

June 2024

2023 SUSTAINABILITY REPORT

REPORT ON
THE BANQUE DE FRANCE AND
ACPR'S SUSTAINABLE ACTION



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GOVERNOR'S FOREWORD

The Banque de France and the *Autorité de contrôle prudentiel et de résolution* (ACPR – Prudential Supervision and Resolution Authority) share a common aim of incorporating sustainability issues – notably climate, environmental and social issues – into their strategy, missions and operations. In this first *Sustainability report*, we aim to set out a global approach by integrating the full spectrum of activities performed by the Banque de France and the ACPR, including financial stability, the work of the branch network, our own account investment strategy and our commitment to corporate social responsibility (CSR).

Since the publication of the Banque de France's first annual report on responsible investment in 2019, followed by the publication of the Banque de France and ACPR's Climate Action Report in 2022 in response to the commitment we made at COP26 in Glasgow, our approach has been based around transparency vis-à-vis the public and our peer institutions, amidst heightened expectations regarding corporate extra-financial reporting, particularly within the European Union.

The *Sustainability Report of the Banque de France and the ACPR* includes several new features when compared with previous formats. First, it expands the scope of our publication, which is aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), beyond climate risks, to focus more broadly on our action in terms of sustainability. This change is not merely one of semantics; it reflects the growing action of the Banque de France and the ACPR in terms, for example, of factoring in the major economic risks associated with the degradation of nature and biodiversity loss. Helping to assess, mitigate and manage the impact not only of climate risks but, more generally, of nature-related risks on the real economy and the financial system, now forms part and parcel of our mandates as central bank and supervisor. This is what I stated back in September 2022, and reiterated the following year at the launch of the [conceptual framework for nature-related financial risks](#) by the Central

Banks and Supervisors Network for Greening the Financial System (NGFS). Secondly, with a view to consolidating all of the institution's financial and non-financial reporting in a single publication, this document also reports on the strategy and actions undertaken by the Banque de France in terms of responsible investment. For the second year running, this responsible investment section includes the metrics calculated as part of the climate reporting exercise common to all Eurosystem central banks. This approach was previously limited to euro-denominated own-portfolio management, but this year it has been extended to foreign exchange reserves, in other words, foreign currency-denominated asset portfolios.

The Banque de France was among the first to act in encouraging the community of central banks and supervisors to factor in sustainability issues. In the international arena, in 2017 the Bank was one of the founding members and has acted since then as secretariat for the NGFS, which now covers over one hundred countries. From an internal governance perspective, the Banque de France has set up an Executive Committee for Climate Change, which brings together all the Bank's departments and is entirely focused on climate issues, helping us to act even more effectively by nurturing new skills and unlocking synergies between business areas and activities. The pilot climate exercise conducted by the ACPR in 2020-2021, followed by a new climate stress test focused exclusively on insurers in 2023, is another example of our determination to act. Since 2022, the ACPR has been monitoring compliance with the provisions set out in Article 29 of France's Energy and Climate Act, by checking that the information reported by life insurance and supplementary occupational retirement providers on their sustainability risk policy is clear, accurate and not misleading. In particular, the Banque de France is working on incorporating climate risks into company ratings and assigning a 'climate indicator' to companies. Lastly, to maintain its leadership in responsible investing, this year the Banque de France achieved its target of aligning its equity portfolios with a trajectory that limits global warming to 1.5°C, two years ahead of schedule.

Our ambition is reflected in all our missions and lies at the heart of our corporate strategy. A number of concrete objectives have been set for 2025, which we have either already achieved or are in the process of achieving. Thanks to all these actions and commitments, in November 2022, the Banque de France was ranked as the leading G20 central bank in terms of climate action by *Green Central Banking magazine*, on the basis of an [assessment](#) performed by a group of international non-governmental organisations.

In accordance with international climate and environmental risk reporting standards, the first section of this report presents the governance framework established to manage sustainability issues, as well as the related strategy developed by the Banque de France and the ACPR. It then details how the Banque de France manages the sustainability risks identified within the framework of the missions entrusted to it. It concludes by describing a series of metrics and targets to track the climate risk connected with our activity and, more broadly, the development of our sustainability initiatives. As per NGFS recommendations for reporting by central banks, this report takes a broad view by considering the impact of climate and nature-related risks on our balance sheet as well as on our missions. The second section of this report continues our transparent approach to reporting the results of our responsible investment policy.

This report will be published every year with the aim of gradually expanding its scope and enhancing its accuracy in light of the new European extra-financial reporting standards, based on the learning-by-doing approach that we have adopted since our early initiatives in this area. The preparation of this report is an invaluable resource for catalysing ongoing efforts and anchoring a shared culture of climate and environmental awareness in all our activities. The past year has seen a growing awareness that urgent action is required: I am pleased to be able to use this report to reiterate our firm support for achieving the objectives of the Paris and Kunming-Montreal climate agreements and promoting sustainable finance.

François Villeroy de Galhau

FIND OUT MORE

... about the pledge made by the Banque de France and the ACPR during COP26: [COP26: Pledge by the Banque de France/ACPR | Banque de France \(banque-france.fr\)](#)

Speech, 25 April 2023: [The role of central banks in the "macroeconomics of climate change"](#)

Speech to launch the Conceptual Framework for nature-related financial risks, 7 September 2023: [Launch of the NGFS Conceptual Framework "to guide action by central banks and supervisors on nature-related risks"](#)

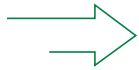
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SECTION 1

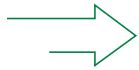
FACTORING THE CLIMATE AND NATURE INTO THE ACTIVITIES OF THE BANQUE DE FRANCE AND ACPR

OUR METHODOLOGY

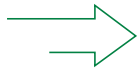


The TCFD methodology¹ is applied as interpreted by the NGFS² guide for central banks. More specifically, we follow the four-pillar approach recommended by the TCFD in recognising the impact of climate-related risks on our balance sheet and missions:

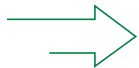
- **Governance:** the Bank's governance arrangements for climate and nature-related impacts, risks and opportunities
- **Strategy:** real and potential impacts of climate and nature-related impacts, risks and opportunities for activities and actions taken to respond to these impacts
- **Risk management:** processes used to identify, assess and manage climate and nature-related risks
- **Metrics and targets:** metrics and targets used to assess and manage climate and nature-related impacts, risks and opportunities



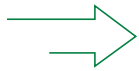
The section covers activities carried out by the Banque de France and the ACPR, referring to additional work at Eurosystem level where applicable



The section focuses on climate risk management and this year it has been expanded to cover nature-related risks



A synthetic approach, referring to more detailed publications where available



Metrics and targets associated with our objectives and actions: these metrics will be enhanced as our work progresses and in accordance with data availability

FIND OUT MORE

... about the TCFD recommendations: <https://www.fsb-tcdf.org/>

... about the NGFS recommendations: <https://www.ngfs.net/en/guide-climate-related-disclosure-central-banks-second-edition>

¹ TCFD, Task Force on Climate-related Financial Disclosures.

² NGFS, Network for Greening the Financial System.

GOVERNANCE

GOVERNANCE

High-level governance implemented by each business area

The Banque de France and the ACPR apply their sustainability strategy to all their missions, namely monetary strategy, financial stability, provision of services to the economy and society, and sustainable performance. Responsibility for coordinating and executing the strategy lies with governance bodies at several levels, ranging from senior management to operations.

A CLIMATE STRATEGY DEFINED BY THE EXECUTIVE COMMITTEE

The Executive Committee, which includes the Governors and Directors General of the Banque de France and the Secretary General of the ACPR, together with the Director General of the *Institut d'émission des départements d'outre-mer* (IEDOM – the delegated central bank for the French overseas departments and territories) and the *Institut d'émission d'outre-mer* (IEOM – the central bank for the French overseas territories in the Pacific region), sets broad guidance for the Banque de France to follow in terms of fighting climate change, as part of the process of drawing up the corporate strategic plan. It also oversees the consistency of the climate strategy applied across the different business areas.

The strategic plan and strategic guidelines are submitted for approval to the General Council, which is kept abreast of progress in implementing the climate roadmap. The College of the ACPR approves all publications by the supervisory authority on the topic of climate change and closely tracked the climate stress tests conducted in 2023-2024 for the insurance sector, following pilot testing in 2020-2021 performed on banks and insurers. Initiatives designed to take account of climate change are also defined in conjunction with specific governance bodies. Some of these are devised internally (by the Assets-Liabilities Committee and the Pension Plan Strategic Committee regarding responsible investment, for example), and others externally (by the Eurosystem Governing Council for monetary policy and the Single Supervisory Mechanism for banking supervision).

OVERSIGHT PROVIDED BY THE EXECUTIVE COMMITTEE ON CLIMATE CHANGE

The growing importance of climate change-related work has led to the establishment of new cross-cutting structures to ensure that the business areas are properly coordinated.

The **Executive Committee on Climate Change** was set up in 2021. It brings together all of the Banque de France's directorates and the ACPR General Secretariat and is tasked with overseeing the institution's climate change initiatives.

The Committee ensures that these are properly coordinated, consistent and visible, thereby strengthening the Banque de France's ability to spearhead these initiatives among its peer institutions and throughout the financial system more generally.

OPERATIONAL IMPLEMENTATION BY THE CLIMATE CHANGE CENTRE (CCC) AND THE EXECUTIVE COMMITTEE ON CLIMATE CHANGE NETWORKS

In April 2021, the Banque de France set up a **Climate Change Centre (CCC)**, which was assigned three primary missions:

1. coordinating and implementing initiatives by the Banque de France and ACPR to take account of climate issues (excluding the CSR strategy);
2. analysing the risks associated with climate change for the financial sector, working closely with business experts from the two institutions;
3. serving as the secretariat for the NGFS.

The CCC's goal is to make the Banque de France's actions even more effective by drawing on new skills and unlocking synergies between the Directorates General. The centre is also tasked with ensuring that the Bank's work is aligned with international initiatives spearheaded by the **Network for Greening the Financial System (NGFS)**. Widening the brief of the Sustainable Finance Division set up in 2019, the CCC makes the Banque de France one of the world's very first central banks to have a team entirely devoted to climate issues.

The work of the Climate Change Centre is overseen by the **Executive Committee on Climate Change**. The Committee is responsible for drawing up the CCC's work programme and making sure that the roadmap applied by the cross-cutting working groups moves forward on schedule.

The **Executive Committee on Climate Change networks** are responsible for implementing the Banque de France's climate change strategy. These cross-functional networks are used to harness the expertise of the Bank's various departments and to facilitate the exchange of information on climate and environment-related work carried out within the Banque de France. More specifically, the networks cover the following aspects: scenarios and modelling, methodologies, climate and environmental data, nature and biodiversity, disclosure and transition plans, preparation of this *Sustainability report*, communication and research.

SPECIFIC RESPONSIBLE INVESTMENT GOVERNANCE ARRANGEMENTS

The Banque de France's responsible investment strategy is implemented by the Finance Directorate, which is part of the General Secretariat, for the Banque de France's pension liabilities and own funds portfolios, and by the Financial Markets Directorate, within the Financial Stability and Operations General Directorate, for other own-portfolios held against the monetary base.

The responsible investment strategy is presented at least once a year to the General Council and is determined by the Banque de France's decision-making bodies, namely the Asset-Liability Committee and the Pension Plan Strategic Committee. Operational implementation of the responsible investment strategy is steered by an investment committee on which the Risk Directorate sits alongside the Finance Directorate and the Directorate General tasked with managing the different portfolios.

FIND OUT MORE

... about the Banque de France's governance bodies: <https://www.banque-france.fr/la-banque-de-france/nous-connaître/la-gouvernance/les-organes-de-gouvernance>

... about the Centre for Climate Change [Climate change and sustainable finance | Banque de France \(banque-france.fr\)](#)

... about the ACPR's Supervisory College: <https://acpr.banque-france.fr/en/acpr/colleges-and-committees/supervisory-college/composition-acprs-supervisory-college>

... about the ACPR Climate and Sustainable Finance Commission: <https://acpr.banque-france.fr/en/acpr/colleges-and-committees/consultative-committees>

MONETARY POLICY AND FINANCIAL STABILITY: COORDINATED INITIATIVES AT EUROPEAN LEVEL

Monetary policy-related work is conducted within the framework of the Eurosystem. The Banque de France was involved in drawing up the roadmap for greening the European Central Bank's monetary policy and is working to execute it according to the agreed timetable.

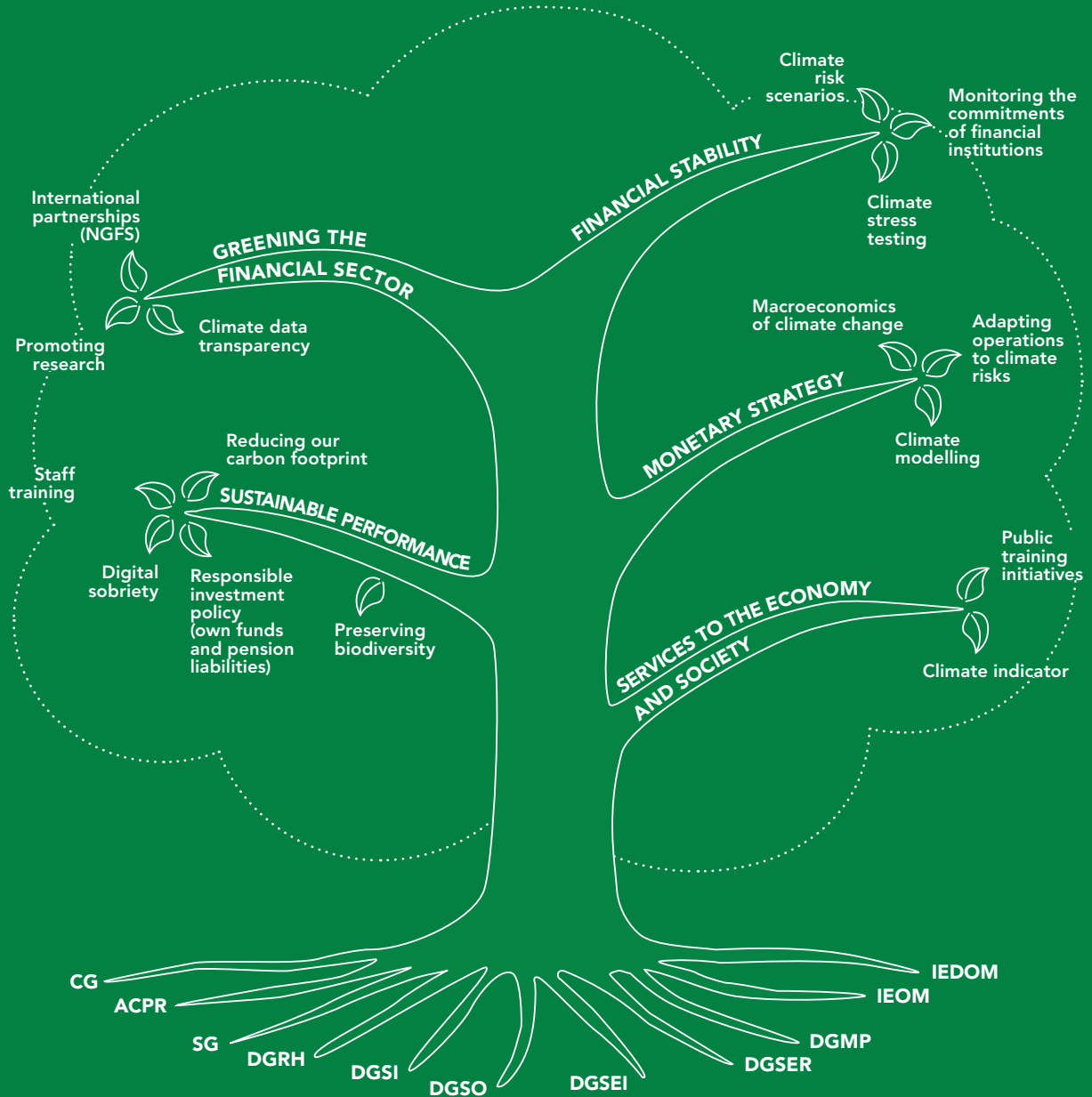
The ACPR's financial stability-related activities are conducted at European level within the Single Supervisory Mechanism (SSM) as regards microprudential supervision of the banking sector and, in France, its contribution to work by the *Haut Conseil de Stabilité Financière* (HCSF – High Council for Financial Stability).

THE ACPR CLIMATE AND SUSTAINABLE FINANCE COMMISSION

Set up in October 2019 following the marketwide agreement of 2 July 2019, this commission is chiefly tasked with aiding the ACPR in monitoring the sustainable finance commitments made by the financial intermediaries under its supervision. As such, it seeks to promote constructive dialogue with financial community stakeholders.

Every year, it publishes a joint report along with the Sustainable Finance Commission of the *Autorité des marchés financiers* (AMF – the French Financial Markets Authority) on the commitments made by French financial institutions.

THE BANQUE DE FRANCE AND ACPR'S ACTIONS FOR CLIMATE AND NATURE



Source : Banque de France.

**RESPONSIBLE INVESTMENT (RI)
GOVERNANCE**



Source: Banque de France.

STRATEGY

STRATEGY

CLIMATE CHANGE IS A KEY COMPONENT OF OUR “BUILDING 2024 TOGETHER” STRATEGIC PLAN.

Climate change is one of six **major challenges** identified during the collective, forward-looking approach used to draw up our corporate plan. **Adopted in 2021, “Building 2024 Together”** seeks to strengthen our capacity to discharge our missions, while taking into account the consequences of these major challenges. The Banque de France’s strategic plan, structured around 31 actions, tackles these challenges and harnesses the resources of the Banque de France around four focuses: (i) anchoring price stability, the climate transition, financial stability and resilience; (ii) anticipating innovation; (iii) accompanying individuals and businesses; (iv) attracting talent and further improving working conditions.

In all, five actions are focused on priority initiatives designed to get our institution ready for the physical and transition risks linked to climate change:

- Adapting monetary policy operations to climate risks,
- Getting the financial sector to take more account of climate risks,
- Assessing how to incorporate climate risk into our rating process and assigning a climate indicator for businesses,
- Actively committing to carbon neutrality,
- Aiming for digital sobriety in all our digital uses.

Deliverables for these five action areas are tracked using indicators which are described in the chapter on metrics and targets.

The Bank has also pursued a CSR programme for many years. Among other things, it launched a major responsible investment policy in 2018 with the publication of a Responsible Investment Charter, which it plans to update on a regular basis.

The Banque de France’s strategy forms part of bold carbon emissions reduction targets adopted by the European Union (EU) and aimed at cutting emissions by 55% by 2030 relative to 1990 and achieving carbon neutrality by 2050. The Eurosystem is making an extensive contribution to these efforts and aims to align its actions with advances in the EU’s policy and initiatives in this area.

CLIMATE AND NATURE-RELATED RISKS AT THE HEART OF THE MANDATES ENTRUSTED TO THE BANQUE DE FRANCE AND THE ACPR

Both physical and transition climate and nature-related risks are a source of financial risk. Central banks and supervisors must recognise this risk and work to mitigate it within the framework of their mandates, while having a decisive impact on the development and promotion of sustainable finance. All the Banque de France’s missions are therefore concerned, from monetary strategy and financial stability to the services provided to the economy and society. The Bank is also applying a strategy aimed at exerting influence to promote a greener financial sector. Meanwhile, as a company, it is working to achieve the goal of operating sustainably, which it applies to the management of its resources and own account investments.

FIND OUT MORE

... about the “Building 2024 Together” strategic plan [A strategy for the future | Banque de France \(banque-france.fr\)](#)

... about the Responsible Investment Charter: <https://www.banque-france.fr/system/files/2023-08/Responsible%20Investment%20Charter%202022-Banque%20de%20France.pdf> (banque-france.fr)

A SUSTAINABILITY STRATEGY BUILT AROUND CLIMATE RISKS AND OPPORTUNITIES

MONETARY STRATEGY

Action 3 Adapt monetary policy operations to climate risks



Exert influence on the ECB's monetary policy strategy review, especially the climate portion

Participate in the first climate stress test of the Eurosystem balance sheet

Integrate the climate transition into the assessment of risks to price stability in a more effective manner

Build a climate dimension into macroeconomic models and scenario analyses

Incorporate climate risk into monetary policy operations

FINANCIAL STABILITY

Action 11 Ensure the financial sector takes more account of climate risks, notably via the NGFS



Promote international cooperation between central banks and supervisors, notably through the NGFS secretariat

Adapt the ACPR's climate stress testing methodology at European level

Continue to track the climate commitments of French institutions

Promote the publication of transition plans by financial institutions

Include climate risks in prudential requirements, maintaining a risk-based approach

Better assess the financial impact of nature risk

SERVICES TO THE ECONOMY AND SOCIETY

Financial literacy: organise training and information sessions on sustainable finance for the general public

Action 12 Assess the incorporation of climate risks into the company ratings process and assigning a climate indicator to businesses



Develop a climate indicator to assess how companies are doing in terms of their exposure to and control of climate risks

SUSTAINABLE PERFORMANCE

Participate in financing the ecological and energy transition as a responsible investor

Factor in the carbon footprint of issuers when making investment decisions

Align the equity component of own funds and pension liabilities portfolios with a trajectory that limits global warming to 1.5°C

Action 22 Actively commit to a target of carbon neutrality



Actively commit the Banque de France to a pathway to carbon neutrality, setting intermediate goals for 2024 and 2030

Train employees on climate issues and the Bank's environmental footprint

Action 23 Aim for digital sobriety in all our digital uses



Raise awareness of best practices

Measure and optimise the environmental footprint of the Banque de France's information system

Support the eco-design of applications and the information system

Contribute to creating a responsible digital ecosystem

... FOR MONETARY STABILITY

The climate lies at the heart of our **monetary mandate** because of its effects on price stability. The transition to a low-carbon economy, driven notably by the introduction of transition policies and technological developments, may feed through to activity and prices, starting with those of the energy industry. Besides transition risks, extreme events linked to climate change are having increasingly visible effects on economic activity and prices, especially in the food sector.

The Banque de France is therefore backing the Eurosystem's strategy to **ensure that monetary policy is more effective in taking climate issues into account**. This is being done through improved integration of the climate transition in assessments of risks to price stability, notably in macroeconomic models, and through climate scenario analyses.

... FOR FINANCIAL STABILITY

Under their **financial stability mandates**, the Banque de France and the ACPR are taking steps to gain a better understanding of the exposure of France's banking and insurance sectors to climate and nature-related risks and to ensure that they are capable of handling them. From a micro and macroprudential supervisory perspective, the main risks linked to climate change are the climate risks **borne by French institutions and bodies**. These risks therefore need to be assessed more effectively through the short, medium and long-term forward-looking view afforded by stress testing of banks and insurers. The question of additional capital requirements could be raised once all the risks are known, at French, European and international levels, and rounded out by the transition plans of individual institutions.

The Banque de France and the ACPR are prioritising efforts to standardise climate stress tests and make them more reliable, in order to promote their widespread use as supervisory tools. Assessing the financial risks posed by climate change will also entail strengthening collaboration with the academic world by taking a multidisciplinary approach to the most relevant issues for the financial sector. The scope of risks being researched is gradually being extended beyond climate risk to include the impacts on the financial sector of nature-related and biodiversity loss risks, particularly in relation to the work of the NGFS, for which the Banque de France co-chairs the working group tasked with mainstreaming these issues.

... FOR SERVICES PROVIDED TO THE ECONOMY AND SOCIETY

In July 2023, the Ecological Transition Financing Committee, chaired by the Minister of the Economy, Finance and Industrial and Digital Sovereignty, bringing together industrial and financial players, experts and supervisory authorities, entrusted the Banque de France with devising a national climate indicator that could be used for businesses. In support of this decision, the French Monetary and Financial Code has been amended, giving the Banque de France the power to collect sustainability data from companies. At the same time, companies are preparing for the energy transition, adapting their business models and getting ready to meet the demands of the market and regulators for enhanced sustainability reporting, particularly with the implementation of the CSRD Directive with effect from 2024 for large businesses. To calculate a climate indicator for a business, the Banque de France will use CSRD data for companies subject to the Directive, and will organise a gradual and proportionate data collection process for other companies, based on their size and climate challenges.

France has had a national strategy for **economic, budgetary and financial literacy (EDUCFI)** since 2016, which the Banque de France is responsible for executing. The EDUCFI strategy is being executed through information and training initiatives designed to help people improve their practical understanding of financial topics. The battle against climate change is one of the topics covered in presentations to secondary school pupils, students and teachers. Similarly, resources are made available to the public through a series of practical economic guides (*ABC de l'économie*) covering green finance, responsible finance and corporate social responsibility.

FIND OUT MORE

... about the strategy of the Banque de France: [A strategy for the future | Banque de France \(banque-france.fr\)](#)

Available in French only:

... about the Banque de France's climate indicator: [The Banque de France will provide businesses with a climate indicator | Banque de France \(banque-france.fr\)](#)

Short economic guide to sustainable finance: <https://abc-economie.banque-france.fr/leco-en-bref/finance-durable>

Short economic guide to green finance: <https://abc-economie.banque-france.fr/la-finance-verte>

Short economic guide to green bonds: <https://abc-economie.banque-france.fr/obligation-verte>

Short economic guide to EU green taxonomy: <https://abc-economie.banque-france.fr/la-taxonomie-verte-europeenne>

Short economic guide to responsible finance: <https://abc-economie.banque-france.fr/mot-de-lactu/finance-responsable>

Short economic guide to corporate social responsibility: <https://abc-economie.banque-france.fr/responsabilite-societale-des-entreprises>

PROMOTING A GREENER FINANCIAL SYSTEM

Climate change, the degradation of nature and the policies deployed to support the transition to a low-carbon economy are leading to a radical transformation of the economy. As a public institution, the Banque de France is involved in negotiating, adopting and setting up an appropriate regulatory framework – covering environmental risks – to enable it to continue discharging its missions. By virtue of its positioning within the financial ecosystem and at the heart of the French and European economy, the Banque de France can **use its influence to promote a greener financial sector**, both at home and abroad.

