



BANQUE DE FRANCE

EUROSYSTEME

Responsible
Investment
Report
2021

The Governor's foreword

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The Banque de France has built and developed its responsible investment strategy around the critical goal of fighting climate change. The COP26 Climate Change Conference in November 2021 provided an opportunity for the Bank to reaffirm its climate-related commitments in terms of monetary policy and financial stability, and to add a new carbon neutrality goal for the institution. In terms of responsible investment, in 2021, for the first time – and a year ahead of schedule – the Banque de France aligned its pension liabilities investment portfolio with a 2°C temperature trajectory. Keeping up the commitment to fight global warming, the Bank will progressively lower this trajectory to 1.5°C for its own funds and pension liabilities portfolios. Further, by late 2022, the Banque de France will begin publishing a climate report covering the entire span of its activities, in keeping with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

On a broader note, the commitments made by central banks reflect a growing awareness about climate challenges, and while they cannot be the main driver of change, central banks are now fully engaged in tackling these issues. The European Central Bank (ECB), for example, incorporated climate considerations into its monetary policy strategy review, which led to the approval of an ambitious action plan by the Governing Council in July 2021. Actions contained in the plan include modelling of the effects of climate change on prices and growth, enhanced climate transparency by counterparties with regard to collateral and securities purchase programmes, and climate stress tests for the Eurosystem balance sheet. In February 2021, Eurosystem central banks also pledged to implement a climate change-related responsible investment approach in euro-denominated non-monetary policy portfolios by 2023, and to report on the results. This commitment was expanded in summer 2021 to corporate sector purchase programmes (CSPPs).

But Eurosystem central banks are not the only ones joining the movement. Illustrating this, the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) continues to grow and now boasts more than 100 members. The Banque de France, which spearheaded the initiative to set up this network in 2017 and acts as its permanent secretariat, plays a frontline role in the NGFS. This reflects our conviction that contributing to the effort to assess, mitigate and manage the impact of climate-related risks on the real economy and the financial system is now part and parcel of the mission entrusted to central banks under their monetary strategy and financial stability mandates.

Integrating the fight against climate change as we execute our missions and manage our investments will remain a core priority for us in the coming years and we shall remain steadfast and determined. However, the Banque de France's responsible investment strategy needs to be expanded and enriched to incorporate other critical themes in order for us to be as comprehensive and consistent as possible in our approach. In the first Report on Biodiversity and Climate Change published in June 2021, scientists from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) stressed the importance of the connections between climate and biodiversity. Given that global warming is a major contributing factor not just in the damage being done to ecosystems but also in declining biodiversity, many positive synergies could be unlocked if these challenges were addressed in a complementary manner. Conversely, taking a silo approach to these issues could support climate change adaptation solutions with a harmful impact on biodiversity, or overlook the natural world's essential carbon storage contribution. The 2022 international agenda reflects growing recognition of these connections, with scheduled events including, in the first half of the year, the One Ocean Summit, a new Earth Summit and the second portion of the COP15 on biodiversity. The Banque

de France plans to play its part in building awareness by contributing to work by the Task Force on Nature-related Financial Disclosures (TNFD) to develop a common framework for assessing and monitoring the financial risks linked to the decline of biodiversity. At the same time, we are stepping up our own commitment to biodiversity through thematic investments aimed specifically at preserving our ecosystems.

We also intend to enhance the social and societal component of our responsible investment approach. In 2021, the bond purchase programme was expanded to include social and sustainable bonds, in an effort to strengthen the strategy's social component. In 2022, the Bank will keep up these efforts by investing in funds and projects with a social impact, in addition to thematic investments aimed at fighting global warming and protecting biodiversity.

For the fourth consecutive year, this document reports on the execution of the Banque de France's responsible investment strategy. It describes the results obtained and the methodologies used. This transparency is more crucial than ever, at a time when companies and investors are making huge efforts in relation to climate data, in connection with the enhanced requirements established by French and European lawmakers. Reflecting its determination to foster continuous improvement, the Banque de France intends to strengthen its transparency approach in the coming years by developing the engagement component of this report, with a particular focus on execution of the voting policy. This report is also being shared on the Climate Transparency Hub launched in 2021 by the Agency for Ecological Transition (ADEME) and the General Commissariat for Sustainable Development (CGDD).

TABLE OF CONTENTS

OVERVIEW	6
Responsible investment approach	6
The three pillars of the responsible investment strategy	7
2021 achievements	9
Governance	12
Risk management	14
PILLAR 1: CLIMATE	16
2°C alignment	16
Contribution to financing the energy and ecological transition	18
Carbon footprint and intensity	18
Share of sustainable activities	20
Exposure to physical and transition risks	22
Biodiversity impact	24
PILLAR 2: ENVIRONMENTAL, SOCIAL AND GOVERNANCE CRITERIA	26
ESG filter	26
ESG scores	28
Social indicators	29
PILLAR 3: ENGAGEMENT	32
The Banque de France's voting policy	32
General meeting attendance rate	33

OVERVIEW

Since 2018, the Banque de France has pursued a responsible investment (RI) approach. As part of this, it adopted an RI Charter, followed by a three-pronged strategy covering climate, environmental, social and governance (ESG) issues more generally, and engagement with companies in which it is a shareholder. This approach covers the own funds and pension liabilities investment portfolios, i.e. assets for which the Banque de France is solely and fully responsible. These portfolios were worth EUR 23 billion at 30 November 2021.¹

Responsible investment approach

In 2018, the Banque de France published its **Responsible Investment Charter**. In it, the Bank committed itself to including climate issues, and ESG questions more generally, in its asset management. Since that time, the Bank has applied a **double materiality** principle to its own funds and pension liabilities investment portfolios.² Accordingly, it considers not only the ESG performances of its investments, and particularly their impact on the environment and climate, but also climate-related risks borne by its portfolio assets. In this way, the Banque de France hopes to improve the overall environmental impact of the financed assets by contributing to meeting the Sustainable Development Goals (SDGs) adopted by the United Nations,³ while at the same time limiting the exposure of its portfolios to physical and transition risks.

Through its charter, the Banque de France also committed itself to publishing an annual **responsible investment report**. In 2019, the first report described the Bank's strategy and performances. With this publication, the Banque de France became the first central bank to conduct this kind of transparency exercise. This year's report marks the fourth time that the Banque de France has reported

on the execution of its strategy. The report, the Banque de France's Responsible Investment Charter and the associated voting policy are all publicly available. They may be obtained on the Banque de France's website as well as on the Climate Transparency Hub⁴ developed by the Agency for Ecological Transition (ADEME) and the General Commissariat for Sustainable Development (CGDD – *Commissariat général au développement durable*).

Supplementing efforts made in connection with its responsible investment approach, the Banque de France will take its transparency drive a step further with the publication by late 2022 of a climate report covering the entire span of its activities, in line with recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD).

The Banque de France also participates actively in the Eurosystem's work on sustainable and responsible investment by euro area central banks. This work led to the publication in February 2021 of a common stance on euro-denominated portfolios for which Eurosystem central banks have full responsibility (excluding monetary policy portfolios), which was expanded in July 2021 to include corporate sector purchase programmes (CSPPs). In accordance with this stance, the central banks made a commitment to establish and implement sustainable and responsible investment strategies and to publish the results by the first quarter of 2023 at the latest.⁵

BOX 1: REGULATORY REQUIREMENTS AND BEST PRACTICES

While the Banque de France is not subject to **French and European extra-financial disclosure requirements**, it endeavours to comply with best practices in this area. With this in mind, its annual responsible investment report refers to several of the provisions of Article 29 of French Energy and Climate Act No. 2019-1147 of November 8 establishing extra-financial reporting obligations for institutional investors. Similarly, the Banque de France takes into account the European requirements set down by Regulation EU 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR) and Regulation EU 2020/852 on sustainable investment (known as the “European Taxonomy” Regulation).¹

Moreover, the Banque de France’s strategy complies with the recommendation issued in 2019 by the **Network of Central**

Banks and Supervisors for Greening the Financial System (NGFS) on sustainable and responsible investment, which calls for sustainability factors to be integrated in the management of assets for own account.²

Finally, inspired by its firm belief in the value of in-depth discussions between investors, in 2021 the Banque de France joined **Novethic’s³ Institutional Circle**, which acts as a forum for discussing responsible investment strategies.

1 Some of the delegated acts intended to clarify this regulation had yet to be published at the time of writing.

2 NGFS, *A call for action*, April 2019.

3 A subsidiary of Caisse des Dépôts et Consignations set up in 2001, Novethic is a sustainability-focused media company and a research and training centre for responsible investment and corporate social responsibility (CSR).

The three pillars of the responsible investment strategy

The Banque de France’s responsible investment strategy is built on **three pillars**, which are further divided into **six objectives** (see *Table 1*).

The first pillar focuses on climate. The Banque de France pursues the goals set by Article 2 of the 2015 Paris Agreement. Accordingly, it seeks to align the equity components of its asset portfolios with a global warming trajectory of well below 2°C relative to pre-industrial levels (Objective No. 1). Having aligned the equity component of the own funds portfolio in 2019, it managed to align the equity component of its pension liabilities portfolio in 2021, a year ahead of schedule. To do this, it factors companies’ carbon emissions trajectories into its investment choices, to ensure that its portfolios comply with the warming target.

To be able to achieve its 2°C alignment goal, the Banque de France has developed its own measurement capabilities and created an inhouse tool to calculate its ESG indicators and steer the 2°C alignment of the equity components, based on the information supplied and updated by data

providers. Investment decisions thus systematically integrate the portfolios’ temperature trajectories.

Discussions will be held in 2022 on achieving even bolder alignment goals for the equity components of these portfolios based on a 1.5°C trajectory. In addition, the Banque de France contributes to financing the energy and ecological transition (EET) by buying green bonds⁶ and investing in thematic funds with an EET focus (Objective No. 2). The Banque de France thus finances the production of renewable energies, energy refits for buildings, marine pollution reduction as well as small and medium-sized enterprises (SMEs) that are EET innovators, i.e. in areas such as energy storage and waste management.

