Trust Plan). The claims, which do not actually use the terms 'climate change' or 'global warming', allege that the fiduciaries breached their duty of competence under the *Employee Retirement Income Security Act of 1974* (ERISA) - the duty of 'prudence' (amongst other duties) - by failing to consider financial risks that may be driven (at least in part) by climate change. Those risks are alleged to include a decline in the US coal industry, attributed to factors including increased competitiveness of renewable energy technologies, clean energy policies and more stringent emissions regulations.

Outcome

The case against the Peabody Energy defendants was dismissed on 30 March 2017, and against the Arch Coal defendants in August 2017. However, at the date of writing proceedings remained on foot against the pension fund trustees of at least 3 other coal- and/or oil-company pension plans including:

- Attia v. ExxonMobil et al , Case No. 4:16-cv-03484 (US District Court (Southern District of Texas)), filed 23 November 2016;
- *Myers v. Seventy Seven Energy Inc et al* Case No. CIV-17-200-D (US District Court (Western District of Oklahoma)), filed 24 February 2017; and
- Scholl et al v. Chesapeake Energy Corp et al Case No. CIV-17-279-R (US District Court (Western District of Oklahoma)), filed 14 March 2017.

Ramirez v Exxon Mobil Corporation (2016) Case No. 3:16-cv-3111

Claim

On 7 November 2016, a securities fraud class action was filed against Exxon and a number of its directors on behalf of all purchasers of Exxon common stock between 19 February 2016 and 27 October 2016. The plaintiffs are claiming damages for loss caused by Exxon having allegedly operated as a fraud or deceit on the purchasers by misrepresenting the value of Exxon's business and prospects, which artificially inflated the price of Exxon's stock. The plaintiffs allege that Exxon's statements were materially false and misleading in that they failed to disclose that: a) Exxon's own internal reports recognised the environmental risks caused by global warming and climate change; b) given the risks associated with climate change, Exxon would not be able to extract the existing hydrocarbon reserves it had claimed to have and a material portion of its reserves were stranded and should have been written down; and c) Exxon had employed an inaccurate "price on carbon" in evaluating the value of certain of its future oil and gas prospects in order to keep the value of its reserves materially overstated. The plaintiffs refer to the price downturn of Exxon common stock following news disclosures in August and September 2016 concerning the US federal regulators' scrutiny of Exxon's reserve accounting related to climate change and its refusal to write down its reserves in the face of declining oil prices. The plaintiffs also refer to Exxon's announcement on 28 October 2016 that it might be forced to write down nearly 20 per cent of its oil and gas assets and the subsequent common stock value loss that erased billions of dollars in market capitalisation.

Outcome

The case is ongoing.

Abrahams v Commonwealth Bank of Australia (2017) VID 879/2017, Federal Court of Australia

Claim

On 8 August 2017, public interest law firm Environmental Justice Australia filed a claim on behalf shareholder Guy Abrahams against the Commonwealth Bank Australia (**CBA**). The claim alleges that, by failing to disclose the risks associated with climate change that may impact on lending and investment activities, strategies and prospects, the CBA 2016 Annual Report failed to present a true and fair view of its position and prospects. Specifically, the claim alleges that CBA has contravened:

- (a) sections 292(1)(b), 295 and 297 of the *Corporations Act* (requirement that financial reports present a present a true and fair view of financial position and performance), and
- (b) sections 298(1) and (1AA) (requirement that the Directors' Report disclose all information that shareholders would reasonably require in order to make an informed assessment of its operations, financial position, business strategies and prospects).

The relief sought includes only declarations and injunctions, rather than damages.

Outcome

CBA is yet to file its defence in this matter.

Examples arising from other market triggers – lead indicators

Genworth Insurance (2016) Case No. 3:14-cv-00682, U.S. District Court for the Eastern District of Virginia

Claim

The plaintiffs alleged that the defendant, a provider of long-term-care (LTC) insurance, fraudulently failed to disclose to investors that the average length of its LTC claims had increased from 2.2 to 2.9 years and further failed to incorporate the resultant increased costs into its GAAP accounting, leading to a grossly inflated balance sheet and inadequate loan loss reserves. Genworth's share price declined 14% following disclosure that it was reviewing its long-term-care business, and 40% following a subsequent announcement that it needed to increase reserves for its long-term-care business by \$531 million. Collectively, these price declines represented a loss of several billion dollars in market value.

Outcome

The Parties announced a settlement for \$219 million in March 2016.





Investor / company vs professional service provider

Misleading or deceptive conduct, negligence, breach of contract

Nature of claim

Investors who have suffered economic loss due to negligent service provision by an investment advisor (such as an accountant, consultant, investment broker, asset manager or credit ratings agency) may have grounds to bring an action against that advisor for negligence, misleading or deceptive conduct, or for breach of an implied contractual term that services would be rendered with professional due care, skill and diligence. In the energy transition, examples may include where an investor suffers loss due to:

- over-valuation or inaccurate risk rating due to the advisor's application of methodologies or assumptions that do not adequately account for energy transition risks;
- contractual misrepresentation: over-statement of the advisor's capacity or systems in relation to management of climate-related risks.