With this in mind, the Banque de France is prioritising continued efforts to **invest for the NGFS**, which is producing leading-edge work at international level on the ways central banks and supervisors can integrate climate and nature-related risks. The Banque de France is a founding member of the network and acts as its secretariat, providing around 20 employees and hosting experts seconded from NGFS member institutions.

To analyse the financial risks linked to climate change and nature, standardised and comparable data on companies' extra-financial performance are needed. The Banque de France and the ACPR are involved in work at European and international level to **build an extra-financial reporting framework**. They are promoting European disclosure standards for climate risk exposure that can be transposed at international level, while supporting their effective application at domestic level.

As an investor, the Banque de France can also help to foster greener financial markets. In this regard, the financing needs linked to the climate transition are enormous, with at least EUR 350 billion in additional annual investment needed to meet Europe's goal by 2030. The responsible investment approach adopted by the Banque de France since 2018 for a portion of its portfolios illustrates how an investor can implement this kind of approach and in so doing have a knock-on effect on the wider community of central banks and investors. With this experience, the Bank has also gained a better understanding of the practical issues and challenges involved in putting such an approach into practice, allowing it to make a richer contribution to national and international discussions on ways to promote a greener financial system.

Research plays a decisive role in better understanding the financial issues linked to the effects of climate change and the degradation of nature, but also in exploring ways

forward in terms of recognising these issues in the activities of the Banque de France and the ACPR. The in-house Climate Research network is pursuing an ambitious research programme that brings together researchers from across all the Directorates General. Over 50 research projects are being conducted internally on climate-related topics and, more recently, on macroeconomic and financial nature-related risks. Also, since 2019, the Banque de France has awarded prizes to the best young researchers working on green finance.

FIND OUT MORE

... about climate research at the Banque de France: https://www.banque-france.fr/en/banque-de-france/engaged-central-bank/climate-change-sustainable-finance/recherche-climate-change-green_finance

... about the NGFS: <https://www.ngfs.net/en/about-us/governance/general-information>

AN INTERNAL SUSTAINABLE PERFORMANCE OBJECTIVE

In addition to discharging its missions as a central bank and supervisor, the Banque de France is also acting under its own **corporate responsibility and is targeting sustainable performance** by taking account of risks related to climate change and biodiversity loss for its own activities and curbing the climate and biodiversity impact of its physical operations and investments. The Banque de France has pursued a corporate social and environmental responsibility policy for many years. It is now focusing on its own corporate actions, rounding out the work carried out as part of its central banking and supervisory responsibilities.

The Banque de France is actively working towards **carbon neutrality** through an approach designed to cut its own greenhouse gas emissions (GHG), with intermediate milestones set for 2024 and also 2030 (currently being determined). This ambitious programme involves keeping up the reduction efforts underway since 2014, based on a new milestone for 2024 that will be decisive in achieving this goal. More specifically, GHG emissions across the Bank's scope of operations are to be cut by at least 15% by 2024 relative to 2019. The programme is also based on a climate strategy that is consistent with the Paris Agreement, activating all possible drivers, including a low-carbon trajectory aligned with the 2030 milestone. It also integrates the development of new tools needed to steer these aspects in a robust and granular manner.

To structure its approach to **protecting biodiversity**, the Banque de France has also prepared a detailed inventory of the biodiversity-related challenges of its actions to date, and carried out an assessment of its biodiversity footprint as an organisation. This assessment is an important milestone in ranking its future actions.

To reconcile **digital transformation, innovation and the ecological transition**, the Banque de France is committed to **digital responsibility**, thereby limiting the impact of digitalisation. Since 2019, the digital sobriety strategy has been taking shape. Awareness-raising initiatives have been carried out, including training, digital fresks and the provision of individual digital profiles aimed at informing employees about their uses and best practices. The information system's environmental footprint is measured, using the most recent standards¹, to determine its impact on the environment, identify areas for improvement and control its trajectory.

The Banque de France factors sustainability into its information system management. Circular economy

principles are applied to IT equipment management to extend its lifespan; for example, 99% of laptops are re-used. **Eco-design of digital services** is integrated into IT project governance. Streamlining has been used to limit energy consumption: electricity consumption of IT centres has been reduced by 9% between 2019 and 2023. As part of this approach, an "IT score" that measures the actual consumption of resources allocated to IT applications will be deployed in 2024 to manage IT capacity as accurately as possible. As a committed member of the digital ecosystem, the Bank has signed up to the Planet Tech'Care manifesto. Its IT teams regularly take part in inter-company working groups and share their digital responsibility experience with other central banks, especially those within the NGFS.

The Banque de France also monitors the **level of exposure** to climate-related risks in the portfolios for which it is fully responsible (own funds and pension liabilities portfolios and own funds held against the monetary base). It reports on changes in its exposure to these risks in the second part of this sustainability report focusing on responsible investment. In 2023, for the first time, the main climate risk exposure metrics for its portfolios were certified by a third-party. Moreover, since 2020, the Banque de France has been measuring the biodiversity impact of its portfolios, using risk measurements provided by external service providers.

The Banque de France is also committed to **training all of its employees** by deploying programmes that improve the workforce's understanding of climate and sustainability issues more broadly. During the COP26, it set a target of training at least 50% of all employees by 2024. This target was subsequently raised to 75% as part of the Banque de France's strategic plan. At end-2023, more than 80% of employees had received training on climate-related issues (i.e., 7,724 people trained). In addition, technical training programmes for experts have been rolled out, especially in the areas of finance and supervision.

Lastly, training modules covering biodiversity-related issues have been devised as part of the Banque de France's «Nature and Biodiversity» network, with the organisation of biodiversity fresks and a workshop on nature-related financial risks.

¹ Ademe standards and NegaOctet emission factors to track the environmental

impact of the components of the Banque de France's information system.

FIND OUT MORE

... about the Banque de France's social and environmental responsibility policy, including issues to promote digital sobriety (CSR Book): https://www.banque-france.fr/system/files/2024-02/CSR%20book%202022_0.pdf

... about the Eurosystem framework to support EU climate policies: https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_overview.en.html

... about the Banque de France's 2024 strategic plan: <https://www.banque-france.fr/en/banque-de-france/strategy-for-future>

RISK MANAGEMENT

MANAGEMENT OF CLIMATE AND NATURE-RELATED RISKS AT THE BANQUE DE FRANCE AND ACPR

RISKS TO OUR BALANCE SHEET AND RISKS TO OUR MISSIONS

In accordance with the strategy described in the previous chapter, the Banque de France seeks to assess and manage the impact of climate risk and environmental risks more generally on its balance sheet and missions.

The inclusion of climate-related risks in monetary policy at Eurosystem level is a key component of this approach – not just because of the impact of climate change on price stability, but because of the share of the Eurosystem balance sheet represented by monetary policy portfolios. The ECB’s monetary policy strategy review, which wrapped up in July 2021, and the implementation of the goals of the shared climate action plan – pursued in the Climate and nature plan 2024-2025 – seek to improve recognition of the impact of climate change and the low-carbon transition on our price stability mission and its operational application.

In non-monetary policy portfolios, the Banque de France began applying a responsible investment approach to its own funds and pension liabilities portfolios in 2018 and this approach is being gradually rolled out to other own portfolios held against the monetary base. As such, it monitors and manages the climate-related and biodiversity loss risks to which these portfolios are exposed. This responsible investment policy is outlined in detail in the second section of this report. In accordance with the common stance adopted by Eurosystem central banks, in 2023, the Banque de France took part for the first time in a joint climate reporting exercise covering all of its own euro-denominated portfolios. In 2024, the range of indicators tracked and the portfolios included in this reporting exercise were expanded to include foreign exchange reserves, i.e. foreign currency denominated asset portfolios.

In its capacity as supervisor, the ACPR piloted a new climate stress test in July 2023, dedicated exclusively to insurers. This followed pilot testing performed by the ACPR in 2020, which functioned as a stress test of the financial risks linked to climate change through to 2050. It brought together 9 banking groups and 15 insurers and the results were published in May 2021. This approach is now being taken forward within a European framework, notably as since the exercise conducted by the SSM in 2022.

In addition to efforts to monitor and assess the climate commitments of members of the financial community, these measures aim to encourage better recognition of climate and nature-related risks by the French banking and insurance sectors.

FIND OUT MORE

... about the publication by Eurosystem central banks of climate-related data on their investment portfolios: <https://www.ecb.europa.eu/ecb/climate/climate-related-financial-disclosures/html/index.en.html>

MANAGEMENT OF CLIMATE CHANGE AND NATURE-RELATED RISKS AT THE BANQUE DE FRANCE

Monetary policy portfolios

INCORPORATING CLIMATE RISK INTO EUROSISTEM MONETARY POLICY OPERATIONS

Euro area monetary policy is determined by the Governing Council of the ECB and implemented jointly on a decentralised basis by the ECB and national central banks. Following a strategy review, on 8 July 2021, the Governing Council of the ECB adopted and published a climate action plan covering climate-related issues over the 2021-2024 period. As part of its mandate, the ECB committed to factoring all of the implications of climate change and the low-carbon transition into its monetary policy and central banking missions.

On 4 July 2022, the ECB communicated on the first concrete steps taken to account for climate change in its corporate bond purchases, collateral system, disclosure requirements and risk management.

With regard to its collateral framework, the Eurosystem will limit the share of assets issued by entities with a high carbon footprint that can be pledged as collateral by individual counterparties when borrowing from the Eurosystem. At first, the Eurosystem will apply such limits only to marketable debt instruments issued by companies outside the financial sector (non-financial corporations). This measure is expected to be applied before the end of 2024 provided that the necessary technical preconditions are in place.

As regards climate-related disclosure requirements for collateral, the Eurosystem will only accept marketable assets and credit claims from companies and debtors that comply with the Corporate Sustainability Reporting Directive (CSRD) as collateral in Eurosystem credit operations (once the directive is fully implemented).

On 23 March 2023, the ECB published its first report on the climate risk pathway of corporate sector portfolios purchased for monetary policy purposes. On 30 January 2024, the ECB reiterated its ambition with the publication of its Climate and Nature Plan.

On 13 March 2024, the ECB published changes to the operational framework for implementing monetary policy. In particular, the Governing Council agreed on a set of six principles that will guide monetary policy implementation in the future. These include the pursuit of the secondary objectives outlined in the ECB Treaty, namely to support the general economic policies in the European Union, insofar as these are conducive to ensuring

the effective implementation of the monetary policy stance. In this context, the ECB reiterated that the design of the operational framework will aim to incorporate climate change-related considerations into the structural monetary policy operations.

After making a major contribution to the strategy review that ended in July 2021, the Banque de France is continuing to play a driving role within the Eurosystem in implementing the objectives of the shared climate action plan. The Building 2024 Together strategic plan links Eurosystem objectives to those of the Banque de France via Action 3.

FIND OUT MORE

... about the European Central Bank's new monetary policy strategy: <https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708~dc78cc4b0d.en.html>

... about the inclusion of climate questions in the new monetary policy strategy: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html

... about the July 2022 decision on monetary policy operations: <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html>

... about the ECB's Climate and nature plan 2024-2025: <https://www.ecb.europa.eu/ecb/climate/our-climate-and-nature-plan/html/index.en.html>

EFFORTS TO GREEN THE EUROSISTEM'S MONETARY PORTFOLIOS

Drawing on its experience with the responsible investment policy for non-monetary policy portfolios, the Bank is contributing to work led within the Eurosystem on ways of greening monetary policy portfolios comprising CSPP (corporate sector purchase programme) corporate bonds and the extension of climate-related disclosures to all monetary policy portfolios.

The Eurosystem wants to gradually decarbonise its corporate bond holdings, on a path aligned with the goals of the Paris Agreement. To this end, it will tilt these portfolios towards issuers reporting better climate performance that features lower greenhouse gas emissions, more ambitious carbon reduction targets and better climate-related disclosures.

Tilting means that the share of assets on the Eurosystem's balance sheet issued by companies with a better climate performance will be increased compared to that by companies with a poorer climate performance. This approach is designed to mitigate climate-related financial risks on the Eurosystem balance sheet. It also provides incentives to issuers to improve their disclosures and reduce their carbon emissions in the future.

These measures have been applied since October 2022. On 23 March 2023, the ECB began publishing climate-related information on corporate bond holdings acquired for monetary policy purposes and the impact of the measures taken.

During 2022, the ECB began conducting climate stress tests of the Eurosystem balance sheet to assess the Eurosystem's risk exposure to climate change, leveraging the methodology of the ECB's economy-wide climate stress test. The Banque de France took part in the Eurosystem's work on devising the methodology, drawing on its experience conducting the ACPR pilot testing exercise. The Eurosystem is looking into the feasibility of repeating this exercise.

The Banque de France also produces analyses designed to assess the macroeconomic consequences of climate change and the transition. To round out the NGFS scenarios used for long-term projections, the Banque de France has modelled five-year transition scenarios to estimate the potential impact of the transition on inflation and growth. The magnitude and duration of the macroeconomic effects of the transition on carbon neutrality will depend on the transition strategy chosen. A disorderly transition, caused by sudden or poorly targeted public policies and the reaction of the private sector, could lead to considerable volatility in the economic cycle and in inflation.

FIND OUT MORE

... about the ECB's policy to decarbonise its corporate bond holdings for monetary policy purposes: <https://www.ecb.europa.eu/press/pr/date/2022/html/>

... about the ECB's climate-related financial disclosures of corporate sector holdings for monetary policy purposes: https://www.ecb.europa.eu/pub/pdf/other/ecb.climate_related_financial_disclosures_eurosystem_corporate_sector_holdings_monetary_policy_purposes2023~9eae8df8d9.en.pdf

Non-monetary policy portfolios

CLIMATE-RELATED RISKS TO THE BANQUE DE FRANCE BALANCE SHEET ARE INTEGRATED IN OUR OVERALL RISK MANAGEMENT APPROACH

The Risk Committee determines and monitors the risk oversight framework for the Banque de France's own-risk market operations.¹ The Operations Risk and Compliance Directorate, which is in charge of the secretariat for this committee, ensures that the framework is implemented. The Risk Director sits on the Assets Liabilities Committee, the Pension Plan Strategic Committee and the Investment Committees, ensuring that risks are effectively taken into account in strategic and tactical investment decisions.

In 2023, work on greening foreign exchange reserves was carried out at the request of the Asset-Liabilities Committee: the model for allocating a share of the reserves developed by the Risk Directorate was rounded out with a climate dimension linked to the carbon intensity of assets managed for own account (excluding monetary policy). Allocation parameters now include a constraint focused on reducing this intensity, estimated on the basis of past production and consumption emissions. Work will continue in 2024 with a view to introducing a forward-looking dimension into the analysis.

For its part, the Risk Committee ensures that climate risk – as a financial risk factor – is included in the assessment, analysis and oversight of credit and market risks relating to portfolios of assets managed for own account. Since 2021, the Committee has periodically reviewed the manner in which these risks are taken into account. More specifically, the Committee regularly monitors the financial and non-financial risks relating to the strategy of investing in sustainable projects and financing the ecological transition. Work is also underway to include an extra-financial dimension in the internal rating of market transaction counterparties. The Risk Committee also reviewed the methodology and results of the climate stress tests conducted in 2021 and 2022.

¹ The Governing Council is responsible for the financial risks associated with monetary policy instruments, which are shared

between Eurosystem members. Operational and cybersecurity risks are subject to specific governance arrangements.

RESPONSIBLE INVESTMENT POLICY

The Banque de France has pursued a responsible investment (RI) approach since 2018. It first adopted an RI Charter, followed by a three-pronged strategy covering i) climate issues, ii) environmental, social and governance (ESG) questions more generally, and iii) engagement with companies in which it is a shareholder. This approach initially focused on own funds and pension liabilities investment portfolios, i.e. assets for which the Banque de France is solely and fully responsible. Euro-denominated portfolios held against the monetary base were gradually added along with foreign exchange reserves (foreign currency portfolios held against the monetary base). These portfolios were worth EUR 105 billion at 31 December 2023.

The Banque de France's responsible investment strategy involves monitoring and steering the climate risks (physical and transition risks) to which the asset portfolios are exposed (see Pillar 1 below). Physical risks, such as heat stress, are measured using a composite forward-looking indicator covering sovereign issuers and the entire value chain of portfolio companies. Exposure to transition risk is measured based on the share of revenue that portfolio companies derive from fossil fuels. In addition, the responsible investment strategy is integrated in the three lines of defence of the Banque de France's risk management system. As part of this process, all listed and unlisted vehicles in which the Bank invests are vetted by the Risk Committee.

FIND OUT MORE

... about the Banque de France's responsible investment strategy, see Section 2 of this report along with the following link to previous responsible investment reports: <https://publications.banque-france.fr/en/liste-chronologique/responsible-investment-report>

MANAGEMENT OF CLIMATE AND NATURE-RELATED RISKS AT THE BANQUE DE FRANCE AND ACPR

As supervisor, ensuring the stability of the financial centre

EARLY STEPS TO IDENTIFY CLIMATE-RELATED RISKS

The ACPR's work on climate risk began in 2015 in the context of implementing France's Environmental Transition and Green Growth Act, which introduced a strict extra-financial disclosure framework for institutional investors. Following the publication of two initial reports in 2019 on the exposure of banks and insurers to climate risk, two task forces were set up with the industry to look at climate risk governance and scenario analysis. This resulted in the publication of two best practice guides on climate risk governance and management for banks (2020) and insurers (2022). Work on scenarios paved the way for a pilot climate exercise. The first of its kind and scale, the exercise was conducted in the two sectors and drew on the initial scenarios published by the NGFS.

FOLLOW-UP ON THE PILOT CLIMATE EXERCISE

In July 2023, the ACPR launched its second series of climate stress tests focused exclusively on the insurance sector, i.e. on 22 insurers. This followed the pilot climate exercise launched in 2020, bringing together 9 banking groups and 15 insurers, representing 85% and 75%, respectively, of the French market.

From a **strategic** perspective, the exercise aims to strengthen the capacity of insurers to anticipate the consequences of climate change and ecological transition on their business, both in the short, medium and long term, and to adapt their strategies accordingly.

From a **methodological** perspective, the exercise should enhance the analytical resources available to insurers and supervisors. The assumptions provided are based on more detailed data, providing a better sectoral and geographical analysis of risks. The scope of the risks considered has also been expanded (for example, the macroeconomic and financial consequences of chronic physical risk are taken into account). This work is being conducted in liaison with the insurers, the *Caisse Centrale de Réassurance* (CCR – French central reinsurance fund) and Aon, which is modelling physical risks to liabilities, along with economic experts at the Banque de France who are modelling the physical and transition risks on the assets side of the balance sheet.

This second climate stress testing exercise proposes methodological changes arising from discussions held with insurers during 2022. A short-term horizon (2027) has therefore been added to the long-term horizon (2050) to explore scenarios that combine physical and transition risks

in a consistent manner. The scenarios for climate change and climate-related claims experience factor in the most recent projections published by the IPCC and the NGFS. The impact of these risks is measured on assets, liabilities, balance sheet equilibrium and, in the case of the short-term scenarios, on solvency.

- **The short-term scenario** is based on the assumption of exceptional climate-related claims (due to a combination of droughts identical to those observed in France in 2022, floods leading to burst dams, such as the breaches that occurred in Germany in 2021, and the landslides that took place in Italy in March 2023), leading to a sharp adjustment in the financial markets, linked to the anticipation of transition policies now considered to be inevitable. The impact of this assumption will be measured on insurers' claims experience, earnings and solvency;
- **Two long-term scenarios**, based on the work of the NGFS, transcribe the economic and financial impacts of transition pathways – one orderly, the other delayed – seeking to keep global warming below 2°C through to 2050. The economic impacts affect insurers' balance sheets and are compounded by an intensification of physical risk in the form of natural disasters (i.e., drought, flooding, coastal flooding and cyclones), health risks, and sector-specific macroeconomic impacts. The ACPR favours scenarios that are comparable in terms of the target temperature end point and therefore their level of physical risk, but which differ in terms of the timing of the transition, making it possible to measure the cost of inaction. The long-term scenario will include a quantitative and qualitative analysis of the risk of uninsurability and prevention of the consequences of climate change.

With regard to the short-term scenario, taking the solvency ratio through to 2027, insurers will be impacted more by financial shocks than by climate shocks, which are nonetheless important and have been factored into the exercise. Financial shocks not only impact corporate share values in the brown sectors, they also spread contagion to other sectors, especially the real estate sector, as well as to sovereign bonds, affecting virtually all insurers' portfolios. However, insurers' vulnerability to physical risks to liabilities is far from negligible: Nat Cat results reflect the vulnerability of France to physical risks, highlighted by the significant additional costs generated by the simulated hazards. For example, simulated claims due to drought alone would generate costs of more than EUR 3 billion for 2023 and 2024, plus over EUR 3 billion due to the assumption of a dam failure.

The long-term scenarios are also instructive. Whereas the claims ratio in the adverse scenario through to 2050 has increased by 105% compared to 2022, major geographical disparities are highlighted in terms of drought, flooding and coastal flooding. However, the actions currently envisaged by insurers (such as geographical reallocation of portfolios or increasing premiums) appear to be fairly limited.

Moreover, for the very first time, insurers have analysed the risk of uninsurability both quantitatively and qualitatively, from a dual perspective: i) that of the insured, who would no longer be willing or able to insure a property due to the increase in premiums resulting from climate risk; and ii) that of the insurer, for whom the increase in the cost and frequency of extreme climatic events would make certain properties in certain regions uninsurable. Insurers believe that this risk would be highly differentiated according to geographical location and they are planning to set up in-house policyholder support mechanisms to help policyholders tackle the physical consequences and costs of climate change.

As far as investments are concerned, in line with the proposed scenarios, portfolios invested in fossil fuels and real estate would suffer the most significant impairment losses through to 2050. However, it would appear that participating insurers are planning very few portfolio reallocations.

PAN-EUROPEAN STRESS TESTS

In January 2022, the Single Supervisory Mechanism (SSM) announced the launch of a prudential stress testing exercise covering climate risk, to assess banks' readiness to withstand the financial shocks that these risks could trigger.

The Banque de France and the ACPR made a significant contribution to efforts to prepare this pan-European exercise, providing the SSM with the experience it gained at national level.

To assess the transition risks linked to the 'Fit for 55' package, the Commission has mandated the European supervisory authorities – the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) – to perform specific stress testing. The 'Fit for 55' legislative package, adopted by the Council in June 2022, aims to cut the EU's greenhouse gas (GHG) emissions by 55% between 1990 and 2030. The Banque de France and the ACPR helped to draw up the scenario, common to all authorities, within the European Systemic Risk Board.

TOWARDS NATURE-RELATED FINANCIAL RISK SCENARIOS

Both the French and European economic and financial sectors are heavily dependent on ecosystem services, as borne out by recent studies by the Banque de France and the ECB: 75% of corporate loans in the euro area and 42% of the value of shares and bonds held by French financial institutions are heavily dependent on at least one ecosystem service. To obtain accurate estimates of the plausible impacts of nature-related risks and policies on the financial system, supervisors need new tools.

In December 2023, the NGFS Working Group on nature-related and biodiversity loss risks published a report outlining recommendations for developing nature-related economic and financial risk assessment scenarios at an event held at the Banque de France headquarters. The development of nature-related scenarios is a major challenge for financial supervisors: the models currently used for climate scenarios are not adapted to the specific features of nature-related risks. The report concludes that there is a need to develop a comprehensive, methodologically diverse and transparent approach to modelling the complex interaction between biophysical and economic systems.

FIND OUT MORE

... about the pilot climate exercise conducted by the ACPR: <https://acpr.banque-france.fr/en/main-results-climate-exercise-insurance-sector>

... about the ECB's prudential stress test: <https://www.banque-france.fr/en/press-release/ecb-banking-supervision-launches-2022-climate-risk-stress-test>

... about the NGFS's financial nature-related risks: <https://www.ngfs.net/en/ngfs-recommendations-toward-development-scenarios-december-2023>

As supervisor, ensuring that climate and environmental risks are correctly incorporated

THE ACPR'S REPORT ON IMPLEMENTATION OF ARTICLE 29 OF FRANCE'S ENERGY AND CLIMATE ACT

Insurers and reinsurers authorised to market life insurance and supplementary occupational pension providers published a report in 2022 and again in 2023 outlining their **sustainability risk policy**.²

The ACPR is tasked with ensuring that these regulations are complied with and that the disclosures of the insurance undertakings are clear, accurate and not misleading. In January 2024, the ACPR published a number of the *Analyses et Synthèses* series providing an initial assessment of the situation and clarifying the supervisor's expectations by identifying best practices and areas for improvement.

The analyses point to an overall improvement in the content of these reports between their first and second publication. As regulatory requirements continue to increase, significant short term progress is needed.

Despite improvements, two weaknesses have persisted since 2022: i) the need for transparency regarding the scope of the data published; and ii) difficulties in meeting expectations in terms of biodiversity.

Finally, three new focus areas have been identified: i) the definition of a target for aligning with the Paris Agreement and measurement of this target are still not systematically disclosed; ii) partial compliance with the definition of exposure to fossil fuels leads to major disparities between organisations that comply with the regulatory definition by incorporating the entire unadjusted fossil fuel value chain, and those who apply their own methodology; and iii) the need for consistency between organisations' different publications and their internal documents.

FIND OUT MORE

... about the analysis published by the ACPR of the implementation of Article 29 of France's Energy and Climate Act: [Energy and Climate Law: Insurers shall carry on making progress | ACPR \(banque-france.fr\)](#)

THE ACPR'S THEMATIC REVIEW OF THE INCORPORATION OF CLIMATE AND ENVIRONMENTAL RISKS

In 2023, the ACPR General Secretariat conducted a thematic review to analyse how climate and environmental risks (C&E risks) are incorporated into the strategy, governance and risk management of a sample of around sixty institutions under its direct supervision (less significant institutions [LSIs³] and specialised institutions).

While the vast majority of institutions state that they incorporate C&E issues into their strategy, many approach these as new opportunities and not – or not sufficiently – as new risks. Furthermore, in terms of governance, only a small majority have already included these topics on the agenda of their supervisory body meetings, while the vast majority of managers and members of this body do not have the related expertise. Moreover, less than half of the institutions have incorporated C&E risks into their risk management framework. This observation should be seen in light of the fact that the vast majority consider that they have little or no exposure.

