

Banca Popolare di Sondrio SpA

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Sondrio Companies Register no. 00053810149 - Registered in the Register of Banks under no. 842 Monetary intermediation by monetary institutions other than central banks.

Parent Company of the Banca Popolare di Sondrio Banking Group –

Registered in the Register of Banking Groups under no. 5696.0

Member of the Interbank Deposit Protection Fund

Tax Code and VAT number: 00053810149

Share capital: €1,360,157,331 – Reserves: €1,385,452,113 (Figures approved by Shareholders at the General Meeting of 29 April 2023)

RATINGS

Rating issued to Banca Popolare di Sondrio by Fitch Ratings on 6 July 2023:

- Long-term Issuer Default Rating (IDR): BB+
- Short-term Issuer Default Rating (IDR): B
- Viability Rating: BB+
- Government Support Rating:
- Long-term Deposit Rating: BBB-
- Short-term Deposit Rating: F3
- Senior Preferred Debt: BB+
- Tier 2 Subordinated Debt: BB-Outlook: Stable

Rating issued to Banca Popolare di Sondrio by DBRS Morningstar on 13 November 2023:

- Long-Term Issuer Rating: BBB (low)
- Short-Term Issuer Rating: R-2 (middle)
- Intrinsic Assessment: BBB (low)
- Support Assessment: SA3
- Long-Term Deposit Rating: BBB - Short-Term Deposit Rating: R-2
- (high) Long-term Senior Debt: BBB (low)
- Short-term Debt: R-2 (middle)
- Subordinated Debt: BB
- Trend: Positive

Rating issued to Banca Popolare di Sondrio by Scope Ratings on 14 March 2023:

- Issuer rating: BBB
- Outlook: Stable

Rating issued to Banca Popolare di Sondrio by S&P Global Ratings on 26 February 2024:

- Stand alone credit profile: BBB-
- Long-Term Issuer Rating: BBB-
- Short-Term Issuer Rating: A-3
- Long-term Resolution
- Counterparty Rating: BBB
- Short-term Resolution Counterparty Rating: A-2
- Outlook: Stable

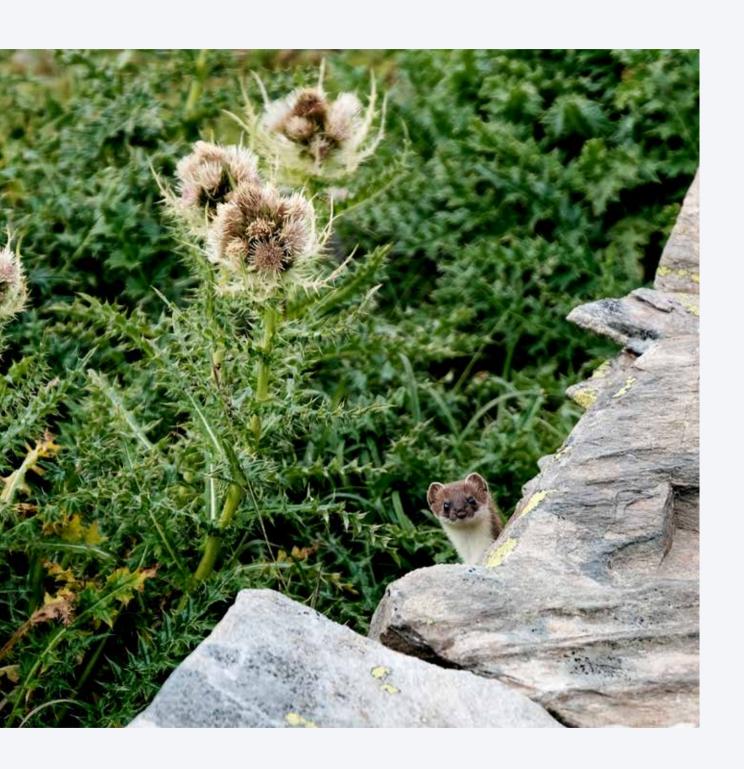
TCFD REPORT 2023

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT

Banca Popolare di Sondrio Group



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Highlights



Joining the Net-Zero Banking Alliance

A — (Leadership) in the CDP Score

500 €m for the 2nd

Green Bond issued by BPS

63,000 tCO₂e avoided thanks to 2,380 financing initiatives in the **Green Bond** portfolio

11 Green loans - next

80%
non-financial corporate portfolio
with **ESG Score**

98%
electricity purchased
from renewable sources

99% recycled paper out of total consumption

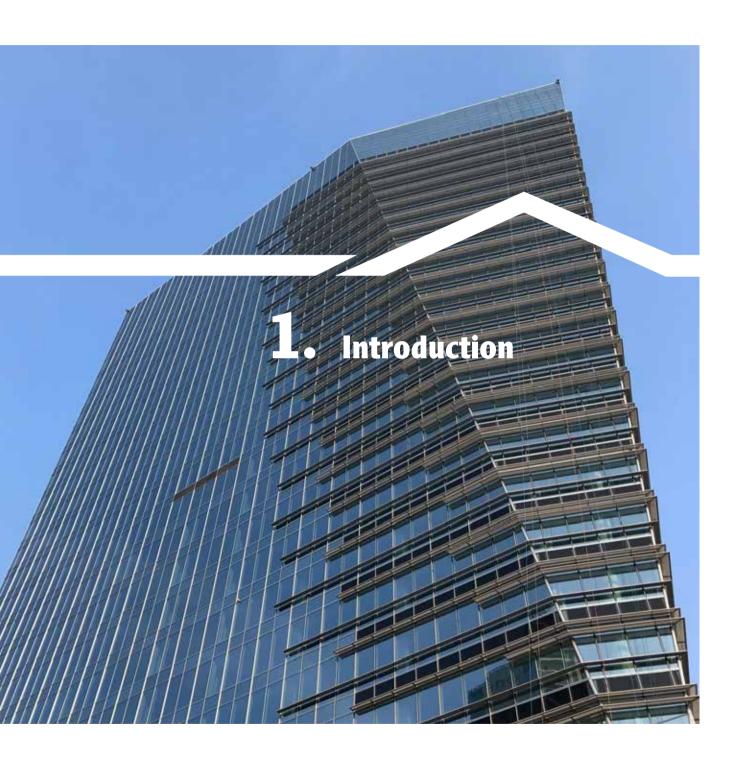
Analysis of climate and environmental impacts on the main capital and liquidity risks in different climate scenarios

Analysis of the carbon footprint

on the credit portfolio, proprietary securities and asset management

Adoption of climaterelated KRIs

within the Risk Appetite Framework



The Group

One of first Italian cooperative banks, Banca Popolare di Sondrio (hereinafter also referred to as "the Bank" or "BPS" or "the Parent Company") has been serving the areas in which it operates since 1871. A long history, based on mutual trust and fuelled by a passion for work, a constant focus on customers and their changing needs, by strong roots that have enabled the Bank to broaden its horizons.

Over the years, BPS – also thanks to the activities carried out by other Group Companies – has extended its business operations nationwide. This, while maintaining strong ties with its geographical area of origin and its traditions, while fostering the Community's sustainable economic development through careful, tailored support for small entrepreneurs, ordinary citizens, as well as medium and large-sized enterprises. Following the approval of the corporate transformation, the Bank operates as a Joint-Stock Company, heading a banking Group with over 149,000 shareholders, more than 500 branches and over 900,000 customers.

In 2022, for the first time in the history of the Banca Popolare di Sondrio Group (hereinafter referred to as "the Group"), the 2022-2025 "Next-Step" Business Plan (the "Business Plan") was presented to the public.

Updating the Business Plan was an important opportunity to consolidate the Group's ESG strategy: the integration of ESG factors into business and operations takes place through transversal and measurable objectives. These include the strengthening of governance, the implementation of Sustainability in the Bank's main processes, the review of the products and services catalogue, the participation in national and international initiatives and the continuous updating of disclosure.

In line with these goals, the Bank has started a process aimed at incorporating ESG risks into strategic mechanisms, risk management systems and key processes that characterise its business model, including credit granting and monitoring. In addition, it has integrated the consideration of Sustainability risks into its investment decision-making processes, adapting its products and services to better fit its strategy and to the changing needs of the market.



Considering the central role that Sustainability has acquired over the last few years and the irrevocable commitment required from everyone, also the Group aspires to play its part, by continuing to be an important player in the transition path towards a more Sustainable economic model, while also seizing the opportunities that derive from it both on the business side and in making corporate processes more robust. To meet these ambitious goals, the Bank believes in international cooperation and in the key role of the financial sector: in December 2023, the Board of Directors approved BPS's participation in the United Nations Environment Programme Finance Initiative ("UNEP FI") and in two very important initiatives:

- Principles for Responsible Banking ("PRB");
- Net-Zero Banking Alliance ("NZBA").





In line with the objectives defined in the Business Plan, the Bank formally supports the TCFD Recommendations, and as in the previous year, it has developed a disclosure specifically focusing on climate-related and environmental risks illustrated in this Report (the "TCFD Report").



Alignment with TCFD Recommendations

The Task Force on Climate-Related Financial Disclosures ("TCFD") was created in 2015 by the Financial Stability Board to provide Guidelines or Recommendations useful for understanding the effects that climate change has on corporate business. The main goal of the TCFD is to help companies to communicate and disclose their choices with respect to climate-related risks and opportunities and improve the coherence and transparency of the related financial disclosures, promoting initiatives aimed at reducing these impacts. The Recommendations are structured around four thematic areas: governance, strategy, risk management and metrics and targets.

In order to ensure that its climate-related reporting complies with international best practices, since 2023 BPS has formally aligned with the TCFD requirements, thus complying with the Guidelines proposed through the publication of this TCFD Report.

Since January 2024, the TCFD has conferred its mandate to the International Sustainability Standards Board (ISSB), an independent body that defines the sustainability disclosure standards of the IFRS Foundation. This decision marks an important step towards defining a single Sustainability disclosure framework that could promote a better and more balanced implementation, also to the benefit of investors.

The Group, however, deems it coherent to maintain the "TCFD Report" wording, since the TCFD Recommendations are still the main reference for its drafting.

The disclosure is currently drafted at the Parent Company level, which at the same time provides the necessary guidelines to ensure the consistency of the practices adopted by the subsidiaries in the management of climate-related and environmental risks, and it oversees their application. It is also responsible for preparing the internal regulatory system representative of the Group's policies on Sustainability and the management of climate-related and environmental risks, which will be detailed in the "Strategy" section. In compliance with the Bank of Italy's expectations on the integration of climate-related and environmental risks (the "C&E risks") into corporate strategies, as well as into governance, control and risk management systems, the Bank and the Group's subsidiaries have developed a strategic planning framework aimed at progressively monitoring the integration of C&E risks in all the main business areas.





During 2023, a programme was launched involving the gradual integration of Sustainability factors, with a focus on ESG-related risks, in the main business processes of Factorit, Banca della Nuova Terra (BNT) and BPS SUISSE. An overview of the main initiatives underway and planned at each subsidiary are presented below.

Factorit

In April 2022, the Bank of Italy issued the "Supervisory Expectations on climate-related and environmental risks" containing non-binding indications intended for less significant banking institutions and other financial intermediaries supervised in Italy, regarding the integration of C&E risks in the relevant business.

In December of the same year, the Bank of Italy asked all supervised entities to draw up their own Action Plan, to be provided by March 2023, to ensure the application of these Expectations and encourage a gradual integration of the aforementioned risks within the corporation in the medium term.

Factorit, the factoring company of the Group, has started a process aimed at promoting a gradual integration of C&E risks at the corporate level in the medium term, through:

- the identification of the interventions that the Company intends to carry out for this purpose;
- the definition of priorities and timelines for the completion of the various initiatives, taking into account the intensity of exposure to risks and the size and complexity of operations.

In particular, an initial mapping and materiality analysis of these risk factors was carried out in 2023, the results of which will be reported to the Company's Board of Directors by the first quarter of 2024.