Aggrieved investors may also seek to join the external auditors who have provided unqualified audit statements on misleading or deceptive reports.

Comment

- A finding of breach by one participant in the investment supply chain does not necessarily absolve others in that chain from liability. Both investor and investee defendants commonly join their advisors to claims made against them for misleading disclosure (or negligence, discussed further below). Professional advisors are commonly joined to class actions. In fact, analysis of the largest 10 securities class actions in the United States in 2015 shows that financial institutions and/or accountants were joined as co-defendants in half of these cases.³⁴ In fact, in the 10 largest securities class actions in history, there is only one case where financial institutions and/or accountants were not joined as co-defendants.³⁵
- Importantly, an investor may not need a direct contractual relationship with a financial services provider in order to bring a damages claim in *negligence*. In some common law jurisdictions the Courts have been willing to find that credit ratings agencies and investment banks owe a duty of care to third-party investors to exercise reasonable care in providing their ratings / product issuing services. This is essentially because the ratings agencies and issuers know (and in fact intend, as an essential corollary of their business plans) that third-party investors will look to the rating when assessing the creditworthiness of a particular investment (*ABN Amro & S&P v Bathurst City Council & Ors* (2014), below).

³⁴ NERA, p.30.

³⁵ NERA, p.31.



Investor / company vs professional service provider

Misleading or deceptive conduct, negligence, breach of contract

Comment (continued)

 The strategic benefit to plaintiffs of suing 'deeppocketed' financial institutions has increased in some jurisdictions, where such defendants can often be held wholly liable for the loss (with it then up to the financial institution to seek recovery based on proportionate liability from other parties).³⁶

ET: driver & consequence

- Driver and consequence of ET market drivers: legal costs, penalties, damages and directors' personal exposures drive evolution of corporate governance and strategy; corrective disclosures, stock drop, credit ratings impacts, reputational damage, market exclusions, insurance restrictions, secondary shareholder claims
- Driver and consequence of ET policy drivers: regulatory reform – heightened disclosure requirements and emissions controls

Valuation impacts – financial materiality?

 The impact of claims patterns against professional service providers may be material for insurers if financial lines policies have not priced in this risk.

Example(s)

- Asset managers, advisors and credit ratings agencies – ABN Amro and S&P v Bathurst (below)
- Accountants/auditors: SEC/NYAG investigations of ExxonMobil - PwC (above); KPMG – Xerox (below); Centro – PwC (above)

CLAIMS CATEGORY E: CONCLUSION

Likely significant material driver of ET, and as a consequence of the policy and market drivers. High-risk sectors: financial services, accounting/auditing, credit ratings agencies.

³⁶ For example, in Selig v Wealthsure Pty Ltd [2015] HCA 18 the High Court of Australia held that proportionate liability provisions of the Corporations Act 2001 do not extend to claims for misleading or deceptive conduct under sections 1041E-F.

Claim Category E: CASE EXAMPLES

Examples arising from other market triggers - lead indicators

SEC v Xerox and KPMG (Securities and Exchange Commission v. Xerox Corporation, Civil Action No. 02-CV-2780 (DLC) (S.D.N.Y.) (April 11, 2002)))

Claim

In April 2002 the US SEC prosecuted Xerox for securities fraud for adopting accounting practices intended to distort operating performance results to meet or exceed market expectations. These actions, most of which violated Generally Accepted Accounting Principles, accelerated the company's recognition of equipment revenue by over \$3 billion and increased its pre-tax earnings by approximately \$1.5 billion.

Outcome

Xerox agreed to settle the SEC's complaint under orders restating its financials for the years 1997 to 2000 and payment of what was then an unprecedented \$10 million civil penalty. On 5 June 2003, the also SEC charged six former senior executives of Xerox, including its former CEO and CFO, with securities fraud and aiding and abetting Xerox's violations of the reporting, books and records and internal control provisions of the federal securities laws. The 6 defendants agreed to settle the action (without admission of liability) with over \$22 million in penalties, disgorgement and interest. 4 of the officers were also subject of management banning orders (including one permanent banning order). In January 2003, the SEC also prosecuted Xerox's auditors, KPMG (and a number of KPMG partners), for in connection with the securities fraud. In 2005, the parties consented to an order that KPMG (without admission) caused and wilfully aided and abetted Xerox's violations of the anti-fraud, reporting, recordkeeping and internal controls provisions of the federal securities laws, and violated its obligations to disclose to Xerox illegal acts that came to its attention during the Xerox audits. KPMG agreed to pay disgorgement of \$9,800,000 (representing its audit fees for the 1997-2000 Xerox audits), interest of \$2,675,000, and a \$10,000,000 civil penalty, for a total payment of \$22.475 million.

