BANKA SLOVENIJE

EVROSISTEM

Climate-related disclosure of Banka Slovenije's own financial assets

June 2024

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Executive Summary

This is the second report in which Banka Slovenije publishes detailed climate-related information related to our own financial assets, based on a disclosure framework mutually agreed at the Eurosystem level. It represents our contribution towards increased transparency about climate-related risks and opportunities pertaining to our financial assets. In addition to being transparent, we also wish to continue to raise public awareness and understanding of climate risks and opportunities.

As in last year's report, our disclosure framework continues to be broader than the one set at the Eurosystem level. The common framework continues to take into account recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board (FSB) and those of Partnership for Carbon Accounting Financials (PCAF) and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). Besides disclosing several backward-looking climate-related metrics of our financial assets, we continue to disclose certain forward-looking metrics and six years of historical data. Moreover, we are disclosing information on all four elements recommended by the TCFD, namely Governance, Strategy, Risk Management, and Metrics and Targets. This year we have considerably expanded the Risk Management chapter, where we disclose our approach towards integrating climate-related risks in our risk management framework.

In March 2023, we adopted a renewed socially responsible and sustainable investment framework where we set our long-term climate-related target and two medium-term objectives. In line with the EU's climate neutrality strategy supporting the Paris Agreement, we continue striving to approach net-zero greenhouse gas emissions of our financial assets by 2050 as much as possible. Central banks are among the largest institutional investors. Therefore, it is important to include socially responsible objectives and sustainability-linked considerations in our investment framework.

We have further increased the target exposure to green, social and sustainable bonds, which represents our first medium-term objective. In March 2023, we decided to increase our investments in green, social and sustainable bonds to at least EUR 400 million by the end of 2025. At the end of 2023, our investments in such bonds amounted to almost EUR 450 million, representing an increase of more than EUR 160 million compared to the end of 2022. As we have already reached our first medium-term target, we have decided to increase it further to at least EUR 600 million. By increasing the target, we aim to continue providing additional financing for projects that actively contribute to the decarbonisation of the economy and to the general improvement of people's socio-economic situation.

In line with our second medium-term objective, we continue to reduce the carbon footprint of our investments in private sector issuers. In 2023, we considerably tightened the criteria for excluding carbon-intensive companies from the list of eligible issuers by following EU Paris-aligned benchmark recommendations as much as possible. By doing so, we managed to lower the carbon footprint of our non-financial corporate bonds portfolio by roughly 40% in 2023 compared to 2022. The carbon footprint of our non-financial corporate bonds portfolio is roughly 70% lower than that of the benchmark index (euro investment-grade non-financial corporate bonds). In

2024, we plan to reduce the carbon footprint of our equity holdings by switching from global market capitalisation-oriented exchange-traded funds (ETFs) to low-carbon ETFs. In the future, we also plan to decrease carbon footprint of our other private sector investments.

Last year, for the first time we conducted a climate stress test of our own financial assets. The climate stress test complements our risk management framework by including environmental risks in the process of identification and assessment of risks to which our financial assets are exposed. The results of our first climate stress test show that environmental risks increase financial risks, which, in terms of our financial risk exposure, confirms our commitment and activities to reduce the environmental footprint of our own financial assets.

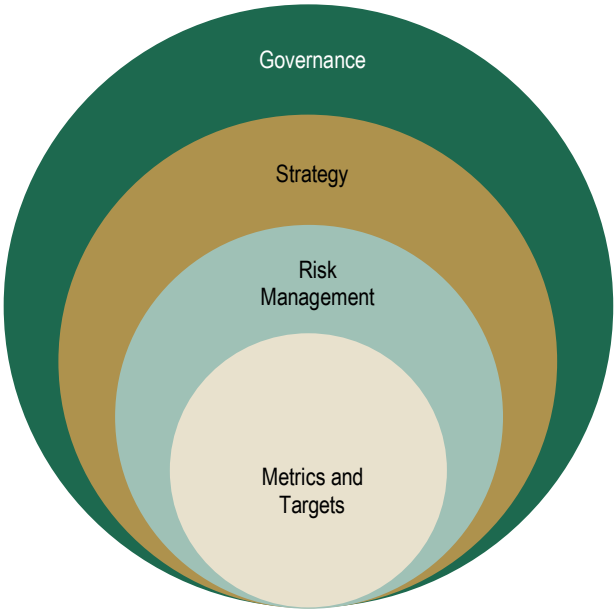
1 Introduction

This is the second report in which Banka Slovenije publishes detailed climate-related information related to our own financial assets, based on a disclosure framework mutually agreed at the Eurosystem level. Banka Slovenije continues to follow the disclosure recommendations of the Task Force on Climate-related Financial Disclosures (TCFD[1]) of the Financial Stability Board (FSB). Banka Slovenije also considers recommendations of the Partnership for Carbon Accounting Financials (PCAF[2]) and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS[3]).

As in last year's report, we are disclosing climate-related information under all four TCFD elements, namely Governance, Strategy, Risk management, and Metrics and Targets. In addition, we are disclosing several backward- and forward-looking climate-related metrics of our entire financial assets for the last six years (see "Metrics and Targets" section for further information).

This report covers Banka Slovenije's own financial assets only, and does not cover information about its other financial asset portfolios, e.g. those related to monetary policy.

Figure 1: **Four core elements of TCFD climate-related disclosure recommendations**



Source: TCFD.

The aim of this report is to increase transparency regarding climate-related risks and opportunities related to our own financial assets. We plan to improve climate-related disclosures over time, in line with improving data quality. Through greater transparency of our own activities, we strive to contribute to the availability of climate data and a better overall understanding of climate risks and opportunities.

All figures used in this report are unaudited.

[1] Task Force on Climate-related Financial Disclosures (TCFD).
[2] Partnership for Carbon Accounting Financials (PCAF).
[3] Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

2 Governance

Banka Slovenije has adopted an integrated approach with regard to the governance of climate-related risks and opportunities. As a result, socially responsible factors and sustainability-related considerations are addressed within our existing governance framework related to the management of our own financial assets.

Our Governing Board is responsible for the adoption of high-level guidelines related to management of our own financial assets, including those related to the currency and asset class structure. The structure of our own financial assets is determined on the basis of strategic asset allocation, taking into account all constraints by optimising the expected return, while keeping quantitatively expressed financial risks at an acceptable level. The strategic asset allocation is approved annually by the Governing Board at the proposal of the Investment Committee. The Governing Board is also responsible for setting the investment objective, i.e. strengthening Banka Slovenije's capital over the medium term, thereby helping to ensure our financial independence in performing central banking tasks. While meeting this objective, we also strive for socially responsible and sustainable investing.

In oversight of the management of our own financial assets, including the oversight of climate-related risks and opportunities, Banka Slovenije's Governing Board is supported by the Investment Committee, which continuously monitors the asset management process and meets, in principle, on a monthly basis. The Investment Committee is responsible for setting more specific asset management criteria. The Investment Committee reports to the Governing Board on a quarterly basis to ensure the monitoring of risks and returns, including those related to climate change.

Portfolio managers are responsible for managing the financial assets in accordance with guidelines and criteria adopted by the Governing Board and Investment Committee. Portfolio managers are also responsible for the implementation of investment management strategies incorporating sustainability considerations. Risk managers are responsible, inter alia, for monitoring, assessing and reporting the risks stemming from these financial assets, including, progressively, the risks related to climate change.

To effectively link, coordinate, and steer the work in the area of climate change within Banka Slovenije, and to cooperate with other institutions in this area, we have set up a Committee for Climate Change and the Green Agenda. The committee is tasked with ensuring that climate change-related content relevant to the implementation of all Banka Slovenije's tasks is addressed comprehensively and in line with our strategic goals.

We have taken an active role in various international groups dealing with climate change-related topics. In October 2020, we joined the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), which brings together numerous institutions, including central banks, other banking supervisors and international financial institutions.

