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Creating a climate of change

Addressing the business ramifications of climate risk on banks

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Management of climate risk has become imperative for banks

An intentional and systematic approach can make a significant difference

What was once a long way off has now arrived
US banks can no longer ignore the current market reality. The necessity of climate risk preparedness is here. Signs abound, both here and abroad: Regulatory agencies, legislators, and investors are demanding not only awareness, but also readiness and action as to how climate risk is prioritized within a bank's risk management framework. Look no further than these recent examples:

- **In September 2020, the Commodity Futures Trading Commission's** Climate-Related Market Risk Subcommittee released its report, "Managing Climate Risk in the U.S. Financial System," which—through a series of findings and recommendations—provides a comprehensive road map for managing the growing climate-related risk facing financial markets, their participants, and their regulators. More specifically, the document highlights that "A central finding of this report is that climate change could pose systemic risks to the U.S. financial system."[1]
- **An August 2020 report by the Senate Special Committee on Climate calls for action,** stating that "Climate-related financial risks are systemic, and if left unchecked, could destabilize our financial markets and economy. Our financial regulators … need to start assessing and managing climate risks."[2]
- **In October 2019, the San Francisco Federal Reserve Bank published 19 separate papers warning of economic risks associated with climate-related crises.**[3]
- **The Climate Change Financial Risk Act**, introduced in November 2019, calls for the Federal Reserve to establish an advisory group of climate scientists and economists to help develop climate risk scenarios for financial stress tests.[4]
- **EU regulators are currently aligning sustainable finance with the objectives of the "European Green Deal,"** which was endorsed in December 2019 in an effort to transition the continent to carbon neutrality by 2050.[5]
- The Task Force on Climate-related Financial Disclosures estimates that **the transition to a lower-carbon economy is expected to require around $1 trillion of investments per year** for the foreseeable future.[6]

It has become clear that banks can't afford to get this wrong. A lack of preparedness can lend itself to dramatic, systemic risks. Action is what's needed—and now.

To that end, this paper explores the increasingly aggressive regulatory landscape; evolving investor expectations; and practical steps that banks can consider to establish a proactive, responsible, and financially resilient plan for managing climate risk.

"Increasingly, floods, hurricanes, wildfires, and other natural disasters and extreme weather events threaten not only the safety and property of millions of Americans, but also the stability of the financial system. Climate change and rising natural disaster risk have raised insurance premiums and reduced the value of high-risk land and related assets. NOAA estimates that weather and climate disasters cost the U.S. $807 billion between 2010 and 2019 and approximately $1.77 trillion since 1980. Such realities place the assets and financial institutions that underlie the U.S. financial system at great risk, as recent history demonstrates."[7]

—Senators Dianne Feinstein (D-CA) and Marco Rubio (R-FL), Letter to Commodity Futures Trading Commission (excerpt)

Figure 1.

CLIMATE RISK: WHAT IT IS—AND ISN'T

What it is

- **Climate risk** refers to the risk associated with climate-related events, which can be broken down into:
  - **Transition risks**—Often denote policy-driven risks associated with adjustments toward a low-carbon economy, which entail changes in policy, technology, and market preferences. For example, write-offs of assets that rely on carbon-intensive economies, creating so-called "stranded assets"
  - **Physical risks**—Describe risks associated with chronic events in global climate patterns, as well as acute climate hazards such as floods, droughts, and subsequent damage and impairing of productivity, to name a few examples
  - **Liability risks**—Could include risks associated with potential liability claims for greenhouse gas emissions; insufficient climate-related disclosure (from investors for failure to adapt their operations in response to transition risks, as well as investors who suffer losses from relying on climate-related disclosures deemed inadequate)
- **Climate risk management** refers to the management of climate-related risks; it starts with the design of an operational approach that leverages definitions of climate risk types and incorporates it into the bank's broader enterprise risk management (ERM) framework

What it's not

- **ESG**—The broad set of environmental, social, and governance factors that need to be considered to drive value for stakeholders
- **Sustainable finance**—ESG-oriented finance, which can include, but is not limited to, green bonds and green investments
- **Responsible banking**—Which may include banks' climate risk, but also incorporates broader societal and sustainability goals

Birds of a feather: The black swan and the green swan[8]

Due to the interconnectedness of capital markets and the wider economy, banks need to be better prepared to respond to rare but impactful "black swan" events.

"Green swan" thinking takes that a step further, but with a twist: Unlike unexpected "black swan" events, the "green swan" can be planned for. The arrival time may not be sure, but the eventuality of extreme climate events is certain.