ABN Amro and S&P v Bathurst et al (2014) 224 FCR 1

Claim

S&P gave its highest 'AAA' rating to constant proportion debt obligation ('Rembrandt') notes issued by investment bank ABN Amro. The notes were in fact collateralised by sub-prime securities, and investors suffered significant losses on default during the GFC.

Outcome

In 2014 the Full Federal Court of Australia awarded \$25 million in compensation to a number of local governments who had invested in the notes (via a third party intermediary). The court found that the AAA rating was negligent and misleading for reasons which included that the rating adopted (a) a flawed base case volatility parameter of 15%, and (b) overly favourable assumptions including in relation to roll-down benefits and starting spreads. The Court also found that, despite the absence of a contractual relationship, both the credit ratings agency and issuing investment bank owed (and in that case had breached) a duty of care to investors as they knew (and in fact intended) that investors would rely on their opinion as to the creditworthiness of the notes in making investment decisions. Following that judgment, in February 2015 S&P's parent company, McGraw Hill, settled claims made by the US Department of Justice, 19 US States and the District of Columbia that it had committed securities fraud by knowingly issuing inflated credit ratings for collateralised mortgage-backed securities in the lead up to the GFC (without admission of liability) for USD1.5 billion. It also agreed to pay Calpers USD125m.



Company vs company

Breach, avoidance or repudiation of contract

Nature of claim

Contracts (or agreements, conventions) allocate rights and obligations to private parties as between themselves, within the boundaries of other statutory and judge-made laws.³⁷ In some jurisdictions the laws relating to contractual obligations have both general and special parts, the latter applying to regulate specific kinds of transaction.³⁸

In the context of the energy transition, litigation for breach of contract may arise in relation to:

- the avoidance or repudiation of contractual obligations by one party where the evolving market conditions render performance commercially onerous;
- investor claims against professional advisors for a failure to adequately account for energy transition risk impacts (including asset managers, consultants, credit ratings agencies and auditors) (as outlined in (E) above); and
- scope of indemnity under contracts of commercial insurance.

The potential for contract litigation arising from the *physical* impacts of climate change (including, for example, grounds of *force majeure* or *cas fortuity*, ³⁹ frustration of the contract's commercial purpose, or consequential losses occasioned by business interruption) is also significant (albeit beyond the scope of this Report). Material exposures are likely to lie in the critical infrastructure (electricity, oil, gas, transport, water), logistics, manufacturing and insurance sectors.

Comment

Courts are generally reluctant to void or terminate a contract due to the crystallisation of circumstances that make performance more onerous, or significantly more difficult (or impossible) for one party, where such circumstances are not abnormal and/or should have been reasonably foreseen by the defaulting party. However, there may be mechanisms in a contract that may give a party latitude to restrict the scope of the required performance when market conditions evolve in the energy transition, or to assert continued performance under those conditions would exceed it the limits of its 'reasonable endeavours'

Insurance indemnity claims

Historically, the insurance industry's attention to risks associated with climate change have focused on property casualty underwriting (ie physical impacts). However, the energy transition may also present significant contractual issues, and litigation over the scope of indemnity obligations between the insurer and insured under financial insurance lines, such as commercial, D&O and PI.
Significant disputes may arise in the context of the insured's disclosure obligations, notification of occurrences and exclusions.

³⁷ See for example the French Code Civil, German Bűrgerliches Gesetzbuch (BGB).

³⁸ See for example German law, Raymond Youngs, English, French and German Comparative Law, 3e, (Routledge 2014), 544.

³⁹ See for example French *Code Civil* Article 1147-1148.



Company vs company

Breach, avoidance or repudiation of contract

Insurance indemnity claims (continued)

- In particular, it is not clear whether claims against a corporation or its directors for economic loss occasioned by its failure to manage the *policy and market risks associated with the energy transition*, in the ordinary course of business, would comprise an indemnified 'occurrence' under the terms of a standard commercial policy.
- An indicator of the potential for insurance contract litigation in the context of the energy transition, and the scale of contractual issues that it may prompt, may be found in the insurance industry's recent experience in responding to the (formerly novel) issue of 'cyber attack'.

ET: driver & consequence

Consequence of ET

Valuation impacts – financial materiality?

Case-by-case

Example(s)

- 'Reasonable endeavours' where market conditions change (lead indicator) - Woodside Energy Ltd v Electricity Generation Corporation [2014] HCA 7
- Insurance indemnity disputes climate damages AES Corporation v Steadfast Insurance Company (2012) (below)
- Insurance indemnity disputes cyber attack (lead indicator) *Travelers Indemnity Co. of Connecticut v. P.F. Chang's China Bistro, Inc.*, No. 3:14-cv-01458-VLB (D. Conn. filed Oct. 2, 2014).

