

CLIMATE X

Action Guide : **5 Ways Financial Firms Are** **Getting Climate Risk Right**



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Key Takeaways

01

Risk managers in financial institutions need reliable climate risk data and analytics to assess vulnerabilities accurately, focusing on key factors like asset locations, changing hazard frequencies and systemic risks.

02

Regulations and supervision around climate risk management are not enough to address potential climate risks to real assets. Advanced climate data and analytics are critical for identifying these risks and informing adaptation measures for future investments.

03

Firms face considerable financial implications from indirect climate-related risks, often undetected due to inadequate risk management.

04

Climate risk management requires a cross-functional approach to inform decision making effectively.

Introduction

As a risk manager or business leader in the financial sector, you are likely no stranger to the growing threat of climate risks. By analysing common trends among financial institutions that have made significant progress in climate risk management, we have uncovered 5 crucial lessons to help you enhance your organisation's resilience.

This whitepaper provides actionable insights and key takeaways to help you improve your approach to climate risk integration.

Here, we focus on valuable points such as the need to:

- Refine your climate risk assessment strategies
- Address persistent data gaps
- Navigate regulatory complexities
- Identify indirect climate-related risks
- Foster cross-functional collaboration

Whether you are looking to strengthen your organisation's climate risk management framework or seeking to stay ahead of current business practices, this document offers practical lessons and expert guidance to support your efforts.

You Must Continuously
**Refine Your Climate
Scenarios**

01

Climate scenarios such as those provided by NGFS, IPCC, and IEA serve as essential tools for projecting potential risk exposure to businesses including financial firms. However, determining the magnitude of their risk capture can be challenging due to the evolving nature of climate catastrophes and their impacts on financial systems and the economy.

Climate scenarios need to be continuously updated and refined because the complexity and uncertainty surrounding climate risks are constantly changing. This ensures they remain effective in capturing emerging risks, which is crucial for accurate risk assessment and strategic decision-making.

Risk managers should seek improved scenarios that capture key asset locations, variations in frequency and intensity of physical hazards over time, as well as systemic risks. This helps unveil deeper climate-related financial risks to firms.

Mark Cliffe, a leading economist at the London Institute of Banking and Finance, [has urged](#) the European Central Bank (ECB) to reassess its [Fit-for-55](#) climate scenarios design and assumptions, as they neglect external risks and underestimate the potential financial impact of stranded assets – that can provoke substantial losses.

From another perspective, Greg Hopper, senior fellow at the Bank Policy Institute, [argues](#) that the recent US Fed’s Climate Scenario Analysis [exercise](#) faced challenges in modelling systemic risks, as physical hazards tend to impact diverse assets unevenly across different regions. This can hinder banks from producing widespread, simultaneous impacts across all asset classes.

These critiques argue that climate scenarios need refinement to better reflect realistic climate disasters over the short, medium, and long term. The most relevant scenarios should be severe yet plausible, based on timely and accurate climate risk data.

Module 3 scenarios and risk dimensions

	Exposures	Scenario	Projections ¹	Horizon	Credit risk	Market risk	Operational risk
Transition risk	Global	Short-term stress	Baseline Stress	3 years (2022-2024)	Corporate loans (incl. SME, CRE) + mortgages	Bonds + stocks issued by NFCs ² (incl. accounting and economic hedges)	Operational and reputational risks to be assessed via a qualitative questionnaire
		Long-term paths	Orderly Disorderly Hot house	30 years (2030, 2040, 2050)	Corporate loans (incl. SME, CRE) + mortgages		
Physical risk	EU countries	Drought & heat risk	Baseline Stress	1 year 2022	Corporate loans (incl. SME)	1.All projections with the exception of the long-term paths will be based on a static balance sheet. 2.The parent company needs to be an NFC, e.g. bonds issued by car financing company X are in scope.	
		Flood risk	Baseline Stress	1 year 2022	Mortgages + CRE loans		

Source: ECB, climate risk stress test 2022, methodology, October 2021.
Notes: CRE stands for commercial real estate; NFC stands for non-financial corporation; SMEs stands for small and medium-sized enterprises.

Source : [GreenCap](#)

You Need to **Leverage** **Climate Experts** to Address Persistent Data Gaps

Q2

You may be familiar with the challenge of pinpointing the most material climate risks to your business and forming robust, forward-looking strategies to mitigate their financial impact. Despite growing awareness, many institutions still struggle to operationalize climate risk within their decision-making frameworks.