Climate risk regulatory trends that predated the pandemic are returning

The European Union (EU) is redoubling its efforts—and the United States could be next

After a brief pause due to COVID-19, the EU regulatory agenda has been reinvigorated, heavily influenced by the sustainability initiatives that arose after the Paris Agreement.[9] By the end of 2020, legislators in Brussels are set to adopt fundamentally new rulesets in three key areas with wide-ranging consequences for financial markets and other industries:

- A uniform taxonomy that establishes a vast, standardized list of business activities considered "sustainable," accompanied by the so-called "Green Bond Standard."[10]
- Supplementing the Non-Financial Disclosures Directive, the Disclosure Regulation (Regulation 2019/2088)[11] is expected to impose common standards on financial services actors for the disclosure of sustainability-related information across member states.
- The EU Benchmarks Regulation is expected to be amended (Regulation 2019/2089)[12] to establish standards for incorporating sustainability-related information into "EU Paris-aligned Benchmarks."[13]

In addition, EU banks can expect a climate-driven redefinition of the prudential supervision framework. The European Central Bank has been working on a guide[14] for institutions on how to consider environmental and climate-related risks in their business strategy, governance, and risk management frameworks. Also, the European Banking Authority is developing requirements related to the incorporation of environmental, social, and corporate governance (ESG) factors into banks' loan origination processes.[15]

While US regulators, lawmakers, and standard-setters have been trailing their European counterparts, there are new expectations forming on this side of the Atlantic as well.

For example, in November 2019, US Senator Brian Schatz (D-Hawaii), a member of the Senate Banking Committee, introduced legislation that would direct the Federal Reserve to conduct stress tests on large financial institutions to measure their resilience to climate-related financial risks. "While our federal regulators are legally obligated to manage and reduce risks in the financial system," Senator Schatz noted, "they have been ignoring the growing financial risks of climate change. We should not be treating some risks different from others; risks are risks. This bill will push the Fed to do their job and start taking climate risk seriously."[16]

Other US legislators have increased their disclosure expectations. The US Senate's Investor-as-Owner Subcommittee of the SEC Investor Advisory Committee recently called for "timely action to address investor need for relevant, material, decision-useful ESG [Environmental, Social, and Corporate Governance] disclosure."[17] And SEC Commissioner Caroline Crenshaw, in commenting on SEC's recently released S-K modernization rules, highlighted an absence of climate risk.[18]

And before the pandemic, large investors began to pressure companies, including banks and other financial institutions, to focus on climate and sustainability in their portfolios. Larry Fink, CEO of BlackRock, issued a letter in early 2020 asking the companies they invest in to publish a disclosure in line with Sustainability Accounting Standards Board (SASB) and the Task Force for Climate-related Financial Disclosures (TCFD).[19]

Why climate risk should matter to banks

A fundamental risk to managing portfolios—and a risk to performance

The COVID-19 pandemic has dramatically illustrated the pervasive power of exogenous forces in financial markets; climate events represent another example of an exogenous force with similar potential implication that is creating momentum for industry and regulatory action. Climate risk had been on the industry's radar. The pandemic brought into stark focus how externalities can disrupt the financial industry—and more investors are taking note.

In fact, ESG funds outperformed the market in Q1 and Q2 of 2020,[20] underscoring the importance of factors that are paramount to investors, such as business resilience and employee and community impact.[21]

Banks should also bear in mind how their business and brand reputation can be affected by other constituents. In a 2018 report, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) expected that specific events, such as negative publicity from nongovernmental organizations (NGOs) or consumer pressure on ESG issues, could all be catalysts for moving banks to embrace climate risk in their risk management framework.[22]

"ESG considerations are inextricably linked to our ability to successfully achieve our investment objectives. Our Policy reflects the growing body of evidence showing that companies that integrate consideration of ESG-related business risks and opportunities are more likely to preserve and create long-term value."[23]

—Richard Manley, managing director, head of sustainable investing, Canada Pension Plan Investment Board (CPP Investments)

