

## SUSTAINABILITY RISK



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## Physical risks and the role of insurance in risk mitigation

### Climate risk remains material for banks

The financial impact of climate-related risks on the banking sector continues to grow, even as political attention in some jurisdictions wanes. Insurance can mitigate losses, but banks still need to understand and manage physical risk exposures.

Under the prudential framework, the ECB set out clear supervisory expectations in 2020 on managing physical climate risks. The European Banking Authority Guidelines on managing environmental, social and governance risks require institutions to integrate climate and environmental risks – including physical risks – into their governance, strategy and risk management processes.

### Physical risks: evidence and gaps

Supervisory work shows that physical risks are significant, and risk management still needs to improve. Our 2022 thematic review on climate-related and environmental risks found that banks' approaches to managing physical risks were generally less advanced than those for managing transition risks. Shortcomings were identified in the gran-

ular identification of exposures, the use of forward-looking assessments of physical hazards and the integration of physical risks into credit decisions and pricing.

The ECB's 2022 climate risk stress test showed that physical risks were already relevant for many banks. Across the scenarios tested, certain portfolios had non-negligible losses. These findings were consistent with broader economy-wide stress tests, indicating that the physical risks associated with delayed action are likely to be costlier than an orderly transition to a low-carbon economy.

Since 2023, Pillar 3 disclosure requirements have increased transparency around banks' exposures to physical risks. A significant share of exposures is reported to be subject to physical risks, while banks' capabilities to estimate related losses remain limited.

This assessment is reinforced by banks' own capital adequacy assessments: around 90% of banks consider themselves to be materially exposed to physical risks. Senior leaders at major financial institutions have also acknowledged the costs of climate change are rising and are already affecting business models.

### Insurance mitigates physical risks but poses structural challenges

Insurance remains an important means of mitigating physical risks, particularly where real estate collateral is concerned. However, supervisory findings show that reliance on insurance alone is insufficient. According to the European Insurance and Occupational Pensions Authority (EIOPA), only around a quarter of climate-related losses in the EU are insured, with substantial variation across countries. Beyond direct property damage, business interruption-related losses can be substantial following climate events, yet coverage for such losses also varies widely. Insufficient or uncertain insurance coverage increases exposure to losses and complicates assumptions about collateral protection over the loan life cycle.

Supervisory discussions with banks, EIOPA and national authorities have identified several structural challenges that limit banks' ability to monitor insurance coverage over time. Insurance contracts are typically renewed annually in many countries, while loans often extend over several years, and sometimes decades. Therefore, coverage in place at loan origination does not guarantee continued protection, and banks may have limited visibility of renewals or changing policy terms.

Banks have also benefited from government support following major natural disasters. However, as climate impacts intensify and the associated fiscal costs increase, reliance on public intervention may become less viable.

### Banks are stepping up their physical risk management practices

In response to these challenges, banks are increasingly complementing insurance-based mitigation with broader physical risk management practices. Some institutions have developed centralised systems that combine geolocation data, risk assessments, collateral information and insurance coverage. Others are enhancing monitoring processes and borrower engagement to improve data availability over time.

Risk assessment frameworks are also evolving. In addition to loan-to-value ratios, banks are increasingly incorporating location-specific physical risk indicators as well as information on insurance availability and on the presence of mitigation measures, such as flood protection. These developments support a more comprehensive assessment of vulnerabilities and help address some of the limitations associated with insurance coverage.

Nevertheless, experts warn that current models may underestimate physical risks, particularly as they do not account for tipping points or compounding events, while climate impacts are materialising faster than previously assumed. ECB Banking Supervision will continue to analyse these challenges under its priorities for 2026-28, including further work on physical climate risks.

1. Mauderer, S. and Stracca, L. (2025), "Climate risks: no longer the tragedy of the horizon", *The ECB Blog*, ECB, 9 July.
2. ECB (2023), "Faster green transition would benefit firms, households and banks, ECB economy-wide climate stress test finds", *press release*, 6 September.
3. ECB (2024), "ESG data quality: Pillar 3 disclosures in focus", *Supervision newsletter*, 21 February.
4. See, for example, Steven van Rijswijk, CEO of ING Group and Evan Greenberg, CEO of Chubb. ING (2023), "ING publishes 2023 Climate Report", 5 October; and Vanderford, R. (2024), "Pricier Insurance Makes Sense as Climate Risk Grows, Chubb CEO Says", *The Wall Street Journal*, 7 May.
5. See ECB, "The climate insurance protection gap".



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### A bankable path to decarbonization in a fragmented world

2025 geopolitical events have accelerated further regional nuance and a potential change of pace of the global energy transition. Political changes, alongside renewed trade and geopolitical tensions, have contributed to a de-prioritisation of climate policy from some governments, but also an even stronger focus on the issue of energy security. As for the policy framework, we are seeing acknowledgement for the need to reduce regulatory burden, especially in the EU, on those financing and enabling the energy transition, but also a pragmatic approach from both the private and public to assess which policy tools contribute to the overall ambitions to realize actual decarbonization. The financial sector is at the forefront of seeking ways to support this process.

