

## RESEARCH:

# CLIMATE CHANGE RISK IN EU BANKS: STILL MUCH TO DO BUT NOT TOO LATE

**PUBLICATION DATE: 18 OCTOBER 2021**

## KEY CONSIDERATIONS

- ✓ The Basel Committee on Banking Supervision in its most recent report<sup>1</sup> addresses the topic of how climate risks could impact economies and consequently the performance of banks. The report introduces the concept of Climate Risk Drivers as i) Physical Risks, that arise from the changes in weather and climate that impact the economy and ii) Transition Risks, that arise from the transition to a low-carbon economy.
- ✓ The banking sector needs to speed up the process of quantifying and managing climate change risks, both the transition risk to a low carbon economy and the physical risk of climate change itself to anticipate and mitigate any effects on P&L and balance sheet.
- ✓ Market players and regulators are pushing towards action on climate change risks. Banks will need to incorporate climate change risk considerations in their lending decisions and risk appetite, as well as to define specific exposure limits to be incorporated in risk management frameworks and portfolio management.
- ✓ To be able to assess climate change risks effectively, banks face the challenge of obtaining the right data in terms of exposures, geographical concentrations, supply chain dynamics, among others, which could allow to develop consistent and robust risk models that can provide enough predictability.

---

(1) 'Climate-related risk drivers and their transmission channels': <https://www.bis.org/bcbs/publ/d517.pdf>

### ANALYTICAL CONTACT DETAILS

#### **CAROLA SALDIAS**

Sector Specialist Financial Institutions  
[carola.saldias@arcratings.com](mailto:carola.saldias@arcratings.com)

### BUSINESS DEVELOPMENT CONTACT DETAILS

#### **RHONDA MOORE**

Business Development Director  
[rhonda.moore@arcratings.com](mailto:rhonda.moore@arcratings.com)

## I. BANKS FACING REPUTATIONAL RISKS

The increase interest of market players to see active corporate action on carbon emissions' reduction and plans to promote a sustainable economy to address climate change risks, if done too late can result in increased reputational risk for banks.

Reputational risk is becoming a key risk for banks due to their still limited action towards plans for mitigation of physical and transition risks related to climate change. We observe that more often banks are becoming target of criticism and scrutiny due to their lending and investments' activities towards the fossil fuel industry. Nowadays, stakeholders and institutional investors are incentivized and rewarding activities that promote the transition to a lower-carbon economy.

We expect that banks will move faster to promote lending to low-carbon emissions activities, using additional and largely available funding sources that promote sustainable finance efforts like the European Investment Bank (EIB) and its Roadmap 2021-2025<sup>2</sup>, defining itself as one of the largest global financiers of sustainable development, climate action and environmental sustainability. The objective of the EIB is to increase its level of support to climate action and environmental sustainability to exceed 50% of its overall lending activity by 2025 and to leverage EUR 1.0Tr of investments.

In addition, the EIB has committed to aligning all its financing activities with the goals and principles of the Paris Agreement. For this, the EIB is actively adopting sector-specific criteria for carbon-intensive sectors of the economy (e.g. energy, aviation, road infrastructure, road vehicles, energy-intensive industries, agriculture and forestry).

Banks in EU play a key role in lending to corporates and SMEs and therefore, are an active player for the transition into low-carbon emission activities and promoting a greener economy. Some banks have already implemented plans to redefine their goals and reshape their loan portfolios to move away from financing fossil fuels. Therefore, we should expect that it is not only a motivation because of reputational risk but, it becomes a stakeholder's commitment towards meeting the goals defined in the Paris Agreement.

---

(2) EIB Group Climate Bank Roadmap 2021-2025.

[https://www.eib.org/attachments/thematic/eib\\_group\\_climate\\_bank\\_roadmap\\_en.pdf](https://www.eib.org/attachments/thematic/eib_group_climate_bank_roadmap_en.pdf)

## II. REGULATION IS PUSHING FOR ACTION

Regulation is driving banks to adopt policies to take account of climate risks in their loan portfolios. Recent regulatory requirements, such as the Corporate Sustainability Reporting Directive (CSRD), EU Taxonomy and the Sustainable Finance Disclosure Regulation (SFDR), are accelerating the need for action.

The most recent regulation implementation is aiming to tackle the challenges that ESG topics and, more specifically, green and sustainable finance, face. The issue with lack of eligibility and greenwashing, and how to be able to translate actions into transparent and measurable data, have been the main objectives of the current regulation.

While the CSRD is defining a structure in which EU companies will need to communicate and report their ESG impact, the EU taxonomy regulation's objective is to clearly define what a 'green product' is; and finally, the SFDR requires financial market players and advisers to disclose their investment policies in terms of responsible investments.

Regulatory requirements are also requesting that financial firms improve how they report climate risks, not just to the regulator, but also to the market. We observe that greater disclosure and market transparency are key tools in driving the shift towards a more sustainable financial system.

### III. RISK MANAGEMENT AND CAPITAL ALLOCATION SHOULD CONSIDER CLIMATE CHANGE RISKS

Banks will need to include climate change risk drivers into risk management and modelling methodologies to be able to estimate the impact on P&L and balance sheet

Banks will need to include climate change risk drivers into risk management and modelling methodologies. Climate change risk drivers and potential effects should be added in models throughout the whole credit lifecycle, from pricing, product origination to monitoring to be able to predict their impact and eventual effect on default. This will allow to build scenario analysis and stress testing tools that would estimate the impact of an increase in climate risk on the P&L and on the balance sheet.