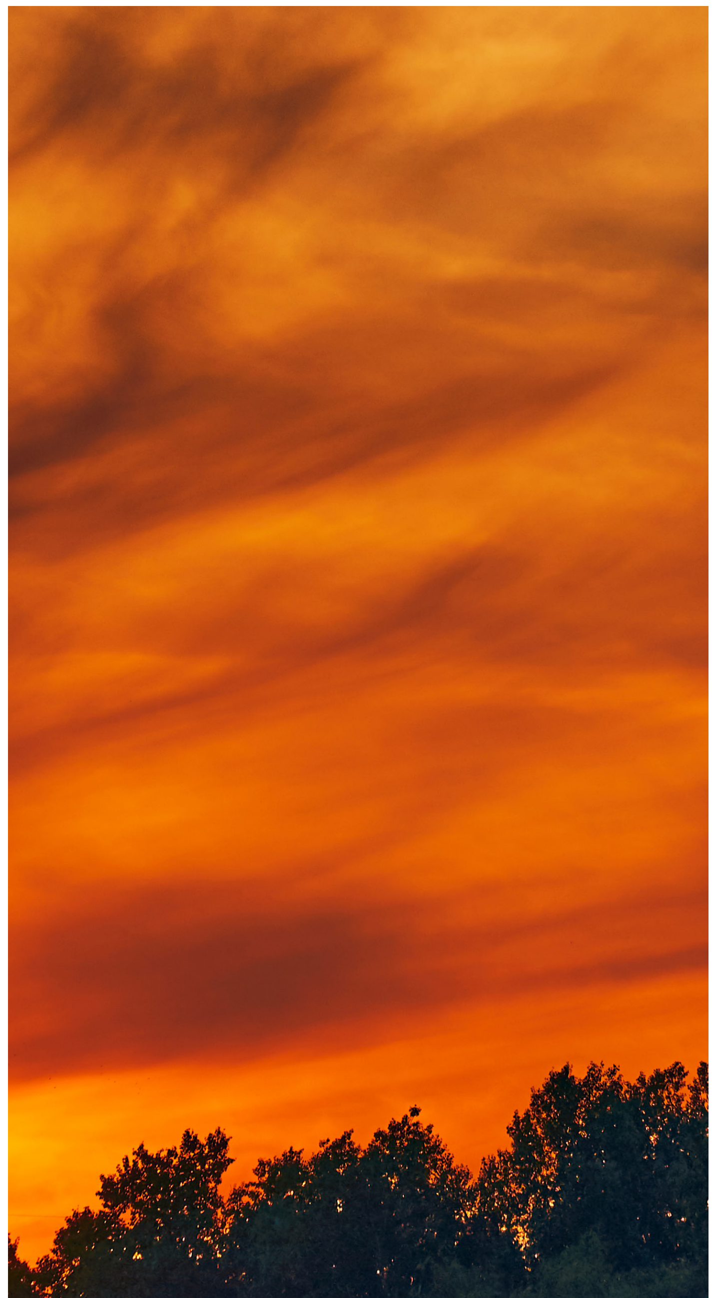


Figure 2

World Economic Forum: Climate tops all risks

Climate and environmental issues occupy the top five risks in WEF's Global Risks Perception Survey[24]

In the 2020 World Economic Forum Global Risks Perception Survey (GRPS), there was significant concurrence among political, business, and societal leaders regarding risks that were the most likely—climate and the environment.

And for the first time in the survey's history, the environmental category occupied all five top spots:

Extreme weather

Climate action failure

Natural disasters

Biodiversity loss

Human-made environmental disasters

Change for good

Six action steps to consider for enhancing climate risk readiness

The price of inaction is clear. Institutions could see a potential loss of client base and license to operate. They could suffer credit losses, reputational risk, and punitive regulatory action. These actions could materialize quickly, and incorporating climate into a framework requires time and resources. But financial institutions can put themselves on resilient footing now through action steps, including:

1. Infuse an actionable strategy throughout the organization. From top management on down, an institution should recognize climate risk for its possible value creation—and dilution—potential. To be effective, this strategy needs to be incorporated throughout the organization's culture and risk infrastructure.

After establishing awareness, the organization should move deliberately to a systematic approach to governance, training, and upskilling to help promote a climate risk culture across all business units and functions. As awareness matures, organizations should foster accountability by empowering a senior stakeholder to drive the internal agenda. This stakeholder would be responsible to ensure that senior management's vision is embodied in the risk strategy and the risk appetite, reflected in roles and responsibilities, integrated throughout policies and processes, and included in management reports.

Before the implementation plan goes forward, it needs to include the impact of climate risk on the organization's risk profile and business model. Therefore, it needs to entail an adoption of strategy and governance and must set clear targets for business planning and resource allocation. Throughout this transitioning process, the senior stakeholder should have direct access to the board and be responsible for carrying matters through—from identifying readiness gaps across the firm to coordinating initiatives and communicating with involved stakeholders.

(For a comprehensive guide to roles and responsibilities, see figure 3.)

2. Integrate climate into risk frameworks. Climate risk analysis should permeate the risk management life cycle of the organization—most notably risk identification and management.