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

2 Each portfolio comprises several asset classes: a sovereign bond component, an equity component, a corporate bond component and a liquidity component.

3 The United Nations adopted the SDGs in 2015. The Banque de France contributes in particular to meeting Goals 7 (energy services) and 13 (climate change prevention).

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

5 <https://www.ecb.europa.eu/press/>

6 The Banque de France set and achieved a purchasing target of EUR 1.7 billion by the end of 2021.

T1 The Banque de France's responsible investment strategy: three pillars and six objectives

Pillar 1: Align investments with France's climate commitments

Objective No. 1: Align equity components with a 2°C trajectory. Horizon set at end-2020 for the own funds portfolio and end-2022 at the latest for the pension liabilities portfolio

Objective No. 2: Contribute to financing the energy and ecological transition (EET) by increasing investment in green bonds and thematic funds with an EET focus from 2019

Pillar 2: Include environmental, social and governance (ESG) criteria in asset management

Objective No. 3: Exclude 20% of the equity investment universe based on ESG criteria (Pillar III of the French SRI label) from 2019

Objective No. 4: Exclude companies whose involvement in fossil fuels is incompatible with France's climate commitments

Pillar 3: Exercise voting rights and engage with issuers

Objective No. 5: Adopt a voting policy that includes extra-financial provisions in 2019

Objective No. 6: Achieve a general meeting attendance rate of over 40% in 2019 and 80% by 2020

The second pillar is focused on integrating ESG criteria more broadly in asset management.

The Banque de France excludes 20% of its equity investment universe based on ESG criteria and scores (Objective No. 3). In this way, it complies with the minimum exclusion ratio required by the Socially Responsible Investment (SRI) label established by the French Ministry for the Economy and Finance. The Banque de France applies several types of exclusions, including norm-based (e.g. compliance with international conventions),⁷ sector-based (relating to fossil fuels) and ESG score-based exclusions. In particular, in 2021 the Banque de France stepped up and widened its fossil fuel exclusions (see Box 2). It will completely exclude the coal sector by end-2024 and apply exclusion thresholds to oil, gas and unconventional hydrocarbons. The social component is also being strengthened gradually, notably through an expansion of the bond purchase programme to include social and sustainable bonds in addition to green bonds, and through investments in certain thematic funds that prioritise social inclusion.

BOX 2: FOSSIL FUEL EXCLUSIONS POLICY

- Thermal coal: since adopting its responsible investment (RI) Charter in 2018, the Banque de France has excluded from its investments companies that derive over 20% of their revenue from coal. In 2021, it lowered this threshold to 2%, and will exclude thermal coal completely from its investments by the end of 2024. Between 2021 and 2024, it expects companies in which it holds shares and which are involved in coal to prepare a full exit plan.
- Oil and gas: by 2024, the Banque de France will align itself with the exclusion thresholds contained in the European Regulation on sustainability benchmarks and more specifically with the thresholds applicable to EU Paris-aligned benchmarks (PAB). As part of this, the Banque de France will exclude companies that derive over 10% of their revenue from oil or over 50% from gas. Also, in 2021 it introduced an additional threshold for unconventional hydrocarbons¹ and now excludes companies that derive over 10% of their revenue from such hydrocarbons.

1 Shale oil, shale gas, oil sands and/or Arctic or deepwater exploration-development.

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 policy⁸ including extra-financial provisions (Objective No. 5). For example, the Banque de France expects companies to disclose information on the environmental impact of their activities. It also expects executive remuneration to reflect extra-financial performances. 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. In addition, the Banque de France is targeting a general meeting attendance rate of at least 80% as it seeks to exercise its influence as a shareholder (Objective No. 6).

The Banque de France thus combines several types of operational responsible investment strategies, including 2°C alignment, thematic investment, exclusions, over- and underweights, ESG integration and voting (see Box 3).

BOX 3: OPERATIONAL STRATEGIES FOR RESPONSIBLE INVESTMENT

The 2020 NGFS guide to sustainable and responsible investment by central banks identifies five main types of operational strategies:

- Negative screening, i.e. excluding issuers from the investment universe based on certain criteria. The Banque de France uses negative screening for its norm-based exclusions and to align its portfolios with a sub-2°C warming trajectory (Pillar 1, equity component).
- Overweighting or underweighting companies in investments on a sector-by-sector basis (best-in-class approach). The sector exclusions applied by the Banque de France based on environmental, social and governance (ESG) scores are an example of this (Pillar 2, equity component). Compared with negative screening, best-in-class exclusions have the benefit of maintaining portfolio sector diversity.
- Integration of ESG factors upstream of the decision to invest: the Banque de France uses this approach in Pillars 1 and 2 of its strategy as it recognises issuers' climate (2°C alignment) and ESG performances.
- Thematic and/or impact investing: the Banque de France pursues this approach by buying green and social bonds and investing in thematic funds with an energy and ecological transition (EET) focus (Pillar 1).
- Voting and engagement aimed at influencing portfolio companies: this is the goal of the voting policy adopted in 2019 (Pillar 3, equity component).

The Banque de France combines all of these strategies, tailoring them to the constraints and characteristics of portfolios and asset classes. Combining operational strategies is also a way to take account of the availability of climate data, which continues to vary across asset classes.

2021 achievements

In 2021, the Banque de France **met all of its commitments and stepped up its approach even further** by achieving the targets that it had set, by improving its portfolios' ESG performances, and by setting even more ambitious goals.

In terms of the **targets set** (see Table 2), the equity component of the own funds portfolio was again aligned with a 2°C trajectory, as in 2019 and 2020. The Banque de France had committed itself to reaching the same target for the equity component of its pension liabilities portfolio by the end of 2022 and achieved this goal at the end of 2021. In addition, during COP26, the Banque de France made a commitment to target a 1.5°C trajectory going forward. The implementation horizon for this new trajectory will be set in 2022. The target of allocating EUR 1.9 billion

to EET financing was achieved: total purchases of green bonds now stand at EUR 1.6 billion and four new thematic funds were added to the funds in which investments had already been made,⁹ bringing EET financing via such funds to EUR 355 million. The ESG exclusion ratio was maintained at 20% of the investment universe. In 2021 the Banque de France attended 90% of general meetings, as it sought to enforce the principles set down in its voting policy.

⁷ In particular, investments are excluded 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.

⁸ The Banque de France's voting policy is available on the Bank's website: <https://www.banque-france.fr/>

⁹ In total, the Banque de France invested in ten funds financing the EET in its own funds portfolio.

T2 Strategy execution at 31/12/2021

Pillar 1: Align investments with France's climate commitments	
Objective No. 1: Align equity components with a 2°C trajectory. Horizon set at end-2020 for the own funds portfolio and end-2022 at the latest for the pension liabilities portfolio	Equity component of the own funds portfolio 2°C aligned from end-2019; same for the pension liabilities portfolio from end-2021
Objective No. 2: Contribute to financing the energy and ecological transition (EET) by increasing investment in green and social bonds and in thematic funds with an EET focus from 2019	EUR 1.6 billion invested in green bonds EUR 355 million invested in EET thematic funds
Pillar 2: Include environmental, social and governance (ESG) criteria in asset management	
Objective No. 3: Equity components meeting the requirements of Pillar III of the French SRI label in 2019	20% of equity issuers excluded on the basis of ESG criteria from end-2019
Objective No. 4: Step up exclusions of issuers involved in fossil fuels	From 2021, issuers that generate over 2% of revenue from thermal coal or 10% from unconventional hydrocarbons will be excluded At end-2024, the coal threshold will be lowered to 0%, and thresholds will kick in for oil (> 10% of revenue) and gas (> 50% of revenue)
Pillar 3: Exercise voting rights and engage with issuers	
Objectif n° 5: Adopt a voting policy that includes extra-financial provisions in 2019	Voting policy adopted in 2019 and adjusted in 2020 to reflect new fossil fuel exclusions
Objectif n° 6: Achieve a general meeting attendance rate of at least 80% from 2021 onwards	Attendance rate of 90% at end-2021

In addition to achieving these targets, the Banque de France improved the **climate and ESG performances of its two portfolios**, which it measures through a series of indicators (see *Table 3*).¹⁰ These indicators are tracked by portfolio and by asset class (sovereign bonds and equities), and are compared against benchmarks. Overall:

- The **carbon impact** of the portfolios, measured via their carbon footprint and carbon intensity, continued to shrink: the capital carbon footprint recorded for the equity component of the own funds portfolio decreased by 27.8% compared with 2020 to reach 70 tCO₂eq per EUR million invested, while the footprint of the pension liabilities portfolio's equity component was down by 27.6% to 68 tCO₂eq per EUR million invested.
- The **fossil fuel exposure** of the equity components also continued to decrease, by 43% for the equity component of the own funds portfolio and by 14% for the equity component of the pension liabilities portfolio. The Banque

de France uses this ratio to measure its exposure to transition risks.

- **Exposure to physical risks**, which measures the physical climate-related risk exposure of portfolios, is slightly higher compared with the benchmarks. The sovereign bond component of the pension liabilities portfolio has the greatest exposure to physical risks, driven in particular by the risk of flooding and rising sea levels, to which France is especially exposed, and by the risk of cyclones and forest fires to which the United States is exposed, since these two countries account for a large share of the portfolio.

¹⁰ The Pillar 1 and 2 presentations detail the results and methodologies for the sovereign bond and equity components, which form the portfolios' two primary asset classes,

making up 98% of the value of the own funds portfolio and 98% of the pension liabilities portfolio at 30 November 2021.