CLAIMS CATEGORY F: CONCLUSION

Potentially material financial impact for individual companies, and for insurers where a swathe of litigation over the scope of indemnities emerges. High-risk sectors: insurance, sectors with long-dated contracts including energy, metals and mining, agriculture.

Claim Category F: CASE EXAMPLES

AES Corporation v Steadfast Insurance Company Case No. No. 100764 (Va. Apr. 20, 2012).

Claim

This case concerned whether, in defending the *Kivalina* case (see above), utility company AES was entitled to be indemnified under its commercial general liability policy, issued by Steadfast.

Outcome

The Supreme Court of Virginia held that Steadfast was *not* liable to indemnify AES under the policy, as a claim did not constitute an 'occurrence' within the meaning of that policy. This was because the underlying complaint alleged an intentional emission of greenhouse gases in the ordinary course of business, the 'natural and probable consequence' of which the court held to be 'global warming and damages such as Kivalina suffered.' More recently, similar indemnity disputes have been commonplace in emerging **cyber-attack** damages cases, where insurers have sought to deny coverage for litigation defence costs under commercial general liability and/or Directors' & Officers' insurance policies – see for example *Travelers Indemnity Co. of Connecticut v. P.F. Chang's China Bistro, Inc.*, No. 3:14-cv-01458-VLB (D. Conn. filed Oct. 2, 2014).



State v emitter

Breach of emissions / adaptation regulations; consumer protection / consumer fraud

Nature of claim

- As states introduce regulations and standards to give force to their ET policies, there is significant scope for corporations that fail to comply with heightened emissions restrictions, efficiency standards or adaptation-related instruments (including, for example, revised building and planning requirements) to be prosecuted.
- Non-compliance with ET regulations and standards may also give rise to claims by consumer protection agencies and/or consumers under consumer protection and consumer fraud laws. In general terms, such laws prohibit corporations from engaging in unfair business practices in the sale or promotion of their goods or services, including misrepresentation of product characteristics, price, utility or performance. Consumer protection laws also commonly regulate product safety and defects. It is interesting to note that recent 'climate damages' claims by three Californian municipalities against 37 'carbon majors' include causes of action commonly covered under 'consumer protection' statutes: failure to warn and defective products (see San Mateo, Imperial Beach and Marin County cases, (A), above).
- Consumer protection laws are variously enforceable in different jurisdictions by regulatory agencies (including, for example, the US Federal Trade Commission, the Canadian Competition Bureau, the Chinese State Administration for Industry and Commerce, Netherlands Authority for Consumers and Markets, Japanese Consumer Affairs Agency, New Zealand Commerce Commission and Australian Competition & Consumer Commission).

- Many jurisdictions also have consumer class action frameworks, that allow groups of aggrieved consumers to pursue damages against the subject corporation via a collective or representative claim
- Jurisdictions with the most permissive consumer law class action regimes include the United States, Australia and Canada. Claims in these jurisdictions are on an upwards trajectory in both number and quantum of damages – contributed to, in part, by the emergence of professional litigation funders as underwriters of claimant risk.

ET: driver & consequence

Consequence of ET.

Valuation impacts – financial materiality?

Prosecution costs are unlikely to be material in the context of a nation state's budget. Claims may, however, lead to penalties, legal costs and reputational damages that are material for the emitter/defendant company – particularly where they spur subsequent claims by securities regulators and/or investors under misleading disclosure laws (see (C) and (D) above, and/or consumer protection agencies and/or consumer classes under consumer fraud laws).

CLAIMS CATEGORY G: CONCLUSION

Potential material consequence of ET policies. Highrisk sectors: energy (oil and gas, coal, electric utilities), transport (air freight, air passenger transport, maritime, rail, trucking services, automotive) materials and building (metals and mining, chemicals, construction materials, capital goods, real estate management and development), agriculture.

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Volkswagen 'Dieselgate' – global litigation

In September 2015, the United States Environmental Protection Agency (**EPA**) announced that it had issued a 'Notice of Violation' to Volkswagen in relation to emissions irregularities detected in its testing of VW diesel vehicles. The claims related to the installation of 'defeat device' software in certain VW diesel engines that triggered a reduction in tailpipe emissions (such as nitrous oxide) under test conditions (in order to comply with stringent US and environmental emissions controls). Emissions were therefore far higher (up to 40 times permitted limits) than that claimed when the vehicles were driven on the road. The anomalies were referred to the EPA following testing by the independent International Council on Clean Transportation. VW subsequently admitted that the number of cars containing the software was more than 11 million worldwide, and a number of senior executives (including the CEO, Martin Winterkorn) were forced to resign.