Banca della Nuova Terra and BPS (SUISSE) SA

In light of the innovations introduced by the Parent Company with respect to Sustainability-related aspects, a number of projects were rolled out in 2023 to promote the gradual integration of sustainability assessments into corporate strategies, processes, methodologies and relevant documents for business management.

As regards BNT, a preliminary assessment has been launched concerning the degree of alignment with the supervisory expectations summarised in the ECB's "Guide on climate-related and environmental risks". Moreover, an initial internal analysis was also carried out, focused on identifying and mapping the C&E risk factors assessed as significant for the corporate business model. This activity will be formalised during the first half of 2024.

At the beginning of 2024, an activity similar to the one just mentioned was initiated by the BPS Suisse subsidiary, taking into account the specific legal and regulatory context in which it operates.





The Task Force issued a report including 11 recommendations, broken down as follows:

Thematic area	Recommendations	Reference
000	a) Describe the board's oversight of climate- related risks and opportunities.	Pages 9 - 10
Governance	b) Describe management's role in assessing and managing climate-related risks and opportunities	Pages 11 - 12
↑× Strategy	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term	Pages 30 - 31
	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning	Pages 32 - 38
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Pages 32 - 38
	a) Describe the organisation's processes for identifying and assessing climate-related risks	Page 43 et seq.
	b) Describe the organisation's processes for managing climate-related risks	Page 65 et seq.
Risk management	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	Page 44 to 64
	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Page 102 et seq.
Metrics and	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	Page 102 to 109
targets	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Page 115







Governance is the system through which an organisation makes and implements the decisions to pursue its goals, since it is the implemented choices and activities that can make a significant contribution to sustainable development. The corporate structure therefore constitutes the Company's institutional framework and, according to a Sustainabilitybased approach, in order for the Company to effectively adopt strategies that respect and enhance the other two factors (Environmental and Social), governance must also be guided by ethical principles in line with ESG and climate-related parameters.

In the Business Plan, governance and related issues are among the enabling factors to ensure an effective implementation of what has been defined therein: the maintenance of corporate identity, the development of skills and expertise and therefore the strengthening of governance are the basis for the effective implementation of the Group's ESG and environmental strategy.

With a view to increasingly integrating Sustainability into its business, the Bank has adopted an ESG governance system that provides for the interaction of different bodies devoted to overseeing and managing these issues and their impacts. As provided for by the Business Plan, ESG governance was further strengthened mainly through the creation of the Sustainability Board Committee in May 2023.

The distribution of roles and responsibilities in relation to climate and environment as set out in the Sustainability Policy is detailed in the following section of this Report.

For additional information regarding ESG governance, reference should be made to the specific section in the 2023 Non-Financial Statement ("NFS").





The Board of Directors (the "BoD"), the Board of Statutory Auditors, the Sustainability Committee and the Control and Risk Committee take climate issues into account when defining the risk management strategy and policies.

Board of Directors

bodies

The BoD consists of the Chairman, the Deputy Chairman, the Managing Director and the other Directors.

As part of its strategic oversight responsibilities, the BoD is responsible for defining the guidelines, targets and strategies at the Group level on climate-related and environmental issues, as well as for monitoring actual progress against the defined targets.

The BoD plays an active guiding and governance role in integrating climate-related and environmental risks into the Group and corporate culture and strategies, consistently implementing the main corporate Policies and ensuring the correct adaptation of organisational and management systems. In order to ensure the successful integration of ESG risks into business strategies, governance, processes, procedures and the control system and to oversee the correct monitoring of these issues, the BoD has the task to approve the Risk Appetite Framework (the "RAF") and the climate-related and environmental risk management process, verifying its compatibility with the strategic guidelines and with the overall risk governance policies. It is also responsible for conducting effective oversight of exposure to climate-related and environmental risks, taking stock, on a regular basis, of the current risk profile and of the manner in which it is identified, assessed and measured, and taking appropriate corrective action where necessary.

Furthermore, the BoD is involved in training and continuous updating activities on ESG topics and the risks connected to them, with particular attention to climate-related and environmental risks, with the aim of monitoring and gradually increasing its expertise, also through questionnaires and self-assessments.

Some changes defined in the most recently updated Sustainability Policy require support from the Sustainability Committee in assessing the Sustainability factors considered fundamental for the medium-long term strategy and their translation into Bank's policies.

During 2023, the BoD was involved in 7 meetings during which issues relating to climate strategy and C&E risk management were discussed.

To ensure the implementation of the C&E risk management policies defined by the BoD, the Managing Director is responsible for the methodological and process framework, as well as the functioning of the systems, models and techniques for identifying, analysing and assessing C&E risks, overseeing their continuous updating. Moreover, the Managing Director monitors the trend of indicators of exposure to C&E risks and their consistency with the risk appetite targets and limits defined. If necessary, he oversees the identification of the actions required to bring the exposure back to suitable levels, verifying compliance with the relevant corporate functions, and he promotes the actions necessary to ensure organisational and internal control structures in line with the exposure to C&E risks.





Board of Statutory Auditors

The Board of Statutory Auditors, consisting of the Chairman of the Board of Statutory Auditors, Standing Auditors and Alternate Auditors, reviews the documentation approved by the BoD concerning the management of climate-related and environmental risks.

Sustainability Committee

The Sustainability Board Committee, composed of three non-executive directors, of which at least one is independent, plays an investigative, consultative and proactive role in assessing the sustainability factors considered fundamental for the medium-long term strategy and their translation into the Bank's policies.

In particular, the Committee is tasked with examining the analysis and ratings provided by Sustainability rating agencies and evaluating the contents of the Group Sustainability Policy, also assessing the consistency of the Bank's other policy documents with respect to the ESG objectives defined. In addition, the Sustainability Board Committee supports the other Board Committees on Sustainability-related issues, in particular as regards the risk and opportunity analysis, remuneration policies, training and succession plans.

The aforementioned Committee has the task of evaluating the integration of climaterelated and environmental aspects into the Business Plan and into the Bank's investment processes, as well as examining the commitments undertaken by the same in relation to Sustainability issues, with particular reference to the decarbonisation targets ("net zero").

In addition, the Committee analyses the Sustainability disclosures prepared by the Bank, in particular the NFS, the TCFD Report and the contribution relating to Sustainability topics contained in the Public Disclosure complying with Pillar 3 regulations, examining the documentation before it is sent to the BoD to take the relevant decisions. Moreover, it also promotes constant discussion with stakeholders on the issues falling under its responsibility and supports the Bank in the dialogue with the Authorities regarding the outcomes of the Supervisory assessments on Sustainability issues and, in particular, on the management of C&E risks.

Control and Risk Committee

The Control and Risk Committee supports the BoD in carrying out its functions in terms of defining risk objectives and strategies regarding the prevention and governance of risks considered relevant, including ESG-related risks and, specifically, C&E risks, both from a current and forward-looking perspective. Moreover, notwithstanding the responsibilities of the Remuneration Committee, the Control and Risk Committee ensures that the incentives underpinning the Bank's remuneration and incentive system are consistent with the Risk Appetite Framework. The Committee examines the TCFD Report and makes any relevant comments and suggestions; it also supports the BoD in the periodic monitoring of risk exposure, by verifying the completeness, adequacy and functionality of the internal control system. With particular regard to risk containment, it ensures compliance with the limits set by the BoD or required by mandatory regulations.





C&E risks are managed and controlled at the managerial level by the Sustainability Management Committee, the Risk Committee and the Mobility Manager.

Sustainability Management Committee

The Sustainability Management Committee periodically examines regulatory changes, standards and national and international practices of reference on climate-related ESG topics, and assesses the proposals in terms of the introduction and amendment of relevant internal regulations and implementation of the guidelines through concrete initiatives, with regard to which it also defines the operational plans, monitoring their actual implementation. It contributes to the coordination of organisational structures and subsidiaries in order to verify compliance with the Sustainability guidelines established by the BoD and implemented in strategic planning as applicable from time to time.

The Committee coordinates the activities aimed at identifying climate-related topics that are potentially relevant also in the context of the materiality analysis, and examines the TCFD Report, making any relevant observations and suggestions to the Sustainability Board Committee. Furthermore, it oversights transactions with green debt instruments whose issuance is related to Group activities: in detail, it approves the reference framework and the annual allocation and impact reporting, reviews and validates the set of eligible activities, and finally, it oversees and monitors the management of funds raised. The Committee also coordinates and monitors the dialogue with relevant stakeholders. The Committee Chair is the Chief Financial Officer who has the tasks of informing the Sustainability Board Committee of the outcomes of each meeting by providing minutes and work papers. The Committee is composed of: the Chief Financial Officer (CFO), the Chief Commercial Officer (CCO), the Chief Lending Officer (CLO), the Chief Risk Officer (CRO), the Chief Information and Operations Officer (CIOO), the Head of the Logistics and Operational Support Service, the Head of the Staff and Organisational Models Service, the Head of the Planning, Investor Relations and Management Control Service, and finally by the Head of the Sustainability Office, the Committee's Secretary.

Risk Committee

In line with the General Regulation on climate-related and environmental risks, the Risk Committee examines proposals for the definition, integration or significant amendment of C&E risk monitoring techniques, methodologies and criteria, expressing its opinions and assessments on the issue. In addition, it analyses the proposals concerning the definition, updating or revision of the parameters representing the organisation's climate-related and environmental risk appetite outlined in the Risk Appetite Statement ("RAS"), evaluates proposals for the introduction, extension, amendment or significant integration of climate-related and environmental risk analysis systems, models, techniques or methodologies. Finally, it approves the operational limits and thresholds associated with climate-related and environmental risk exposure markers.

The Risk Committee is composed of: the Managing Director, the General Manager, the Deputy General Manager, the Chief Lending Officer (CLO), the Chief Risk Officer (CRO), the Chief Financial Officer (CFO), the Chief Commercial Officer (CCO) and the Chief Information and Operations Officer (CIOO).





In 2021 the Bank appointed its corporate Mobility Manager, responsible for providing continuous support for the decision-making, planning, scheduling, management and promotion of optimal solutions for the Group employees' sustainable mobility.

For further information on Sustainable Mobility initiatives, please refer to the specific section in the 2023 NFS.

Operational coordination

At the operational level, the coordination between the Sustainability Office and the Risk Control Service, in agreement with the BPS's ESG Contact Persons for the subsidiaries, the Compliance and DPO Function and the Internal Audit Service, enables the monitoring of ESG, climate-related and environmental issues.

Sustainability Office

Integrated within the Planning, Investor Relations and Management Control Service (Chief Financial Officer Area), the Sustainability Office constantly oversees national and international legislation, standards and practices on climate issues. Moreover, it supports and coordinates the central and peripheral organisational structures, as well as the Group's subsidiaries, in understanding and applying ESG-related factors and in the dialogue with the relevant stakeholders. In addition, it offers support for and coordinates the drafting of the Group's guidelines, targets and strategies on Sustainability aspects, with particular reference to the commitments undertaken by the Bank in relation to the decarbonisation targets.

It also manages the dialogue with ESG rating agencies, the filling in of questionnaires and the monitoring of ratings at a Group level; in addition, to the extent of its competence, it manages relations with the Supervisory Authorities, in particular supporting the Risk Control Service in relation to C&E risk issues. The Sustainability Office supports the Sustainability Management Committee in identifying initiatives to be implemented, in the operational management in compliance with the Business Plan, and in the periodic monitoring and reporting on initiatives.

Another of the Office's responsibility is the identification of initiatives aimed at disseminating the culture of Sustainability and the promotion of external and internal communications on ESG-related issues, to increase awareness among colleagues and all stakeholders with regard to the importance of pursuing sustainable development.

In agreement with the relevant Secretariat offices and Staff Service, it defines the training plans for the BoD, the management and Group personnel, aimed at guaranteeing adequate dissemination and awareness of ESG topics, the risks connected to them, with particular attention to climate-related and environmental risks.

Moreover, it is also tasked with the drafting of the Non-Financial Statement and other Sustainability-related disclosures, including the TCFD Report, whose activities it coordinates, as well as contributing to the preparation of the Public Disclosure complying with Pillar 3 regulations, as regards the section relating to ESG risks.





