

CLIMATE AND ENVIRONMENTAL RISKS IN THE BANKING SECTOR



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Environmental risks and the role of banking regulation

The banking sector has a key role to play, both in terms of allocating capital to support the transition and managing financial risks stemming from environmental factors. Only a robust banking sector can effectively fund the transition. Hence, banks must keep taking steps to manage environmental risks.

On the bright side, climate related impacts are now better understood and acknowledged. Governance and internal control frameworks have progressed substantially, while risk management practices are evolving in the right direction. Collecting granular and reliable data remains a challenge. However, some banks are proactively addressing it by relying on targeted questionnaires to their clients or engaging with external data providers.

Banks however need to continue to strengthen their organisational, risk management and quantitative capabilities in the ESG area. Examples include ICAAP, scenario analysis, risk

metrics and indicators. Furthermore, current practices suggest uneven progress on the incorporation of environmental drivers of risk types other than credit. Consideration of nature related physical risks and biodiversity impact remains limited.

For climate stress testing, past initiatives by both banks and supervisory authorities provide useful guidance for next steps.

It is clear that critical challenges lie ahead. These include how to overcome the limited data availability as well as methodological limitations. This was clearly reflected in the results of the May 2021 EBA pilot exercise on climate risks. Moreover, there is a need to develop more comprehensive and forward-looking models and scenarios, covering all specific transmission channels, as well as the potential compounding of risks. This was one of the key findings of the 2022 SSM climate risk stress test.

I have no doubt that equally important insights will be derived from the forthcoming One-off Fit-for-55 climate risk scenario analysis which is being conducted by the EBA in collaboration with ESMA, EIOPA as well as the ECB and ESRB. ¹ The value added of this analysis is its cross-sectoral and system-wide nature, as opposed to standard solvency stress tests which focus on specific sectors only. The primary aim will be to assess the resilience of the financial sector in line with the Fit-for-55 package, while gaining insights into the capacity of the financial system to support the transition even under stressed conditions. We will investigate how stress propagates through the financial system and how financial institutions' reactions might magnify it. The exercise will be launched by the end of 2023, with results to be published by Q1 2025.

Looking further ahead, I am also convinced that there is a need for regular climate stress tests. These can be expected to strengthen the collective capacity of both banks and supervisors in this field.

The incorporation of environmental risks in the regulatory framework remains a challenge. In response, EBA published its new roadmap on sustainable finance in December 2022, covering all three pillars of the banking framework and outlining key objectives

and timeline for delivering on our mandates in sustainable finance.

In 2023 banks began disclosing quantitative and qualitative information following the requirements in the EBA Pillar 3 package. This will surely contribute to the availability of ESG data – the quality of which is expected to progressively increase – for the benefit of all market participants.

Going forward, we expect banks to continue to strengthen their risk management systems to better identify, manage and report ESG risks. The EBA has initiated work to update several EBA Guidelines to include ESG risks. The guidelines include those on loan origination, internal governance, remuneration and the SREP. The EBA CRD6 mandate on ESG risk management guidelines will allow us to set requirements as to how institutions should account for ESG risks. This includes aspects such as risk appetite, internal controls, ICAAP, management of different financial risk types as well as requirements on transition plans.

Banks have a unique position to finance the transition to a more sustainable European economy.

Finally, when it comes to Pillar 1, our approach will remain grounded on risk-based considerations, aiming at accelerating the integration of E&S risks across the Pillar 1 framework, while preserving its integrity and purpose. Our Pillar 1 report set for publication later this year will lay the foundations for further reports to come in line with CRR3 mandates and propose targeted enhancements to the Pillar 1 framework, which – together with initiatives under Pillar 2 and Pillar 3 – will contribute to better incorporating ESG risks across the framework.

I look forward to working together with all stakeholders to meet this important societal challenge.



MERCEDES OLANO LIBRAN

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Current state of the climate risks in the banking sector

Banks, regulators and supervisors have worked hard in recent years to ensure that climate risks are adequately integrated into banks' strategies, business models, corporate governance, risk management and disclosure of their exposures.

We know that identifying, measuring and managing climate risks continue to pose major challenges and difficulties for banks, including:

- The difficulty in obtaining data of sufficient quality, and the problems in interpreting these data from a financial standpoint.
- The forward-looking nature of these risks makes it very difficult for banks to include them in their risk management frameworks, that consider the medium term with a time horizon of 3 years, whereas these risks need to be managed over a much longer time horizon, 10 - 20 years.
- When developing and reviewing transition plans, banks have to base themselves on their counterparties' transition plans which, are not yet very developed

In terms of regulatory developments, we have seen the following progress:

- Work continued on progressively incorporating ESG matters into the

prudential regulations, both in the CRR and in the CRD.

