

FIDUCIARY DUTIES AND CLIMATE CHANGE IN THE UNITED STATES

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October 2021

Our understanding of climate change has evolved from an “ethical, environmental” issue to one that presents foreseeable financial and systemic risks (and opportunities) over mainstream investment horizons. This evolution has substantially changed the relevance of climate change to the governance of corporations. A critical corollary of that evolution is that there are implications for the fiduciary duties of directors and officers.

This report provides an overview of contemporary evidence that climate change and the transition to a net-zero emissions economy presents foreseeable, material, and systemic financial risks that will affect corporations. It considers that evidence in the context of directors’ and officers’ fiduciary duties under Delaware law, particularly in light of recent case law on the duty of oversight. In so doing, it sets out the practical circumstances in which a failure by directors or officers to have adequate regard to climate change-related issues could fail to satisfy the standard of conduct required to fulfil their duties and lead to potential litigation and liability exposures.

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EXECUTIVE SUMMARY

Note: This Executive Summary presents a summary of an extended analysis set out in the main body of the paper below. The conclusions contained in this summary should be read in the context of the analysis in the full paper.

The links between climate change and financial and systemic risks are increasingly evident and inextricable.

'Climate change' is a phenomenon that occurs from the accumulation of greenhouse gases, such as carbon dioxide, nitrous oxide and methane, in the atmosphere. Human activity has resulted in volumes of greenhouse gas emissions significantly higher than the natural baseline. These activities include the combustion of hydrocarbon-based fossil fuels (such as coal, oil and gas) for energy and transport, methane emissions from livestock, nitrous oxide emissions from the use of fertilizers, and land clearing, which reduces the capacity of the natural environment to absorb and regulate emissions. The additional volume of emissions has caused the layer of greenhouse gas to thicken. As it thickens, it traps more and more heat within the Earth's atmosphere.

According to the UN Intergovernmental Panel on Climate Change (IPCC)'s assessment of the latest climate science, it is "unequivocal" that human influence has warmed the atmosphere, ocean and land. Global average temperatures now exceed 1.1°C (2°F) above those of pre-industrial times. Scientists have warned that current emissions trajectories may result in catastrophic warming in excess of 4°C (7.2°F) by the end of this century. Even at lower levels of warming, climate change presents acute and gradual onset changes in the climate system, creating risks to physical infrastructure, human health, and resource security.

Climate change is now understood to pose material risks across both the real economy and the financial system across short, medium, and long-term horizons. Climate change presents at least three types of foreseeable financial risks for corporations and financial systems – physical, economic transition and liability:

(1) **Physical Risks** to both natural and built environments including:

- more frequent and intense extreme weather events such as flooding, droughts and storms, and gradual onset impacts such as sea level rise and water scarcity, which may damage assets or critical supply chains; and
- damage to assets giving rise to breaches of workplace or environmental laws, for example industrial manslaughter, or breaches of environmental protection caused by ecosystem damage due to the rupture of a tailings dam or leaching from chemical storage facilities that have not been adapted to changing climatic conditions.

These physical risks, and their acceleration, have been exemplified in a number of key scientific reports in 2021, including the IPCC's publication of the Working Group I contribution to the Sixth Assessment Report (August 2021), which sets out the physical science behind and the effects of climate change. The IPCC publication states that the world is now warmer than it has been in at least 125,000 years, and that human activities are the "unequivocal" cause of this warming. It states that impacts of this warming include increases in the frequency and severity of temperature extremes, heavy precipitation, droughts and hurricanes. The IPCC publication underscored the conclusion expressed in the World Economic Forum's Global Risks Report (January 2021) that climate-related impacts comprise five of the top six risks facing the global economy.

(2) **Economic Transition Risks** arising from the transition towards a net-zero emissions economy, and associated shifts in the regulatory, technological and stakeholder landscape within which business operates, such as:

- regulatory and policy shifts – including emissions reduction laws and policies, tariffs and trade and prudential regulatory shifts, such as the recent coalescence around regulations and policies to implement 'Paris Agreement-aligned' targets, which include net-zero emissions by 2050 and a halving of emissions by 2030;
- technological or business model obsolescence, potentially on an industry-level scale. For example, producers in the automotive and aerospace industries potentially face substantial changes as a result of emerging electrification technologies;
- shifts in capital market preferences away from climate or transition-exposed activities, resulting in an inability to access finance or insurance on competitive terms; and
- failure to respond to shifts in customer or other stakeholder preferences.

Economic transition risks have continued to accelerate significantly in 2021. 73% of the world's economy is now operating under net-zero by 2050 policies, with a sharp acceleration in nearer-term 2030 targets – including in the United States (50-52% by 2030) and many of our major trading partners such as the EU (55%), the UK (68%) and Canada (40-45%). Other developments include the International Energy Agency declaration that a net-zero emissions global economy consistent with limiting warming to 1.5°C (2.7°F) is still possible and its publication of a scenario with trajectories for key technologies and commodities, milestones and target dates. Investors are also highlighting their interest in the economic transition; Blackrock, the world's largest asset manager, has put public company CEOs and boards on notice that they need to have transition plans to conform their business models to net-zero emissions, and climate activist investors, supported by institutional investors, were successful in electing three directors to Exxon Mobil's board in a proxy fight.

(3) **Litigation and Liability Risks** stemming from the attribution of climate change to a company's activities or from the failure to manage the impacts of climate change on the business, including failing to comply with regulatory and legal obligations, such as:

- securities fraud laws for issuers, for example, by materially misstating the risk of stranded assets caused by physical and transitional risks, by providing misleading disclosures in relation to exposure to climate change-related technological developments, or by promoting net-zero emissions targets to the market without having a genuine intention to implement the strategic shifts required to work towards such targets and/or a credible capital allocation strategy in support of the targets;
- consumer protection laws, for example, by misrepresenting the 'green' credentials of a particular good or service;
- greenhouse gas emissions laws, which are a particular risk for companies with high emissions footprints or with an emissions-intensive value chain;
- occupational health and safety laws for companies whose work force engages in manual labor, where health risks are elevated under changing climatic conditions; and
- human rights laws and norms for companies with global operations, given the intersection between climate change and human rights impacts.

As a notable example of how litigation risks may impact a company's business model, in May 2021 a Dutch court ruled that Royal Dutch Shell needed to accelerate its business model transformation and emissions reduction plan timeline to a 45% CO₂ reduction by 2030 relative to 2019 levels.

Additionally, corporations may be exposed to reputational risks associated with a failure to act in a way which is not perceived by consumers or stakeholders to be in the best interests of wider society. Reputational risks may compound or arise independently of the physical, economic, and regulatory risks discussed above.

These physical, economic transition, and litigation and liability risks pose direct risks to (and opportunities for) individual corporations (*entity-specific risks*), as well as cross-sectoral risks that extend across nearly every facet of the US economy (*systematic risks* or *economic cross-sectoral risks*). Collectively, the entity-specific risks and systematic risks could undermine the stability of the US financial system (*financial system risks* or *systemic contagion risks*), as recognized by the Federal Reserve Bank Board of Governors in November 2020. These climate-related financial risks are unique because of their breadth and depth across the economy, their non-cyclical nature, and the fact that magnitude of these risks over the coming decades is in part determined by the decisions we make today.

Failure by a board to adequately consider climate change-related risks, particularly entity-specific compliance risks such as breach of securities laws, could serve as the basis for liability of individual directors or officers for breach of their fiduciary duties.

Delaware law imposes two primary fiduciary duties on directors and officers: a duty of loyalty and a duty of care. These apply to directors and officers of both companies under private ownership and publicly-listed companies, and the analysis in this paper applies to both types of companies, unless stated otherwise. Foundational to both fiduciary duties of loyalty and care is the requirement that all actions and decisions of any agent must be in good faith; that is, made with an honest belief that the action or decision is in the best interest of the company. This effort requirement is reflected in *Caremark* and the cases following it, which stress that a loyal fiduciary must “try” and that a failure to try is categorically different from a situational lapse in judgment that might be called negligence.

With the clear evolution of climate change to a financial risk issue, directors or officers of a corporation could be exposed to liability for breaches of their fiduciary duties for failures to adequately govern for climate-related risks – in the same way as they could for a failure to adequately govern other material risks to their corporation. Specifically, this could include a breach of the duty of loyalty if that corporation were to suffer harm due to climate-related risks and the director or officer had failed to adequately consider relevant issues (i.e. by ignoring the risk entirely or by failing to properly oversee the corporation's handling of these risks) or acted impermissibly in respect to a conflict of interest. Additionally, a director or officer could be exposed to liability for a breach of their duty of care if they made a decision regarding climate change risks or opportunities in a grossly negligent, or uninformed, manner.

If a corporation were to suffer harm as a result of climate change risks, this could expose directors or officers to liability for breaches of their fiduciary duties. Claims in relation to breaches of fiduciary duties are difficult to bring and have significant defenses. The standard to fulfil legal responsibilities is separate from the standard at which directors and officers risk facing litigation, and in turn liability (see diagram on page 10 *infra*); however, the appetite of some litigants to bring claims should be recognized.

The nature of directorial governance failures (actions or inactions) that may give rise to a breach of duty are considered below.

(1) Duty of Loyalty

The duty of loyalty includes a duty for directors to monitor (at least) their company's compliance with relevant legal obligations.

The duty of loyalty requires officers and directors to act in the good faith belief that their actions are in the best interest of the corporation, to put the interests of the corporation first, and to provide oversight of legal compliance and, in principle, mission-critical operations (the duty of oversight).

The duty of oversight requires directors and officers to implement information and reporting systems that are reasonably designed to provide accurate information sufficient to allow management and the board to reach informed judgments concerning both the corporation's compliance with law and its business performance. This includes monitoring a corporation's "operational viability, legal compliance and financial performance."

Directors and officers may be liable for a breach of their duty of oversight in two circumstances. First, where they have utterly failed to implement any reporting or information system or controls. Or second, where, having implemented such a system or controls, they have consciously failed to monitor its operations, thus disabling themselves from being informed of risks or problems requiring their attention, including missing the presence of or failing to act on "red flags". Following the decision of the Delaware Supreme Court in *Marchand* in 2019, directors and officers should be alert to less strong warnings ("yellow flags") when those warnings are made regarding mission-critical areas.

Claims regarding an alleged breach of this duty of oversight are known as *Caremark* claims. While prior to *Marchand*, plaintiffs were rarely, if ever, successful in pleading a *Caremark* claim sufficiently to avoid dismissal, a series of recent *Caremark* cases, following *Marchand*, have survived motions to dismiss, which may indicate greater potential exposure to liability for breaches of the duty of oversight. This is especially true in cases involving derelictions of duty in the face of compelling and obvious oversight obligations regarding mission-critical regulatory compliance, and potentially mission-critical operations. Directors should therefore be particularly alert to risks when these relate to factors which are crucial to the business of the company.

While the opinions of the Delaware courts would appear to support a requirement to implement and monitor a reporting system that applies to business risks, as well as legal compliance, *Caremark* claims have to-date predominantly involved failures by the board to implement and/or monitor systems of legal compliance. Yet, the original *Caremark* decision, and decisions following it, have left open the question of whether the requirement to implement and monitor a reporting system applies to business risks. We are not aware of any cases under Delaware law in which such "business risk" claims have successfully been pleaded, and recent Delaware jurisprudence recognizes that these are difficult claims on which to prevail. In contrast, the courts in other States have explicitly recognized the potential for *Caremark* liability to extend to inadequate oversight of business risks.

An alleged breach of the duty of loyalty is not protected by the business judgment rule, cannot be exculpated by corporate bylaw provisions, and cannot be indemnified through corporate policy.

A director or officer may breach their duty of oversight within the duty of loyalty by failing to adequately consider or oversee the implementation of climate-related risk controls.

Directors and officers may be liable for a breach of their duty of oversight where they have utterly failed to implement any reporting or information system or controls or where they have consciously failed to monitor such a system or controls. Therefore, in the context of climate-related risks, oversight liability related to climate change may arise where directors and officers:

- fail to consider or oversee the implementation of climate-related legal risk controls;
- fail to monitor mission-critical regulatory compliance (either specific climate change-related regulations or existing regulations which require consideration or disclosure of climate change risks, such as securities law); or
- fail to monitor climate-related mission-critical business risks (as noted above, liability for a failure to monitor business risks has not yet been imposed in a Delaware case).

In particular, directors and officers should be alert to the risks of failing to have controls in place to monitor risks, or failing to monitor those controls, in respect of their corporation's regulatory compliance. Climate change poses wide-ranging physical, transition and liability risks to businesses, as set out above. As these risks continue to materialize, directors and officers should pay particular attention to their company's compliance with its legal obligations and should be alert to compliance with mission-critical regulations, which will require less severe "red flags" for the board to be put on notice. While the regulations in question will vary between corporations and business models, two categories of regulations relating to climate change warrant specific discussion.

The first category is climate change-specific regulation. The number of industries for which compliance with "climate change" or "greenhouse gas emissions" laws *per se* may be considered mission-critical to their business is likely to be relatively contained. That category may be limited to companies in emissions-intensive industries such as mining, chemicals, manufacturing, livestock, cement, fertilizer, or energy, where laws purporting to limit, price or require reporting of greenhouse gas emission pollution will impose direct, material obligations on their operations or their value chain. While there are currently a limited number of regulations currently specifically targeting climate change or emissions in this manner, directors should be alert to incoming regulations that seek to implement stated government policies, and be prepared to manage the effects of such regulations on their companies.

The second category is where there is a climate-related catalyst for breach of other mission-critical areas of regulation. The nature of these regulations will differ depending on the company in question, but an area which may be of more general application may be securities law (in particular to public-reporting companies). Given the importance of the fundraising and financing activities which these regulations cover, it would be a brave defendant director who sought to argue that compliance with these laws was not critical to the operations of their business.

Under securities law, companies are required to disclose certain financial and non-financial information about their business; this applies particularly to public-reporting companies. In 2010, the US Securities and Exchange Commission (SEC) provided guidance on how climate change-related risks may need to be incorporated into a company's non-financial disclosures, including as part of the management discussion and analysis (MD&A), and the SEC has indicated that it will take steps to enforce this existing guidance, and issue further guidance or

mandate the disclosure of specific climate-related information in the near future. Securities law also requires companies to issue financial statements which have been prepared in accordance with US Generally Accepted Accounting Principles (GAAP), and on which directors and officers are required to sign off on an annual basis. Climate change poses myriad financial risks to businesses in many different sectors of the US economy. Accordingly, it may be argued that climate change-related information communicated to the board regarding the company's financial position, in so far as this relates to information previously disclosed or which would need to be disclosed to the market, may warrant scrutiny as *Caremark* climate red flags. Examples of such information may include information that suggests the company's solvency may be compromised; or that its financial statements or other communications to the market may be inaccurate – for example by failing to disclose material climate change risk (or, more particularly, the impact of that risk on the company's financial position and prospects – for example, due to material impacts on asset useful lives, fair valuation or impairments, or on provisions for bad debts or onerous contracts), or by stating that the company is taking action to address climate change risk while the company is also pursuing strategies which run counter to this action (a so-called 'greenwashing' claim).

Directors and officers should be alert to the potential overlap between 'legal compliance' and 'business risks' in a climate change-related context, in particular where the alleged failure relates to a material risk to the corporation's financial position or prospects. This is because a 'red flag' indicating a failure in the system of monitoring such risks would necessarily raise an equivalent flag that the corporation is at risk of non-compliance with its disclosure obligations under securities laws, at least for companies with public reporting obligations.

More widely, circumstances where the breach of mission-critical areas of regulation are more likely to be catalyzed by a climate-related impact may include:

- environmental laws for extractive or chemical industries, for example industrial manslaughter and ecosystem damage caused by the rupture of a tailings dam or oil/chemical storage facility where that failure is in turn catalyzed by physical impacts associated with climate change, such as increased frequency and intensity of extreme precipitation events, or melting of Arctic permafrost;
- health and safety laws for companies whose work force engages in manual labor, including those in the construction trades, professional sports, agriculture or forestry sectors; or
- human rights laws and norms for companies, particularly for companies in the extractives and agricultural sectors.

These categories are but examples only. While the courts are yet to set down a set of normative principles to determine those areas that are mission-critical for a given business, or the nature of those signals sufficient to constitute a climate red flag, reasonable proxies for red flag subject matter for a given company may include:

- matters arising regarding issues noted as being "material risks" to the business in the MD&A accompanying that company's 10-K or 10-Qs;
- issues that are the subject of shareholder resolutions which attain a substantial level of support at the company's annual meeting, or at the annual meetings of significant peer corporations;
- the subject matter of misstatements that have previously given rise to a material stock drop of the company or its peers; or

- all legal compliance issues on the Audit and Risk Committee’s oversight roster.

This is not of course to suggest that directors may only contravene their duty of oversight in relation to mission-critical laws and regulations. But, with the line of *Caremark* jurisprudence emanating from *Marchand*, it is clear that the risk of a successful claim is most immediate in relation to regulatory compliance in those areas.

(2) Duty of Care

The normative duty of care requires directors and officers to make lawful, reasonably informed decisions. The duty is concerned with the robustness of the *process* of information gathering and deliberation, rather than a retrospective assessment of whether a 'correct' commercial decision was made or an optimum financial outcome achieved. Under Delaware law, directors are only exposed to damages liability for a breach of the duty of care if they commit gross negligence, defined as a “higher level of negligence representing an extreme departure from the ordinary standard of care”.

It is clear that an issue of such high profile and potential economic significance as climate change would put on notice a reasonable director in (at a minimum) high-risk sectors that consideration is warranted about the impact of this issue for their corporation. This includes the impact on risk assessment and management, strategy, supply chain integrity and resilience, asset valuation and liability contingencies or provisions, financial planning and capex, provision of competitive finance and insurance, and disclosures. Accordingly, a failure to consider the risks or opportunities presented by climate change for want of the relevant knowledge – either in general, or in relation to material projects or acquisitions – appears to present grounds for review for breach of the duty of care under Delaware law. Specifically, directors and officers who make no good faith effort to become informed as to climate risks, or who make no conscious decision or judgment regarding climate risks in their consideration of corporate strategy, planning and risk management, or transactions coming before them for approval, are unlikely to discharge this fiduciary duty, and at the very least, may open the door to a books and records request that could survive dismissal and invite full-blown discovery into the board’s state of mind.

This is not to say that conduct that may fail to reach the requisite standard is easy to litigate for breach. The standard of gross negligence required to rebut the business judgment rule is recognized as particularly high. Moreover, directors will often be shielded by the personal liability protections afforded under the exculpation clauses adopted in the articles of incorporation of Delaware corporations. Because of the ubiquity of exculpation clauses, most directors of Delaware companies are immune from due care liability. However, these barriers may not be impossible to overcome in a particular factual context. The business judgment rule is not designed to protect directors who are uninformed, who make no conscious decision, or who exercise no judgment. Moreover, the protections afforded by the exculpation clauses are not absolute. In particular, exculpation clauses do not bar claims seeking orders for equitable or injunctive relief or rescission (i.e. beyond monetary damages), nor do they exculpate *officers* of the company.

Shareholders may access a corporation’s books and records, including board materials, and could use those documents to bring these types of fiduciary duty claims.

Shareholders are permitted to seek the inspection of certain corporate books and records upon demonstration of a “proper purpose.” Historically, Delaware courts have routinely recognized

that shareholders seeking to investigate potential breaches of fiduciary duty constitute a proper purpose.

However, two recent developments may have further increased the effectiveness of such requests. Firstly, the Delaware Supreme Court has affirmed that a shareholder is not required to state the specific objectives of their investigatory request, and need only present a credible basis that there has been wrongdoing which they seek to investigate. This reinforces that this is a low bar, and may make it more likely that future requests will be granted.

Secondly, a number of decisions in recent years by the Delaware Courts have demonstrated a movement towards allowing shareholders to access emails and other communications between directors. This potential access, in turn, may make it easier for stockholders to bring climate risk-related fiduciary duty claims in instances where the books and records of a corporation show inadequate, or even a total lack of, consideration of a climate risk that has caused harm to the corporation.

The potential for books and records claims to be deployed in the climate context has recently been illustrated by claims in other common law jurisdictions. For example, in September 2021, a claim was filed on behalf of two shareholders of a large Australian bank, seeking production of documents to demonstrate how the bank considered the application of its stated climate policies when deciding to finance a number of fossil fuel and related infrastructure projects.

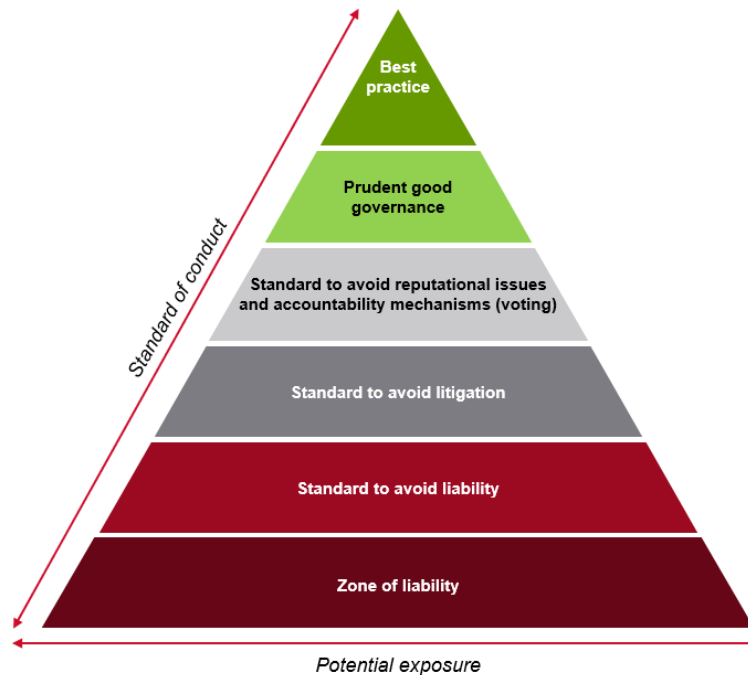
Despite enforcement challenges, this report demonstrates the prospect of director and officer liability exposure for failures to adequately manage the risks associated with climate change.

The stark evolution in mainstream market recognition of climate change as leading to material financial risks and the need to transition to a net-zero emissions economy, coupled with the long-standing requirement of Delaware law that directors and officers must make good faith efforts to address material risks and legal compliance issues, means that directors and officers would be well-advised to ensure that their governance of climate-related risks is elevated accordingly.

While it is rare for directors or officers to be found liable for breaches of their fiduciary duties, the potential for an action for breach of duty is credible. The number of climate change-related cases globally, and in particular in the US, has increased significantly in recent years. The capacity of determined litigants to bring claims — whether motivated by a desire to seek compensation for economic loss or to drive corporate ambition on climate action — should not be underestimated.

While it may require an egregious breach of their duties for directors and officers to be found liable, that is the lowest level at which directors or officers should be acting – the standard of liability is a ‘floor’, rather than an objective towards which action should be directed. As the diagram below sets out, the personal exposure of directors is not limited to conduct that could be the basis for imposing fiduciary liability.

Hierarchy of personal exposure for US directors on climate issues



Directors and officers should act consistently with best practices to ensure their company is well-governed. The benefits of this approach are various and numerous: it protects the directors from the risk of failing to comply with other regulations and legislation; it reduces the risk of companies and directors being sued, which can be costly and have reputational impacts for the defendants; it is more likely to protect the company against potential reputational impacts; it helps protect directors from being replaced (as occurred at the Exxon Mobil 2021 AGM); and it may affect the cost and availability of insurance (including D&O insurance).