Within the CRO area, the Risk Control Service is responsible for incorporating climate-related and environmental factors into the assessment of exposure to the associated risks and their monitoring, ensuring their independent control and defining the systems, methodologies and processes to be adopted for their management. To these ends, it ensures the gradual integration of C&E risks into the relevant regulations, processes, procedures, support systems, data and reporting. It identifies, analyses, measures and monitors exposure to C&E risks and quantifies their impacts, through a dedicated system of metrics and measurement indicators that identifies areas on which action should be taken to prevent and mitigate the main risk phenomena. It supports and coordinates the gradual integration of climate-related and environmental risk factors into risk management and reporting systems, in accordance, in particular, with the ECB's "Guide on climate-related and environmental risks".

The Function oversees and, to the extent of its competence, performs the stress tests required by the Supervisory Authorities pertaining to climate-related risks and manages the drafting of the Public Disclosure in application of the Pillar 3 regulations on ESG issues.

ESG Contact Persons

Operational ESG Contact Persons, appointed for each of the subsidiaries and for each of the main business areas of the Bank, are key figures for the dissemination of a Sustainability culture. They consider ESG factors with respect to the specific activities under their responsibility, identifying projects and seizing business opportunities. They favour the dissemination of information, the coordination of activities and their sharing, making it possible to increase the effectiveness of interaction between business functions and to direct internal operations.

With the specific aim of ensuring greater sharing of ESG-related aspects and a more effective communication between the business areas involved, new ESG Contact Persons have been appointed within BPS's business areas. In 2023, Sustainability governance was further strengthened thanks to the appointment of "Branch Network ESG Specialists", appropriately trained figures specialised in supporting the Network to strengthen dialogue with customers on ESG issues. ESG Specialists assist branches in collecting information useful for assessing the climate and environmental Sustainability of counterparties within the credit granting process and collaborate with the Central Offices in the activities useful for the ESG Due Diligence.





The Compliance and DPO Function, as part of the organisational supervision pertaining to the correct fulfilment of regulatory obligations relevant to the integration of ESG issues and to the effective management of the relevant risks, with particular attention to climaterelated and environmental risks, identifies the applicable standards, verifies the compliance of business processes with internal and external regulations with the aim of preventing and containing legal and reputational risks. Furthermore, this Function assesses the degree of exposure to the relevant risks through quantitative and qualitative summary indicators, representing the results of the surveys on the processes monitored, and finally, it prepares information flows addressed to the corporate bodies and functions involved in the process.

During 2023, the Function carried out a series of activities related or tied to ESG issues. In particular, an assessment was carried out relating to the drafting and content of the Bank's Green Bond Framework.

Internal Audit Service

The Internal Audit Service, as part of its responsibility to verify the correct functioning of the internal control system, verifies compliance with Sustainability policies and the adherence of corporate and Group operations with them; furthermore, it assesses the adequacy and functionality of the ESG risk management process adopted by the Bank, with particular reference to climate-related and environmental risks.

It is responsible for reporting to the corporate bodies any inefficiencies, weaknesses or irregularities that emerge during its verification activities, formulating recommendations and bringing possible improvements to their attention. As provided for by the BoD's Action Plan, in 2023 the Internal Audit Service completed an ESG Framework focusing on the Group's regulatory system, organisation and main oversights used to mitigate direct and indirect impacts on the environment and climate, also with the aim of verifying their consistency with respect to the initiatives defined in the Business Plan.



Continuous training on climaterelated and environmental topics

In 2023, a comprehensive training plan was developed aimed at all organisational levels, from the Board level to the Operational level, with the goal of promoting greater awareness and widespread dissemination of ESG issues to all stakeholders, with particular reference to climate-related ones.

In order to facilitate the fulfilment of Corporate Bodies' steering and control tasks, a training programme dedicated to the Board of Directors and the Board of Statutory Auditors was developed. Within this programme the Sustainability Office, with the support of specialised consultants, provided an overview of ESG legislation, dedicated a session to Regulation (EU) 2020/852 (so-called Taxonomy Regulation) and detailed key issues relating to the Bank's participation in the Net-Zero Banking Alliance.

Moreover, ad hoc workshops were organised for Branch Network ESG Specialists, with the aim of providing them with the notions useful for monitoring objectives, managing policies and initiatives in the field of Sustainability and effectively supporting branches in carrying out ESG Due Diligence activities.

Ample space was also dedicated to the training of ESG Contact Persons for all business areas and subsidiaries. The meetings focused on the integration of Sustainability factors into credit processes, on the ESG Score and on Due Diligence, also giving due attention to changes related to reporting regulations, the materiality analysis and BPS's activities in relation to joining the NZBA and defining Net Zero targets. Moreover, the Contact Persons, together with the Heads of Offices and Services and the Chief Risk Officer area, participated in a specific course on the role of the banking sector in the green transition. Finally, an indepth study was dedicated to the 13 Branch Network ESG Specialists on the integration of ESG-related factors into the credit process and on the analysis of counterparties.



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The table below summarises the information described above.

TOPICS	Recipients
Sustainability topics in the Bank's operations: introduction of the Taxonomy and its effects on BPS	Directors and Statutory Auditors
Overview of ESG legislation and in-depth analysis of the Sustainability Reporting Directive (CSRD)	Directors and Statutory Auditors
Joining the Net Zero Banking Alliance (NZBA)	Directors and Statutory Auditors
The integration of ESG factors in the credit management framework	More than 30 Network Contact Persons
The role of the banking sector in the green transition	Heads of Offices and Services, CRO Area and ESG Contact Persons
ESG Project – Introduction to Due Diligence in the Credit Process	More than 100 Network Contact Persons
The integration of ESG factors into the credit process and counterparty analysis - Theory	13 Branch Network ESG Specialists
Integration of credit processes, ESG Score and Due Diligence	ESG Contact Persons in business areas and subsidiaries
NFS materiality analysis	ESG Contact Persons in business areas and subsidiaries
ESG legislation overview	ESG Contact Persons in business areas and subsidiaries
Net-Zero Target: BPS's journey	ESG Contact Persons in business areas and subsidiaries

The Bank actively participated in the specific Working Groups (so-called WGs) promoted by the Italian Banking Association ("ABI") in particular:

- the "Bank, environment and climate change" working group, in which European consultations and emerging regulations are analysed and best practices regarding the issue of climate change are shared;
- **the "Sustainability" working group,** where all the other issues related to ESG topics are addressed such as, for example, Taxonomy.

In general, the association promotes knowledge sharing activities within the banking sector, enabling synergies among its actors, including through training courses and other events or activities. As far as environmental aspects are concerned, the Italian Banking Association also supports banks in the dissemination of data, providing indications and clarifications on the issue. In addition, ABI is focused on promoting a harmonised regulatory framework through direct dialogue with the institutions.



The remuneration policy

Remuneration is a fundamental tool for attracting and retaining staff with the professionalism needed to ensure the growth of Group companies and their ability to compete in target markets. It is therefore essential to enhance staff development by assigning them to roles with an increasing level of responsibility and complexity.

In this regard, the remuneration policies of the Parent Company have evolved alongside and in support of the general expansion of business activities. This expansion has also highlighted the need for increasingly qualified professional resources to work in both the central and branch offices, partly because of the new business areas and partly because of the higher level of competition within the banking system. In keeping with the general trends of the market, and with the aim of attracting, retaining and motivating the best professional talent, the Bank has held firm to a number of basic principles: attention to the medium- and long-term sustainability of remuneration policies, general balance, meritocracy, a gradual approach and the desire to establish lasting relationships over time.

The gradual progression of professional career paths is accompanied by a balanced remuneration policy designed to motivate and retain the best resources who, consistent with our values, support development processes.

The Remuneration policies approved by Shareholders at the General Meeting of 29 April 2023 help to encourage behaviour consistent with the guidelines defined in the Business Plan, strengthening the existing accountability mechanisms of management and transparency towards Investors and the markets.

The main changes introduced for 2023 concern:

- strengthening the link between the Group's sustainable success, measurement of Top managers' individual performance and relevant remuneration, in particular through:
- the expansion of the scope of quantitative and objective metrics taken into account in determining the variable remuneration (except for the Heads of the Control Functions);
- the selection of both short- and long-term performance metrics, consistent with the objectives set out in the 2022-2025 Business Plan (expected results and timeframes);
- the strengthening of metrics aimed at supporting the Group's commitment on ESG issues;
- the introduction in addition to the entry gates and the regulatory malus and claw-back clauses already in force of further risk adjustments aimed at discouraging an increase in performance obtained through the assumption of excessive risk, strongly limiting or preventing the disbursement of variable remuneration components upon the occurrence of dynamics and outcomes that are not fully consistent with the risk appetite defined by the Board of Directors (in particular in the Risk Appetite Framework) and with the objectives, which the Group sets from time to time, of strengthening its capital, liquidity and governance structure;
- the increase in the relative weight of the variable components of remuneration with respect to the fixed ones, with a limit increased to 100%, for the General Manager and other Top Management figures, and to 50% for the rest of the personnel, from the 35% established in the previous Policies except for control functions subject to an increase from 30% to 33% while ensuring at the same time that an increasing focus on variable compensation does not lead to a worsening of the overall cost structure;



- within the limits of the Policies, the ex ante definition of the levels of variable remuneration components of Top Management as a function of performance (rewards), in particular as regards to achieving the targets of the Business Plan or exceeding them (overperformance);
- an increasing use of financial instruments in the payment of variable, immediate and deferred remuneration, thus further aligning the medium-/ long-term interests of the Group with those of Top Management;
- a greater degree of disclosure of the mechanisms underlying the Policies and the remuneration paid, to ensure management accountability and transparency towards investors and the markets;
- a more clear identification of the roles of the Group's bodies and structures in relation to the definition and implementation of Policies and of remuneration and/or indemnity mechanisms in the event of early termination of the employment relationship of Top Management.

ESG parameters in Top Management's remuneration policies

The process of determining the long-term variable remuneration takes into account some measurable Sustainability objectives, concerning the achievement of a series of goals. Specifically:

- ESG Rating: ensuring the Bank's solid positioning in the Standard Ethics' Sustainability rating and the CDP climate rating score;
- ESG Credit and Finance: expanding the range of ESG products and the related volumes;
- ESG issuance: increasing the Bank's ESG funding activity, providing for new issues of green bonds and social bonds;
- CO₂ emissions: reducing direct (Scope 1) and indirect (Scope 2 and 3) emissions;
- ESG initiatives: participating in international initiatives related to environmental and social Sustainability;
- ESG training: integrating ESG-related training in a comprehensive and transversal way.

As far as 2024 is concerned, the proposed Remuneration Policies submitted for approval at the General Meeting include the increase in the weight of ESG parameters from 5% to 10% and, among other things, the replacement of the "achievement of training hours in the ESG area" with "the completion of the Operational Plan on Diversity and Inclusion".

Details on the changes and operation of the new Policies are available in the "Annual report on the remuneration policy and compensation paid", approved by the Board of Directors on 15 March 2024. This document will be subject to Shareholders' approval at the General Meeting of 27 April 2024.

More in-depth information on the remuneration policies of the highest governance body and senior executives, the remuneration determination process and the total annual remuneration ratio can be found on the Group's corporate website at the following link: https://istituzionale.popso.it/en/investor-relations/shareholders-meeting, "Annual report on the remuneration policy and compensation paid".







Since its foundation, the Group has geared its operations towards satisfying the multiple interests of its various stakeholders, combining the traditional aim of pursuing profits with the distinctive aim of achieving a common benefit.

The reference framework

The Group adheres to various international standards whose values form the basis of its climate and environmental strategy.