Technology can bridge that gap. [Climate X](#) is a climate risk intelligence platform purpose-built for the financial and real estate sectors. By integrating data science, advanced geospatial modelling, and climate science, our platform empowers users to identify the most relevant climate risks to their portfolios—both physical and transitional. Solutions like [Spectra](#) and [Adapt](#) offer location-specific, forward-looking risk assessments alongside tangible adaptation insights, enabling a deeper understanding of exposure over time (e.g., up to 2100).

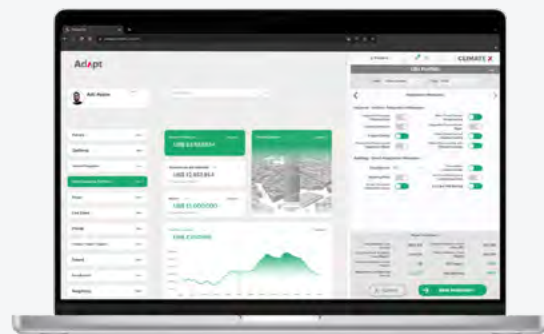
Our platform's granular analysis helps you enhance your understanding of direct and indirect climate impacts, including their transmission pathways, many of which are often overlooked in traditional risk assessment methods. Rather than relying on generic or retrospective data, Climate X provides high-resolution, actionable intelligence that supports regulatory compliance, financial planning, and portfolio resilience.

By leveraging [Climate X](#)'s cloud-based software and APIs, businesses like yours can embed climate risk evaluation seamlessly into existing workflows—transforming risk awareness into proactive, data-driven decisions with measurable outcomes.

Spectra



Adapt



You Cannot Rely Solely
on **Regulation and
Supervision**

03

As we continue to navigate the complexities of climate risk management, you may be looking to regulatory efforts to provide guidance and support. While these efforts play a crucial role in promoting good practices and safeguarding financial stability, they have limitations when it comes to addressing your specific business needs. Regulatory initiatives, such as the [2022](#) ECB climate stress test, have enhanced large-scale data and modelling techniques, facilitated coordinated knowledge sharing among stakeholders, and raised climate risk awareness. However, these efforts primarily focus on aligning market practices and standards, rather than providing advanced tools to your firm.

Effective climate risk management is closely tied to business adaptation, as it enables you to identify and mitigate potential risks, ultimately informing your adaptation strategies. However, you may have found that regulatory tools and guidance often fall short in addressing the specific question: “What is the best adaptation strategy for my business?” This is because regulators typically provide general frameworks and guidelines, rather than tailored solutions for individual companies. As a result, you cannot rely solely on regulation and supervision for climate risk management; instead, you must take proactive steps to develop your own strategy.

The connection between regulatory risk management requirements and adaptation strategies lies in the fact that effective adaptation depends on accurate risk assessment and management.

Regulatory mandates can provide a foundation for risk management in the financial industry, but they may not fully encapsulate the unique adaptation needs of individual firms. For example, the European Central Bank (ECB) has recognised this limitation and encouraged supervised banking institutions to develop tailored climate risk management strategies, [including](#) credit risk assessment, as part of their Internal Capital Adequacy Assessment Process (ICAAP). Similarly, the US Federal Reserve Board (Fed) has adopted a flexible approach to climate stress testing, excluding capital requirements, which allows banks to determine the scope of their climate risk capture, data management, and adaptation strategies. In practice, this means that US lenders would often [rely](#) on external climate data providers to fill data and modelling gaps, leveraging their advanced expertise to inform adaptation strategies that are most relevant to them.

You Must Consider Indirect Climate-Related Risks to Your Assets

04

Your firm can be exposed to indirect climate-related risks that have significant implications for your assets and performance. These risks generally arise from systemic factors outside of the direct control of financial firms, but could influence your physical asset or collateral in a lending context. This can include:

- Disruptions to transportation infrastructure.
- Supply chain disruptions.
- Damage to warehouses and storage facilities.