- The CSRD was approved in November, and tries to gradually align sustainability reporting with financial reporting. Once implemented, it is expected to help banks gather data on the ESG aspects of their counterparties.
- The EBA has published its roadmap, which includes numerous climate risk-related aspects, focused on the progressive incorporation of ESG risk into the three pillars of prudential regulations (regulation, supervision and disclosure).
- The Basel Committee has incorporated climate risks into its work programme, taking a holistic approach.

From the supervisory standpoint, the activities that have been carried out over the last year were:

- Climate risk stress test, which main conclusions were:
 1. General improvement in the quality of the climate-risk related data available to banks, but around 60% of them do not have robust climate risk stress-testing frameworks, nor have sufficient data available in this respect.
 2. The importance of ensuring an orderly transition, as the losses under such a scenario would be significantly lower than those that banks would have if action were delayed.
 3. Most banks do not include climate risk in their credit risk models, and just 20% consider climate risk as a variable when granting loans.
 4. Almost two-thirds of banks' income from non-financial corporate customers stems from greenhouse gas-intensive industries, and is also concentrated in a small number of large counterparties, which increases their exposure to transition risks.
 5. In the part of the test assessing the projections of losses in extreme weather events (floods and droughts / heatwaves) and under transition scenarios with different time horizons, the results highlight the heterogeneity of the impacts across European banks, and that these impacts are highly dependent on the sectors and the geographical location of their exposures.

- Thematic review on climate-related risks

This review sought to gain a clear picture of where banks stood in terms of complying with the supervisory expectations.

The most important findings were:

1. There is greater recognition of the importance of physical and

transition risks for banks, with over 80% concluding that such risks have a material impact on their risk profile and strategy, and 70% considering that the risk is material within their business planning.

2. Progress has been made in terms of the institutional architecture for addressing climate risks. More than 85% of the banks have basic practices in most of the areas covered by the ECB's expectations. Nonetheless, significant shortcomings remain, and around 10% of banks are lagging behind, without having made any material progress over the last year.
3. While some banks have started using transition planning tools to improve the long-term resilience of their business models, a "wait-and-see" approach still prevails.
4. Less than 10% of the banks use granular, forward-looking information to manage climate risks.
5. It is also essential that the banks work to improve their capacity to execute their own plans and processes. 55% of the institutions have devised practices but failed to implement them effectively.

In short, this review shows that banks are not yet properly managing climate risks and that, although improvements and some good practices have been identified, there is much still to be done.

Banks, regulators and supervisors have worked hard to ensure that climate risks are integrated.

I would like to finish by noting that, while we are aware of the current difficulties in prudently managing the climate risks, we believe that we must continue working hard to overcome these obstacles.

With this in mind, the commitment and awareness of all parties – regulators supervisors and financial institutions – is essential to ensure that the organisations have in place the necessary human and technological resources to gradually integrate climate risks into their strategies, business models, corporate governance, risk management and reporting.



NATHALIE AUFAUVRE

Secretary General -
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Measure, foresee, act: a supervisor's perspective on climate stress-tests

Environmental, social and governance (ESG) factors can affect banks' credit, market, operational and reputational risks, and can cause a general increase of the risk in the system if the policies to transition to a greener economy are delayed or insufficient. This could lead to sudden and large shocks on asset prices and financing conditions, negatively affecting the solvency and liquidity of financial institutions, triggering contagion and systemic instability, as well as social and political unrest.

We recently observed a growing awareness and demand from stakeholders for banks to integrate sustainability risks into their strategies and governance, risk management and disclosures. It coincides with the recognition of the urgency and magnitude of the global challenges posed by climate change, biodiversity losses, social inequalities and human rights violations. However, we are still facing a lack of harmonized and consistent standards, methodologies and data for measuring and mitigating sustainability risks.

Despite these difficulties, European banks have been developing their own

sustainability strategies, aligned with their business models, risk appetites and stakeholder expectations. They also enhanced their sustainability reporting and disclosure practices. Finally, they engaged with their clients and counterparties to assess their sustainability risks and opportunities and provide them with sustainable finance solutions.