- The Global Agenda for Sustainable Development (2030 Agenda): approved by the United Nations in September 2015, it identified 17 Goals (Sustainable Development Goals or SDGs) and 169 Targets as a roadmap to sustainability for countries and organisations around the world. These Goals, set to be achieved by 2030, illustrate how the current development model is unsustainable not only socially and environmentally, but also from an economic standpoint. The implementation of the 2030 Agenda is not just a state-level matter, but involves every component of society from businesses to third-sector organisations, universities and operators in the world of communications and culture
- The United Nations Global Compact: the world's largest strategic corporate citizenship initiative, stemming from a desire to promote a sustainable global economy that respects human and labour rights, protects the environment and combats corruption. The Bank has been participating in this initiative since 2004, thereby accepting the UN's invitation to synergistically involve the world of business and nongovernmental organisations in the great challenges faced by humanity. In 2018, the Bank also joined the Italian network (Global Compact Network Italy – UNGCN Italy) as a founding member. The Ten Principles of the Global Compact guide BPS's strategy and corporate culture, as well as its daily banking and financial activities. Also in 2023 the Bank confirmed its support by preparing the Communication on Progress (CoP).
- United Nations Environment Programme Finance Initiative (UNEP FI), a partnership between UNEP and the global financial sector aimed at mobilising private sector finance in favour of sustainable development. Through this participation, the Bank has also joined two of the initiatives connected to it: the Principles for Responsible Banking (PRB) and the Net Zero Banking Alliance, strengthening the integration of Sustainability factors, with a particular focus on climate-related and environmental aspects, within its current and future corporate strategy.
- The Task Force on Climate-Related Financial Disclosures (TCFD): the Bank is officially registered on the list of TCFD members, which promotes the voluntary disclosure of financial data in relation to climate change.





Overview of the Bank's main ESG ratings and scoring

Sustainability ratings/scoring are developed by the major players in the industry and are also used to compile and publish various Sustainability indices, in a similar way to conventional benchmarks. Some entities started out as financial raters and only later specialised in Sustainability performance assessment; others were established to focus on ESG performance assessments.

Α-	ВВВ	EE+ corporate Long-term outlook: stable	C-	50	medium	n.a.	3
CDP	MSCI	STANDARD ETHICS	ISS	S&P GLOBAL	SUNSTAINALYTICS	MOODY'S ESG Solutions	SUSTAINABLE FITCH

CDP

CDP is an international not-for-profit organisation that directs companies and governments to reduce their greenhouse gas emissions, conserve water resources and protect forests. It is considered the leading provider of climate reporting data, working with institutional investors whose total assets amount to approximately \$110 trillion.

In 2023, more than 23,000 companies disclosed their environmental impact through CDP. Banca Popolare di Sondrio has been participating in the initiative since 2020, through the completion of the CDP's Climate Change Questionnaire, demonstrating transparency and awareness, indispensable characteristics to embark on the path towards a prosperous and sustainable future. In 2023, the Bank achieved a score of A-.







Standard Ethics

The sustainability rating assigned by the independent agency Standard Ethics is a summary assessment of the level of compliance with international Sustainability guidelines set by some of the major international institutions (European Union, United Nations, OECD). In March 2024, at the end of the annual rating review process, the Bank's corporate rating was upgraded to "EE+," reflecting the constant implementation of the goals set out in the Business Plan, the strengthening of ESG Risk Management oversights, the new governance structure as well as progress in Investment, Artificial Intelligence and Diversity & Inclusion areas.



ISS

The ISS (Institutional Shareholder Services) group of companies was created as a proxy advisor and subsequently also began to provide ESG assessments, developing the "ESG Corporate Rating" and the "Quality Score". The first indicator refers to a Company's ability to adequately manage material ESG-related risks, mitigate negative social and environmental impacts and exploit the opportunities offered by the transformation towards sustainable development. The ISS Corporate Rating of Banca Popolare di Sondrio is C-

The Quality Score is a Sustainability rating broken down according to the three pillars, by assigning a score between 1 (best) and 10 (worst). The results obtained by the Bank are: 3 for the Governance area, 2 for the Environment area and 2 for the Social area.



Sustainalytics

Sustainalytics' ESG Risk Ratings measure a company's exposure to material, industryspecific ESG risks and its ability to manage those risks. The Bank's risk rating was Medium.



Group's Policies

The Banca Popolare di Sondrio Group is committed to acting in line with the Sustainable Development Goals (SDGs) and, in particular with regard to environmental topics, draws inspiration from the most relevant ones in defining its corporate policies.

The main internal policies that outline the Group's values and guidelines are:

- The Code of Ethics: the activities carried out by BPS and its subsidiaries and associates are inspired by respect for the values and principles contained in the Code of Ethics, fully aware that fairness, transparency, integrity and professionalism are essential conditions for the sustainable economic development of the Community. The Code of Ethics, among other things, outlines the policies and regulations governing the Bank's activities and applies to each person operating within or representing it directly or indirectly, thus contributing to the implementation of corporate social responsibility. The creation and dissemination of these values cannot be separated from real respect for fundamental principles such as professional fairness, personal integrity, effective protection of health and safety in the workplace, and transparent competition on the market by all parties. BPS's Code of Ethics has been revised in order to introduce references to international principles and good practices on the subject of Sustainability, the environment, diversity and inclusion, in line with the provisions of the internal Policies. These changes were approved by the Board of Directors on 31 March 2023.
- The Sustainability Policy: it is the cornerstone of the model adopted by the Group, identifying the commitment and the approach followed to maximise the creation of long-term shared value through economically, environmentally and socially sustainable development. Updated in September 2023, the Policy defines the Sustainability principles, guidelines and relevant topics that are identified, implemented and monitored to consider the interests of all stakeholders, both internal and external, in a perspective of continuous evolution.



- The Environmental Policy: it identifies the Group's approach to managing environmental issues, aimed at gradually reducing the direct and indirect impacts generated on the environment and on climate. The document describes, in general terms, the measures and actions that the Group intends to take with regard to environmental issues. Within the context of the Sustainability Policy, the Group considers environmental impacts as a relevant area and, consequently, it proposes to reduce the effects on the environment generated by the consumption of resources, production of waste and other activities that have a direct impact, while managing the effects of activities with an indirect impact associated with customer products and services.
- The ESG Credit Policy: it identifies the Group's approach and general principles in integrating ESG factors into the credit granting and monitoring process. The Parent Company has defined an ESG risk management framework aimed at including, in its credit granting practices, assessments of the exposure of credit counterparties to ESG risk factors, through the adoption of proprietary scoring methodologies.
- The General Climate-related and Environmental Risk Regulation: it meets the Group's need to describe and formalise the general principles and key application guidelines relating to the process of managing risks deriving from exposure to climaterelated and environmental risk factors, with a view to their seamless integration into management and control processes affected by these elements, in compliance with the guidelines defined by the Supervisory Authority.
- **ESG Investment Policy**: it identifies the Group's commitment and approach to integrating environmental, social and governance factors into its investment processes. In particular, the Policy regulates all the main areas in which the Group operates, such as investment services (portfolio management and investment advice), the management of the proprietary securities portfolio, as well as the approach to issuing ESG-related bond instruments. The Sustainability strategies implemented concern both exclusion and positive selection processes applicable across the board, as well as differentiated approaches for each area.





BPS's 2022-2025 "Next Step" Business Plan and initiatives

In its 2022-2025 Business Plan, the Group, well-aware of the urgency connected to environmental aspects and the fight against climate change, has paid particular attention to the integration of the environmental factor into its traditional areas of business, namely the granting of credit and investments in financial assets.

After joining the Net-Zero Banking Alliance, the Bank has initiated activities to define decarbonisation targets for its portfolios, in line with the Paris Agreement (2015), the European Green Deal (2019) and with European and international best practices requiring greater commitment from the private sector in climate change mitigation actions.

A preparatory project was launched to define the decarbonisation targets for the corporate credit portfolio, which has made it possible to identify a set of preliminary portfolio targets (so-called "pre-targets"), formulated based on the methodology published by the NZBA to support corporate bodies in adopting an informed and consistent commitment to the initiative.

During 2024, the pre-targets will be further processed after commitment, including through more in-depth analyses to evaluate their relevance and to refine them, with the end goal of obtaining a first set of targets to be sent to the NZBA, in compliance with the latter's methodology. Demonstrating its focus in this regard, BPS is committed to reducing the environmental impacts of its securities portfolio through investments in low-emission financial instruments.

For additional details on the contents of the Business Plan, please refer to the corporate website and the "ESG Business Plan" section of the 2023 NFS.

The Group's initiatives related to reducing environmental impacts include the following activities:

- progressive integration of climate-related and environmental risk factors into credit processes;
- integration of climate-related and environmental and risk factors into the governance system, strategy, risk management system and reporting, in line with the expectations of the Supervisory Authority;
- gradual development and placement of investment instruments dedicated to the promotion of environmental characteristics;
- development of the bond issue programme aimed at financing and refinancing ecofriendly activities;
- progressive promotion of financing products aimed at supporting economic activities that contribute to climate change mitigation and adaptation, such as:
- low-emission production processes,
- purchase of housing with a reduced environmental impact,
- energy upgrading of buildings,
- energy production from renewable sources,
- sustainable mobility;
- selection of funding opportunities, with reference to companies in sensitive sectors, through an assessment of regulatory compliance and environmental standards.



Sustainability as an enabling factor of the strategic plan

INTERNATIONAL BUSINESS INITIATIVES **PRODUCTS REPORTING AND POLICIES AND** GOVERNANCE AND ESG COMMUNICATION **AND SERVICES STRATEGIES RATINGS** ✓ Intensification of ESG Credit Further Expansion Improvement of strengthening of the dialogue with **Policy** of ESG asset analyses concerning **ESG Governance** providers management indirect emissions Integrated Risk lines (Scope 3) **ESG** training for Improvement of Management all Group personnel some **ESG** ratings Integration Integration of the First set of the of ESG topics NFS with the **TCFD** Support to **TCFD** ESG compliance CO₂ reduction into MiFID II recommendations **Goals achieved by 2023** programme targets relating to questionnaire Joining Valore D the portfolio Evolution of Integration of ✓ New Green Adhering to the the contents of the Openition of the ESG factors in **UN PRB, joining** Bond issue NFS as regards Remuneration counterparty ESG the Net-Zero the Corporate **Policies** New ESG Bond Score **Banking Alliance** Sustainability **Framework** Internal Reporting Directive Own funds: 10% behavioural Development of and the new of bond portfolio guidelines for new Green Loans reporting standards consists of ESG the reduction of bonds environmental Definition of ESG impacts **Investment Policy** Strenathening of Level 2 and 3 ESG checks Sustainable Improvement of Increase of Analyses of Integration of the ESG ratings/ mobility the target on the counterparties' the environmental operational plan scoring **ESG** segment of ESG Score with performance of **real** the **proprietary** Taxonomyestate assets Operational portfolio alignment Strengthening Plan on **Diversity** and Inclusion Definition of the Development of the **ESG** 2025 targets giving strategy of Taxonomycommunication Launch of the aligned products strategy **ESG ratings** for women leadership suppliers SESG brand programme

S ISO 14001 Environmental Management System

SESG Data Governance

identity



Next: BPS's green financing

In the 2022-2025 Business Plan, Banca Popolare di Sondrio outlined specific lines of action with regard to the Group's Sustainability strategy, including the launch of ESG products. The Bank aims to support customers that, in turn, are engaged in the ecological transition, enabling Sustainability to become a key value for households and businesses.

The expanded range of ESG-focused credit products offered by Banca Popolare di Sondrio was created to respond to the needs of consumers who, today, are increasingly more attentive to the environmental and social impact of the products and services they purchase, as well as to help companies invest in innovative business models, increasing their level of competitiveness on the market in compliance with European environmental protection regulations.

During this first phase, the expansion of the financing product offer is focused on credit lines that support investments protecting the environment. Specifically, the Bank has developed "next – ESG Credit Products", a loan package designed to assist individuals, professionals and businesses looking to invest to reduce their "carbon footprint" through, for example, the installation of systems for the production of energy from renewable sources, the purchase of ecological means of transport or by enhancing the efficiency of their homes or workplaces.

With reference to private individuals, these are personal loans; as far as businesses are concerned, the "next" offer includes medium- and long-term mortgage or unsecured loans that can also be disbursed according to the progress of the specific works. The complete range of ESG products is available on the Bank's commercial website at www.popso.it/next (Italian version only).