3 Strategy

Banka Slovenije is well aware of the importance of understanding, anticipating and adapting to the implications of climate change and of the impact of the transition towards a more sustainable economy on future economic and financial outcomes. In recent years, therefore, we have been continuously developing our socially responsible and sustainable investment framework, with the aim of actively contributing to the transition to a low-carbon economy.[4] Beyond adapting our own behaviour, we also wish to further raise public awareness and understanding regarding climate risks and opportunities. We are also striving to improve the quality and transparency of disclosed climate-related information.

In March 2023, we adopted an overhauled socially responsible and sustainable investment framework. In line with the EU's 2050 long-term strategy supporting the Paris Agreement, we have decided to contribute our share by striving to approach net-zero greenhouse gas (GHG) emissions of our own financial assets as much as possible by 2050.

To achieve our long-term goal, we set two medium-term targets. First, we decided to increase our investments in green, social and sustainable bonds (together referred to as thematic bonds) to at least EUR 400 million by the end of 2025. At the end of 2023, our investments in thematic bonds amounted to almost EUR 450 million, representing an increase of more than EUR 160 million compared to the end of 2022. As we have already reached our first medium-term target set in March 2023, we have decided to increase the target further to at least EUR 600 million. The increase is also in line with our decision to further increase of our own financial assets in 2024. By increasing the target amount of thematic bonds, we aim to continue providing additional financing for projects that actively contribute to the decarbonisation of the economy and to the general improvement of people's socio-economic situation.

Second, we plan to continue reducing the carbon footprint of our investments in the private sector issuers, i.e. corporate bonds (financial and non-financial), covered bonds and equities. In 2023, we were focused on reducing the carbon footprint of our non-financial corporate bonds portfolio by implementing considerably stricter criteria for excluding companies from the list of eligible issuers by following the EU Paris-aligned benchmark recommendations as much as possible.[5] By following these recommendations, we discontinued investing in carbon-intensive companies, while companies from the tobacco and weapons[6] sectors continued to be excluded. Additionally, we plan to gradually divest our investments in such issuers by the end of 2025. In 2024, we plan to reduce the carbon footprint of our equity holdings by switching from global market capitalisation-oriented exchange-traded funds (ETFs) to low-carbon ETFs. In the following years, depending on the quality and availability of the data, we might set carbon footprint-lowering strategies for our other private sector investments, i.e. financial corporate bonds and covered bonds. A detailed description of our long-

[4] In this report, the expressions "carbon" and "greenhouse gas" are used interchangeably, both expressions meaning all greenhouse gases.

[5] As stated in Article 12 of Commission delegated regulation (EU) 2020/1818 of 17 July 2020, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate transition benchmarks and EU Paris-aligned benchmarks.

[6] Companies involved in the production of cluster munitions, landmines, chemical and biological weapons, and nuclear weapons.

term goal, medium-term targets and strategies can be found in the “Metrics and Targets” section.

4 Risk Management

This chapter summarises how we integrate climate risks into our risk management framework. Specifically, how we identify, assess and manage climate-related risks pertaining to our own financial assets.

4.1 Integration of climate-related risks into the risk management framework

Our own financial assets are exposed to climate-related risks, potentially leading to adverse financial outcomes in the face of a progressive change in risk factors or extreme climate shock. We are gradually integrating climate-related risks into our own risk management process using a bottom-up approach, where climate risks do not form a new individual category, but are rather an amplifying factor of existing financial risks, such as credit and market risk. In respect of climate-related risks, we distinguish between transition and physical risks. Transition risks concern the likelihood and impact of the economic consequences of the transition to a carbon-neutral economy. Physical risks, on the other hand, concern the likelihood and impact of severe weather events or natural disasters occurring as a consequence of climate change.

The identification and assessment phase captures climate risks based on their traditional reflection in asset prices, price volatilities and credit risk indicators such as ratings of external credit agencies (CRAs). Credit ratings and analyses of the three major CRAs (Moody's, Standard & Poor's and Fitch), represent the primary source for evaluation of the creditworthiness and eligibility in our investment portfolio. Therefore, we examined in detail the CRAs' methodologies as detailed in chapter 4.2.

Financial risks are usually measured over shorter time horizons, while the negative impacts of climate change are expected to play out in the coming decades. The realisation of those risks and the severity of the future disasters depends on the implementation of climate commitments to reduce emissions. To integrate climate risks beyond those reflected in market and credit indicators, a climate stress test which incorporates forward-looking metrics (scenario projections) was added to the risk identification and assessment stage, as further elaborated in chapter 4.3.

In the risk mitigation phase of our own financial assets, we apply eligibility criteria, credit risk assessment and various limits. As regards climate-specific measures, in 2023 we considerably tightened the criteria for excluding companies from the list of eligible issuers by following EU Paris-aligned benchmark recommendations as much as possible. The exclusion list is updated on a regular basis. With acquired experience and expertise, enhanced data quality and development of specific indicators of physical and transition risk, we anticipate further enhancing our risk mitigation phase.

4.2 Climate considerations of credit assessment sources

We aim to ensure that climate aspects are incorporated into the rating sources which support the credit risk assessment of our financial assets. Credit ratings and analyses of the three major CRAs represent the primary source for evaluation of the creditworthiness of issuers and play a significant role in our risk management framework. We examined the methodological principles of climate-change risk (as well as social and governance factors of ESG criteria) integration into CRAs' credit rating processes, as they have already taken important steps in systematic assessment and

inclusion of climate factors in traditional credit ratings. The acquired knowledge will be utilised and further developed through understanding of the methodological approaches of other credit rating sources and data providers. We will regularly monitor the evolution of CRAs' methodologies and follow climate data disclosures both independently and as part of the Eurosystem. Increased availability and usability of these data could lead to their gradual integration into our existing risk management process.

4.3 Climate stress test of Banka Slovenije's financial assets

Following best practices of the Eurosystem, we conducted in 2023 our first climate stress test (CST) for part of our own financial assets, using the ECB methodology. The CST includes three long-term scenarios and two short-term scenarios developed by the NGFS and the ECB. The long-term scenarios have a 30-year horizon and vary according to the success in pursuing the commitments of the Paris Agreement. The worst-case scenario, i.e. hot-house world (HHW), primarily emphasizes physical risks resulting from the rise of emission levels due to non-implementation of climate policies. The second scenario, i.e. disorderly transition, assumes a delayed response to climate change, resulting in higher transition costs. Both scenarios are compared to the baseline long-term scenario where commitments of the Paris Agreement are immediately and comprehensively fulfilled. The two short-term scenarios particularly highlight the impact of catastrophic floods or disorderly adjustments of the economy to climate change.

The unique aspect of the CST methodology lies in the granularity of the input data and the comprehensive modelling of the economic impacts of climate change. This is integrated through increased risk of individual company defaults as well as higher credit spreads and interest rates. In each scenario, a specific year is identified as the point where the impacts on financial risks are greatest. Using an internal model for measuring financial risks, the distribution of losses is calculated and standard risk measures are derived. In the CST implementation on our own financial assets, credit deterioration impact was simulated for non-financial corporate bonds, while market shock impact was estimated for the entire bond portfolio. Table 1 summarizes the results of our stress test. For long-term scenarios, the risks are compared with the risk of the baseline scenario, and for short-term scenarios with the current risks of the portfolio. In all scenarios, the risks are higher, in the short term the most in the floods scenario, and in the long term the most in the HHW scenario.

The materiality of environmental risks is not negligible, which, from the point of view of exposure to risks, confirms our commitment to reduce the environmental footprint of our own investments. In addition, the CST complements the risk management framework by addressing environmental risks in the process of risk identification and assessment to which our own investments are exposed.

Table 1: **Representation of stress test results across different scenarios**

	Scenario	Horizon	Risk impact on our financial assets
Long-term	Orderly transition (Baseline scenario)	30 years	Moderate transitional, minor physical
	Disorderly transition		Significant transitional, moderate physical
	Hot-house world		Minor transitional, significant physical
Short-term	Floods	1 year	Significant physical
	Disorderly transition	3 years	Significant transitional

Source: ISS, C4F, World Bank, Bloomberg, ECB, BS calculations.