More than 63% was wiped off the value of VW AG Preference Shares in the aftermath of the EPA's announcement. It suffered its first quarterly loss in 15 years, of €3.5b, in the September quarter of 2015. Preference shares were still trading around 47% below pre-scandal levels as at 30 June 2017. The three large credit ratings agencies all downgraded VW AG's credit rating (Moody's from A to A3/P-2, CreditWatch negative, S&P from A to BB+/A-2, outlook negative, and Fitch to BBB+, outlook negative).

As an indication of the scope and scale of the financial impact of this issue on Volkswagen, its September 2016 Interim Report included two pages of discussion on lawsuits relating to the 'Diesel issue' in its 'Key Events' statement, with a further two pages of discussion in its Interim Management Report on Results of Operation, Financial Position and Net Assets, and Notes to the Interim Financial Reports – including discussion of environmental and securities law regulatory proceedings, and private damages claims, in multiple jurisdictions across North America and Europe. That Interim Report provided €3.7 billion for litigation-related liability contingencies.

As at 12 January 2017, VW had committed to pay more than US\$23 billion in settlements relating to the emissions scandal in the United States and Canada. This includes settlement of charges brought by the EPA and US Department of Justice for conspiracy to defraud the US government in January 2017 (including a US\$1.5 billion civil penalty and US\$2.8 billion criminal fine), and payments of up to US\$17.5 billion to resolve claims by U.S. regulators, owners and dealers and offered to buy back nearly 500,000 polluting vehicles. Other significant proceedings that remain on foot include criminal charges against 6 VW executives in the United States, and shareholder class actions (seeking damages for investor losses sustained when the emissions scandal was revealed) in jurisdictions including the United States and Europe.



State v emitter

Constitutional and international trade law

Nature of claim

Companies that are materially impacted by national and supra-national governments' energy transition regulations may challenge those regulations under domestic administrative or constitutional laws, or international treaties (for example, utilising investor-state arbitration under international investment or free trade agreements).

ET: driver & consequence

Driver – policy (targeted governments required, and other governments incentivised, to introduce regulations that facilitate a low-carbon transition)

Valuation impacts – financial materiality?

Litigation defence costs unlikely to be material in the context of a nation state's budget. A cluster of claims may, however, lead to legal costs that are material for the emitter.

CLAIMS CATEGORY H: CONCLUSION

Potential material driver of ET (market – legal costs driver). High-risk sectors:, energy (oil and gas, coal, electric utilities), materials & building (mining and metals, construction materials, chemicals), transport (air, trucking, automotive), government.

Claim Category H: CASE EXAMPLES

Examples arising from other market triggers - lead indicators

Carbon Emissions - United States – challenges to the Clean Energy Power Plan

Claim

More than 60 legal challenges have been launched against component legislation of the Clean Power Plan and the scope of the Environmental Protection Agency's statutory powers, with another 10 against the GHG Reporting Rules – amongst hundreds of other challenges to Federal and State emissions-related regulations. The lead plaintiff in a number of these challenges is the Attorney-General of West Virginia.

Tobacco – Australia – challenges to plain packaging legislation

Claim

A number of tobacco companies alleged that Australian plain packaging legislation was invalid under the Australian Constitution. When their claim was rejected by Australia's highest court, Philip Morris launched international investor-state arbitration. This was also unsuccessful. Reports emerged in July 2017 that the industry had been ordered to pay the Australian Government's costs in the order of AUD\$50 million Further challenges to the Australian legislation by Cuba, Dominican Republic, Honduras and Indonesia remain on foot before the WTO.

4. Materiality and risk pricing

The analysis of claims in **Section 3.3** above makes observations on the potential materiality of particular kinds of claim by reference to analogous cases (both incident of the ET to date, and 'lead indicators' that may be drawn from unrelated market triggers). Each of the categories of claim discussed in this Report should be understood by companies, their investors and financial services providers, to enable a diligent assessment of their bearing on risk and value in individual circumstances – particularly (although not exclusively) in relation to the 'high-risk' sectors articulated for each claim.

This section contains a broader, consolidated analysis of the potential materiality of litigation risks that drive, or are driven by, the ET, over mainstream investment horizons. Such impacts may extend beyond the quantum of any fines, penalties or damages, to (for example) legal costs, reputational damage, valuation impacts, credit rating impacts, insurance coverage limitations, contractual defaults and tender process exclusions.

In providing these observations, it must be emphasised that the pricing of litigation risk in the energy transition is inherently complex. It involves a high proportion of tail risks and large losses, with dynamic regulatory exposures, aggressive litigation environment, a paucity of reliable data and pervasive uncertainty in risk accumulation and aggregation. It will require the specific and significant application of judgment in its input to valuation and underwriting problems. And engagement with the business being valued or underwritten will be critical to providing fit for purpose technical analysis and commercially actionable insights.