Nevertheless, best practices are applied and some insurers have launched major projects to map risks or incorporate them into their lending policies. Particularly in view of the stricter regulatory requirements to come, the ACPR General Secretariat conducted another thematic review of these matters in 2024.

These results contrast with those of the thematic review conducted by the SSM in 2022, based on its expectations published in 2020, which showed that all the major credit institutions under its direct supervision (significant institutions) had begun work on identifying and managing C&E risks, with 80% considering that they had significant exposure. Institutions are now expected to comply fully with these expectations by the end of 2024. Otherwise they will be subject to penalties for failing to remedy any serious shortcomings. Similar to its role in evaluating institutions' risk profiles (known as the Supervisory Review and Evaluation Process [SREP], which increasingly includes C&E risks), the ACPR General Secretariat is involved in this assessment process.

² Articles L. 533-22-1 and D. 533-16-1 of the Monetary and Financial Code.

³ Small and medium-sized banks that are directly supervised by the competent national authority, under the supervision of the European Central Bank.

METRICS AND TARGETS

A FIRST SET OF METRICS DESIGNED TO MEASURE THE RISKS TO OUR BALANCE SHEET AND OUR MISSIONS

A LIST OF METRICS AND TARGETS THAT IS UNDER CONSTRUCTION

A stringent risk assessment and management approach is underpinned by metrics that measure the change in risks in an objective manner and determine whether these developments comply with the institution's risk management governance, strategy and policy as well as with any targets adopted. In accordance with their holistic approach to climate risk, the Banque de France and the ACPR plan to develop a set of metrics to assess not just the risks to their balance sheet but also the impact of climate-related risk on their missions.

This climate risk management approach is designed to get better year on year and the list of metrics to be tracked is set to evolve. In particular, it is important to recognise the current limitations inherent in climate data, including data gaps, data that are still being standardised, the involvement of external service providers, and ongoing harmonisation of the methodologies used by different indicators.

BUILDING IN THE EUROPEAN DIMENSION

The Banque de France is contributing actively to the Eurosystem's work on integrating climate issues in **monetary policy**; metrics relating to these efforts will be published at Eurosystem level and are therefore not included in this report.

Regarding **euro-denominated non-monetary policy portfolios**, methodological work has been conducted within the Eurosystem to make the climate reports published by central banks more comparable. This work culminated in an initial publication of climate metrics for these portfolios in March 2023. In 2023, the Governing Council also decided to expand the reporting scope to the foreign currency portfolios of each Eurosystem central bank, including the ECB. A new metric indicating the share of green bonds has also been added.

The following list of metrics therefore represents a first stage and is set to be expanded based on internal and external work and developments in climate data. With these metrics and the targets adopted for their own carbon emissions and activities, the Banque de France and the ACPR intend to play a full part in the climate transition, both through their own activities and in the discharge of their missions.

FIND OUT MORE

... about the limits of climate data and ways forward:
https://www.ngfs.net/sites/default/files/medias/documents/final_report_on_bridging_data_gaps.pdf

... about the stance of EUROSYSTEM central banks on climate reporting for non-monetary policy portfolios:
https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210204_1~a720bc4f03.en.html

... about the first climate reporting exercise coordinated by the Eurosystem, based on standardised customer metrics:
<https://www.ecb.europa.eu/ecb/climate/climate-related-financial-disclosures/html/index.en.html>

FINANCIAL STABILITY



Level of exposure of French financial institutions to the sectors most directly linked to oil and gas

Exposure of French financial institutions to sectors with the greatest exposure to climate transition risks, as a % of total assets

at end-2022¹

Less than **1%** for the banking sector

2.2% for the insurance sector



French institutions' degree of readiness

Institutions that took part in the last round of stress tests organised, as a % of the sector

98% of the banking market, based on the EBA's 2022 stress-testing exercise ("Fit for 55")

90% of the insurance market, based on the exercise conducted by the ACPR in 2023



Climate commitments of French institutions

Institutions reporting a fossil fuel policy, including a coal exit date, as a % of total assets

at end-2022²

100% for the banking sector

10% for the insurance sector

¹ Source: ACPR, based on a sample of undertakings.

² Source: ACPR, based on a sample of undertakings.

SERVICES PROVIDED TO THE ECONOMY AND SOCIETY



Financial literacy

	2021	2022	2023
Number of consultations of short economic guides (<i>ABC de l'économie</i>) related to the fight against climate change	7,512	15,240	11,893
Number of climate risk presentations to student groups	20	21	33



Development of a climate indicator for companies

	2022	2023	Target for 2024
Assess the incorporation of climate risk into our rating process and provide companies with an indicator	Data collected on 60 companies in 5 pilot sectors	Tests extended to a sample of 550 companies in 10 sectors	Indicator used for approximately 2,000 companies covering three sectors (power generation, property, transport)

SUSTAINABILITY

Responsible investment policy: a new goal of aligning the equity components of own funds and pension liabilities portfolios with a 1.5°C trajectory

Assessment of the implementation of the Banque de France's responsible investment strategy at 31 December 2023

TARGET	MILESTONES
PILLAR 1 → Align investments with France's climate commitments	
Objective No. 1	
Align the equity component with a 1.5°C trajectory. Horizon set at end-2023 for the own funds portfolio and European equities in the pension liabilities portfolio, and end-2025 for all equity in the pension liabilities portfolio	<ul style="list-style-type: none"> <1.5°C alignment for the equity component of the own funds portfolio and European equities in the pension liabilities portfolio at end-2023 <1.5°C alignment for the entire equity component of the pension liabilities portfolio at end-2023, two years ahead of target
Objective No. 2	
Exclude issuers whose involvement in fossil fuels is higher than the thresholds set by the Paris-Aligned Benchmark	<ul style="list-style-type: none"> Since 2021, issuers deriving over 2% of revenue from thermal coal or 10% from unconventional hydrocarbons have been excluded At end-2024, the coal and unconventional hydrocarbon threshold will be lowered to 0%, thresholds will be applied for oil (>10% of revenue) and gas (>50% of revenue) and firms developing new extraction projects will be excluded
Objective No. 3	
Contribute to financing the energy and ecological transition (EET) and to preserving biodiversity by investing in thematic funds and green bonds	<p>At 31 December 2023</p> <ul style="list-style-type: none"> EUR 6 billion invested in green bonds EUR 614 million invested in EET thematic funds Investment in a fund devoted to preserving marine biodiversity
PILLAR 2 → Include environmental, social and governance (ESG) criteria in asset management	
Objective No. 4	
Exclude 30% of the corporate investment universe based on ESG criteria, in compliance with the requirements of Pillar III of France's Socially Responsible Investment (SRI) label	<ul style="list-style-type: none"> 20% of equity issuers excluded on the basis of ESG criteria since end-2019 30% of corporate issuers will be excluded from 2024 in order to align with the SRI label reform published at end-2023
Objective No. 5	
Contribute to financing social challenges by investing in impact funds and social and sustainable bonds	<ul style="list-style-type: none"> EUR 1.4 billion invested in social and sustainable bonds at end-2023 Investment in a fund supporting affordable housing and a fund backing the social and solidarity sector in 2023
PILLAR 3 → Exercise voting rights and engage with issuers	
Objective No. 6	
Apply a regularly updated voting policy that includes extra-financial provisions	<ul style="list-style-type: none"> Voting policy adopted in 2019 Adjustments made to reflect new fossil fuel exclusions and limit excessive executive pay from 2023 (provisions in force since 2023)
Objective No. 7	
Maintain a general meeting attendance rate of at least 80%	<ul style="list-style-type: none"> Attendance rate of 94% in 2023

Source: Banque de France.

FIND OUT MORE

... about the climate performance metrics: see section 2 of this responsible investment report

Social and environmental responsibility: Aiming to significantly reduce our GHG emissions in order to get onto a carbon neutral pathway



Social and environmental responsibility

	2019	2023	Variation 2023/2019	Target
Total greenhouse gas (GHG) emissions within operational scope (energy, fugitive emissions, commuting, business travel, waste) ^{a)}	42,271 ^{b)}	31,454	-25.6%	Reduction of GHG emissions by -15% in 2024 relative to 2019
Scope 1 (direct emissions of GHG) ^{a)}	14,311 ^{b)}	10,025	-29.9%	
Scope 2 (indirect emissions linked to energy) ^{a)}	6,541	5,007	-23.4%	
Scope 3 (other indirect emissions of GHG – excluding financial investments) ^{a)}	21,419 ^{b)}	16,422	-23.3%	

a) GHG emissions, in tonnes of carbon equivalent (tCO₂-eq), calculated using the regulatory BEGES methodology.

b) 2019 emissions incorporating changes in activity data, consistent with 2023 data.

Digital sobriety: The environmental footprint of the Banque de France's information system

The scope of analysis focuses on the supply of digital services (user environment, telephony and videoconferencing, printouts, networks, datacentres, Infrastructure as a Service - IaaS).



Environmental footprint of our information system

	2021	2022	2023
Impact on climate change in tCO ₂ -eq (greenhouse gases)	3,465	3,620	2,921
Depletion of abiotic resources ^{a)} in kg Sbeq. (antimony equivalent)	182	184	143
Ionising radiation ^{b)} in Mbqeq. (U-235)	39,436	39,796	35,733
Water consumption in m ³	1,438,619	1,550,289	1,309,567

a) Non-living resources naturally present in the environment and not created or produced by man or human activity: water, air, sunlight, soil, etc. These include rare-earth elements – a set of 17 metals (cerium, scandium, terbium, etc.) – used in the manufacture of high-tech products (smartphone chips, screens, etc.). Their extraction, on the increase since the rapid expansion of digital technologies, releases highly pollutive toxic products.

b) Impact on human health caused by the release of radionuclides (e.g. uranium).

FIND OUT MORE

... about the methodology used to record the Banque de France's emissions: <https://bilans-ges.ademe.fr/fr/accueil/contenu/index/page/m%25C3%25A9thodes%2Bde%2Bcalcul/siGras/0>

IMPROVING OUR UNDERSTANDING OF CLIMATE ISSUES



Research

	2021	2022	2023	Target
Contribution by Banque de France and ACPR researchers to climate and environmental topics	10%	13%	21%	Research work on climate and the environment to account for at least 15% of annual publications from 2022



Skills development

	Target	Result
Number of Banque de France employees trained in climate-related questions		
2022	50% of employees trained in 2022	56.3%
2023	75% of employees trained in 2023	80.8%

	2021	2022	2023
Number of participants in IBFI training, for foreign central banks, in connection with the fight against climate change	593	488	626

Note : IBFI – International Banking and Finance Institute.

SECTION 2

OVERVIEW OF THE BANQUE DE FRANCE'S RESPONSIBLE INVESTMENT STRATEGY

2023 HIGHLIGHTS

THE GOAL OF ALIGNING OUR EQUITY PORTFOLIOS WITH A GLOBAL WARMING TRAJECTORY OF 1.5°C WAS ACHIEVED TWO YEARS AHEAD OF SCHEDULE

After meeting the objective of aligning all its equity components with a trajectory that limits global warming to well below 2°C by the end of 2021, in 2022 the Banque de France undertook to step up its efforts and to align its equity components with a global warming trajectory of 1.5°C by the end of 2025, with a target at end-2023 for European equities and end-2025 for non-European equities. At the end of 2023, all equities in the own funds and pension liabilities portfolios were already fully aligned with a 1.5°C global warming trajectory, two years ahead of our established target.☉

THE DISCLOSURE OF CLIMATE IMPACT INDICATORS HARMONISED AT EUROSISTEM CENTRAL BANK LEVEL WAS EXPANDED

Following the Eurosystem central banks' first report on their harmonised climate impact indicators in 2023, this year's disclosures go even further. In 2024, the report will include indicators on foreign currency denominated – in addition to euro-denominated¹ – non-monetary policy portfolios (foreign exchange reserves). For the Banque de France, the metrics therefore cover not only the own funds and pension liabilities portfolios, but also euro-denominated – and from this year onwards, foreign currency denominated – portfolios held against the monetary base. Furthermore, the 2024 disclosures based on the 2023 reporting exercise will also include a new indicator: the share of green bonds held in the different portfolios.☉

THE FIRST YEAR THAT THE CLIMATE INDICATORS WERE SIGNED OFF BY STATUTORY AUDITORS

For the first time, the Banque de France wanted the main climate metrics disclosed in this report to be signed off by its Statutory Auditors, Mazars and KPMG, for the 2023 reporting period (*see Appendix*). Mazars and KPMG thus attested to the reliability of the metrics reported as part of the Eurosystem's harmonised disclosure exercise,² as well as the global warming trajectory of the portfolios, which is a key commitment of the Banque de France. Taking this step confirmed the importance that the Banque de France places on its extra-financial disclosure and transparency.☉

THE BANQUE DE FRANCE CREATED A NEW FORWARD-LOOKING INDICATOR TO MEASURE THE CLIMATE IMPACT OF ITS SOVEREIGN PORTFOLIOS

In addition to the climate impact indicators reported as part of the Eurosystem's disclosure exercise, in 2023, the Banque de France developed a new indicator that combines both consumption and production intensities³ for its sovereign bond exposures, which make up the majority of its euro and foreign currency denominated portfolios held against the monetary base. This new indicator is intended to ensure that climate-related criteria are yet more influential in the implementation of the responsible investment strategy that the Banque de France has had in place for several years.🌍

STRENGTHENING SECTORAL EXCLUSION CRITERIA

After announcing stricter exclusion criteria for hydrocarbons by the end of 2024 – the complete exclusion of coal, the introduction of thresholds aligned with the Paris Agreement for companies involved in the oil or natural gas sectors, and the exclusion of any

company developing new fossil fuel extraction projects – the Banque de France also decided to exclude firms with interests in unconventional hydrocarbons from its portfolios by the end of 2024.🌍

FIRST SCORECARD ON THE PRINCIPLES FOR RESPONSIBLE INVESTMENT (UNPRI) PLATFORM

After becoming a signatory to the United Nations-supported Principles for Responsible Investment in November 2022, the Banque de France reported on its responsible investment activities on the UNPRI platform for the first time in 2023. It obtained a score above the median for all the reporting signatories (investors who have signed up to the initiative), demonstrating the highly ambitious nature of its socially responsible investment (SRI) strategy. As part of its commitment to act transparently, the Banque de France also decided to make its assessment report available to the public (*see p. 48 of this report*).🌍

ORGANISATION OF THE NET ZERO AMBITION CONFERENCE

In January 2023, the Banque de France held the Net Zero Ambition conference, which brought together climate experts, data providers, and representatives from more than 22 public authorities and institutional investment organisations for six roundtable discussions to explore the tools and measures available to the financial sector to assess its climate impact. The symposium proved to be very popular with the public, with almost 600 people taking part.🌍

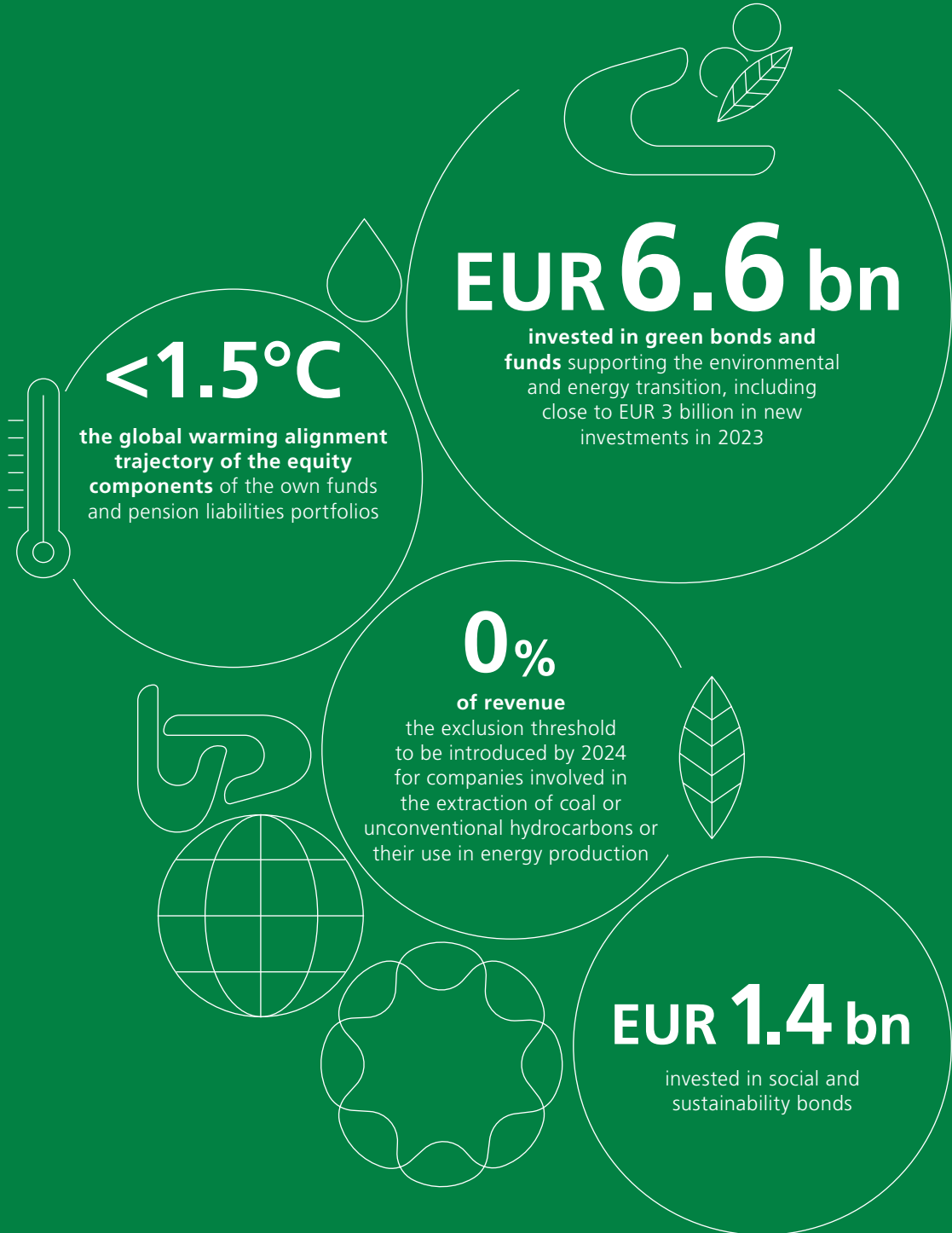
1 In addition to corporate bonds already covered in the 2022 publication (CSPP – corporate sector purchase programme), from 2024 the European Central Bank (ECB) will disclose indicators on sovereign bonds and covered bonds purchased by Eurosystem central banks as part of the public sector purchase programme (PSPP), the covered bond purchase

programme 3 (CBPP3) and the pandemic emergency purchase programme (PEPP).

2 Total emissions, carbon footprint, carbon intensity, WACI (weighted average carbon intensity) and share of green bonds.

3 The development of this new indicator, specific to sovereign portfolios, is described in Box 13.

2023 KEY FIGURES



OVERVIEW

The Banque de France has pursued a responsible investment (RI) approach since 2018. It first adopted an RI Charter, followed by a three-pronged strategy covering climate issues, environmental, social and governance (ESG) questions more generally, and engagement with companies in which it is a shareholder. Historically, this approach covered the own funds and pension liabilities portfolios, i.e. assets for which the Banque de France is solely and fully responsible. Over the past two years, the strategy has been gradually extended to euro-denominated own portfolios held against the monetary base and foreign exchange reserves,¹ whose extra-financial performance is also disclosed in this report. Thus, the portfolios covered by the RI approach were worth EUR 105 billion at 31 December 2023.²

RESPONSIBLE INVESTMENT APPROACH

In 2018, the Banque de France published a **Responsible Investment Charter**, in which it committed to including climate issues, and ESG questions more generally, in its investment policy. This commitment is reflected in the application of the **double materiality**³ principle to its portfolios managed for own account.⁴ This factors in both the ESG performance of its investments, especially their environmental impact, and the climate-related risks to its portfolio assets. In this way, the Banque de France hopes to improve the overall environmental impact of the assets that it finances through these portfolios by contributing to meeting the United Nations' Sustainable Development Goals (SDGs),⁵ while at the same time mitigating the physical and transition risks to which these portfolios are exposed.

Through its charter, the Banque de France is also committed to publishing an annual **responsible investment report** in order to disclose its strategy and results. When it published its initial report in 2019, the Banque de France became the first central bank to conduct this kind of transparency exercise. This report, the Banque de France's Responsible Investment Charter and its voting policy are all publicly available on the Banque de France's website as well as on the Climate Transparency Hub⁶ set up by the Agency for Ecological Transition (ADEME) and the General Commissariat for Sustainable Development (CGDD).

While the Banque de France is not subject to **French and European extra-financial disclosure requirements** for financial institutions, it endeavours to comply with them wherever possible and appropriate. For this reason, the annual responsible investment report incorporates some of the provisions of Article 29 of French Energy and Climate Act No. 2019-1147 and its implementing decree of May 2021 establishing extra-financial reporting obligations for institutional investors. Similarly, the Banque de France takes into account the requirements set down by Regulation EU 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR – the

¹ These portfolios are mainly invested in fixed-rate or index-linked bonds, but also in overnight deposits or term deposits. For the euro, at the end of 2023, they were principally made up of euro-denominated securities issued by euro area residents and held to maturity, but also some claims on non-euro residents. Foreign currency denominated portfolios are primarily US dollar holdings.

² These assets exclude securities held for monetary policy purposes under the mission entrusted to the European System of Central Banks (ESCB) by the Treaty on the Functioning of the European Union (TFEU).

³ Double materiality is one of the key principles of European Directive 2022/2464 on Corporate Sustainability Reporting.

⁴ These portfolios include own funds and pension liabilities portfolios, as well as euro and foreign currency denominated portfolios held against the monetary base. These portfolios comprise several asset classes, including sovereign bonds, equities, corporate bonds, money market instruments and unlisted assets

⁵ The United Nations adopted the SDGs in 2015. The Banque de France notably contributes to Goals 7 (access to affordable, reliable, sustainable and modern energy for all) and 13 (urgent action to combat climate change and its impacts).

⁶ <https://climate-transparency-hub.ademe.fr/>

Sustainable Finance Disclosure Regulation) and Regulation EU 2020/852 on sustainable investment (known as the “European Taxonomy” Regulation).⁷

By integrating sustainability factors into its management of assets for own account, the Banque de France’s strategy also complies with the recommendation issued in 2019 by the **Central Banks and Supervisors Network for Greening the Financial System** (NGFS) on sustainable and responsible investment.⁸

Common Eurosystem metrics (see Focus 1)

For the second year running, the Banque de France took part in the Eurosystem-led climate-related disclosure exercise and published metrics on its portfolios managed for own account. In 2023, the scope of portfolios covered was broadened to include foreign exchange reserves as well as own funds and pension liabilities portfolios and portfolios held against the monetary base. Methodological refinements carried out at Eurosystem level also saw the addition of new indicators, including the share of green bonds held in each portfolio, while the monitoring of emissions allocated to sovereign bonds was also enhanced under the production approach, with the inclusion of forestry and land-use activities (LULUCF – Land Use, Land-Use Change, and Forestry).⁹

Finally, in November 2022, the Banque de France decided to sign up to the Principles for Responsible Investment (PRI), a United Nations sponsored initiative launched in 2005. In doing so, the Banque de France signalled its commitment to continue being part of the global drive to fight climate change and recognise sustainability criteria in its investment policies. The Banque de France was one of the first central banks to sign up to the PRI initiative, and in 2023 carried out its first reporting exercise on the UNPRI platform for 2022. The Banque de France decided to make its assessment report available to the public, to demonstrate its commitment to complying with responsible investment objectives and full transparency in its actions (see Focus 3).

THE THREE PILLARS OF THE RESPONSIBLE INVESTMENT STRATEGY

The Banque de France’s responsible investment strategy is built on **three pillars**, separated down into **seven objectives** (see Table 3).

The first pillar focuses on climate-related goals.

The Banque de France is committed to meeting the targets set out in Article 2 of the 2015 Paris Agreement. In particular, it has set itself the ambitious target of aligning all its equity held for own account with a global warming trajectory of less than 1.5°C above pre-industrial levels (Objective No. 1). At the end of 2023, this objective was achieved for all equities managed in its portfolios, two years ahead of the originally scheduled target of 2025. The aim is now to pursue this ambition of aligning the Banque de France’s equity holdings, prioritising companies with the most virtuous carbon emissions trajectories.

To be able to achieve this ambition, the Banque de France has expanded its measurement capabilities and has notably created an in-house tool to steer the alignment of equity components with a temperature target, based on information supplied by various data providers (see Focus 4). Management decisions relating to portfolios covered by the socially responsible investment (SRI) strategy therefore systematically factor in the dimension of portfolios’ implied global warming temperature trajectories.