5 Metrics and Targets

This section presents Banka Slovenije's disclosure of climate-related metrics and targets for our own financial assets, which amounted to approximately EUR 4.3 billion as of 31 December 2023. The calculations and disclosures follow the recommendations of the TCFD and the PCAF to the extent possible.[7]

5.1 Targets

Long-term target

Setting a long-term climate target, supplemented with one or more medium-term targets, is an essential step towards creating an efficient socially responsible and sustainable investment framework. These targets reflect our commitment to reduce our own financial assets' exposure to climate-related risks and their carbon footprint.

The Paris climate agreement, ratified in 2016 by members of the UNFCCC,[8] sets out a global framework for combating climate change. The primary goal of the Paris Agreement is to keep the average global temperature rise in this century well below 2˚C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5˚C. Achieving this target requires significant reductions in GHG emissions globally. Climate experts, such as the IPCC,[9] estimate that countries should achieve net-zero GHG emissions by 2050 to achieve the goal.

In line with our long-term objective and the EU's climate neutrality strategy supporting the Paris Agreement, we continue striving to approach net-zero GHG emissions of our own financial assets as much as possible by 2050.

Central banks are among the largest institutional investors. It is therefore important to have social responsibility factors and sustainability-linked considerations included in our investment framework, thus increasing the public awareness of the importance of reducing GHG emissions and setting ambitious environmental objectives.

Nevertheless, the primary responsibility for improving environmental standards and combating global warming to achieve net-zero GHG emissions by 2050 lies with fiscal authorities rather than with investors. In fact, the most effective and efficient incentive to reduce GHG emissions is setting a price for these emissions, by means either of a carbon tax or of a trading scheme encompassing all carbon emissions. The decarbonisation of our own financial assets will also depend on the success in the reduction of GHG emissions by issuers within our investment universe. The higher the share of eligible issuers that reach their net-zero targets, the higher the probability that

[7] Banka Slovenije is aware of data quality challenges as environmental data have been systematically collected only in the past few years. To mitigate and minimise data quality challenges, we will monitor, critically assess and over time possibly revise disclosed metrics and our environmental targets. Nevertheless, despite any data deficiencies, we believe that the benefits from promoting transparency and commitments regarding climate risks outweigh any limitations arising from data quality challenges.

[8] United Nations Framework Convention on Climate Change.

[9] Intergovernmental Panel on Climate Change.

investors (including Banka Slovenije) will be able to meet their (or our) long-term targets (e.g. net-zero GHG emissions by 2050).

Medium-term targets

To achieve our long-term target, we are following two medium-term objectives that need to be achieved by the end of 2025. First, we plan to further increase our investments in green, social and sustainable bonds to at least EUR 600 million (increase of the target set in March 2023: at least EUR 400 million). Second, we will continue to reduce the carbon footprint of our investments in the private sector issuers, i.e. financial and non-financial corporate bonds, covered bonds and equities.

Increasing our investments in green, social and sustainable bonds

In 2023, we increased our investments in green, social and sustainable bonds to almost EUR 450 million, representing an increase of more than EUR 160 million compared to the end of 2022. As we have already reached our first medium-term target set in March 2023, we have increased it further in 2024 to at least EUR 600 million.

By increasing the target amount of thematic bonds, we aim to continue providing additional financing for projects that actively contribute to the decarbonisation of the economy and to the general improvement of people's socio-economic situation.

Investing in green, social and sustainable bonds is and will continue to be applied across all fixed-income asset classes in which we invest, i.e. sovereign, sub-sovereign, supranational, agency and corporate bonds.

Reducing the carbon footprint of our investments in private sector issuers

We continue to reduce the carbon footprint of our own investments in private sector issuers. In 2023, we updated and considerably tightened the criteria for excluding companies from the list of eligible issuers by following EU Paris-aligned benchmark recommendations as much as possible, taking also into account data quality and availability. By following these recommendations, we have discontinued investing in carbon-intensive companies which earn more than (i) 10% of their revenue from fossil fuels in general, (ii) 1% of their revenue from coal operations, (iii) 10% of their revenue from oil operations, (iv) 50% of their revenue from natural gas operations, or (v) 50% of their revenue from the generation of electricity from fossil fuels with a GHG intensity above 100g CO_2e/kWh. Additionally, we have discontinued investing in companies from carbon intensive sectors that do not report these data. Moreover, we have continued excluding companies from the tobacco and weapons sectors. By tightening the exclusion criteria, we lowered the carbon footprint of our non-financial corporate bonds portfolio by roughly 40% in 2023 compared to 2022. The carbon footprint of our non-financial corporate bonds portfolio is roughly 70% lower than that of the benchmark index (euro investment-grade non-financial corporate bonds).

In 2024, we plan to reduce the carbon footprint of our equity holdings by switching from global market capitalisation-oriented exchange-traded funds (ETFs) to low-carbon ETFs. In the future, we also aim to introduce carbon footprint-lowering strategies for our investments in financial corporate bonds and covered bonds (e.g. the exclusion of inappropriate issuers and favouring issuers with lower GHG emission intensities and/or more ambitious climate targets). However, all future plans are highly dependent on the quality and availability of suitable climate data for these asset classes.

5.2 Metrics

In line with last year's report, we are disclosing several backward-looking and forward-looking climate-related metrics of our entire financial assets. We are disclosing the following four backward-looking metrics: (i) Weighted average carbon intensity (WACI), (ii) Total carbon emissions (TCE), (iii) Carbon footprint, and (iv) Carbon intensity. In general, the higher (increasing) the value of disclosed backward-looking metrics, the higher (deteriorating) the portfolios' carbon footprint. Moreover, we are also disclosing three forward-looking metrics, which are available only for private sector issuers: (i) GHG emission reduction targets, (ii) Temperature score, and (iii) Carbon risk rating. In general, the higher (increasing) the exposure to issuers committed to global climate and temperature goals, the higher (improving) the portfolios' alignment with the climate goals of the Paris Agreement. Furthermore, the higher (increasing) the Carbon risk rating, the higher (improving) the portfolios' preparedness for the transition to the low-carbon economy. In addition to the above-mentioned backward- and forward-looking metrics, we are also disclosing the amount of our investments in green, social and sustainable bonds (including the share of green bonds' investments as a separate metric).

Various climate-related metrics provide an assessment from different but complementary perspectives on whether current and planned issuers' GHG emissions are consistent with climate-related targets. A detailed description of all disclosed metrics is presented in Annex 2.

GHG emissions are measured and expressed in tons of CO_2 equivalent[10] (tCO_2e) and usually reported under three scopes (Scopes 1, 2 and 3), as defined by the most commonly used global standard, the GHG Protocol.[11] Our calculations of backward-looking metrics (WACI, TCE, Carbon footprint and Carbon intensity) are based on the sum of Scope 1 and Scope 2 GHG emissions as recommended by the TCFD. In the future, we might include Scope 3 GHG emissions in our calculations as well, if and when methodologies, coverage and especially data quality improve to reduce the risk of double counting of GHG emissions.

We performed calculations of climate-related metrics using data provided by Institutional Shareholder Services Germany AG (ISS) and Carbon4 Finance (C4F). In addition, we also obtained certain data from the World Bank, the ECB and Bloomberg.

When performing calculations of selected climate-related metrics, we try to ensure on a best-effort basis that all data (portfolio data, GHG emissions data, financial data and other data) typically refer to the same reference year. However, since a large amount of data is only available with a certain time lag (e.g. GHG emissions data and certain financial data), inputs for metrics calculations (especially for the most recent year(s)) typically refer to slightly different reference years. Thus, due to recalculations of historical metrics using all the inputs for the same reference year, values of reported historical climate-related metrics in this year's report may be somewhat different than those in last year's report, especially values of metrics for the year 2022.