Among the tools that banks and supervisors may use, climate stress testing is a relatively new and evolving practice. The unique and complex features of climate risks, with their potential tipping points and non-linearities, represent a major challenge in terms of accurately capturing their impact on the financial system. However, climate stress testing exercises (such as those conducted by the ACPR in 2021, the BoE in 2022 or the ECB in 2022) have provided valuable insights for financial stability analysis and policy making. Supervisors have concluded on the benefit of adopting a forward-looking perspective for assessing the potential effects of climate change on the financial system.

Vintage after vintage, significant progress has been made in the definition of scenarios and climate stress testing methodologies. Scenarios are now more granular, consistent and cover different drivers of climate change risk (such as temperature increase, carbon price, policy actions, technological innovation) and different time horizons. Methodologies and models have improved to estimate the direct and indirect impacts of climate change on the financial system, taking into account both physical and transition risks, as well as their interdependencies and spillovers. The scope and coverage of climate stress testing has expanded to include different types of financial institutions, different sectors and regions, different asset classes and different transmission channels.

Regarding data availability and comparability, disclosures related to sustainability risks are the focus of an ambitious work plan at international and European level. Indeed, the Basel Committee plans to issue a consultation paper on the Pillar 3 disclosure framework for climate-related financial risks by the end of 2023. The European Union is one step ahead with the setting up of a progressive approach. As of 2023, large and listed European banks are required to publish quantitative and qualitative information regarding their exposures to ESG risks as part of their Pillar 3 reports. While this first exercise emphasizes the challenges related to data collection and harmonized methodologies, it mobilizes and

channels the European banking sector's efforts towards the net-zero transition.

Works on integrating ESG risks into banks' risk management but also into regulatory framework and supervisory practices have grown exponentially in the last couple of years. The above-mentioned data, conceptual and methodological hurdles have so far hindered well grounded pillar 1 treatment proposals for ESG risks, but this may change in the future. Meanwhile, current supervisors' efforts focus on ensuring a proper capture of ESG risks under pillar 2. In particular, transition plans will become a key element of the supervisor's toolkit and need to be operationalized at short term, keeping in mind they should be considered along with other supervisory tools, such as ICAAP. Further, they also raise a number of issues such as the need to ensure their credibility and that of banks' counterparties own transitions.

**Significant progress
has been made in
the definition of
scenarios and climate
stress testing.**

I have good faith that difficulties will be overcome without affecting transition financing. Regulators and supervisors are fully committed, and Basel Committee has a very ambitious roadmap in this respect.

I also know that banks do progress in a timely fashion.

So let's keep the momentum.



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Client transition supports enhanced by stronger climate-related risk management

As decarbonisation efforts have accelerated throughout the world in the recent years, financial institutions are increasingly expected to contribute to the transitions of the real economy, in other words, to support the clients to develop and implement transition plans through engagement, and to provide financial support for this purpose.

While this trend creates business opportunities for financial institutions, this also requires enhancement of risk management systems that could accurately capture social and economic changes related to climate change. In climate-related risk management, material risks need to be identified, monitored and managed. Mizuho has established the following process.

In order to identify material risks, we first identify the financial and operational risks posed by climate change, assuming various channels of transmission for each risk category, such as credit, market, and liquidity. Then, we examine the

events that could be anticipated in the short and medium to long time horizons for transition risk and both acute and chronic physical risks. The materiality of each risk is assessed qualitatively from two perspectives: impact and controllability. Credit risk is identified as the most significant in this process, and thus assessed by sector as well.

With regard to risk monitoring and management, based on the results of the qualitative sector assessment described above, a framework for “Risk Control in Carbon-Related Sectors” was introduced in 2021. This framework will identify and control risk in high risk areas among sectors recognized as facing transition risk at particularly high levels (Electric power, coal, oil and gas, steel and cement sectors, as of July 2023).

These high-risk areas are identified by evaluating risk along two axes:

1. our clients’ sectors based on the largest component in the sales/energy mix of their business activities, and
2. our clients’ measures to address transition risk. Their responses to transition risks are based on their formulation of transition strategies and targets, level of their targets, and the progress on their strategy.

Additionally, we engage our clients and work with them for shifting their business structure to lower carbon-related risk areas and sectors, and for promoting their response to transition risks. Through this process, we monitor the progress of transitions in order to control risks that may emerge in the future.

**Mizuho’s robust
climate-related risk
management provides
powerful support for
client transitions.**

As large investments are required when our clients are proceeding with transitions, it is essential for financial institutions to provide financial support. Mizuho has established a process to confirm the reliability and transparency of clients’ transition strategies in accordance with several criteria such as the Climate Transition Finance Handbook of the International Capital Markets Association. Mizuho is actively providing financial support to the clients who have transition strategies in line with those criteria. Support for the transition could lead to a temporary

increase in Financed Emissions for financial institutions, and we recognise the importance of establishing such process especially when we try to explain our efforts to respond to climate change to our stakeholders.