The Banque de France is fully aware of the crucial role that curbing fossil fuel use plays in meeting the goals of the Paris Agreement,¹⁰ and has thus tightened and expanded its fossil fuel exclusions policy in 2021 (Objective No. 2). Among other things, by the end of 2024, it will apply exclusion thresholds in accordance with the so-called Paris-Aligned Benchmark to oil (>10% of revenue) and gas (>50% of revenue). Furthermore, companies involved in the extraction of coal or unconventional hydrocarbons or their use in energy production will be completely excluded by the end of 2024 (since 2021, the exclusion threshold had been

7 The delegated act on technical criteria for climate change mitigation and adaptation was adopted in December 2021.

8 NGFS (2019), *A call for action*, April.

9 This covers land use, land-use change and forestry in the measurement of the carbon footprint of sovereign issuers.

10 The April 2022 report by the Intergovernmental Panel on Climate Change (IPCC) stresses the need to reduce fossil fuel use in order to limit global warming: <https://www.ipcc.ch/2022/>

T1 Climate impact indicators from the Eurosystem 2023 disclosure exercise

(portfolio size in EUR millions; WACI (weighted average carbon intensity), carbon footprint and carbon intensity in tCO₂-eq/EUR million; emissions in tCO₂-eq; share and coverage in % of the asset class)

a) For pension liabilities and own funds portfolios

	NON-SOVEREIGN SECURITIES					
	Corporate bonds		Coverage	Equities		Coverage
	2023	2022	2023	2023	2022	2023
PENSION LIABILITIES PORTFOLIO (CRE)						
Portfolio size	2,067	844		4,831	4,321	
WACI	41	159	98.6	66	120	99.9
Total emissions	33,990	25,572	76.5	148,510	195,236	99.9
Carbon footprint	21	51	76.5	31	45	99.9
Carbon intensity	52	118	76.5	80	109	99.9
Share of green bonds ^{a)}	8.3					
OWN FUNDS PORTFOLIO						
Portfolio size	586			2,554	2,284	
WACI	11		81.2	71	125	99.9
Total emissions	4,036		60.0	93,000	118,373	99.9
Carbon footprint	11		60.0	36	52	99.9
Carbon intensity	60		60.0	89	125	99.9
Share of green bonds ^{a)}	28.5					

	SOVEREIGN SECURITIES							
	Government and local authority bonds							
	Production excluding LULUCF		Production including LULUCF ^{a)}	Consumption		Government		Coverage
2023	2022	2023	2023	2022	2023	2022	2023	
PENSION LIABILITIES PORTFOLIO (CRE)								
Portfolio size	5,703	6,899	5,703	5,703	6,899	5,703	6,899	
WACI	179	213	165	14	13	154	163	100.0
Total emissions	977,931	1,467,679	902,978	1,176,883	1,750,636	124,510	189,811	100.0
Carbon footprint	171	213	158	206	254	22	28	100.0
Carbon intensity	171	213	158	12	12	111	135	100.0
Share of green bonds ^{a)}	3.2							
OWN FUNDS PORTFOLIO								
Portfolio size	5,848	4,599	5,848	5,848	4,599	5,848	4,599	
WACI	128	166	123	9	10	58	70	100.0
Total emissions	750,404	762,821	716,457	1,002,091	1,027,630	76,193	71,886	100.0
Carbon footprint	128	166	123	171	223	13	16	100.0
Carbon intensity	128	166	123	9	10	58	70	100.0
Share of green bonds ^{a)}	19.4							

Sources: Institutional Shareholder Services (ISS), Carbon4 Finance, World Bank, Bloomberg; Banque de France calculations.

Notes: Weighted average carbon intensity (WACI) is a method used to calculate the estimated carbon footprint of a financial asset portfolio. It calculates the weighted average of the carbon intensities emitted by companies in a specific portfolio. Its use is recommended by the Task Force on Climate-related Financial Disclosures (TCFD).

tCO₂-eq – tonnes of carbon dioxide equivalent; CRE – Caisse de réserve des employés (Pension fund); na – not available; LULUCF – Land Use, Land-Use Change, and Forestry.

a) Indicator not calculated in 2022.

T1 Climate impact indicators from the Eurosystem 2023 disclosure exercise (continued)

(portfolio size in EUR millions; WACI (weighted average carbon intensity), carbon footprint and carbon intensity in tCO₂-eq/EUR million; emissions in tCO₂-eq; share and coverage in % of the asset class)

b) For euro and foreign currency denominated portfolios held against the monetary base

NON-SOVEREIGN SECURITIES											
	Supranational bodies and government agencies		Coverage	Corporate bonds		Covered bonds		Equities		Coverage	
	2023	2022	2023	2023	2022	2023	2022	2023	2022	2023	
EURO-DENOMINATED OWN PORTFOLIOS HELD AGAINST THE MONETARY BASE											
Portfolio size	3,497	1,612						505	286	234	
WACI	2	5	85.2					5	82	156	93.2
Total emissions	1,215	784	84.6					nd	13,012	14,391	93.2
Carbon footprint	0	1	84.6					nd	46	61	93.2
Carbon intensity	9	14	94.8					nd	98	127	93.2
Share of green bonds ^{a)}	87.6										
FOREIGN CURRENCY DENOMINATED OWN PORTFOLIOS HELD AGAINST THE MONETARY BASE											
Portfolio size	6,919	9,594			135						
WACI	0	0	27.2		0						
Total emissions	46	147	25.3		0						
Carbon footprint	0	0	25.3		0						
Carbon intensity	0	1	48.6		1						
Share of green bonds ^{a)}	3.8										

SOVEREIGN SECURITIES								
Government and local authority bonds								
	Production excluding LULUCF		Production including LULUCF ^{a)}	Consumption		Government		Coverage
	2023	2022	2023	2023	2022	2023	2022	2023
EURO-DENOMINATED OWN PORTFOLIOS HELD AGAINST THE MONETARY BASE								
Portfolio size	48,411	28,121	48,411	48,411	28,121	48,411	28,121	
WACI	130	152	121	9	8	62	69	100.0
Total emissions	6,310,911	4,273,214	5,870,204	8,334,694	5,474,246	653,870	434,094	100.0
Carbon footprint	130	152	121	172	195	14	15	100.0
Carbon intensity	130	152	121	9	8	62	68	100.0
Share of green bonds ^{a)}	1.6							
FOREIGN CURRENCY DENOMINATED OWN PORTFOLIOS HELD AGAINST THE MONETARY BASE								
Portfolio size	21,513	38,232	21,513	21,513	38,232	21,513	38,232	
WACI	274	270	248	18	20	247	293	100.0
Total emissions	5,899,414	10,154,729	5,329,167	6,269,103	10,938,940	752,372	1,418,130	100.0
Carbon footprint	274	270	248	291	291	35	38	100.0
Carbon intensity	274	270	248	17	19	222	271	100.0
Share of green bonds ^{a)}	2.0							

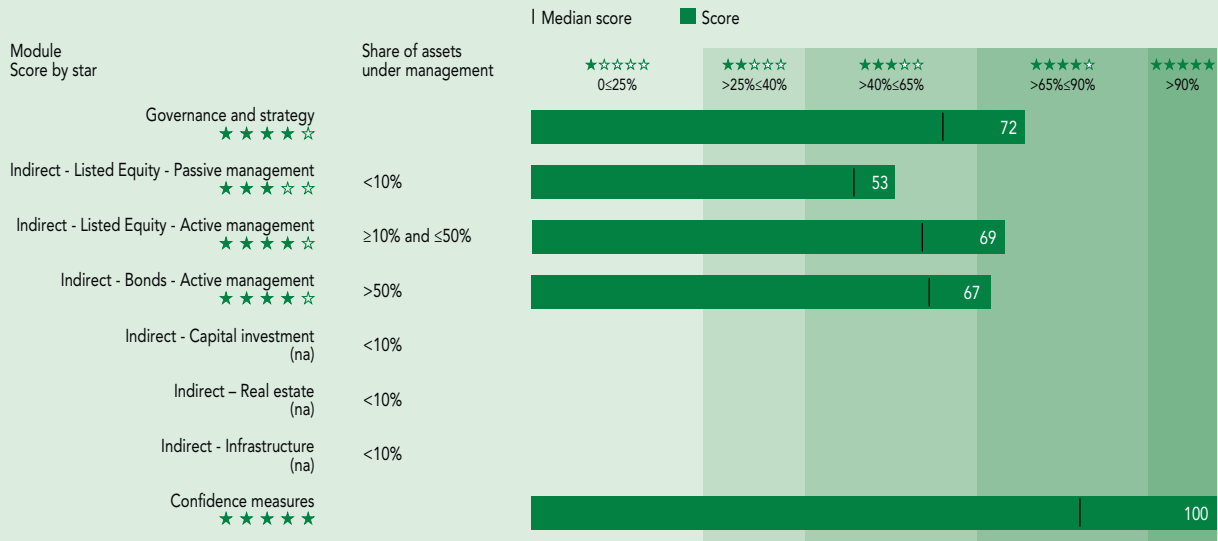
Sources: Institutional Shareholder Services (ISS), Carbon4 Finance, World Bank, Bloomberg; Banque de France calculations.

Notes: Weighted average carbon intensity (WACI) is a method used to calculate the estimated carbon footprint of a financial asset portfolio. It calculates the weighted average of the carbon intensities emitted by companies in a specific portfolio. Its use is recommended by the Task Force on Climate-related Financial Disclosures (TCFD).

tCO₂-eq – tonnes of carbon dioxide equivalent; CRE – Caisse de réserve des employés (Pension fund); na – not available; LULUCF – Land Use, Land-Use Change, and Forestry.

a) Indicator not calculated in 2022.

T2 UNPRI scorecard for the Banque de France's 2022 reporting



Source: United Nations (UN).

Note: UNPRI – United Nations-supported Principles for Responsible Investment; na – not available.

set at 2% of revenue for coal and 10% for unconventional hydrocarbons). Any company developing new fossil fuel extraction projects will also be excluded from the same date (see Infographic: “The Banque de France’s climate-related alignment and exclusion policies”).

In addition to its alignment and exclusion objectives, the Banque de France also seeks to contribute directly to financing the energy and ecological transition (EET) and to preserving biodiversity by buying green bonds and investing in funds specific to these thematics (Objective No. 3). At the end of 2023, total green bonds purchased since 2019 amounted to EUR 6.0 billion,¹¹ while investments in EET-thematic funds came to EUR 614 million, up EUR 160 million year-on-year. The share of green bonds in the Banque de France’s portfolios at year-end 2023 is shown in Tables 1a and 1b. Through these investments, the Banque de France finances the production of renewable energies, energy refits for buildings, and small and medium-sized enterprises (SMEs) that are EET innovators (in energy storage or waste management, for example). To improve its biodiversity impact, in 2022 the Banque de France invested in a fund financing solutions to preserve marine biodiversity, and will now explore opportunities for the preservation of natural capital and terrestrial ecosystems.

The second pillar focuses on integrating environmental, social and governmental (ESG) criteria more broadly into the management of its assets: from 2024 onwards, the Banque de France will exclude 30% of its equity investment universe based on ESG criteria and scores (Objective No. 4). It thereby complies with the minimum exclusion ratio required by the French Ministry for the Economy and Finance’s Socially Responsible Investment (SRI) label, which was raised from 20% to 30% following the reform at the end of 2023 (see Focus 5). To implement these filters based on ESG criteria and scores, the Banque de France leverages information supplied by its various external data providers. In addition to fossil fuel-based exclusions, the Banque de France also applies norm-based exclusions (e.g. compliance with certain international conventions),¹² and sector-based exclusions (tobacco cultivation and production), and also excludes companies involved in controversy. The social dimension of the investment policy was also gradually expanded, notably by extending the bond purchase programme to include social and sustainability bonds worth EUR 1.4 billion at the end of 2023,¹³ and by investing in thematic funds that prioritise social inclusion (Objective No. 5). Consequently, the Banque de France supported affordable housing initiatives and invested in companies operating in the social and solidarity sector,¹⁴ which is a particular focus for its efforts.

The third pillar concerns the Banque de France’s engagement with companies in which it holds shares.

In 2019, the Banque de France adopted a voting policy including provisions on good governance and recognition of extra-financial objectives by companies (Objective No. 6). It is through this lever in particular that the Banque de France aims to integrate the ESG’s “governance” dimension.

The voting policy is a publicly available document freely available on the Banque de France’s website.¹⁵ It establishes, for example, independence and diversity criteria for corporate management bodies. The Banque de France also expects companies to disclose information on the environmental impact of their activities and to recognise extra-financial performances when awarding executive remuneration. In line with its policy of fossil fuel exclusions, the Banque de France will oppose any new development project involving fossil fuels and will vote against approving the accounts if this requirement is not met. With the rise in recent years of “Say on Climate” resolutions covering corporate climate action plans (see Focus 7), the Banque de France now analyses such resolutions on a case-by-case basis to assess the level of ambition of companies’ climate action plans. Since 2023, the voting policy has incorporated new provisions designed to oppose the excessive remuneration that can sometimes be awarded to senior executives. In order to wield maximum influence as a shareholder, the Banque de France targets a general meeting attendance rate of at least 80% across all the companies in its portfolios (Objective No. 7).

¹¹ This is the total consolidated value of green bonds held in the own funds and pension liabilities portfolios (EUR 1.5 billion) and in the portfolios held against the monetary base (EUR 4.5 billion), which were not included in the values cited in the 2022 report.

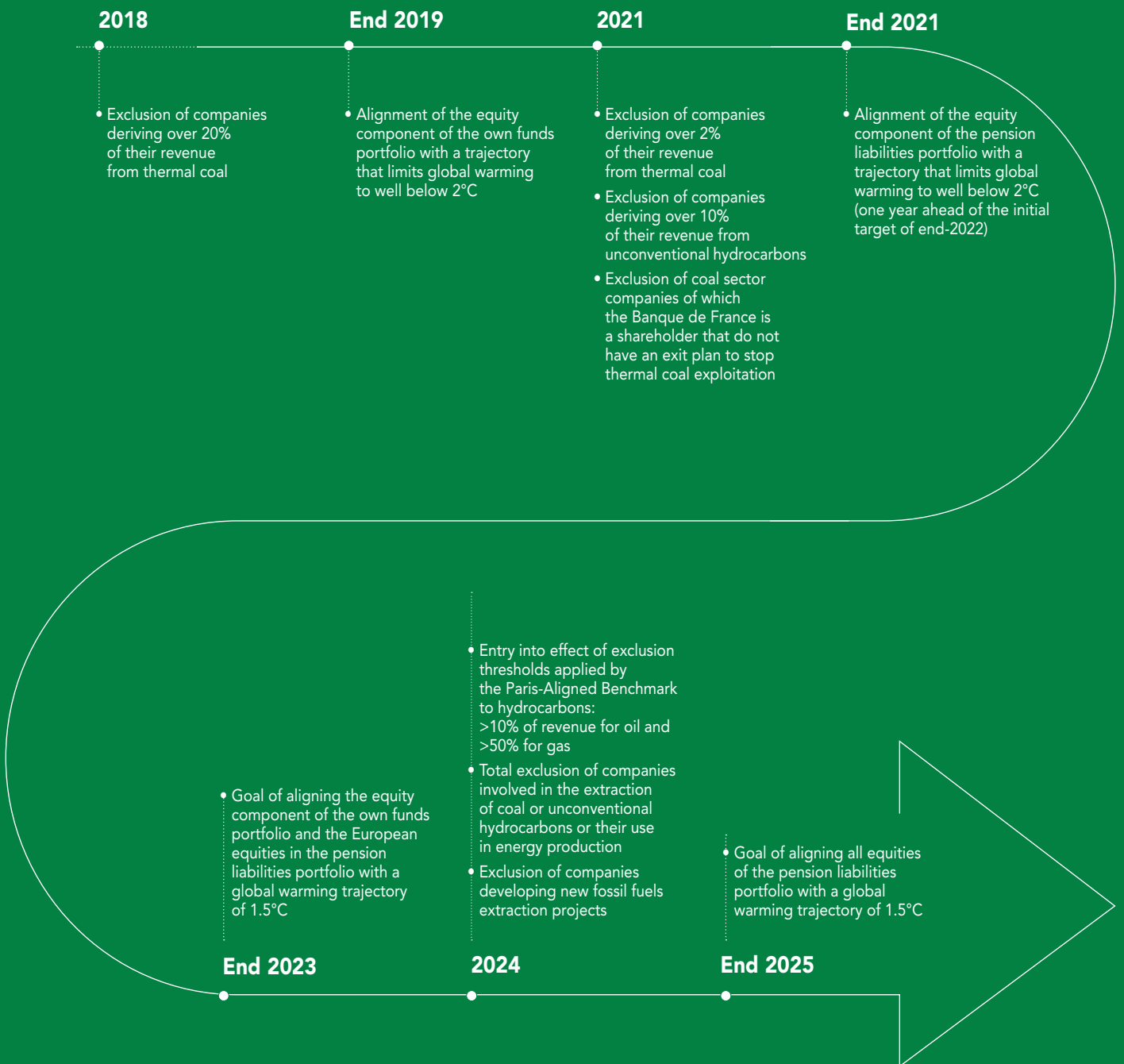
¹² In particular, the Banque de France does not invest in companies that do not comply with the Ottawa Convention (1999) and the Oslo Convention (2010), which ban the production, use, storage, sale and transfer of anti-personnel mines and cluster bombs.

¹³ This is the total consolidated value of social and sustainability bonds held in the own funds and pension liabilities portfolios (EUR 0.2 billion) and in the portfolios held against the monetary base (EUR 1.2 billion), which were not included in the values cited in the 2022 report.

¹⁴ These investments are made via external funds that invest in unlisted assets

¹⁵ <https://acpr.banque-france.fr/file/document/politique-de-vote>

THE BANQUE DE FRANCE'S CLIMATE-OBJECTIVE EXCLUSION AND ALIGNMENT POLICIES



Source: Banque de France.

2023 ACHIEVEMENTS

In 2023, the Banque de France **fully met all of its commitments and further stepped up its responsible investment approach**: it exceeded its objectives, aligning the global warming trajectory of the equities in its portfolios with a targeted 1.5°C temperature rise, while improving its portfolios' ESG performances and setting even more ambitious goals.

In addition to achieving these targets, the Banque de France improved all the **environmental and ESG performances of its portfolios**:

- **The carbon impact** of the portfolios managed for own account is measured using the data and methodologies put in place as part of the Eurosystem's disclosure exercise (see Focus 1 and Table 1). With regards to the own funds and pension liabilities portfolios in 2023, their capital carbon footprint, which measures a portfolio's carbon footprint in tonnes of carbon equivalent per EUR million invested, shrank sharply across all categories of assets, and particularly equity. This is the result of adjustments made within the portfolios in order to improve their global warming trajectory and align it with the 1.5°C target. Adjusting the portfolios' composition in this way has had a positive impact on all the indicators in the Eurosystem's harmonised disclosure exercise, as several companies responsible for very high emissions were excluded. Only the total emissions indicator for these two portfolios has seen an increase, which is simply a mechanical consequence of more amounts being invested.

As for euro-denominated own portfolios held against the monetary base, the increase in gross emissions is the result of the change in size of the assets managed, with the nominal volume of the portfolio almost doubling, from EUR 30.5 billion to EUR 52.2 billion. However, total production emissions only rose by around 47.7%, which indicates a relative improvement in the carbon efficiency of investments. As regards **foreign currency denominated own portfolios held against the monetary base**, absolute emissions followed the opposite trend (carbon emissions attributable to the foreign currency denominated sovereign component dropped by 41.9%) mainly due to a resizing of the portfolio and taking climate-related metrics into account in investment choices.

- In addition to the indicators calculated as part of the Eurosystem's disclosure exercise, **in 2023, the Banque**

de France developed a new indicator to measure the climate impact of its portfolios' sovereign security exposures, that combines the carbon intensities of consumption and production and takes the form of a "z-score". The aggregate z-score of the sovereign portfolios¹⁶ managed by the Banque de France was -0.10 at the end of 2023 compared with + 0.10 in 2022. As a negative z-score¹⁷ corresponds to a country that is greener than others, this shows a trend towards greening (see Focus 8).

- For its own funds and pension liabilities portfolios, the Banque de France measures **its environmental and ESG performances through a series of indicators** (see Table 4).¹⁸ These indicators are tracked by portfolio and by asset class (sovereign bonds, equities and corporate bonds), and compared against benchmarks.
 - **Exposure to physical risks**, which measures the physical climate-related risks to which portfolios are exposed, fell for most portfolios in 2023.
 - The **biodiversity footprint**, which measures the generated impact on biodiversity per EUR million invested, was stable with an above-benchmark performance for own funds and pension liabilities portfolios.
 - Lastly, the **ESG performances** of the Banque de France's portfolios either remained stable or improved overall, and scored better than their benchmark indices, with the exception of the sovereign bond component of the pension liabilities portfolio, which was penalised by an exposure to US securities not included in the benchmark index.

¹⁶ This sovereign climate rating covers foreign exchange reserve portfolios, euro-denominated own portfolios held against the monetary base, own funds portfolios, and pension liabilities portfolios.

¹⁷ Average weighted by each country's z-scores.

¹⁸ Pillar 1 and 2 detail the results and methodologies for the sovereign bond, equity and corporate bond components, which form the portfolios' primary asset classes, accounting for 97% of the overall value of the portfolios at 31 December 2023.

RISK MANAGEMENT

In accordance with the double materiality principle, the Banque de France's responsible investment strategy involves **monitoring and steering the climate-related risks** (physical and transition risks) to which the asset portfolios are exposed (*see Pillar 1 below*). Physical risks, such as heat stress, are measured using a composite forward-looking indicator covering sovereign issuers and the entire value chain of portfolio companies. Exposure to transition risk is measured based on the share of revenue that companies in the portfolio derive from fossil fuels.

In addition, the responsible investment strategy is integrated in the three lines of defence¹⁹ of the Banque de France's **risk management system**. In particular, the Risk Committee regularly reviews the recognition of climate risks in the Banque de France's risk management system, with a view to strengthening the integration and monitoring of these risks in the portfolios of (non-monetary policy) assets managed for own account. Furthermore, all listed and unlisted vehicles in which the Banque de France invests are submitted for approval to the Risk Committee.

¹⁹ First line of defence: Financial Management Division; second line of defence: General Secretariat Risk and

Permanent Control Manager; third line of defence: Internal Audit.

T3 Assessment of the implementation of the Banque de France's responsible investment strategy at 31 December 2023

TARGET	MILESTONES
PILLAR 1 → Align investments with France's climate commitments	
Objective No. 1	
Align the equity component with a 1.5°C trajectory. Horizon set at end-2023 for the own funds portfolio and European equities in the pension liabilities portfolio, and end-2025 for all equity in the pension liabilities portfolio	<ul style="list-style-type: none"> • <1.5°C alignment for the equity component of the own funds portfolio and European equities in the pension liabilities portfolio at end-2023 • <1.5°C alignment for the entire equity component of the pension liabilities portfolio at end-2023, two years ahead of target
Objective No. 2	
Exclude issuers whose involvement in fossil fuels is higher than the thresholds set by the Paris-Aligned Benchmark	<ul style="list-style-type: none"> • Since 2021, issuers deriving over 2% of revenue from thermal coal or 10% from unconventional hydrocarbons have been excluded • At end-2024, the coal and unconventional hydrocarbon threshold will be lowered to 0%, thresholds will be applied for oil (>10% of revenue) and gas (>50% of revenue) and firms developing new extraction projects will be excluded
Objective No. 3	
Contribute to financing the energy and ecological transition (EET) and to preserving biodiversity by investing in thematic funds and green bonds	<p>At 31 December 2023</p> <ul style="list-style-type: none"> • EUR 6 billion invested in green bonds • EUR 614 million invested in EET thematic funds • Investment in a fund devoted to preserving marine biodiversity
PILLAR 2 → Include environmental, social and governance (ESG) criteria in asset management	
Objective No. 4	
Exclude 30% of the corporate investment universe based on ESG criteria, in compliance with the requirements of Pillar III of France's Socially Responsible Investment (SRI) label	<ul style="list-style-type: none"> • 20% of equity issuers excluded on the basis of ESG criteria since end-2019 • 30% of corporate issuers will be excluded from 2024 in order to align with the SRI label reform published at end-2023
Objective No. 5	
Contribute to financing social challenges by investing in impact funds and social and sustainable bonds	<ul style="list-style-type: none"> • EUR 1.4 billion invested in social and sustainable bonds at end-2023 • Investment in a fund supporting affordable housing and a fund backing the social and solidarity sector in 2023
PILLAR 3 → Exercise voting rights and engage with issuers	
Objective No. 6	
Apply a regularly updated voting policy that includes extra-financial provisions	<ul style="list-style-type: none"> • Voting policy adopted in 2019 • Adjustments made to reflect new fossil fuel exclusions and limit excessive executive pay from 2023 (provisions in force since 2023)
Objective No. 7	
Maintain a general meeting attendance rate of at least 80%	<ul style="list-style-type: none"> • Attendance rate of 94% in 2023

Source: Banque de France.