T3 Portfolios' climate and ESG performance indicators at end-2021

a) Own funds portfolio

Asset class	Indicator	Portfolio		Coverage (% of total assets)	Benchmark ^{a)}
		2021	2020		
Sovereign bond component	Capital carbon footprint	312 tCO ₂ eq/MEUR invested	528 tCO ₂ eq/MEUR invested	97	360 tCO ₂ eq/MEUR invested
	Carbon footprint per unit of GDP	367 tCO ₂ eq/MEUR GDP	480 tCO ₂ eq/MEUR GDP	97	396 tCO ₂ eq/MEUR GDP
	Weighted average carbon intensity	358 tCO ₂ eq/MEUR GDP	461 tCO ₂ eq/MEUR GDP	97	386 tCO ₂ eq/MEUR GDP
	ESG score	79/100	80/100	99	79/100
	Exposure to physical risks	67.7/100	69.2/100	100	65.8/100
Equity component	Capital carbon footprint	70 tCO ₂ eq/MEUR invested	97 tCO ₂ eq/MEUR invested	100	134 tCO ₂ eq/MEUR invested
	Carbon footprint per unit of revenue	215 tCO ₂ eq/MEUR revenue	231 tCO ₂ eq/MEUR revenue	100	358 tCO ₂ eq/MEUR revenue
	Weighted average carbon intensity	186 tCO ₂ eq/MEUR revenue	206 tCO ₂ eq/MEUR revenue	100	288 tCO ₂ eq/MEUR revenue
	Implied temperature rise	1.75°C-2°C	1.75°C-2°C	90	2°C-3°C
	Green share EU taxonomy	25%	28%	99	33%
	Biodiversity score	58.8/100	58.8/100	43	59.1/100
	Involvement in chemical products	4,2%	4,4%	99	7%
	ESG score	60.1/100	56.5/100	99	57.1/100
	Economic and social development	59.2/100	55.1/100	86	56.2/100
	Societal impact of products-services	53.9/100	52.9/100	50	50.9/100
	Workplace health and safety	62.6/100	58.7/100	100	59.3/100
	Non-discrimination	70.6/100	68.3/100	100	68.4/100
	Exposure to physical risks	48.4/100	45.9/100	97	45/100

b) Pension liabilities portfolio

Asset class	Indicator	Portfolio		Coverage (% of total assets)	Benchmark ^{a)}
		2021	2020		
Sovereign bond component	Capital carbon footprint	327 tCO ₂ eq/MEUR invested	492 tCO ₂ eq/MEUR invested	98	528 tCO ₂ eq/MEUR invested
	Carbon footprint per unit of GDP	355 tCO ₂ eq/MEUR GDP	472 tCO ₂ eq/MEUR GDP	98	380 tCO ₂ eq/MEUR GDP
	Weighted average carbon intensity	348 tCO ₂ eq/MEUR GDP	466 tCO ₂ eq/MEUR GDP	98	369 tCO ₂ eq/MEUR GDP
	ESG score	70/100	74/100	100	79/100
	Exposure to physical risks	80.7/100	77.4/100	100	69.2/100
Equity component	Capital carbon footprint	68 tCO ₂ eq/MEUR invested	94 tCO ₂ eq/MEUR invested	100	100 tCO ₂ eq/MEUR invested
	Carbon footprint per unit of revenue	211 tCO ₂ eq/MEUR revenue	224 tCO ₂ eq/MEUR revenue	100	324 tCO ₂ eq/MEUR revenue
	Weighted average carbon intensity	205 tCO ₂ eq/MEUR revenue	224 tCO ₂ eq/MEUR revenue	100	256 tCO ₂ eq/MEUR revenue
	Implied temperature rise	1.75°C-2°C	2°C-3°C	76	2°C-3°C
	Green share EU taxonomy	28%	27%	99	29%
	Biodiversity score	53/100	50.6/100	31	52.7/100
	Involvement in chemical products	4,2%	5,9%	99	5,5%
	ESG score	49.6/100	49.5/100	98	49.3/100
	Economic and social development	47.2/100	47.4/100	73	46.9/100
	Societal impact of products-services	44.2/100	45.9/100	60	41.9/100
	Workplace health and safety	49.4/100	50/100	98	48.7/100
	Non-discrimination	61.5/100	60.6/100	98	62/100
	Exposure to physical risks	54.7/100	51.9/100	95	54.7/100

a) See below, Pillar 2, Box 2.

Sources: S&P Trucost, Moody's ESG.

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.

- In terms of **biodiversity**, the equity components of the own funds and pension liabilities portfolios sharply improved their performances compared with 2020, aligning with benchmark performances and receiving a “robust” score from Moody’s ESG.¹¹
- In terms of **ESG performances**, the Banque de France’s results once again beat those of the benchmarks overall and showed improvements compared with 2020. Indicators achieving advanced scores included, for the own funds portfolio, social metrics such as engagement in promoting economic and social development, non-discrimination and workplace health and safety.

These indicators and the underlying climate and ESG data are supplied by specialised data providers S&P Trucost and Moody’s ESG.

BOX 4: BIODIVERSITY ISSUES

The dependence of human societies on biodiversity stems from the ecosystem services provided by nature, such as pollination, soil fertility and pest management. Accordingly, biodiversity loss is one of today’s most pressing environmental emergencies. The financial sector faces several issues. In particular, how should it measure the impact of financial flows on biodiversity and how should it contribute to reducing the main factors of biodiversity loss, including habitat destruction/alteration (e.g. deforestation), direct development (e.g. intensive fishing), climate change (e.g. impact of global warming on coral), pollution (e.g. green tides) and invasive non-native species? Article 29 of the French Energy and Climate Act of 8 November 2019, which came into application in March 2021, provides for the integration of biodiversity-related risks in the disclosures that portfolio management companies must publish on sustainable investments and risks. Following the COP15 conference scheduled for 2022, new international targets are due to replace the Aichi targets¹ and thus enable companies and investors to draw up strategies to align with long-term goals.

1 Adopted by the parties to the Convention on Biological Diversity in October 2010, these 20 targets seek to address the underlying causes of biodiversity loss in a ten-year strategic plan.

Governance

The Banque de France’s responsible investment strategy is implemented by the Finance Directorate, which is part of the General Secretariat. Most of the portfolios’ assets are invested in dedicated funds in which the Banque de France is the sole investor and that are managed by the Bank’s subsidiary BDF Gestion,¹² while a minority share goes to external open-end funds.¹³ Direct securities holdings play a marginal role. Given its role as supervisor and 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 between its supervisory activities and its investment activities.

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, which is chaired by the Governor, and the Pension Plan Strategic Committee, which is chaired by the First Deputy Governor. Operational implementation of the responsible investment strategy is steered by a quarterly investment committee on which the Risk Directorate sits alongside the Finance Directorate and the Secretary General.

The responsible investment strategy is integrated more broadly in the governance and discussion bodies set up within the Banque de France to accompany the growing importance of sustainable finance considerations. As part of this, a Responsible Investment Steering Committee was set up in 2020. It meets quarterly within the General Secretariat, bringing together the Finance Directorate, the Strategy

11 Our providers of data on ESG issues (Vigeo Eiris) and physical risks (Four Twenty Seven) were taken over in 2021 and are now part of the Moody’s ESG group.

12 BDF Gestion was created on 27 December 1995 and manages 30 collective investment schemes (dedicated, open to the public and employee savings schemes) as well as a number of individual mandates for institutional investors. Its activities are separated from those of the Banque de France by a strict Chinese wall and it does not benefit from any insider information on the economic sectors covered by the supervisory missions of the Banque de France.

13 Eleven external open-end index (i.e. passive) funds. These funds are included in the calculation of the temperature trajectory for Banque de France portfolios, but since they are open to other customers, they cannot be subject to application of the Banque de France’s climate and ESG filters or specific voting policy. At 30 November 2021, they accounted for 7% of the total assets (compared with 3.3% at end-2020).

RESPONSIBLE INVESTMENT GOVERNANCE

DETERMINATION OF THE RI STRATEGY

ASSET-LIABILITY COMMITTEE

Determines the broad principles of the responsible investment strategy applicable to the own funds portfolio

PENSION PLAN STRATEGIC COMMITTEE

Determines the broad principles of the responsible investment strategy applicable to the pension funds

INVESTMENT PROCESS

RISK COMMITTEE

Authorises the vehicles in which the Banque de France wishes to invest

INVESTMENT COMMITTEE

Takes investment decisions for the own funds and pension liabilities portfolios

EXECUTION

FINANCE AND MANAGEMENT CONTROL DIRECTORATE

Identifies investment vehicles, places purchase/sale orders and steers portfolio monitoring
Invests in funds managed by the Bank's subsidiary BDF Gestion (dedicated funds) and by other management companies (open-end funds)

Directorate and the corporate social responsibility (CSR) Task Force for a detailed examination of ESG issues affecting the own funds and pension liabilities portfolios. The General Secretariat also participates in the Banque de France's Strategic Committee for Sustainable Finance and in the Executive Committee on Climate Change, which bring together all of the General Directorates to coordinate the development of the central bank's sustainable finance strategy. Finally, the General Secretariat is part of the Banque de France's climate expert networks on research and financial supervision.

Risk management

The Banque de France's responsible investment strategy involves **monitoring and steering 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 using the proportion 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**.¹⁴ Thus, the Risk Committee held a specific meeting in 2021 on recognising climate-related risks in the Bank's risk management system, with a view to strengthening the integration and monitoring of these risks in the portfolios of assets managed for own account (non-monetary policy). In particular, all listed and unlisted vehicles in which the Bank invests are submitted for approval to the Risk Committee.

¹⁴ First line: Financial Management Division;
second line: Finance Directorate Internal

Control Unit;
third line: Internal Audit.

PILLARS

Pillar 1	Climate	16
Pillar 2	Environmental, social and governance criteria	26
Pillar 3	Engagement	32

PILLAR 1: CLIMATE

The Banque de France has undertaken to incorporate global warming issues into its investment strategy by setting two objectives:

- Reduce the climate impact of its portfolios by aligning them with a greenhouse gas emissions trajectory compatible with global warming of less than 2°C above pre-industrial levels (Objective No. 1);
- Contribute to financing the energy and ecological transition (EET) by investing in green bonds and thematic funds with an EET focus (Objective No. 2).

To this end, the Banque de France monitors the climate impacts of its portfolios and their exposure to climate-related risks. The following results cover the period to 30 November 2021.