Good corporate governance will reduce the risk of climate change-related litigation or liability for corporates and their directors and officers.

In order to reduce the risk of litigation, reputational damage and liability, well-counselled boards and officers would be advised to adopt good corporate governance practices. If a corporation has a system in place to monitor the risks arising from climate change, and directors and managers consider these risks when making corporate decisions, this may substantially reduce the threat of litigation and liability for the directors and officers.

Based on soft law and climate risk disclosure frameworks, relevant board inquiries may include the following:

- What climate-related financial risks are foreseeable for a company of our size in our sectors and markets? How do those risks manifest in their application to our business? What risks are our peers facing, and do we face the same or similar risks?
- What are the views of our shareholders and key stakeholders such as financiers, insurers and customers?
- How do we ensure that our understanding of the range of climate-related financial risks to our business strategy, or material projects or acquisitions, remains current in a dynamic

environment, and considers risk on a forward-looking basis? What is our forward-looking central case and plausible future scenarios?

- What is our particular exposure to material climate-related risks under various future scenarios and time horizons (short, medium and long-term)? Where might we need to challenge standing assumptions and methodologies?
- Have jurisdictions in which we do business adopted or advanced emissions reduction targets, or adjacent policies such as carbon border tariffs?
- What is our business strategy for continuing to thrive in the transition to a net-zero economy – and in such an economy?
- How has our exposure to climate-related risks been assessed and how often? By whom, and how are they appropriately qualified to conduct this assessment? Has forward-looking scenario-analysis and stress-testing been conducted under a range of climate futures, including with a scenario consistent with the Paris Agreement commitment to pursue efforts to limit global warming to 1.5°C above pre-industrial averages?
- What are our strategic options for managing these risks (including any corporate emissions reductions targets) and taking advantage of associated opportunities? How does this impact on, and factor into, our strategy formulation, business planning and capex more broadly?
- Do we need to adjust the recognition or book value of our assets (and/or impairments, liability provisions) to account for our assessment of these risks?
- How do we expect climate change-related variables and assumptions to change over time? What are the trigger points for our re-assessment of these issues?
- How do we ensure that our information considers the views of a wide range of key stakeholders, including customers, suppliers, investors and insurers?
- How do we engage with, or otherwise seek to influence, stakeholders such as suppliers, customers, investors, and community members in relation to these risks and our management of them?
- How are these risks, and our responses to them, disclosed in our annual reports and other disclosure documents? Does our reporting align with any mandatory requirements that apply, as well as the Taskforce of Climate-related Financial Disclosure (TCFD) and Sustainability Accounting Standards Board (SASB) frameworks?
- Has a review been done of our remuneration policies and structures at board and executive level to ensure that there are no perverse incentives that may favor capex/investment in assets that are at risk of being stranded?
- What governance structures are appropriate to enable us to discharge our strategic and oversight duties in relation to this category of financial risk? How do we monitor and oversee compliance with climate-related laws, goals and targets? What reports do, and should, we receive?

The full analysis of the legal issues discussed in this executive summary is set out in the paper below.

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INTRODUCTION

The evolution of our understanding of climate change from an “ethical, environmental” issue to one that presents foreseeable financial and systemic risks (and opportunities) over mainstream investment horizons has made climate change an increasingly relevant issue for corporations. However, the question of what that shift means for the duties — and liability exposure — of directors and officers under Delaware law has yet to undergo the same degree of legal scrutiny as that applied in other common law jurisdictions.¹

This report explores the responsibilities and emerging liability exposure of directors of corporations under Delaware law who fail to adequately assess, disclose, and act on climate change-related risks and strategies. In doing so, it takes a “first principles” approach to fiduciary law, applying those principles on a general basis, rather than seeking to interrogate or comment upon existing claims.

This paper sets out the interaction between the fiduciary duties of directors and officers under Delaware law at the current state of the law. However, this is a rapidly evolving area in terms of both governance norms and jurisprudence, and substantial changes are likely (see [Part I](#) and [Annex I](#) *infra*). To best protect themselves and their company, directors and officers would be well-advised to adhere to high standards of governance practice rather than a lower standard of conduct that seeks only to ‘avoid liability’.

[Part I](#) of this report considers the contemporary evidence of climate change as a financial and systemic risk (and opportunity) affecting corporations across the US economy, with further detail on these climate-related financial risks set out in [Annex I](#). [Part II](#) sets out an overview of Delaware law fiduciary duties. [Part III](#) considers the implications of that evidence for the duty of loyalty of directors and officers under recent case law, in particular the duty of oversight. [Part IV](#) looks at the application of the duty of care to climate change-related risks. [Part V](#) examines potential broader impacts on directors and companies other than liability, such as reputational and insurance issues. While enforcement challenges remain, we conclude that Delaware directors who fail to incorporate climate change risks into their deliberations and oversight of the business face a meaningful risk of breach of their fiduciary duties of loyalty and care. Furthermore, the business judgment rule and exculpation clauses do not apply to protect directors and officers from all possible manifestations of these claims. [Annex II](#) sets out a list of inquiries for boards that may assist them in adequately considering climate-related risks and opportunities to fulfil their fiduciary responsibilities.

¹ See, e.g., Commonwealth Climate And Law Initiative (CCLI) and the Climate Governance Initiative, [Primer on Climate Change: Directors’ Duties and Disclosure Obligations](#) (June 2021); CCLI, [Directors’ Liability And Climate Risk: Comparative Paper - Australia, Canada, South Africa And The United Kingdom](#) (2019); CCLI, [The Climate Risk Reporting Journey: A Corporate Governance Primer](#) (2018); Chapman Tripp, [Climate Change Risk – Implications for New Zealand Company Directors and Managed Investment Scheme Providers, Legal Opinion](#) (2019); Debevoise & Plimpton, [The Duty Of UK Company Directors To Consider Relevant ESG Factors](#) (2019); Hansell LLP, [Putting Climate Change Risk on the Boardroom Table, Legal Opinion](#) (2020). In October 2020, Debevoise & Plimpton published a [legal opinion](#) commissioned by the Principles for Responsible Investment Association (PRI) on the duties of US directors to consider relevant environmental, social and governance (ESG) factors more broadly - including but not limited to climate change. In contrast, this report focuses solely on duties relating to climate change.

PART I: THE EVOLUTION OF CLIMATE CHANGE FROM AN “ETHICAL EXTERNALITY” TO MATERIAL FINANCIAL AND SYSTEMIC RISK

There is an overwhelming scientific consensus that human activities contributing greenhouse gases to the atmosphere have caused and will continue to cause observed warming over and above natural variability. In the US, organizations including the US Global Change Research Program, the American Physical Society, and the American Geophysical Union have stated that it is extremely likely that human activities have been the dominant cause of climate change since the mid-20th century.² Internationally, the UN Intergovernmental Panel on Climate Change (IPCC) has found that emissions-intensive human activities have already caused approximately 1°C (1.8°F) of global warming above average pre-industrial temperatures,³ and has stated that it is “unequivocal” that this is due to human activity.⁴

The links between climate change and financial risk are increasingly evident and inextricable. The collective understanding of climate change has evolved from a purely “ethical or environmental externality” to an issue that poses foreseeable financial risks and opportunities for US companies, and systemic risks to the financial system across short, medium, and long-term horizons.⁵ Indeed the impacts of both a changing climate and efforts to decarbonize the US economy to address climate change present some of the most significant and complex risks facing businesses today.⁶

Climate change remains an “enormous market failure” due to the lack of appropriate, government-enforced incentives to reduce greenhouse gas emissions.⁷ But even in the absence of a robust economy-wide carbon price, climate risks and impacts are being internalized on the balance sheets of US corporations, directly and indirectly, through a changing climate and efforts to address climate change across three key pathways:

- *Physical risks* to both natural and built environments, from both acute catastrophic and gradual onset impacts;

² USGCRP, [Climate Science Special Report: Fourth National Climate Assessment, Volume I](#) (2017), which concludes that “it is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century. For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence.”; American Physical Society, [Statement on Earth's Changing Climate](#) (2015), which states that “multiple lines of evidence indicate that human influences have had an increasingly dominant effect on global climate warming observed since the mid-twentieth century”; American Geophysical Union, [Position Statement on Climate Change](#) (2019), which states that “[b]ased on extensive scientific evidence, it is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century”.

³ IPCC, [IPCC Special Report: Global Warming of 1.5°C \(Summary For Policymakers\)](#) (2018).

⁴ IPCC, [Sixth Assessment Report: The Physical Science Basis](#) (2021).

⁵ This assessment is shared by, for example, Market Risk Advisory Committee of the US Commodity Futures Trading Commission, [Managing Climate Risk in the US Financial System, Report Of The Climate-Related Market Risk Subcommittee](#) (2020); Network For Greening the Financial System (NGFS), [The Macroeconomic and Financial Stability Impacts of Climate Change](#) (2020); Patrick Bolton et al., [The Green Swan: Central Banking and Financial Stability in the Age Of Climate Change](#) (Bank for International Settlements, 2020); Task Force on Climate-related Financial Disclosures (TCFD), [Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures](#) (2017).

⁶ See TCFD, [Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures](#) (2017); See also TCFD, [2020 Status Report](#) (2020).

⁷ Market Risk Advisory Committee of the US Commodity Futures Trading Commission, *supra* note 5, at xix.

- *Economic transition risks* arising from the transition towards a net-zero emissions economy and associated shifts in the regulatory, technological and stakeholder landscape within which businesses operate; and
- *Litigation exposure* stemming from the attribution of climate change to a company's activities or the failure to manage the impacts of climate change on the business.⁸

These risks are far reaching in breadth and magnitude across the economy and involve uncertain and extended time horizons, but they are also foreseeable. Crucially, the magnitude of future financial risks depends in part on decisions taken today.⁹ These climate-related financial risks are explained in more detail in [Annex I](#).

The physical, economic transition, and liability risks associated with climate change extend beyond direct impacts to the revenues and expenditures, assets and liabilities, and the cost and availability of capital and financing of individual companies (*entity-specific risks*). Indeed, these risks extend across sectors throughout nearly every facet of the US economy (*systematic, or economic sectoral risks*). Climate risks are particularly acute for entities in sectors such as energy and natural resources, utilities, transport, real estate, infrastructure, agriculture and financial services.¹⁰ However, exposure extends to companies across almost every sector of the US economy, with the Sustainable Accounting Standards Board (SASB) identifying significant climate-related financial impacts to US companies operating in 68 out of 77 industries, potentially affecting 89% of US public equity market valuation and thus a “systematic risk that cannot be diversified away”.¹¹ The World Economic Forum’s (WEF) 2021 *Global Risks Report* identifies climate change and related environmental issues as comprising five out of the top six risks to the global economy.¹²

In turn, these entity- and sector-level risks present complex challenges for the stability of the US financial system.¹³ This is because the effects of climate change across multiple sectors, geographies, and asset classes in the US may occur simultaneously or within a short space of time, so that the shocks interact with each other or with other non-climate-related stresses such as high levels of corporate debt. This could lead to a disorderly repricing of financial instruments, and has the potential to destabilize capital markets, negatively affect financial institutions, and in turn affect the broader economy.¹⁴ These systemic shocks are made more likely where financial assets do not fully reflect the climate-related physical, economic transition, and liability risks to the underlying assets. As set out in [Annex I](#), this is a key concern of investors, regulators, and central banks globally, including the US Federal Reserve Bank Board. In December 2020, the US Federal Reserve joined the Network for Greening the

⁸ Bank of England Prudential Regulation Authority, [The Impact Of Climate Change on the UK Insurance Sector](#) (2015).

⁹ Bank of England Prudential Regulation Authority, [Transition in thinking: The impact of climate change on the UK banking sector](#) (September 2018).

¹⁰ TCFD, *supra* note 6.

¹¹ Sustainability Accounting Standards Board (SASB), [Climate Risk Technical Bulletin](#) (2021 edition). The SASB has worked with investors and members of industry throughout the United States to develop targeted, industry-specific ESG disclosure standards.

¹² World Economic Forum, [Global Risks Report](#) (2021).

¹³ Federal Reserve Bank Board of Governors, [Financial Stability Report](#) (2020) 59-60.

¹⁴ Ceres, [Addressing Climate as a Systemic Risk: A Call To Action For U.S. Financial Regulators](#) (2020); Ceres, [Turning up the heat: The need for urgent action by US financial regulators in addressing climate risk](#) (2021).

Financial System (NGFS), a global coalition of over 90 central banks and supervisors, in calling for action on climate-related financial risks.¹⁵

As the economic context of climate change risks rapidly evolves, so too do regulatory and market responses. Under the Biden Administration, the US government is paying close attention to climate change risks, and there are indications that new regulations focused on climate change may be incoming.

Recent actions by the Biden Administration have put climate change financial risks into the spotlight, as President Biden has moved quickly to emphasize climate change as part of both US foreign and domestic policy. On his first day of office, President Biden declared support for the Paris Climate Agreement and its threefold goals of “a safe global temperature, increased climate resilience, and financial flows aligned with a pathway toward low greenhouse gas emissions and climate-resilient development.”¹⁶ His climate change Executive Order on 27 January 2021 established a process to embed climate risk mitigation in every executive agency of the federal government, including an inter-agency coordinating process, and appointed both a foreign and domestic policy lead in newly-established positions within the White House.¹⁷

Secretary of the Treasury Janet Yellen has stated that climate change will be a priority, that the Treasury will create a hub that will focus on financial system-related risk posed by climate change, and will introduce tax policy incentives to effect change.¹⁸ In a speech on 21 April 2021, she vowed to build on President Biden’s “whole of government” approach with a “whole of economy” approach.¹⁹ One month later, President Biden issued an Executive Order on Climate Change Financial Risk, with responsibilities for Treasury, the Office of Management and Budget (OMB), and the Financial Stability Oversight Council (FSOC) and its constituent agencies.²⁰ Among its significant aspects are initiatives to:

- require the development of a government-wide strategy to assess, measure, and disclose climate change financial risk across the Federal Government;
- request a financial analysis of the capital needed to move the US economy to net-zero by 2050;
- require Treasury to work with the FSOC and its constituent agencies to identify actions by regulated firms within each agency’s remit to identify, measure, mitigate, and disclose climate change financial risks;
- identify financial risk from climate change within the insurance industry;
- identify actions that can be taken by the Department of Labor to protect pension savings and Federal pension insurance from climate change financial risk; and
- identify how the Federal Government can incorporate climate change financial risk into its lending, risk underwriting, procurement, and budgeting.²¹

¹⁵ NGFS, [A Call to Action: Climate Change as a Source of Financial Risk](#) (2019). The Department of Financial Services (DFS) of the State of New York is also a member of the NGFS.

¹⁶ The White House, [Acceptance on Behalf of the United States of America](#) (Jan. 20, 2021).

¹⁷ The White House, [Executive Order on Tackling the Climate Crisis at Home and Abroad](#) (Jan. 27, 2021).

¹⁸ Reuters, [‘Yellen says would appoint senior climate official at Treasury’](#) Business News (Jan. 19, 2021).

¹⁹ US Department of the Treasury, [Secretary of the Treasury Janet L. Yellen’s Remarks to the Institute of International Finance](#) (Apr. 21, 2021).

²⁰ The White House, [Executive Order on Climate Related Financial Risk](#) (May 20, 2021).

²¹ *Id.*

This Executive Order was followed days later by a new report by the International Energy Agency (IEA) setting out a scenario for how the world economy could transition to a net-zero energy system by 2050 consistent with the Paris Agreement goal of limiting global average warming to 1.5°C (2.7°F). This report set out over 400 specific milestones for what needs to be done to meet that ambitious goal.²² Significantly, the report recognized that there can be no new oil and gas fields approved for development as of 2021, and neither can there be any new coal mines or mine extensions, if the world is to meet the Paris goals.²³

The US Securities and Exchange Commission (SEC) is in the process of determining its regulatory and enforcement actions in this area. In March 2021, the SEC announced that its updated examination priorities included a “greater focus on climate-related risks” and that it had created a new Climate and ESG Task Force in the Division of Enforcement.²⁴ The SEC is undertaking a review of the extent to which listed company disclosures are meeting its 2010 climate risk disclosure guidance, and has published a sample cover letter to companies regarding their climate change disclosure, indicating that it may seek to enforce its 2010 guidance more stringently.²⁵ The SEC has also launched a public consultation seeking guidance on how to require effective climate and ESG disclosures and how to structure the agency to evolve regulation in this area.²⁶ The SEC is widely expected to promulgate climate change and ESG disclosure requirements.²⁷ Chair Gary Gensler has asked SEC staff for recommendations around governance, strategy, and risk management related to climate risk, and to determine the relevance of specific metrics, such as greenhouse gas emissions, to US investors in our markets.²⁸ While the form and content of any eventual rules remains to be seen, and any such rules are likely to be opposed by some quarters, it appears likely that the SEC may initiate disclosure rules on climate change. Further detail on how new SEC rules and securities law are particularly relevant to fiduciary duties is given in [Part III C 2 b](#) *infra*.

Climate change-related litigation has increased over the past few years,²⁹ and recent decisions have indicated that the impact of such claims may grow. In May 2021, the Hague District Court ordered Royal Dutch Shell plc (RDS) to reduce the CO₂ emissions of its corporate group by

²² International Energy Association, [Net Zero by 2050: A Roadmap for the Global Energy Sector](#) (May 23, 2021).

²³ *Id.*

²⁴ SEC, [SEC Division of Examinations Announces 2021 Examination Priorities: Enhanced Focus on Climate-Related Risks](#) (Mar. 3, 2021); SEC, [SEC Announces Enforcement Task Force Focused on Climate and ESG Issues](#) (Mar. 4, 2021).

²⁵ SEC, [Statement on the Review of Climate-Related Disclosure](#) (Feb. 24, 2021); SEC, [Sample Letter to Companies Regarding Climate Change Disclosures](#) (Sept. 22, 2021).

²⁶ SEC, Acting Chair Allison Herren Lee, [Statement On The Review Of Climate-Related Disclosure](#) (Feb. 24, 2021); SEC, Acting Chair Allison Herren Lee, [Public Input Welcomed on Climate Change Disclosures](#) (Mar. 15, 2021).

²⁷ See, e.g., Wachtell, Lipton, Rosen & Katz, [‘ESG Disclosures: SEC Appoints Climate and ESG Policy Advisor; U.K. and EU Regulators Ramp Up Reporting Requirements’](#), (Feb. 4, 2021) (discussing likely SEC actions to require expanded disclosure of climate and ESG matters). Two of its five current Commissioners are on record in support of expanded climate change disclosure (Commissioner Lee and Commissioner Crenshaw), and a new position, Senior Policy Advisor for Climate and ESG, has been created within the SEC. Satyam Khanna has been appointed to this position. Mr Khanna was previously counsel to former SEC Commissioner Robert Jackson, who was also on record being in favor of expanded climate and ESG disclosure.

²⁸ SEC, Chair Gary Gensler, [Prepared remarks at London City Week](#) (June 23, 2021).

²⁹ UNEP and Sabin Center for Climate Change Law, [Global Climate Litigation Report: 2020 Status Review](#) (2020); London School of Economics, Grantham Research Institute on Climate Change and the Environment, [Global trends in climate change litigation: 2021 snapshot](#) (July 2021).

45% by 2030, relative to 2019 levels, across all its value chain emissions (scopes 1, 2 and 3), as the CO₂ emissions of the RDS group were likely to cause certain Dutch citizens harm.³⁰ Notably, the Court ruled that the effect of the ruling on the RDS group's growth was outweighed by the harm to the claimants.³¹ Additionally, improvements in attribution science mean that it is becoming increasingly possible for specific climate events – such as floods, storms and glacial retreats – to be linked to increases in greenhouse gases caused by human activities.³² A recent study has shown that attribution science may enable plaintiffs to quantify an individual greenhouse gas emitter's marginal contribution to extreme weather events and slow-onset changes, such as sea-level rise, which may cause harm.³³ As this field develops, this may have implications for climate change litigation by third parties and regulatory enforcement actions.

Each of these actions portend significant implications for companies in oil, gas, coal, banking and insurance, as well as companies selling goods to the US Federal Government. In turn, there are implications for directors' and officers' fiduciary obligations in each of these industries.

We now turn to a discussion of the legal implications of climate change as a foreseeable, and in many cases material, financial and systemic risk, for the duties of corporate directors and officers, applying the corporate law of Delaware.

PART II: FIRST PRINCIPLES OF DIRECTORS' DUTIES AND GENERAL OBSERVATIONS

A. DIRECTORS' DUTIES ACCORDING TO DELAWARE LAW

Directors' duties under Delaware law are founded in equity.³⁴ This report focuses on two key duties: the **duty of loyalty**, which requires officers and directors to act in good faith; put the interests of the corporation above his or her own interests; and to exercise oversight regarding legal compliance and the "mission-critical" operational aspects of the business,³⁵ and the **duty of care**, which requires directors and officers to make lawful, reasonably informed decisions.³⁶

³⁰ Milieudefensie and Ors. v Royal Dutch Shell plc C/09/571932 / HA ZA 19-379 (Rechtbank Den Haag, May 25, 2021).

³¹ See Cynthia A. Williams, Robert G. Eccles and Ellie Mulholland, '[What does the recent Shell judgment mean for how US directors oversee and manage their companies?](#)' *Harvard Law School Forum on Corporate Governance* (July 22, 2021).

³² See e.g. Geert Jan van Oldenborgh et al., '[Attribution of extreme rainfall from Hurricane Harvey](#)', *Environmental Research Letters* 12, 124009 (2017); Nathalie Schaller et al., '[Human influence on climate in the 2014 southern England winter foods and their impacts](#)', *Nature Climate Change* 6, 627–634 (2016).; R. F. Stuart-Smith, G. H. Roe, S. Li and M. R. Allen, '[Increased outburst food hazard from Lake Palcacocha due to human-induced glacier retreat](#)', *Nature Geoscience*. 14, 85–90 (2021).

³³ Rupert Stuart-Smith, Friederike Otto, Aisha Saad et al., '[Filling the evidentiary gap in climate litigation](#)', *Nature Climate Change* (2021).

³⁴ Aronson v Lewis, 473 A.2d 805, 811 (Del. 1984) (citing Guth v. Loft, Inc., 5 A.2d 503, 510 (Del. 1939)).

³⁵ See, e.g., *In re Walt Disney Co. Derivative Litig.*, 906 A.2d 27, 52-53 (Del. 2006) (discussion of good faith); *Stone ex rel. AmSouth Bancorporation v. Ritter*, 911 A.2d 362, 369-70 (Del. 2006) (discussion of oversight duties regarding law compliance).

³⁶ See, e.g., *Smith v. Van Gorkom*, 488 A.2d 858, 872-73 (Del. 1985). The Authors agree with the analysis by Prof. Chris Brummer and former Chief Justice of the Delaware Supreme Court Leo E. Strine, Jr., that essentially there is one fiduciary duty, the duty of loyalty, given that every action and decision of every agent of the corporation needs to be grounded in good faith; that is, what is in the best interests of the corporation, a key component of loyalty. See Chris Brummer and Leo E. Strine, Jr., '[Duty and Diversity](#)', Columbia University School of Law Working Paper No. 642, (Feb. 18, 2021) 62-66. Given that the

These duties are owed to, and enforceable by, the company, or by the shareholders in a derivative action brought on the company's behalf.