[10] Carbon dioxide equivalent (or CO_2 equivalent) is a measure used to compare the emissions of various greenhouse gases on the basis of their global warming potential by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

[11] Scope 1: Direct GHG emissions from owned or controlled sources (e.g. GHG emissions in the goods manufacturing process, use of company vehicles, etc.). Scope 2: Indirect GHG emissions from the generation of purchased and consumed energy (e.g. electricity, steam, heating, cooling). Scope 3: All other indirect GHG emissions not included in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream GHG emissions (e.g. business travel, waste disposal, consumption of goods, investments).

Table 2 shows climate-related metrics per asset class for our total financial assets as at year-end 2023 (historical data in Annex 1).

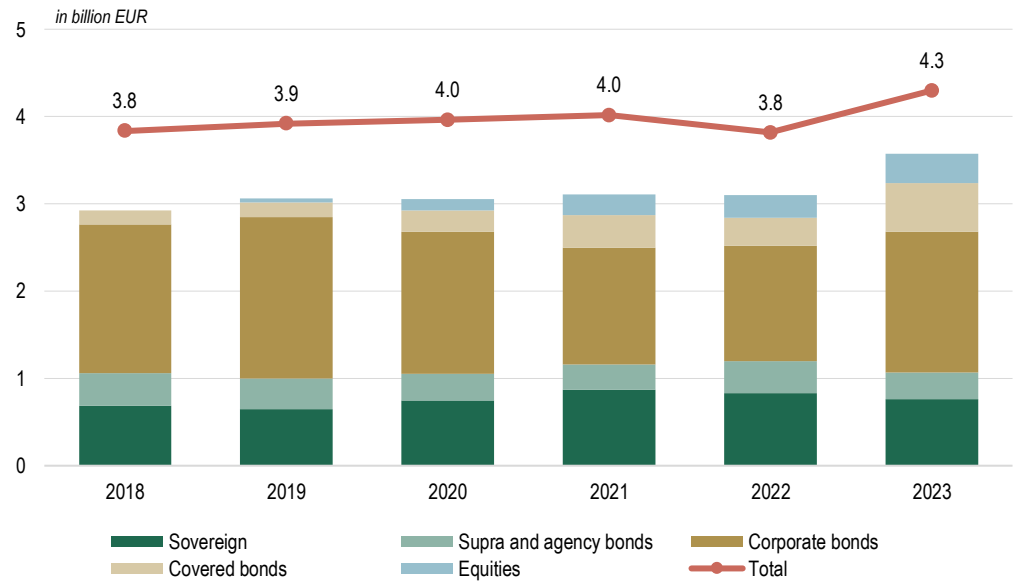
Table 1: **Climate-related metrics for year-end 2023**

	Sovereign investments				Non-sovereign investments				
	Sovereign & sub-sovereign bonds								
	Production (excl. LULUCF)	Production (incl. LULUCF)	Consump-tion	Govern-ment	Total non-sovereign	Supra & agency bonds	Corporate bonds	Covered bonds	Equities
Portfolio size (EURm)				765	2,806	302	1,610	560	335
WACI (tCO2e per EURm PPP adj. GDP / population / EURm total consumption expenditure or per EURm revenue)	232	216	15	185	38	2	35	0.8	127
	(100%)	(100%)	(100%)	(100%)	(90%)	(55%)	(97%)	(84%)	(100%)
Total carbon emissions (tCO2e)	187,779	174,910	215,965	21,748	50,551	13	29,784	62	20,691
	(100%)	(100%)	(100%)	(100%)	(90%)	(55%)	(97%)	(84%)	(100%)
Carbon footprint (tCO2e per EURm invested)	232	216	266	27	19	0.1	19	0.1	62
	(100%)	(100%)	(100%)	(100%)	(90%)	(55%)	(97%)	(84%)	(100%)
Carbon intensity (tCO2e per EURm PPP adj. GDP / population / EURm total consumption expenditure or per EURm revenue)	232	216	14	152	67	1	55	1	145
	(100%)	(100%)	(100%)	(100%)	(90%)	(55%)	(97%)	(84%)	(100%)
GHG emission reduction targets (% of investments in issuers committed to global climate goals)					62%	-	67%	45%	64%
					(92%)	(-)	(93%)	(83%)	(100%)
Temperature score below 2˚C (% of investments)					94%	-	96%	100%	80%
					(92%)	(-)	(93%)	(83%)	(99%)
Carbon Risk Rating (score; % of investments)					63	-	62	69	57
					(91%)	(-)	(93%)	(83%)	(97%)
Green, social and sustainable bonds (EURm; all asset classes)							447 (Green: 318, Social: 94, Sustainable: 35)		
Share of green bonds (all asset classes)									7.4% (8.9%)

Source: ISS, C4F, World Bank, Bloomberg, ECB, BS calculations.
Note: Portfolio size includes the market value of our total financial assets, excluding gold, cash and cash equivalents, as at 31 December 2023. The percentages in brackets below each metric's value indicate data availability (data coverage), calculated as the percentage of investments (i.e. market value of investments / market value of portfolio) for which all required data (i.e. GHG emissions data and financial data) is available. GHG emission reduction targets shows the percentage of investments in issuers committed to global climate goals (issuers with "Ambitious target", "Committed science-based target" (SBT) or "Approved SBT"). Share of green bonds shows the percentage of our green bond investments (i) in our total financial assets, including gold, cash and cash equivalents and (ii) in our total financial assets, excluding gold, cash and cash equivalents (in brackets).

The historical evolution and asset class breakdown of our total financial assets is shown in Figure 2. As at year end 2023, the portfolio (excluding gold, cash and cash equivalents) was composed of corporate bonds (45%), sovereign bonds (21%), covered bonds (16%), equities (9%), and supranational and agency bonds (8%).

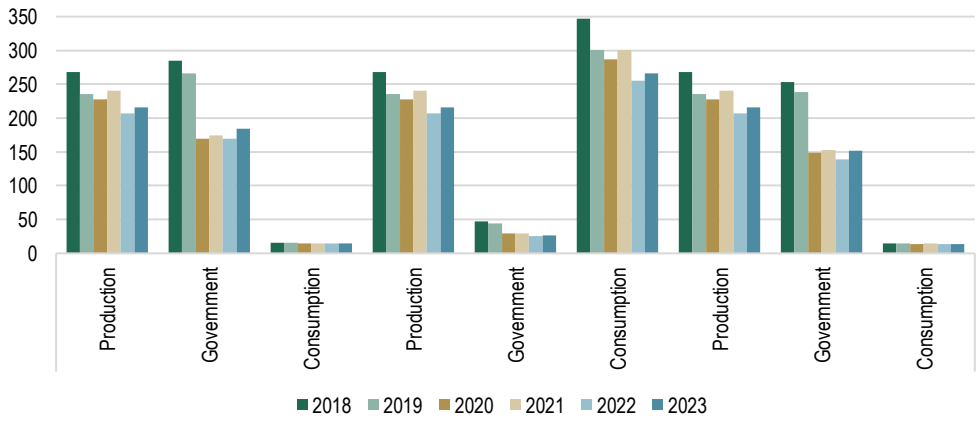
Figure 2**: Historical evolution of our total financial assets**



Source: BS calculations.
Note: Total includes non-reported asset classes, such as gold, cash and cash equivalents.

Figure 3 shows the historical evolution of normalised climate-related metrics of our sovereign investments. In general, normalised backward-looking metrics[12] of our sovereign investments improved (decreased) over the observed period (2018-2023), which could be mainly attributed to the reduction of GHG emissions by sovereign issuers in general. Backward-looking metrics slightly deteriorated (increased) in 2023 due to an increase of our investments in US and Canadian government and government-related bonds (more carbon intensive countries). Emissions intensities of selected countries are shown in Figure 4.