As mentioned above, Mizuho has gradually developed a system to identify, monitor and manage climate-related risks. Quantitative risk analysis is important for more advanced risk management, and scenario analysis is effective for this purpose. Mizuho has been working on this for seven industries (Electricity utilities, oil and gas, coal, steel, automotive, shipping, aviation) to grasp the quantitative impact.

On the other hand, scenario analysis methods are still developing and are currently not accurate enough to be used directly for risk management. One of the keys to sophistication is to improve the analytical methods by selecting or creating better scenarios to use, and by improving financial analysis models. Such improvements are supported by a deep understanding of the business, industrial structure, and transition plans of our clients, which could be obtained through our engagement with clients. Then, we believe we will be able to obtain analytical results that are in line with real economy and can be utilized for risk management in the future.

It is important for financial institutions to develop the ability to appropriately manage climate-related risks not only from the perspective of protecting their own management but also from the perspective of strategic risk-taking to provide financial support to enhance the transition of their clients.

Mizuho aims to maintain management stability that can withstand environmental changes such as stricter financial regulations in the future through advanced climate-related risk management, while supporting the transition of our clients and becoming a partner that can continue to share risks over the medium to long term.



BERTRAND LUSSIGNY

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La Banque Postale

Challenges for proper assessment of climate risk measurement and management

Once the question of defining climate risks achieves a general consensus (around physical, transition and reputational risks, which add aggravating factor to existing risks), the debates now focus on the two other pillars of sound risk management, namely the measurement of these risks and the means to manage them within the framework of risk appetite and robust governance.

Beyond the primary responsibility of bank management, it is important to highlight the essential contribution of regulation, particularly in risk measurement. However, historically, this regulation has always emerged in response to past crises, from the creation of the Basel Concordat in 1975 to Basel III. It is clear that the financial materialisation of climate risks in bank balance sheets, still extremely limited, does not allow for empirical evidence of ex-post risk differentials or the use of usual back-testing methods to feed prospective risk metrics.

What are the lessons learned from the former stress testings (EU, NGFS, ...) and related feedbacks?

The Stress Test exercise conducted by the ECB in 2021 is quite illustrative of the imperfection of tools and the still very exploratory nature of certain methods. Unfortunately, ultimately, it proved difficult to produce detailed and insightful analyses because:

- Different institutions used highly divergent methodologies, in terms of balance sheet projection and risk calculation, both for physical and transition risks, with approaches varying from granular to aggregated and with different assumptions (notably on the use of carbon prices)...
- The very long-time horizons required in these exercises lead to dysfunctions in traditional models.
- There was a lack of consideration for business impacts (revenues, commissions, and expenses).
- The difficulty in obtaining high-quality and available data to produce relevant results.

These feedbacks demonstrate that, as it stands, relying on a single tool like stress tests for evaluating sound climate risk management would not be appropriate. Similarly, recent political discussions in the European Parliament regarding bank transition plans show the lack of common definition and objectives, reflecting different and sometimes divergent uses of the subject in prudential contexts.

Alignment of stress test results, transition plan, commercial offers and governance is fundamental.

What are the main challenges posed by the incorporation of sustainability factors in the evaluation of bank climate risk exposure and proper risk mitigation?

At the time of the operational implementation of the climate topic, while seeking to integrate it as much as possible into existing frameworks, and beyond the constraints that force banks to make considerable investments in adapting their processes and desiring to do so with the right reference directly, the question arises about the relevance of evaluating their exposure to risk and their capacity to manage it. In line with the latest stock-take of the NGFS, we believe that this risk assessment and understanding of the capacity to manage it involves aligning the results of the

stress tests, transition plans, business offerings, and banks' governance.

In that respect, La Banque Postale became in 2021 the first European bank and one of the first financial institutions in the world to have decarbonization trajectories validated by the SBTi. Besides, as a mission-led company since 2022 committed to a just transition, we are also strongly committed to phase out fossil fuels (coal, oil and gas) by 2030. We are progressively integrating climate risk into our credit granting and provisioning policies, our stress tests in the ICAAP. Simultaneously, we are deploying a range of products and services that will decarbonize our balance sheet and those of our counterparts (e.g., impact real estate loans based on a Global Impact Indicator which will be reviewed by WWF and implemented by the end of 2023, green and social loans for local authorities and companies in addition to green bonds, and the SRI label for 100% of eligible funds managed by our asset manager LBP AM).