Despite these trends, climate-related risks have not disappeared. Broader geopolitical developments have reinforced the salience of energy security and economic resilience. Recent global energy scenario analyses illustrate how fragmentation and security concerns can widen the range of possible transition pathways. These scenarios do not abandon net-zero objectives; rather, they highlight greater uncertainty regarding the pace,

sequencing and regional distribution of the transition. For financial institutions, this underlines the need for resilience across multiple plausible outcomes, rather than reliance on a single linear decarbonisation trajectory.

Banks use climate scenarios and stress tests for prudential risk management. These tools — embedded in Internal Capital Adequacy Assessment Processes (ICAAPs) stress testing frameworks and supervisory dialogues — are designed to assess transition and physical risks under different macroeconomic, policy and technology assumptions. They sit alongside other core risk categories, including credit, market, operational and IT risk, and are essential to ensuring that banks remain safe and resilient in a fragmenting world.

Achieving carbon neutrality by 2050, or in some jurisdictions 2060 or 2070, will depend on delivering a whole-economy transition, particularly in hard-to-abate sectors. Targets cannot be met solely by concentrating on activities that are already considered green. Meaningful emissions reductions must occur within carbon-intensive sectors such as power, materials, transport and aviation. These sectors require access to capital to finance credible transition pathways, credible clean technologies, supported by enabling policy and bankable projects. The financial sector can play a central role — provided that regulatory frameworks appropriately recognise and enable transition finance, especially in a context of cross-border capital flows and differing national starting points.

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**Robust scenario  
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MUFG's Transition Whitepaper 2025 identified two principal challenges: rising transition costs and uncertainty regarding value creation, alongside sector-specific constraints in areas such as electricity, materials and transport. It also highlighted the growing importance of energy-demand sectors, moving beyond a narrow supply-side conception of the energy transition. Governments remain critical partners. Public-private initiatives, including those led by the Global Financial Alliance for Net Zero or the Japan's Green Transformation (GX) Public-Private Investment Framework, demonstrate the value of coordinated approaches, cross-border dialogue and

blended finance structures that deliver gradual but measurable emissions reductions.

Finally, climate risk management must be integrated coherently with other strategic priorities, notably digitalisation and cybersecurity. There is no inherent trade-off. On the contrary, advanced data architecture and AI-enabled analytics can materially improve the measurement and management of climate-related risks. At the same time, resilience strategies for digital infrastructure — including data centres and energy supply chains — must explicitly incorporate physical climate risk considerations. A holistic governance framework avoids any weakening of climate risk oversight by embedding it within core risk, technology and operational structures.

In conclusion, while political momentum may fluctuate and transition pathways may fragment, climate risk persists. Robust scenario analysis ensures resilience across plausible futures, while our net-zero ambitions continue to guide capital allocation towards credible transition activities. A pragmatic and proportionate regulatory framework should support this dual objective: safeguarding financial stability while enabling inclusive, competitive and orderly decarbonisation.



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### Addressing sustainability risks for a just transition

Sustainability-related risks pose unprecedented challenges for all financial system stakeholders. As a mission-driven institution committed to a just transition, La Banque Postale (LBP) places the management of these risks at the heart of its strategy. While significant progress has been made in identifying and quantifying these risks, ongoing model adaptation remains crucial to address the complexities of climate change.

**Over the past several years, banks have developed a range of tools to manage climate-related risks.**

La Banque Postale begins by conducting a rigorous analysis of its external environment, business portfolio, and strategic orientations to identify these risks. They are then cross-referenced with the other banking risks – credit, market, and operational – and their exposure is assessed using internal indicators. Risks are rated on a graduated scale based on three criteria: potential financial impact, likelihood of occurrence, and weighted time horizon. Given the materiality of the climate risk, LBP has classified it as “major”.

The bank’s new prudential transition plan, aligned with the EBA’s January 2025

guidelines on the management of ESG risks, outlines governance structures and the integration of ESG risks into risk appetite, financial planning, compliance, and risk management. This framework is reviewed annually to reflect changes in the bank’s risk profile and methodologies. Hard-to-model or extreme risks are addressed through Pillar 2 capital requirements, stress testing, and the Internal Capital Adequacy Assessment Process (ICAAP), ensuring robust capital buffers against catastrophic scenarios.

**Despite these advances, significant challenges persist, particularly around data quality and the need for a holistic vision of ESG risks.**

**First, effective climate risk management depends more on large sets of data than on technological sophistication.** Enhancing data quality and reliability remains critical to assess climate risk and validate projections. To meet these challenges, La Banque Postale prioritizes projections based on established scientific models, such as those from the Network for Greening the Financial System, over historical data scenarios. The bank is also extending the time horizon of its models, as climate scenarios span much longer horizons (30 to 50 years) than conventional risk models.

The recent revision of reporting obligations under the CSRD has eased requirements for many companies, especially smaller firms. While this may reduce the administrative burden, it risks widening the data gap between SMEs and larger companies, potentially undermining the availability and reliability of information for financial institutions. In this context, the ongoing revision of the SFDR could be an opportunity to improve data quality by imposing stricter requirements on non-financial data providers.