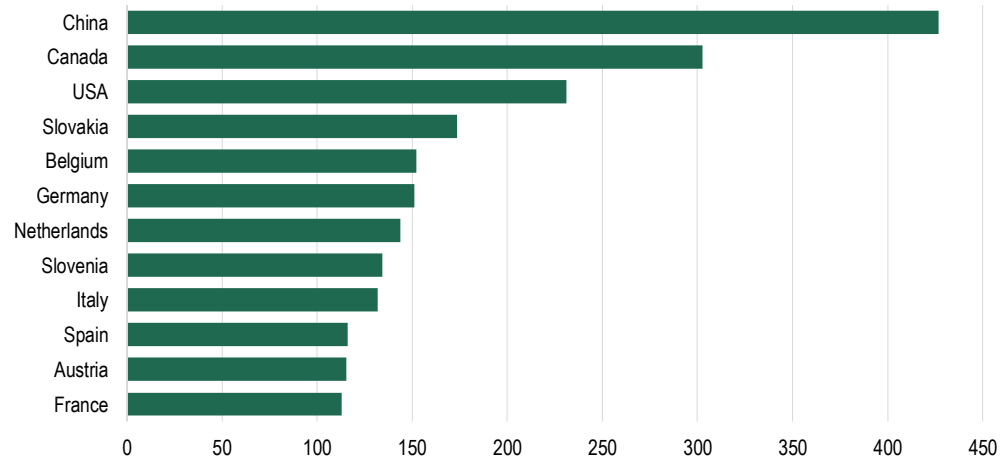
Figure 3: **Evolution of selected climate-related metrics of our sovereign investments**



Source: ISS, C4F, World Bank, Bloomberg, ECB, BS calculations.
Note: WACI and Carbon intensity: tCO_2e per EURm PPP adj. GDP or population or EURm total consumption expenditure. Carbon footprint: tCO_2e per EURm invested. Production method includes LULUCF.

[12] Metrics for sovereign investments can be calculated using three different methods, i.e. the production, consumption or government method. The production method captures GHG emissions produced within a country – we show GHG emissions by including and excluding the Land Usage, Land Usage Change and Forestry (LULUCF) sector, as recommended by the PCAF and other initiatives. The consumption method captures GHG emissions associated with the use of goods and services consumed in a country. The government method captures only GHG emissions related to government institutions and government expenditures.

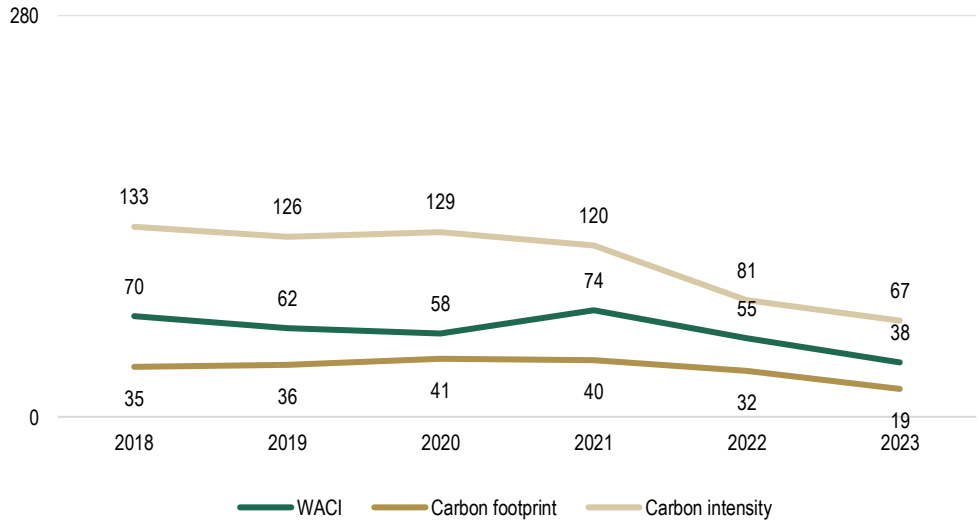
Figure 4**: Emissions intensity of selected countries**



Source: ISS, C4F, BS calculations.
Note: Emissions intensity: tCO_2e per EURm PPP adj. GDP (including LULUCF).

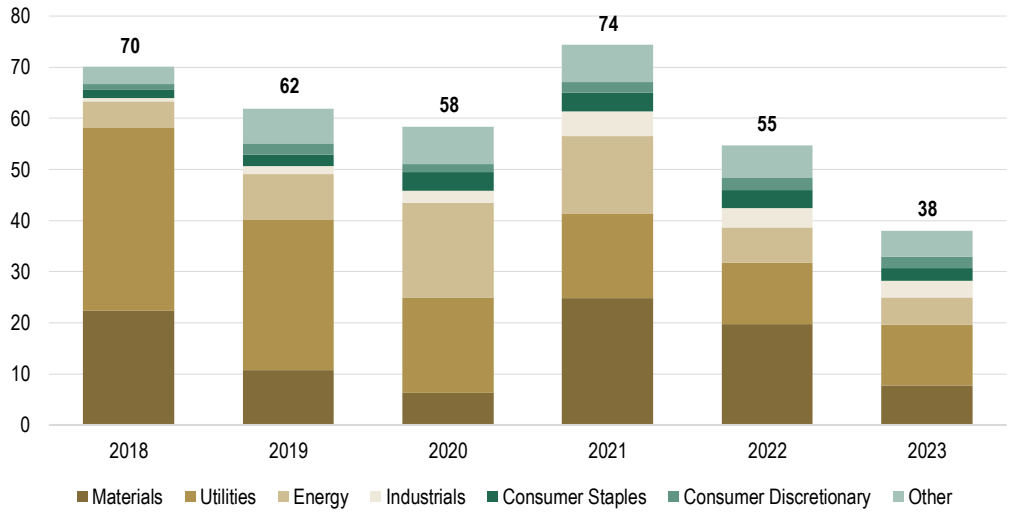
Figure 5 shows the historical evolution of the normalised climate-related metrics of our non-sovereign investments, while Figure 6 shows sector contributions to WACI of our non-sovereign investments. Over the 2018-2023 period, all three normalised metrics (WACI, Carbon footprint, and Carbon intensity) of our non-sovereign investments improved (decreased) significantly. In 2023, the improvement in normalised metrics was mainly a consequence of our decision to considerably tighten the criteria for excluding non-financial corporate bond issuers from the list of eligible issuers by following EU Paris-aligned benchmark recommendations as much as possible. By tightening the exclusion criteria, we lowered the carbon footprint of our non-financial corporate bonds portfolio by roughly 40% in 2023 compared to 2022, while WACI was lowered by roughly 30%. The carbon footprint and WACI of our non-financial corporate bonds portfolio are approximately 60-70% lower than that of the benchmark index (euro investment-grade non-financial corporate bonds). Decarbonisation of our non-financial corporate bonds portfolio was achieved by actively decreasing our exposure to the most carbon-intensive issuers and sectors and by reinvesting maturing bonds in less carbon-intensive issuers.

Figure 5: **Evolution of selected climate-related metrics of our non-sovereign investments**



Source: ISS, C4F, World Bank, Bloomberg, ECB, BS calculations.
Note: WACI and Carbon intensity: tCO_2e per EURm revenue. Carbon footprint: tCO_2e per EURm invested.

Figure 6: **Sector contributions to WACI of our non-sovereign investments**

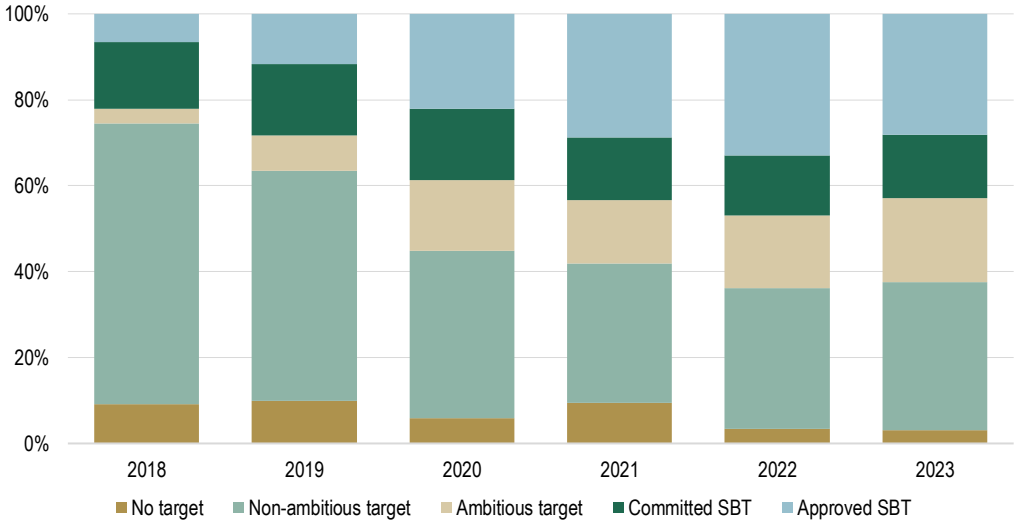


Source: ISS, C4F, World Bank, Bloomberg, ECB, BS calculations.
Note: WACI: tCO_2e per EURm revenue.