This consistent strategy allows us to build an international leadership which is acknowledged in terms of ESG, as evidenced by being ranked the world's top bank in terms of ESG by Moody's and receiving an A rating from CDP, the international reference organization for evaluating corporate climate strategies.

Thus, as raised by the NGFS, we encourage supervisors, in their actions of evaluating the management of climate risk by banking institutions under Pillar 2, to rely on the expertise of the entire ecosystem (credit rating agencies, NGOs, etc.) to allow for the most holistic and realistic evaluation possible while preserving the indispensable idiosyncratic vision required for an orderly transition.



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Pathways to Paris – How to green the financial system with transition plans

Climate change is one of the greatest challenges facing our generation. The Paris Agreement has committed the world to limit global warming to well below 2°C, ideally 1.5°C above preindustrial levels. The Intergovernmental Panel on Climate Change (IPCC) has demonstrated that to achieve this, global greenhouse gas (GHG) emissions need to reach “net zero” around mid-century – thus necessitating urgent action to reduce them.

More needs to be done. Based on current national commitments we are on track towards warming of 3-4°C – which will bring about major and irreversible climatic changes severely impacting human welfare. We are seeing the adverse impacts already: the summer of 2023 has been marked by extreme heat and rain, with wild fires and floods hitting large parts of the Northern hemisphere. Is this the new normal? Meanwhile, global emissions are still on the rise.

If we are still to limit global warming to tolerable levels, national and private

sector commitments are critical. Companies and financial institutions are increasingly doing so by establishing their own net zero pledges. The financial sector in particular can be an important agent of change and achieve considerable leverage by being green, inclusive and climate friendly.

So how does a bank transform its business and contribute to global net zero efforts? A so-called “transition plan” is emerging as the central tool to do so. Informed by recent work by institutions such as the United Nations, the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), and the Transition Plan Taskforce in the UK, a few critical areas are central for Banks to ensure such plans are robust:

- 1. Emission targets:** Banks need to shift their thinking from considering only their own emissions as a company, such as those from its buildings, business travel and personnel commute. Even more importantly, they need to start capturing financed emissions, namely those of the economic activities they are supporting through loans and investments. Once this baseline is established, they can identify realistic but ambitious GHG emission reduction targets, both for their own and their financed emissions. These targets need to be clearly formulated and committed to.
- 2. Climate finance targets:** Financial players have the power to channel their funding towards green and socially sound activities, or transition activities that support the transformation to green. As we have found at EBRD, setting targets to gradually increase such financing can help achieve this. We have committed to dedicating more than 50% of our financing every year to green activities by 2025, and have already reached this target.
- 3. Fossil fuel policies:** Committing to the goals of the Paris Agreement cannot be done without putting a stop to supporting new coal. Other fossil fuel exposures need to be carefully assessed and managed to make sure that they are in line with low carbon pathways.
- 4. Climate corporate governance:** Banks need to build a strong internal governance for climate and other ESG issues. Does the Board have formally assigned responsibilities around climate change? Are sustainability matters mainstreamed into strategy, business development, risk management and other processes? Without a strong “G”, the “E” and the “S” will not succeed.

- 5. Managing impact from own operations:** While the impact of the financed activities is exponentially higher, a financial institution should not neglect what can be achieved in-house, such as lowering electricity consumption and switching to renewable energy sources, sustainable buildings management, and reviewing travel and procurement policies.

As the financial sector collectively acquires the “art of transition planning”, a number of areas require our focus. Firstly, there is a need for further harmonization around the form and substance of the transition plan. With both the recently published international reporting standard ISSB and emerging EU legislation referencing transition plans, agreement is needed around what makes a transition plan credible and good.

The financial sector in particular can be an important agent of change and achieve considerable leverage by being green, inclusive and climate friendly.

Secondly, it is important to fend off “paper decarbonization” – decarbonizing one’s portfolio without actually reducing emissions in the atmosphere. There is a risk that some of the net zero target setting may lead to this. Thirdly, emerging market private sector players need support. If they cannot provide the data expected of those bound by emerging EU legislation, or they cannot demonstrate credible plans at the entity level, they risk losing access to foreign direct investment.

Collaborating with investors like EBRD can help. As a fully Paris-aligned institution, the EBRD not only scrutinizes all of its financing to ensure it is consistent with the low carbon pathway, it also actively supports partner financial institutions with transition planning, helping them to become the sustainable forces needed to transform our existing economic systems.