4.1 Materiality – valuation impacts

Climate litigation – and the credible *prospect* of it - is likely to act as a significant transition scenario driver. Regulatory and private claims have a direct impact on earnings (in the form of legal expenses, penalties and damages) and liabilities (litigation reserves and contingencies), and often warrant specific forward-looking risk disclosures.

Whilst the value of a breach may not be material to a corporation of itself, it commonly triggers a 'disproportionate' stock drop and ratings impact, and secondary litigation by shareholders for misleading disclosure, breach of directors' duties and/or negligence. Whilst the financial impacts of any such claim are inherently case-specific, they are often material, and often under-insured (or, in the case of a securities fraud finding, uninsurable). **Figure R5** below illustrates the scale of potential impacts of litigation for company valuation:

Figure R5: Litigation risks by the numbers – valuation of US securities class actions



Plaintiff's legal costs as a proportion of settlement value (10 largest US 2015)

19.3%

Average stock drop SEC investigation announced

Average class action damages settlement (10 largest US) \$2.976b 2015 US shareholder class actions - investor losses \$183b





Number of claims joining financial institution and/or auditors

Source: 2015 US shareholder claims data: COROS, Cornerstone, NERA

Significant claims patterns have even been known to *bankrupt* listed corporate defendants. This was in fact the case in 1982 when the world's largest manufacturer of asbestos building products, Fortune 200 company Manville Corporation, filed for Chapter 11 bankruptcy protection and reorganisation under the weight of thousands of individual asbestosis damages claims (*In Re Johns-manville Corp., et al., Debtors.the Hospital and University Property Damage Claimants, Appellants, v. Johns-manville Corporation, et al., Appellees, 7 F.3d 32 (2d Cir. 1993)*). Commentators noted that the bankruptcy petition was filed as a strategic refuge from '*potentially massive but speculative tort liability*' by a company that was otherwise '*apparently healthy*'.⁴⁰

Factors that may impact on the stock price response to litigation in any particular case may include, for example, the level of statistical significance, the length of the event window, and market efficiency in response to new information.⁴¹

4.2 Materiality – credit ratings

Residual litigation exposure uncertainties factor into discount rates, and as 'key driver' in ratings metrics or outlooks (*S&P, Fitch, Moodys*). Even where companies *have* made provision for future litigation costs, the tail risks presented by the litigation's uncertainty, complexity and escalation potential may still result in its material impact on risk rating assessments. This can be illustrated by the impact of the 2015 'Dieselgate' scandal on the credit rating of VW AG (above), and the recent Fortis NV collective action settlement in the Netherlands:

Fortis NV

Claim

In March 2016, Ageas (the acquirer of Fortis NV) agreed to pay €1.204 billion to settle a misleading disclosure claim under the Dutch collective settlement process (known as 'Stichtings') to shareholders from the U.S., Europe, Middle East and Australia. Ageas did not admit liability. Under a separate settlement with its D&O and 'Public Offering of Securities Insurance' insurers, Ageas received a contribution of €290m, less than guarter of the total settlement liability. Ageas continues to maintain a provision for more than €100 million related to tail risks associated with the claim and settlement process. News of the settlement (with associated resolution of litigation risk uncertainty and enhancement of future financial flexibility) prompted review of Ageas' credit rating by all three major credit ratings agencies. Fitch upgraded its 'long term issuer default rating' by one notch, from A- to A. S&P affirmed its rating, noting: "We also continue to apply a three-notch gap, rather than the standard two notches, between the holding company, Ageas SA/NV, and [its] core operating subsidiaries, as legacy risks and costs are borne directly by the holding company." Moody's lifted the outlook for Ageas to 'positive'.

An escalation in commercial litigation relating to the energy transition may also have macro implications for the discount rates applied in valuation and ratings calculations across an exposed industry.

4.3 Materiality – legal costs

Based on 2016 NERA analysis of the 10 largest class action settlements in the United States, the *plaintiff* (ie claimant)'s legal expenses alone averaged approximately 10% of the total settlement value, at almost USD300 million per claim. Total legal costs – for all parties to the litigation – are likely to be a multiple of this figure.

⁴¹ See NERA Economic Consulting, Update on Economic Analysis of Price Impact in Securities Class Actions Post-Halliburton II, 21 August 2015, p.2.

⁴⁰ The Manville Bankruptcy: Treating Mass Tort Claims in Chapter 11 Proceedings, *Harvard Law Review*, 96(5), March 1983, 1121.

These costs can escalate significantly where a corporation faces multiple claims triggered by an event or pattern of conduct. This is illustrated by the legal expenses incurred by financial institutions in defending a series of antitrust and fraud claims in multiple jurisdictions, compiled by the CCP Research Foundation (Figure R6 below). For example, CCP reports that Lloyds Banking Group reported £2.82 billion (approximately US\$4 billion) in legal expenses for the first half of 2015 alone, and that Bank of America incurred £46.67billion (approximately US\$60 billion) in legal costs across 2011-2015, with a provision of £8.14 billion (US\$10.5 billion) for litigation contingencies as at 30 June 2015.42

These legal costs are a material expense and liability exposure not only for the parties to the claim but, in aggregate, to their financial lines insurers.