T4 Climate and ESG performance indicators for portfolios at end-2023

ASSET CLASS	INDICATOR CATEGORY	INDICATOR	2023 PORTFOLIO	2022 PORTFOLIO	COVERAGE (% of the asset class)	BENCHMARK ^{a)}
PENSION LIABILITIES PORTFOLIO						
Sovereign bond component	Climate	Exposure to physical risks	71.8/100	77.9/100	100	68.4/100
	Biodiversity	Total absolute biodiversity impact	-484 MSA.km ²	-532 MSA.km ²	100	-493 MSA.km ²
		Biodiversity footprint	-0.08 MSA.km ² /EURm invested	-0.08 MSA.km ² /EURm invested	100	-0.08 MSA.km ² /EURm invested
		Weighted average biodiversity intensity	-0.08 MSA.km ² /EURm of GDP	-0.08 MSA.km ² /EURm of GDP	100	-0.08 MSA.km ² /EURm of GDP
ESG	ESG score	73.8/100	71/100	100	79.3/100	
Equity component	Climate	Implied temperature rise	<1.5°C	1.5°C-2°C	100	2°C-3°C
		Green share EU taxonomy	38%	36%	99	35%
		Exposure to physical risks	48.9/100	51.9/100	100	46.8/100
	Biodiversity	Total absolute biodiversity impact	-139 MSA.km ²	-170 MSA.km ²	95	-150 MSA.km ²
		Biodiversity footprint	-0.03 MSA.km ² /EURm invested	-0.04 MSA.km ² /EURm invested	95	-0.03 MSA.km ² /EURm invested
		Weighted average biodiversity intensity	-0.35 MSA.km ² /EURm capital employed	-0.60 MSA.km ² /EURm capital employed	94	-0.37 MSA.km ² /EURm capital employed
ESG	ESG score	50.4/100	49.5/100	94	49/100	
Corporate bond component	Climate	Implied temperature rise	2°C-3°C	1.5°C-2°C	79	1.5°C-2°C
		Exposure to physical risks	34.0/100	45.7/100	97	35.5/100
	Biodiversity	Total absolute biodiversity impact	-77 MSA.km ²	-10 MSA.km ²	44	-94 MSA.km ²
		Biodiversity footprint	-0.04 MSA.km ² /EURm invested	-0.04 MSA.km ² /EURm invested	44	-0.05 MSA.km ² /EURm invested
		Weighted average biodiversity intensity	-0.06 MSA.km ² /EURm capital employed	-0.07 MSA.km ² /EURm capital employed	73	-0.08 MSA.km ² /EURm capital employed
	ESG	ESG score	57.3/100	57.3/100	95	54.5/100
OWN FUNDS PORTFOLIO						
Sovereign bond component	Climate	Exposure to physical risks	67.0/100	58.5/100	100	61.3/100
	Biodiversity	Total absolute biodiversity impact	-480 MSA.km ²	-503 MSA.km ²	100	-532 MSA.km ²
		Biodiversity footprint	-0.08 MSA.km ² /EURm invested	-0.09 MSA.km ² /EURm invested	100	-0.09 MSA.km ² /EURm invested
		Weighted average biodiversity intensity	-0.08 MSA.km ² /EURm of GDP	-0.09 MSA.km ² /EURm of GDP	100	-0.09 MSA.km ² /EURm of GDP
ESG	ESG score	79.9/100	79/100	95	79.6/100	
Equity component	Climate	Implied temperature rise	<1.5°C	1.5°C-2°C	99	1.5°C-2°C
		Green share EU taxonomy	28%	28%	99	32%
		Exposure to physical risks	43.5/100	43.7/100	100	41.5/100
	Biodiversity	Total absolute biodiversity impact	-78 MSA.km ²	-76 MSA.km ²	97	-83 MSA.km ²
		Biodiversity footprint	-0.03 MSA.km ² /EURm invested	-0.03 MSA.km ² /EURm invested	97	-0.03 MSA.km ² /EURm invested
		Weighted average biodiversity intensity	-0.11 MSA.km ² /EURm capital employed	-0.10 MSA.km ² /EURm capital employed	97	-0.12 MSA.km ² /EURm capital employed
ESG	ESG score	61.3/100	61.2/100	99	56.3/100	
Corporate bond component	Climate	Implied temperature rise	<1.5°C	-	51	1.5°C-2°C
		Exposure to physical risks	26.0/100	63.2/100	100	35.5/100
	Biodiversity	Total absolute biodiversity impact	-9 MSA.km ²	-	35	-27 MSA.km ²
		Biodiversity footprint	-0.02 MSA.km ² /EURm invested	-	35	-0.05 MSA.km ² /EURm invested
		Weighted average biodiversity intensity	-0.01 MSA.km ² /EURm capital employed	-	53	-0.08 MSA.km ² /EURm capital employed
	ESG	ESG score	62.7/100	52.5/100	100	54.5/100

Sources: S&P Global Sustainable1, Moody's ESG, Iceberg Data Lab.

Notes: In green: performances are better than or in line with those of the benchmark; in orange: performances are below those of the benchmark.

ESG – environmental, social and governance; MSA – Mean Species Abundance;

EURm – million euro.

a) Cf. focus 6 infra.

T5 Portfolio ESG sub-scores at end-2023

a) Pension liabilities portfolio

ASSET CLASS	INDICATOR	PORTFOLIO (sub-score out of 100)		COVERAGE (% of asset class)	BENCHMARK ^{a)} (sub-score out of 100)
		2023	2022		
Equity component	Economic and social development	46	46	73	43
	Societal impact of products and services	45	43	55	40
	Occupational health and safety	51	50	92	46
	Non-discrimination	67	63	92	62
Corporate bond component	Economic and social development	52	58	60	51
	Societal impact of products and services	52	51	48	51
	Occupational health and safety	56	56	68	55
	Non-discrimination	70	72	68	70

b) Own funds portfolio

ASSET CLASS	INDICATOR	PORTFOLIO (sub-score out of 100)		COVERAGE (% of asset class)	BENCHMARK ^{a)} (sub-score out of 100)
		2023	2022		
Equity component	Economic and social development	58	58	87	52
	Societal impact of products and services	56	54	48	52
	Occupational health and safety	63	66	99	58
	Non-discrimination	75	72	66	68
Corporate bond component	Economic and social development	57	70	63	51
	Societal impact of products and services	54	64	40	51
	Occupational health and safety	61	43	66	55
	Non-discrimination	71	64	66	70

Sources: Moody's ESG, Banque de France.

Notes: In green: performances are better than or in line with those of the benchmark; in orange: performances are below those of the benchmark.

ESG – environmental, social and governance criteria; EURm – million euro.

a) Cf. focus *à* infra.

FIND OUT MORE...

① THE EUROSISTEM'S HARMONISED CLIMATE-RELATED DISCLOSURE EXERCISE

In 2021, the 19 central banks of the euro area, which make up the Eurosystem, established a common framework with a view to applying responsible investment principles to non-monetary policy portfolios they hold individually and for which they have full and complete responsibility. As part of this undertaking, and in order to ensure that disclosures would be harmonised on the basis of identical data, the Eurosystem organised a joint call for bids to select climate impact data providers. This was completed in early 2022 and resulted in the selection of two climate data providers, Institutional Shareholder Services (ISS) and Carbon4 Finance. Once the providers had been chosen, the Eurosystem initiated work that is still ongoing to develop and continually refine shared indicators, based on a single methodology. The scope of this common disclosure exercise extends to all euro-denominated – and from this year onwards, foreign currency denominated – non-monetary policy portfolios and the monetary policy purchase programmes of Eurosystem central banks.¹ Each national central bank is responsible for calculating and publishing indicators for portfolios managed for

own account, while the European Central Bank (ECB) manages the indicators for monetary policy portfolios. Accordingly, the Banque de France includes the common Eurosystem indicators in its responsible investment report for euro and foreign currency denominated own portfolios held against the monetary base as well as its own funds and pension liabilities portfolios (see Table 1 above). The scope of the indicators, as well as the portfolios, has also changed this year, to include the share of green bonds held in the portfolios and to take account of the impact of land-use activities in the carbon footprint of sovereign issuers.² This harmonised disclosure exercise, reported annually, will be gradually expanded in order to improve understanding of the climate impact of central banking activities.

1 Purchases of public bonds (from sovereign, agency and supranational issuers), corporate bonds and covered bonds as part of the asset purchase programme (APP) and pandemic emergency purchase programme (PEPP).

2 The "Production including LULUCF" indicator in Table 1 above is now calculated to include land use, land-use change and forestry (LULUCF) in the measurement of the carbon footprint of sovereign issuers.

② WORK BY THE EUROPEAN COMMISSION ON SUSTAINABLE FINANCE

The European Commission's 2018 sustainable finance action plan included the adoption of a European taxonomy of sustainable activities (Regulation EU 2020/852), sustainability-related disclosures by market participants (Regulation EU 2019/2088: SFDR – the Sustainable Finance Disclosure Regulation), which provides for the classification of financial products according to their sustainability objectives and the inclusion of environmental, social and governance (ESG) criteria in their management, and the creation of new climate benchmarks (Regulation EU 2019/2089).

In July 2021, the Commission adopted a renewed strategy to finance the transition to a sustainable economy. The strategy not only targets the financing of activities already considered sustainable, but also transition activities. It also targets the inclusive transition needed, the integration of ESG risks by the financial sector, and international activity in the field of sustainable finance.

In April 2022, the Commission adopted the technical standards applicable to the SFDR regulation, requiring market participants

from 2023 onwards to disclose a series of 18 indicators covering climate, environmental, social, human rights and anti-corruption aspects.¹ A proposal to revise the SFDR regulation began in December 2023 via public consultation, with the aim of a new, more precisely defined classification of funds, accompanied by objective criteria.

Furthermore, Regulation 2022/2464 (EU), the so-called CSRD (Corporate Sustainability Reporting Directive) regulation, published in December 2022 and in force since January 2023, modernises and strengthens the rules concerning the social and environmental information that companies have to report. Lastly, the CSRD will be supplemented by the CSDDD (Corporate Sustainability Due Diligence Directive), adopted by the European Parliament in April 2024, which aims to impose a duty of care on companies in terms of sustainability and respect for human rights and environmental protection.

1 Principle Adverse Impact (PAI) indicators.

③ FIRST REPORTING PROCESS ON THE UNPRI PLATFORM

Founded in 2005 with the support of the United Nations, the Principles for Responsible Investment (PRI) form an internationally recognised platform whose purpose is to develop and promote responsible investment worldwide. The network of signatory investors, which includes asset managers and financial service providers, currently manages assets worth EUR 125 trillion.

In 2023, the Banque de France carried out its first UNPRI reporting exercise for 2022. The exercise is a standardised process to assess how sustainability objectives are integrated into investment portfolios. It takes the form of a detailed questionnaire, the answers to which are then made public on the UNPRI platform. Based on the answers provided, an automated assessment of the signatory's investment policy is generated, allowing the signatory to ensure that it complies with the minimum requirements

set by the initiative: the integration of sustainability criteria in the management of at least 50% of assets,¹ establishment of a governance mechanism for the investment policy, and existence of a team dedicated to implementing the investment policy. For its maiden exercise, the Banque de France obtained a score above the median for all the reporting signatories (investors who have signed up to the initiative), demonstrating the highly ambitious nature of its socially and responsible investment (SRI) strategy. The assessment report is only communicated to the signatory, but as part of its commitment to act transparently, the Banque de France also decided to make it available to the public.

¹ In the case of the Banque de France, the 50% target applies to its own funds and pension liabilities portfolios.

④ DATA PROVIDERS SELECTED BY THE BANQUE DE FRANCE AND INDICATOR LIMITATIONS

Climate and environmental, social and governance (ESG) indicators are based on the data published by issuers, e.g. carbon emissions of companies and sovereigns, and on calculation methodologies and models, e.g. allocation of carbon emissions to a portfolio of financial assets. There is some debate over these data and methodologies, which are supplied to investors by specialised providers. Several indicators, such as Scope 3 emissions or the temperature alignment of portfolios, provide markedly different results depending on the data provider.¹ The Banque de France uses several data providers (S&P Global Sustainable1, Moody's ESG² and Iceberg Data Lab), which it selected after reviewing the quality of their data and methodologies in particular. The Banque de France also uses two data providers – Institutional Shareholder Services (ISS) and Carbon4 Finance – selected following a call for bids organised by the Eurosystem aimed at promoting harmonised disclosure of climate indicators across Europe.

List of Banque de France extra-financial data providers for 2023

Indicator type	Data provider
<ul style="list-style-type: none"> Temperature alignment EU taxonomy alignment 	S&P Global Sustainable1
Carbon emissions data	Institutional Shareholder Services (ISS), Carbon4 Finance
Biodiversity impact data	Iceberg Data Lab
<ul style="list-style-type: none"> ESG scores Physical risks 	Moody's ESG

Source: Banque de France.

Note: EU – European Union; ESG – environmental, social and governance criteria.

¹ Institut Louis Bachelier (2020), *The Alignment Cookbook*.

² In 2021, Moody's ESG acquired the providers Vigeo Eiris and Four Twenty-Seven.

⑤ THE MAIN LABELS – OVERVIEW AND DEVELOPMENTS

In France, there are four main responsible investment labels that have the backing of the public authorities: the **Socially Responsible Investment (SRI) label**, which was subject to a major reform in 2023, **Greenfin**, **Finansol** and **Relance**. As part of its SRI strategy, **the Banque de France prioritises investment in funds that have been awarded these labels**, and especially Greenfin, the SRI label and Finansol. Several of the funds the Banque de France invests in also hold European labels such as **LuxFLAG** and **Towards Sustainability**.

The SRI label and its reform: created in 2016 by the French Ministry of Finance, this label covers the ESG practices of investment funds. A reference framework, which was updated in 2020 and subsequently in 2023 (coming into effect on 31 March 2024), covers funds' environmental, social and governance (ESG) objectives, as well as their methodologies for conducting extra-financial analyses of companies, their engagement with financed companies, their transparency and their measurement of sustainability impacts. In 2023, the label was reformed to enforce stricter selectivity. The Banque de France applies the most restrictive principle of the SRI label to its equity and corporate bond components, which means that it excludes 20% of its investment universe based on ESG criteria. This exclusion threshold will rise to 30% from 2024 onwards.

The three other French labels:

- **Greenfin:** created in 2015 by the Ministry for the Ecological Transition to certify the green credentials of investment funds, this label primarily covers the nature of funded activities. Some activities, such as fossil fuels and initially, nuclear power, are banned, while the majority of investments must be in eight designated eco-friendly sectors (the green share). Funds must

also take account of ESG criteria and measure the impact of their financing on the energy and ecological transition (EET). Reforms to the label came into force in January 2024, finally authorising the nuclear sector, while maintaining the exclusion thresholds of 5% for gaseous fossil fuels and 30% for gas supply;

- **Finansol:** created in 1997 to identify solidarity-based savings products, this label focuses on funds and saving products that finance social activities, such as access to employment or housing, or that regularly donate a portion of their interest payments to beneficiary entities;
- **Relance:** created in 2020 by the Ministry for the Economy, Finance and the Recovery (*Relance*), this label is aimed at funds that quickly raise new resources to support the equity and quasi-equity of French small and medium-sized enterprises (SMEs) and mid-tier enterprises (MTEs). Funds that are awarded the label must also comply with a set of ESG criteria, including a ban on financing coal-based activities and a requirement to monitor ESG performance (an ESG score or indicator).

Two European labels:

- **Towards Sustainability (TS):** this label was launched by the Federation of the Belgian Financial Sector (Febelfin) in 2019, and is awarded by an independent body. It covers the energy sector, among others, and sets three requirements: transparency, ESG analysis across the entire portfolio, and sectoral exclusions;
- **LuxFLAG:** an association created in Luxembourg in 2006 bringing together public and private partners, LuxFLAG awards specific, specialised labels such as LuxFLAG Environment or LuxFLAG ESG.

Breakdown by label of sustainable funds in which the Banque de France invests at end-2023

(%)

	Greenfin	LuxFLAG Environment	LuxFLAG ESG	SRI	Finansol	Total
Share of investments in EET funds	53	14	26	1	3	91
Share of EET funds	48	10	24	5	5	86

Source: Banque de France.

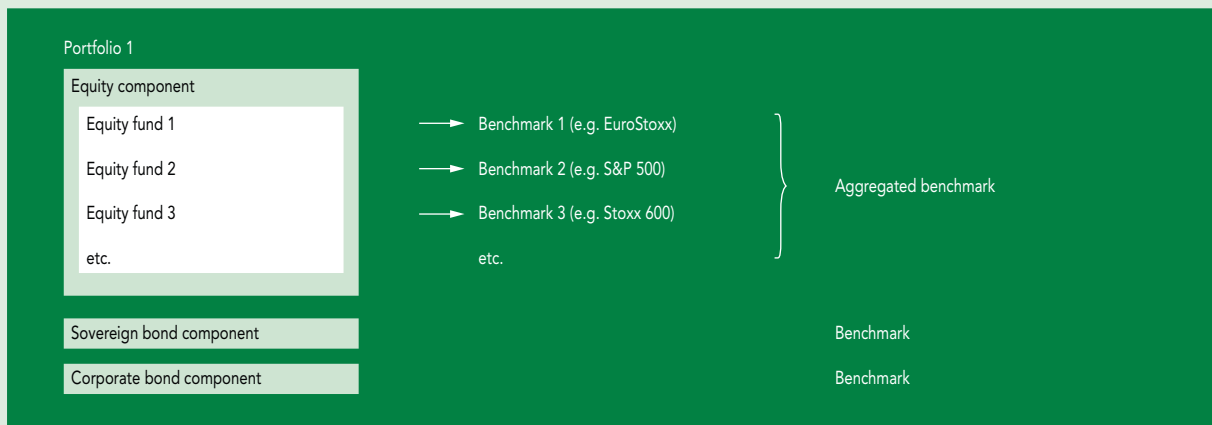
Notes: One fund has been awarded two labels (Greenfin and LuxFLAG Environment).

ESG – environmental, social and governance criteria; SRI – Socially Responsible Investment.

⑥ BENCHMARKS

The Banque de France’s asset management compares portfolio results against those of their benchmarks. These benchmark indices are representative of the markets in which the portfolios are invested and are built based on the composition of the main stock market indices. The Banque de France’s portfolios are composed of several funds, each of which comprises one or more asset classes (equities, sovereign bonds or corporate bonds) and has its own benchmark. To monitor its assets’ extra-financial performances, the Banque de France breaks down each portfolio into its different components with funds from the same asset class. For example, the equity component of the own funds

portfolio contains funds from the portfolio that are invested in equities. Each component is then compared against a composite benchmark index that aggregates the indices for the funds in the component. The aggregation process involves weighting each index by the percentage of the component’s total assets represented by the fund. In 2022, the Banque de France updated the strategic benchmark indices for its non-monetary policy portfolios to ensure that they reflected the integration of ESG criteria. For example, the S&P500 index, which is representative of the US equity universe, was replaced by its net-zero Paris-aligned equivalent.



⑦ SAY ON CLIMATE RESOLUTIONS

“Say on Climate” votes are a new kind of resolution that have been introduced in recent years in Europe. These resolutions, which may be submitted by management bodies or shareholders, aim to give shareholders a say on companies’ climate and environmental policies. They are purely consultative in nature and are intended to initiate shareholder dialogue on these issues. The *Forum pour l’investissement responsable* (a French social investment forum) reported 26 “Say on Climate” resolutions tabled by management at general meetings (GMs) worldwide in 2023. Of these, 8 were in France (the leading country) and 22 were in Europe.

The Banque de France was able to vote on 22 “Say on Climate” resolutions in 2023. In one instance it voted against a resolution because the energy transition plan put forward by the company lacked ambition, particularly in terms of reducing Scope 3 emissions. The Banque de France analyses this type of vote on a case-by-case basis and assesses in particular the credibility and ambition of the carbon reduction targets proposed by companies. It also pays close attention to the transparency and level of detail of the information provided in plans. This type of resolution helps the Banque de France to satisfy its transparency and reporting requirements on the climate impact attributable to the activities of companies in which it invests.

⑧ CONSTRUCTING A NEW INDICATOR TO MEASURE THE CLIMATE IMPACT OF SOVEREIGN PORTFOLIOS

In 2023, at the request of its Assets-Liabilities Committee and in line with its responsible investment strategy, the Banque de France carried out work to green its euro and foreign currency denominated sovereign bond portfolios held against the monetary base (foreign exchange reserves and euro-denominated portfolios managed for own account). Research was undertaken to develop an internal indicator for rating sovereign states on their climate performance. Since the beginning of 2024, this indicator has been taken into account in the asset allocation model used for part of the foreign exchange reserves. It also provides an aggregate measure of the carbon impact of all the Banque de France's euro and foreign currency denominated non-monetary policy sovereign portfolios.

In order to not only penalise industrial countries with high greenhouse gas emissions, an indicator combining the carbon intensity of production (territorial emissions) and consumption (territorial emissions + imported emissions - exported emissions) has been put forward, based on the literature.¹ This indicator takes the form of a z-score, which measures the position of a value (in this case, a country's carbon intensity) within a population (in this case, a group of countries). The z-score represents the number of standard deviations from the population average, making it possible to standardise, and make comparable, data, even if they comes from different distributions with different scales. The data sources are those recommended by ASCOR (Assessing Sovereign Climate-related Opportunities and Risks) and are based on reliable public information, with a historical horizon long enough to be able to identify trends. These trends are also taken into consideration in the final indicator: in addition to the static carbon intensity data for production and consumption, their evolution over time is also assessed in order to take account of the impact of national climate strategies on greenhouse gas emissions. As a result, the discriminating indicator currently used is a composite z-score that half-reflects the production view and half-reflects the consumption view; it also half-reflects the static values and half-reflects their trends, so as to take a sufficiently broad and balanced range of methodologies and indicators into consideration.

A z-score of 0 corresponds to an average country, a negative z-score indicates a country that is greener than others, and a positive z-score indicates a country with a poor climate performance. For the sovereign portfolios² managed by the Banque de France, the aggregate z-score³ was -0.10 at the end of 2023 compared with +0.10 in 2022, which demonstrates a trend towards greener performances. In 2024, this indicator will be taken into account in the strategic allocation of foreign exchange

reserves in addition to the usual risk/return ratio when making allocation decisions.

The sovereign climate z-score methodology developed by the Banque de France will be continually refined to take account of the latest academic advances and available climate data.

1 NGFS (2024), *Considering climate-related risks and transition impact in the sovereign investments of central banks – Data, metrics and implementation issues*, May, and ASCOR (2023), *ASCOR framework: methodology note*, November (first publication by the Transition Pathway Initiative).

2 This sovereign climate rating covers foreign exchange reserve portfolios, euro-denominated own portfolios held against the monetary base, own funds portfolios, and pension liabilities portfolios.

3 Average weighted by each country's z-scores.

PILLAR 1

→ CLIMATE

The Banque de France is committed to incorporating global warming issues into its investment strategy for the portfolios for which it has full and complete responsibility.¹ It has set itself three objectives:

- ➊ Reducing the climate impact of its portfolios by aligning their equity component with a greenhouse gas emissions trajectory compatible with global warming of less than 1.5°C above pre-industrial levels by 2025. Achieving this objective ahead of schedule, in 2023, reflects the continuation of the efforts already made to align the equity components of these portfolios with a 2°C trajectory, which was achieved at the end of 2021 (Objective No. 1).
- ➋ Excluding issuers whose involvement in fossil fuels is higher than the thresholds selected for the Paris-Aligned Benchmark (Objective No. 2).
- ➌ Contributing to financing the energy and ecological transition (EET) and to preserving biodiversity by investing in thematic funds and green bonds (Objective No. 3).

To this end, the Banque de France monitors the climate impacts of its portfolios and their exposure to climate-related risks. The following Pillar 1 results cover the period to 31 December 2023.

1.5°C ALIGNMENT

The Banque de France has made a commitment to progressively align its portfolios with a global warming trajectory of well below 1.5°C. Accordingly, it ensures that its investments comply with the commitment made by France under the 2015 Paris Agreement. The Banque de France initially set – and then achieved – the goal of aligning the equity component of its own funds portfolio with a sub-2°C global warming trajectory target by 2019. It then broadened this objective to include the equity component of its pension liabilities portfolio, which was achieved in 2021. **In 2023, the equity components of these two portfolios, as well as of the portfolio held against the monetary base, were aligned with the more stringent global warming trajectory target of less than 1.5°C. This goal was achieved two years ahead of target, which was initially set for the end of 2025.** Although no target has yet been set for the corporate bond components, the implied temperature rise of the corporate bond component of the own funds portfolio was also aligned with a global warming target of 1.5°C at the end of 2023, while that

of the pension liabilities portfolio has a trajectory slightly above 2°C, mainly due to heavy contributions from the industrial and consumer goods sectors.

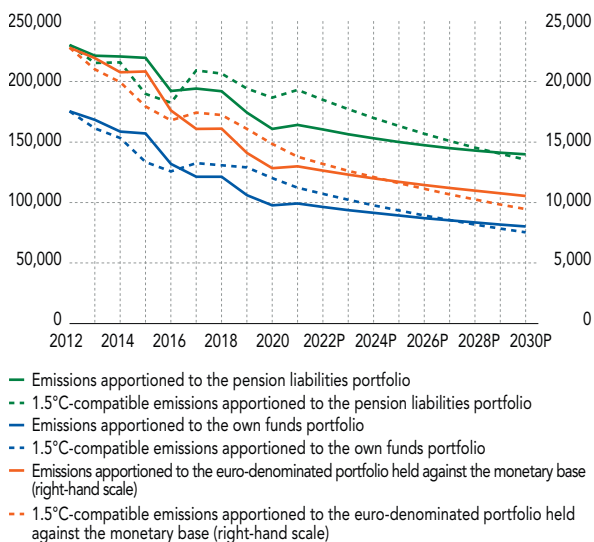
To assess the alignment of its portfolios, the Banque de France considers the past and future annual greenhouse gas emissions trajectories of the companies in its investment universe. By comparing companies against a benchmark trajectory, it is possible to assess each firm’s alignment with a target sub-1.5°C global warming trajectory. Alignment of the portfolio is then measured by aggregating and comparing past and future emissions on the one hand, and the benchmark emissions of portfolio companies on the other hand, which are allocated on a proportional basis reflecting the share of the investment relative to the company’s value.

To align its portfolios, the Banque de France takes a two-stage approach: (i) it applies a filter that prevents it from investing in companies whose trajectories are least compatible with the 1.5°C target; and (ii) it gives preference to companies that are aligned with the target. By applying a climate filter, the Banque de France excludes approximately 5% of the worst-performing companies from its investment universe, under a best-in-universe approach. Exceptionally, some of these companies may be retained in the portfolio if (i) they implement a strategy that contributes significantly to the energy transition,² and (ii) the equity component overall remains aligned with the 1.5°C target. The climate filter is applied in addition to the ESG exclusions under Pillars 1 and 2 of the strategy, which notably leads the Banque de France to exclude certain companies involved in fossil fuels from all of its portfolios (*see below*).

Carbon alignment data are provided by S&P Global Sustainable1 (*see Focus 4*). These cover Scope 1 and Scope 2 greenhouse gas emissions (*see Focus 12 above*) for the 2012-30 period. Over this period, S&P Global Sustainable1 calculates a carbon emissions trajectory for each company, which it compares against a theoretical emissions trajectory that would enable compliance with global warming of less than 1.5°C. Company carbon emissions trajectories are obtained from historical data

C1 1.5°C alignment of portfolio equity components

(carbon emissions in tCO₂-eq)



Source: S&P Global Sustainable1.

Notes: A portfolio is aligned with a 1.5°C trajectory if cumulative emissions attributable to it over the 2012-30 period are below the levels compatible with a 1.5°C alignment over the same period.

On the x-axis, "F" denotes forecast.

tCO₂-eq: tonnes of carbon dioxide equivalent.

1 Own funds and pension liabilities portfolios and euro and foreign currency denominated own portfolios held against the monetary base.