Consistent with the above strategies, in July 2021 BPS issued its first Senior Green Bond, the proceeds of which are exclusively used to finance or refinance activities that meet the following criteria:

- Green Building: loans related to the purchase, construction and renovation of residential and/or commercial energy-efficient building;
- Renewable Energy: loans for the acquisition, development and management of infrastructure for the production of energy from renewable sources;
- Clean Transportation: loans related to low-carbon transport assets and the purchase, construction and management of infrastructure dedicated to low-carbon transport;
- Energy Efficiency: loans for assets that contribute to a reduction in energy consumption (e.g. energy-saving lighting);
- Environmentally sustainable management of living natural resources and land use: loans for activities that contribute to the sustainable management of natural resources and land use (e.g. investments in protected areas such as regional nature parks);
- Pollution prevention and control: loans for activities that contribute to the prevention, collection, disposal and recycling of waste;
- **Sustainable Water and Wastewater Management:** loans for activities that improve the quality, efficiency, distribution and conservation of water.

Last September, the Bank successfully placed a new Senior Preferred Green Bond, for an amount of €500 million and reserved for institutional investors. The placement was part of the EMTN (Euro Medium Term Notes) programme.





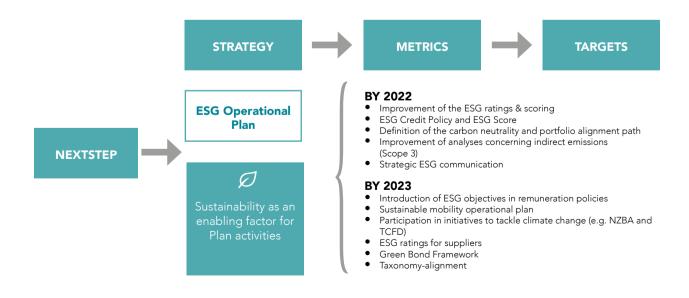


For complete and up-to-date information on the allocation of the resources raised and the positive environmental impacts of the activities financed, please consult the Banca Popolare di Sondrio's Green Bond Report available on the corporate website at istituzionale.popso. it/en/sustainability/green-bond.

BPS's climate strategy

2022-2025 Business Plan: main activities accomplished in 2023

SECTION 2.1						SECTION from 2.2 to 2.8
Strengthening the Corporate Policy	ESG assessment of suppliers	GHG inventory: Scope 3 - cat.15	Climate strategy	ESG finance and Green Bonds	Data governance ESG	Integration of C&E risks in credit and risk framework
In-depth analysis of corporate policies to ensure effective environmental management	Launch of activities for the definition of an ESG rating for BPS suppliers	Improvement of indirect emissions (Scope 3) analyses and consequent updating of the environmental section of the NFS	Identification of the milestones of the climate strategy from the first portfolio targets, to joining the NZBA	Integration of ESG factors in investment processes. Development of products with sustainability characteristics, focus on Green Bonds	Launch of an ESG Data Governance programme and inclusion of the Bank's ESG information in the data lake	Areas concerned by the C&E risk integration in credit processes and risk management







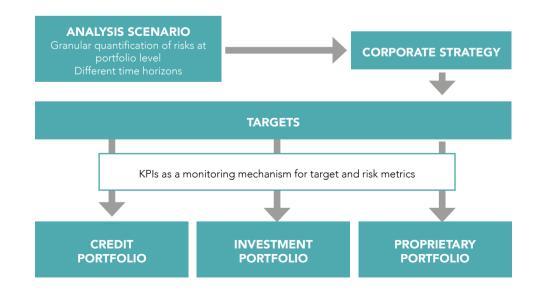
In 2023, BPS's strategic planning began to undergo a process of integration, combining the classic analysis factors with climate-related drivers. The goal is to have a clear and effective vision on the implications of climate change from a management perspective in the short, medium and long term. The aim of the integration process is to understand climate drivers and integrate them into relevant strategic asset allocation choices by assessing their impacts on the Bank's business profile and on sustainability. The definition of a corporate climate strategy cannot, in fact, be separated from the careful study of scenario analyses, in other words the projection of portfolios under different climate scenarios.

Through the use of a scientific methodology, joining the NZBA involves the definition of emission reduction targets whose achievement and monitoring are entrusted to specific performance indicators (key performance indicators or KPIs). In particular, the NZBA requires Alliance members to:

- focus on sectors that have a more significant impact on the climate, in other words those with higher GHG emissions;
- set short-term objectives no later than 2030 and starting, first and foremost, from "key" sectors;
- publish data on emissions and their intensity on an annual basis;
- take into account scenarios based on the best available scientific knowledge;
- set the first targets within 18 months of signing the commitment and provide updates on an annual basis;
- disclose progress with respect to a transition strategy approved by the Board of Directors.

In order to support its membership in the NZBA, the Bank deemed it essential to carry out preliminary simulations, identifying – starting from the portfolio data as at 31/12/2022 and based on the NZBA methodology – a set of "pre targets" to cover the 50.6% of financed emissions in the BPS's credit portfolio.

For additional details on target setting activities, please refer to the section "Metrics and Targets".



Targets in line with the scientific transition



ESG credit policy

With the Business Plan, the Group introduced targets to integrate ESG factors into all major credit processes and procedures.

In this context, in 2022 the Bank has developed the ESG Credit Policy, a document which identifies the approach and general principles for the definition of a credit process attentive to ESG factors, in accordance with the EBA's Guidelines on loan origination and monitoring.

This Policy:

- identifies the objectives pursued by the Group and the scope of application;
- defines the main technical terms and lists the reference legislation and principles;
- establishes the general guidelines for the integration of ESG factors in the credit process, providing details on the sector and counterparty ESG assessment methods;
- identifies sensitive sectors and activities;
- provides information on the development of ESG credit products;
- defines roles and responsibilities;
- indicates the supervision, monitoring, sharing and dissemination methods.

The Bank has identified ESG-sensitive areas to which special attention is required to be paid during the lending phase, with the aim of adopting a responsible approach. Identified sectors are:

- Coal mining
- Manufacturing and trade of arms
- Gambling
- Oil & Gas
- Electricity production from non-renewable sources
- Mining (other than coal)
- Tobacco.

In addition to the abovementioned sectors, there are also the counterparties located in countries with preferential taxation and the counterparties located in countries subject to embargo/assets restriction.



ESG Investment Policy

In 2023, in line with the commitments made by the Group in the 2022-2025 Business Plan, the ESG Investment Policy was approved. It identifies the Group's commitment and approach to integrating environmental, social and governance factors into its investment processes.

The document – which takes into account and enhances the distinct characteristics of the Group's companies – is composed of several sections, with the aim of:

- identifying the objectives pursued by the Group and the scope of application;
- indicating the supervision, monitoring, sharing and dissemination methods.
- defining the main technical terms and listing the reference legislation and principles;
- describing the relevant roles and responsibilities;
- identifying the strategies for integrating Sustainability-related factors into investment processes.

In order to define the broadest and most structured scope, the Policy regulates all the main areas in which the Group operates, such as investment services (portfolio management and investment advice), the management of the proprietary securities portfolio, and the approach to issuing ESG-related bonds.

The Sustainability strategies implemented concern both exclusion and positive selection processes applicable across the board, as well as differentiated approaches for each area.

Specifically, the following are identified:

- Exclusion processes of the companies involved:
- 1. in the controversial weapons area;
- 2. in relation to violations of Global Compact's principles;
- 3. in relation to violations of OECD guidelines for Multinationals.

The exclusion process is further strengthened by the ability to identify additional controversial areas on which exclusion criteria can be applied, providing for suitable thresholds where appropriate.

 Positive selection processes, aimed at encouraging the flow of capital into companies that adopt best practices relating to Sustainability.

For each area, further actions have been identified to strengthen the Group's commitment, including providing customers with investment solutions that support the transition to an economy that is more attentive to Sustainability factors and evaluating the possibility of issuing debt financial instruments with sustainable characteristics.

The Policy also defines a robust vertical governance system, consisting of both operational structures and advisory bodies, as well as a horizontal governance system, through the involvement of the Chief Financial Officer Area and the Chief Risk Officer Area.

For more information on the ESG Investment Policy, reference should be made to the corporate website available at https://istituzionale.popso.it/en/sustainability/esg-finance.





For a number of years now, for its analysis, the Bank has been using the climate scenarios of the Network for Greening the Financial System ("NGFS"), a network of 134 central banks and financial supervisory authorities that aims to accelerate the expansion of green finance and define the role of central banks in managing climate change. These scenarios, referred to as the Climate Change Risk scenarios, make it possible to develop greater awareness of the possible impacts of climate-related risk events on operations/profitability, relying on macroeconomic forecasts "conditioned" by the transmission drivers of climate-related risks, (e.g. carbon pricing, CO₂ emissions, increase in global average temperature) needed for defining medium- to long-term targets. For this purpose, in addition to the classic macroeconomic measures, certain climate-related variables and certain transition events are also taken into consideration.

In particular, three key scenarios are considered:

- Current policy (CP), where some climate-related policies are implemented in some jurisdictions, but global efforts are not sufficient to stop global warming; critical temperature thresholds are exceeded, leading to severe physical risks and irreversible impacts such as a rise in the sea level;
- Orderly transition (OT), where climate policies are promptly introduced and gradually become more stringent; both physical and transition-related risks are relatively small;
- Disorderly transition (DT), where the transition risk is higher due to delayed or divergent policies between countries and sectors; the carbon price is typically higher based on the same temperature value, if compared with other scenarios.

In line with the projects planned for 2023 and outlined in the 2022 TCFD Report, the following activities were carried out during the year:

- evolution of the current medium-term projection framework, beyond what was achieved with previous sensitivity measurement exercises, through the application of climateadjusted quantitative drivers processed by the analytical engines for forecasting climate-related risks (transition and physical risk) to the most recent economic-financial
- design and development of the long-term planning model and therefore of the calculation engine, of the axes of analysis, of the reference database and the integration methodologies of climate\ESG-related drivers;
- processing of the first long-term simulations to support participation in the NZBA.



Evolution of the medium-term projection framework

The changes applied to the short/medium term (3-5 years) strategic planning framework allow to integrate specific climate-adjusted quantitative drivers developed through the use of dedicated climate-related risk projection engines (transition risk and physical risk).

This, with the aim of incorporating into the prospective financial metrics the impacts that transition events and physical events can generate on the Bank's operations according to different climate transition scenarios, starting from the credit risk drivers (Probability of Default – PD; Loss Given Default – LGD) associated with the loan portfolio for businesses and individuals.

The following tools were used to measure the impact of physical and transition risk on credit drivers:

- input data obtained from internal databases and external providers;
- forecast climate scenarios defined by specialised providers (the aforementioned Climate Change Risks);
- Transition Risk Engine ("TRE");
- Physical Risk Engine ("PRE").

The use of TRE and PRE makes it possible to integrate an estimate of the impact of climate-related risks, both transition and physical, into the short-medium term (3-5 years) strategic planning framework, in line with what is recorded in the financial statements of the financed companies (so-called Non Financial Corporates) and with the values of the properties used as collaterals, for the Residential Real Estate (RRE) and Commercial Real Estate (CRE) segments.

These assessments impact the income statement and, specifically, the value adjustments, quantified according to a bottom up approach, based on the recalculation of the prospective expected loss following the implementation of climate-adjusted credit drivers (PD/LGD).

As expected, the 2023 exercise on short/medium term financial projections highlighted overall "negligible" impacts. In particular, in terms of the relevance of transition risk and physical risk, in the hypothesis of an orderly transition (OT), transition risk is expected to prevail, with a limited incidence of physical risk. These proportions are reversed in the case of a more "accommodating" climate scenario such as the current policy (CP) one.





The Bank has started to extend its strategic planning framework in order to incorporate an effective and clear vision of the implications of climate-change drivers from a management perspective, in the long term, too. The aim of the integration process is to include climate drivers into relevant strategic asset allocation choices by assessing their impacts on the Bank's business profile and on sustainability.

In order to pursue this objective, a new planning model was introduced aimed at most effectively dealing with the specific nature of long term climate-related risks and opportunities (for example, participation in initiatives like the NZBA to decarbonise loans and reduce financed emissions), by maintaining coherence and alignment with short- and medium-term strategic planning (budgeting and Business Plan).