Therefore, evolving a risk taxonomy to encompass climate risk is not merely about extending the current list of risk types. It also involves reimagining how they can manifest in the future as concrete risks relevant to business and strategy—and managing them accordingly. Once a taxonomy has been established, banks can draw upon their regular risk identification process and use heat maps to identify climate risk concentrations—especially energy-intensive industries, mortgage collateral, and project financing.

Vitally, for risk assessment, climate risk affects nearly every aspect of credit risk measurement and can ultimately translate into a systematic reevaluation of traditional risk parameters (such as probability of default (PD) and loss given default (LGD)) to incorporate the effects of climate risk on specific obligors. Given the long horizon of climate risk, banks may also need long-term scenario analyses that account for increasing uncertainty.

(To better assess channels where climate risk affects a bank's exposure and better understand how regulators, market participants, and academia have begun to develop a framework, see figure 1.)

"This seems like an extraordinary challenge, but it really is not different from what financial firms—banks, insurance companies, pension funds, and asset managers—do to manage other risks they confront in the ordinary course of business. They need to understand what they are holding, and they must be informed about the extent to which their assets are affected by increasing financial risks associated with climate change."[25]

—Sarah Bloom Raskin, former member, Federal Reserve Board of Governors and deputy Treasury secretary

3. Own the climate risk agenda. Absent established and standardized risk assessment approaches, regulators, rating agencies, NGOs, and other external players will likely continue to drive climate risk management expectations. However, banks need to recognize market dynamics around megatrends such as climate risk and see both the opportunity and the downside risk of not integrating climate risk into fundamental business processes. Sound and objective risk management is at the core of a bank's value proposition and the single most important factor informing business decisions. Without effective processes to understand, prioritize, and act on emerging risk factors such as climate, the organization is likely leaving value on the table.

4. Engage regulators with transparency. Engaging with regulators offers an opportunity to shape the global climate risk discussion instead of reacting to achieve compliance when regulations arrive. By providing input, regulator engagement can promote the fair development and application of new regulatory policies. To properly represent the institution, the dedicated regulatory liaison should be a person who has a sound understanding of the specific business challenges triggered by climate risk and regulatory agencies' supervisory processes. This point person should also have the proper stature and elevation so as to increase the institution's credibility with regulators and reduce misunderstandings on climate-related issues.

5. Invest in stress-test capabilities and credit risk simulations. Climate risk must be approached in a deliberate way—not as a mere add-on. In the management of climate risk, stress testing and credit risk simulations capture long time horizons and a broad set of potential outcomes. Stress tests identify extreme events through a set of scenarios that take into account economic, environmental, and societal factors. The underlying scenarios for stress testing and simulation should incorporate climate risk into their factors going forward.

6. Adopt, apply, and use the right tools. There can be a conceptual disconnect between traditional financial risk metrics—for instance, in the form of PD and LGD—and their historical approaches for estimation and underlying climate risk dynamics. Banks need robust data and tools to effectively capture and manage climate risks and need to incorporate these risks into their risk models, tools, and approaches.

"In 2020, we identified 244 companies that are making insufficient progress integrating climate risk into their business models or disclosures. Of these companies, we took voting action against 53, or 22%. We have put the remaining 191 companies 'on watch.' Those that do not make significant progress risk voting action against management in 2021."[26]