2 This criterion is assessed using several data sources, including Carbon4 Finance and Carbon Disclosure Project (CDP) sources, as well as through interviews with broker analysts specialised in the relevant sectors.

and the targets set by firms themselves, or, failing that, from estimates and projections. The theoretical emissions trajectory for 1.5°C alignment is calculated using the two methodologies recommended by the Science Based Targets initiative (SBTi).³

- In the case of companies that emit the most greenhouse gases and whose business activities are homogeneous, S&P Global Sustainable1 refers to the carbon budgets established by sector by the International Energy Agency (IEA),⁴ then applies the “sectoral decarbonisation approach” (SDA): within each sector, every company is assigned a carbon sub-budget based on its carbon intensity, production and market share. A company whose carbon intensity trajectory is above its theoretical budget is therefore not 1.5°C aligned;
- When considering other companies, S&P Global Sustainable1 uses the 1.5°C scenario for global carbon emissions of the Intergovernmental Panel on Climate Change (IPCC),⁵ then applies the greenhouse gas emissions per unit of value added (GEVA) approach: all companies must reduce their carbon intensity at the same pace (7% per year), irrespective of their sector. Consequently, companies that do not lower their carbon intensity at this pace are not 1.5°C aligned;

This methodology, which was developed by S&P Global Sustainable1, is in line with the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) in 2021 on portfolio alignment.⁶

PARTICIPATING IN THE ENERGY TRANSITION BY EXCLUDING ISSUERS INVOLVED IN FOSSIL FUELS

Since 2018, in accordance with its Responsible Investment (RI) Charter, the Banque de France has excluded companies that derive over 20% of their revenue from thermal coal (extraction or coal-based energy production) from its portfolios. The Banque de France updated its Charter in 2021 to strengthen and broaden these exclusions.

- Thermal coal: the Banque de France will exit the sector completely (extraction or coal-based energy production) by the end of 2024 and lowered its exclusion threshold to 2% of revenue at the end of 2021;
- Oil and gas: the Banque de France will align itself by 2024 with the exclusion thresholds set by European

Regulation 2019/2089 on sustainability benchmarks, and more specifically with the thresholds applicable to a Paris-Aligned Benchmark (PAB). The European Commission Delegated Regulation of 17 July 2020 introduced the obligation for this type of benchmark to exclude companies that derive over 10% of their revenue from oil or over 50% from gas;

- Unconventional hydrocarbons: since the end of 2021, the Banque de France has excluded companies that derive over 10% of their revenue from unconventional hydrocarbons, including shale oil, shale gas, oil sands or Arctic or deepwater exploration-development. The sector will be excluded completely by the end of 2024 when the threshold will be lowered to 0%.

In 2022, the Banque de France further stepped up its commitment to the energy transition by deciding to exclude all companies developing new fossil fuel extraction projects. This requirement, which will come into effect from end-2024, is intended to ensure alignment with the IPCC and IEA assumptions in order to achieve a sub-1.5°C global warming trajectory by 2050.

To implement these exclusions, the Banque de France relies on data provided by Moody’s ESG and S&P Global Sustainable1 and on data available to its asset management subsidiary, BDF Gestion, from Institutional Shareholder Services (ISS). At 31 December 2023, the own funds portfolio contained three companies involved in thermal coal, while 0.7% of the total assets of the equity component of the pension liabilities portfolio was exposed to thermal coal, compared with 0.3% in 2021. These exposures result exclusively from Banque de France investments in external open-ended funds to which the Banque de France’s fossil fuel exclusion thresholds cannot be applied.

CONTRIBUTING TO FINANCING THE ENERGY AND ECOLOGICAL TRANSITION AND TO PRESERVING BIODIVERSITY

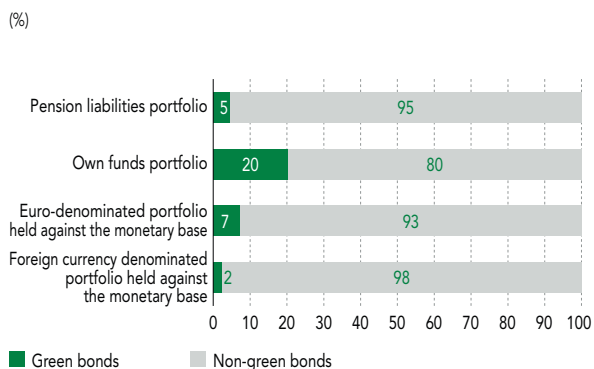
Under Pillar 1 of its strategy, the Banque de France also aims to contribute to financing the energy and ecological transition (EET) and to preserving biodiversity. It measures this contribution through its purchases of green bonds and its investments in thematic funds that focus on EET and ecosystem preservation.

The Banque de France helps to finance the energy and ecological transition directly by buying green bonds for all its bond portfolios. These green bonds are sovereign and quasi-sovereign bonds, such as green *obligations assimilables du Trésor* (OAT – French Treasury bonds) (see Focus 13 above). They finance green public spending, such as investments in public transport, organic farming or waste recycling.

The total value of green bonds held in portfolio⁷ was equivalent to EUR 6 billion at 31 December 2023. In 2023, the Banque de France purchased EUR 2.94 billion equivalent of green bonds, mainly in euro. Indeed, the euro area is the main issuer of green bonds, accounting for 40% of all green bonds issued worldwide.

As part of the Eurosystem's common harmonised disclosures, for the first time the Banque de France reported the share of green bonds held in each of its portfolios this year. The results are presented in Chart 2.

C2 Share of green bonds in the portfolio



Source: Banque de France.

With regard to thematic funds, **the Banque de France pursued its subscriptions, with total investments reaching EUR 626 million at the end of 2023.**⁸ The Banque de France makes a concerted effort to diversify the types of projects that it finances: in addition to financing the production of renewable energies through solar or wind farms, for example, it funds energy refits for buildings, the reduction of pollution linked to marine infrastructure (blue finance) and small and medium-sized enterprises (SMEs) that are EET innovators (in energy storage, smart cities or waste management, for example). The Banque de France prioritises funds that have been awarded the Greenfin label created in 2015 by the Ministry for the Ecological Transition to certify the green credentials of activities financed by labelled funds (see Focus 5), as well as LuxFLAG, SRI and Towards Sustainability, which are other benchmark labels for the certification of sustainable funds.

CARBON FOOTPRINT AND INTENSITY

In addition to the temperature pathway of its assets, the Banque de France measures the carbon impact of its portfolios, i.e. the greenhouse gas emissions⁹ linked to the issuers it invests in directly or indirectly through funds. Since 2023, four indicators harmonised across the Eurosystem central banks (see Focus 1) have been used to calculate this carbon impact and to provide complementary insights: (i) total absolute carbon emissions; (ii) capital carbon footprint; (iii) carbon intensity per unit of revenue (or GDP for sovereign bonds); and (iv) weighted average

³ SBTi is a partnership between the United Nations Global Compact, the Carbon Disclosure Project (CDP), the World Resources Institute (WRI) and the World Wide Fund for Nature (WWF). It aims to help companies to lower their greenhouse gas emissions and thus target sub-2°C global warming, based on scientific data.

⁴ Net zero scenarios from *Energy Technology Perspectives 2017*, and above-2°C scenarios from *Beyond 2°C Scenario* from the IEA.

⁵ Scenario from the Intergovernmental Panel on Climate Change (IPCC) *Representative Concentration Pathways (RCP) 2.6*. The RCP 2.6 scenario is the most optimistic of the four trajectories defined by the IPCC: a very low emissions scenario peaking before 2050.

⁶ TCFD (2021), *Measuring Portfolio Alignment: Technical Supplement*, June.

⁷ The portfolios taken into consideration are own funds and pension liabilities portfolios and euro and foreign currency denominated portfolios held against the monetary base.

⁸ Investments include funds dedicated to preserving biodiversity and funds financing the energy and ecological transition (EET).

⁹ The calculated indicators include GHGs besides carbon dioxide (CO₂), such as methane (CH₄) and nitrous oxide (N₂O). These are aggregated and expressed in tonnes of carbon dioxide equivalent (tCO₂-eq).

carbon intensity (see charts 3, 4, 5). These metrics are calculated using common data for all Eurosystem central banks provided by ISS and Carbon4 Finance. For companies, Scope 1 and 2 emissions are covered (see Focus 12). For sovereign states, each indicator is broken down according to three approaches based on different emission scopes: (i) emissions produced by the country;¹⁰ (ii) emissions consumed by the country;¹¹ and (iii) emissions attributed to the country's public sector.¹² The various statistics and charts presented below follow the consumption approach. The manner in which carbon emissions are aggregated at the portfolio level does not take into account the risk of multiple counting, but this risk is mitigated by the exclusion of Scope 3.

A portfolio's carbon footprint corresponds to the carbon emissions of issuers that may be attributed to the portfolio. These emissions are allocated on a proportional basis according to the share of the investment relative to the value of the company (or, in the case of a sovereign issuer, on a proportional basis according to the share of the investment in the GDP of the corresponding country).

The carbon footprint, carbon intensity and weighted average carbon intensity measures for each of the portfolios are presented in the summary charts below. They were calculated for each of the four portfolios covered by the Eurosystem disclosure exercise:

- The capital carbon footprint** compares a portfolio's carbon footprint to the amount invested by the Banque de France and can thus be used to measure tonnes of carbon equivalent per EUR million invested. The reduction in the capital carbon footprint for the equity components between 2022 and 2023 reflects the significant change in the composition of the portfolios, as part of the ambition of alignment with a 1.5°C global warming trajectory. As a result, several investments in companies with very high emissions have seen their weighting reduced substantially, or have been excluded altogether. This was also the case for the corporate bond components, and to a lesser extent for sovereign bond components in the own funds and pension liabilities portfolios (which saw a more marginal change in composition). In the portfolios held against the monetary base, the carbon footprint of the sovereign components also decreased, particularly for euro-denominated holdings, as a result of lower emissions in France relative to its gross domestic product and the country's dominance in terms of assets held. These changes also affect the carbon intensity and weighted average carbon intensity metrics described below. It is worth noting that this year, for the first time, the Banque de France is publishing metrics for the

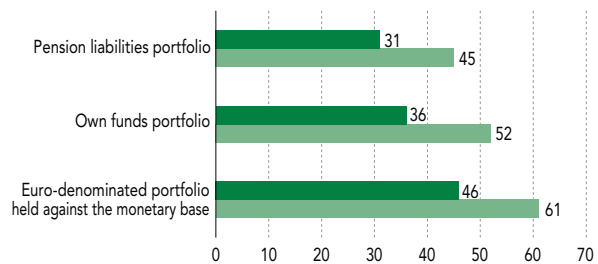
corporate bond component of its own funds portfolio and for all components of its foreign currency denominated portfolio held against the monetary base.

- The carbon intensity per unit of revenue** (or GDP) compares a portfolio's total carbon emissions to the share of revenue (or GDP) of all issuers allocated to the portfolio (on a proportional basis according to the ownership share). It gauges the carbon efficiency of the portfolio of companies and states, measured in tCO₂-eq per EUR million of revenue (or GDP).

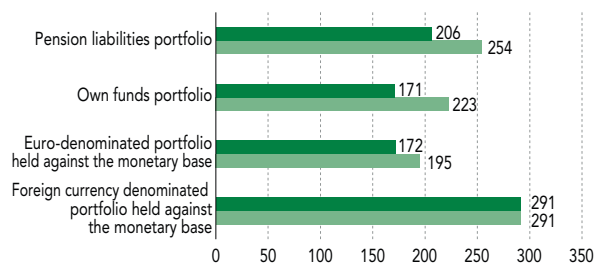
C3 Capital carbon footprint at end-2023

(in tCO₂-eq/EUR million invested)

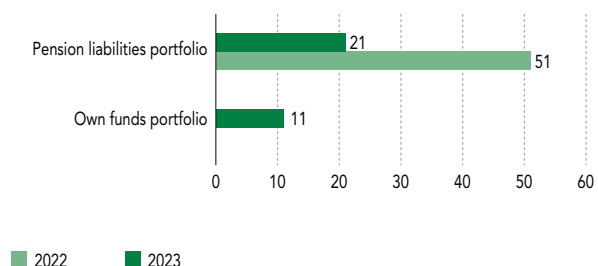
a) Equity components



b) Sovereign bond components (consumption approach)



c) Corporate bond components



■ 2022 ■ 2023

Sources: Institutional Shareholder Services (ISS), Carbon4 Finance, Bloomberg, World Bank; Banque de France calculations.

Note: tCO₂-eq – tonnes of carbon dioxide equivalent.

- **The weighted average carbon intensity** weighs the carbon intensity of issuers (emissions/revenue or GDP) according to their share in the portfolio. This indicator is recommended by the Task Force on Climate-related Financial Disclosures (TCFD).

10 Produced emissions include all emissions generated within the country's borders, both for domestic consumption but also for exports.

11 This approach includes all emissions consumed within the framework of the

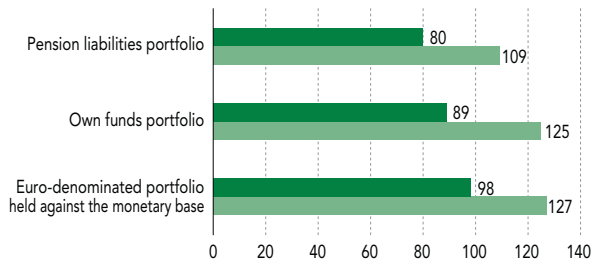
country's domestic demand, including imported emissions.

12 This approach considers direct emissions (buildings, vehicles) and indirect emissions (energy consumption, subsidies, etc.) attributable to the country's public sector.

C4 Carbon intensity in terms of revenue and GDP at end-2023

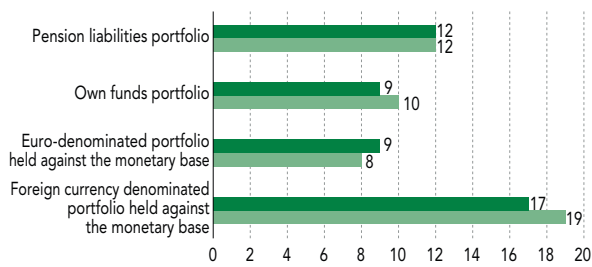
a) In units of revenue – equity components

(in tCO₂-eq/EUR million of revenue)



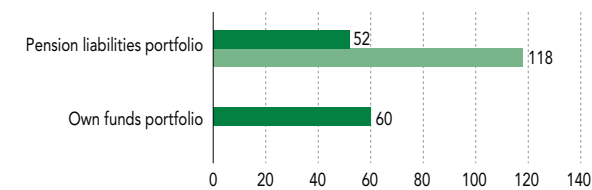
b) In units of GDP – sovereign bond components (consumption approach)

(in tCO₂-eq/EUR million of GDP)



c) In units of revenue – corporate bond components

(in tCO₂-eq/EUR million of revenue)



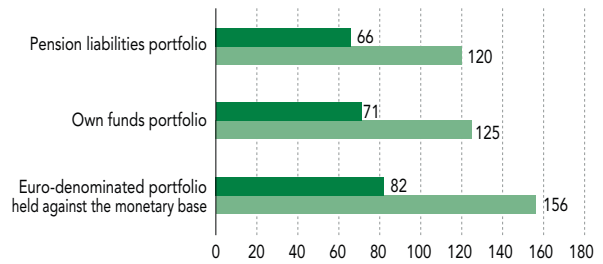
■ 2022 ■ 2023

Sources: Institutional Shareholder Services (ISS), Carbon4 Finance, Bloomberg, World Bank; Banque de France calculations.
Note: tCO₂-eq – tonnes of carbon dioxide equivalent.

C5 Weighted average carbon intensity at end-2023

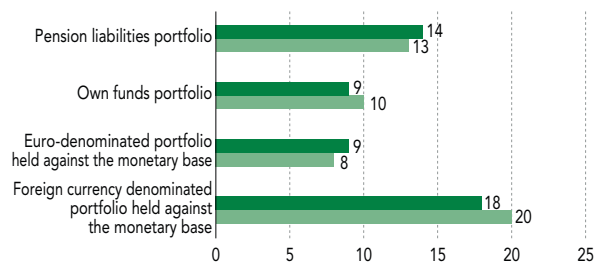
a) In units of revenue – equity components

(in tCO₂-eq/EUR million of revenue)



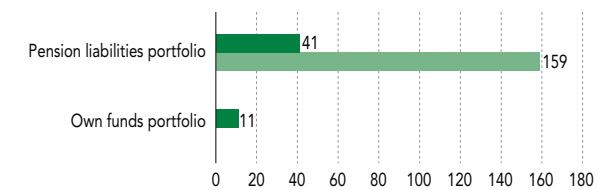
b) In units of GDP – sovereign bond components (consumption approach)

(in tCO₂-eq/EUR million of GDP)



c) In units of revenue – corporate bond components

(in tCO₂-eq/EUR million of revenue)



■ 2022 ■ 2023

Sources: Institutional Shareholder Services (ISS), Carbon4 Finance, Bloomberg, World Bank; Banque de France calculations.
Note: tCO₂-eq – tonnes of carbon dioxide equivalent.

SHARE OF ACTIVITIES ELIGIBLE FOR THE EU TAXONOMY

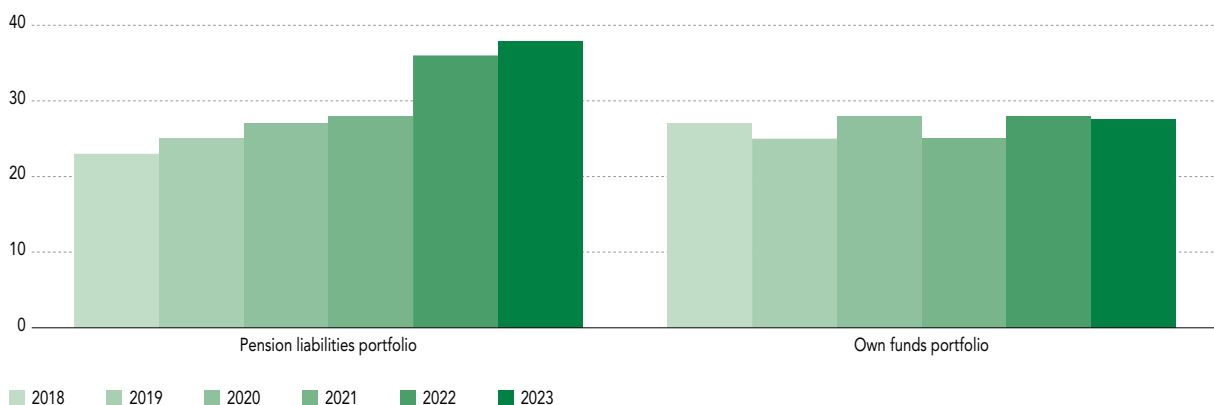
Since 2022, the Banque de France has calculated the share of activities in the equity and corporate bonds held for own account that is eligible for alignment with the EU taxonomy. In June 2020, the European Union (EU) adopted a regulation on a taxonomy of environmentally sustainable activities¹³ (see Focus 2). Under the terms of this regulation, activities may be deemed sustainable if they are likely to contribute substantially to at least one of the EU's six environmental objectives,¹⁴ do not cause significant harm to the other objectives, and meet the minimum social standards of the Organisation for Economic Cooperation and Development (OECD).

The delegated acts specifying the criteria covered by the first two EU environmental objectives – climate change mitigation and adaptation – were published in 2021, and have been applicable since January 2022. The delegated act dealing with the other four objectives covered by the taxonomy regulation (environment excluding climate) was adopted in June 2023 and has been applicable since January 2024. Besides the activities that contribute substantially and directly to the EU's first two environmental objectives, transitional activities (that contribute to the transition to a low-carbon economy) or enabling activities (that enable other activities to lower their emissions) are also considered sustainable.

Within this framework, the Banque de France estimates the average share of the revenues of portfolio companies (equity and corporate bond components)¹⁵ whose activities correspond to sustainable sectors as defined by the EU taxonomy, by weighting by the share of each company in total assets. This indicator provides information about the capacity of the portfolio, through its exposure to sustainable sectors, to contribute to the EU's first two climate change-related environmental objectives. However, unlike other indicators, it cannot be used to assess the portfolio's actual climate performances. For example, as the European Commission included the gas sector in the EU taxonomy¹⁶ due to its transitional potential, greater portfolio exposure to the sector raises the portfolio's share of eligible activities but also increases its carbon footprint. In 2023, on average, **28% of the revenue of the companies in the equity component of the own funds portfolio was eligible for inclusion in sustainable sectors**. This proportion was stable compared with the 2022 level, and thus remains at its highest level since 2020. It was an **average of 38% for companies in the equity component of the pension liabilities portfolio**, up two points on 2022, reaching the highest level since calculations of this indicator began. In the case of the **corporate bond component of the own funds and pension liabilities portfolio, the average proportion was 29%**, on a par with that of the equity component.

C6 Share of activities eligible for the EU taxonomy - equity components

(% of revenues of portfolio companies)



Source: S&P Global Sustainable1.

Note: EU – European Union.

EXPOSURE TO PHYSICAL AND TRANSITION RISKS

Climate-related risks include physical risks and transition risks.¹⁷

- Physical risks can result from one-off events such as droughts or floods, and also from gradual changes such as rising temperatures. Their effect is felt with property damage, drops in productivity, and even disruptions to the global supply chains of portfolio companies;
- Transition risks are the financial risks that result from the regulatory and technological transformations and market developments associated with the process of shifting towards a low-carbon economy.

In order to analyse the physical risks to which its portfolios are exposed, the Banque de France tracks a composite indicator calculated by specialised provider Moody's ESG, which analyses the exposure of each issuer to this type of risk. The exposure is calculated via a score that ranges from 0 to 100, where 0 is the lowest risk and 100 is the highest. In the case of companies, the score is based on ten underlying indicators, which are themselves grouped into three pillars: (i) operational risks; (ii) supply chain risks; and (iii) market risks. Consequently, the Moody's ESG analysis covers the entire value chain of issuers. In the case of sovereign bonds, the indicator reflects the proportions of the population, GDP and farmland exposed to physical risks.

Using Moody's data, the Banque de France aggregates the scores of the issuers in which it invests to calculate the overall exposure of its portfolios.

In 2023, **the main changes in exposure to physical risks concerned sovereign bonds**, with exposure up sharply in the own funds portfolio and down in the pensions liabilities portfolio:

- in the own funds portfolio, increased exposure to France (score = 74) and reduced exposure to Germany (score = 24) led to a sharp rise in exposure to physical risks;
- in the pension liabilities portfolio, the decrease is due to a rebalancing of investments towards Europe, reducing the US share, which is highly exposed to physical risks (score = 98).

13 Regulation EU 2020/852 on the establishment of a framework to facilitate sustainable investment.

14 Climate change mitigation; climate change adaptation; the sustainable use and protection of water and marine resources; the transition to a circular economy; pollution prevention and control; and the protection and restoration of biodiversity and ecosystems.

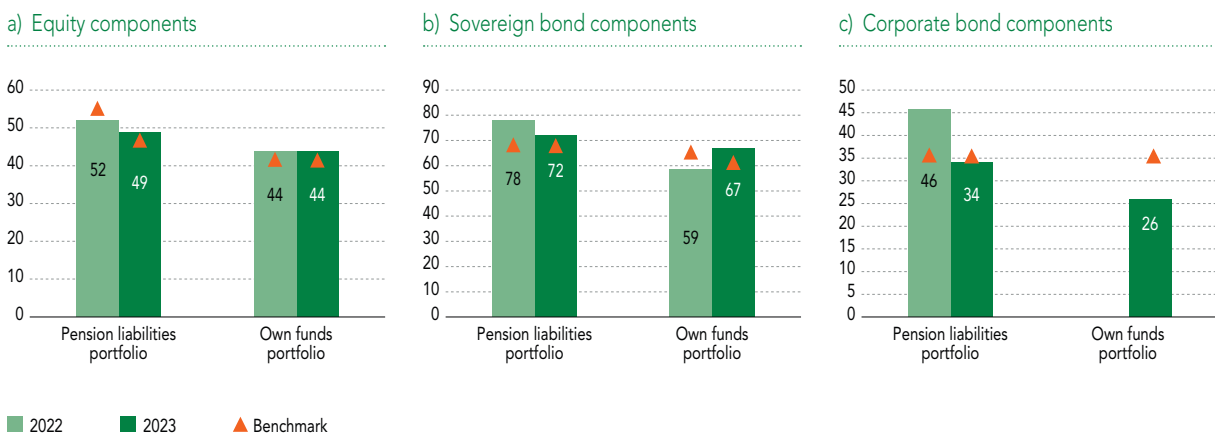
15 This indicator does not include green bonds or investments in thematic funds with an EET focus.

16 A European Commission delegated act adopted in March 2022 includes, under strict conditions, certain activities linked to the gas and nuclear sector in the list of activities covered by the European taxonomy.

17 Mark Carney added liability risks to this list in his 2015 speech, "Breaking the tragedy of the horizon – climate change and financial stability". This concept refers to future losses that could result from legal actions aimed at obtaining financial compensation for the effects of climate change.