2°C alignment

The Banque de France has made a commitment to progressively align its portfolios with a global warming trajectory of well below 2°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 investment portfolio with a target of below 2°C by 2019. **In 2021, this component remained aligned with the 2°C target** because its implied temperature trajectory was between +1.75°C and +2°C. This alignment target was extended to the equity component of the pension liabilities portfolio with a deadline of 2022. The target was reached a year ahead of schedule, as the component’s implied temperature trajectory was between +1.75°C and +2°C at end-2021.

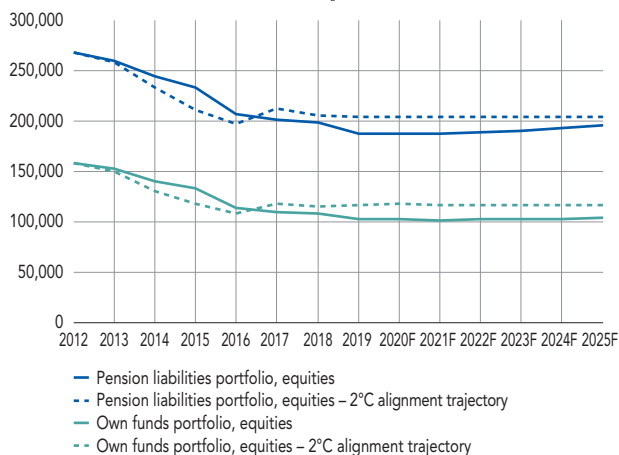
To assess the alignment of its portfolios, the Banque de France considers the past and future annual greenhouse gas emissions trajectories of companies in its investment universe. By comparing companies against a benchmark

trajectory, it is possible to assess each firm’s alignment with a target sub-2°C 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 2°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 most harmful 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 transition¹ and (ii) the equity component remains aligned with the 2°C target overall. The climate filter is applied in addition to the environmental, social and governance (ESG) exclusions under Pillar 2 of the strategy, on which basis the Banque de France excludes from all of its portfolios some companies involved in fossil fuels (see *Pillar 2 below*).

C1 2°C alignment of portfolio equity components

(carbon emissions attributed to portfolios in tCO₂e)



Source: S&P Trucost.

Notes: A portfolio is aligned with a 2°C trajectory if cumulative emissions over the 2012-2025 period attributable to it are below the cumulative emissions over the same period that are compatible with 2°C alignment.

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

tCO₂e: tonnes of carbon dioxide equivalent.

BOX 1: 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.

Carbon alignment data are provided by S&P Trucost (see Box 6). These cover Scope 1 and Scope 2 greenhouse gas emissions (see Box 1) over the 2014-2025 period. For this period, S&P Trucost calculates a carbon emissions trajectory for each company, which it compares against a theoretical emissions trajectory that would enable compliance with global warming of below 2°C. Company carbon emissions trajectories are obtained from historical data and the targets set by firms themselves, or, failing that, from estimates and projections. The theoretical trajectory for 2°C alignment is calculated using the two methodologies recommended by the Science Based Targets initiative (SBTi):²

- In the case of companies that emit the most greenhouse gases and whose business activities are homogeneous, S&P Trucost refers to the sector carbon budgets established by the International Energy Agency (IEA),³ then applies the "sectoral decarbonization 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 2°C aligned.
- When considering other companies, S&P Trucost uses the 2°C scenario for global carbon emissions of the Intergovernmental Panel on Climate Change (IPCC),⁴ then

applies the greenhouse gas emissions per unit of value added (GEVA) approach: all companies must reduce their carbon intensity at the same pace (5% a year), irrespective of their sector. Companies that do not lower their carbon intensity at this pace are therefore not 2°C aligned.

This methodology, which was developed by S&P Trucost, is in line with the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) in 2021 on portfolio alignment.⁵

¹ 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.

² The Science Based Targets initiative (SBTi) is a partnership between the United Nations Global Compact, the 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 global warming of less than 2°C, based on scientific data.

³ IEA's ETP B2DS 2017 Scenario.

⁴ IPCC RCP 2.6 scenario.

⁵ TCFD, *Measuring portfolio alignment: technical supplement*, June 2021.

Contribution to financing the energy and ecological transition

Under Pillar 1 of its strategy, the Banque de France also aims to contribute to financing the energy and ecological transition (EET). It measures this contribution through its purchases of green bonds and its investments in thematic funds with an EET focus. It set itself an overall objective of EUR 1.9 billion by end-2021, including EUR 330 million for thematic funds alone. These investments come under the own funds portfolio. In 2021, the Banque de France created a specific envelope for sustainable themes in the new strategic allocation of its pension liabilities portfolio.

At end-2021, **the total amount of purchases of green bonds came to EUR 1.6 billion**. These included sovereign and quasi-sovereign bonds, such as green *obligations assimilables du Trésor* (OATs – French Treasury bonds; see Box 2). These green bonds finance green public spending, such as investments in public transport, organic farming or waste recycling.

The **Banque de France continued** investing in thematic funds with an EET focus, **with total investments reaching EUR 355 million at end-2021**. The Banque de France also continued to diversify the types of projects that it finances: in addition to financing the production of renewable energies, it now funds energy refits for buildings, reduction of pollution linked to marine infrastructure (blue finance) as well as small and medium-sized enterprises (SMEs) that are EET innovators, i.e. in areas such as energy storage, smart cities and waste management. The Banque de France

BOX 2: GREEN OATs – FRENCH SOVEREIGN GREEN 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: mitigate climate risk, adapt to climate change, protect biodiversity and reduce 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, is obtained to determine whether a green OAT qualifies as responsible.

prioritises funds that have been awarded the Greenfin label created in 2015 by the Ministry of Ecology and Sustainable Development to guarantee the green qualities of activities financed by certified funds (see Box 1, Pillar 2 below).

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 emissions⁶ linked to issuers included in its investments. The carbon impact is calculated by means of three indicators, which offer different and complementary visions: the capital carbon footprint, the carbon footprint per unit of revenue (or GDP) and weighted average carbon intensity (see below). For companies, the emissions covered correspond to Scopes 1 and 2, plus a portion of Scope 3 upstream emissions, as the indicators integrate direct emissions as well as emissions by direct suppliers.⁷ For governments, the indicators cover emissions for the country’s own consumption, including imports, as well as emissions linked to the production of exported goods and services. The way that carbon emissions are aggregated at the portfolio level does not address the risk of multiple counting, but this risk is mitigated by the partial exclusion of Scope 3.⁸

The carbon footprint of a portfolio corresponds to the carbon emissions of issuers that may be allocated to the portfolio. These emissions are allocated on a proportional

BOX 3: CALCULATING THE CARBON FOOTPRINT AND INTENSITY

$$\text{Capital carbon footprint} = \frac{\sum_i \frac{M_i}{EV_i} \times Em_i}{\sum_i M_i}$$

$$\text{Carbon footprint per unit of revenue} = \frac{\sum_i \frac{M_i}{EV_i} \times Em_i}{\sum_i \frac{M_i}{EV_i} \times CA_i}$$

$$\text{Weighted average carbon intensity} = \sum_i w_i \times \frac{Em_i}{CA_i} \text{ where } w_i = \frac{M_i}{\sum_i M_i}$$

Note: M is the amount invested; EV is enterprise value including cash (market capitalisation + debt)^{a)}; Em denotes carbon emissions; CA is revenue; w is the weight in portfolio total assets.

a) Enterprise value = market capitalisation + total debt + total preferred equity + minority interest.

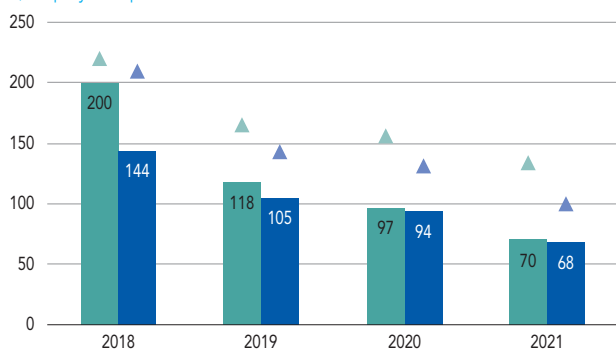
basis according to the share of the investment relative to the value of the company (or, in the case of a sovereign issuer, on a proportional basis according to the share of the investment in government debt).

- The capital carbon footprint compares the carbon footprint of the portfolio to the amount invested by the Banque de France and can thus be used to measure tonnes of carbon equivalent per EUR million invested. In 2021, **the capital carbon footprint shrank further, continuing the trend observed since 2018. This was true for the equity and sovereign bond components of both the own funds and pension liabilities portfolios. The portfolios' footprints remain well below those of the benchmarks (see Chart 2).**

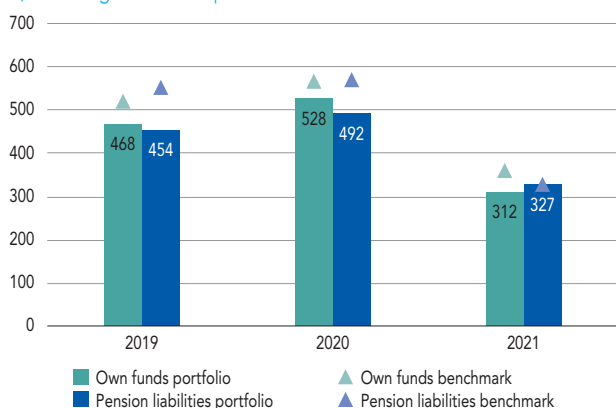
C2 Capital carbon footprint

(in tCO₂eq/EUR million invested)

a) Equity components



b) Sovereign bond components



Source: S&P Trucost.
Note: tCO₂eq, tonnes of carbon dioxide equivalent.

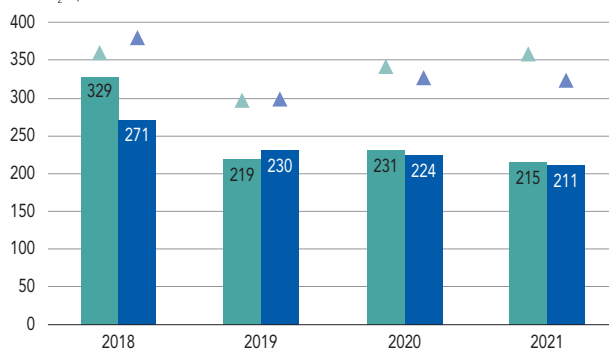
- The carbon footprint per unit of revenue (or GDP) compares the portfolio's carbon footprint to the share of revenue (or GDP) of issuers allocated to the portfolio (on a proportional basis according to the ownership share).