While this report focuses on the duty of loyalty and the duty of care, it should be noted that Delaware law also requires directors to disclose economically significant information to their company's shareholders when they are asking their shareholders to act.³⁷

B. THE BUSINESS JUDGMENT RULE

Any examination of Delaware directors' fiduciary duties must start with an acknowledgement of the role of the business judgment rule, under which defendant directors enjoy the *presumption* that "in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action was in the best interest of the corporation."³⁸ Absent allegations of a conflict of interest, gross negligence in the procedure of making a decision, an unlawful decision, or bad faith, courts generally will not second-guess business decisions made by the board even where a decision has lost the company a material amount of money.³⁹ However, the business judgment rule will not protect directors where the presumption is overcome by allegations, and ultimately proof, that: (a) the process the board used to inform itself prior to making a decision was grossly negligent;⁴⁰ (b) the decision involved a conflict of interest transaction;⁴¹ (c) the decision was unlawful;⁴² (d) the decision was made in bad faith;⁴³ or (e) where unconsidered inaction is the basis of a loss, that is, where there is no business decision to protect.⁴⁴ These limits to business judgment protection leave

doctrinal implications are different based on how duty of care claims are framed in pleadings versus duty of loyalty claims, this analysis will proceed using the traditional categories, while applauding Prof. Brummer and former C.J. Strine for their insights.

³⁷ *Malone v. Brincat*, 722 A.2d 5, 9-10 (Del. 1998) (fiduciary duty of disclosure). The classic case regarding the importance of fiduciary disclosure in the US is *Meinhard v. Salmon*, 164 N.E. 545, 545 (N.Y. 1928), in an opinion by then Chief Justice of the N.Y. Court of Appeals, later Justice of the Supreme Court Benjamin Cardozo. C.J. Cardozo wrote that a fiduciary "is held to something stricter than the morals of the marketplace. Not honesty alone, but the punctilio of an honor the most sensitive, is then the standard of behavior." *Id.*

³⁸ *Aronson*, 473 A.2d at 812 (citing *Kaplan v. Centex Corp.*, 284 A.2d 119, 124 (Del. Ch. 1971)).

³⁹ *Joy v. North*, 692 F.2d 880, 885 (2d Cir. 1982) (Winter, J.); *Gagliardi v. Trifoods Int'l, Inc.*, 683 A.2d 1049, 1051 (Del. Ch. Ct. 1996).

⁴⁰ *Van Gorkom*, 488 A.2d at 872.

⁴¹ *Weinberger v. UOP, Inc.*, 457 A.2d 701, 709-11 (Del. 1983). The business judgment rule can be reinstated in conflict-of-interest transactions through the use of various procedural devices. *See* 8 Del. C. § 144; *Kahn v. M & F Worldwide Corp.*, 88 A.3d 635, 644-45 (Del. 2014).

⁴² *See, e.g.*, American Law Institute, *Principles of Corporate Governance: Analysis and Recommendations* (2008), § 2.01 (explaining there is no business judgement rule protection for knowing violations of law); *Miller v. Am. Tel. and Tel. Co.*, 507 F.2d 759, 763 (3d Cir. 1974) (discussing the same).

⁴³ *In re Walt Disney Co. Derivative Litig.*, 905 A.2d 27, 52-53 (Del. 2006) (providing an extensive discussion of the meaning of "good faith" under Delaware law).

⁴⁴ *See, e.g., In re Walt Disney Co. Derivative Litig.*, 825 A.2d 275, 278 (Del. Ch. 2003); *In re Walt Disney Co. Derivative Litig.*, 905 A.2d 27, 62-68 (Del. 2006) (discussing unconsidered inaction).

directors and officers exposed to liability in a number of circumstances, to which we will refer later.

PART III – DUTY OF LOYALTY

The duty of loyalty encompasses a number of specific obligations, often overlapping, including a duty to avoid conflicts of interest;⁴⁵ a duty to act in good faith, i.e., to act honestly, in the best interests of the corporation, and in a manner that is not knowingly unlawful or contrary to public policy;⁴⁶ and a duty to provide oversight of legal compliance with relevant regulations (also called the “duty to monitor”).⁴⁷ While thus far directors have only been found liable for a breach of their duty of oversight in relation to legal compliance, in principle this duty could extend to mission-critical business operations.⁴⁸

The contexts in which a failure to consider foreseeable climate-related risks may give rise to claims under the duty of loyalty are discussed below. Given recent developments in the case law, we give particular attention to the potential for claims under the duty of oversight.

A. BAD FAITH / BEST INTERESTS

Directors who consciously disregard, or are willfully ignorant of, climate-related financial risks in their governance of risk and strategy may be found to have acted in bad faith, and be held liable for breach of their duty of loyalty. As the Delaware Supreme Court has said in *Disney*, “intentional dereliction of duty, a conscious disregard for one’s responsibilities” is bad faith.⁴⁹ It emphasized that “such misconduct is properly treated as a non-exculpable, non-indemnifiable violation of the fiduciary duty to act in good faith.”

For example, where directors’ decisions are motivated in bad faith by an extraneous interest, such as “default denialism” consistent with the position promulgated by a partisan political or industry-based association with which the director is affiliated, a claim may potentially be raised that the director failed to discharge their duty to act the best interests of the company, or acted with “deliberate indifference of the potential risk of harm to the corporation.”⁵⁰

B. CONFLICTS OF INTEREST

The potential for conflicts of interest to arise from the discretionary or contingent components of a director or officer’s financial incentives is well-recognized under fiduciary law principles.⁵¹ The courts are yet to consider this issue in the specific context of the management of climate-related risks, and it may be unlikely – albeit not impossible – that conflicts would arise in practice.

⁴⁵ *Solash v. Telex Corp.*, 1988 WL 3587, at *7 (Del. Ch. 1988); *Cede & Co. v. Technicolor, Inc.*, 634 A.2d 345, 362 (Del. 1993); *Weinberger v. UOP, Inc.*, 457 A.2d 701, 710-11 (Del. 1983).

⁴⁶ *In re Walt Disney Co.*, 906 A.2d at 63.

⁴⁷ *Stone ex rel. AmSouth Bancorporation v. Ritter*, 911 A.2d 362, 370 (Del. 2006).

⁴⁸ *Marchand v. Barnhill*, 212 A. 3d 805, 807 (Del. 2019).

⁴⁹ *In re Walt Disney Co.*, 906 A.2d at 66-67.

⁵⁰ *Id.* at 63.

⁵¹ *Guth v. Loft, Inc.*, 5 A.2d 503, 510 (Del. 1939).

In theory, however, a potential conflict may emerge between the long term financial interests of a company which has in place and is following a strategy to transition to a business model which will be profitable in a net-zero economy (particularly a company operating in emissions-intensive sectors that are acutely susceptible to economic transition risks), and the personal financial interests of its officers or directors where short-term discretionary components of remuneration are in whole or in part tied to “business as usual” strategy – for example, compensation based on hydrocarbon reserve replacement ratios. This contingent remuneration may financially incentivize directors to pursue a strategy which is inconsistent with the company’s transition strategy, for example maximizing fossil fuel reserve exploration and expansion.

C. DUTY OF OVERSIGHT

The duty of loyalty recognized under Delaware law requires that directors provide good faith oversight over a corporation’s operations.⁵² To date, liability for breach of this duty of oversight has been imposed primarily in the context of failure to adequately monitor a company’s legal or regulatory compliance, or where directors failed to create adequate systems to detect fraud.⁵³ However, the Delaware Supreme Court’s broad articulation of the underlying concepts of the duty of oversight and a number of recent decisions suggest that liability for breach of the duty of oversight may be imposed when directors fail to adequately monitor and oversee any material facet of a business, including both regulatory compliance and, potentially, management of mission-critical risks.

1. Evolution of the duty of oversight

a) *In re Caremark and Stone v. Ritter*

The modern directorial duty of oversight was first recognized in the landmark case of *In re Caremark*, in which the Delaware Chancery Court, in an opinion by Chancellor Allen, held that “a director’s obligation includes a duty to attempt in good faith to assure that a corporate information and reporting system, which the board concludes is adequate, exists, and that failure to do so under some circumstances may, in theory at least, render a director liable for losses caused by non-compliance with applicable legal standards.”⁵⁴ Directors may be held liable when a breach of this duty results in harm to the corporation.⁵⁵

Caremark emphasized a director’s duty to make a good faith attempt to assure that a corporate information gathering and reporting system exists to provide senior management and the board with information respecting material acts, events or conditions within the corporation, including compliance with applicable statutes and regulations. The Chancery Court recognized that directors have an obligation to stay reasonably informed concerning the corporation’s operations through information and reporting systems “that are reasonably designed to provide to senior management and to the board itself timely, accurate information sufficient to allow

⁵² *Stone*, 911 A.2d at 370.

⁵³ *In re Caremark Int’l Inc. Derivative Litig.*, 698 A.2d 959 (Del. Ch. 1996).

⁵⁴ *Id.*

⁵⁵ *Louisiana Mun. Police Ret. Sys. v. Pyott*, 46 A.3d 313, 340 (Del. Ch. 2012) (“The list of corporate traumas for which stockholders theoretically could seek to hold directors accountable is long and ever expanding: regulatory sanctions, criminal or civil fines, environmental disasters, accounting restatements, misconduct by officers or employees, massive business losses, and innumerable other potential calamities.”).

management and the board, each within its scope, to reach informed judgments concerning both the corporation's compliance with law and its business performance.”⁵⁶ Thus, the original formulation in *Caremark* focused on the duty to maintain an adequate system of controls and information reporting, applied to oversight of legal compliance but with an underlying rationale that included oversight of business performance.

Ten years later, in 2006, the Delaware Supreme Court upheld substantial aspects of the *Caremark* analysis in *Stone v. Ritter* but held that, in contrast to other common law jurisdictions, the oversight duty should be properly contextualized as a subsidiary aspect of the duty of loyalty, given its basis in good faith, not the duty of care.⁵⁷ This distinction has many important practical ramifications, since an alleged breach of the duty of loyalty is not protected by the business judgment rule, cannot be exculpated under Delaware law, and cannot be indemnified through corporate policy.⁵⁸

The Court in *Stone v. Ritter* premised oversight liability on the board “disabling themselves from being informed of risks or problems requiring their attention.”⁵⁹ The Court recognized two distinct scenarios where a director may be liable for breach of the duty of loyalty under *Caremark*:

- where the directors utterly failed to implement any reporting or information system or controls (hereafter “**first scenario**”); or
- where, having implemented such a system or controls, the directors consciously failed to monitor or oversee its operations thus disabling themselves from being informed of risks or problems requiring their attention (hereafter “**second scenario**”).

As the Delaware Chancery Court later observed in *In re General Motors Derivative Action*, this second scenario often includes situations where the plaintiff demonstrates “red flags” showing that directors knew, or should have known, that there were problems within the company.⁶⁰ When directors fail to act in light of such red flags, this amounts to conscious disregard.

Under either of these two scenarios, bad faith is an essential element of a breach of oversight claim. That is, “imposition of liability requires a showing that the directors knew that they were not discharging their fiduciary obligations.”⁶¹ Thus, under the standard articulated by the courts in *Caremark* and *Stone*, claims premised on alleged breaches of the duty of oversight must

⁵⁶ *In re Caremark*, 698 A.2d at 970.

⁵⁷ *Stone*, 911 A.2d at 370.

⁵⁸ 8 DGCL § 102(b)(7) permits exculpation clauses in a company’s articles of incorporation that limit or eliminate liability for directors, but not officers, for violations of the duty of care. No other fiduciary liabilities can be exculpated. If loyalty concerns are at issue because of a conflict-of-interest transaction, then the business judgment rule can be reinstated using the procedures of 8 Del. C. § 144, but that circumstance is not at issue when discussing *Caremark* duties of oversight. However, liability insurance may still cover such claims. *See* RSUI Indemnity Co. v. Murdock, 2021 WL 803867 (Del. Mar. 3, 2021) (D&O insurance can be available under 8 Del. C. § 145(g) even where a company cannot indemnify under 8 Del. C. § 145(a)).

⁵⁹ *Id.*

⁶⁰ *In re General Motors Co. Derivative Litig.* No. 9627-VCG, 2015 WL 3958724 (Del. Ch. June 26, 2015), at *6-7.

⁶¹ *Stone*, 911 A.2d at 370; *Marchand v Barnhill*, 212 A.3d 805, 820-21 (Del. 2019) (citing *Desimone v. Barrows*, 924 A.2d 908, 935 (Del. Ch. 2007)).

meet a high pleading threshold that has been described by the Delaware Supreme Court as “difficult” and “demanding.”⁶²

The difficulty of meeting this threshold has been demonstrated in several cases. For example, the directors of a company which had been fined for antitrust violations in several countries, and which had settled a related case in the US, were not held to be liable for breach of their duty of oversight when that company was fined for a breach of antitrust law in China. The previous fines and US settlement were disclosed in public filings by the company, which were signed by a majority of the board. In that case, the court held that since the complaint alleged that the board was under the impression that the company’s actions did not break the law, the breach of duties claim should be dismissed.⁶³ A similar conclusion was reached in a related case involving the same company regarding breaches of the Foreign Corrupt Practices Act.⁶⁴

b) *In re Citigroup* and oversight of business risks

Since the Delaware Chancery Court’s articulation of the duty of oversight in *Caremark*, a relatively small number of cases premised on this theory of liability as applied to legal compliance have survived motions to dismiss in Delaware—until recently, as discussed below.⁶⁵ Attempts to impose liability for breach of the duty of oversight relating to the management of business risk have also been brought, unsuccessfully to date, notwithstanding *Caremark*’s rationale permitting such claims.⁶⁶ One notable attempt to impose liability for such a “business risk” claim was brought in the wake of the 2009 financial crisis against officers and directors of Citigroup.⁶⁷ In that case, plaintiffs alleged that the directors violated their duty of oversight under *Caremark* because they failed to adequately implement and monitor a system of controls to manage Citigroup’s risks related to its exposure to investments in the subprime lending market.

The Court in *Citigroup* ultimately held that there were insufficient allegations that the defendants in that case had breached their duty of oversight. The Court held that finding in favor of the plaintiffs would amount to holding “director defendants personally liable for making (or allowing to be made) business decisions that, in hindsight, turned out poorly for [Citigroup]”, and that the plaintiffs would accordingly need to show that the directors could not be protected by the business judgment rule (i.e., the plaintiff would need to show that the directors had been grossly negligent).⁶⁸ Importantly, the Court in *Citigroup* emphasized that Delaware courts will not engage in post-hoc second-guessing of directors’ risk management decisions, but instead limit the application of the duty of oversight to cases involving bad faith and the conscious disregard of red flags.

⁶² *Marchand*, 212 A.3d at 820; *Stone*, 911 A.2d at 372.

⁶³ *Melbourne Mun. Firefighters’ Pension Trust Fund ex rel. Qualcomm, Inc. v. Jacobs*, No. 10872-VCMR 2016 WL 4076369, at *7-13 (Del. Ch. Aug. 1, 2016), *aff’d*, 158 A.3d 449 (Del. 2017).

⁶⁴ *In re Qualcomm Inc. FCPA S’holder Derivative Litig.*, No. 11152-VCMR, 2017 WL 2608723, at *2-5 (Del. Ch. June 16, 2017).

⁶⁵ Paul Hastings LLP, [‘Delaware Court Again Finds Potential Director Liability for a Breach of the Duty of Oversight’](#), *Lexology* (Oct. 9, 2019).

⁶⁶ Although critical of *Caremark*, even as applied to law compliance, Prof. Stephen Bainbridge also recognizes that the rationale of *Caremark* could apply to the oversight of business risk: *See* Stephen Bainbridge, [Don’t Compound the Caremark Mistake by Extending it to ESG Oversight](#), UCLA School of Law, Law-Econ Research Paper No. 21-10 (2021).

⁶⁷ *In re Citigroup S’holder Derivative Litig.*, 964 A.2d 106, 131 (Del. Ch. 2009).

⁶⁸ *Id.* at 124.

The Court in *Citigroup* did leave open the possibility that “it may be possible for a plaintiff to meet the [*Caremark*] burden under some set of facts,” however, even where the claim involves inadequate oversight of business risks, stating that “a plaintiff can show bad faith conduct by, for example, properly alleging particularized facts that show that a director *consciously* disregarded an obligation to be reasonably informed about the business and its risks or *consciously* disregarded the duty to monitor and oversee the business.”⁶⁹ A subsequent Delaware Chancery Court also recognized that although the Delaware Supreme Court had not clarified the issue, the language of *Caremark* itself supports the existence of such an oversight of business risk claim.⁷⁰

Outside of Delaware, courts applying Delaware law in *Caremark* cases explicitly have recognized a directorial duty to provide oversight of business risks.⁷¹ In *In re Countrywide Fin. Corp. Derivative Litig.*, a motion to dismiss was denied where plaintiffs alleged that certain directors of Countrywide Financial Corporation breached their duty of loyalty by failing to adequately monitor and manage risks related to the company’s underwriting practices.⁷²

c) *Marchand* and the expansion of oversight liability

Following a relatively non-eventful period in *Caremark* jurisprudence, a string of recent cases beginning with *Marchand v. Barnhill* has heralded a possible expansion in the application of *Caremark* liability.⁷³ In *Marchand*, the Delaware Supreme Court considered whether the directors of the Blue Bell ice cream company breached their fiduciary duty of loyalty by failing to provide an adequate system of oversight and monitoring for the company’s food safety program.

Importantly, the Court concluded that because food safety was one of — if not the most — important aspect of Blue Bell’s business, the directors of Blue Bell had an obligation to do more than merely rely on the company’s day-to-day compliance with FDA regulations. Instead, the Court held that *Caremark* required the creation of board-level monitoring and reporting systems given the crucial nature of food safety to Blue Bell’s business. The fact that the board had undertaken no efforts to ensure it was informed of a compliance issue “intrinsicly critical to the company’s business operation” supported an inference that the board had not acted in good faith.⁷⁴ In reaching this conclusion, the Court articulated the duty of oversight as including the responsibility for directors to monitor a “corporation’s operational viability, legal compliance, and financial performance.”⁷⁵

⁶⁹ *Id.* at 126 (emphasis in original).

⁷⁰ *See In re The Goldman Sachs Grp., Inc. S’holder Litig.*, No. 5215-VCG, 2011 WL 4826104, at *21 (Del. Ch. Oct. 12, 2011) (stating that “[t]he *Caremark* court seemed to suggest the possibility of such a claim” of an oversight duty to monitor business risk as well as legal risk).

⁷¹ During this same time period, courts also continued to permit *Caremark* cases to proceed when the underlying conduct for which the board was liable for failing to monitor related to illegal or fraudulent acts. *See, e.g., In re American Int’l Grp. Consolidated Derivative Litig.*, 965 A.2d 763, 799-808 (Del. Ch. 2009), *aff’d* 11 A.3d 228 (Del. 2011) (finding plaintiffs alleged that board failed to exercise oversight over wide-spread fraudulent or criminal conduct); *In re Wells Fargo & Co. S’holder Derivative Litig.*, 282 F. Supp.3d 1074, 1108 (N.D. Cal. 2017) (applying Delaware law and holding that knowledge of allegations of fraud and doing nothing demonstrates the predicate for a successful oversight fiduciary liability claim).

⁷² *In re Countrywide Fin. Corp. Derivative Litig.*, 554 F. Supp. 2d 1044, 1082 (C.D. Cal. 2008).

⁷³ *Marchand*, 212 A. 3d at 807-08.

⁷⁴ *Id.* at 822.

⁷⁵ *Id.* at 809.

The 2019 decision in *Marchand* was notable as it marked a departure from a string of cases in which plaintiffs had struggled to bring *Caremark* claims which survived motions to dismiss.⁷⁶ The difficulties of bringing a successful *Caremark* claim were perhaps exemplified in the Delaware Supreme Court's opinion in *Duke Energy*. In *Duke Energy*, a derivative action was brought against the directors of Duke Energy Corporation following multiple breaches of the Federal Clean Water Act.⁷⁷ Four of the Delaware Supreme Court Justices held that the plaintiffs had failed to show that the board had acted in bad faith, or had, effectively, colluded with Duke Energy's environmental regulator. The majority held that the directors had fulfilled their fiduciary duty of oversight by receiving and considering presentations on regulatory compliance from management, and that there was insufficient evidence of bad faith on the part of directors. Dissenting, then-Chief Justice Strine held that the board was very much aware of consistent and long-running regulatory breaches by the company and were aware that Duke Energy employed a strategy of political influence to reduce the likelihood that the company would be subject to regulatory enforcement.

Following *Marchand*, four *Caremark* claims have survived motions to dismiss, perhaps signaling a reinforcement of *Caremark* claims.⁷⁸ These claims have been successfully plead in regard to both the first and second *Caremark* scenarios.

In *In re Boeing*, the board of an airline company failed to establish a monitoring system regarding aircraft safety, and management failed to bring red and yellow flags to management attention, in spite of two fatal aircraft crashes. The Delaware Chancery Court dismissed the defendants' motion to dismiss on the basis that the plaintiff had successfully plead a case in line with the first scenario of *Caremark*.⁷⁹

In the case of *In re Clovis*, the Delaware Chancery Court denied a motion to dismiss a *Caremark* claim against directors of a pharmaceutical company where it was alleged that the company had made misstatements concerning the potential of its most significant drug then undergoing clinical trials.⁸⁰ The Delaware Chancery Court held that the board had consciously disregarded red flags that the company was failing to comply with a clinical trial protocol and associated FDA regulation in respect of its key product.⁸¹

Cases after the 2019 decision in *Marchand* have indicated a willingness to hold directors to a higher standard of attentiveness to discharge the obligation to monitor regulatory compliance systems, and to investigate red flags (or indeed to respond actively to smaller or "more orange" or "yellow" flags), in respect of mission-critical regulatory risks. The focus expected of a director acting in good faith will be particularly acute in a *monoline* business – i.e., where the directors' attention could be directed at compliance with a singular set of mission-critical

⁷⁶ See Roy Shapira, '[A New Caremark Era: Causes And Consequences](#)', *Washington University Law Review* 98 (Dec. 10, 2020).

⁷⁷ *City of Birmingham Ret. & Relief Sys. v Good*, 177 A.3d 47, 50-56 (Del. 2017).

⁷⁸ See *In re Clovis Oncology Inc. Derivative Litig.*, No. 2017-0222-JRS, 2019 WL 4850188; *Hughes ex rel. Kandi Technologies Grp. v. Xiaoming Hu*, No. 2019-0112-JTL, 2020 WL 1987029, at *13-17 (Del. Ch. Apr. 27, 2020); *Teamsters Local 443 Health Servs. & Ins. Plan v Chou* No. 2019-0816-SG, 2020 WL 5028065, at *1-2 (Del. Ch. Aug. 24, 2020); *In re The Boeing Co. Derivative Litig.* No. 2019-0907-MTZ, 2021 WL 4059931, at *24-25 (Del. Ch. Sept. 7, 2021).

⁷⁹ *In re The Boeing Co. Derivative Litig.* No. 2019-0907-MTZ, 2021 WL 4059931, at *92 (Del. Ch. Sept. 7, 2021).

⁸⁰ *In re Clovis Oncology Inc. Derivative Litig.*, No. 2017-0222-JRS, 2019 WL 4850188, at *13-15 (Del. Ch. Oct. 1, 2019).

⁸¹ *In re Clovis*, No. 2017-0222-JRS, at *43.

activities. In such cases, a “good faith” effort is likely to require an active response to red flags rather than a passive reliance on management.