The evolution of the framework focused primarily on climate-related ESG aspects and included the impacts that transition and physical events can generate on bank operations, according to various climate transition scenarios. Consequently, the classic strategic planning axes were complemented by new climate-related drivers and portfolio views on which the Bank will be able to formulate assumptions, carry out specific measurements (for example exposure, risk profile, margins) from time to time in order to support the process of selecting the viable strategic options.

Furthermore, these activities form the basis for the progressive implementation of specific climate KPIs and the development of a reporting and control system that will make it possible to:

- support the definition and monitoring of targets structured according to the new climate logic, with a clear understanding of the risks, implementation constraints and implications related to the Bank's commitment;
- seize the opportunities deriving from the evolution of the economic and climate/ environmental scenario, which will inevitably lead to the emergence of new financial needs, and thus of new products and customer segments that will need to be adequately supported by financial intermediaries during the transition process.



In particular, the Bank introduced and evaluated specific indicators such as the provision of green financing and KPIs related to the emissions profile (for example financed emissions and physical intensity indicators) that include measures of profitability and risk-related

The abovementioned activities are supported by a set of tools and models which make it possible to measure the exposure to climate-related risks of the various assets in the portfolio (loans, securities and properties) and of the assets underlying the products placed with customers. In particular, reference is made to the following abovementioned elements:

- climate-change risk scenarios: provisions of economic forecasts, including long-term ones, enriched to incorporate the climate views underlying the different transition paths outlined by the NGFS; sector outlooks and alternative scenario generation engines, in order to expand the possibilities of creating further scenarios relating to different economic and climate dynamics;
- transition risk engine: for estimating the transition risk of companies; the engine measures the sensitivity of individual companies to climate scenarios, simulating the evolution of the company's financial and economic KPIs under stress conditions generated by a specific transition path;
- physical risk engine: for estimating physical risks; when specific events occur, the engine determines the depreciation in the value of Residential Real Estate (RRE) and Commercial Real Estate (CRE) assets and the impacts on the production sites of companies in the portfolios.

Portfolio Alignment is also included; it allows to estimate the impacts of the decarbonisation path of the corporate portfolio in line with the NZBA protocol.





1. Transition risk engine

The transition risk measurement tool is an analytical calculation engine that estimates the impacts of specific climate-related assumptions and of the relevant macroeconomic and sector variables on the financial and accounting items in each company's financial statements, in order to measure the sensitivity of financed companies to transition policies.

Through the use of economic and climate-related scenarios broken down by sector, the calculation engine allows the emission path of financed companies to be projected, taking into account:

- any decarbonisation plans;
- the prospective financing or investment needs that companies would demonstrate in the event of adaptation to the transition;
- the direct and indirect costs that the transition path would generate through the introduction of the carbon tax;
- the increase in the prices of raw materials and energy and along the input-output supply chains that link companies.

The engine is able to take into consideration distinctive corporate features, where available, such as the initial carbon footprint and the investments already made or planned.

This tool also makes it possible to break down the portfolio of financed companies by degree of sensitivity to the transition risk. This breakdown, together with the definition of credit policies, enables the development of business strategies for the various segments, including financial support for transition projects, where deemed appropriate and relevant. This analysis allows not only to determine the risk profile, but also to approach the potential financing needs of companies in relation to transition projects, synergistically supporting the implementation of Regulation (EU) 2020/852 (the so-called European Taxonomy).

Finally, the engine returns summary forward-looking indicators of the evolution of the riskiness of individual counterparties that can be used in the methodologies for calculating risk parameters – probability of default (PD) or loss given default (LGD) – and, consequently, also of the expected loss and pricing to be applied to new financing.

2. Physical risk engine

The tool aims to determine and measure the impacts of certain physical events:

- on the prospective financial statements of financed companies;
- on the market values of real estate assets (residential and commercial) received as collateral for financing transactions (both corporate and private), enabling the mapping of the balance sheet and income statement aggregates according to the physical risk profile, which can be determined prospectively and scenario-dependently, in the short, medium and long term.



The tool exploits analytical geolocation elements of assets and companies (based on the data generated by local production units), combined with methodologies for the climatological forecasting of physical events (on high-precision geographic areas), in order to determine scenario-dependent "damage functions" that make it possible to estimate the impacts of physical events both in terms of expected and unexpected losses.

This tool allows to introduce physical risk drivers and classes into the strategic planning framework, in order to:

- prospectively evaluate the concentration indexes in line with the overall forecasts (strategy sustainability);
- integrate climate-adjusted risk metrics into medium-to long-term projections;
- define the actions to be taken on certain risk segments deemed relevant or deemed to be sources of opportunity.

The tool also makes it possible to align the estimates of the changes in the value of real estate collaterals, of the risk parameters (for example LGD) and consequently of the expected loss, to take into account the impacts of the physical risks. Through the application of "damage functions", it is possible to determine the potential impairments suffered by the Bank's real estate assets.

The engine can also be used to support the structuring of new products or targeting processes (e.g. insurance coverage, real estate renovations, etc.) and to estimate the prospective contribution of such operations.

3. Portfolio alignment engine

The tool is aimed at supporting the definition and application of decarbonisation strategies for the counterparties' portfolio:

- recognising the value of relationships and accompanying the financed companies towards a climate-related and technological transition path;
- relatively and gradually reducing its profile of financed emissions generated by its own credit portfolio.

In fact, this calculation engine is able to project and measure different decarbonisation strategies:

- based on multiple emission scenarios (NGFS);
- in contexts of changing financing volumes across sectors;
- taking account of customers' decarbonisation plans, when available, and their specific characteristics;
- analysing their impacts in terms of the compatibility of these choices with the overall financial indicators, while also verifying the sustainability of the business model.

As shown, the goal of the engine is to offer an important contribution in the definition of clear emission targets that are compatible with other corporate risk-adjusted profitability constraints, also contributing to providing support in verifying alignment with the targets and in the definition of any corrective strategic measures, in line and closely integrated with the other strategic planning processes and tools.





As previously illustrated, the Bank confirmed its membership in the NZBA at the end of 2023, satisfying one of the most important objectives of the ESG Business Plan and clearly defining its path to ensure sustainable business development in the long term, compatible with the most relevant external trends and with the expectations of the various stakeholders.

In light of this, it was deemed essential to carry out preliminary analyses, useful for developing the necessary awareness of the extent of the resulting commitment and of the Bank's ability to sustain its impacts. As already mentioned, this primarily materialised in the identification of a set of "pre-targets", obtained by simulating the evolution of the portfolio starting from data at the end of 2022 and applying the NZBA methodology, thus covering the majority of the "financed emissions" deriving from the credit portfolio.

In order to support the preparatory assessments for joining the international decarbonisation initiative, the analyses were extended taking into consideration different climate scenarios, in addition to the key one of the NZBA, calculating the impacts on some KPIs (credit volumes, cost of risk, emission profiles).

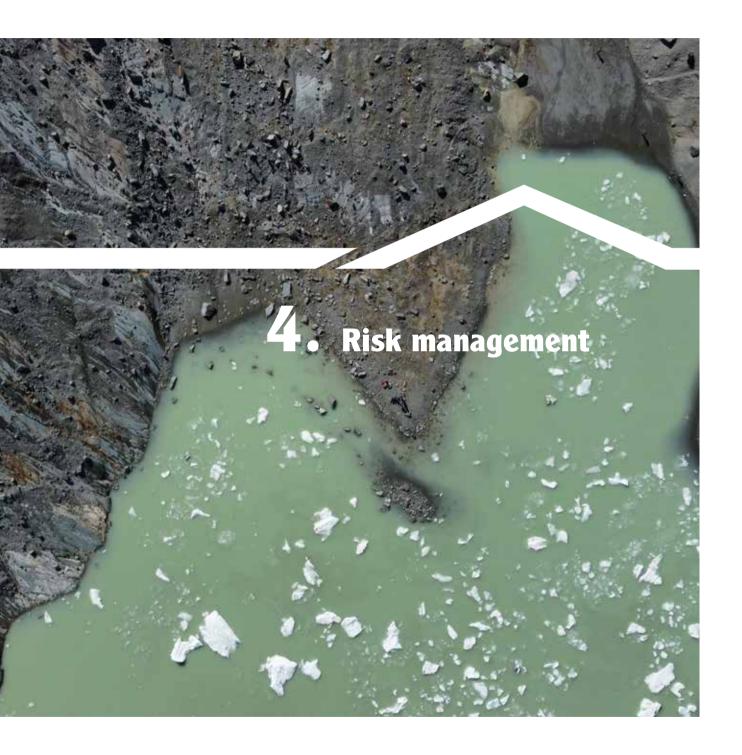
The simulations and the activities carried out, in a planning capacity, fall within the scope of the ESG evolution path illustrated earlier, also with reference to the tools used.

In summary, these calculations highlight costs and risks which, although significant, appear to be sustainable. In particular, it should be noted that the implementation of a more marked transition path than the current one, however orderly, may entail the need for the Bank to finance the process with appropriate projects/products to support decarbonisation, in a context in which an increase in the riskiness of financed customers is expected.

This first exercise made it possible – in compliance with the defined portfolio structure – to project the volumes, the related emission profiles (financed emission) and the prospective provisions. A further extension of the planning model is expected in 2024, integrating additional metrics (e.g. fees and interest), which will make it possible to support an overall assessment of the climate drivers on the business profile, allowing the definition of an adequate ESG strategy.









In line with the Supervisory Authority's provisions, climate-related and environmental risks (the "C&E risks") are defined for banking and financial institutions as risks arising from the current or prospective impact of climate-related and environmental factors on their counterparties, invested assets or on intermediaries' operations. With respect to business activities, environmental risks translate for the Bank into financial risks generated by exposures to counterparties that may contribute to or be affected by forms of environmental degradation (such as air pollution, water pollution, freshwater scarcity, soil contamination, biodiversity loss, sea level rise, and deforestation). Climate-related risks are represented by the financial risks generated by exposures to counterparties that may contribute to or be affected by climate change, as they are exposed to extreme weather events or possible declines in their asset value as a result of changing market confidence or preferences, if they belong to carbon-intensive sectors.

C&E risks do not constitute a separate risk category, but rather arise and manifest themselves by impacting the traditional categories of banking risks, with particular reference to credit, market and operational risks, as well as risks not included in Pillar 1 capital requirement measures, such as liquidity risk, strategic risk and reputational risk. C&E risks may therefore simultaneously constitute key risk drivers of different existing risk categories and subcategories and can manifest themselves through specific transmission channels.

C&E risks are commonly classified into the following two main risk drivers:

- transition risk, which refers to the financial loss that an entity may incur, directly or indirectly, as a result of the adjustment process towards a low-carbon and more environmentally sustainable economy; this could be caused, for example, by the sudden adoption of climate and environmental policies, by technological progress or by changing market confidence and preferences, and may result in lower profitability of companies and impairment of assets;
- physical risk, which refers to the financial impact of climate change, including more frequent extreme weather events and gradual changes in climate, as well as environmental degradation, in other words air, water and soil pollution, water stress, loss of biodiversity and deforestation. Physical risk can therefore be classified as:
- "acute" if caused by extreme atmospheric events such as droughts, floods and storms, etc.:
- "chronic" if caused by gradual changes in climate, such as, for example, rising temperatures, rising sea levels, water stress, loss of biodiversity, changes in land-use, habitat destruction and resource scarcity.



This last risk driver can directly cause material damage to assets belonging to the Bank or to counterparties, undermining the infrastructures supporting ordinary operations, causing a decline in the counterparties' productivity or leading to interruptions in the production chains.

In order to promote adequate governance of C&E risks, based on the Supervisory Authority's requests – following the publication by the European Central Bank (ECB) of its "Guide on climate-related and environmental risks" in November 2020 –, and on the awareness of the importance that attention to climate-related and environmental issues has for the prospective sustainability of its business model, the Bank has defined a specific project since the beginning of 2021. This project is aimed at supporting an initial macro-planning of measures functional to ensure compliance with the contents of the aforementioned "Guide" and at effectively integrating ESG factors into its internal risk management framework.