C7 Portfolio exposure to physical risks at 31 December 2023

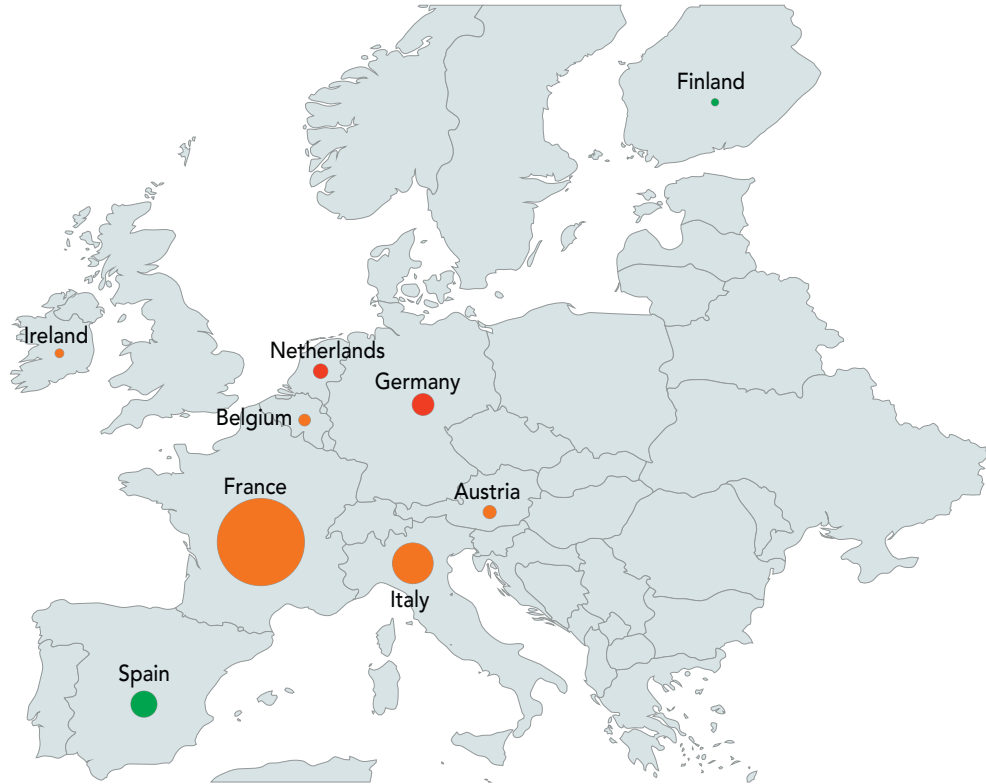
(physical risk score out of 100)



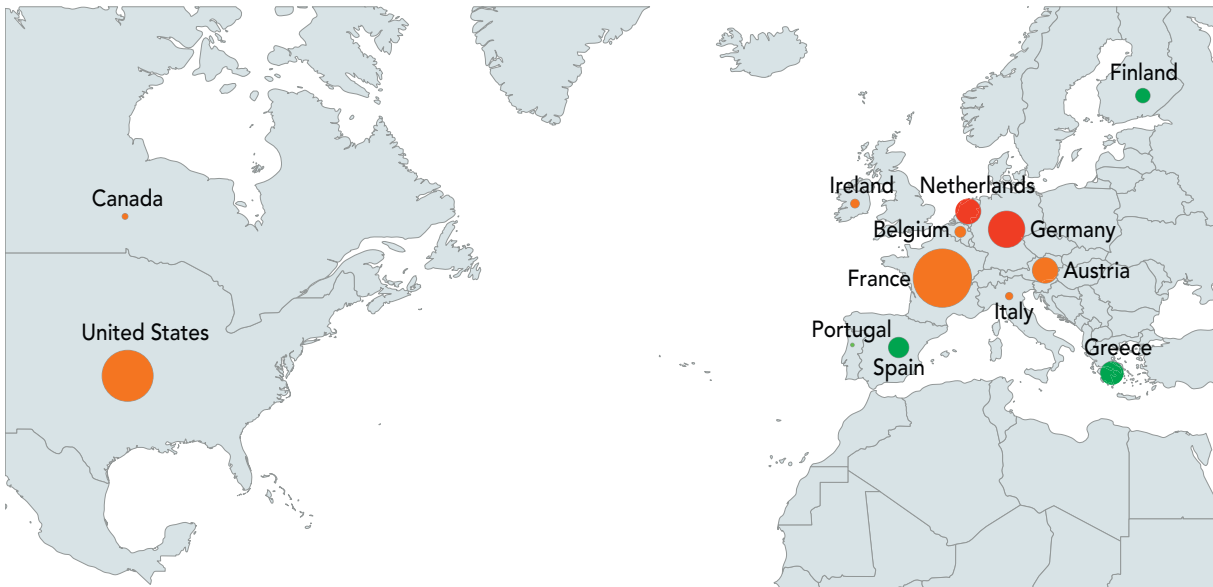
Source: Moody's ESG

C8 Exposure to the risk of flooding of portfolios' sovereign bond components at 31 December 2023

a) Exposure of the sovereign bond component of the own funds portfolio to the risk of flooding



b) Exposure of the sovereign bond component of the pension liabilities portfolio to the risk of flooding



Sources: Moody's ESG, Banque de France.

For these two sovereign bond portfolios, the most significant physical risk at the end of 2023 was that of floods (see Chart 8), followed by sea level rise (the main risk affecting the equity portfolio at the end of 2022).

For corporate bonds, physical risk exposure is down overall. In the pension liabilities portfolio, this is mainly due to the extension of investments in this component, which has therefore become more diversified. At the end of 2023, the score was in line (slightly lower) with the benchmark.

Lastly, the equity component scores are stable overall for the two portfolios, as are the scores of their benchmark indices.

To track transition risks, the Banque de France has chosen to monitor an indicator of exposure to fossil fuels, i.e. the extraction of fossil fuels or the production of electricity using fossil fuels. It thus measures its exposure to highly polluting assets that are likely to become stranded assets owing to the energy and ecological transition.¹⁸

Consequently, the Banque de France calculates the average share of portfolio company revenue that is linked to brown activities. This corresponds to the average share weighted by the percentage represented by each company of the component's total assets. **The average fossil fuel exposure of the equity component of the own funds portfolio was 0.51% of revenue**, compared with 0.33% for the benchmark¹⁹ (see Chart 9). This was almost stable compared with 2022's level of 0.45%. **The average fossil**

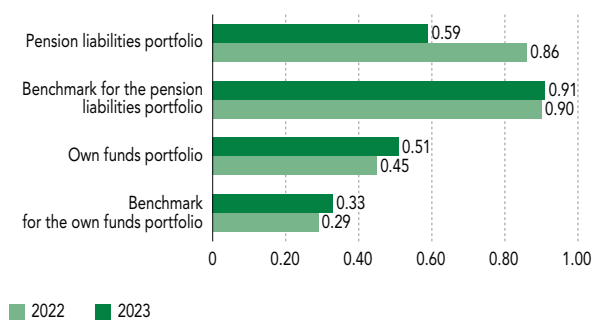
fuel exposure of the equity component of the pension liabilities portfolio was 0.59%, compared with 0.91% for the benchmark. This was down compared to 2022's level of 0.86%. The Banque de France is thus continuing to gradually implement its decisions to exit companies that are heavily involved in fossil fuels, while also moving ahead with the transfer of assets held in several index funds to vehicles that track the Paris-Aligned Benchmark.²⁰ The new fossil fuel exclusion rules that will come into effect at the end of 2024 will help to improve portfolio performances for this indicator.

BIODIVERSITY IMPACT

Accelerated biodiversity loss today poses a major risk to the integrity of natural ecosystems and the survival of human societies.²¹ While awareness of the impacts linked to climate change has increased considerably in recent years, even if efforts still fall well short of what is required, less attention has been paid to the dangers associated with what scientists are calling the "sixth mass extinction". Yet biodiversity loss has a direct impact on services that are critical to well-functioning societies. These "ecosystem services" include, for example, the provision of essential resources such as food, wood and water. They also play a crucial role in regulating the climate, purifying water, fertilising soil and pollination. The Banque de France is keenly aware of the critical challenges posed by a "silent spring", and thus looks to prioritise biodiversity issues, focusing on dependencies and risks for the financial system.²²

C9 Portfolio brown shares, equity components at 31 December 2023

(% of revenues of portfolio companies)



Source: S&P Global Sustainable1.

18 Other sectors, such as automotive or air transport, could see the value of their assets severely impacted by new regulations, changes in market conditions or technological breakthroughs. However, the Banque de France uses the brown share defined by its data provider S&P Global Sustainable1, which only includes companies involved in the extraction of fossil fuels (conventional or otherwise) or in the production of electricity using fossil fuels.

19 So-called "brown" activities include the extraction of crude oil, natural gas, oil sands, coal and lignite, oil drilling and related support activities, and the production of electricity from coal, oil or natural gas.

20 Note that changes to the benchmarks, which have been aligned with the Paris Agreement since 2023, have had a significant downward impact on the "brown" activities of these indices. The own funds portfolio is particularly concerned: the index decreased from 0.98% to 0.29%.

21 The Paris-Aligned Benchmark requires the exclusion of companies that derive over 1% of revenue from coal, 10% from oil and 50% from gas from their investment universe.

22 R. Svartzman, É. Espagne, J. Gauthey et al. (2021), "A 'silent spring' for the financial system? Exploring biodiversity-related financial risks in France", Working papers, No. 826, Banque de France, August.

There has been a proliferation of initiatives in recent years to raise awareness among decision-makers of biodiversity issues and to better understand interdependencies with the economy and the financial sector. The Fifteenth Meeting of the Conference of the Parties to the United Nations Convention on Biological Diversity (COP15), which was held in Montreal in December 2022, paved the way to reach an initial agreement on a global framework to preserve biodiversity. This framework will make it possible to establish initial quantitative targets for ecosystem protection and financing to support biodiversity.²³ While the agreement does not go as far as the bold climate goals set by the Paris Agreement, it is an important first step towards achieving a global commitment to ambitious, binding targets. The agreement also underlines the need to develop strengthened reporting arrangements for the private sector about its biodiversity impact. The publication in September 2023 of the recommendations of the Task Force on Nature-related Financial Disclosures (TNFD)²⁴ to create a harmonised framework for disclosing information on nature-related risks is an important step in this respect.

The Banque de France is determined to be part of these efforts to develop and formalise an impact reporting and measurement framework that can be subsequently used to help to set credible targets in these areas. As part of its responsible investment policy, the Banque de France has been publishing new indicators since 2023 to assess the biodiversity footprint of the portfolios to which its social and responsible investment (SRI) strategy applies. This exercise reflects the Banque de France's resolve to align itself with the requirements set out by the implementing decree for Article 29 of the Energy and Climate Act on the use of a biodiversity impact metric by financial sector participants. To this end, the Banque de France has teamed up with Iceberg Data Lab, a data provider, whose Corporate Biodiversity Footprint (CBF) methodology is being applied to the equity and corporate bond components of the Banque de France's own funds and pension liabilities portfolios. By recently rolling this methodology out to the sovereign universe, this year, for the first time, we are able to measure the impact of government bond portfolios.

Corporate Biodiversity Footprint (CBF) methodology

The CBF is based on a methodology that makes it possible to harness data on businesses' value chains and to model different environmental pressures due to inputs and outputs of the company's production process. To our knowledge, it is the most robust methodology currently available to estimate the impact of a company's activity on biodiversity, given that

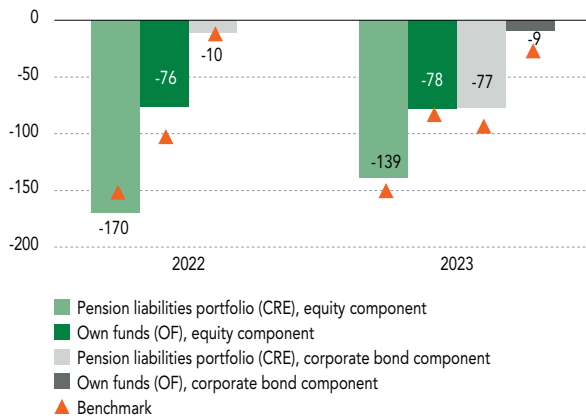
this impact is not directly observable and measurable. The CBF is used to quantify the impact of a company's activity in four different areas that have been identified as among the main environmental pressures:²⁵ land use, air pollution, water pollution and climate change. By aggregating these pressures and converting them²⁶ into a common measure of pressure on biodiversity, a negative impact expressed in MSA.km² (Mean Species Abundance/km²) is obtained. This result can then be used to convert the estimated negative impact on biodiversity into an equivalent metric that expresses total loss of species diversity over a given area. Thus, a company whose activity results in a CBF score of -1,000 MSA.km² is responsible for an annual impact equivalent to the complete loss of biodiversity over an area covering 1,000 km² of undisturbed ecosystem. In other words, the company's activity over the year was equivalent to the artificialisation²⁷ of 1,000 km² of originally pristine ecosystem. Rolling this methodology out to the sovereign universe transposes this approach by assessing the impact on the basis of gross domestic product (GDP) and the value chains associated with each sector of activity, thus taking into account the impacts linked to imports and exports of products consumed or sold outside a national territory.

To establish an aggregate measure of the biodiversity impact of its equity and bond portfolios, the Banque de France aimed to choose aggregation methodologies and metrics that were consistent with the carbon footprint indicators calculated for its portfolios. This report therefore presents three indicators: (i) total absolute biodiversity impact; (ii) biodiversity footprint; and (iii) weighted average biodiversity intensity. Following the same philosophy as that used for greenhouse gas emissions, the Corporate Biodiversity Footprint (CBF) metric can be divided into three scopes, covering the issuers direct impact (*Scope 1*), the impact linked to its energy consumption (*Scope 2*) and the impact linked to its upstream and downstream value chain (*Scope 3*). The CBF metric used here integrates the sum of the three scopes, enabling it to capture the key role played by value chains in companies' biodiversity impacts. The decision to include the three scopes creates an overestimation bias due to the potential for double counting within a portfolio containing several issuers from the same value chain (footprints counted twice, upstream and downstream). Finally, and again in keeping with the approach used for climate impact indicators, the biodiversity impact of a company (or sovereign issuer) is attributed to the portfolio on a proportional basis according to the share of the investment relative to the enterprise value (or GDP in purchasing power parity) for the absolute total biodiversity impact and biodiversity footprint indicators.²⁸

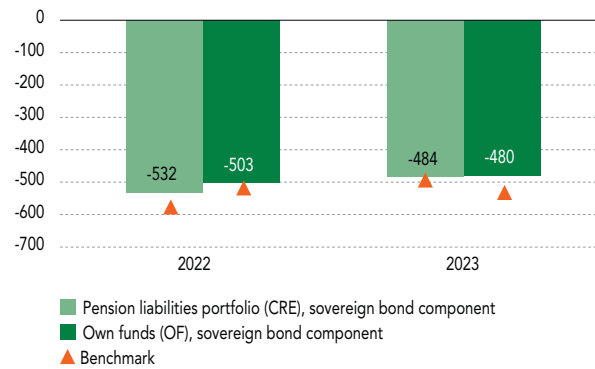
C10 Total absolute biodiversity impact

(MSA.km²)

a) Equity and corporate bond portfolios



b) Sovereign bond portfolio



Source: Iceberg Data Lab; Banque de France calculations.
 Note: MSA – Mean Species Abundance; CRE – Caisse de réserve des employés (Pension fund).

Portfolio total absolute biodiversity impact

$$\sum_{i=1}^n \frac{\text{Amount invested}_i}{\text{Company value}_i \text{ or GDP}_i} \times \text{CBF}_i$$

The portfolio’s total absolute biodiversity impact aggregates the total biodiversity footprint (CBF) that may be attributed to the Banque de France’s investments: it thus measures the negative biodiversity impact of portfolio companies in MSA.km². For all portfolios considered in 2023, the total absolute biodiversity impact is below the level of the benchmark index. The equities component of the pension liabilities portfolio in particular benefited from the reduction in its footprint per EUR million invested compared with 2022 (see below). It is also important to note the sharp increase in the absolute impact of the corporate bond component of the pension liabilities portfolio due to a volume effect linked to the increase in investments in this asset class in 2023.

Biodiversity footprint

$$\frac{\sum_{i=1}^n \frac{\text{Amount invested}_i}{\text{Company value}_i \text{ or GDP}_i} \times \text{CBF}_i}{\sum_{i=1}^n \text{Amount invested}_i}$$

The biodiversity footprint is a metric that compares the total absolute biodiversity impact to the total value of the portfolio. It expresses the biodiversity footprint generated per EUR million of value in the portfolio. It provides a way to draw comparisons between portfolios of different sizes. The biodiversity impact in relation to the volume of investments outperformed the benchmark indices for all the portfolios considered in 2023. The biodiversity footprint stabilised for the equity component of the own funds portfolios and the corporate bond component of the pension liabilities portfolios, while decreasing for

23 The most important targets for the 2020-30 period include protecting 30% of land, oceans and coastal areas, halving the risks associated with pesticides and hazardous chemicals, reducing biodiversity-damaging subsidies by at least USD 500 billion and mobilising USD 30 billion for developing countries.

24 https://tnfd.global/wp-content/uploads/2023/08/Recommendations_of_the_Taskforce_on_Nature-related_Financial_Disclosures_September_2023.pdf

25 These four pressures are among the five factors identified by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

(IPBES) as being drivers of environmental pressures. The five factors are changing use of sea and land, direct exploitation of organisms, climate change, pollution and invasive non-native species.

26 The conversion is performed using the Globio model: <https://www.globio.info/>. Globio’s goal is to model the impacts of human activity on biodiversity and ecosystems.

27 The artificialisation of land refers to the loss of its natural qualities.

28 By construction, the weighted average biodiversity intensity indicator does not apply an allocation factor.

the other portfolios compared to 2022. The impact per EUR million invested was two to three times greater for sovereign portfolios, mainly due to the construction of the indicator, which uses gross domestic product to calculate the attribution factor.²⁹

Weighted average biodiversity intensity

$$\sum_{i=1}^n Weight_i \times \frac{CBF_i}{Capital\ employed_i\ or\ GDP_i}$$

Weighted average biodiversity intensity weights the intensity of issuers’ biodiversity impacts (CBF divided by capital employed³⁰ by the company or GDP³¹ according to their share of the portfolio. This indicator thus provides a measure of the portfolios’ exposure to companies with a high biodiversity impact relative to the capital that they employ. Once again, all the portfolios outperformed their benchmark for 2023, with a weighted average of biodiversity intensity down overall on 2022. The exception was the equity component of the own funds portfolio, which reported a slight increase.

Furthermore, and in order to better understand the source of the biodiversity impact of its portfolios, the Banque de France presents a metric showing the contribution from each of the three CBF scopes and from each of the four environmental pressures to its biodiversity footprint indicator. Scope 3 (90% of the score), and especially Scope 3 upstream (56%), accounts for a large share of the footprint, while land use is the main environmental pressure driving the Banque de France’s biodiversity impact (67%).

29 Gross domestic product is the sum of the value added generated by a country’s various industries. For a given company, its enterprise value is generally significantly higher than the value added it generates. As a result, the sovereign portfolio methodology tends to generate greater impacts per EUR million invested.

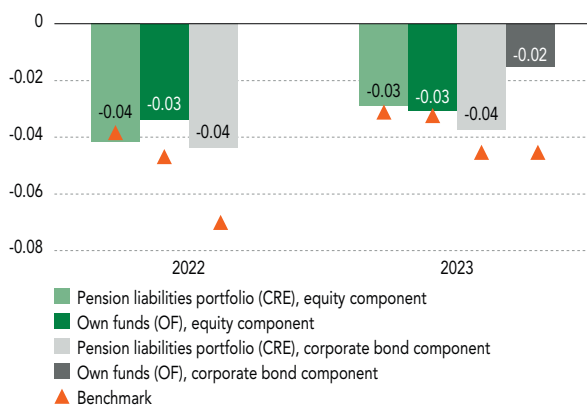
30 Capital employed = total fixed assets + working capital.

31 In the sovereign universe, the weighted average biodiversity intensity indicator is by construction the same as the biodiversity footprint indicator.

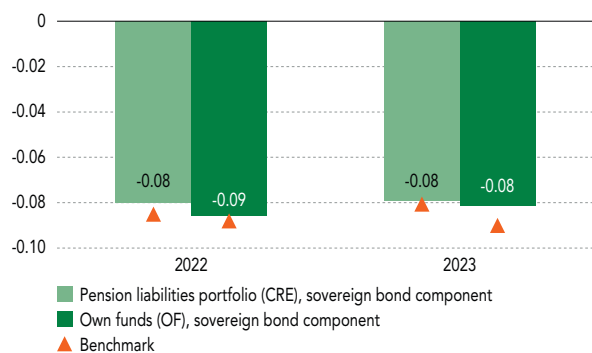
C11 Biodiversity footprint

(MSA.km²/EURm invested)

a) Equity and corporate bond portfolios



b) Sovereign bond portfolio



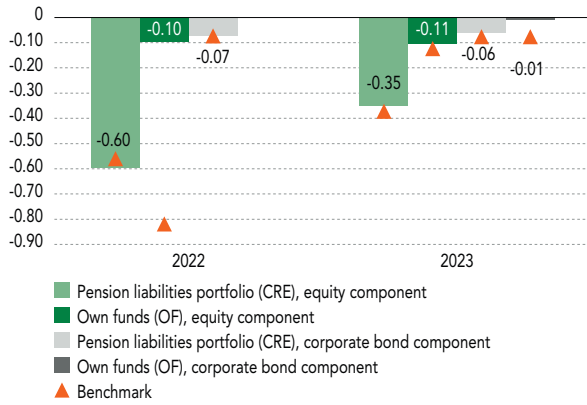
Source: Iceberg Data Lab; Banque de France calculations.

Notes: Labels show rounded figures, which explains any differences in the levels of the histogram bars that may display the same value. MSA – Mean Species Abundance; CRE – Caisse de réserve des employés (Pension fund).

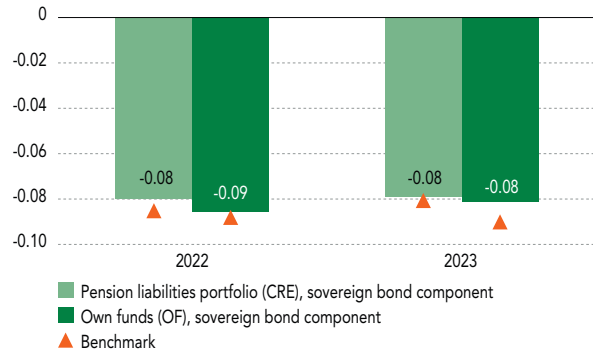
C12 Weighted average biodiversity intensity

(MSA.km²/EURm of capital employed)

a) Equity and corporate bond portfolios



b) Sovereign bond portfolio



Source: Iceberg Data Lab; Banque de France calculations.

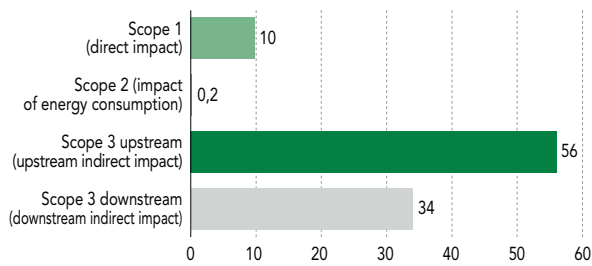
Notes: Labels show rounded figures, which can explain any differences in the levels of the histogram bars that may display the same value.

MSA – Mean Species Abundance; CRE – Caisse de réserve des employés (Pension fund).

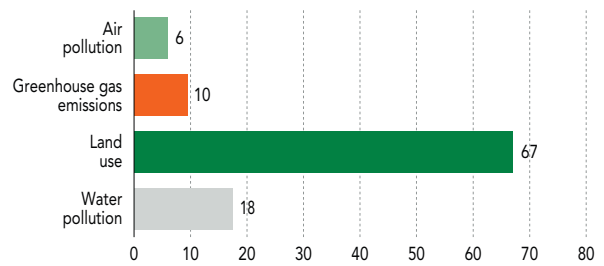
C13 Contributions to the biodiversity footprint across all equity and bond portfolios at end-2023

(% of total footprint in MSA.km²/EURm of capital employed)

a) By scope



b) By environmental pressure



Source: Iceberg Data Lab; Banque de France calculations.

Note: MSA – Mean Species Abundance.

FIND OUT MORE...

9 CALCULATING THE CARBON FOOTPRINT AND CARBON INTENSITY

Weighted average carbon intensity	$= \sum_n^i \left(\frac{\text{Amount invested}_i}{\text{Total value of portfolio}} \right) \times \left(\frac{\text{Carbon emissions}_i}{\text{Revenue or GDP, population, consumer spending}_i} \right)$
Total carbon emissions	$= \sum_n^i \left(\frac{\text{Amount invested}_i}{\text{Company value or GDP}_i} \times \text{Carbon emissions}_i \right)$
Capital carbon footprint	$= \frac{\sum_n^i \left(\frac{\text{Amount invested}_i}{\text{Company value or GDP}_i} \right) \times \text{Carbon emissions}_i}{\text{Total value of portfolio}}$
Carbon intensity per unit of revenue or GDP	$= \frac{\sum_n^i \left(\frac{\text{Amount invested}_i}{\text{Company value or GDP}_i} \times \text{Carbon emissions}_i \right)}{\sum_n^i \left(\frac{\text{Amount invested}_i}{\text{Company value or GDP}_i} \times \text{Revenue or GDP, population, consumer spending}_i \right)}$

10 GREEN BONDS AND CARBON IMPACT

The carbon impact of portfolio companies and states is calculated at the level of the companies and states themselves, and not at the level of the securities that they issue, including in the case of green bonds. Accordingly, when an investor buys green bonds, that investment does not cause the carbon impact of a portfolio to go up by less than purchasing conventional bonds would. But in the medium and long term, assuming like-for-like activities, green bonds may help to lower the carbon impact of issuers, as long as they finance investments that help to reduce the carbon emissions linked to the activities of the company or state. In practice, to date we have seen no correlation between green bond issuance and a decline in the carbon intensity of companies issuing these bonds.¹

The green bonds purchased by the Banque de France are almost exclusively sovereign or quasi sovereign bonds. Market standards have been developed to provide a framework for green bond issuance. From a regulatory point of view, EU regulation 2023/2631 on green bonds (the European green bond standard) was adopted on 22 November 2023 and will come into force in December 2024. It includes strict oversight of the use of funds, confirmed by a third-party certifier.

¹ T. Ehlers, B. Mojon and F. Packer (2020), "Green bonds and carbon emissions: exploring the case for a rating system at the firm level", *Quarterly Review*, Bank for International Settlements, September.

11 THE BANQUE DE FRANCE RANKED FIRST AMONG G20 CENTRAL BANKS FOR ITS CLIMATE ACTION

The Banque de France topped the Green Central Banking Scorecard published in November 2022. The ranking, which is drawn up by a group of 21 international non-governmental organisations (NGOs), identifies the G20 central banks that are doing the most in terms of climate action.¹ France took the top spot thanks to its goal of aligning its equity components with a 1.5°C trajectory and its exclusion policy for the fossil fuels sector. The Scorecard is currently being updated and will be published in 2024 by the organisation, Positive Money.