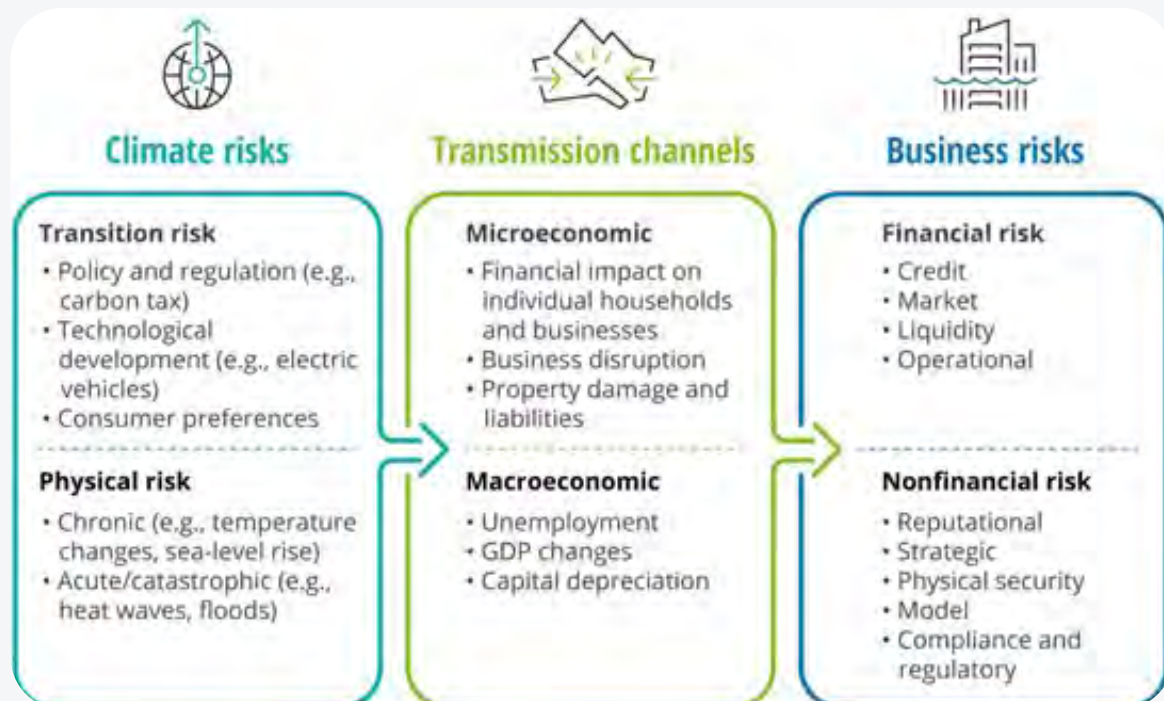
These risks and their financial implications are real and significant, although they are often overlooked by financial institutions. Indirect climate-related risks can increase the risk of default for lending institutions and reduce collateral value, impacting Loan-to-Value (LTV) ratios and Value-at-Risk (VaR) metrics. For instance, through indirect channels,

extreme weather events can limit the capacity of the corporate borrower to meet its loan/mortgage repayment obligations. Climate disasters can cause:

- Delays in construction of the funded [infrastructure or building] project and increased costs of construction materials.
- Reduced productivity and profits for the borrower.
- Shortages and price increase due to supply chain disruptions.

It is in the best interest of the lending party to consider exploring these potential indirect risks, as neglecting them can lead to unforeseen financial losses and reputational damages among other things. Acknowledging and addressing indirect climate-related risks is relevant in protecting your assets from these hidden risks.

Mapping out climate risk and their transmission channels



Source : [Deloitte & Touche LLP](#)

You need **Cross-
Functional Collaboration**
to Integrate Climate Risk

OS

Effective climate risk integration requires collaboration across various functions within a financial institution, such as finance, operations, strategy, and investment. Climate risk management is not solely the responsibility of sustainability or risk management teams.

Rather, it demands a cross-functional approach to develop a comprehensive response. This involves:

- Multiple departments working together to understand and measure climate-related risks and opportunities.
- Integrating climate risk into decision-making processes across your firms.
- Fostering communication across functions to embed climate risk management throughout your organisation.

Cross-functional collaboration in climate risk management offers numerous benefits as well:

- It enables you to tap into expertise from various departments, creating more accurate climate risk assessments and effective adaptation strategies. For example, your finance team can help quantify climate-related financial risks, while your operations team can identify potential disruptions to supply chains.
- Collaboration could promote a culture of climate risk awareness and ownership across your firm, driving more informed decision-making and strategic planning. This means that climate risk considerations become an integral part of your firm's DNA.
- Such collaboration can equally help you identify new business opportunities and revenue streams related to climate change, such as developing climate-resilient products and services. For instance, your investment team can explore opportunities in climate-resilient infrastructure projects.

Conclusion

Effective climate risk management in financial industry requires a multifaceted approach. While recent efforts across the industry are commendable, the worsening climate catastrophes serve as a stark reminder that current practices must be optimised. The imperative to enhance climate risk management is clear – as climate-disasters intensify, you must (1) continuously seek to upgrade your methods and structure, and (2) utilise the most advanced tools to anticipate worst-case scenarios and safeguard assets.

Prioritising climate resilience will not only help protect your firms but also contribute to a more robust financial system. In this sense, risk managers and business leaders should comprehensively review their climate risk management practices.

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