As in last year's report, we are also disclosing several climate-related metrics that are available only for private sector issuers, i.e. equities, corporate bonds and covered bonds. These metrics are GHG emission reduction targets, Temperature score and Carbon risk rating. We also continue to disclose the amount of our investments in green, social and sustainable bonds (including the share of green bonds' investments as a separate metric).

Based on the ISS's GHG emission reduction targets data, Figure 7 gives an indication of how well our investments in private sector issuers (corporate bonds, covered bonds and equities) are aligned with global climate goals. The share of investments in issuers that have committed to achieving global climate goals has increased from 26% in 2018 to 62% in 2023. In 2023, the share of investments in these issuers stayed relatively unchanged. The ISS considers issuers with "Ambitious target", "Committed SBT"[13] and "Approved SBT" as those committed to global climate goals.

Figure 7: **GHG emission reduction targets of private sector issuers**

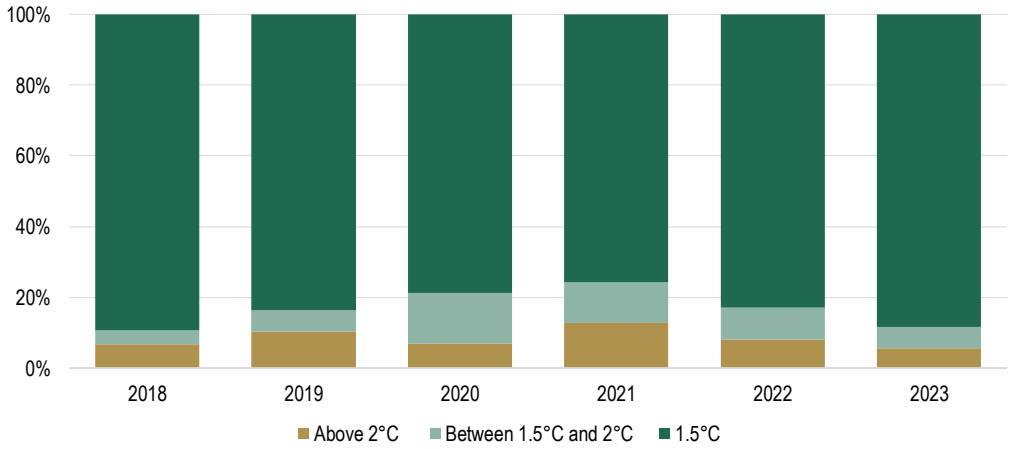


Source: ISS, BS calculations.

[13] Science-based targets (SBT) provide a clearly defined pathway for companies to reduce GHG emissions, helping prevent the worst impacts of climate change and ensuring business growth. Targets are considered science-based if they are in line with what the latest climate science deems necessary to meet the goals of the Paris agreement.

Based on the ISS's Temperature score, Figure 8 gives an indication of how well our investments in private sector issuers are aligned with global temperature goals. The share of investments in issuers with GHG emission targets that, according to the ISS, are aligned with the SDS in 2050[14] remained quite stable (and at high levels) over the observed period (2018: 89%; 2023: 88%). In 2023, the share of investments in these issuers slightly increased, mainly owing to the implementation of considerably stricter exclusion criteria in our non-financial corporate bonds portfolio. In general, for an issuer to be labelled as aligned with the SDS in 2050, its Temperature score must fall into the category of 1.5°C.

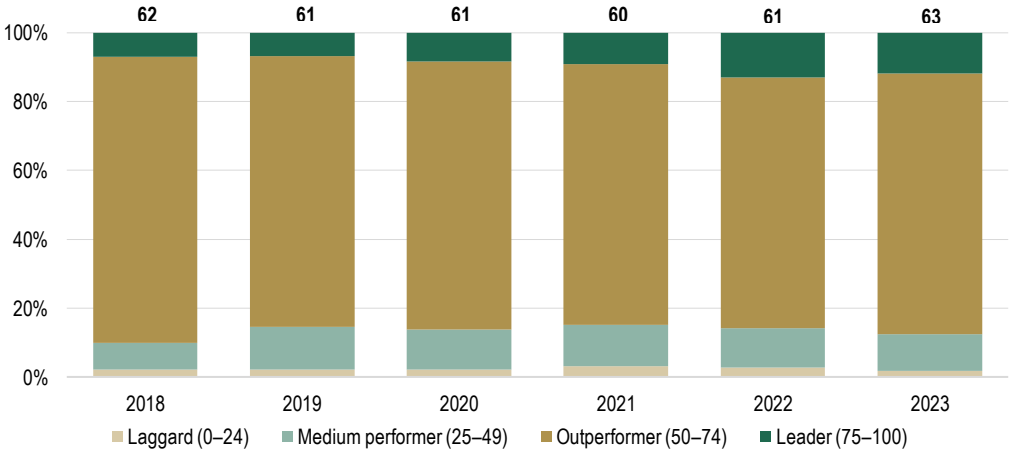
Figure 8: **Temperature score of private sector issuers**



Source: ISS, BS calculations.

Based on the ISS's Carbon risk rating, Figure 9 gives an indication of how well private sector issuers are dealing with industry-specific climate risks in their own operations and in the supply chain. The share of investments in issuers categorised as either "Outperformers" or "Leaders" (Carbon risk rating above 50) remained relatively unchanged (and at high levels) over the observed period (2018: 90%; 2023: 88%). In 2023, the Carbon risk rating of our investments in private sector issuers slightly improved to 63, mainly due to the implementation of considerably stricter exclusion criteria for our non-financial corporate bonds portfolio. Carbon risk rating is measured on a scale of 0 (very poor performance) to 100 (excellent performance).

Figure 9: **Carbon risk rating of private sector issuers**

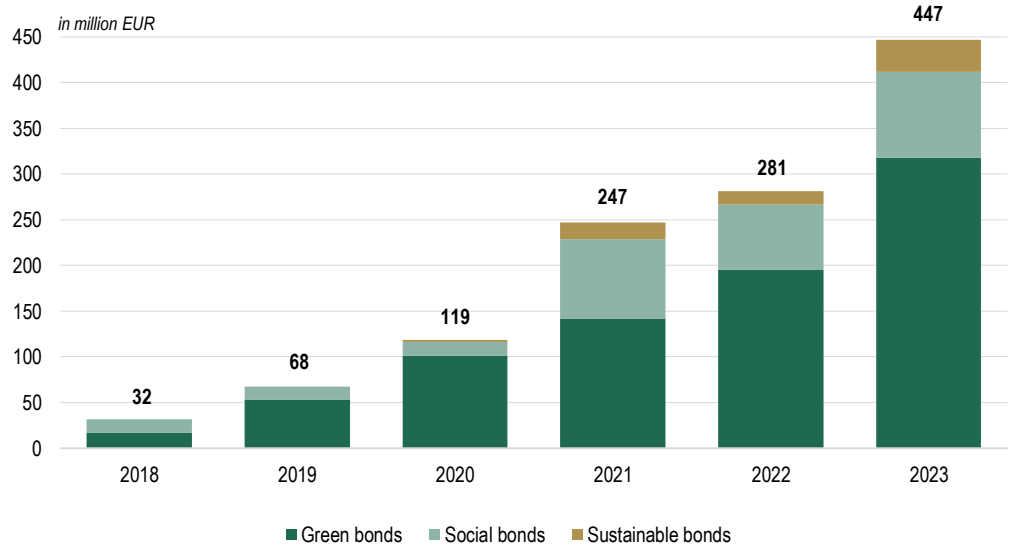


Source: ISS, BS calculations.