While the decisions in *Marchand* and in *In re Clovis* are focused on monoline companies, the obligation to establish board-level monitoring and reporting systems is not limited to monitoring compliance in respect of a single key product. As discussed above, the Court in *Marchand* stated that the board should make good faith efforts to ensure it was informed of compliance issues which were critical to business operations. While in *Marchand* this related to a monoline product, the scope is broader than that. This broader scope has been demonstrated in *Hughes v. Xiaoming Hu*, in which a Delaware Chancery Court denied a motion to dismiss where plaintiffs alleged that a board had breached its duty of oversight by failing for seven years to “provide meaningful oversight over the company’s financial statements and system of financial controls.”⁸²

These cases collectively represent an apparent trend whereby courts are more willing to entertain the possibility of liability for breaches of the duty of oversight, especially in cases involving boards with especially egregious derelictions of duty in the face of compelling and obvious oversight obligations regarding mission-critical regulations, and potentially (as set out in [Part III C 1 b](#) *supra*) mission-critical business risks.

2. Application of the duty of oversight to climate-related risks

Given the evolution of Delaware’s duty of oversight jurisprudence post-*Caremark*, it is impossible to say with certainty how Delaware courts will apply this line of cases in climate-related contexts. However, based upon the current state of Delaware law and the trajectory of trends in its application of the duty of oversight, we believe that there are three primary climate-related contexts in which the duty of oversight may be implicated for directors.

a) Failure to implement climate-risk controls

The first scenario of the *Caremark* test, i.e., situations where a board has failed to implement any adequate system of controls or information reporting, is an admittedly difficult theory of liability to pursue. This is because courts are likely to grant significant deference to a board’s chosen system of reporting and monitoring, however scant or inadequate those systems may appear to be.⁸³ However, such a claim is not impossible. As the Court held in the recent *Hu* case, a director may be liable under the first scenario of the *Caremark* test when they have “utterly failed” to oversee the implementation of controls. In that case, while the company had an audit committee to monitor the company’s financial performance, it had met only five times in three years, had only met to sign SEC filings, lacked the necessary experience on audit standards, and unquestioningly relied on management.⁸⁴

Importantly, this is not a question of whether boards are *adequately* considering and responding to these risks, but whether they have put into place *any* formal mechanisms to monitor them at the board level. Because the analysis under *Caremark* requires at least some attempt to institute a system of controls and information reporting, boards that have failed to institute company-wide climate-risk planning and mitigation strategies may be liable under the first scenario of *Caremark*. The likelihood of establishing liability would be much higher for companies

⁸² *Hughes*, 2020 WL 1987029, at *15.

⁸³ For example, in *In re General Motors Co. Derivative Litig.*, No. 9627-VCG, 2015 3958724, at *15 (Del. Ch. June 26, 2015), a derivative claim was dismissed since the plaintiff’s pleadings conceded that the board had a system in place which allowed “*some* oversight,” which was not the same as having no such system in place.

⁸⁴ *Hughes*, 2020 WL 1987029, at *15.

operating within industries with more obvious and visible climate-related risks, such as the energy companies and businesses with assets subject to increased physical risks associated with climate-related weather events.

b) Failure to monitor mission-critical regulatory compliance

A board may also face liability for breach of the duty of oversight under the second scenario of the *Caremark* test based on the conscious disregard of “red flags” related to their company’s compliance with mission-critical climate-related laws and regulations. In particular, such a claim may result where a corporation suffers significant harm (such as legal costs, damages awards or loss in stock value) due to the board’s failure to act in response to a red flag that places the board on notice of potential breaches of compliance with either climate change-specific regulatory requirements or with broader regulatory obligations where a climate-related factual catalyst presents a material risk of breach or harm.

Following the decision in *Marchand*, there is a heightened risk of *Caremark* liability for directors in relation to their oversight of regulatory issues based on the nature of those activities and their importance to the company. The nature of mission-critical operations and regulatory compliance will of course be unique to given commercial operations, though several categories of regulations warrant specific discussion.⁸⁵

a. Failure to monitor compliance with climate change-specific regulations

The first category is climate change-specific regulation. The number of industries for whom compliance with “climate change” or “greenhouse gas emissions” laws *per se* may be considered mission-critical to their business may be limited to companies in emissions-intensive industries such as mining, chemicals, manufacturing, livestock, cement, fertilizer or energy. For such companies, laws purporting to limit, price or require reporting of greenhouse gas emission pollution will impose direct, material obligations on their operations or their value chain. The risk of serious misconduct or illegality for a failure to comply with more stringent emissions controls was starkly illustrated in the “diesel-gate” scandal involving automotive giant Volkswagen.⁸⁶

As described in [Annex I](#) *infra*, the pace of climate-related regulation has picked up in the US in recent months and the COP26 UN climate summit held at the end of 2021 is expected to accelerate global efforts to implement the laws and regulations required for the net-zero transition. For example, the Biden Administration has announced a new goal under the Paris Agreement for the United States to achieve a 50-52% reduction in US greenhouse gas pollution from 2005 levels by 2030.⁸⁷ Even more ambitious action was taken on 21 May 2021, when it issued the Executive Order on Climate Change Financial Risk (see [Part I](#), *supra*) which requires the Federal Government to incorporate climate change into every financial agency’s remit, including by incorporating climate risks into measurement, analysis, mitigation, and disclosure across the government.

⁸⁵ For example, for companies in the financial services sector, compliance with prudential regulation, privacy laws and cyber security is likely to be mission-critical. As is compliance with retail tenancies laws for shopping center landlords and intellectual property law for software developers.

⁸⁶ See e.g., *In re Volkswagen “Clean Diesel” Mktg., Sales Pracs., and Prods. Liability Litig.* No. 315-md-02672-CRB, 2017 WL 66281, at *1-3 (N.D. Cal. 2017); *Crossley v Volkswagen AG* [2019] EWHC 698 (QB) (Eng.); *Cantor v Audi Australia Pty Ltd [No 5]* (2020) FCA 637 (Austl.); Bundesgerichtshof [BGH] [Federal Court of Justice] May 25, 2020 Case No. VI ZR 252/19 (Ger.).

⁸⁷ UNFCCC, [The United States of America Nationally Determined Contribution: Reducing Greenhouse Gases in the United States: A 2030 Emissions Target](#) (2021).

b. Failure to monitor compliance with regulations for which climate change increases the chance of a breach

The second category is where there is a climate-related catalyst for breach of other mission-critical areas of regulation. A *Caremark* claim may manifest for inadequate oversight of general regulatory requirements, perhaps most specifically securities law obligations.⁸⁸

Under securities law, companies are required to disclose certain financial and non-financial information about their business; this applies specifically to public-reporting companies. As set out in [Part I](#) *supra* and [Annex I](#) *infra*, climate change poses financial risks to corporates across the US economy, both as a result of entity-specific physical, transitional and liability risks posed by climatic events, the transition to a low-carbon economy, and the actions of litigants and potential litigants, and as a result of the systemic effects of these risks on the financial sector.

Public reporting companies in the United States have clear obligations to evaluate their climate-related risks and possibly disclose information about those risks, particularly pursuant to Item 303 of Regulation S-K, Management Discussion and Analysis (MD&A).⁸⁹ In 2010, the SEC issued guidance to companies to clarify their climate change-related disclosure obligations under “existing disclosure requirements.”⁹⁰ The SEC identified regulatory and legislative developments at a state, federal, and transnational level that could increase or decrease prices as issues to be evaluated for disclosure, such as cap-and-trade arrangements among various states and countries; or new fuel standards. It also discussed physical changes from climate change as similarly requiring analysis, such as increased frequency and intensity of storms having financial implications for insurance companies, and mortgage lenders.⁹¹ Its articulation of “existing disclosure requirements” that might call forth information about the financial and business implications of climate change particularly emphasized the role of MD&A in requiring forward-looking information.⁹² Where a company’s disclosure process does not include careful evaluation of climate change-related financial risks for potential inclusion in the company’s MD&A, or even in notes to the financial statements, that may, depending on the circumstances of an individual company, involve a “conscious disregard of a known duty to act” by the board.

Recent developments suggest that well-counselled boards will take care to incorporate their climate change risks into their disclosures and disclosure oversight. The SEC has responded to the Biden Administration’s “whole of government” approach to climate by adopting its own “all-agency” approach to climate change, announcing specific actions by the Division of Corporate Finance to enhance its evaluation of climate disclosures,⁹³ and requesting public input about what, if anything, the SEC should be doing to require more specific climate change and other ESG disclosures.⁹⁴ These initiatives will take time to produce specific obligations for

⁸⁸ Such as *Wells Fargo* and *Hughes*, respectively. See *In re Wells Fargo & Co. S’holders Derivative Litig.*, 282 F. Supp. 3d 1074, 1109 (N.D. Cal. 2017); *Hughes* 2020 WL 1987029, at *14.

⁸⁹ Item 303, Regulation S-K, 17 C.F.R. §§ 229.10-229.1016 (2018).

⁹⁰ Securities and Exchange Commission (SEC), [Commission Guidance Regarding Disclosure Related to Climate Change](#), (17 CFR Parts 211, 231 and 241, [Release Nos. 33-9106; 34-61469; FR-82], Feb. 8, 2010) 2.

⁹¹ *Id.*

⁹² *Id.*, at 15-20.

⁹³ SEC, [Statement on the Review of Climate-Related Disclosure](#) (Feb. 24, 2021).

⁹⁴ Acting Chair Allison Herron Lee, [‘Public Input Welcomed on Climate Change Disclosures’](#) (Mar. 15, 2021).

companies and their officers and directors, but the direction of travel is clear: the SEC expects companies to evaluate their public disclosures with its 2010 guidance on climate change risks in focus. The SEC has indicated that it will enforce its existing 2010 guidance and any incoming rules, with the creation of an ESG and climate-issues enforcement team.⁹⁵

Caremark claims are included in approximately three-quarters of cases brought to challenge companies' public securities disclosure, either for misstatements of material facts or omissions to state material facts necessary to be stated so that other disclosures are not misleading (the "half-truth doctrine").⁹⁶ Separately, claims have already been brought alleging breaches of securities law in relation to climate change-related information. Investigations by the New York Attorney General's office into Xcel Energy, Dynegy Inc and AES Corporation regarding a lack of disclosure on climate change-related financial risks have culminated in settlements.⁹⁷ Similarly, the New York Attorney General Office reached a settlement agreement with Peabody Energy Corporation, having found that Peabody had violated New York laws prohibiting false and misleading statements in the company's disclosure to the public and investors regarding financial risks associated with climate change and potential regulatory responses.⁹⁸ The SEC's guidance and recent actions regarding climate change make it clear that climate change risk should be considered by corporations when making disclosures.⁹⁹ In addition to regulatory investigations, derivative claims have been brought against boards by investors alleging that insufficient disclosures regarding climate change risk have misled them.¹⁰⁰

Additionally, companies are increasingly facing claims for misleading investors with statements regarding their strategies to transition to lower carbon business models when these statements are inconsistent with other strategies pursued by the company,¹⁰¹ or misleading

⁹⁵ SEC, '[SEC Announces Enforcement Task Force Focused on Climate and ESG Issues](#)' (Mar. 4, 2021).

⁹⁶ See Priya Cheria Huskins, Woodruff Sawyer & Co, '[Five Types of Derivative Suits with Massive Settlements](#)' (Oct. 13, 2020) (providing data on large derivative settlements).

⁹⁷ Office of the New York Attorney General, Press Release: Cuomo Reaches Landmark Agreement With Major Energy Company, Xcel Energy, To Require Disclosure Of Financial Risks Of Climate Change To Investors (Aug. 27, 2008); Office of the New York Attorney General, [Press Release: Attorney General Cuomo, Joined By Vice President Gore, Announces Agreement With Major Energy Company, Dynegy Inc.](#) (Oct. 23, 2008); Office of the New York Attorney General, [Press Release: Attorney General Cuomo Announces Agreement With Aes To Disclose Climate Change Risks To Investors](#) (Nov. 19, 2009).

⁹⁸ Office of the New York Attorney General, [Press Release: A.G. Schneiderman Secures Unprecedented Agreement with Peabody Energy to End Misleading Statements and Disclose Risks Arising From Climate Change](#) (Nov. 9, 2015).

⁹⁹ In August 2021, the SEC and federal prosecutors launched an investigation into Deutsche Bank AG's asset management arm DWS Group GmbH, following allegations that it had overstated how much it used sustainable investment criteria to manage its assets. See Patricia Kowsmann, Corinne Ramey and Dave Michaels, [U.S. Authorities Probing Deutsche Bank's DWS Over Sustainability Claims](#), *The Wall Street Journal* (Aug. 25, 2021).

¹⁰⁰ See, e.g. *Ramirez v. Exxon Mobil Corp.*, 334 F.Supp. 3d 832, 845-47 (N.D. Tex. 2018).

¹⁰¹ In Australia, a claim has been brought against Santos Limited, an upstream oil and gas company, alleging that its strategy for reaching net-zero emissions by 2040 is misleading, since it is inconsistent with its strategy to expand its natural gas operations: See Angela Macdonald-Smith, [Santos sued over 'clean energy' claims](#), *Australian Financial Review* (Aug. 26, 2021). In the US, the Massachusetts Supreme Court has dismissed a motion to dismiss regarding a claim brought by the Massachusetts Attorney General against Exxon Mobil alleging that Exxon Mobil had misled investors regarding the effects of systemic climate risks on its business, and misled consumers regarding the environmental benefits of its products. *Commonwealth v. Exxon Mobil Corp.*, 462 F.Supp.3d 31, 34-37 (D. Mass. 2020).

investors as to the climate impact of their products.¹⁰² Therefore, if a board becomes aware that its disclosures regarding its transition strategy or climate impact may be regarded as misleading, this may potentially be regarded as a ‘red flag’.

As well as considering whether financial climate change risks should be reflected in their narrative disclosures, issuers should consider whether they need to reflect these risks in their financial statements. Issuers in the US are required to issue financial statements which have been prepared in accordance with the US Generally Accepted Accounting Principles (US GAAP),¹⁰³ and the CEO and CFO of an issuer are required to certify that the financial statements “present fairly” the company’s financial information in accordance with US GAAP.¹⁰⁴ The Financial Accounting Standards Board (FASB), which issues applicable US GAAP standards for public and private companies, has published guidance for staff giving examples on the incorporation of ESG matters, including climate change, into financial statements, and notes that these issues could be relevant to matters including whether the company is operating as a going concern and the value of the company’s inventory, goodwill and intangibles, and the fair value measurement of the company’s assets.¹⁰⁵

Breaches of securities laws can give rise to claims from investors and regulatory investigations, which can have a substantial impact on a company. Accordingly, it may be argued that climate change-related information communicated to the board that suggests the company’s solvency may be compromised or that its financial statements or other communications to the market may be inaccurate, for example by failing to disclose material climate change risk (or, more particularly, the impact of that risk on the company’s financial position and prospects), may warrant scrutiny as *Caremark* climate red flags.

Finally, certain officers of a company may face criminal liability if their company issues misleading statements in its annual Form 10-K or quarterly Form 10-Q. Officers of public companies are required to certify the accuracy of these reports, including the financial statements and related information, and the existence and adequacy of, and the responsibility of the CEO and CFO with respect to, the company’s disclosure controls and procedures and internal controls over financial reporting.¹⁰⁶

Both *Caremark* and federal securities liability risks for directors are best addressed, therefore, in the same way: careful consideration of climate change disclosure obligations, as shaped by the SEC in its 2010 guidance on climate change risk (and any forthcoming guidance), and incorporation of climate change in robust fashion into the company’s corporate governance arrangements.

¹⁰² See, e.g., Complaint, Bentley v. Oatly Grp. AB, No. 1:21-cv-06485 (S.D.N.Y. July 30, 2021).

¹⁰³ SEC Financial Reporting Manual, r. 1410.

¹⁰⁴ Code of Federal Regulations, Title 17: Commodity and Securities Exchanges § 240.13a-14.

¹⁰⁵ FASB, [FASB Staff Educational Paper Intersection of Environmental, Social, and Governance Matters with Financial Accounting Standards](#) (Mar. 19, 2021).

¹⁰⁶ § 302 and 906 of the Sarbanes-Oxley Act of 2002.

Potential breaches of securities fraud laws may be more likely to be catalyzed by climate change for companies:

- with high emissions footprints or whose value chain, or downstream use of its products, is emissions intensive, such as companies in the mining, chemicals, manufacturing, livestock, cement, fertilizer and energy sectors;
- whose value is tied to high cost, long-lived fixed assets, such as energy, water, or sewerage utilities, municipal or transport infrastructure (ports, roads, rail, logistics, airports), or commercial real estate. These companies would be expected to take particular care in non-current asset valuation and capex planning, such that directors should be attuned to red flags in relation to whether accelerating risk of the physical effects of climate change (such as storm surge or coastal inundation, fluvial flooding, drought, and wildfire) may materially impact on their financial performance, position or prospects, and thus the risk of financial misstatement;
- with significant exposure to climate change-related technological developments, such as those relating to battery storage, electric vehicles, and renewable energy, including in the automotive and energy sectors; or
- which have made public statements regarding their climate change commitments, but whose business conduct suggests that such commitments are not taken seriously by the company.

More widely, circumstances where the breach of mission-critical areas of regulation are more likely to be catalyzed by a climate-related impact may include:

- environmental laws for extractive or chemical industries, for example industrial manslaughter and ecosystem damage caused by the rupture of a tailings dam or oil/chemical storage facility where that failure is in turn catalyzed by physical impacts associated with climate change, such as increased frequency and intensity of extreme precipitation events, or melting of Arctic permafrost;
- health and safety laws for companies whose work force engages in manual labor, including those in the construction, trades, professional sports, agriculture or forestry sectors;¹⁰⁷ or
- human rights laws and norms for companies, particularly for companies in the extractives and agricultural sectors. The link between human rights, climate change, and business has been accepted by the Philippines Commission on Human Rights, which found that carbon majors could directly be found legally and morally liable for human rights violations arising from climate change.¹⁰⁸ Notably, the UN Guiding Principles on Business and Human Rights informed the Dutch court's judgment on the standard of care Royal Dutch Shell is required to meet to fulfil its duty not to cause

¹⁰⁷ Accordingly, directors in those sectors would need to be particularly attuned to red flags in relation to potential health impacts associated with the physical risks of climate change, including extreme heat and precipitation.

¹⁰⁸ *In re* Greenpeace Southeast Asia and Others. The importance of compliance with human rights laws and norms as an aspect of boards' fiduciary duties has previously been advanced by one of the co-authors of this paper. See Cynthia A. Williams & John M. Conley, [Is There a Fiduciary Duty to Consider Human Rights](#), *University of Cincinnati Law Review* 75 (2005). This idea has recently been extended to the interaction of human rights obligations and climate change as an aspect of boards' oversight responsibilities in Cynthia A. Williams, *Fiduciary Law as Public Law: Climate Change*, *Vanderbilt Law Review* (forthcoming 2021).

tortious harm.¹⁰⁹ Similarly, the International Bar Association has issued a report in which it identifies corporations' contribution to climate change, and advocates that states fulfil their human rights obligations by holding corporations to account.¹¹⁰

By way of example as to how climate change might exacerbate regulatory failure, a *Caremark* claim based on a failure to monitor a mission-critical regulation was brought against PG&E after its transmission lines sparked historic fires in California in 2017 and 2018.¹¹¹ The conditions for the wildfires, which led to significant regulatory fines for PG&E, were likely exacerbated by climate change.¹¹² A similar claim was brought against Wells Fargo, albeit not in a climate context.¹¹³ Each of those cases involved situations where the courts construed the facts to show that the defendant directors knew about the underlying safety issues (*PG&E*) or fraudulent sales activities (*Wells Fargo*), and failed to do anything effective to address the problems.¹¹⁴

c. Potential 'red flags' indicating a potential breach of regulations catalyzed by climate change

These categories are but examples only. The courts have not yet set down a set of normative principles to determine those activities that are mission-critical for a given business, and the nature of those signals sufficient to constitute a climate red flag. Reasonable proxies for red flag subject matter for a given company may include:

- matters arising regarding issues noted as being “material risks” to the business in the MD&A accompanying that company’s 10-K or 10-Qs, or those of its peers;
- issues that are the subject of shareholder resolutions which attain a substantial level of support at the company’s annual meeting, or at the annual meetings of significant peer corporations;
- the subject matter of misstatements that have previously given rise to a material stock drop of the company or its competitors; or
- all legal compliance issues on the Audit and Risk Committee’s oversight roster.

This is not of course to suggest that directors may only contravene their duty of oversight in relation to mission-critical laws and regulations. However, with the line of *Caremark* jurisprudence emanating from *Marchand*, the risk of a successful claim is most immediate in relation to regulatory compliance in those areas.

¹⁰⁹ *Milieudefensie et al. v Royal Dutch Shell plc* C/09/571932 / HA ZA 19-379 at [4.4.11] – [4.4.21] (Rechtbank Den Haag, May 25, 2021).

¹¹⁰ International Bar Association, [Achieving Justice and Human Rights in an Era of Climate Disruption](#) (2014) 152.

¹¹¹ *John Trotter, Trustee of the PG&E Fire Victim Trust v. Chew*, No. CGC-18-572326 (San Francisco Super. Ct.).

¹¹² A. Park Williams et al. [Observed Impacts of Anthropogenic Climate Change on Wildfire in California](#), *Earth's Future* (July 15, 2019).

¹¹³ *See In re Wells Fargo & Co. S'holder Derivative Litig.*, 282 F. Supp.3d 1074, 1108 (N.D. Cal. 2017) (applying Delaware law and holding that knowledge of allegations of fraud and doing nothing demonstrates the predicate for a successful oversight fiduciary liability claim).

¹¹⁴ Each of these derivative actions has now settled; PG&E for \$90 million (which is a small fraction of the ultimate costs to PG&E caused by its inadequate safety culture, which led to it filing for bankruptcy, and pleading guilty to involuntary manslaughter for the deaths of 84 people), and Wells Fargo for \$240 million: *See Priya Cherian Huskins*, [Five Types of Derivative Suits with Massive Settlements](#) Woodruff Sawyer (2020).

c) Failure to monitor mission-critical business risks

Finally, it is possible that a court may find that directors may breach their duty of oversight for failure to implement and monitor systems to identify and manage mission-critical risks related to climate change. As described in [Part I](#) *supra* and [Annex I](#) *infra*, these risks include not only legal and regulatory risks, but also physical risks and business transition risks.

As noted in [Part III, Section C 1 b](#) *supra*, claims for failure to monitor mission-critical business risks are theoretically possible under the right set of facts, but are relatively untested under Delaware law. Recent Delaware jurisprudence does not preclude such claims but recognizes that they are difficult claims on which to prevail. Delaware courts have routinely cautioned against judicial interference in corporate decision-making regarding the level of risk-tolerance that corporations choose to knowingly engage in. However, the Delaware courts have also clearly distinguished between informed corporate decisions to engage in risky but potentially profitable businesses, and failures by boards of directors to adequately inform themselves of the risks involved in certain operations.

In contrast, the courts in other states have explicitly recognized the potential for *Caremark* liability to extend to inadequate oversight of business risks. Accordingly, for businesses where climate-related considerations are material and core components of corporate risk management, a board's failure to adequately consider and manage these risks may constitute a breach of their duty of oversight.¹¹⁵

Directors face potential liability when they consciously disregard red flags concerning major business risks that impact the core of their company's business. Liability in this category of cases is especially likely for directors operating within industries under intense public and scientific scrutiny, such as the fossil fuels, electricity, and transportation industries. The existence of highly-publicized and scientifically well-documented reports detailing the climate-related risks of these industries, and the growth in attribution science linking climate events such as floods and sea level rise to increases in emissions, heightens the duty of oversight obligations of directors of companies in these industries.