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**Second, climate risk management is not the only dimension to consider when looking at sustainability risks, social considerations also have to be taken on board.** Efforts must be implemented in a fair and equitable manner. LBP is deeply committed to fostering a society that respects both the planet and its inhabitants, embedding the principle of a “just transition” at the core of its mission.

To ensure that ESG orientations lead to a just transition for all clients – including the most vulnerable – LBP supports them in balancing environmental and social priorities. For example, the impact home loan, launched in 2023, promotes financing for energy-efficient properties and home energy renovations, offering preferential interest rates. As a result, 43% of new mortgages were impact loans in 2024. The bank also assists corporate clients’ commitments in identifying, quantifying, and managing transition risks. To align its strategy and transition plan, LBP does not only consider credit risk and profitability in its “Global Impact Index”, but also ESG impact in financing decisions and product offerings.

**Finally, as a financial conglomerate, LBP recognizes that insurance plays a pivotal role in climate risk management.** However, core insurance principles – such as risk mutualisation, diversification and ultimately insurability – are increasingly under threat.

Beyond integrating climate change into risk policies, transformative and innovative solutions are needed to cover sustainability risks. Public-private reinsurance partnerships, such as France’s natural disaster compensation scheme, offer a promising model. This scheme, based on collaboration between insurers, the public reinsurer, and the State (as guarantor of last resort), provides a high degree of risk sharing. Yet, as climate risks intensify, prevention efforts must scale up. The economic viability of such systems in the years ahead will depend on the shared responsibility and investments of all stakeholders: the State, insurers, local authorities, builders, and insurance policyholders.



## NORIO HIDA

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### Climate risk fragmentation and the role of institutional risk ownership

Climate-related risks continue to evolve against a backdrop of changing policy approaches, technological progress, and economic considerations. While climate objectives remain broadly shared, differences in implementation pathways, timelines, and policy emphasis have resulted in a more heterogeneous global landscape. In this environment, external developments provide important signals, but they also make it increasingly essential for financial institutions to exercise their own forward-looking judgment in assessing how transition and physical risks affect the underlying risk profile of their portfolios and clients. Against this background, both the evolving policy landscape and the effectiveness of institutional risk management frameworks are highly relevant.

#### Part 1 – Implications of evolving climate-related approaches across jurisdictions

Differences in climate-related policy and supervisory approaches across jurisdictions have increased uncertainty for financial institutions. Variations in

transition pathways and implementation timelines influence expectations regarding future costs, asset valuations, and risk horizons. These developments also affect financial institutions indirectly through their impact on client behavior. Corporate clients may adjust their transition strategies, investment decisions, or geographic focus in response to evolving policy signals and market conditions. Such adjustments can affect borrowers' creditworthiness and business prospects, requiring financial institutions to reassess their capital allocation and portfolio composition accordingly.

Over time, fragmentation could also have broader systemic implications. Financial activities may shift toward jurisdictions perceived as having lower transition-related constraints, potentially contributing to risk concentrations, mispricing, or distortions in financial intermediation. In addition, activities may increasingly migrate toward less regulated non-bank financial intermediaries, making the build-up of risks less visible and more difficult to monitor, and potentially creating additional sources of systemic vulnerability. These developments may also raise concerns about maintaining a level playing field for internationally active financial institutions. This underscores the importance of continued international dialogue and cooperation, while reinforcing the need for institutions to base their decisions on their own prudent and forward-looking assessment of risks.

#### Part 2 – Managing transition and physical risks within institutional risk frameworks

In this evolving environment, financial institutions are strengthening their capacity to identify and manage exposures to climate-related transition and physical risks across portfolios and geographies. These risks do not constitute entirely new risk categories but rather act as drivers that can amplify traditional financial risks, including credit, market, liquidity, and operational risks. This underscores the importance of embedding climate-related considerations within existing risk management frameworks, rather than treating them in isolation.

Key steering mechanisms include risk identification and assessment processes, portfolio monitoring, scenario analysis, internal risk appetite frameworks, and active engagement with clients. Client engagement is particularly important in enhancing understanding of how transition and physical risks affect borrowers' resilience and business models, while also supporting clients'

efforts to adapt where appropriate. This contributes to more robust risk assessment and more informed capital allocation.

From our perspective as a cooperative financial institution with a long-term investment horizon, a clear understanding of clients' transition pathways and physical risk resilience is essential for maintaining portfolio soundness. Our participation in initiatives such as the Taskforce on Nature-related Financial Disclosures has also helped deepen our understanding of nature-related dependencies and vulnerabilities, which are closely interconnected with climate risks and geographically specific hence reflected in a heterogeneous regulatory policy landscape.

**Institutions' ability to understand and manage climate risks is key to financial stability.**

#### Conclusion

Climate-related risks present complex and evolving challenges at both the systemic and institutional levels. While differences in policy approaches may contribute to uncertainty and potential fragmentation, the resilience of financial institutions ultimately depends on their ability to develop a clear understanding of their own risk exposures and to manage them prudently within established risk frameworks. Strengthening these capabilities, while continuing international dialogue and cooperation, will be essential to support both financial stability and an orderly transition.