During 2022 and for the first half of 2023, the Bank updated its action plan based on the various discussions held with the Supervisory Authority as part of its participation in the Thematic Review, launched by the ECB at the beginning of 2022, also in light of a growing awareness of the importance of ensuring effective management of these emerging risks.

At the end of 2023, the Bank developed and submitted to the ECB a new and more organic programme of activities aimed at strengthening the central role of C&E risk management for future corporate strategies and their integration into key policies and decision-making processes. This, taking into account, within a broader-planning framework, some observations received by the Supervisory Authority regarding the identification and monitoring of the impacts of risk profiles linked to the environment, the climate transition and the possible occurrence of adverse natural events linked to climate change.

On this occasion, the Bank redefined its project structure, dividing it into various "work sites" which broadly involve its main organisational and management areas, with the aim of including all possible activities able to contribute to a healthy and correct management of climate-related and environmental risks and the definition of long-term climate strategies. The initiatives of each project site, managed by a control board and supervised and governed by a steering committee – made up of Top Management –, were planned analytically, clearly indicating the intermediate and final objectives, the functions responsible and the implementation timelines, facilitating a timely execution of the work. The Board of Directors, assisted by the relevant Board committees, is directly responsible for periodically supervising the action plan, through dedicated information relating to specific areas of activity and quarterly reporting on the overall progress of implementation of the initiatives scheduled. The aforementioned Plan is also subject to regular reporting to the ECB.



Banca Popolare di Sondrio is increasingly strengthening its systems for the management and control of C&E risks, in keeping with the overall internal control framework, so as to have a holistic and documented view of their impact on traditional risk profiles. These systems are based on the adoption of well-established models and procedures subject to continuous refinement, aimed at constantly identifying, measuring, monitoring and mitigating exposure to physical and transition risk factors.

In particular, the approach adopted by the Bank for the management of C&E risks provides for:

- the presence of suitable processes for the identification, mapping and analysis of the level of materiality of the current and prospective exposure to risk factors linked to the environment and climate change, which may occur within the scope of traditional risk categories, accompanied by specific tools and methodologies useful for carrying out assessments regarding the C&E risk profile of sectors, counterparties, geographical areas and investment activities;
- the development of effective measurement, monitoring and reporting systems for C&E risk exposure, based on appropriate metrics and indicators (e.g. counterparty/issuer classifications by economic sector and geographic area of activity, carbon intensity per individual counterparty, etc.);
- the implementation of suitable processes and systems to measure the potential impacts generated by climate-related and environmental risks, including through the use of forward-looking assessments (sensitivity or scenario analyses, stress tests, portfolio alignment exercises, etc.);
- the identification of appropriate actions and tools to mitigate the exposure to physical and transition risks, supporting processes aimed at the gradual reduction of these risks within the corporate operational areas (including in relation to portfolios, business lines, types of investments, etc.) and increasing their resilience to climate-related and environmental impacts.

Further details of the process and methodologies governing the individual macro-activities of the abovementioned C&E risk management approach are provided further on in the document.



Climate-related and environmental risk identification and materiality analyses

The Bank has established regular processes for identifying and assessing the materiality of exposure to risks related to climate and environmental change, both physical and transition, which may affect directly or indirectly the business environment and its profitability.

The materiality of these risks, understood as the ability to influence the sustainability of current and future corporate returns, is analysed on an annual basis through the adoption of data and techniques subject to refinement according to the most advanced practices available and the input provided by the Supervisory Authority. To this end, the Bank uses specific tools and metrics, as well as specific methodologies for conducting analyses aimed at mapping its exposures to C&E risk factors.

As a general rule, the Bank considers C&E risk factors as causal elements capable of affecting the exposure to existing risks and not as additional elements with respect to the typical scope of banking risks that can potentially be assumed. The level of materiality is therefore determined in relation to the possible influence of physical and transition factors on traditional risk categories, thanks to a structured analysis of the transmission channels through which such risks could propagate in case they materialise.



In identifying the most relevant C&E risk factors, the Bank takes as a reference the provisions contained in the abovementioned "Guide on climate-related and environmental risks – Supervisory expectations relating to risk management and disclosure", a document published by the ECB in November 2020 that summarises and defines risk drivers and factors arising from climate change and deterioration of environmental conditions. All factors outlined by the ECB are classified by the Bank as potentially material to its business model; the elements identified are updated from time to time based on evolving scientific knowledge and the relevant regulatory framework.

In particular, as already mentioned in previous sections, two main risk drivers fall under C&E risks:

- transition risks,
- physical risks.

Below is a summary of material C&E risk factors connected to the aforementioned drivers, according to the Supervisory Authority's classification:

Physical risk factors		Transition risk fact	Transition risk factors		
Climate-related	Environmental	Climate-related	Environmental		
Extreme weather eventsChronic weather conditions	 Water stress Resource scarcity Loss of biodiversity Pollution 	Policies and regulationTechnologyMarket confidence	Policies and regulationTechnologyMarket confidence		

Material climate-related and environmental risk factors

For each material risk factor, the transmission channels of C&E risk factors within the traditional risk categories are also outlined:

ESG Risk drivers	Transmission channels (non-exhaustive)	Banking risk
Environmental	Lower profitability	Credit risk
Physical risks • Acute	Reduction in property value	Market risk
• Chronic	Decrease in private wealth	Operational and
Transition risks Regulatory	Lower asset performance	reputational risk
Technological obsolescence	Increased compliance costs	Liquidity risk
Market preferences	Increased legal costs	Strategic risk



With regard to the materiality analysis, specific methods are defined for identifying relevant levels of exposure to C&E risk factors according to the traditional risk categories likely to be impacted. In general, materiality assessments and the subsequent measurement and

geographical, economic and regulatory context factors (for example vulnerability to climate-related and environmental risks of different geographical areas, economic sectors, energy performance of buildings);

monitoring of their impact on existing risk exposure levels and, consequently, on potentially

 specific factors linked to strategic objectives, operations and the business model pursued (e.g. services offered and reference markets), to the composition of corporate assets (e.g. credit portfolio, financial investments, collaterals, etc.), to the composition of funding sources and to logistical aspects (e.g. physical location of Group entities, location of suppliers' production sites).

The process aimed at identifying the materiality of the climate-related and environmental risk sources for the Bank's business and operational model is broken down into the following phases:

- mapping of C&E risk factors and transmission channels through which physical and transition risk factors can propagate their impacts on exposure to the analysed banking
- identification of traditional risks potentially impacted by exposure to physical and C&E
- definition of distinct timeframes and different C&E analysis areas.

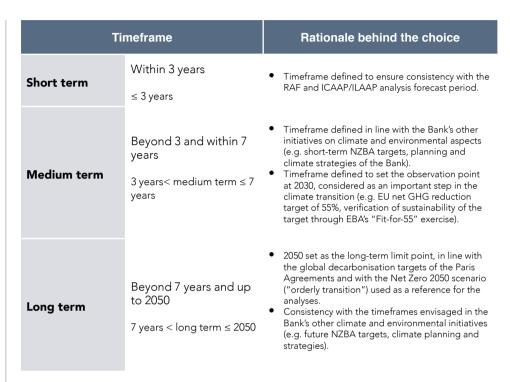
associated capital and liquidity requirements, take into account:

As far as timeframes are concerned, all analyses focus on a thirty-year horizon (until 2050), distinguishing three forecast intervals:

- **Short term**, which identifies a time period less than or equal to 3 years;
- Medium term, which identifies C&E risk events expected to occur in a timeframe greater than 3 years and less than or equal to 7 years (by 2030);
- Long term, which describes C&E risk events expected to occur over a timeframe of more than 7 years and, in any case, before 2050.

The characteristics and rationales for identifying these timeframes are presented below.





Regarding the analysis areas, the Bank identifies four different clusters for assessing C&E risk profiles: i) economic sectors; ii) geographical areas; iii) individual significant counterparties (debtors, issuers of portfolio securities, suppliers, etc.); iv) energy consumption of own and third-party properties.

The analysis includes:

- a preliminary C&E factors relevance assessment, in other words a holistic preexamination, based on scientific elements and international regulatory sources, of the characteristics of vulnerability to C&E risks of each analysis area in the timeframes considered; if this evaluation has a positive outcome, the degree of materiality of the climate and environmental effects is investigated for each cluster considered and within the defined timeframe;
- selection of C&E metrics and analysis tools which are suitable to identify and assess the individual transmission channels through which C&E risk factors can arise;
- materiality assessments of C&E factors incidence for all traditional risk categories analysed;
- sharing of the results of the analyses with the business areas involved in the definition and implementation of processes, oversights and/or products aimed at mitigating exposure to C&E risks.



The identification of the most significant physical events and transition factors makes it possible to understand and measure their negative impacts on the corporate environment in the short, medium and long term, also with the aim of guiding strategic decisions and ensuring the resilience of the corporate business model pursued. The analysis of the degree of materiality of physical and transition factors was performed for the following types of traditional banking risks:

- Credit risk;
- Market risk;
- Liquidity risk;
- Operational risk;
- Reputational risk;
- Strategic and business risk.

The materiality analyses share the following general elements:

- The impacts of physical and transition risk factors are investigated prospectively through the application of the Net Zero 2050 climate scenario (so-called "orderly transition"), an ambitious scenario that limits global warming to +1.5 °C by 2050 through the immediate and orderly introduction of rigorous climate and innovation policies.
- For the analysis of traditional risks involving the existence of business portfolios, the concentration and the qualitative composition of the Group's portfolios or operating segments in the three defined timeframes are assumed to be constant, allowing to analyse the existing risk without the influence of possible effects of prospective recomposition.
- The materiality levels of the C&E risk factors are analysed according to a "bottom-up" approach, in other words starting from the maximum possible level of detail (e.g. units of analysis represented by individual counterparties, financial instruments, real estate properties, etc.), with subsequent aggregations of the risk at the cluster level and analysis areas considered.
- Unless expressly specified, C&E risks are investigated without considering the effects
 of any mitigating aspects and active management of vulnerabilities to physical and
 energy transition risks implemented or planned by the Group and its counterparts.

Materiality level
Minimum
Low
Medium
Medium-High
High
Very High

Climate-related and environmental risk factors characterised by a rating of Medium, Medium-High, High or Very High materiality, compared to the relevant analysis units, are considered as "material".

The next sections of the Report describe the methodological principles and tools used by the Bank to prepare the materiality analyses of C&E risk factors in relation to the traditional risk types of the Banking Group. A summary of the findings is provided for each analysis carried out.





Three distinct portfolio clusters are defined to carry out materiality analyses of C&E risk factors affecting credit risk exposure:

- Non-financial companies exposures secured by real estate assets (NFCs secured);
- Non-financial companies exposures not secured by real estate assets (NFCs unsecured);
- **Households** exposures secured by residential properties (Households secured).

Depending on the C&E risk factor and on the specific portfolio clusters analysed, internally defined tools were identified, through proprietary modelling solutions or acquired from external data suppliers. These tools are calibrated at the level of the individual counterparty and assessed prospectively through the use of forward-looking scenarios and/or assumptions, representative of the possible evolution of the collateral or counterparty physical and transition risks over the short, medium and long term, differentiating the assessments at a geographic and/or sector level.