Moreover, Delaware courts have emphasized that the duties of loyalty and care require that directors maximize the value of the corporation over the long term.¹¹⁶ As the effects of climate change accelerate over the coming decades, the physical, transition, and liability risks which pose financial risks to business (see [Annex I](#) *infra*) may also accelerate and increase. These risks may have an increasing effect on the financial stability of the company. A duty to monitor climate-related business risks therefore dovetails with maximizing value over the long-term for the benefit of stockholders.

In any event, in a climate change-related context, the distinction between 'legal compliance' and 'business risks' may be more semantic than substantive – particularly where the alleged

¹¹⁵ In *In re Countrywide Financial Corp. Derivative Litig.*, 554 F. Supp.2d 1044, 1082 (C.D. Cal. 2008), analyzing Delaware law, the Central District of California found allegations of a failure of oversight sufficient for pre-suit demand to be excused where those failings directly related to oversight of core aspects of the company's business model, that of its underwriting standards for home loan origination.

¹¹⁶ *In re Rural Metro Corp. S'holders Litig.*, 88 A.3d 54, 80 (Del. Ch. 2014), *aff'd sub nom.* RBC Cap. Mkts., LLC v. Jervis, 129 A.3d 816, 822 (Del. 2015) ("More concretely, the fiduciary relationship between the board and Rural's stockholders required that the directors act prudently, loyally, and in good faith to maximize Rural's value over the long-term for the benefit of its stockholders."); *In re Trados Inc. S'holder Litig.*, 73 A.3d 17, 37 (Del. Ch. 2013); *Frederick Hsu Living Tr. v. ODN Holding Corp.*, No. 12108-VCL, 2017 WL 1437308, at *18–19 (Del. Ch. Apr. 14, 2017), *as corrected* (Apr. 24, 2017); *Katz v. Oak Indus. Inc.*, 508 A.2d 873, 879 (Del. Ch. 1986).

failure relates to a material risk to the corporation's financial position or prospects. This is because a 'red flag' indicating a failure in the system of monitoring such risks would necessarily raise an equivalent flag that the corporation is at risk of non-compliance with its disclosure obligations under securities laws, for public reporting companies, or even is at risk for securities fraud litigation, for private as well as public-reporting companies.

3. Practical considerations

In considering the possible application of the duty of oversight to climate-related contexts, a number of important practical considerations must be weighed. These factors include: (1) the strength of climate-related red flags; (2) the systemic nature of climate-related risks; and (3) the availability of shareholder books and records requests as a means of pre-suit investigative discovery.

a) Strength of climate-related red flags

As outlined above, in order to raise a credible *Caremark* claim for failure to properly monitor a system of internal controls, a plaintiff needs to establish that directors either knew, or should have known, that the corporation was subject to a serious legal, regulatory, or business risk. Accordingly, it will be an essential element under the second scenario of *Caremark* to establish that the directors possessed information that signaled potential illegality or corporate harm, and that the failure to act in response thereto was so egregious as to be indicative of bad faith.

It is relatively straightforward to recognize a red flag where the board has actual knowledge from receiving a direct report from management or advisors about control deficiencies. For example, where the board received an independent report suggesting that fugitive emissions were significantly higher than those assessed and reported to the regulator under the company's internal processes, but the directors chose to do nothing to seek to fortify the internal compliance processes, potential liability is a risk. What is less clear is when, in the absence of proof of direct notice and actual knowledge, constructive knowledge will be a sufficient basis to support a claim under *Caremark's* second scenario. That is, the board ought to have been aware of certain information suggestive of control deficiencies. This is particularly so in the post-*Marchand* era. While there appear to be two lines of historical authority on this issue,¹¹⁷

¹¹⁷ First, in *In re SAIC Inc. Derivative Litigation*, the District Court for the Southern District of New York acknowledged that the magnitude and duration of the underlying misconduct may be probative of whether directors had actual or constructive knowledge of wrongdoing, and that there may be exceptional circumstances where news coverage of the company's misconduct is so pervasive that it created a "reasonable inference" of knowledge as no director could credibly claim to have missed it (although, in that case, reports in such small publications did not reach that standard of pervasiveness); *In re SAIC Inc. Derivative Litigation*, 948 F. Supp. 2d 366, 387 (S.D.N.Y. 2013) (*aff'd sub nom* Welch v. Havenstein, 553 F. App'x 54, 56 (2d Cir. Jan. 30, 2014)). In contrast, in the *Oklahoma Firefighters Pension & Ret. Sys. v. Corbat* case, passivity and deference to management in the oversight of compliance with anti-money laundering laws was insufficient to support a *Caremark* claim against the directors of Citigroup. The Delaware Chancery Court held that, while the board demonstrated a level of disregard for their role in monitoring and oversight of the company's compliance, more than such "simple inattention or failure to be informed of all facts material to the decision" was required to reach the *Caremark* threshold of "intentional dereliction of duty, [or] a conscious disregard for one's responsibilities." *Oklahoma Firefighters Pension & Ret. Sys. v. Corbat*, No. 12151-VCG, 2017 WL 6455540, at *7 (Del. Ch. Dec. 18, 2017) (quoting *In re Walt Disney Co. Derivative Litig.*, 906 A.2d 27, 66 (Del. 2006)). Similarly, in the *General Motors* case, in granting a motion to dismiss the derivative claim, the Delaware Chancery Court stated that "[t]here is a critical difference between showing that a board was not receiving information – the most that is pled here – and pleading that a board was consciously disregarding 'red flags' that its information systems were failing." *In re General Motors Co. Derivative Litig.* No. 9627-VCG, 2015 WL 3958724, at *16 n.115 (Del. Ch. June 26, 2015). More recently (and notably post-*Marchand*) in *Metlife* the Delaware Chancery Court held that an allegation of constructive knowledge of regulatory action against the company could not be imputed to the directors on the strength of allegations that the action was

a reconciliation of these cases against a “*Marchand* gloss” suggests that, at a minimum, the Court will now be more willing to imply bad faith in relation to mission-critical areas where a director does not have actual knowledge but where the director’s failure to proactively query or avail themselves of that information (whether motivated by fear that it would be inconvenient to company performance or otherwise) is itself suggestive of the absence of good faith. For example, in *Marchand* and *In Re The Boeing Company*,¹¹⁸ the Court stated that the absence of any evidence that red flags, or even yellow flags, were disclosed to the board was sufficient to infer that the directors had failed to make a good faith effort to put in place a system to monitor compliance with mission-critical regulations.

We consider the example of one clear area of mission-critical regulation for the sake of consistent context: indicators of the potential over-valuation of fossil fuel reserves that may be suggestive of the risk of securities fraud. The following red flags may be sufficient to provide actual or constructive notice to the board of risk of illegality or corporate harm:

- Regulatory investigations – It is likely that a board of directors would have direct and actual notice of a regulatory investigation into its company’s conduct or practices under even the most basic of risk management and escalation frameworks, particularly where that regulator is one as powerful as the Department of Justice, the SEC or New York Attorney General.¹¹⁹ What is less clear is whether the high-profile media reports of such regulatory investigations into other companies in that same sector would comprise a relevant red flag to the directors of their own corporation’s exposure, such that a review of the sufficiency of their internal compliance structures would be necessary to avoid a similar investigation or claim.¹²⁰
- Cherry-picking demand projections or scenarios – If an outlook previously cited by a company as being authoritative (e.g., IEA, BP Energy Outlook), now suggests less-favorable demand or cost projections, and the outlook is summarily dismissed or ignored, or cherry-picked, by the board in analysis of financial position and prospects, this might undermine the accuracy of the company’s financial statements, leading to *Caremark* liability. As stated above, the IEA has published a roadmap to net-zero energy by 2050 that is significantly more ambitious than its prior energy outlooks for scaling up renewables and reducing the usage and financing of oil, gas, and coal.¹²¹ We can assume that how companies in these industries respond to the new roadmap will be closely watched by civil society and litigating NGOs.

of such legal significance that it would have been “highly likely” that they would have been drawn to the board’s attention. *In re Metlife Inc. Derivative Litig.*, No. 2019-0452-SG, 2020 WL 4746635, at *15 (Del.Ch. Aug. 17, 2020).

¹¹⁸ *In re The Boeing Co. Derivative Litig.* No. 2019-0907-MTZ, 2021 WL 4059934, at *26 (Del. Ch. Sept. 7, 2021).

¹¹⁹ Even in the unlikely event that the board had not been directly and specifically apprised of the relevant investigation, there is authority to suggest that media reports of the investigations may comprise red flags, at least where those reports occur extensively within the mainstream press. *See In re SAIC Inc. Derivative Litig.*, 948 F. Supp. 2d 366, 374-74 (S.D.N.Y. 2013), *aff’d sub nom* Welch v. Havenstein, 553 F.App’x 54, 56 (2d Cir. Jan. 30, 2014), although, in that case, reports in such small publications as CityLimits and IEEE Spectrum Risk Facto did not reach that standard of pervasiveness.

¹²⁰ It certainly would not take a leap of judicial logic to conclude that the extensive media coverage of the plethora of regulatory investigations and private claims against Volkswagen in relation to the “diesel-gate” scandal would be sufficient to comprise a red flag to directors of other automotive companies of the necessity to investigate their own fleet’s emissions management software to ensure it did not contain a similar “defeat device”.

¹²¹ IEA, *supra* note 22.

- International regulatory developments as indicative of risk management trends – Regulatory trends such as the introduction of or increase in the price on carbon, carbon border tariffs in significant export markets or emissions reductions laws may put the board on notice of the need to ensure that variables impacting the company’s financial position and prospects are appropriately tested and disclosed.
- Asset write-downs, impairments or other adjustments by competitors.

If sufficient to raise a relevant red flag, a breach of the duty will turn on whether the directors then took action to investigate the company’s exposure to the risk and the adequacy of its internal controls in relation to the risk.

Two other contextual factors may enhance the likelihood that information is found to constitute sufficient red flags for the purposes of establishing liability under *Caremark*’s second scenario. First, much of the information regarding the climate-related risks facing companies is public information. Numerous domestic and international governmental, charitable, and academic organizations have studied these risks and produced a wide array of reports detailing the nature and extent of these risks. Thus, it will be difficult for directors to argue that they did not know, or could not have known, about the existence of these risks.

Second, climate-related risks are grounded in decades of extremely well-documented and supported scientific consensus. The overwhelming nature of the scientific support for both the existence of anthropogenic climate change and its likely impacts on humanity provide no rational basis for any corporate decision-maker to argue that the risks of climate change can be questioned, minimized, or ignored.

b) Systematic nature of climate-related risks

In addition to being both public and scientifically validated, climate-related risks are also unique in that they are broadly systematic in nature, i.e., they pose risks not just to energy or emission-intensive companies but to all corporations regardless of their line of business.

This means that potential liability under fiduciary duty law extends to all parts of the economy, regardless of industry or emissions profile. While climate-related risks may be most easily articulated for companies whose business models rely on carbon-intensive operations such as fossil fuel extraction, other risks, such as physical risks to assets posed by increasingly common and severe weather events, apply broadly to corporations of all types.

The systematic nature of climate-related risks also necessitates a proportionate risk-management response from corporate decision-makers. The unprecedented magnitude of the climate crisis means that, as a practical matter, corporations will have to respond with equivalently ambitious risk-management practices and adaptive strategies in order to adequately address these risks. In light of the scope and extent of climate-related risks, boards will likely face heightened scrutiny under fiduciary duty law if they fail to respond appropriately.

Finally, because the broad system-wide impacts of climate change risks will impact corporations through a multiplicity of channels simultaneously, including not only potential litigation under fiduciary duty law but also governmental action, investor activism, and pressure from other corporate stakeholders, it is likely that directors’ response to any breach of fiduciary duty litigation will have to be consistent with a more comprehensive ESG strategy. This is likely to reduce a corporation’s willingness to oppose meaningful corporate governance changes that would be sought through litigation.

c) Availability of shareholder books and records requests

One final practical consideration that is likely to impact the progress of any breach of fiduciary duty litigation related to climate change is the availability of shareholder books and records requests. Under § 220 of the Delaware General Corporation Law (DGCL), shareholders are permitted to seek the inspection of certain corporate books and records upon demonstration of a “proper purpose.”¹²² Delaware courts have routinely recognized that shareholders seeking to investigate potential breaches of fiduciary duty constitute a proper purpose.¹²³

Moreover, recent Delaware caselaw has made the test for establishing a proper purpose significantly more lenient. In *Lebanon Cnty. Emps. Ret. Fund v. AmerisourceBergen Corp.*, the Delaware Supreme Court affirmed the Delaware Chancery Court’s finding that shareholders had established a proper purpose under §220 DGCL.¹²⁴ In reaching this decision, the Delaware Supreme Court clarified that courts need not question the ultimate purpose for a shareholder books and records request, i.e., their final intended use for the requested documents. Instead, it is enough for a shareholder to merely state that they are investigating potential wrongdoing. Similarly, a court need not determine that the alleged wrongdoing that is the stated basis for the investigation is actionable—although Delaware courts may consider the credibility of alleged wrongdoing when determining whether a proper purpose has been stated, a shareholder’s failure to state the basis for an actionable claim is not fatal to their books and records request at the point of inception.

This decision, along with similar decisions in recent years by the Delaware Chancery Court, such as in *In re Facebook*, demonstrate an ongoing trend towards a more expansive view of shareholder books and records requests, which Delaware courts routinely continue to emphasize as the preferred method of pre-suit discovery in breach of fiduciary duty cases.¹²⁵ Given the leniency of this standard, the potential theories of director liability described in this paper more than meet the requirements for stating a proper purpose under §220 DGCL, thus granting potential plaintiffs in breach of fiduciary duty suits premised on climate-related lawsuits access to valuable pre-suit discovery that will greatly enhance the precision and viability of their legal claims.

Additionally, the Delaware Supreme Court has recently held that a shareholder’s books and records request can properly seek information from the board and from officers, including committee or board minutes but also reports, communications, emails, and other materials below the board level.¹²⁶

The potential for books and records claims to be deployed in the climate context has recently been illustrated by claims in other common law jurisdictions. For example, in September 2021, a claim was filed on behalf of two shareholders of a large Australian bank seeking production

¹²² See Delaware General Corporate Law, Title 8, Section 220 (2021).

¹²³ *California State Teachers’ Ret. Sys. v. Alvarez*, 179 A.3d 824, 839 (Del. 2018) (“[T]his Court has repeatedly admonished plaintiffs to use the ‘tools at hand’ and to request company books and records under Section 220 to attempt to substantiate their allegations before filing derivative complaints.”); *Beam ex rel. Martha Stewart Living Omnimedia, Inc. v. Stewart*, 845 A.2d 1040, 1056-57 (Del. 2004) (affirming the Court of Chancery’s dismissal of plaintiff’s derivative action where plaintiff had not sought inspection under § 220 DGCL and thus had not “exhaust[ed] all reasonably available means of gathering facts”).

¹²⁴ *AmerisourceBergen Corp. v. Lebanon Cnty. Emps.’ Ret. Fund*, 243 A.3d 417, 420 (Del. 2020).

¹²⁵ *In re Facebook, Inc. Section 220 Litig.*, No. 2018-0661-JRS, 2019 WL 2320842, at *13-19 (Del. Ch. May 30, 2019).

¹²⁶ See *Lebanon Cnty. Emps.’ Ret. Fund v. AmerisourceBergen Corp.*, 2020 WL 132752 (Del. Ch. Jan.

13, 2020) *aff’d* *AmerisourceBergen Corp. v. Lebanon Cnty. Empls.’ Ret. Fund*, 243 A.3d 417, 420 (Del. 2020).

of documents to demonstrate how the bank considered the application of its stated climate policies when deciding to lend to a number of fossil fuel and related infrastructure projects.¹²⁷

4. Conclusion

While the bar remains high for establishing liability for breaches of the duty of oversight, the evolving *Caremark* standard presents significant risk to directors who fail to implement or adequately monitor systems to identify and manage their companies' risk (including, at a minimum, regulatory and compliance risk). Specifically, directors who consciously disregard red flags, either internal or external, that concretely and explicitly place them on notice of significant legal, regulatory, or, as stated in *Caremark*, business risks that undermine the core operations of their companies may be subject to liability for breaching their duty of loyalty. The likelihood of liability is enhanced by a constellation of practical considerations, including the fact these red flags may come in the form of public reports based on data grounded in deep scientific consensus; the systemic nature of climate-related risks; and the availability of pre-suit discovery through books and records requests.

PART IV – DUTY OF CARE

A. THE STANDARD OF REVIEW UNDER DELAWARE LAW

1. Standards of conduct vs standards of liability

The standard against which *conduct* is tested is that of the “ordinary prudent person” under Delaware law, with the degree of failure or culpability required in order to establish *liability* being “gross negligence,” defined as a “higher level of negligence representing an extreme departure from the ordinary standard of care”.¹²⁸ Thus, Delaware corporate law draws a clear distinction between the required *standards of conduct* for directors to meet their standard of care, and the *standards of liability*.¹²⁹ Given the protections of the business judgement rule¹³⁰ and broad exculpation clauses, any discussion of the duty of care must start from the premise that we are discussing the responsibilities of directors (and officers), and that potential liability would require facts sufficient to overcome these protections. That said, officers of Delaware companies are not protected by exculpation clauses, and so must be particularly attentive to

¹²⁷ *Abrahams v Commonwealth Bank of Australia* NSD864/2021 (Austl.).

¹²⁸ *A & J Capital Inc. v. Law Office of Krug*, No. 2018-0240-JRS, 2019 WL 367176 at *12 (Del. Ch. Jan. 29, 2019), *judgment entered sub nom.*, *Capital, Inc. v. Law Office of Krug*, No. 2018-0240-JRS, 2019 WL 499352, at *1 (Del. Ch. Feb. 8, 2019), (quoting *Browne v. Robb*, 583 A.2d 949, 953 (Del. 1999)).

¹²⁹ This distinction can also be seen in the Model Business Corporations Act, which is an authoritative project of the American Bar Association's Committee on Corporate Law, § 8.30 (Standards of Conduct for Directors); § 8.31 (Standards of Liability for Directors) (2016).

¹³⁰ Under the Delaware business judgment rule, defendant directors enjoy the presumption that “in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company.” *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984) (citing *Kaplan v. Centex Corp.*, 284 A.2d 119, 124 (Del. Ch. 1971)), overruled on other grounds by *Brehm v. Eisner*, 746 A.2d 244 (Del. 2000), and *Espinoza v Dimon*, 797 F.3d 229 (2015). This operates to shield directors from liability for a breach of the duty of care “in all but the most extreme cases.” Julian Velasco, [A Defense of the Corporate Law Duty of Care](#), 40(3) *Journal of Corporation Law* 649 (2015). This presumption can be overcome by showing that the board was “grossly negligent” in its process of becoming informed before making decisions: Justice Jack B. Jacobs, [Fifty Years of Corporate Law Evolution: A Delaware Judge's Retrospective](#), 5 *Harvard Business Law Review* 141 (2015) 145, citing *Cede & Co. v. Technicolor, Inc.*, 634 A.2d 345, 367 (Del. 1993); *Smith v. Van Gorkom*, 488 A.2d 858, 873 (Del. 1985); *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984). See also *In re Walt Disney Co. Derivative Litig.*, 907 A.2d 693, 747 (Del. Ch. 2005).

ensure that decisions they shape meet the standards of the duty of care and will be protected by the business judgement rule.¹³¹

2. Directors' responsibilities of due care

The components of the Delaware directors' duty to exercise due care may be summarized in three relevant obligations.

The first obligation is to remain adequately informed via a proactive and deliberative inquisitive process. Plaintiffs may rebut the business judgment rule's presumption of due care by demonstrating that the defendant directors were not adequately informed.¹³² Boards are required to be informed and act with the requisite "care that a person in a like position would reasonably believe appropriate under similar circumstances" in their decision-making and oversight,¹³³ even if liability is not possible because of exculpation clauses or the business judgment rule.¹³⁴ The duty of care contemplates "informed reasonable deliberation"¹³⁵ by the defendant directors. That concept in turn incorporates three elements, any one of which the plaintiff may attempt to disprove in order to rebut the presumption of the business judgment rule. First, that the directors made a conscious decision in relation to the matter in question, as the business judgment rule does not protect unconsidered inaction.¹³⁶ Second, that the directors acted on an informed basis based on material information available to them.¹³⁷ The informational process cannot be passive, but undertaken in a full and "deliberate manner."¹³⁸ Under §141(e) DGCL, seeking and relying upon the advice of appropriate experts may be a relevant factor – although there are limits to the exculpatory power of such delegation, which are discussed below.¹³⁹ Third, having become so informed, the directors acted with appropriate care in arriving at their decision, which is discussed below.¹⁴⁰

The second obligation is to exercise independent judgment and critical evaluation. This shows the limits of delegation and reliance. Plaintiffs may rebut the business judgment rule's presumption of due care by demonstrating that the defendant directors, while adequately

¹³¹ *Gantler v. Stephens*, 965 A.2d 695, 708, 709 709 n.37 (Del. 2009) (stating that "[i]n the past, we have implied that officers of Delaware corporation, like directors, owe fiduciary duties of care and loyalty, and that the fiduciary duties of officers are the same as those of directors. We now explicitly so hold. That does not mean, however, that the consequences of a fiduciary breach by directors or officers, respectively, would necessarily be the same. Under 8 Del. C. § 102(b)(7), a corporation may adopt a provision in its certificate of incorporation exculpating its directors from monetary liability . . . [but] there currently is no statutory provision authorizing comparable exculpation of corporate officers.").

¹³² *Cede & Co. v. Technicolor, Inc.*, 634 A.2d 345, 368 (Del. 1993); *Smith v. Van Gorkom*, 488 A.2d 858, 873 (Del. 1985); *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984).

¹³³ See the 2016 revisions of the Model Business Corporations Act (MBCA) of the American Bar Association's Committee on Corporate Law: MBCA § 8.30(b), *supra* note 129.

¹³⁴ See D. Gordon Smith, 'The New Business Judgement Rule' in *The Research Handbook on Mergers and Acquisitions*, Claire A. Hill & Steven Davidoff Solomon (eds.), (2016). The commentary to the recently revised MBCA is useful in considering the duties of directors to be informed before making decisions: MBCA, Commentary to § 8.30 (b), (2016) 182-183.

¹³⁵ *Smith v. Van Gorkom*, 488 A.2d at 872, 881; *Mitchell v. Highland-Western Glass*, 167 A. 831, 833 (Del. Ch. 1933).

¹³⁶ *Rich ex rel. Fuqi Int'l, Inc. v. Yu Kwai Chong*, 66 A.3d 963, 979 (Del. Ch. 2013).

¹³⁷ *Van Gorkom*, 488 A.2d at 875.

¹³⁸ *Cede & Co.* 634 A.2d at 368; *Van Gorkom*, 488 A.2d at 873; *Aronson*, 473 A.2d at 812.

¹³⁹ In *In re Gaylord Container Corp. S'holders. Litig.*, 753 A.2d 462, 479 (Del. Ch. 2000), the court held that the board's "reliance on a reputable law firm to advise it regarding its opinions supports a conclusion that the board acted on an informed basis."