BANKS	TOTAL COSTS 2011-2015 [GBP Bn]	PROVISIONS AS AT 31 DEC 2015 [GBP Bn]	GRAND TOTAL 2011-2015 [GBP Bn]	GRAND TOTAL 2010-2014 [GBP Bn]	[GRAND TOTAL (2001- 2015)] RELATIVE POSIITON TO [GRAND TOTAL (2010- 2014)] (%)		GRAND TOTAL 2009-2013 [GBP Bn]	GRAND TOTAL 2008-2012 [GBP Bn]	
Bank of America	46.67	8.14	54.81	64.43	 		-14.93%	66.80	54.47
JP Morgan Chase & Co	26.05	6.64	32.70	33.10	•		-1.20%	35.97	25.01
Morgan Stanley	9.39	12.62	22.01	23.61	.		-6.79%	19.59	24.96
Lloyds Banking Group plc	15.71	4.46	20.17	15.47	.		30.42%	12.73	9.24
Citigroup, Inc	13.11	2.36	15.47	14.78			4.63%	7.60	12.41
Barclays PLC	11.93	3.49	15.42	12.60	4		22.42%	7.90	5.07
RBS	8.82	5.92	14.74	10.90	.		35.14%	8.48	4.24
Deustche Bank	8.01	4.23	12.23	9.38	4 •		30.50%	5.62	3.94
HSBC	6.84	3.05	9.89	8.69		(+1)	13.78%	7.22	6.28
BNP Paribas	6.47	3.20	9.67	8.19		(+1)	18.03%	3.55	1.9
Well Fargo & Company	8.36	0.88	9.24	9.22	•	(-1)	0.14%	9.19	7.65
Goldman Sachs	6.31	1.35	7.66	6.14		(+1)	24.85%	3.65	4.05
Credit Suisse	4.40	2.59	6.99	5.87		(+1)	19.10%	3.56	2.98
Santander	4.42	1.81	6.23	6.95	•	(-2)	-10.43%	3.59	4.27
UBS	3.93	2.13	6.05	5.42	•		11.77%	4.19	24.66
National Australia Bank Group*	2.40	1.18	3.58	2.97	4 ►		20.57%	2.47	2.32
Commerxbank AG	1.63	0.29	1.92	1.96	•		-2.05%	1.37	1.19
Societé Générale	0.09	1.57	1.66	0.95		(+1)	75.18%	0.71	1.42
Standard Charted Bank	0.92	0.08	1.00	1.00	•	(-1)	-0.92%	0.76	0.75
ING Group	0.68	0.14	0.82	0.80	.		2.33%	0.90	0.95
Grand Total [GBP Bn]	186.12	66.13	252.25	242.42				205.84	197.76

Figure R6: CCP Research Foundation C.I.C: large bank litigation costs & contingencies

Data in R6 reproduced with the kind permission of CCP Research Foundation CIC, 'Conduct Costs Project Report 2016'

⁴² CCP Research Foundation CIC, 'Conduct Costs Project Report 2016',

p.7, <http://foreigners.textovirtual.com/ccp-research-conduct-

costs/274/221096/conduct-costs-project-report-2016.pdf>

4.4 Climate litigation – perfect storm or pie in the sky?

A number of characteristics of the legal framework may combine to increase the likelihood that litigation will play a significant role in the energy transition.

First, the incentive for claimants may also seek to deploy litigation as a *strategic* tool cannot be underestimated. In fact, very few securities class actions reach trial - and even fewer reach judgment. For example, of the 4,300 federal securities class actions filed in the United States since 1995, only 21 have gone to trial and only 15 have reached a verdict.⁴³ This may mean that claimants will pursue actions that are *credible*, but not necessarily strong.

Second, there is a steady increase in the size of securities settlements in 'classfriendly' jurisdictions outside the United States such as Australia and The Netherlands.

Finally, there has been a recent proliferation of professional litigation funders to underwrite claimant risk in class action-friendly jurisdictions.

As a general proposition, all the categories of litigation risk identified have the potential to become material drivers and/or consequences of the energy transition, under any transition scenario. Swiss Re has previously predicted that: '[C]limate change-related liability will develop more quickly than asbestos-related claims...[the pressure from these actions] could become a significant issue.¹⁴⁴

However, the nature of claims may skew more heavily towards particular categories depending on the timing of the transition, and the manner in which the transition occurs (all else being equal).