It gauges the carbon efficiency of companies and states, measured in tCO₂eq per EUR million of revenue (or GDP). In 2021, **the carbon footprint per unit of revenue (or GDP) decreased for the equity and sovereign bond components of each of the portfolios, and remained below that of the benchmarks. The sovereign bond component saw an especially pronounced reduction, as the carbon footprint per unit of GDP fell by around 24% for the own funds and pension liabilities portfolios compared with 2020 (see Chart 3).**

C3 Carbon footprint per unit of revenue and GDP

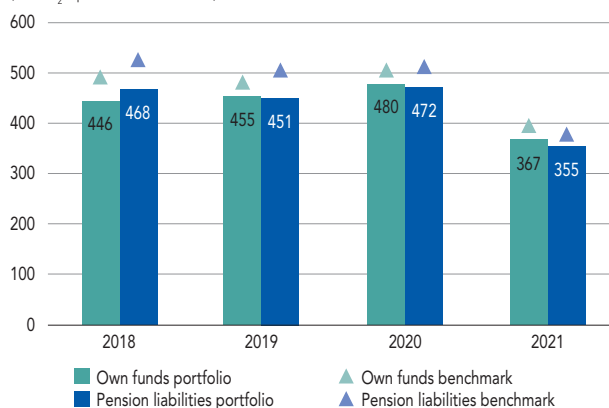
a) Equity components (per unit of revenue)

(in tCO₂eq/EUR million of revenue)



b) Sovereign bond components (per unit of GDP)

(in tCO₂eq/EUR million of GDP)



Source: S&P Trucost.
Note: tCO₂eq, tonnes of carbon dioxide equivalent.

6 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 (tCO₂eq).

7 The remaining portion of Scope 3 (indirect suppliers and Scope 3 downstream emissions) suffers from a lack of transparency from companies, such that data providers have to estimate about 80% of emissions.

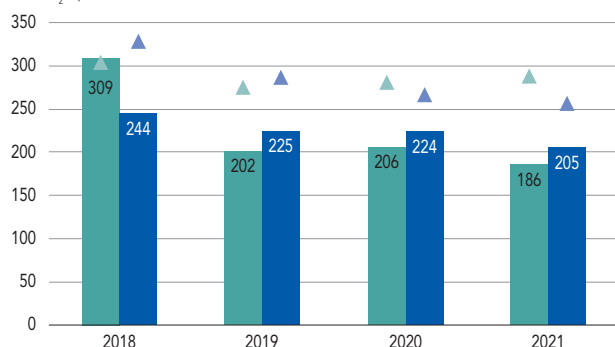
8 For example, the carbon emissions of a portfolio company that is also a direct supplier of another company in the portfolio (hence included in its Scope 3 upstream emissions) could be counted twice. Partially excluding Scope 3 mitigates this risk, but not entirely. In the absence of information on supplier ties between companies, multiple counting cannot be totally eliminated.

- Weighted average carbon intensities weight the carbon intensity of issuers (emissions/revenue or GDP) according to their weight in the portfolio. This indicator does not include the factor that prorates emissions according to the Banque de France's stake in the issuer's value/debt. It is recommended by the TCFD. In 2021, **the weighted average carbon intensity also decreased significantly, particularly for the sovereign bond component, which recorded a 22% reduction for the own funds portfolio and a 25% decrease for the pension liabilities portfolio. This indicator was below the benchmark readings for the equity and sovereign bond components of both portfolios.**

C4 Weighted average carbon intensity

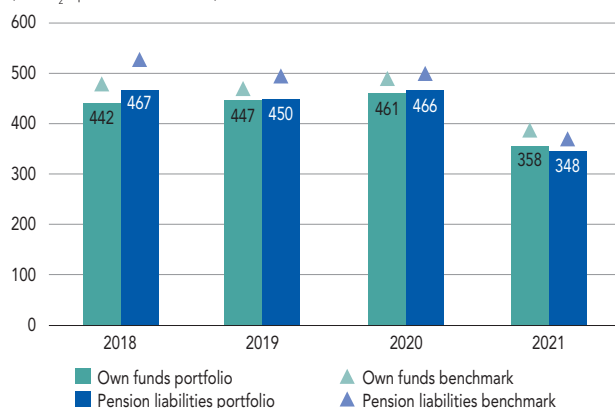
a) Equity components (per unit of revenue)

(in tCO₂eq/EUR million of revenue)



b) Sovereign bond components (per unit of GDP)

(in tCO₂eq/EUR million of GDP)



Source: S&P Trucost.

Note: tCO₂eq, tonnes of carbon dioxide equivalent.

BOX 4: 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 the purchase of 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 make it possible 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 Banque de France buys almost exclusively sovereign or quasi-sovereign green bonds. Market standards have been developed to provide a framework for green bond issues. The European Commission published a draft proposal for a regulation establishing an EU green bond standard in July 2021. The standard includes strict oversight of the use of funds, which is checked by a third-party reviewer.

1 T. Ehlers, B. Mojon et 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.

Share of sustainable activities

The Banque de France measures the share of sustainable activities of its equity components in accordance with the European taxonomy. In June 2020, the European Union (EU) adopted a regulation on a taxonomy for environmentally sustainable activities (see Box 5).⁹ Under the terms of this regulation, activities may be considered to be sustainable if they are likely to contribute substantially to at least one of the EU's six environmental objectives,¹⁰ do not cause significant harm to the other objectives, and meet the minimum social standards of the Organisation for Economic Cooperation and Development (OECD).

BOX 5: 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) and the creation of new climate benchmarks (Regulation EU 2019/2089). Other ongoing projects include the adoption of a European ecolabel, the establishment of a framework for green bonds, and the review of Directive 2014/95/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

In July 2021, the Commission adopted a renewed strategy to finance the transition to a sustainable economy. The strategy covers the financing not only of activities that are already considered to be sustainable but also transition activities. It also addresses the need for an inclusive transition, integration by the financial sector of environmental, social and governance (ESG) risks, and international activity in the area of sustainable finance.

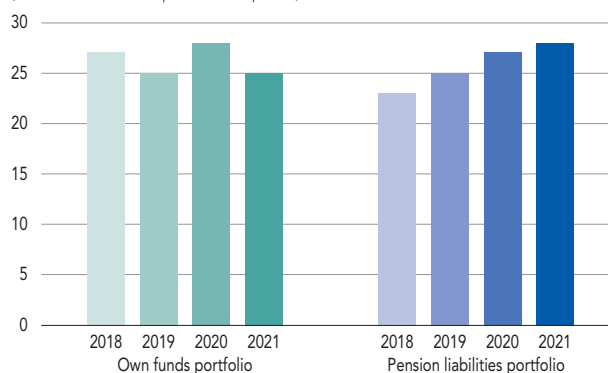
At the end of 2021, some of the delegated acts required to clarify the regulation had yet to be adopted. Only the criteria for the EU's first two environmental objectives, namely climate change mitigation and climate change adaptation, had been published. Consequently, the indicator calculated by S&P Trucost is an estimate covering only these two objectives. Besides the activities that contribute to these two objectives substantially and directly, transitional activities that contribute to the transition to a low-carbon economy or enabling activities that allow other activities to lower their emissions are also considered to be sustainable.

Within this framework, the Banque de France estimates the average share of the revenues of portfolio companies (equity components)¹¹ whose activity may be considered to be sustainable, 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, since

the European Commission included the gas sector in the taxonomy,¹² owing to its transition potential, lower portfolio exposure to the sector reduces the carbon footprint but also the portfolio's share of sustainable activities. In 2021, **companies in the equity component of the own funds portfolio generated 25% of their revenue in sustainable sectors on average. This was slightly down on 2020 owing to increased investment in Paris-aligned external index funds applying strict fossil fuel exclusions. This resulted in reduced exposure to some activities, such as gas, that the EU taxonomy counts as green. The average share for companies in the equity component of the pension liabilities portfolio was 28% and has been rising steadily since 2018.**

C5 Share of sustainable activities, equity components

(as a % of revenues of portfolio companies)



Source: S&P Trucost.

⁹ Regulation EU 2020/852 on the establishment of a framework to facilitate sustainable investment.

¹⁰ 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.

¹¹ This indicator does not integrate green bonds or investments in thematic funds with an EET focus.

¹² The European Commission's proposal must be voted on by the European Parliament and EU Member States.

Exposure to physical and transition risks

Climate-related risks include physical risks and transition risks.¹³ Physical risks can result from one-off events such as droughts or floods, and also from gradual changes such as rising temperatures. They result in property damage, drops in productivity, and even disruptions to the global supply chains of portfolio companies. Transition risks are the financial risks that can result from the regulatory and

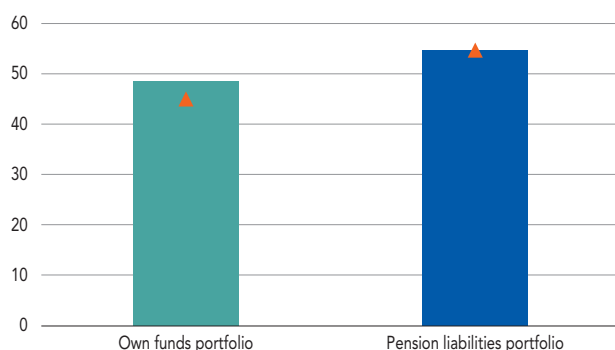
technological transformations and market developments associated with the process of shifting towards a low-carbon economy.

In the case of physical risks, 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 indicator is scored from zero to 100, where zero 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: operations risk, supply chain risk and market risk. In this way, the Moody's ESG analysis covers the entire value chain of issuers. Regarding sovereign bonds, the indicator reflects the proportions of the population, GDP and farmland exposed to physical risks.