¹⁴⁰ *Cede & Co.*, 634 A.2d at 371, 367, citing *Aronson*, 473 A.2d at 812.

informed, then failed to act with appropriate care in arriving at their decision, that they were “grossly negligent” in the procedures used to make a decision.¹⁴¹ Where a decision was arrived at with the benefit of advice from management or external experts, the directors may be entitled to rely upon those experts, pursuant to §141(e) DGCL. However, reliance “in good faith” does not equate to “blind reliance,”¹⁴² or exempt a director from undertaking their own evaluation of, and reasonable inquiry into, the information presented. It may also be material to the rebuttal that a “prudent search for alternatives” has not been conducted.¹⁴³

The third obligation is proactive supervision and oversight of executive management and other advisors or delegates. The “full protection” offered under §141(e) DGCL is not absolute. Directorial reliance on an expert must be both based on a reasonable belief in the professional or expert competence of the advisor, and that the advisor has been selected with reasonable care. The duty of care clearly demands that the directors exercise a degree of *attentiveness* to relevant information and its evaluation.

Within these principles, the nature of climate change-related conduct or inaction that may raise issues under the duty of care is discussed below.

B. APPLICATION OF THE DUTY OF CARE TO GOVERNANCE FAILURES WITH REGARD TO CLIMATE CHANGE

The duty of care and diligence under Delaware law does not impose liability for incorrect commercial judgments *per se*. The courts are extremely reluctant to engage in a judicial re-assessment of the commercial wisdom of a particular decision. The fact that a company underperforms – or even suffers a loss in value – is not in and of itself a breach of duty.¹⁴⁴ Rather, compliance with the duty of due care and diligence is assessed by reference to the robustness of the *process* of information gathering and deliberation, rather than a retrospective assessment of whether an optimum financial outcome was achieved. The relevant inquiry is whether the *procedural effort* applied to the discharge of a director’s or officer’s governance responsibilities is so inadequate as to risk breach of the minimum standards of due care and diligence expected of directors or officers in the circumstances.

The answer to that question will, of course, turn both on the facts of each case and the particularities of the standard of review under Delaware law. The material risks and opportunities associated with climate change, and appropriate risk management treatments, vary across geographies, industries, and corporations. It is therefore difficult to set out a universal governance strategy that will satisfy the directors’ duty of care in relation to governance of the risks of climate change, or, conversely, that is unlikely to do so. However, the scope, scale and probability of the relevant risks will be relevant in considering the standard of governance conduct required. The significant and accelerating materiality of climate-related financial risks across many sectors, discussed in [Part I](#) *supra* and [Annex I](#) *infra*, suggests that the minimum benchmark of care and diligence that should be applied in the circumstances is proportionately high.

With that general proposition in place, we can assess whether directors’ governance of climate-related risks in high-risk industries is likely to satisfy their duty of care, in two broad categories:

¹⁴¹ *Cede & Co.*, 634 A.2d at 368; *Van Gorkom*, 488 A.2d at 873; *Aronson*, 473 A.2d at 812. See also the discussion in Justice Jack B. Jacobs, [Fifty Years of Corporate Law Evolution: A Delaware Judge’s Retrospective](#), 5 *Harvard Business Law Review* 141 (2015) 145.

¹⁴² *Van Gorkom*, 488 A.2d at 875.

¹⁴³ *Cede & Co.*, 634 A.2d at 369.

¹⁴⁴ See, e.g., *Brehm v. Eisner*, 746 A.2d 244, 264 (Del. 1998).

- a total failure to consider and govern for climate risks in strategic planning and risk management, especially over the long term: either in general or in relation to material projects or acquisitions that require their oversight or approval, due to honest ignorance, or blind or unquestioning reliance on the advice of delegates or advisors on point; or
- inadequate or deficient consideration and governance for climate risk exposures, due to lack of critical analysis, unreasonable reliance, lack of oversight or inadequate information.

While difficult, a claim that a director has breached their duty of care is possible in particular governance scenarios, in either of the above categories.

1. Total failure to govern climate risks

It is clear that an issue of such high profile and potential economic significance as climate change, as set out in [Part I supra](#), and [Annex I infra](#), would put a reasonable director in high-risk sectors, at a minimum, on notice that consideration is warranted about the impact of this issue for their corporation. This includes the impact on risk assessment and management, strategy, supply chain integrity and resilience, asset valuation and liability contingencies or provisions, financial planning and capex, provision of competitive finance and insurance, and disclosures. Accordingly, a failure to consider the risks or opportunities presented by climate change for want of the relevant knowledge – either in general, or in relation to material projects or acquisitions¹⁴⁵ – appears to present grounds for review for breach of the duty of care under Delaware law. It certainly appears to present grounds for a successful books and records request to determine if a director’s ignorance is as a result of presumptive climate change denial or a simple absence of consideration due to a lack of knowledge.¹⁴⁶

Importantly, it is no defense that the director was not provided by management with information on the relevant climate risks to their corporation. The law imposes expectations of proactive inquiry: the responsibility to seek adequate advice on material issues where it is not otherwise provided lies squarely with the directors themselves.¹⁴⁷

This conclusion holds even if a director were able to establish that they held a genuine, good faith view that the science on anthropogenic climate change is “incorrect,” or remains in genuine dispute.¹⁴⁸ This is because, as outlined in [Part I supra](#) and [Annex I infra](#), a significant proportion of market stakeholders *do* consider that climate change presents a material financial and systemic risk to individual companies, economic sectors, and financial systems.

¹⁴⁵ See, e.g., Jeffrey A. Smith and Matthew Morreale, ‘The Fiduciary Duties of Directors and Officers’ in *Global Climate Change and US Law*, Michael B. Gerrard (ed.), American Bar Association (2007) 497.

¹⁴⁶ See *AmerisourceBergen Corp. v. Lebanon Cnty. Empls.’ Ret. Fund*, 243 A.3d 417, 420 (Del. 2020).

¹⁴⁷ See *Cede & Co.*, 634 A.2d at 368; *Van Gorkom*, 488 A.2d at 873; *Aronson*, 473 A.2d at 812 (Del. 1984).

¹⁴⁸ The position is aptly summarized by a senior member of the commercial bar, Mr Noel Hutley SC, in another common law country, Australia, as early as 2016: “It would be difficult for a director to escape liability for a foreseeable risk of harm to the company on the basis that he or she did not believe in the reality of climate change, or indeed that climate change is human-induced. The Court will ask whether the director *should have known of the danger*. This would involve an assessment [of] the conduct of the individual director against the standard of a reasonable person, by reference to the prevailing state of knowledge as publicized at the time. The law has often had to deal with liability for negligence in the context of rapidly developing science. ... When it comes to climate change, the science has been ventilated with sufficient publicity to deduce that this point has already passed...”: [Noel Hutley and Sebastian Hartford-Davis, Climate Change and Directors’ Duties – Memorandum of Opinion](#), Centre for Policy Development and the Future Business Council (Oct. 7, 2016), [34] (original emphasis, internal citations omitted).

Accordingly, directors would be duty-bound to consider the stakeholder risks associated with the issue.

Moreover, the business judgment rule is not designed to protect directors who are uninformed, who make no conscious decision, or who exercise no judgment.¹⁴⁹ That is, there must be a decision before the business judgment rule becomes relevant.¹⁵⁰

Accordingly, it is relatively uncontroversial that an abject failure to consider an issue with significant an economic profile as climate change may comprise a breach of the duty of care of Delaware directors of companies in high-risk sectors (and potentially other sectors) for unquestionably not meeting the standard of conduct expected of directors and officers of US companies.

2. Inadequate consideration

A more complicated issue is whether a director may have breached their duty of care where the director has in fact considered climate-related risks, but that the process of consideration is inadequate or deficient. There are three circumstances in which it may be possible to raise a credible claim for a breach, although the *extent* of the failure required to breach the Delaware law is the high standard of “gross negligence”.

a) Failure to become and remain adequately informed

While a board must be reasonably informed, it is not required to be informed of every fact. Whether the board has *sufficient* understanding of the relevant issue (under Delaware law, “all material information”) is a question that depends on the nature of the issue, the quality of the information, the advice considered, and whether the board had adequate “opportunity to acquire knowledge concerning the problem before acting.”¹⁵¹

Absent the confines of a specific factual scenario, it is difficult to posit a definitive list of issues of which scant consideration would potentially indicate gross negligence by a director in a particular industry, let alone of a particular corporation in a particular context. However, the proliferation of “soft law” instruments that provide guidance to corporations about their disclosure of climate-related financial risks are likely to be increasingly persuasive indicators of those kinds of information that directors must inform themselves of, and then critically evaluate, in order to discharge their duty of care.¹⁵² These frameworks suggest general starting points for directors’ inquiry on climate-related financial risks in order to demonstrate that they have been informed of all material information on climate-related financial risk issues relevant to the discharge of their core obligations, which issues are set out in [Annex II](#).

While a failure to be appropriately informed of and consider any one or more of the points of information set out in [Annex II](#) is unlikely to be indicative of gross negligence in any particular

¹⁴⁹ See *Van Gorkom*, 488 A.2d at 872; *Mitchell v. Highland-Western Glass*, 167 A. 831, 833 (Del. Ch. 1933).

¹⁵⁰ So, for instance, if a property and casualty or health insurance company had done no analysis or modeling of how climate change was changing its risk profiles, either for property damage from storms’ increased frequency and strength, or for morbidity from changes in disease patterns, arguably there could be liability for breach of the directors’ duties of care if the company suffered material losses as a result (depending on the content of an exculpation clause in the company’s certificate of incorporation), or liability for officers’ breach of the duty of care, since Delaware law does not permit exculpation of officers.

¹⁵¹ *Moran v. Household Int’l, Inc.*, 490 A.2d 1059, 1075 (Del. Ch. 1985), *aff’d*, 500 A.2d 1346 (Del. 1985).

¹⁵² See SEC, [Commission Guidance Regarding Disclosure Related to Climate Change](#) (17 CFR Parts 211, 231 and 241, [Release Nos. 33-9106; 34-61469; FR-82], Feb. 8, 2010). See also TCFD, *supra* at note 6; Climate Disclosures Standards Board (CDSB), [CDSB Framework Application Guidance For Climate-Related Disclosures](#) (2020); SASB, [Climate Risk Technical Bulletin](#) (2021).

case, this list illustrates the breadth and depth of information that may be relevant to a robust interrogation of climate change-related risk exposures for a given corporation.¹⁵³

b) Failure to obtain independent advice

In order to ensure that they are meeting the above-mentioned duty to act on an informed basis, and to ensure that they are protected from liability,¹⁵⁴ directors would be well-advised to seek out expert or professional advice from within or outside their company. This is particularly the case in complex situations requiring specialized knowledge. In relation to climate change, this will apply both in their consideration of the strategic response to climate-related financial risks, and as an input into significant capex or acquisition decisions. By analogy with *Smith v Gorkom*,¹⁵⁵ seeking independent advice is likely to greatly reduce the risk of a board being found grossly negligent in their decision-making process if they fail to seek an assessment of the climate risks prior to the purchase of a carbon-intensive asset, or of elevated coastal inundation exposures when planning a program of waterfront infrastructure or real estate development.

In particular, in informing themselves of and critically evaluating the issues listed in [Annex I](#), directors would be well-advised to seek the input of independent, expert advice on this dynamic and specialized area, including in relation to issues such as relevant technological trends and costs of substitute lower-emissions products, carbon pricing regimes, emissions reductions scenarios, the likelihood of each scenario crystallizing and the impacts of each on price and demand, asset valuation, strategy and financial planning.

Where advice has been sought, an issue will still arise as to whether the directors' process of delegation, and evaluation of the advice received, will be sufficient to satisfy the duty of care. Relevant concerns may include where the "expert" advisor was not appropriately qualified or independent, or their advice colored by a set of biased or inadequate assumptions.

c) Failure to critically evaluate

As outlined above, under §141(e) DGCL, directors are entitled to rely on the advice provided by management and experts. However, the entitlement is not absolute. A failure of critical evaluation may arise where directors fail to assure themselves that the delegate or advisor was reasonably competent to provide the relevant advice, by reference either to their qualifications or independence.

Analogies may be drawn to other situations where directors have failed to meet the standards of conduct expected, such as where directors failed to make inquiries, and were satisfied with superficial or inadequate answers, in relation to issues critical to the risks of a proposed transaction.¹⁵⁶ In a climate risk context, this may arise where, for example, the advice to

¹⁵³ This list draws upon a list originally proposed by Sarah Barker, 'Lifting The Corporate Veil: An Introduction To Directors' Liability Exposures For Stranded Asset Risks' in *Stranded Assets Anthology*, Ben Caldecott (ed.), Routledge (2018).

¹⁵⁴ Under §141(e) DGCL, as outlined above.

¹⁵⁵ *Van Gorkom*, 488 A.2d at 872. The Court found that the Delaware directors were grossly negligent. The court did not require a fairness opinion by outside investment bankers as a matter of law, although that would have been customary as a matter of practice, since the court understood that in some circumstances management would be in "a better position than outsiders to gather relevant information" and value the business as a going concern. But a properly conducted valuation of the business, the court held, was "essential": at 872-873.

¹⁵⁶ Cf. Tim Buckley et al., [General Electric Misread the Energy Transition: A Cautionary Tale](#) (Institute for Energy Economics & Financial Analysis, June 2019). GE lost 74% of its market capitalization, or \$193

directors is based on outdated demand data or projections on solar power cost and penetration rates, or by applying an unrealistically low shadow price on carbon in capex and financial planning decisions. Another situation is where directors defer, without independent review, to the conclusions of management and external auditors in relation to whether financial statements presented a true and fair view of company performance and prospects.¹⁵⁷ In a climate change context, this may include a failure to ensure that material climate change-related variables and assumptions have been considered in the preparation of financial statements and adequately disclosed in the accompanying management reports. Indeed, the courts may increasingly be persuaded that scenario analysis and stress testing against a range of plausible climate futures is essential to the discharge of directorial due care and diligence in the high-risk sectors.¹⁵⁸

3. Exculpation clauses are widespread, but do not apply to all claims relating to the duty of care

Even where a plaintiff can discharge the high burden of rebutting the business judgment rule by establishing that the defendant directors have failed to exercise due care, the DGCL allows a company's certificate of incorporation to include an exculpation clause limiting or eliminating personal liability for the directors (although, importantly, *not officers*). Exculpation to the full extent of § 102(b)(7) DGCL has been subject of near universal adoption in the charters of Delaware corporations.¹⁵⁹ Plaintiffs who plead a claim for monetary damages that is covered by an exculpation clause will not survive a motion to dismiss.¹⁶⁰

However, exculpation will not provide a bar to a claim in three relevant circumstances. First, it does not bar claims seeking orders that are not limited to monetary damages.¹⁶¹ This is because the permitted directorial exculpation does not extend to actions seeking injunctive relief or rescission.¹⁶² Accordingly, it is unlikely to bar a derivative claim for breach of the duty of care where the plaintiff shareholders are seeking to injunct a particular transaction from proceeding, for example, a large acquisition of coal, oil or gas reserves, or infrastructure investments, where stranded asset or other physical or economic transition risks associated with climate change have not been considered in the corporation's commercial assessments. Second, it does not bar a claim that includes a breach of the duty of loyalty and good faith considered

billion, over 2016 to 2018, by “badly misjudg[ing] the acceleration of the energy transition post Paris,” including by developing a new generation of thermal power technology that it couldn't sell.

¹⁵⁷ Cf. *In re WorldCom, Inc. Sec. Litig.*, 346 F. Supp.2d 628 (S.D.N.Y. 2004) (holding that reliance on audited financial statements was insufficient due diligence where the statements contained “red flags.”). WorldCom had been treating the routine maintenance expenses for its telecommunications lines as capital expenditures rather than expenses, allowing it to depreciate those expenses, which inflated its apparent revenues. The “red flags” that the court referred to were that WorldCom's expense ratios were substantially lower than those of other telecommunications companies.

¹⁵⁸ Scenario analysis and stress testing across a range of plausible climate futures has rapidly solidified as the benchmark tool to aid the formulation of a corporation's strategic response to climate-related risks, their management and disclosure. The disclosure of this information (with the implicit presumption that same would reflect underlying strategy and risk management) has in fact been a core focus of shareholder resolutions seeking disclosure as described in [Part I supra](#). Scenario analysis is increasingly the subject of “soft-law” guidance not only by regulators but by influential, industry-led frameworks such as those promulgated by the TCFD and SASB.

¹⁵⁹ J. Robert Brown, Jr. and Sandeep Gopalan, [Opting Only In: Contractarians, Waiver of Liability Provisions, and the Race to the Bottom](#), 42 *Indiana Law Review* 285 (2009) 309–10.

¹⁶⁰ *In re Cornerstone Therapeutics Inc. S'holder Litig. v. Meeks*, 115 A.3d 1173, 1182 (Del. 2015).

¹⁶¹ See, e.g., *Chen v. Howard-Anderson*, 87 A.3d 648, 676 (Del. Ch. 2014).

¹⁶² See, e.g., for example, the discussion in Stephen J. Lubben and Alana J. Darnell, [Delaware's Duty of Care](#), 31 *Delaware Journal of Corporate Law* 589 (2006).

in [Part III](#) *supra*.¹⁶³ Third, it does not bar a claim against defendant *officers*, such as a CEO, CFO or General Counsel. A further relevant consideration is that exculpation clauses will not be effective against equitable remedies even against a director. For instance, a court might order increased disclosure, or even increased governance, on climate change issues, which a defendant director may be obliged to publicly disclose.

4. Conclusion on duty of care and climate change

It is likely that a director who is uninformed as to the climate risks, or who makes no conscious decision or judgment on this issue in their consideration of corporate strategy, planning and risk management, or in their consideration of transactions coming before them for approval, would fail to discharge their duty of care. It is also likely that inadequate consideration of climate change risks can constitute a failure to fulfil their duty of care, although the point at which such failure will manifest as breach will vary on the facts of each particular case. Given widespread publicity about climate change as a systemic risk-multiplier, every board should have the topic on the agenda at least once a year, with presentations from experts.

In particular, the business judgment rule can be rebutted due to gross negligence where: (a) the directors fail to consider *all material information reasonably available* in circumstances where there is an enormous, high-profile, and ever-increasing volume of commercial information on climate change-related risks; (b) they fail to seek out expertise on point; or (c) they ‘blindly accept’ advice from delegates or experts without their own critical evaluation.

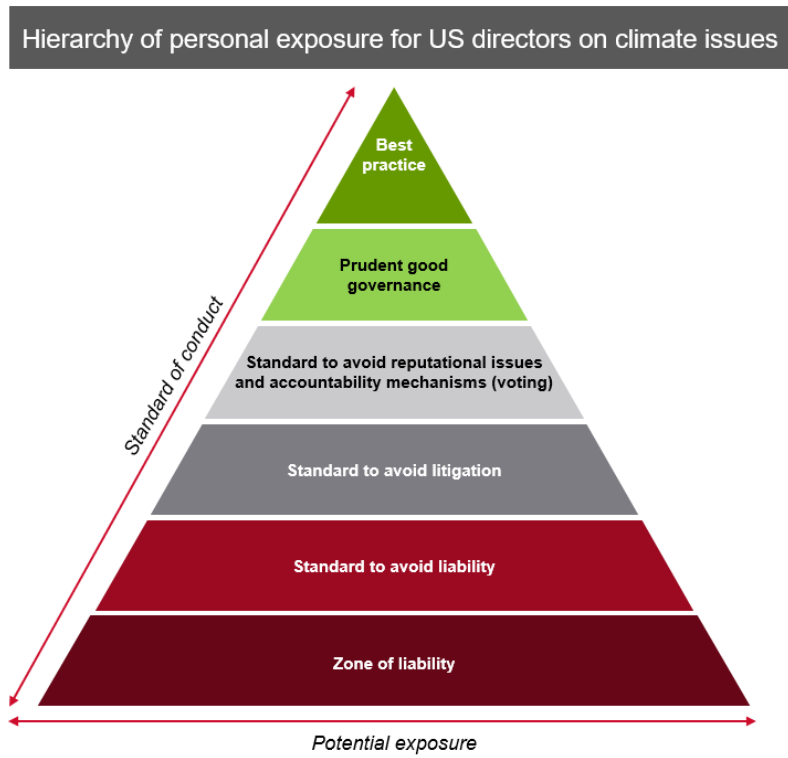
PART V – CLIMATE RISK AND GOOD GOVERNANCE

The bar for establishing a *Caremark* claim remains high, and it is rare for directors or officers to be found liable for breaches of their duty of oversight. Similarly, the business judgment rule affords directors a degree of autonomy in how they fulfil their duties. However, in light of the particular focus of investors and shareholders on climate change, and the appetite of litigants in this space,¹⁶⁴ there is a risk that a claim may be brought against directors for failure to consider climate change risks.

While proving that directors or officers have failed to meet the standard of liability for breaches of fiduciary duty is difficult, this standard is the bare minimum which directors and officers should attain. The diagram below shows the interrelation between the various standards of conduct to which directors and officers may be held, and their potential exposure to liability.

¹⁶³ Indeed, the limitations on personal liability for a breach of a director’s duty of care have led plaintiffs to emphasize those elements of the claims that overlap with the duty of loyalty, particularly *Caremark* duties and the obligations to act in good faith. *See e.g.*, *Soupman Lending, LLC v Karson*, 2020 N.Y. Misc. LEXIS 2453, at *5-10 (N.Y. Sup. Ct. May 21, 2020).

¹⁶⁴ *See* [Annex I](#), *infra*.



In cases where shareholders perceive that a board has failed to put in place adequate control and monitoring systems, leading to loss to the company, this may lead to a derivative action being brought against the board. While such a claim has several hurdles to clear to be successful, there is a credible risk that a claim may be successful.

Additionally, such claims can cause expense and reputational damage to directors and the company. Reputation risk may also arise where investors, shareholders, employees, the public and other stakeholders have an expectation that a company will act according to best practices or in step with their competitors. These stakeholders may expect a company undertaking a transition away from a carbon-intensive business model to consider the impacts of the transition on their employees and frontline communities, and may expect the company to take steps to ensure a fair and equitable transition considering these groups.¹⁶⁵

While a board may be unlikely to meet the threshold to be found liable for a breach of its duty of loyalty, there are further consequences to the company of a failure to adhere to best practices, including litigation risk and reputational damage. Reputation is highly valued by many companies, is seen as a board- and C-suite-level issue, and is generally related to other substantial risks.¹⁶⁶ Risk managers have identified the costs of reputational risk to include loss of income and social license to operate, as well as increased difficulties in attracting and

¹⁶⁵ An important acknowledgement and caveat: we are not blind to the failure of corporate governance to give adequate attention to the interests of workers and the connection between the respectful treatment of all workers, including contracted workers, and tackling climate change in an effective, socially constructive, and rapid way. As is true of climate change, every company affects its workforce in important ways that are material not just to the business, but to them as human beings and to our societies. Much of the logic of this paper therefore fully extends to corporate consideration of the interests of employees in what we therefore call “EESG” for Employee, Environmental, Social and Governance. Unless workers, for example in the energy sector, are respected fully and especially in the transition to a carbon-neutral or even negative economy, the needed change will not happen in the required time and in a socially harmonious way.