Among the effects of climate risk drivers, aggregate analysis has been undertaken by regulators to group the potential effects depending on their exposure, at company level or to the real economy:

Effects on balance sheet and P&L:

- Banks' business focus and exposures can exacerbate but also limit climate risk impact, as industries will be affected at different levels following a transition to a low-carbon economy
- Different insurance products and national/government funds could be available to cover part of the devaluation of underlying assets that will not be able to transition, providing some level of mitigation to potential defaults

Effects on real economy:

- Longer time horizons of climate change risks do not allow to define with certainty what is the potential effect on the real economy
- Climate risk factors might change during a product life cycle and therefore affect the real economy at different parts of the cycle
- The economic impact of climate change risk can vary between geographic locations
- The speed of the transition to a low-carbon economy will be a driver to understand the potential effects on the real economy

Based on the research published by the ESRB<sup>3</sup>, the main climate-related physical risks for EU companies are floods, water stress, heat stress and wildfires. A significant share of these entities is in areas that are already highly exposed, that are projected to be highly exposed to physical hazards over the next 20 years or, are in areas that are exposed today and where the exposure level is increasing.

Firms with high or increasing physical risk exposures are distributed differently across Europe depending on the hazard. However, floods are a relevant risk driver in many countries, although with a stronger concentration in central and northern Europe. As of today, riverside floods have caused EUR 7.8Bn in damages in the EU and UK and affect more than 170,000 people annually. More than 60% of floods are caused by river inundation and those have generated 70% of the overall historical economic losses reported since 1995.

On what concerns the EU banking system, around 30% of EU area banking credit exposures to Non-Financial-Corporates (NFCs) are to firms exposed to high or increasing risk owing to at least one physical risk driver. Around 10.6% of bank credit exposures to NFCs are subject to high or increasing flood risk, 1.4% to coastal floods/sea level rise, 11.2% to heat stress, 12.2% to water stress and 4.8% to wildfires.

The research also mentions that exposures to climate risk drivers are also concentrated in larger European banks. For example, 70% of banking system credit exposures to firms subject to high or increasing physical risk hazards over the next decades are concentrated in the portfolios of only 25 banks.

We believe that this data itself shows the importance of identifying climate change risks on banks' portfolios, and how they will impact lending activities, to later assess risk appetite and the desired capital allocation to those risks.

---

(3) ESRB: Climate-related Risk and Financial Stability, July 2021.

## IV. LACK OF SPECIFIC CLIMATE RISK DATA

**There is limited amount of research and data on how climate risk drivers feed into transmission channels and materialise as financial for banks**

Despite the importance of climate change risks observed in recent years, there is still a limited amount of research and data that allows to understand how climate risk drivers feed into transmission channels and are translated into the financial risks for banks. However, one of the key steps for banks is to start obtaining more granular borrower data for credit risks.

To assess the exposure to transition risks, banks will need information on the GHG emissions of individual borrowers, as well as detailed geographical location of, among others, production facilities, offices, warehouses, etc., to be able to map them to the vulnerability of the locations to damages related to future extreme weather events. These risks are not only related to the physical location of the borrowers but information related to a firm's supply chain network, characteristics of its sales markets, customers' locations, and business models will also be required.

It has been observed that traditional banks face insufficient data availability and quality because of their legacy systems used for portfolio management. It is evident that banks need to improve their data collection strategy to deal with specific climate risk topics. We believe also noting that initiatives at the level of governments and regulators should be available to enable the creation of publicly available datasets.

## DISCLAIMERS

This publication is not a rating action, is not related with any specific rating and cannot and should not be seen as an indication of a future rating action. This document summarizes ARC Ratings' view as of the publication date. The view expressed in this document is based on information collected from a wide variety of sources which ARC Ratings believes to be reliable and ARC Ratings has adopted and implements measures aiming to ensure that, to the extent available in the circumstances, it has obtained reasonable verification of the information it uses and that such information is from reliable sources, but the publication of this document should not be viewed as a guarantee of the accuracy, completeness, or timeliness of the information relied on or the results obtained from the use of such information.

ARC Ratings does not act as a legal, tax, financial, investment or other advisor and users should seek professional advice from appropriate third parties where necessary.

ARC Ratings, S.A. is registered as a Credit Rating Agency with the European Securities and Markets Authority (ESMA), within the scope of the Regulation (EC) N° 1060/2009 of the European Parliament and of the Council, of 16 September, and recognised as External Credit Assessment Institution (ECAI).

ARC Ratings (UK) Limited is registered as a Credit Rating Agency with the United Kingdom Financial Conduct Authority, within the scope of the Statutory Instrument N° 266/2019, of 13 February, and recognised as ECAI.

## CONTACT DETAILS

ARC Ratings (UK) Limited

30 Churchill Place

Canary Wharf

London E14 5RE

UNITED KINGDOM

+44 203 927 8600

[arcratings\\_uk@arcratings.com](mailto:arcratings_uk@arcratings.com)

Site: [www.arcratings.com](http://www.arcratings.com)

ARC Ratings, S.A.

Rua de São José

35 – 1º B

1150-321 Lisbon

PORTUGAL

+351 21 304 11 10

[arcratings\\_eu@arcratings.com](mailto:arcratings_eu@arcratings.com)



 ARC Ratings' Offices

 Partners' Main Offices