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 full-length paper, which is available here. 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 leeching 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 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.
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-counselling 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 full paper, which is available here.