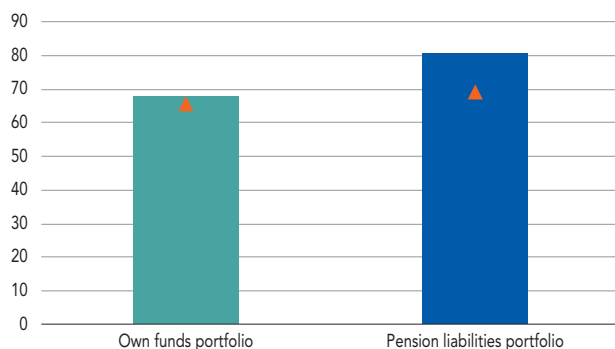
C6 Portfolio exposure to physical risks at 30/11/2021

(physical risk score)

a) Equity components



b) Sovereign bond components



▲ Benchmark

Source: Moody's ESG.
Note: The risk score is from 0 to 100.

The exposure to physical risks of the own funds and pension liabilities portfolios increased overall in 2021. In particular, both portfolios saw the exposure of their equity components rise by around 5%. This was due to the increased geographical diversification of investments, especially in North America and emerging countries, leading to greater exposure to the risks of forest fires, flooding and rising sea levels.

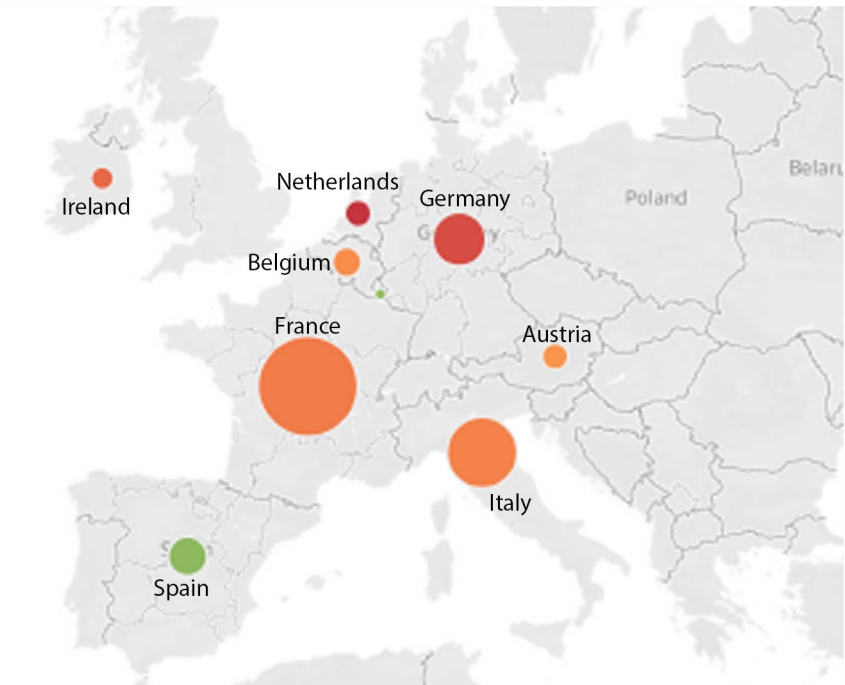
The sovereign bond components, meanwhile, are chiefly exposed to the risks of rising sea levels and floods. These risks are especially high in Europe and North America (see *Chart 7*).

¹³ Mark Carney added liability risks to this list in his 2015 speech entitled "Breaking the tragedy of the horizon – climate change and financial stability".

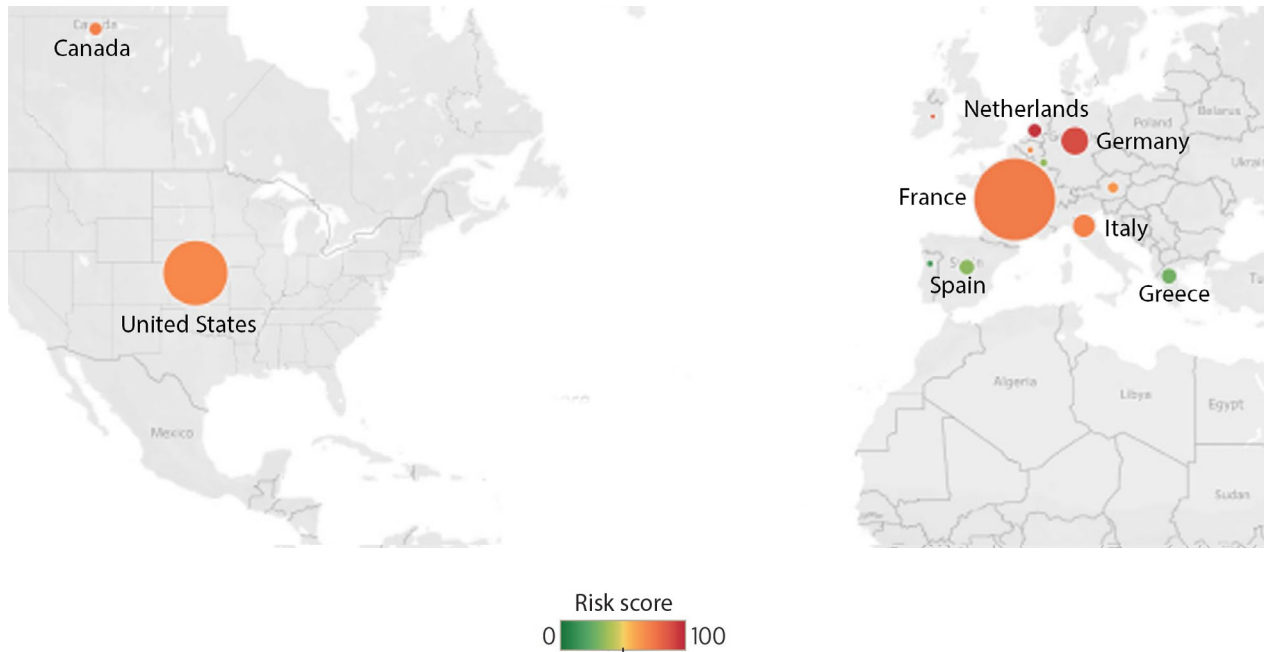
This concept refers to future losses that could result from legal actions aimed at obtaining financial compensation for the effects of climate change.

C7 Maps showing the exposure to risks of rising sea levels and flooding of portfolios' sovereign bond components at 30/11/2021

a) Exposure of the sovereign bond component of the own funds portfolio to the risk of rising sea levels

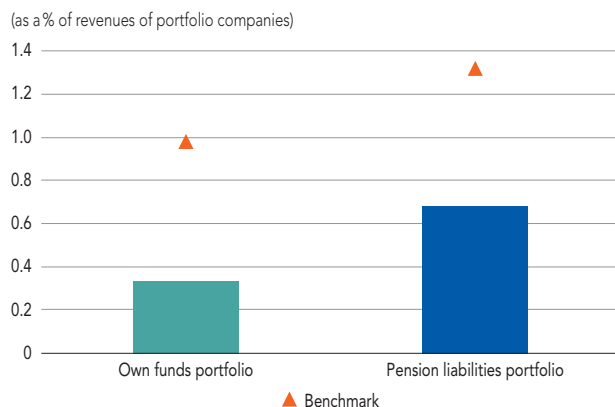


b) Exposure of the sovereign bond component of the pension liabilities portfolio to flooding risk



Source: Moody's ESG.

C8 Portfolios' brown shares, equity components at 30/11/2021



Source: S&P Trucost.

To track transition risks, the Banque de France has chosen to monitor an indicator of exposure to fossil fuels, i.e. extraction of fossil fuels or the production of electricity using fossil fuels. It thus measures its exposure to highly polluting assets that could become stranded owing to the energy and ecological transition.¹⁴

The Banque de France calculates the average revenue share of portfolio companies that is linked to brown activities. This corresponds to the average share weighted by the percentage represented by each company in the component's total assets. **The average fossil fuel exposure of the equity component of the own funds portfolio was 0.33% of revenue, compared with 0.98% for the benchmark** (see Chart 8). This was 43% lower than in 2020. **The average fossil fuel exposure of the equity component of the pension liabilities portfolio was 0.68%**, compared with 1.32% for the benchmark. This was 14% lower than in 2020. The pronounced decrease in the brown share observed for both portfolios reflects the gradual implementation of the Banque de France's decisions to exit companies that are heavily involved in fossil fuels, but also the transfer of assets held in several index funds to vehicles that track Paris-aligned benchmarks (PAB).¹⁵

Biodiversity impact

Through its responsible investment strategy, the Banque de France contributes to preserving biodiversity by fighting global warming (2°C alignment of portfolios, reduction of carbon emissions), by excluding fossil fuels (which cause pollution and deforestation), by investing in an EET fund aimed at reducing pollution linked to maritime infrastructures (blue finance), and by buying green OATs (since a portion of eligible green expenditures can be assigned to preserving biodiversity, see Box 2 above).