¹ <https://greencentralbanking.com/scorecard/>

2022 ranking of central banks for their climate action

Rank	Country	Aggregate score	Grade (A+ to F)	Research and advocacy (out of 10)	Monetary policy (out of 50)	Financial policy (out of 50)	Leading by example (out of 20)
1	France	70	B-	10	12	31	17
2	Italy	61	C+	10	12	31	8
3	Germany	60	C+	10	12	30	8
4	European Union	58	C	10	12	28	8
5	United Kingdom	56	C	10	10	27	9
6=	Brazil	53	C	10	18	18	7
6=	China	53	C	10	12	31	0
8	Japan	35	D+	10	6	14	5
9	Indonesia	30	D+	10	1	14	5
10	Canada	28	D	10	2	14	2
11	Mexico	23	D	10	4	4	5
12	India	21	D	10	0	10	1
13	South Korea	19	D-	10	1	6	2
14	Russia	18	D-	8	0	8	2
15	Australia	17	D-	10	0	4	3
16	United States	16	D-	10	0	6	0
17	Turkey	14	D-	10	0	2	2
18	South Africa	13	D-	10	0	2	1
19	Argentina	6	F	6	0	0	0
20	Saudi Arabia	0	F	0	0	0	0

Source: Positive Money (*Green Central Banking scorecard 2022*).

Note: Scorecard drawn up in 2022 by a group of 21 non-governmental organisations.

⑫ SCOPES 1, 2 AND 3 OF GREENHOUSE GAS EMISSIONS

The 2001 Greenhouse Gas (GHG) Protocol on measuring company GHG emissions distinguishes between three levels or “scopes” of emissions.

- Scope 1 corresponds to a company’s direct emissions from sources that are owned or controlled by the firm, such as GHG emitted by vehicles owned by the company.
- Scope 2 corresponds to indirect emissions linked to the consumption of energy provided by other companies, such as GHG emitted during the generation of electricity consumed by the company.
- Scope 3 corresponds to indirect emissions linked to the upstream (supplier emissions) and downstream (emissions linked to the use of goods sold) portions of the company’s value chain: for example, in the case of an auto manufacturer, this would include GHG emitted not only by suppliers but also by the vehicles produced and sold by the company.

⑬ GREEN OATS - FRENCH GREEN TREASURY BONDS

Since 2017, the French state has issued sovereign bonds that are earmarked for financing green government expenditures. The framework document of 10 January 2017 covering the issuance of green OATs by *Agence France Trésor* (AFT) set four objectives for these securities: mitigating climate risk, adapting to climate change, protecting biodiversity and reducing air, soil and water pollution. Accordingly, green OATs finance “eligible green expenditures” in the budgets of different ministries. A second-party opinion, provided by Moody’s ESG, has been obtained to determine whether a green OAT qualifies as responsible.

PILLAR 2

→ ENVIRONMENTAL, SOCIAL AND GOVERNANCE CRITERIA

Under Pillar 2 of its strategy, the Banque de France is committed to including environmental, social and governance (ESG) criteria in its asset management.

At the upstream stage of its investments, until 2023 the Banque de France excluded at least 20% of its corporate universe based on ESG criteria. From 2024, this threshold will be raised to 30% to bring it into line with the new requirements of the French SRI label. The exclusion policy was also strengthened in 2023 with the raising of the thresholds for fossil fuels (*see Pillar 1, "Climate"*), and the total exclusion of investments in tobacco. At the downstream stage of its investments, the Banque de France pursues its transparency approach by presenting a series of Pillar 2 indicators each year on the ESG performance of its portfolios. And since 2021, the integration of ESG issues has also led to impact investing through thematic funds and social bonds.

ESG FILTER

Historically, to integrate ESG criteria in its asset management, the Banque de France chose to apply one of the requirements of the Socially Responsible Investment (SRI) label supported by the French Ministry for the Economy and Finance (see Focus 5 above). In practice, this choice meant reducing its corporate investment universe (equities and bonds) by at least 20%, by excluding the worst-performing companies on the basis of ESG criteria and scores. The reform of the SRI label, which was launched in April and finalised in December 2023, led to this exclusion threshold being raised to 30% of the investment universe. The Banque de France committed to matching the label's ambition by increasing its ESG exclusion criterion to 30% from 2024. By complying with the label's requirements, the Banque de France is ensuring that ESG factors have a real impact on its asset management, in line with current responsible investment standards.

The ESG filter is constructed using three types of exclusions: norm-based, sector-based and ESG score-based.

First, **norm-based exclusions** featured in the 2018 Responsible Investment (RI) Charter, which was updated in 2022. They cover the entire investment universe, and not just the equity components. The Banque de France does not invest in:

- controversial weapons, i.e. companies involved in the production, use, storage, sale and transfer of anti-personnel mines and cluster bombs, which are banned under the Ottawa Convention (1999) and the Oslo Convention (2010);
- companies and states that do not comply with anti-money laundering and counter-terrorist financing (AML/CTF) regulations, states under embargoes, non-cooperative states and regions with regard to tax information exchange according to the Financial Action Task Force (FATF), and companies involved in AML/CTF controversies;
- companies that do not comply with the principles of the International Labour Organization, including respect for freedom of association and the right to collective bargaining, and the elimination of forced labour, child labour and employment discrimination.

Second, **sector-based exclusions** concern fossil fuels – both conventional and unconventional – (see Pillar 1, "Climate", for further details) and tobacco, which was included in the expanded scope of exclusions in 2022. To implement

these exclusions, the Banque de France relies on data provided by S&P Global Sustainable¹ and Moody's ESG and on data available to its asset management subsidiary, BDF Gestion.

To achieve the 20% threshold – and the 30% threshold as of 2024 –, the Banque de France supplements its norm-based and sector-based exclusions by **applying a best-in-class approach to exclude companies with the lowest ESG scores on a sector-by-sector basis**. This is a composite score prepared by Moody's ESG for each company based on 330 underlying indicators. Environmental indicators cover, for example, the existence of an environmental strategy, prevention of risks of harm to biodiversity, or pollution control. Social indicators consider, among others, occupational health and safety, the absence of discrimination, and employee training. Governance indicators cover areas such as the prevention of conflicts of interest or executive remuneration arrangements. The scores for each of the criteria are then weighted according to sector of activity so that the final score reflects the company's management of its most material risks. For example, the criterion covering the establishment of an environmental strategy accounts for a larger share of the final score for a company in the energy sector than for a company involved in personal services.

ESG SCORES

In addition to selecting securities based on ESG scores calculated by Moody's ESG, the Banque de France monitors the average ESG score for each portfolio, by asset class. For companies, the ESG score is calculated using the methodology described above. For states, the ESG score is based on 172 underlying ESG indicators divided into three areas: (i) environmental protection; (ii) social protection and solidarity; and (iii) governance responsibility (including ratification of international conventions, press freedom and tax cooperation). Issuers' individual scores are then aggregated (average weighted by total assets) to arrive at the portfolios' average score.

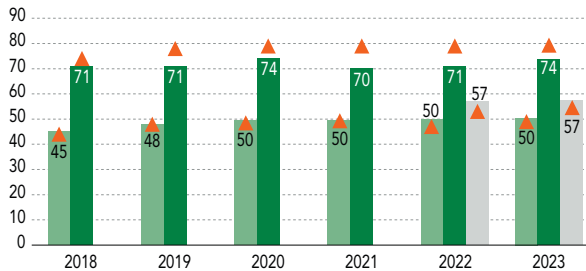
In 2023, **the ESG scores of the equity components of the own funds and pension liabilities portfolios were stable**. Performances remained above benchmark, even though these indices have incorporated a significant ESG dimension since 2022 (see Focus 6 above).

The **corporate bonds component of the two portfolios also reported a solid ESG score (>50)**, remaining stable and exceeding their benchmark.

C1 Portfolio average ESG scores

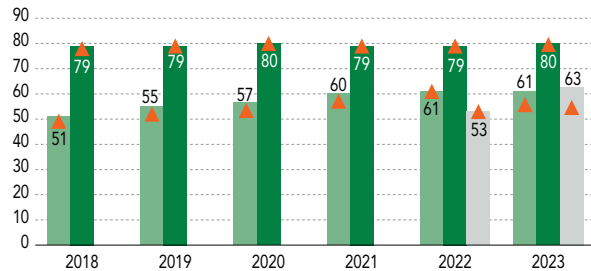
(score out of 100)

a) Pension liabilities portfolio



Equities Sovereign bonds Corporate bonds Benchmark

b) Own funds portfolio



Source: Moody's ESG.

Note: ESG scores range from 0 to 100. ESG refers to environmental, social and governance criteria.

The sovereign bond components have posted an advanced and stable performance since 2021.

For the own funds portfolio, the score is below benchmark (79) but up year-on-year (74 compared with 71 in 2022).

SOCIAL INDICATORS

The Banque de France is progressively strengthening the social aspect of its responsible investment strategy. To do so, it uses four indicators to track the social performance of its equity and corporate bond portfolios:

- Occupational health and safety score.** This indicator concerns the working environment of people employed by portfolio companies and includes factors such as a safe working environment, safe working conditions, protection of employees' physical and mental wellbeing, and workplace accident frequency and severity;
- Non-discrimination score.** This indicator assesses the way in which the company prevents discrimination in the workplace, including through training and awareness raising, whistleblowing and/or reporting procedures, monitoring of wage gaps, the percentage of women in management positions, inclusion of people with disabilities, and so on;
- Score for the societal impact of goods and services produced.** This indicator reflects the measures taken by

companies to prevent and/or mitigate the risks linked to harmful products (e.g. by cutting sugar or saturated fats in the agrifood sector) or facilitate access for vulnerable or disadvantaged people to beneficial products (e.g. by providing affordable products or distribution channels for isolated people);

- Score for the companies' contribution to the economic and social development of the regions in which they operate.** This indicator reflects the investments made by companies in their local areas, job creation and management of restructuring measures within local labour catchment areas, skills and technology transfers, and proper payment of taxes and levies.

At 31 December 2023, for all portfolios and asset classes, the various sub-scores were all greater than or equal to those of the benchmark indices.

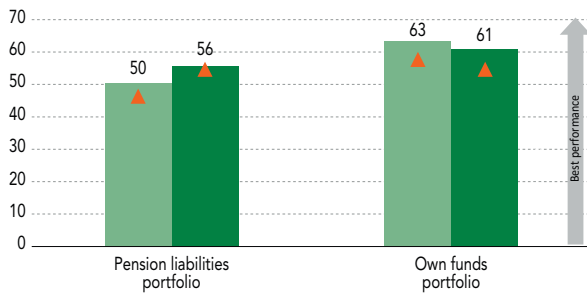
For all components, the "non-discrimination" sub-score was the highest, exceeding 66 for the pension liabilities portfolios and 71 for the own funds portfolios.

Generally speaking, the social performance of the portfolios was assessed as robust (>50) or advanced (>60) across all indicators with the exception of the societal impact and economic and social development scores of the equity component of the pension liabilities portfolio. This underperformance is chiefly attributable to the geographical diversification of this component in 2022 into companies operating in Asia and emerging countries.

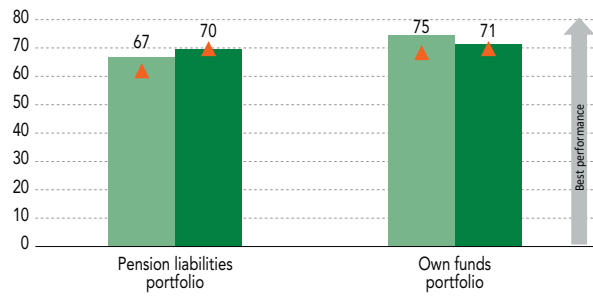
C2 Portfolio social scores, equity and corporate bond components at 31 December 2023

(score out of 100)

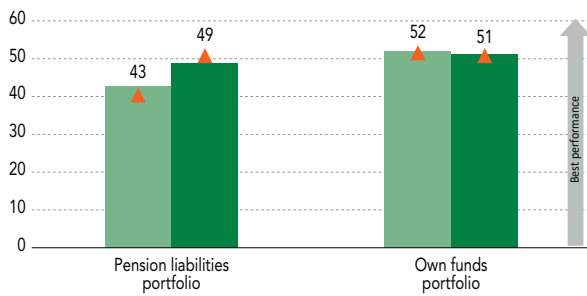
a) Occupational health and safety score



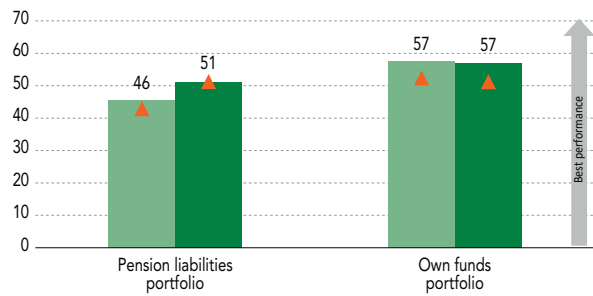
b) Non-discrimination score



c) Societal impact score



d) Regional economic and social development score



■ Equities ■ Corporate bonds ▲ Benchmark

Sources: Moody's ESG, Banque de France.

Note: Labels show rounded figures, which can explain any differences in the levels of the histogram bars that may display the same value.

However, the scores for these two indicators remain above benchmark.

IMPACT INVESTING

To strengthen the social aspect of its responsible investment strategy, the Banque de France has also diversified the thematics covered by its impact investments. Accordingly, since 2021 it has expanded its purchases of green bonds to include social and sustainability bonds.¹ At 31 December 2023, the total amount of social and sustainability bonds in the portfolio stood at EUR 1.4 billion.²

The Banque de France also supports the growth of thematic funds whose investment thesis includes achieving a significant social and societal impact as well as fighting global warming. Here again, it prioritises labelled funds

and, at the end of 2023, added Finansol to the labels taken into account when analysing fund eligibility and risk. For example, the Banque de France has subscribed to a fund that finances affordable housing initiatives, and invests in a fund that supports companies from the social and solidarity sector operating in the following areas: assisted housing, employment, health, education and training, preservation of natural resources and international solidarity.

¹ Sustainability bonds may finance green and/or social activities.

² Including own funds and pension liabilities portfolios and euro and foreign currency denominated portfolios held against the monetary base.

PILLAR 3

→ **VOTING POLICY**

In order to fulfil its role as a responsible shareholder, the Banque de France exercises its voting rights by applying a tailor-made policy, encouraging better recognition of issues related to environmental, social and governance (ESG) risks by the companies in which it invests. It is particularly through this driver that the Banque de France intends to act on the “governance” dimension of ESG, by setting requirements for corporate best practice. The Banque de France has set itself the goal of exercising its voting rights to the full at the general meetings of companies in which it is a shareholder.

THE BANQUE DE FRANCE'S VOTING POLICY

In 2019 Banque de France adopted a voting policy including provisions covering good governance and recognition of extra-financial objectives for the companies represented in its portfolios. These provisions deal, among other things, with transparency and gender balance in decision-making bodies, transparency about companies' environmental impact, and the recognition of extra-financial performances in executive remuneration. The Banque de France thus uses the exercise of its voting rights as a concrete means of leverage to encourage issuers to change their practices on ESG issues in the long term. The Banque de France's voting policy, which is available to the public on its website,¹ details the expectations demanded of companies in which it is a shareholder.

In 2020, the Banque de France bolstered its extra-financial requirements by adding provisions on fossil fuels to its voting policy. By the time it excludes coal and unconventional hydrocarbons completely at the end of 2024, the Banque de France expects the companies involved in this sector to **have a full exit plan**. In 2023, the voting policy was stepped up to include full **opposition to any new fossil fuel extraction projects**. These provisions therefore prevent the Banque de France from approving the financial statements of companies that do not meet these two requirements.

Furthermore, while the remuneration of some senior executives has reached unprecedented levels across several industries, the Banque de France decided to adopt new provisions to **limit excessive remuneration awards**² as of the 2023 general meetings cycle. In addition to the cap on variable remuneration already in place, the Banque de France now opposes proposals relating to the fixed portion of remuneration if it deviates excessively from the median observed for comparable companies.

The Banque de France's expectations can be summed up by the following principles, which are organised according to the types of resolutions proposed to shareholders.

- **Approval of financial statements and management: integrity of management and financial and extra-financial information.** The Banque de France expects companies to publish extra-financial disclosures on their climate strategy, especially in sectors with a major environmental impact (energy, transportation, building and construction, agriculture, food products and forestry products);
- **Profit distribution, management of own funds and capital transactions: a distribution policy geared**

towards long-term investment. For example, the Banque de France is in favour of paying bonus dividends as long as they reward long-term shareholder loyalty. It also ensures that share buyback programmes remain exceptional and are not given priority over investment projects;

- **Board of directors or supervisory board: independence of the board, diversity and separation of powers.** In particular, the Banque de France pays close consideration to the diversity of the composition of the Board of Directors and its gender balance (at least 40% for each). Also, in addition to the usual committees (audit committee, appointments committee and remuneration committee), it recommends the creation of a committee dedicated to social and environmental issues;
- **Executive remuneration and employee share ownership: transparency, consistency and moderation.** In 2023, the Banque de France applied for the first time its reinforced requirements in favour of fair, equitable and non-excessive remuneration for executives, in particular by requiring that the fixed portion should not deviate too far from the median observed for comparable companies. The payment of variable remuneration to executives must also take into account the extra-financial performance of companies, particularly in terms of their sustainable development strategy. The Banque de France is also in favour of employee share ownership;
- **Amendments of company articles and shareholder rights: respecting shareholder rights.** For example, the Banque de France opposes head office transfers to legal and tax havens;
- **External resolutions:³ improving environmental, social and governance practices.** The Banque de France particularly supports external resolutions aimed at reducing the carbon intensity of activities and minimising the risks associated with climate change.

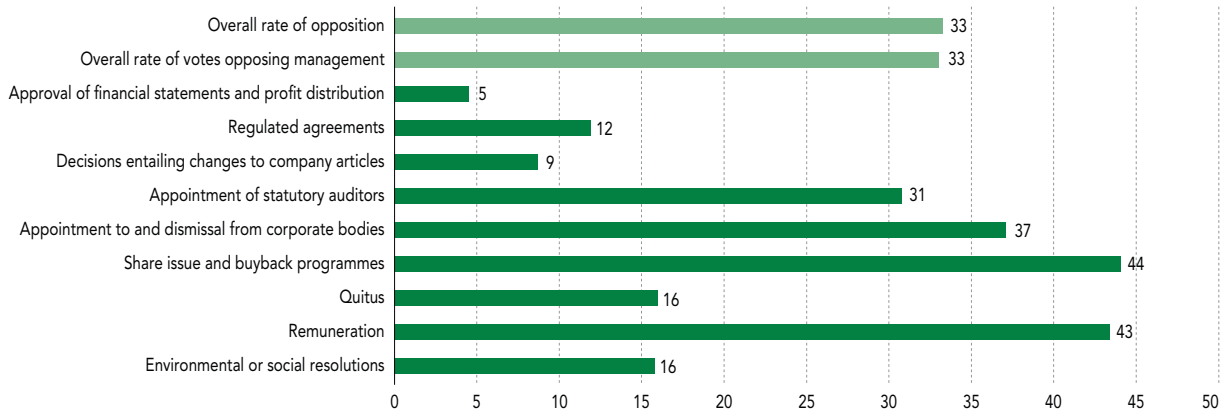
¹ The Banque de France's voting policy is available at: <https://acpr.banque-france.fr/sites/>

² These provisions do not apply to the financial sector because of the ACPR's specific status as a financial supervisor.

³ Resolutions tabled by the shareholders themselves. In recent years, the climate has been a favoured theme of external resolutions.

Rate of opposition by resolution type in 2023

(%)



Source: BDF-Gestion.

The Banque de France applied this voting policy for the first time during the general meetings that took place in 2020 with regard to the 2019 financial year. In 2020, the voting policy of BDF Gestion, the asset management subsidiary, was aligned with that of the Banque de France.

Given its role as a supervisor and a guarantor of financial stability, the Banque de France refrains from directly owning equity in the companies that it supervises – banks or insurance undertakings – in order to avoid any risk of conflict of interest.

For external funds (18.4% of total equity component assets), the voting policy of the management companies concerned applies.

VOTING STATISTICS IN 2023

In 2023, the Banque de France and BDF Gestion took part in 788 general meetings, giving an attendance rate of 94% for the funds managed by the asset management subsidiary, BDF Gestion, well above the target of 80%. Votes were cast on almost 11,000 resolutions. Of these, about 3,400 were votes against resolutions (a 31% rate of opposition, stable compared with 2022 and up sharply on the 25% recorded in 2021). The rate of opposition (see *Chart supra*) was particularly high for share issue and buyback programmes (44%), executive remuneration resolutions (43%) and appointments to corporate bodies (37%). In all, the percentage of votes cast against company management was 33%.⁴

⁴ The rate of opposition to management takes account of votes against resolutions submitted by management and votes in favour of external resolutions tabled by shareholders.

APPENDIX

Extracts from the responsible investment metrics certification report

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Tour Exaltis
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92400 Courbevoie

VERIFICATION OF SELECTED INFORMATION

Dear Sir or Madam,

In our capacity as Statutory Auditor, and in response to your request, we have undertaken a limited assurance engagement on a selection of social and environmental information (hereinafter the "Information") selected by the Banque de France (hereinafter the "Entity"), prepared in accordance with the Entity's procedures described on pages 44 and 45 of the report (hereinafter the "Reporting Criteria") and identified by the sign ✓ in the Report for the year ended 31 December 2023 (hereinafter the "Report").

The conclusion expressed below relate solely to the Information and not to all the information presented.

Conclusion

Based on the procedures we performed, as described under the "Nature and scope of procedures" paragraph, and on the evidence we obtained, nothing has come to our attention that causes us to believe that the Information selected by the entity and identified by the symbol ✓ in the Report, taken as a whole, is not presented fairly in accordance with the Reporting Criteria, in all material respects.

Preparation of the Information

The absence of a commonly used and generally accepted reporting framework or of a significant body of established practices on which to draw to assess and measure the Information allows for different, but acceptable, measurement techniques that can affect comparability between entities and over time.

Consequently, the Information needs to be read and understood together with the Guidelines, summarized in the Report.

Responsibility of the entity

Management of the entity is responsible for:

- selecting or establishing suitable criteria for preparing the Information,
- preparing the Information by applying the entity's aforementioned Reporting Criteria, and
- designing, implementing, and maintaining internal control over information relevant to the preparation of the Information that is free from material misstatement, whether due to fraud or error.

The Information has been prepared under the responsibility of the Financial Director.

Responsibility of the Statutory Auditor

Based on our work, our responsibility is to provide a report expressing a limited assurance conclusion on the fair presentation of the Information, in all material respects, in accordance with reporting criteria.

.../...

As we are engaged to form an independent conclusion on the Information as prepared by management, we are not permitted to be involved in the preparation of the Information as doing so may compromise our independence.

Applicable professional guidance

We performed our limited assurance engagement in accordance with the professional guidance issued by the French Institute of statutory auditors (Compagnie nationale des commissaires aux comptes "CNCC") applicable to such engagement and the international standard ISAE 3000 (revised).

Our independence and quality control

Our independence is defined by the provisions of Article L. 821-28 of the French Commercial Code and the French Code of Ethics for Statutory Auditors (Code de déontologie) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures aimed at ensuring compliance with applicable legal and regulatory requirements, ethical requirements and the professional guidance issued by the French Institute of Statutory Auditors (Compagnie Nationale des Commissaires aux Comptes) relating to this engagement.

Means and resources

Our work engaged the skills of 4 people between March and May 2024.

We were assisted in our work by our specialists in sustainable development and corporate social responsibility.

Nature and scope of procedures

As part of the Entity's proactive approach, you asked us to provide a moderate level of assurance in respect of the CSR Information listed below:

- Alignment of own funds and pension liabilities portfolios with a 1.5°C trajectory;
- 4 climate impact indicators standardised with Eurosystem central banks (WACI, carbon footprint and carbon intensity in tCO₂eq/EUR million, total emissions in tCO₂eq) for the own funds portfolio, pension liabilities portfolio and the other own funds portfolios denominated in euros and foreign currency and held against the monetary base;
- The share of green bonds held in bond portfolios.

We planned and performed our work by focusing on the risks of material misstatement of the information.

We believe that the procedures we have performed, while exercising our professional judgement, enable us to provide a moderate level of assurance.

- We have studied the context of the Banque de France's operations and the framework in which these indicators are published;
- We have assessed the appropriateness of the Reporting Criteria in terms of relevance, completeness, reliability, neutrality and understandability, taking into account, where appropriate, best practices in the sector;
- We have studied the procedures set up by the Banque de France to produce the Information and assessed the collection process designed to ensure the compliance of the Information.

For the climate impact indicators (WACI, carbon footprint and carbon intensity in tCO₂eq/EUR million, total emissions in tCO₂eq) and share of green bonds in bond portfolios:

- We performed analytical procedures to verify that the data collected was correctly consolidated;
- We performed detailed tests using sampling or other means of selection, consisting of verifying the correct application of the definitions and procedures and reconciling the data with the supporting documents.

Regarding the alignment of own funds and pension liabilities portfolios with a 1.5°C trajectory:

- We performed analytical procedures to verify the data collected subject to a 1.5°C trajectory analysis;

.../...

- We compiled and reviewed the methodological notes and the analyses produced detailing the results of their analysis for each line of portfolios from the service provider S&P Global Sustainable. We then conducted interviews to ensure the consistency of the methodology used to analyse the 1.5°C trajectory alignment.

The procedures performed in a moderate assurance review are less in extent than for a reasonable assurance opinion in accordance with the professional guidance of the French Institute of Statutory Auditors (Compagnie Nationale des Commissaires aux Comptes), a higher level of assurance would have required us to carry out more extensive procedures.

This report concerns only the information specified in Section 1.2 above and not the Entity's Responsible Investment Report taken as a whole. Any reproduction of the Statutory Auditors' report in any of the Entity's documents must be exhaustive and strictly reproduce the content of said report, including any footnotes and appendices.

Paris la Défense, June 10, 2024

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