¹⁶⁶ Deloitte, [Global Survey on Reputation Risk](#) (2014).

retaining talented employees and increased regulatory pressure.¹⁶⁷ For example, the directors of General Motors were not found to be liable for an alleged breach of their fiduciary duties where they did not have an adequate risk management system in place to ensure that serious defects in their products were brought to the board's attention (following the discovery that faulty ignition switches in vehicles sold by the company had caused injurious and fatal crashes).¹⁶⁸ While the directors were not found liable, the reputational damage to the company in the following years was significant. Reputational damage for corporate behavior which is legal but 'close to the line' may also encourage regulatory investigation into other areas of a company's business.¹⁶⁹

Additional reputational damage to the company and to directors may arise as a result of §220 DGCL demands for books and records. These demands can bring the deliberations and communications of the board into the public eye, and can increase reputational damage. For example, in *Marchand*, the company managed to mitigate the initial reputational damage following the product recall, but media outlets were quick to focus on the lack of attention paid to food safety demonstrated by the plaintiffs' §220 DGCL claim.¹⁷⁰

Further, poor corporate action on climate change may lead to increased D&O payments. Insurers price D&O insurance to account for the risk that a company will be a target of shareholder litigation;¹⁷¹ insurers have noted that, in litigation-heavy areas such as climate change, D&O payments are likely to increase.¹⁷² Directors and officers should also be alert to the risk that GHG emission-related claims may not be covered by standard D&O clauses. Standard D&O wording often contains an exemption in respect of pollution and clean-up costs.¹⁷³ Following the decision of the Supreme Court in *Massachusetts v EPA*, GHG emissions may be classed as a pollutant within the meaning of the clean air act – as such, remedial damages in respect of GHG emissions may not be covered by typical D&O provisions.¹⁷⁴

Finally, directors who are not meeting best practices may face the risk of not being re-elected. Investors appear to be becoming increasingly active on climate change issues, and are willing to hold individual directors accountable. For example, at Exxon Mobil's 2021 AGM, a resolution brought by a Engine No.1, an investment firm, to replace four of Exxon Mobil's directors with nominees with experience in energy transition won the support of a voting majority of Exxon Mobil's shareholders in respect of three of the nominees.¹⁷⁵ BlackRock was

¹⁶⁷ Willis Towers Watson, [Global reputational risk management survey report](#) (Jan. 21, 2020).

¹⁶⁸ *In re General Motors Co. Derivative Litig.*, No. 9627-VCG, 2015 WL 3958724, at *17 (Del. Ch. June 26, 2015).

¹⁶⁹ See Claire Hill, '[Caremark as Soft Law](#)', *Temple Law Review* 90.4 (2018): 681-697.

¹⁷⁰ See Roy Shapira, '[A New Caremark Era: Causes And Consequences](#)', *Washington University Law Review* 98 (Dec. 10, 2020).

¹⁷¹ Tom Baker and Sean J. Griffith, '[Predicting Corporate Governance Risk: Evidence from the Directors' & Officers' Liability Insurance Market](#).' *The University of Chicago Law Review*. 74.2 (2007).

¹⁷² Willis Towers Watson, '[Climate change litigation threats to directors and officers](#)' (Nov. 27, 2019).

¹⁷³ *Id.*

¹⁷⁴ *Massachusetts v. Environmental Protection Agency* 549 U.S. 497; Davis Polk, [Insurance Coverage for Climate Change Risks](#) (Feb. 18, 2009); CFC Underwriting, [Climate change litigation and D&O insurance: What you need to know](#) (Feb. 19, 2020).

¹⁷⁵ Exxon Mobil Corporation. [Form 8-K](#) (filed 2 June 2021, EDGAR, SEC, 2021).

one of the shareholders voting in support of the resolution, as part of a broader trend of it voting against 255 directors and 319 companies for climate-related concerns.¹⁷⁶

PART VI – CONCLUDING REMARKS ON DIRECTOR LIABILITY

Climate change creates undeniable risks for corporations that must be carefully considered by officers and directors. Climate change poses three primary forms of risk: (1) risks to physical assets; (2) economic transition risks; and (3) litigation and liability risks. These create entity-specific risks that are systematic across the US economy. Collectively, climate change creates financial contagion or systemic risks that could undermine the health of the entire US financial system.

Directors and officers have obligations pursuant to their duties of loyalty and care to respond accordingly to these risks. This report concludes that under the current state of fiduciary duty law and the known risks presented by climate change, officers and directors of corporations may breach their fiduciary duties by failing to implement and monitor a robust system to identify and manage each type of climate-related risk identified in this report. This is particularly so for entity-specific compliance risks, such as those arising from climate-related breaches of disclosure laws.

As shown above, the potential for such an action is credible. The stakes mean that incentives for directors and their insurers to settle are high. The capacity of determined litigants to bring claims – whether motivated by a desire to seek compensation for economic loss or to drive corporate ambition on climate action – should not be underestimated.

Aside from the risk of liability exposure, directors and officers of Delaware corporations must consider material climate risks and opportunities in their governance and disclosure roles to fulfil their legal responsibilities, and to protect the financial health of the companies they lead. An indicative list of inquiries that may be required to fulfil the standard of care is set out in [Annex II](#).

This report concludes that climate change presents verifiable, material, and imminent risks to all corporations, and that directors who fail to carefully consider these risks may face legal liability for breaching their fiduciary duties to shareholders.

¹⁷⁶ BlackRock, [Pursuing long-term value for our clients: A look into the 2020-2021 proxy voting year](#) (July 2021) 61.

ANNEX I – THE FINANCIAL AND SYSTEMIC RISKS ASSOCIATED WITH CLIMATE CHANGE

A. WHAT IS CLIMATE CHANGE?

There is an overwhelming scientific consensus that human activities such as fossil fuel combustion, land clearing, and agriculture contribute significant volumes of greenhouse gases into the atmosphere. This has, in turn, caused observed warming over and above natural variability. According to the UN Intergovernmental Panel on Climate Change (IPCC), emissions-intensive human activities have already caused approximately 1°C (1.8°F) of global warming above average pre-industrial temperatures.¹⁷⁷ These changes create risks to physical infrastructure, human health, ecosystems, water supply and resource security, with financial consequences for productivity, supply chain integrity, and the costs and availability of finance and insurance.

B. PHYSICAL RISKS

Climate change leads to more frequent, and more extreme, weather-related events, such as heat waves, rainfall variability and extreme precipitation events, fires, drought, coastal inundation and inland floods, as well as gradual onset changes, such as rising sea levels due to thermal expansion of the oceans and glacial melt, ocean acidification, and sustained higher temperatures. The IPCC's assessment of the latest climate science has concluded that it is "unequivocal" that human influence has warmed the atmosphere, ocean and land. Global average temperatures now exceed 1.1°C (2°F) above those of pre-industrial times.¹⁷⁸ These impacts give rise to commercial issues and financial implications. These include business disruption such as plant and infrastructure outages, upstream changes in the availability and price of key inputs, downstream distribution interruption, population dislocation, reduced workforce productivity, changes in the cost or availability of insurance, energy price volatility, increases in adaptation capex, and increased risk of customer default. Exposures to physical risks compound and multiply between impacts and across supply and distribution chains.

The impacts of a changing climate already are having profound financial effects on the US economy. In 2020, unprecedented West Coast wildfires linked to climate change¹⁷⁹ caused billions of dollars of damage to homes, businesses and supply chains.¹⁸⁰ There were 11 "severe storm" events made more intense by climate change,¹⁸¹ each causing over a billion dollars of damage.¹⁸² Sea level rise is accelerating,¹⁸³ posing a threat to a large proportion of the population and economic activity in the US, especially along the Atlantic coast.¹⁸⁴ A recent report by McKinsey set forth the financial risks of rising sea levels and more severe storms to the public and private stakeholders in the Florida residential real estate markets, including homeowners, private insurance carriers, municipal governments, through to reinsurance carriers and bank balance sheets.¹⁸⁵

¹⁷⁷ IPCC, [IPCC Special Report: Global Warming of 1.5°C \(Summary For Policymakers\)](#) (Oct. 8, 2018); IPCC, [Sixth Assessment Report: The Physical Science Basis](#) (2021).

¹⁷⁸ IPCC, [Sixth Assessment Report: The Physical Science Basis](#) (2021).

¹⁷⁹ Stanford Earth, [The science behind the West Coast fires](#) (Sept. 29, 2020); Susanne Rust and Tony Barboza, [How climate change is fuelling record-breaking California wildfires, heat and smog](#), *Los Angeles Times* (Sep. 13, 2020).

¹⁸⁰ Earth Observatory, [Historic Fires Devastate the Pacific Coast](#), NASA (Sept 9, 2020).

¹⁸¹ Chelsea Harvey, [E&E News on Climate: Climate change may cause more storms to rapidly intensify](#), *Scientific American* (Oct. 9, 2020).

¹⁸² National Center for Environmental Information, ['Billion-Dollar Weather and Climate Disasters: Events'](#), National Oceanic And Atmospheric Administration (NOAA).

¹⁸³ R. W.V Horton et al., [Sea Level Rise](#), in *Climate Science Special Report: Fourth National Climate Assessment*, Vol I, D.J. Wuebbles, D.J., D.W. et al. (eds.) US Global Change Research Program (2017) 333-363.

¹⁸⁴ Environment Protection Authority, [Climate Change Indicators In The United States](#) (2016) 34-5.

¹⁸⁵ Mckinsey Global Institute, [Climate Risk and Response: Physical Hazards and Socioeconomic Impacts](#) (Jan. 2020) 20.

As this warming continues, the acute and gradual onset changes will increase, in turn increasing the physical risks generally. The specific physical risks associated with climate change vary according to location, circumstance and future warming pathway. The risks for natural and human systems at a macro level, and financial risks to business assets and operations at a micro level, depend on the magnitude and rate of warming, geographic location, level of development and vulnerability, and implementation of adequate adaptation activities.¹⁸⁶

On current rates, the global average temperature is expected to reach +1.5°C (2.7°F) around 2040, although this could occur as early as 2024.¹⁸⁷ The physical risks of a “1.5°C world” are higher than today, and in turn, a “2°C world” higher still. On a “business as usual” emissions trajectory, scientists warn of warming in excess of 4°C (7.2°F) by 2100.¹⁸⁸ The physical risks will be extreme and insurers have described a “4°C world” as “uninsurable.”¹⁸⁹

C. ECONOMIC TRANSITION RISKS

Research by diverse analysts, from the IPCC to McKinsey, shows that rapid economic transition scenarios which limit the most catastrophic climate impacts require deep emissions reductions across industry, transport, power, buildings and agriculture.¹⁹⁰ This essential economic transition creates financial risks from:

- policy or regulatory responses that attempt to either constrain emissions-intensive activities (e.g. carbon pricing mechanisms), or to promote adaptation to climate impacts;
- technology trends, such as advances in renewable energy generation, electric vehicles, battery storage, energy efficiency and carbon capture, storage and use;
- market forces via impacts on supply and demand dynamics in financial markets and the real economy; and
- reputational, strategic or competitiveness risks associated with evolving stakeholder perceptions and expectations.

These transition risks lead to compliance risks to companies, with the likely introduction of new regulatory requirements such as carbon pricing, methane pollution limits, or climate risk disclosure. They also fall within the broader suite of business risks affecting balance sheet values through changes in revenue or costs. These economic transition risks can transmit between financial actors as systemic risks to the financial sector. For example, a report by Ceres found that over half of syndicated lending of major US banks is exposed to systematic economic transition risks because their clients across a wide range of sectors are inadequately prepared for the net-zero transition in line with the Paris Agreement. In turn, banks’ leverage and connectivity could lead to balance-sheet contagion or “fire sales” of financial assets similar to those which occurred in the financial crisis.¹⁹¹

1. Policy and regulatory responses

The global community agreed to the required economic transition in the 2015 Paris Agreement, which sets out two primary goals:

- to limit the “increase in the global average temperature to well below 2°C [3.6°F] above pre-industrial levels” and to pursue “efforts to limit the temperature increase to 1.5°C [2.7°F] above

¹⁸⁶ IPCC, *supra* note 3 [A.3].

¹⁸⁷ IPCC, Global Warming of 1.5°C, [FAQ Chapter 1](#) [1.2] 80-81.

¹⁸⁸ IPCC, [Climate Change 2014 Synthesis Report, Summary for Policy Makers](#), 10.

¹⁸⁹ James Fernyhough, [Climate change on track to make the world ‘uninsurable’](#), *The Australian Financial Review* (Nov. 15, 2018).

¹⁹⁰ McKinsey & Co, [Climate Math: What A 1.5-Degree Pathway Would Take](#) (Apr. 2020).

¹⁹¹ Ceres, [Financing A Net-Zero Economy: Measuring and Addressing Climate Risks for Banks](#) (Oct. 19, 2020).

pre-industrial levels,” to be achieved through countries' nationally determined contributions (NDCs); and

- to achieve “a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century”, which has widely been interpreted as requiring net-zero global emissions.¹⁹²

Limiting global warming to 1.5°C (2.7°F) is still technically feasible, but requires “rapid, far-reaching and unprecedented” changes in all aspects of society and the economy, according to the IPCC.¹⁹³ To date, global pledges are not sufficient to meet these goals. Under its original NDC, the US committed to reduce its emissions by 26-28% below 2005 levels by 2025 and to make best efforts to reduce its emissions by 28%.¹⁹⁴ The US has now issued a new NDC restating its 2025 goal and committing to reducing its emissions by 50-52% below 2005 levels by 2030.¹⁹⁵

Although the US left the Paris Agreement during the Trump Administration, the US has re-joined the Paris Agreement under the Biden Administration. President Biden has moved quickly to emphasize climate change as part of both US foreign and domestic policy. His climate change Executive Order on 27 January 2021 established a process to embed climate change in every executive agency of the Federal Government, including establishing an inter-agency coordinating process and appointing both a foreign and domestic policy lead in newly-established positions within the White House.¹⁹⁶ Secretary of the Treasury Janet Yellen has stated that climate change will be a priority, that the Treasury will create a hub that will focus on financial system-related risk posed by climate change, and will introduce tax policy incentives to effect change.¹⁹⁷

These actions are consistent with conclusions by the Federal Reserve Bank Board of Governors, which for the first time identified climate change as a risk to the US financial system in its Financial Stability Report of November 2020:

[C]limate change, which increases the likelihood of dislocations and disruptions in the economy, is likely to increase financial shocks and financial system vulnerabilities that could further amplify these shocks. ... Federal Reserve supervisors expect banks to have systems in place that appropriately identify, measure, control, and monitor all of their material risks, which for many banks are likely to extend to climate risks.¹⁹⁸

The US Securities and Exchange Commission (SEC) is in the process of determining how to regulate in this area. It is widely expected to promulgate climate change and ESG disclosure requirements,¹⁹⁹

¹⁹² [Paris Agreement to the United Nations Framework Convention on Climate Change](#), Dec. 12, 2015, T.I.A.S. No. 16-1104.

¹⁹³ IPCC, *supra* note 3.

¹⁹⁴ United Nations Framework Convention on Climate Change (UNFCCC), [USA First NDC Submission](#) (2015) .

¹⁹⁵ UNFCCC, [The United States of America Nationally Determined Contribution: Reducing Greenhouse Gases in the United States: A 2030 Emissions Target](#) (2021).

¹⁹⁶ The White House, [Executive Order on Tackling the Climate Crisis at Home and Abroad](#) (Jan. 27, 2021). Former Obama Administration Secretary of State, John Kerry, has been appointed as Special Presidential Envoy for Climate with a foreign-policy remit, and former Administrator (head) of the Environmental Protection Agency in the Obama administration, Gina McCarthy, has been appointed as the National Climate Advisor to the President.

¹⁹⁷ Reuters, [‘Yellen says would appoint senior climate official at Treasury’](#) (Jan. 20, 2021) 58.

¹⁹⁸ United States Federal Reserve Bank Board of Governors, [Financial Stability Report](#) (Nov. 2020) 59.

¹⁹⁹ See, e.g., Wachtell, Lipton, Rosen & Katz, [‘ESG Disclosures: SEC Appoints Climate and ESG Policy Advisor; U.K. and EU Regulators Ramp Up Reporting Requirements’](#) (Feb. 4, 2021) (discussing likely SEC actions to require expanded disclosure of climate and ESG matters). Two of its five current Commissioners are on record in support of expanded climate change disclosure (Commissioner Lee and Commissioner Crenshaw), and a new position, Senior Policy Advisor for Climate and ESG, has been created within the SEC. Satyam Khanna has been appointed to this position. Mr Khanna was previously counsel to former

but will no doubt face fierce opposition. It is undertaking a review of the extent to which public company disclosures are meeting the 2010 climate risk disclosure guidance; it has asked for guidance on how to require effective climate and ESG disclosure, and how to structure an administrative agency to evolve regulation in this area.²⁰⁰

Various governments in Europe and Asia have flagged their preparedness to use trade mechanisms to “incentivize” progress on emissions reduction by laggard countries.²⁰¹ Once a potential target for these trade mechanisms, the US may join these countries as the Biden Administration has expressed support for such a “carbon adjustment fee”.²⁰² Carbon pricing now covers over 20% of the world's emissions.²⁰³ The report of the Climate-Related Market Risk Subcommittee of the Commodity Futures Trading Commission (CFTC) calls for the introduction of a carbon price consistent with the Paris Agreement.²⁰⁴

Developments in climate policy and sustainable finance in other major jurisdictions have far-reaching consequences for global markets, including the US.²⁰⁵ An increasing number of net-zero carbon or net-zero emissions targets are being introduced or actively considered by governments at national and sub-national levels: 131 countries, responsible for almost three-quarters of global emissions, are considering or have adopted net-zero targets as of May 2021, including the UK, EU, Canada, Japan, South Korea and China.²⁰⁶ Globally, 73% of the world's economy is now operating under net-zero by 2050 policies (which are required in order to meet the 1.5°C temperature goal under the Paris Agreement), and there has also been a sharp acceleration in nearer-term 2030 targets – including in the United States (50-52% by 2030) and many of our major trading partners such as the EU (55%), the UK (68%) and Canada (40-45%).²⁰⁷ In the US, there are subnational net-zero targets in 24 states (including California and New York), as well as in the District of Columbia.²⁰⁸

2. Technology trends

Renewable energy technologies are increasingly economically competitive with fossil fuel generation.²⁰⁹ In the US, coal power plants are rapidly being retired and in April 2019 renewable energy constituted a greater proportion of the US energy mix than coal-fired power generation for the first

SEC Commissioner Robert Jackson, who was also on record being in favor of expanded climate and ESG disclosure. Following the appointment of Gary Gensler as Chair of the SEC, a process to consider expanded climate and ESG disclosure is expected.

²⁰⁰ SEC Acting Chair Allison Herren Lee, [‘Statement On The Review Of Climate-Related Disclosure’](#) (Feb. 24, 2021).

²⁰¹ Mehreen Khan and Gideon Rachman, [‘Davos 2020: Ursula von der Leyen warns China to price carbon or face tax’](#), *Financial Times* (Jan. 22, 2020).

²⁰² Biden for President, [The Biden Plan to Ensure the Future is “made in All of America” By All of America’s Workers](#).

²⁰³ The World Bank, [Carbon Pricing Dashboard](#).

²⁰⁴ Market Risk Advisory Committee of the US Commodity Futures Trading Commission, *supra* note 5, Recommendation 1. While the average carbon price is only \$2 per metric ton of CO₂e, estimates of a “Paris-aligned” carbon price that would be likely to limit warming to “well below 2°C” range from \$40 to \$100 per metric ton of CO₂e and increasing over time: at 5.

²⁰⁵ For example, the EU continues to progress key components of its Sustainable Finance Action Plan, including new sustainability-related disclosure requirements, which will impact US financial institutions that participate in European financial markets and increase disclosure expectations from European investors of their US investee companies: European Commission, [Action Plan: Financing Sustainable Growth](#) (2018); *see also* [Sustainable Finance](#); *see especially* the [Taxonomy and Sustainable Finance Disclosure Regulation](#).

²⁰⁶ Climate Action Tracker, [Warming Projections Global Update](#) (May 2021).

²⁰⁷ *Id.*

²⁰⁸ Centre for Climate and Energy Solutions, [U.S. State Greenhouse Gas Emissions Targets](#) (March 2021).

²⁰⁹ Carbon Tracker, [The Trillion Dollar Energy Windfall: Analyst Note](#) (Sept. 5, 2019). Globally, more than 50% of new build renewables undercut the cheapest existing coal-fired power plants: International Renewable Energy Agency, [Renewable Power Generation Costs in 2019](#) (June 2020).

time.²¹⁰ While primarily driven by declining costs of renewable energy generation and battery storage, renewable energy technologies are increasingly supported in economic policy, particularly for Covid-19 recovery plans. President Biden has set out a \$2 trillion economic recovery plan focused on clean energy investments and the creation of green jobs as part of his “Plan for Clean Energy and Environmental Justice”.²¹¹ In the automotive sector, California has committed to phasing out the sale of new internal combustion engine vehicles by 2035. It joins a growing number of national and sub-national governments, and automotive manufacturers, setting targets to phase out such sales in passenger and light-duty vehicles – from the UK to Japan, from General Motors to Volvo.²¹² A recent Carnegie Mellon University study concluded that electric vehicles may reach price parity with cars with internal combustion engines in the US on or before 2025.²¹³

3. Market forces

Changing supply and demand dynamics in the economic transition can lead to “stranded assets”. These assets cannot be profitably exploited or used for the full expected period of time during which a physical asset, such as a coal-fired power plant, is expected to be utilized, which negatively affects current valuations of these assets. These risks are particularly acute in industries with high emissions intensities or long-lived physical plant and infrastructure. Stranded asset risks have been the subject of significant recent investor concern in the energy and resources sectors, in particular, coal, oil, gas and conventional electric utilities. Yet stranded asset risks cut across many sectors of the economy, including automotive and airline industries, as well as financial market participants who have debt or equity exposures to companies in those sectors or their assets, such as banks, insurance companies, asset owners and asset managers.²¹⁴ There has been a recent spate of asset revaluations by carbon majors, with \$80 billion in write downs across the industry.²¹⁵

4. Stakeholder shifts

a) Regulators

Economic transition risks include shifts in stakeholder perceptions, including the approaches of central banks, prudential, and securities regulators.²¹⁶ First mover jurisdictions such as the UK are mandating

²¹⁰ Energy & Climate Intelligence Unit, [The Sum of its Parts](#) (Oct. 22, 2020) 8.

²¹¹ Climate Action Tracker, [USA](#).

²¹² Sandra Wappelhorst and Hongyang Cui, [Growing momentum: Global overview of government targets for phasing out sales of new internal combustion engine vehicles](#), [The International Council on Clean Transportation](#), The International Council on Clean Transportation (Nov. 11, 2020).

²¹³ Venkat Viswanathan, Alexander Bills and Shashank Sripad, [The road to electric vehicles with lower sticker prices than gas cars – battery costs explained](#), [The Conversation](#) (July 27, 2020).

²¹⁴ Climate Analytics, [Global and Regional Coal Phase-Out Requirements of the Paris Agreement: Insights From the IPCC Special Report on 1.5°C](#) (2019); Carbon Tracker, [2 Degrees Of Separation: Transition Risk For Oil And Gas in a Low Carbon World](#) (Sept. 13, 2019); Ben Caldecott et al., [Stranded Assets And Thermal Coal: An Analysis Of Environment-Related Risk Exposure](#), Oxford University, Smith School of Enterprise and the Environment (Jan. 2016).

²¹⁵ Ron Bousso, “[Oil majors wipe \\$80 billion off books as epidemic, energy transition bite](#)”, [Reuters](#) (Dec. 2, 2020). This trend is partly attributable to the Covid-19 pandemic but assumptions around increasing carbon prices and constrained demand in the energy transition were also key factors for Shell’s up to \$22 billion impairment and BP’s up \$17.5 billion reduction. Both companies said these accounting decisions were a response to not only the recession, but also to global efforts to tackle climate change. By contrast, Exxon Mobil’s record \$17-20 billion write down in the fourth-quarter of 2020 was based on pre-pandemic forward price assumptions and made no reference to climate change. Exxon Mobil, [ExxonMobil to prioritize capital investments on high-value assets](#) (Nov. 30, 2020).