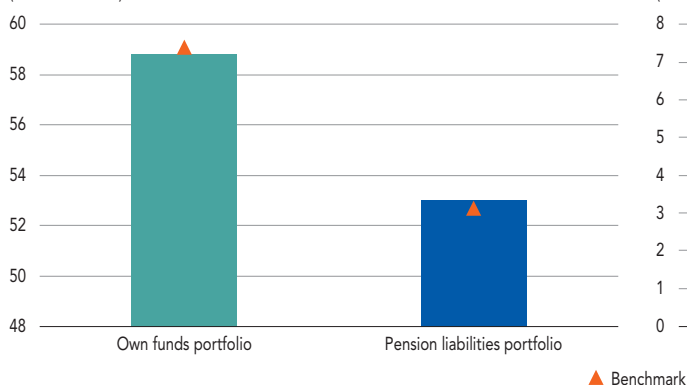
Since 2020, the Banque de France has also measured the impact of its portfolios on biodiversity. It monitors two indicators, which cover the equity component of each portfolio:

- A biodiversity impact score, reflecting commitments made (formal policy, information in annual reports), measures deployed (calculation of the impact of activities on ecosystems, measures to rehabilitate ecosystems) and actual outcomes of portfolio companies (percentage of rehabilitated soils). In terms of results for this indicator, **the performances of the portfolios' equity components were up in 2021 and described by data provider Moody's ESG as "robust". The equity component of the own funds portfolio scored 58.8, up 10% compared with 2020, while the score of the equity component of the pension liabilities portfolio climbed by 5% to 53, but remained slightly below the benchmark.** Moody's ESG calculates this score only for sectors for which it judges the biodiversity impact to be material, i.e. 19 of the 38 sectors analysed by the data provider.¹⁶ These sectors account for 43% of the assets in the equity component of the own funds portfolio and 31% for the equity component of the pension liabilities portfolio.
- An indicator of exposure (as a percentage of total investment) to companies involved in the production of chemical products that are harmful to biodiversity, including pesticides¹⁷ as well as chemical substances banned under the 2001 Stockholm Convention, the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic and the Montreal Protocol on Substances that Deplete the Ozone Layer. **The exposure of the equity components to these companies is declining and remains well below the**

C9 Portfolios' biodiversity scores, equity components at 30/11/2021

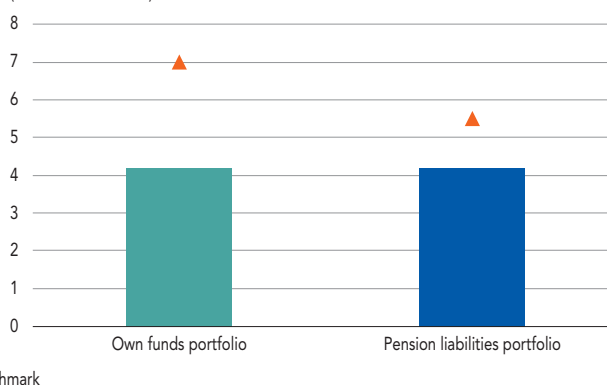
a) Biodiversity impact score

(score out of 100)



b) Exposure to companies producing harmful products

(as a % of total assets)



Source: Moody's ESG.

benchmarks: in the equity component of the own funds portfolio, companies engaged in the production of harmful products account for 4.2% of total assets, compared with 7% for the benchmark. In the equity component of the pension liabilities portfolio, the portion is 4.2% compared with 5.5% for the benchmark.

14 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 definition of the brown share established by its data provider S&P Trucost, which includes only companies involved in the extraction of fossil fuels (conventional or otherwise) or the production of electricity using fossil fuels.

15 Paris-aligned benchmarks (PAB) are required to exclude companies whose revenue share is over 1% for coal, 10% for oil and 50% for gas from their investment universe.

16 For example, analysed sectors include Food, Building Materials and Energy. Non-analysed sectors include Development Banks, Broadcasting and Advertising.

17 Any chemical product intended to protect crops and kill pests. Categories covered include insecticides, herbicides and fungicides.

BOX 6: METHODOLOGICAL LIMITS OF CLIMATE INDICATORS

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 Trucost, Moody's ESG²), which it selected after reviewing the quality of their data and methodologies.

1 *The alignment cookbook*, Institut Louis Bachelier, 2020.

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

PILLAR 2: ENVIRONMENTAL, SOCIAL AND GOVERNANCE CRITERIA

The Banque de France is committed to including environmental, social and governance (ESG) criteria in its asset management.

At the upstream stage, it excludes at least 20% of its equity investment universe based on ESG criteria and scores. Downstream, it calculates each year the ESG performances of its portfolios (composition as at 30 November 2021) by means of a series of indicators, which are presented below.

ESG filter

To integrate ESG criteria in its asset management, the Banque de France has chosen to apply one of the requirements of the Socially Responsible Investment (SRI) label supported by the French Ministry for the Economy and Finance (see Box 1): specifically, it excludes at least 20% of its equity investment universe¹ based on ESG criteria and scores. The Banque de France therefore ensures that ESG factors have a real impact on asset management.

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

Norm-based exclusions featured in the 2018 Responsible Investment (RI) Charter. They cover all investment universes, 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 the freedom of association and the right to collective bargaining, and elimination of forced labour, child labour and employment discrimination.

Sector-based exclusions concern fossil fuels. Since 2018, in accordance with its RI Charter, the Banque de France has excluded from its investments companies that derive over 20% of their revenue from thermal coal (extraction or coal-based energy production). The Banque de France has updated its charter in a bid to strengthen and widen 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 provided for by European Regulation 2019/2089 on sustainability benchmarks, and more specifically with the thresholds applicable to EU Paris-aligned benchmarks (PAB). The European Commission's Delegated Act 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 these hydrocarbons, including shale oil, shale gas, oil sands and/or Arctic or deepwater exploration-development.

To implement these exclusions, the Banque de France relies on the data provided by Moody's ESG and S&P Trucost and on the data available to its asset management subsidiary, BDF Gestion. As at 30 November 2021, the own funds portfolio did not contain any company involved in coal, while just 0.4% of the total assets of the equity component of the pension liabilities portfolio was exposed to companies involved in thermal coal (extraction or coal-based energy production). This share was slightly up compared with 2020, when it stood at 0.2% of total assets, owing to increased

¹ In practice, companies excluded under the ESG filter are left out of all portfolios (except index funds, which make up 7%

of the portfolios), taking all asset classes into account.

BOX 1: FRENCH LABELS

In France, four responsible investment labels have the backing of the public authorities: The Banque de France prioritises funds that have been awarded these labels, especially the Greenfin and Socially Responsible Investment (SRI) labels, in its investment decisions:

- Greenfin label: created in 2015 by the Ministry of Ecology and Sustainable Development to guarantee the green credentials of investment funds, this label primarily covers the nature of funded activities. Some activities, such as fossil fuels, are banned, while the green share – based on eight designated eco-friendly sectors – must account for the majority of the fund's assets. Funds must also take account of ESG criteria and measure the impact of their financing on the energy and ecological transition (EET). The Banque de France refers to this label when selecting EET thematic funds under Objective No. 2.
- SRI label: created in 2016 by the Ministry for the Economy and Finance, this label applies to the environmental, social and governance (ESG) practices of investment funds. A reference framework, which was updated in 2020, covers funds' 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. The Banque de France applies the most restrictive principle of this label to its equity components, which means that it excludes 20% of its investment universe based on ESG criteria.
- 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 (Relaunch): created in 2020 by the Ministry for the Economy and Finance, 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 firms. 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 an ESG score or indicator.

investments in external open-end funds to which the Banque de France's fossil fuel exclusion thresholds cannot be applied.

To achieve the 20% threshold, the Banque de France supplements its norm-based and sector-based exclusions by **applying a best-in-class filter 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. Regarding the environment, indicators cover for example the existence of an environmental strategy, prevention of risks of harm to biodiversity, or pollution control. Social indicators cover, among others, workplace 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 the company's 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

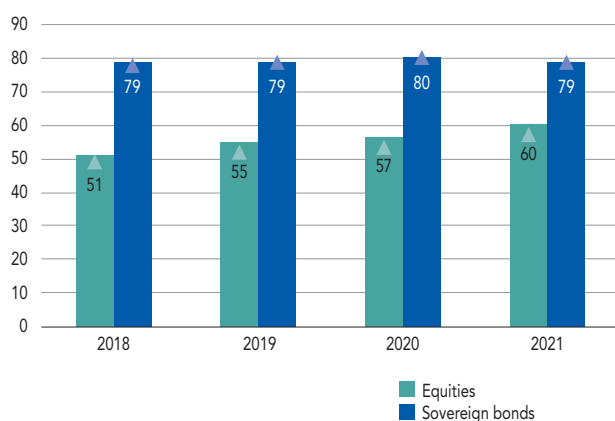
In addition to the ESG scores calculated by Moody's ESG for each issuer in the portfolio, the Banque de France monitors the average overall ESG score of each portfolio, by asset class. For companies, the ESG score is calculated using the methodology described above. For states, the ESG score is based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

Overall, **the ESG scores of the portfolios' equity components have improved over the last three years and continue to outperform their benchmarks. Conversely, the ESG scores of the sovereign bond components have fallen, especially in the case of the pension**

C1 Portfolios' average ESG scores

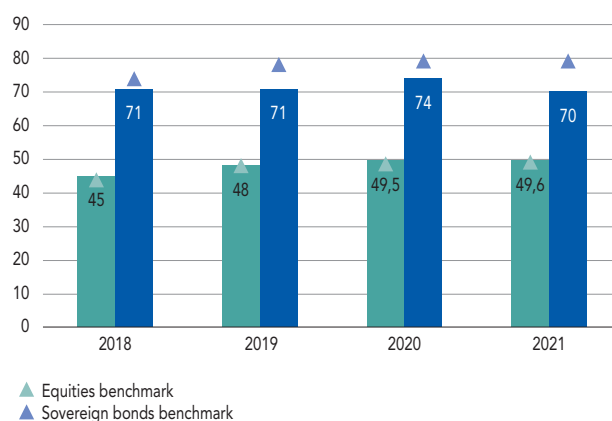
(score out of 100)

a) Own funds portfolio



Source: Moody's ESG.
Note: ESG – environmental, social and governance.

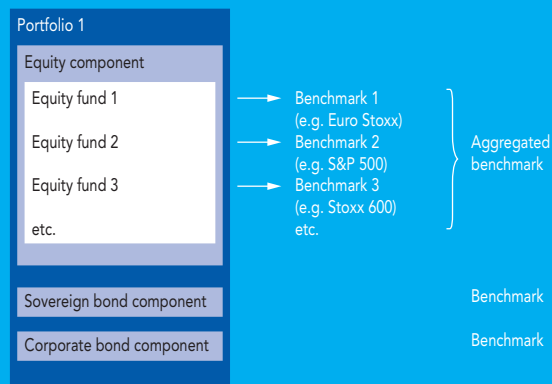
b) Pension liabilities portfolio



BOX 2: BENCHMARKS

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 from a composition of the main stock market indices, including the Euro Stoxx and the S&P 500. 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 decomposes each portfolio into different components, which contain 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. It then compares each component against a composite benchmark 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.



liabilities portfolio. This is due to the increased portfolio share taken up by US government bonds, whose score has decreased since 2020 and which perform especially poorly on environmental and social aspects.