[14] The Sustainable Development Scenario (SDS) pathway is fully aligned with the Paris agreement by holding the rise in global temperatures to well below 2°C and pursuing efforts to limit it to 1.5°C.

In the last six years, we have significantly increased our investments in green, social and sustainable bonds. In 2018, our investments in such bonds stood at only EUR 32 million, representing less than 1% of our total financial assets (including gold, cash and cash equivalents). At the end of 2023, we owned almost EUR 450 million of green, social and sustainable bonds (Figure 10), representing more than 10% of our own financial assets. In 2023, we increased our investments in green, social and sustainable bonds by more than EUR 160 million.

Figure 10: **Investments in green, social and sustainable bonds**



Source: Bloomberg, BS calculations.

Annex

Annex 1: Climate-related metrics for total own financial assets

	Sovereign investments				Non-sovereign investments				
	Sovereign and sub-sovereign bonds								
	Production (excl. LULUCF)	Production (incl. LULUCF)	Consumption	Government	Total non-sovereign	Supra & agency bonds	Corporate bonds	Covered bonds	Equities
Portfolio size (EURm)									
2023		765			2,806	302	1,610	560	335
2022		832			2,271	366	1,320	323	260
2021		866			2,245	295	1,337	373	240
2020		749			2,303	305	1,622	250	125
2019		651			2,412	349	1,850	169	43
2018		685			2,238	377	1,702	158	-
WACI (tCO_2e per EURm PPP adj. GDP / population / EURm total consumption expenditure or per EURm revenue)									
2023	232 (100%)	216 (100%)	15 (100%)	185 (100%)	38 (90%)	2 (55%)	35 (97%)	0.8 (84%)	127 (100%)
2022	221 (100%)	207 (100%)	15 (100%)	169 (100%)	55 (90%)	2 (60%)	60 (97%)	0.6 (87%)	142 (99%)
2021	256 (100%)	240 (100%)	15 (100%)	175 (100%)	74 (93%)	4 (67%)	87 (99%)	0.9 (86%)	160 (99%)
2020	246 (100%)	227 (100%)	14 (100%)	169 (100%)	58 (93%)	4 (82%)	63 (97%)	2 (79%)	181 (99%)
2019	254 (100%)	235 (100%)	15 (100%)	266 (100%)	62 (95%)	4 (87%)	71 (99%)	1 (69%)	201 (98%)
2018	281 (100%)	268 (100%)	15 (100%)	285 (100%)	70 (96%)	4 (89%)	87 (100%)	1 (65%)	-
Total carbon emissions (Scope 1 & 2 in tCO_2e)									
2023	187,779 (100%)	174,910 (100%)	215,965 (100%)	21,748 (100%)	50,551 (90%)	13 (55%)	29,784 (97%)	62 (84%)	20,691 (100%)
2022	198,774 (100%)	186,130 (100%)	229,424 (100%)	22,684 (100%)	69,798 (90%)	16 (60%)	52,441 (97%)	27 (87%)	17,314 (99%)
2021	215,412 (100%)	201,865 (100%)	252,175 (100%)	25,067 (100%)	80,048 (92%)	17 (67%)	65,562 (98%)	40 (86%)	14,428 (99%)
2020	173,458 (100%)	160,603 (100%)	202,366 (100%)	20,820 (100%)	84,086 (93%)	19 (82%)	75,436 (97%)	24 (79%)	8,607 (99%)
2019	155,460 (100%)	143,998 (100%)	183,901 (100%)	27,124 (100%)	79,251 (94%)	39 (87%)	75,630 (98%)	8 (69%)	3,574 (98%)
2018	183,671 (100%)	175,037 (100%)	226,788 (100%)	30,729 (100%)	72,891 (96%)	77 (89%)	72,802 (100%)	13 (65%)	-
Carbon footprint (tCO_2e per EURm invested)									
2023	232 (100%)	216 (100%)	266 (100%)	27 (100%)	19 (90%)	0.1 (55%)	19 (97%)	0.1 (84%)	62 (100%)
2022	221 (100%)	207 (100%)	255 (100%)	25 (100%)	32 (90%)	0.1 (60%)	38 (97%)	0.1 (87%)	67 (99%)
2021	256 (100%)	240 (100%)	300 (100%)	30 (100%)	40 (92%)	0.1 (67%)	51 (98%)	0.1 (86%)	61 (99%)
2020	246 (100%)	227 (100%)	287 (100%)	29 (100%)	41 (93%)	0.1 (82%)	49 (97%)	0.1 (79%)	70 (99%)
2019	254 (100%)	235 (100%)	301 (100%)	44 (100%)	36 (94%)	0.1 (87%)	43 (98%)	0.1 (69%)	85 (98%)
2018	281 (100%)	268 (100%)	347 (100%)	47 (100%)	35 (96%)	0.2 (89%)	43 (100%)	0.1 (65%)	-
Carbon intensity (tCO_2e per EURm PPP adj. GDP / population / EURm total consumption expenditure or per EURm revenue)									
2023	232 (100%)	216 (100%)	14 (100%)	152 (100%)	67 (90%)	1 (55%)	55 (97%)	1 (84%)	145 (100%)
2022	221 (100%)	207 (100%)	13 (100%)	139 (100%)	81 (90%)	1 (60%)	75 (97%)	0.9 (87%)	153 (99%)
2021	256 (100%)	240 (100%)	14 (100%)	153 (100%)	120 (92%)	4 (67%)	118 (98%)	1 (86%)	189 (99%)
2020	246 (100%)	227 (100%)	14 (100%)	148 (100%)	129 (93%)	4 (82%)	129 (97%)	1 (79%)	201 (99%)
2019	254 (100%)	235 (100%)	15 (100%)	239 (100%)	126 (94%)	3 (87%)	128 (98%)	0.8 (69%)	209 (98%)
2018	281 (100%)	268 (100%)	15 (100%)	254 (100%)	133 (96%)	5 (89%)	138 (100%)	2 (65%)	-

GHG emission reduction targets (% of investments in issuers committed to global climate goals)					
2023	62% (92%)	-	67% (93%)	45% (83%)	64% (100%)
2022	64% (94%)	-	72% (96%)	26% (86%)	64% (99%)
2021	58% (95%)	-	65% (97%)	27% (86%)	65% (99%)
2020	55% (91%)	-	58% (93%)	28% (75%)	61% (99%)
2019	37% (96%)	-	38% (98%)	0% (66%)	50% (98%)
2018	26% (95%)	-	27% (100%)	0% (42%)	-
Temperature score below 2˚C (% of investments)					
2023	94% (92%)	-	96% (93%)	100% (83%)	80% (99%)
2022	92% (94%)	-	93% (96%)	100% (86%)	79% (99%)
2021	87% (95%)	-	86% (97%)	100% (86%)	80% (99%)
2020	93% (91%)	-	93% (93%)	100% (75%)	78% (99%)
2019	90% (94%)	-	89% (96%)	100% (66%)	73% (98%)
2018	93% (97%)	-	93% (100%)	100% (62%)	-
Carbon risk rating (score; % of investments)					
2023	63 (91%)	-	62 (93%)	69 (83%)	57 (97%)
2022	61 (94%)	-	60 (95%)	69 (86%)	57 (97%)
2021	60 (94%)	-	59 (96%)	68 (86%)	58 (97%)
2020	61 (88%)	-	60 (93%)	72 (53%)	56 (96%)
2019	61 (92%)	-	60 (96%)	71 (42%)	55 (96%)
2018	62 (91%)	-	62 (96%)	71 (42%)	-
Green, social and sustainable bonds (EURm; all asset classes)					
2023					447 (Green: 318, Social: 94, Sustainable: 35)
2022					281 (Green: 195, Social: 72, Sustainable: 15)
2021					247 (Green: 142, Social: 87, Sustainable: 18)
2020					119 (Green: 101, Social: 15, Sustainable: 2)
2019					68 (Green: 53, Social: 15)
2018					32 (Green: 17, Social: 15)
Share of green bonds (all asset classes)					
2023					7.4% (8.9%)
2022					5.1% (6.3%)
2021					3.5% (4.5%)
2020					2.5% (3.3%)
2019					1.3% (1.7%)
2018					0.4% (0.6%)