—Larry Fink, CEO of BlackRock

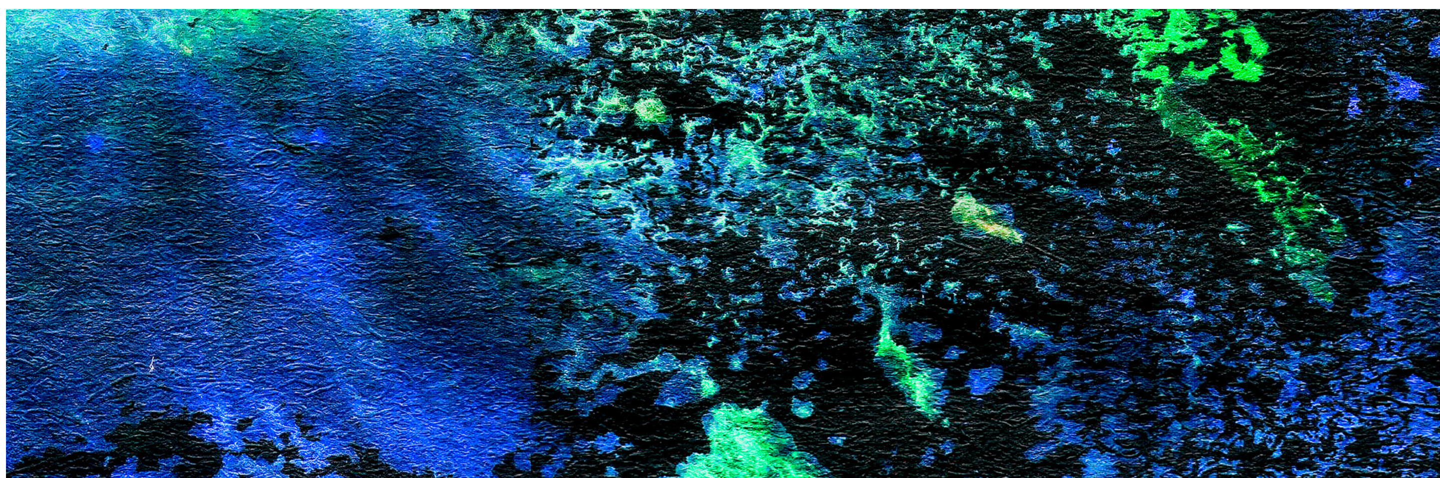


Figure 3

Change takes commitment—from top to bottom

As the organization matures in its approach to climate risk, it's important to delineate individuals with awareness and those with authority; those who need to be merely aware of climate risk; and those who will need to monitor, specialize, and act in consequence in their specific job description

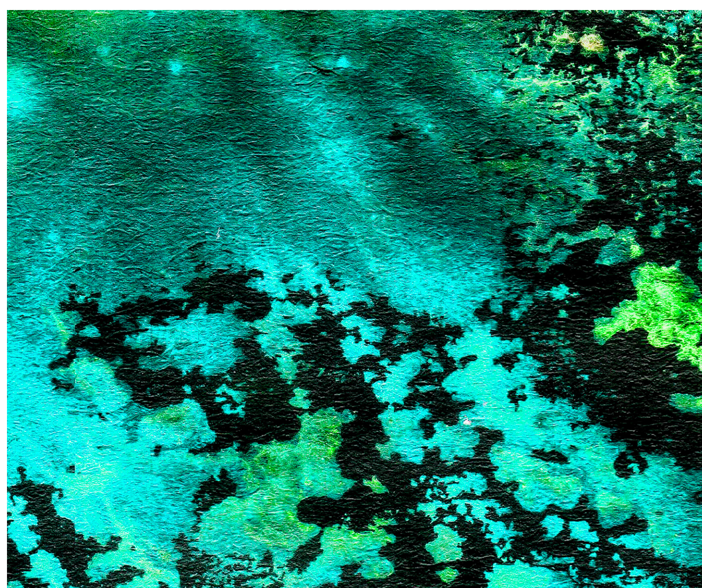
Role	Climate risk action examples
Board	Oversee management's approach to address and incorporate climate risk into the business strategy and operations Amplify the growing reality of climate risk and how it affects the bottom line
Senior management	Integrate climate risk considerations into ongoing business planning and management
Senior stakeholder	Drive the internal climate risk agenda, including providing board visibility; ensure senior management's vision is embodied in the risk strategy, appetite, roles, and responsibilities and is integrated throughout policies and processes. Ongoing tasks could include identifying readiness gaps across the firm and coordinating initiatives and reports
Enterprise risk management (ERM)	Systematically integrate climate risk into the holistic risk management process, including risk culture, appetite, measurement and reporting, policies, and procedures, as well as recovery and resilience plans
Strategic risk management	Incorporate climate risk considerations into the organization's strategic plan and planning process
Compliance risk management	Monitor regulations; understand expectations and leading practices
Credit risk management	Embed climate risk considerations into credit models, as well as underwriting and risk management approaches
Stress testing and scenario analysis	Address emerging regulatory guidance and requirements, industry practices, and need for climate risk technical skills, as well as measurement approaches, data requirements, and systems capabilities
Third-party risk management	Assess and monitor effects of climate risk on critical third parties and vendors
Corporate reporting	Address emerging regulatory guidance and requirements, as well as industry practices and market expectations

The time for change is now

The regulatory terrain is not simple to navigate. Neither legislators nor investors will be passive. But by leaning into what's coming, leaders can move beyond a reactive paradigm and develop a comprehensive response that puts the organization on the right footing.

Actions that can be taken include assessing the level of readiness; tailoring an approach that's right for the organization at this point in time; then moving forward with a comprehensive, methodical, and actionable strategic framework.

But remember: Managing climate risk is about far more than compliance or protecting the organization from being caught off-guard. Yes, addressing these challenges now can increase resilience and allow greater focus on core business. But moving forward on climate risk also means that bank leaders are acting in the wider interests of the communities they serve—and ultimately driving long-term shareholder value.



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