Social indicators

The Banque de France is progressively strengthening the social aspect of its responsible investment strategy. In 2021, the Banque de France expanded its green bond purchases to include social and sustainable bonds.² It also supports the development of thematic funds whose investment objectives include achieving a significant social and societal impact as well as fighting global warming. In addition, the Banque de France has diversified the indicators used to measure the social performance of the equity components of its portfolios. In 2018 and 2019, the Banque de France tracked two indicators: one measuring workplace health and safety, the other covering non-discrimination. In 2020, Banque de France added an indicator that looks at the societal

impact of the goods and services produced by portfolio companies, plus an indicator of the contribution made by these companies to the economic and social development of the local areas where they operate.

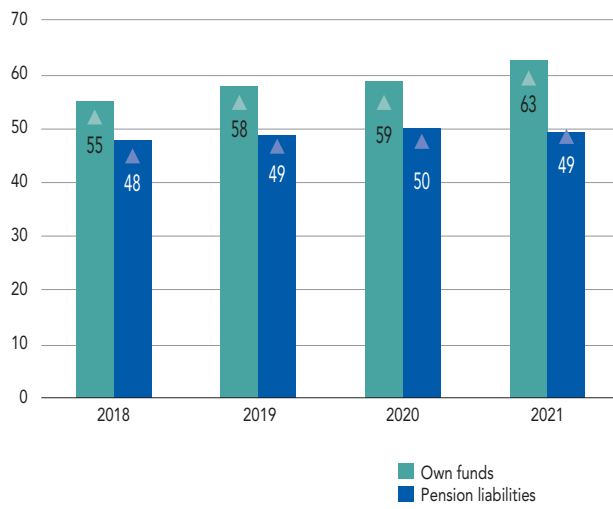
- The workplace health and safety indicator concerns the working environment of people employed by portfolio companies and includes factors such as a safe working environment, safe working conditions, protection of physical and mental wellbeing, and accident frequency and severity. The equity component of the own funds portfolio continues to improve its score on this indicator while the pension liabilities portfolio maintained a stable performance. The score for the two portfolios continues to outperform the benchmark. The strong performance was driven in particular by the utilities (electricity supply) and basic materials sectors, but was negatively impacted by the media and telecommunications and health sectors, particularly for companies in the North America region. The scores factored in company performances in dealing with the pandemic, through controversy monitoring.

² Sustainability bonds may finance green and social activities.

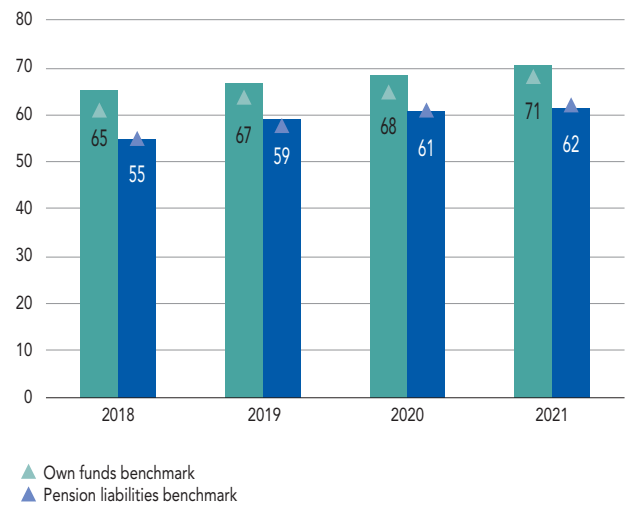
C2 Portfolios' social scores, equity components

(score out of 100)

a) Workplace health and safety scores



b) Non-discrimination scores



c) Societal impact scores at 30/11/2021



d) Economic and social development scores at 30/11/2021



▲ Benchmark

Source: Moody's ESG.

- The non-discrimination indicator considers the way in which the company prevents discrimination in the workplace, including training and awareness, whistleblowing and/or reporting procedures, monitoring of wage gaps, the percentage of women in management positions, inclusion of disabled people, and more. In terms of their score for this indicator, the equity components pursued the improvement underway since 2018, as they continued to outperform or match their benchmark. Scores were positively impacted by the utilities (electricity supply) and basic materials sectors.
- The indicator that tracks the societal impact of the goods and services of portfolio companies reflects the measures taken by companies to prevent and/or mitigate the risks linked to dangerous products, such as tobacco and alcohol, or to facilitate access by vulnerable or needy people to beneficial products, such as certain basic medicines or banking services. **The equity components scored better than the benchmarks on this indicator. The equity component of the own funds portfolio scored 53.9, compared with 50.9 for the benchmark. The equity component of the pension liabilities portfolio scored 44.2 compared with 41.9 for the benchmark.** The score is calculated only for the sectors for which Moody's ESG judges the societal impact to be material, i.e. 27 of the 38 sectors analysed by Moody's ESG.³ These sectors account for 50% of the assets in the equity component of the own funds portfolio and 60% for the equity component of the pension liabilities portfolio.
- The indicator of commitments to promote the economic and social development of the regions where portfolio companies operate reflects the investments made by these companies in their local areas, job creation (recruitment of local suppliers), management of restructuring measures within local labour catchment areas, skills transfers (establishment of local training courses) and technology transfers, and proper payment of taxes and levies (presence in offshore financial centres, tax transparency, etc.). The equity components scored better than the benchmarks on this indicator. **The equity component of the own funds portfolio scored 59.2, compared with 56.2 for the benchmark. The equity component of the pension liabilities portfolio scored 47.2 compared with 46.9 for the benchmark.**

³ For example, analysed sectors include Tobacco, Beverages, Pharmaceuticals and

Biotechnology. Non-analysed sectors include Heavy Construction and Aerospace.

PILLAR 3: ENGAGEMENT

In order to fulfil its role as a responsible shareholder, the Banque de France exercises its voting rights in accordance with a formal policy¹, promoting better recognition of ESG issues by the companies in which it invests. As a responsible investor, the Banque de France commits to taking a long-term outlook.

The Banque de France's voting policy

In accordance with Objective No. 5, the Banque de France adopted in 2019 a voting policy including extra-financial provisions. These cover, among other things, transparency about companies' environmental impact, recognition of extra-financial performances in executive remuneration, and gender balance on boards. The Banque de France's voting policy, which is published on its website, details the Bank's expectations with respect to companies in which it is a shareholder.

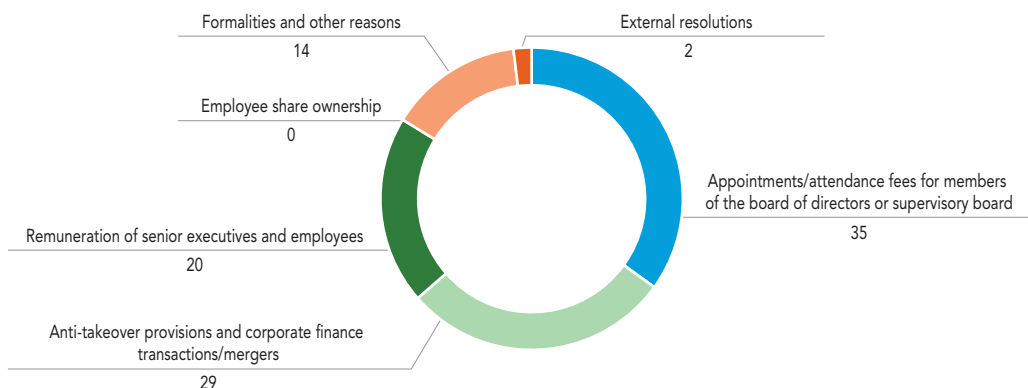
In 2020, the Banque de France bolstered its extra-financial requirements by adding two provisions on fossil fuels to its voting policy. First, by the time it exits coal completely in late 2024, the Banque de France expects companies involved in this sector to have a full exit plan. Second, the Banque de France will oppose any new project to develop fossil fuels. **The Banque de France cannot approve the financial statements of companies that do not meet these two requirements.**

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.
- **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.
- **Board of directors or supervisory board: independence of the board, diversity and separation of powers.** In particular, the Banque de France aims to ensure gender balance (at least 40% for each) on boards.
- **Executive remuneration and workforce association: a transparent and consistent remuneration policy.** In particular, the variable remuneration of executives must take into account companies' extra-financial performances.
- **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.

Distribution of votes "against" by resolution type

(%)



Source: BDF Gestion.

- **External resolutions:² improving environmental, social and governance practices.** In particular, the Banque de France supports external resolutions aimed at reducing the carbon intensity of activities and minimising the risks associated with climate change.

The Banque de France applied this voting policy for the first time during the general meetings that took place in 2020 on 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.

In 2021, the Banque de France and BDF Gestion took part in 393 general meetings (GMs) and voted on more than 5,800 resolutions, which included casting more than 1,500 votes "against" (see *Chart*). Overall, they voted against 25% of resolutions, compared with 23.3% in 2020. These mainly concerned resolutions on appointments, anti-takeover provisions and corporate finance transactions.

In addition to voting, the Banque de France has the ability to table questions during GMs. In 2021, it questioned a major company on integrating extra-financial performances in determining the variable remuneration of executives.

General meeting attendance rate

To maximise its influence as a shareholder at general meetings, the Banque de France wanted to significantly increase its attendance rate. In accordance with the target that it set itself, it achieved in 2021 a general meeting attendance rate of over 80%, which it intends to have as its minimum rate going forward. The Banque de France and BDF Gestion took part in 393 general meetings out of the 436 held in 2021, resulting in an overall attendance rate of 90%.³

¹ The Banque de France's voting policy is available on the Banque de France's website: <https://www.banque-france.fr/>

² Resolutions tabled by shareholders themselves. Over recent years, the climate has been a favoured theme for external resolutions.

³ Excluding external index funds, which make up 7% of the portfolios.

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