For example, at one transition extreme – a co-ordinated, uniform and swift transition to a global low-carbon energy paradigm (ie. consistent with the agreed Paris Agreement target of keeping global warming to well below 2°C, within mainstream investment horizons) - may be characterised by (all else being equal) an increase in litigation against corporations (and their directors and advisors) who fail to adequately manage the foreseeable financial risks

associated with that transition (claim categories (D) and (E)), as well as contractual disputes (category (F)), and 'anti-regulatory' litigation as emitters resort to the courts in 'last-ditch' efforts to block transition-related legislation (category (H)). Conversely, in that scenario plaintiffs may not perceive the same need to bring claims against emitting states and companies, limiting the consequential role of claims categories (A) and (B). That being said, the credible prospect of litigation in categories (A) and (B) may be a material *driver* of swift policy and market transition.

At the other extreme, a slower, delayed energy transition may be characterised by a greater volume of litigation against governments, emitters and corporations, within mainstream investment horizons, as stakeholders turn to litigation as a strategic transition driver in the face of perceived policy and market failures, and to pursue damages for greater levels of climate-related harms (claim categories **(A), (B), (C), (D)**). Conversely, in that scenario emitters may not perceive the same need to bring 'anti-regulatory' claims against government entities, limiting the role of claims under category (h) as a consequence of the energy transition, within mainstream investment horizons. That being said, anti-regulatory litigation by interested emitters may itself be a material *driver* of delayed policy and market action within mainstream investment horizons.

These directions are indicated, at a high-level, in Table ES-2 above.

Regardless of which path the ET takes, companies, their investors and financial services providers would be well-advised to develop a working knowledge of all categories of litigation risk discussed in this Report (and obtain specialist legal advice where required), to enable a diligent assessment of the bearing of this 'unconventional risk' in individual valuation circumstances.

⁴⁴ Swiss Re, The Globalisation of Collective Redress, Zurich, 2009.

⁴³ NERA Economic Consulting, *Recent Trends in Securities Class Action Litigation: 2015 Full-Year Review*, 25 January 2016, p.38.

5. Conclusion

A full analysis of the litigation risk arising in the ET requires four tiers of analysis:



This Report addresses the **Tier One** of this analysis, offering a general taxonomy of claims that are likely to arise in the ET, by reference to the policy and/or market variables identified by 2°ii in its ET risk taxonomy. It also offers preliminary observations on the likelihood of litigation over mainstream investment horizons on a sectoral basis, pursuant to Tiers Two and Three (high-risk sectors). This provides a foundation for work to progress in relation to Tier Four (assessment of company- and jurisdictional- risk factors) in subsequent work by the ET Risk research consortium.

The conclusions of this Report are summarised in Table ES-2, above.

As a general proposition, all the categories of litigation risk identified have the potential to become material drivers and/or consequences of the energy transition, under any transition scenario. However, the nature of claims may skew more heavily towards particular categories depending on the timing of the transition, and the manner in which the transition occurs (all else being equal).

The pricing of litigation risk in the energy transition is inherently complex. This risk is characterised by a high proportion of what may be considered tail risks and large losses, with dynamic regulatory exposures, aggressive litigation environments, a paucity of reliable data and pervasive uncertainty in risk accumulation and aggregation. More granular assessments of risk at sectoral- and corporate-level will require the specific and significant application of judgment in its input to valuation and underwriting problems. And engagement with the business being valued or underwritten will be critical to providing fit for purpose technical analysis and commercially actionable insights.

One area of law that has already emerged as a significant driver (and consequence) in the ET is regulatory and/or investor claims for a breach of securities fraud / misleading disclosure laws. Such claims may have material valuation and risk rating implications for individual corporations and sectors within mainstream investment horizons, and are thus likely to be of particular interest to financial analysts. This area of litigation may also feature more prominently following the June 2017 release of the Final Recommendations of the TCFD which, whilst 'voluntary', provide an influential benchmark for the 'true and fair' disclosure (and adequate underlying analysis) of material financial risks associated with climate change.

Each of the categories of claim discussed in this Report should be understood by companies, their investors and financial services providers, to enable a diligent assessment of their bearing on risk and value in individual circumstances.

About MinterEllison

MinterEllison is one of the Asia Pacific's leading law firms. Our firm was established in Sydney in 1827, and today operates in Australia, Hong Kong, mainland China, Mongolia, New Zealand and the United Kingdom through a network of integrated offices and associated offices.

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About 2° Investing Initiative

The 2° Investing Initiative [2°ii] is a multi-stakeholder think tank working to align the financial sector with 2°C climate goals. We are the leading research organization on climate-related metrics for investors. Our research work seeks to align investment processes of financial institutions with climate goals; develop the metrics and tools to measure the climate friendliness of financial institutions; and mobilize regulatory and policy incentives to shift capital to energy transition financing. The association was founded in 2012 and has offices in Paris, London, Berlin, and New York City.

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