Source: ISS, C4F, World Bank, Bloomberg, ECB, BS calculations.
Note: The portfolio size includes all financial assets (EUR and non-EUR denominated), excluding gold, cash and cash equivalents. The percentages in brackets below each metric's value indicate data availability (data coverage), calculated as the percentage of investments (i.e. market value of investments / market value of portfolio) for which all required data (GHG emissions data and financial data) is available. Data for GHG emission reduction targets, Temperature score and Carbon risk rating is only available for corporate bonds, covered bonds and equities. GHG emission reduction targets shows the percentage of investments into issuers committed to global climate goals (issuers with "Ambitious target", "Committed SBT" or "Approved SBT"). Share of green bonds shows the percentage of our green bond investments (i) in our total financial assets, including gold, cash and cash equivalents and (ii) in our total financial assets, excluding gold, cash and cash equivalents (in brackets).

Annex 2: Description of climate-related metrics

Weighted average carbon intensity (WACI)

WACI measures a portfolio's exposure to carbon-intensive issuers. It is expressed in tons of CO_2 equivalent per EUR million of revenue (non-sovereign issuers) or per EUR million of PPP adjusted GDP / population / EUR million total consumption expenditure (sovereign issuers; production, consumption or government calculation method respectively). The TCFD recommends that asset owners report the WACI whenever possible. Calculation of WACI is straightforward, with good data coverage and intuitive interpretation, and it has application across asset classes. On the other hand, it is sensitive to outliers.

$$WACI = \sum_i^n \left(\frac{current\ value\ of\ investment_i}{current\ portfolio\ value} \right) x \left(\frac{issuer's\ GHG\ emissions_i}{issuer's\ revenue_i\ or\ PPP\ adj.GDP_i, population_i, total\ consumption\ expenditure_i} \right)$$

Total carbon emissions (TCE)

TCE measures absolute GHG emissions associated with a portfolio. It is expressed in tons of CO_2 equivalent. Although the metric is widely applied across the financial sector, its usefulness is limited for benchmarking and comparison with other portfolios, as data is not normalised. In addition, it requires data on market capitalisation / total capital structure (non-sovereign issuers) or PPP-adjusted GDP (sovereign issuers), which might not always be available.

$$TCE = \sum_i^n \left(\frac{current\ value\ of\ investment_i}{EVIC_i\ or\ PPP\ adj.GDP_i} x\ issuer's\ GHG\ emissions_i \right)$$

Carbon footprint (CF)

Carbon footprint normalises the TCE of a portfolio by its market value. It is expressed in tons of CO_2 equivalent per EUR million invested. It allows for comparison across portfolios, regardless of portfolio size, and at different points in time. On the other hand, it requires data on market capitalisation / total capital structure (non-sovereign issuers) or PPP-adjusted GDP (sovereign issuers), which might not always be available.

$$CF = \frac{\sum_i^n \left(\frac{current\ value\ of\ investment_i}{EVIC_i\ or\ PPP\ adj.GDP_i} x\ issuer's\ GHG\ emissions_i \right)}{current\ portfolio\ value}$$

Carbon intensity (CI)

Carbon intensity measures the carbon efficiency of a portfolio. It is expressed in tons of CO_2 equivalent per EUR million of revenue (non-sovereign issuers) or per EUR million of PPP-adjusted GDP / population / EUR million total consumption expenditure (sovereign issuers; production, consumption or government calculation method respectively). Compared to Carbon footprint, it is more complex, its interpretation is less intuitive and its communication could be less straightforward. However, it enables comparison across portfolios, regardless of portfolio size, and at different points in time.

$$CI = \frac{\sum_i^n \left(\frac{current\ value\ of\ investment_i}{EVIC_i\ or\ PPP\ adj.GDP_i} x\ issuer's\ GHG\ emissions_i \right)}{\sum_i^n \left(\frac{current\ value\ of\ investment_i}{EVIC_i\ or\ PPP\ adj.GDP_i}\ x\ issuer's\ revenue_i\ or\ PPP\ adj.GDP_i, population_i, total\ consumption\ expenditure_i \right)}$$

GHG emission reduction targets

To transit to a low-carbon economy, companies need to commit to alignment with global climate goals and demonstrate future progress. In this sense, the ISS differentiates companies' targets into "No target", "Non-ambitious target", "Ambitious target", "Committed SBT" or "Approved SBT", based on their existence and quality of GHG emission reduction targets. It takes into account both science-based targets (SBT) and other targets set by the individual company.

Temperature score

Temperature score is a forward-looking metric, expressed in degrees Celsius, designed to show the temperature alignment of companies with global temperature goals. The ISS's Temperature score examines the issuers' GHG emissions over-/undershoot of the SDS pathway (aligned with the Paris Agreement). For example, a company aligned with the SDS pathway is also expected to have a temperature score of 1.5°C. However, due to the complexity and uncertainty of the analysis of temperature scores, these should be used with caution, since a single metric cannot explain the full dynamics of an issuer contribution to global temperature increase.

Carbon risk rating

Carbon risk rating is a forward-looking assessment that provides a metric to evaluate how well a company is prepared for the transition to the low-carbon economy. It assesses how a company is exposed to climate risks and opportunities and whether these are managed in a way to seize opportunities and to avoid or mitigate risks. It is measured on a scale of 0 (very poor performance) to 100 (excellent performance). The ISS categorises companies' carbon-related performance into four groups, i.e. "Climate laggards" (0–24), "Climate medium performers" (25–49), "Climate outperformers" (50–74) and "Climate leaders" (75–100).

Exposure to green, social and sustainable bonds

Investing in green, social and sustainable bonds falls into the category of thematic investing. Green bonds are used to finance investments with a positive impact on the environment. Social bonds are used to finance investments with a positive impact on the socio-economic status of society. Sustainable bonds are used to finance investments with a positive impact on the environment or the socio-economic status of society. Classification of these bonds should be based on widely used standards, such as the Green/Social Bond Principles, the Sustainability Bond Guidelines, the Climate Bond Standard and the European Green Bond Standard.

Share of green bonds

In addition to showing our exposure to green, social and sustainable bonds, we are also disclosing our share of green bonds as the percentage of our total financial assets. We are disclosing two metrics, i.e. share of green bonds (i) in our total financial assets, including gold, cash and cash equivalents and (ii) in our total financial assets, excluding gold, cash and cash equivalents.

Annex 3: Abbreviations

BS	Banka Slovenije
C4F	Carbon4 Finance
CF	Carbon footprint
CI	Carbon intensity
CRA	Credit rating agencies
CST	Climate stress test
CO_2	Carbon dioxide
ECB	European Central Bank
ETF	Exchange-traded fund
EU	European Union
EUR	Euro
EVIC	Enterprise value including cash
FSB	Financial Stability Board
GDP	Gross domestic product
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
ISS	Institutional Shareholder Services Germany AG
LULUCF	Land Usage, Land Usage Change and Forestry
m	Million
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
PCAF	Partnership for Carbon Accounting Financials
PPP	Purchasing power parity
SBT	Science-based target
SDS	Sustainable development scenario
TCE	Total carbon emissions
tCO_2e	ton of CO_2 equivalent
TCFD	Task Force on Climate-related Financial Disclosures
UNFCCC	United Nations Framework Convention on Climate Change
WACI	Weighted average carbon intensity