²¹⁶ See, e.g., U.S. Federal Reserve Board Governor Lael Brainard, [Why Climate Change Matters for Monetary Policy and Financial Stability](#), Address at ‘The Economics of Climate Change’ Conference, California (Nov. 8, 2019). See also Market Risk Advisory Committee of the US Commodity Futures Trading Commission, *supra* note 6, at vi: “The United States already participates in the Basel Committee on Banking Supervision’s climate task force, the International Organization of Securities Commissions

climate-risk disclosures in line with the Task Force on Climate-Related Financial Disclosure (TCFD) recommendations by 2025 at the latest.²¹⁷ Established by the Financial Stability Board in December 2015 and chaired by Michael Bloomberg with special assistance from former SEC Chair Mary Schapiro, the TCFD seeks disclosure of companies' governance, strategy, risk management, targets, and metrics for evaluating climate risks and opportunities.²¹⁸ Its 2020 Status Report states that the TCFD's framework has been endorsed by "over 1,500 organizations globally, including over 1,340 companies with a market capitalization of \$12.6 trillion and financial institutions responsible for assets of \$150 trillion."²¹⁹

Globally, there is increasing recognition that climate-related risks are relevant to international accounting standards and to financial disclosures.²²⁰ The International Financial Reporting Standards (IFRS) Foundation has confirmed that the IFRS already requires disclosure of climate-related risks in financial accounting and disclosure.²²¹ In 2020, the IFRS conducted a consultation on its potential role in developing sustainability reporting standards, responding to investor demand and global consolidation efforts to align sustainability standards being developed amongst private standard setters.²²² This consultation demonstrated an "an urgent need for global sustainability reporting standards."²²³ The IFRS Foundation now intends to work with the International Organization of Securities Commissions (IOSCO) to establish a new board for setting sustainability reporting standards that meet the needs of the capital markets.²²⁴ In the US, the Financial Accounting Standards Board (FASB) has issued an educational paper for staff detailing how ESG matters, including climate change, impact financial reporting.²²⁵

The Basel Committee on Banking Supervision, which sets the global standards for capital adequacy, has recognized that climate change potentially impacts the safety and soundness of individual financial institutions and has broader financial stability implications for the banking system.²²⁶ In April 2021, the Basel Committee published two reports which discuss the transmission channels of climate-related risks

(IOSCO) sustainable finance network, and relevant committees within the Financial Stability Board (FSB) to study climate-related financial risks." The U.S. National Association of Insurance Commissioners, the California Department of Insurance, the New York Department of Financial Services, and the Washington State Office of the Insurance Commissioner are members of the international Sustainable Insurance Forum (SIF), a global network of 31 insurance supervisors and regulators.

²¹⁷ HM Treasury, [UK Joint Regulator and Government TCFD Taskforce: Interim Report and Roadmap](#) (Nov. 9, 2020).

²¹⁸ See [TCFD](#).

²¹⁹ TCFD, [2020 Status Report](#), *supra* note 6.

²²⁰ SEC Commissioner Allison Herren Lee, [Playing the Long Game: The Intersection of Climate Change Risk and Financial Regulation](#), Keynote Address at PLI's 52nd Annual Institute on Securities Regulation (Nov. 5, 2020); AASB and AUASB, [Climate-Related and Other Emerging Risks Disclosures: Assessing Financial Statement Materiality Using AASB Practice Statement 2](#) (Apr. 2019); Nick Anderson, [IFRS Standards and climate-related disclosures](#) (Nov. 28, 2019); IFRS, [Educational material: The effects of climate-related matters on financial statements prepared applying IFRS Standards](#) (Nov. 20, 2020). The IFRS Foundation is currently consulting on a proposal to establish a Sustainability Standards Board, to sit alongside the International Accounting Standards Board, which would be tasked with developing international standards for sustainability reporting. If established, it is proposed that climate-related reporting standards would be the first to be developed: IFRS, [Consultation Paper on Sustainability Reporting](#) (Sept. 2020).

²²¹ IFRS, [Consultation Paper on Sustainability Reporting](#) (Sept. 2020).

²²² *Id.*

²²³ IFRS, ['IFRS Foundation Trustees announce strategic direction and further steps based on feedback to sustainability reporting consultation'](#) (Mar. 8 2021).

²²⁴ *Id.*

²²⁵ FASB, [FASB Staff Educational Paper Intersection of Environmental, Social, and Governance Matters with Financial Accounting Standards](#) (Mar. 19, 2021).

²²⁶ Basel Committee on Banking Supervision, [The Basel Committee's initiatives on climate-related financial risks](#) (Oct. 14, 2020).

to the banking system, and the measurement methodologies of climate-related financial risks.²²⁷ *Climate-related risk drivers and their transmission channels* explores how climate-related financial risks arise and affect both banks and the banking system. *Climate-related financial risks – measurement methodologies* provides an overview of conceptual issues related to climate-related financial risk measurement and describes banks' and supervisors' current and emerging practices in this area.

b) Investors, debt providers, insurers and credit rating agencies

There is growing consensus among institutional investors that climate change affects their calculations of investment risks and returns. Analysis by investment consultant Mercer suggests that any investor holding a business-as-usual, diversified equity portfolio that is not sustainability-themed, and with significant oil, gas, and coal holdings, risks 'undue loss' or, indeed, catastrophic loss in some asset classes, starting to eventuate over the next decade.²²⁸ The UN-supported investor network the PRI has warned its members to prepare for near-term portfolio disruption based on PRI's forecast that governments will strongly accelerate climate policies within the next five years.²²⁹

On the equity side, the Climate Action 100+ is a global coalition of investors with \$52 trillion in assets under management (AUM) committed to driving corporate action on climate change.²³⁰ One of its members, BlackRock, has stated its expectation that companies disclose climate risks in accordance with the TCFD and Sustainability Accounting Standards Board (SASB) frameworks, and has announced it will divest its active funds from companies that derive more than 25% of revenues from thermal coal production.²³¹ BlackRock's CEO Larry Fink, in his 2021 letter to the CEOs of its investee companies, stated that there is no company whose business model will not be profoundly affected by the transition to net-zero emissions, and that net-zero demands a transformation of the entire economy.²³² Thus, in 2021, it is asking investee companies to disclose a plan for how their business model will be compatible with a net-zero economy, and how this plan is incorporated into the company's long-term strategy and reviewed by the board of directors.²³³

Mainstream investors are increasingly voting in favor of shareholder resolutions that seek the preparation and disclosure of net-zero emissions strategies, with companies targeted beyond the fossil fuel sector – including large investors such as BlackRock, Calprs and Calstrs.²³⁴ BlackRock voted against 255 directors and 319 companies, the majority of which were in the Americas, due to climate-related concerns which it perceived as negatively affecting long-term shareholder value, including 68 companies which it deemed had failed to show sufficient urgency in their climate change plans.²³⁵

Proxy advisors such as ISS and Glass Lewis are also increasingly recommending such votes. The 2021 proxy season saw the emergence of "Say on Climate" resolutions, asking that corporate transition plans

²²⁷ Basel Committee on Banking Supervision, [Basel Committee publishes analytical reports on climate-related financial risks](#) (Apr. 14, 2021).

²²⁸ Mercer, [Investing in a Time of Climate Change — The Sequel](#) (2019).

²²⁹ PRI, [The Inevitable Policy Response 2021: Policy Forecasts](#) (Mar. 17, 2021).

²³⁰ [Climate Action 100+](#) (as of January 2021).

²³¹ Larry Fink, [Larry Fink's 2020 Letter to CEOs: A Fundamental Reshaping of Finance](#), BlackRock (Jan. 14, 2020); Blackrock, [Our Approach to Sustainability: Blackrock Investment Stewardship](#) (July 2020). Similarly, California State Teachers' Retirement System (CalSTRS) [divested from U.S. thermal coal companies in 2016 and from non-U.S. thermal coal companies in 2017](#); Larry Fink, [BlackRock letter to CEOs](#), BlackRock (Jan. 26, 2021).

²³² Larry Fink, [Larry Fink's 2021 Letter to CEOs](#), BlackRock (Jan. 26, 2021).

²³³ *Id.*

²³⁴ In May 2020, JP Morgan Chase faced a resolution for greater disclosure on the climate impacts of its lending activities, which was only narrowly defeated on receiving 48.6% of the votes: Rachel Koning Beals, [JP Morgan Chase shareholders defeat call for greater climate-change disclosure at world's largest oil funder](#), *Market Watch* (May 20, 2020).

²³⁵ BlackRock, [Pursuing long-term value for our clients: A look into the 2020-2021 proxy voting year](#) (July 2021).

be submitted to an advisory vote by shareholders. A “Say on Climate” has already been agreed to by corporate heavyweights from Unilever to Moody’s, Shell, Rio Tinto and Glencore.²³⁶

The 2021 proxy season saw a proliferation of resolutions regarding climate change issues, a record number of which have been successful.²³⁷ These have included high-profile shareholder resolutions at oil majors.²³⁸ Perhaps most importantly for directors, shareholders of Exxon Mobil voted to replace three of the company’s directors with directors with substantial experience in managing energy transition.²³⁹

On the debt side, an increasing number of banks, insurers and reinsurers are refusing to issue debt or insurance to thermal coal mines, coal-fired power utilities, or Arctic oil exploration and production.²⁴⁰ The Equator Principles now require banks to specifically consider the climate-related impacts of a project in project finance due diligence using the TCFD recommendations and the project’s expected annual emissions.²⁴¹ Credit ratings agencies have also signaled their pricing of climate risk into their existing ratings processes.²⁴²

While the Covid-19 pandemic initially slowed momentum for climate action, it has, however, re-emerged as part of the “green recovery” agenda.²⁴³ According to Oxford University research, there is considerable support amongst central bank officials, finance officials and leading economists from G20 countries for stimulus policies that deliver economic multipliers for social and economic recovery while shifting emissions trajectories downward.²⁴⁴ Large institutional investors and business groups such as

²³⁶ Say on Climate, [Supporters – Voluntary Adoption](#).

²³⁷ Georgeson, [An Early Look at the 2021 Proxy Season](#) (2021).

²³⁸ *Id.* Among shareholder resolutions proceeding to vote in the US were resolutions proposing that: ConocoPhillips and Chevron set and report on emission reduction targets covering the greenhouse gas emissions of the company’s operations as well as their energy products (Scope 1, 2 and 3) (with 59.3% and 60.7% of the vote, respectively); Chevron report on the implications of the International Energy Agency’s October 2020 Net Zero 2050 scenario (failed with 47.8% of the vote); Phillips 66 set and report on GHG reductions targets as well as the alignment of its lobbying activities with the objectives of the Paris Agreement (passed with 80.28% of the vote); General Electric evaluate and disclose if and how the company has met the criteria of the ‘Net Zero Indicator’ produced by the Climate Action 100+ (passed with 97.97% of the vote); Exxon Mobil evaluates and reports on the alignment of its lobbying activities with the objectives of the Paris Agreement, on the basis that “corporate lobbying that is inconsistent with the goals of the Paris Agreement presents regulatory, reputational and legal risks to investors” (passed with 63.8 % of the vote).

²³⁹ Exxon Mobil Corporation, [Form 8 K](#) (filed 2 June 2021), EDGAR, SEC, (2021).

²⁴⁰ Institute for Energy Economics and Financial Analysis, [Why 2020 is Turning Out to be a Pivotal Year for Fossil Fuel Exits](#) (Oct. 30, 2020). Goldman Sachs was the first US bank to announce a fossil finance policy in December 2019: Hannah Lang, [Banks urged to follow Goldman’s lead on fossil fuel](#), *American Banker*, (Feb. 19, 2020).

²⁴¹ Equator Principles, [Equator Principles 4](#) (2020). These have applied to mandated transactions since July 1, 2020.

²⁴² Fitch Ratings, [ESG in Credit](#) (White Paper, 2020) 17, (the six key ESG trends that are relevant to credit ratings include: refinancing risk, the EU taxonomy, and climate policies); S&P Global and DWS, [Understanding Climate Risk at the Asset Level: The Interplay of Transition and Physical Risks](#) (2019); Moody’s, [General Principles For Assessing Environmental, Social And Governance Risks](#) (Dec. 14, 2020).

²⁴³ At the Petersburg Climate Dialogue in April 2020, over 30 countries [committed to aligning their economic recovery packages with environmental objectives](#). While this did not include the US, the omnibus spending and Covid-19 relief Bill passed by U.S. Congress in December 2020 contained climate provisions, including “significant limits on a potent greenhouse gas found in refrigerants, new funds for wind and solar development, and ... an extension of the 45Q tax credit, which gives companies a tax break for capturing carbon”: Leslie Kaufman, [Will Covid Stimulus Be the Breakthrough Carbon Capture Has Been Waiting For?](#), *Bloomberg Green* (Jan. 4, 2021).

²⁴⁴ Cameron Hepburn et al., [Will Covid-19 Fiscal Recovery Packages Accelerate or Retard Progress on Climate Change?](#), Oxford University, Smith School of Enterprise and the Environment, Working Paper No. 20-02, (May 4, 2020).

BlackRock, DWS, Allianz and State Street, have also called for Paris-aligned corporate recovery plans.²⁴⁵

c) Competitors, consumers, employees and the community

A majority of Americans are “very worried” or “somewhat worried” about climate change.²⁴⁶ Community concern about climate change is being directed towards business, not just governments, and is influencing consumer and employment decisions. Movements such as the Sunrise Movement, Fridays for Future climate strikes, and Extinction Rebellion are playing a powerful role in shaping and communicating public expectations of climate action. Parliaments and councils in over 1,800 jurisdictions or local government areas have responded by declaring a “climate emergency”.²⁴⁷ There is also growing community and investor concern around climate-adjacent environmental issues, such as deforestation, air-quality deterioration, biodiversity loss, plastic waste, and meat production.

There has also been an explosion in corporate net-zero commitments. In July 2019, the United Nations Global Compact called upon leaders to commit their companies to a 1.5°C (2.7°F) target.²⁴⁸ Leading US corporates that have committed to net-zero include Apple and Microsoft, with the latter aiming to go carbon negative from 2030, with a 2050 goal of removing emissions greater than those that are attributable to its operations since 1975.²⁴⁹ The ambition and scope of such pledges continues to be debated, but they illustrate mounting pressure on business to realign their strategies with the Paris goals. In the US, the We’re Still In coalition of institutions committed to the Paris Agreement, an initiative that was developed after the US pulled out of that agreement during the Trump administration, currently has 2,301 US businesses and investors among its 3,932 signatories stating their commitment to working with the Biden-Harris administration to drive progress.²⁵⁰

D. LITIGATION RISKS

Litigation risks arise from private or regulatory legal actions relating to the physical or economic transition risks associated with climate change. Such claims may arise in a number of circumstances, including: a failure to mitigate (i.e., reduce) emissions; a failure to adapt to the foreseeable impacts associated with climate change; a failure to disclose the risks associated with climate change where an obligation exists to do so (e.g., under corporate reporting and securities laws); and a failure to comply with climate-specific regulatory obligations such as emissions intensity standards.²⁵¹

Climate litigation against companies and their directors is on the rise, with 1,200 climate cases filed by regulators, bondholders, shareholders and municipalities across the US as of late 2020.²⁵² Carbon majors

²⁴⁵ The Investor Agenda, [A Sustainable Recovery from the Covid-19 Pandemic](#) (AIGCC, CDP, Ceres, IGCC, IIGCC, PRI and UNEPFI) (May 2020).

²⁴⁶ Anthony Leiserowitz et al., [Climate Change in the American Mind: April 2020](#) (Yale Program On Climate Change Communication, May 19, 2020).

²⁴⁷ Climate Emergency Declaration, [Climate emergency declarations in 1,863 jurisdictions and local governments cover 820 million citizens](#) (Dec. 27, 2020).

²⁴⁸ UN Global Compact, [Business Ambition for 1.5°C](#). As of August 2020, 271 companies representing over \$3.6 trillion in market capitalization have signed on.

²⁴⁹ Apple, [Apple commits to be 100 percent carbon neutral for its supply chain and products by 2030](#) (July 21, 2020); Microsoft, [Microsoft announces it will be carbon negative by 2030: Press Release](#) (Jan. 16, 2020).

²⁵⁰ [We’re Still In](#), (data as of Feb. 15, 2021).

²⁵¹ Bank of England Prudential Regulation Authority, *supra* note 8.

²⁵² UNEP and Sabin Center for Climate Change Law, [Global Climate Litigation Report: 2020 Status Review](#) (2020); Joana Setzer and Catherine Higham, [Global trends in climate change litigation: 2021 snapshot](#), London School of Economics, Grantham Research Institute on Climate Change and the Environment (July 2021).

have faced a surge in climate lawsuits in recent years,²⁵³ on the basis of state law violations, including public and private nuisance, trespass, product liability and consumer protection.²⁵⁴

Companies' obligations relating to climate change are broad and likely to both expand in scope and become more prescriptive and specific, and litigation risk may arise as a result of lobbying activities, advertising, human rights issues, packaging and so on.²⁵⁵

A number of recent successful climate change cases may indicate the potential for litigation risk for corporates to increase. In the recent judgment in *Milieudefensie v Royal Dutch Shell plc*,²⁵⁶ the District Court of The Hague found that when determining the corporate policy for its corporate group, Shell must act in accordance with the due care exercised in Dutch society. However, the court found that as a result of the CO₂ emissions of the Shell group, certain Dutch citizens would suffer harm. As a result, Shell would fail to meet the unwritten standard of care in the Dutch Civil Code. Therefore, the court ruled that Shell must reduce the direct CO₂ emissions of the Shell group, and use its best efforts to reduce the scope 2 and 3 emissions of the Shell group, by 45% by the end of 2030 through implementing a Shell group corporate policy which complies with the unwritten duty of care.²⁵⁷ The ruling is provisionally enforceable, meaning that Shell must comply with it pending appeal.

While a US court has yet to rule on tortious liability for greenhouse gas emissions, there are a number of claims on foot seeking such a ruling. A recent New York decision has held that climate change is a matter for federal regulation, rather than tort law.²⁵⁸ However, cases brought in California, Maryland, and Rhode Island have been remanded to state courts, meaning that the case on state tort law may be heard.²⁵⁹ Similarly, the federal court has remanded a claim by Massachusetts alleging breaches of the Massachusetts Consumer Protection Act by Exxon Mobil to the state court, which will now proceed to trial.²⁶⁰

²⁵³ Climate Case Chart, [US Climate Change Litigation – Common Law Claims](#).

²⁵⁴ Lisa Benjamin, '[The Road to Paris Runs Through Delaware: Climate Litigation and Directors' Duties](#)', *Utah L. Rev.* (2020) 25-32; Karen Savage, '[Climate Suits Grew in 2020, Could Clear Huge Hurdle in 2021](#)' *Climate Docket* (Dec. 30, 2020); David Hasemyer, '[Fossil Fuels on Trial: Where the Major Climate Change Lawsuits Stand Today](#)', *Inside Climate News* (Jan. 17, 2020); David Hasemyer, '[Five States Having Filed Climate Change Lawsuits, Seeking Damages from Big Oil and Gas](#)', *Inside Climate News* (Sept. 15 2020).

²⁵⁵ Expert Group on Global Climate Change, Jaap Spier (ed.), [Principles on Climate Obligations of Enterprises](#), 2nd ed., Eleven International Publishing, (2020) 70-106.

²⁵⁶ *Milieudefensie et al. v. Royal Dutch Shell plc* C/09/571932 / HA ZA 19-379 (Rechtbank Den Haag, May 25, 2021).

²⁵⁷ *Milieudefensie et al. v. Royal Dutch Shell plc* C/09/571932 / HA ZA 19-379 at [4.4.55] (Rechtbank Den Haag, May 25, 2021).

²⁵⁸ *City of New York v. Chevron Corp.*, 993 F.3d 81, 89–100 (2d. Cir. 2021).

²⁵⁹ *County of San Mateo v. Chevron Corp.*, 960 F.3d 586, 603 (9th Cir. 2020), *vacated*, 210 L. Ed.2d 830 (U.S. 2021); *Mayor & City Council of Balt. v. BP P.L.C.*, 952 F.3d 452 (4th Cir. 2020), *vacated*, BP P.L.C. v. Mayor and City Council of Balt., 141 S. Ct. 1532 (2021); *State of Rhode Island v. Chevron Corp.*, 979 F.3d 50 (1st Cir. 2020), *vacated*, 210 L. Ed.2d 830 (U.S. 2021). Note that the orders remanding these cases are currently under appeal, following the decision of the Supreme Court in *BP P.L.C. v. Mayor and City Council of Balt.*, 141 S. Ct. 1532 (2021).

²⁶⁰ *Massachusetts v. Exxon Mobil Corp.*, 462 F. Supp.3d 31, 51 (D. Mass. 2020).

ANNEX II – BOARD QUESTIONS FOR GOVERNANCE OF CLIMATE-RELATED FINANCIAL RISKS

Based on soft law and climate risk disclosure frameworks,²⁶¹ relevant board inquiries may include the following:

- What climate-related financial risks are foreseeable for a company of our size in our sectors and markets? How do those risks manifest in their application to our business? What risks are our peers facing, and do we face the same or similar risks?
- What are the views of our shareholders and key stakeholders such as financiers, insurers and customers?
- How do we ensure that our understanding of the range of climate-related financial risks to our business strategy, or material projects or acquisitions, remains current in a dynamic environment, and considers risk on a forward-looking basis? What is our forward-looking central case and plausible future scenarios?
- What is our particular exposure to material climate-related risks under various future scenarios and time horizons (short, medium and long-term)? Where might we need to challenge standing assumptions and methodologies?
- Have jurisdictions in which we do business adopted or advanced emissions reduction targets, or adjacent policies such as carbon border tariffs?
- What is our business strategy for continuing to thrive in the transition to a net-zero economy – and in such an economy?
- How has our exposure to climate-related risks been assessed and how often? By whom, and how are they appropriately qualified to conduct this assessment? Has forward-looking scenario-analysis and stress-testing been conducted under a range of climate futures, including with a scenario consistent with the Paris Agreement commitment to pursue efforts to limit global warming to 1.5°C above pre-industrial averages?
- What are our strategic options for managing these risks (including any corporate emissions reductions targets) and taking advantage of associated opportunities? How does this impact on, and factor into, our strategy formulation, business planning and capex more broadly?
- Do we need to adjust the recognition or book value of our assets (and/or impairments, liability provisions) to account for our assessment of these risks?
- How do we expect climate change-related variables and assumptions to change over time? What are the trigger points for our re-assessment of these issues?
- How do we ensure that our information considers the views of a wide range of key stakeholders, including customers, suppliers, investors and insurers?
- How do we engage with, or otherwise seek to influence, stakeholders such as suppliers, customers, investors, and community members in relation to these risks and our management of them?
- How are these risks, and our responses to them, disclosed in our annual reports and other disclosure documents? Does our reporting align with any mandatory requirements that apply, as well as the Taskforce of Climate-related Financial Disclosure (TCFD) and Sustainability Accounting Standards Board (SASB) frameworks?
- Has a review been done of our remuneration policies and structures at board and executive level to ensure that there are no perverse incentives that may favor capex/investment in assets that are at risk of being stranded?

²⁶¹ See e.g., TCFD, CDSB and SASB, *supra* note 152.

- What governance structures are appropriate to enable us to discharge our strategic and oversight duties in relation to this category of financial risk? How do we monitor and oversee compliance with climate-related laws, goals and targets? What reports do, and should, we receive?