	RISK FACTOR	PORTFOLIO CLUSTERS ANALYSED			
RISK DRIVERS		NFCs NFCs unsecured	Households secured		
	Policies and regulation	Cost impact indicator (proprietary)			
Transition risks	Technology	Investment impact indicator (proprietary)	Energy efficiency certificates / classes (ECP labels) (from external provider)		
	Market sentiment	Turnover Impact indicator (proprietary)			
	Heat waves	Heat waves score (from external provider)	Heat waves score – collaterals (from external provider)		
	Waves of cold and frost	Waves of cold and frost score (from external provider)	Waves of cold and frost score- collaterals (from external provider)		
	Forest fires	Forest fires score (from external provider)	Wildfires score- collaterals (from external provider)		
	Storms and hurricanes	Storms and hurricanes score (from external provider)	Storms and hurricanes score – collaterals (from external provider)		
Acute physical risk	Drought	Drought score (from external provider)	Drought score – collaterals (from external provider)		
	Heavy rain	Heavy rain score (from external provider)	Heavy rain score – collaterals (from external provider)		
	Coastal floods	Coastal floods score (from external provider)	Coastal floods score- collaterals (from external provider)		
	River floods	River floods score (from external provider)	River floods score – collaterals (from external provider)		
	Landslides and subsidence	Landslides and subsidence score (from external provider)	Landslides and subsidence score – collaterals (from external provider)		



	RISK FACTOR	PORTFOLIO	CLUSTERS ANALYSED
RISK DRIVERS		NFCs NFCs unsecured	Households secured
	Temperature changes	Temperature changes score (from external provider)	Temperature changes score – collaterals (from external provider)
	Extreme heat	Extreme heat score (from external provider)	Extreme heat score – collaterals (from external provider)
	Extreme cold	Extreme cold score (from external provider)	Extreme cold score – collaterals (from external provider)
	Extreme wind	Extreme wind score (from external provider)	Extreme wind score – collaterals (from external provider)
	Heavy rainfall	Heavy rainfall score (from external provider)	Heavy rainfall score – collaterals (from external provider)
Environmental- chronic physical	Heavy snowfall	Heavy snowfall score – collaterals (from external provider)	Thawing of permafrost score – collaterals (from external provider)
risk	Thawing of permafrost	Thawing of permafrost score (from external provider)	Thawing of permafrost score – collaterals (from external provider)
	Rise in sea levels	Rise in sea levels score (from external provider)	Rise in sea levels score – collaterals (from external provider)
	Water stress	Water stress score (from external provider)	Water stress score – collaterals (from external provider)
	Coastal degradation	Coastal degradation score (from external provider)	Coastal degradation score – collaterals (from external provider)
	Soil degradation	Soil degradation score (from external provider)	Soil degradation score – collaterals (from external provider)





Transition risk - Non-financial companies

- **Cost indicator**: calculated as the ratio between the estimated cost deriving from the carbon tax regime and the total costs recorded in the latest available financial statements. The economic logic on which this indicator is based refers to the fact that each counterparty analysed will have to bear higher or lower economic costs attributable to the quantities of polluting gas emissions produced, with varying incidence of the estimated amount of carbon tax on total company costs.
- Investment indicator: calculated as the ratio between the estimated cost deriving from the capital investments necessary for the ecological transition and the value of the assets recorded in the latest available financial statements. The economic logic on which this indicator is based refers to the fact that to become carbon neutral, a counterparty will have to bear investment costs necessary to adapt its economic activity to the new energy mix.
- Indicator relating to turnover: calculated as the ratio between the prospective value of EBITDA eroded by the sum of all forecasted business costs tied to the materialisation effects of climate-related and environmental factors (investments for the management of the energy transition, carbon taxes) and the value of turnover recorded in the latest available financial statements. The indicator provides a measure of the economic capacity of the individual counterparty after having borne the costs of the climate transition, differentiating the estimate by timeframe.

Each transition risk exposure metric assigned to counterparties is attributed a single score made up of 5 values, representing just as many gradually increasing levels of risk (risk bands or classes).

Transition risk - Households

The metrics used focus on the new policies and regulations regarding real estate redevelopment, which, at the European Union level, will require the achievement of higher levels of overall energy efficiency in the Member States by 2030.

Accordingly, the energy performance classes of the real estate assets used as collaterals for the loans in the portfolio, provided by qualified leading information providers, are considered as key indicators of the green transition. Information on the energy efficiency of the real estate assets can be directly obtained from national land registers (official Energy Performance Certificate) or estimated in the absence of actual data.





The metrics relating to the extent of physical risk, acquired from qualified leading information providers, are aimed at investigating the following aspects for each acute and chronic environmental risk factor considered: i) the physical riskiness of counterparties through the analysis of the geographical area (location of the production plants) and sector area (economic sector to which the companies belong); ii) the physical riskiness of the individual real estate assets used as collaterals for the loans, taking into account the location and the specific use of the collateral.

The physical risk metrics are defined with reference to each of the three forecast analysis timeframes. In particular, the short-term indicators consider backward-looking analyses of the historical series of natural events that have occurred, without taking into account the effects linked to future climate change scenarios; on the contrary, the medium and long-term physical risk metrics consider the 2030 and 2050 forward-looking timeframes respectively, defined according to RCP (Representative Concentration Pathways) 4.5. This scenario is part of those adopted by the Intergovernmental Panel on Climate Change (IPCC, the world's leading authority on climate change), which are based on various assumptions in terms of GHG emission trends and social/economic changes on a global level.

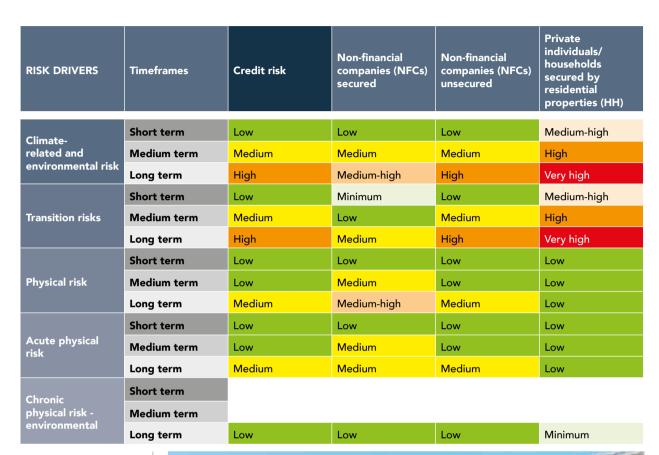
Each metric of exposure to acute or chronic physical risks, attributed to each counterparty or real estate asset acquired as a collateral for each individual hazard of risk considered, is attributed a score made up of 10 values, representing the same number of gradually increasing risk levels.

The determination of the degree of materiality of the individual physical and transition factors starts from the risk analysis applied to each transmission channel and related risk factor, identified for each individual counterparty or property present in the credit portfolios being analysed. This assessment, conducted for each of the timeframes taken into consideration, is subsequently also extended – through a "bottom-up" aggregation procedure of the risk metrics determined for the single elementary unit of analysis – to the risk driver level, to ultimately determine the overall level of climate and environmental risk for each portfolio cluster considered.

Finally, a degree of materiality of the individual climate-related and environmental risks is determined with respect to the overall exposure to credit risk of the portfolios considered, calculated as a summary of the overall risk assessment of the individual portfolio clusters, subject to a analysis weighted for relative quantitative incidence on the total scope of credit exposures analysed.

The following is a summary outline of the materiality assessment on risk drivers and the general climate-related and environmental risk for the overall credit portfolio and the individual clusters under analysis broken down by the three different timeframes considered.





Note: The analysis clusters which, fol risks that are of little significance in



Market risk

In order to carry out the materiality analyses of the C&E risk factors able to impact the exposure of the Group's banking and trading portfolios to market risks, the following clusters of owned financial assets are considered:

- Government securities*;
- corporate securities;
- funds.

The measurement of the C&E materiality degree is based on the so-called "Risk Framework Method", an approach that allows to determine how a given climate trend scenario might affect the market value of financial instruments in the portfolio. The analysis uses the Climate VaR (CVaR) statistical metric provided by a leading market service provider. This methodology makes it possible to identify the vulnerability of an issuer/financial instrument to climate-related and environmental issues along different timeframes. The climate scenario used to conduct the analysis is the REMIND NGFS 1.5°C Orderly ("Net Zero 2050") scenario.

The CVaR measurement for corporate securities is quantified for each individual issuer by combining the climate and environmental drivers represented by the transition risk (policy risk and technology opportunities) and physical risk in reference to the scenario under analysis and subsequently aggregated at the portfolio cluster level. The CVaR is also available for Government securities through the Sovereign CVaR, a metric that allows to estimate the impact of the value of a sovereign bond if market expectations changed from the base (agnostic) scenario, to any other climate scenario. In the model currently in place, the funds are not directly covered by CVaR metrics, for which the analysis is conducted using the so-called "look-through approach" (where available), dividing the constituents between corporate and Government securities.

The risk factors underlying the CVaR are:

- the transition risk;
- the physical risk, both acute (caused by extreme events e.g. fires, landslides, floods, cyclones) and chronic (caused by progressive changes in the climate – e.g. increase in temperatures).

The materiality assessment of the individual C&E factors involves the calculation of the percentage change of the Present Value at the individual issuer/position level, subsequently aggregated at the cluster and overall portfolio level, for each of the three timeframes analysed. The materiality level is defined by attributing the percentage changes of the Present Value to the following scale:

C&E risk scale	CVaR % ranges
Very High	from - 100% to -50%
High	from - 50% to -25%
Medium-High	from - 25% to -10%
Medium	from - 10% to -3%
Low	from - 3% to -0.5%
Minimum	up to -0.5%

^{*} In addition to Government securities in the strict sense, this cluster also includes securities from public issuers (supranational, agency and provincial) .



The results of the C&E materiality assessment, both on the overall securities portfolio and at the individual portfolio cluster level are presented below.

RISK DRIVERS	Timeframes	Market risk	Corporate securities	Government securities	Corporate funds	Government funds
Climate-	Short term	Minimum	Minimum	Minimum	Minimum	Minimum
related and environmental	Medium term	Minimum	Low	Minimum	Low	Minimum
risk	Long term	Low	Medium	Minimum	Medium	Low
	Short term	Minimum	Minimum	Minimum	Minimum	Minimum
Transition risks	Medium term	Minimum	Low	Minimum	Low	Minimum
TISKS	Long term	Low	Medium	Minimum	Medium	Low
	Short term	Minimum	Minimum	Minimum	Minimum	Minimum
Physical risk	Medium term	Minimum	Minimum	Minimum	Minimum	Minimum
	Long term	Minimum	Low	Minimum	Low	Minimum
	Short term	Minimum	Minimum		Minimum	
Acute physical risk	Medium term	Minimum	Minimum		Minimum	
	Long term	Minimum	Low		Low	
Chronic	Short term					
physical risk -	Medium term	Minimum	Minimum	Minimum	Minimum	Minimum
environmental	Long term	Minimum	Minimum	Minimum	Minimum	Minimum

Note: The analysis clusters which, following the relevance analysis described on page 46, present factors of exposure to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.

Liquidity risk

In order to conduct analyses of the C&E risk factors with the highest impact on the Group's liquidity profile, differentiated quantitative methodologies are used with reference to the two traditional cases of liquidity risk: "Funding liquidity risk" and "Market liquidity risk".

As regards the "Funding liquidity risk", the exposure concerns the deposits collected by the Bank and the banking and financial companies belonging to the Group, potentially affected by the occurrence of acute physical risks. Two clusters of depositors are taken into consideration: Corporate and Retail customers. The analyses are based on the use of ThinkHazard!, an open-source tool which, starting from specific sources (e.g. World Bank, SHARE-EU, Global Facility for Disaster Reduction and Recovery), summarises data available in the public domain aimed at expressing a level of exposure to acute physical risk threats considered at the provincial level on a global scale. By cross-referencing the latter with the geographical location of the customers representing the Group's funding base, an overall degree of exposure is obtained. The analysis is also divided, based on the frequency of occurrence of the threat identified by ThinkHazard! (the so-called return period), into the three different timeframes of analysis (short, medium and long term).





For the "Market liquidity risk", instead, the scope of the analysis is defined by the set of financial instruments included in the buffer of the short-term Liquidity Coverage Ratio. The measurement of the materiality degree is based on the so-called "Risk Framework Method", an approach that allows to determine how a given climate trend scenario might affect the market value of financial instruments. The analysis involves the use of the Climate VaR (CvaR) statistical metric, previously described with the REMIND NGFS 1.5°C Orderly ("Net Zero 2050") scenario. The methodology for assessing the materiality of climate-related and environmental risk factors is in line with that defined for market risks for reasons of uniformity and consistency.

The summary diagram of the materiality assessment of C&E factors for the two types of liquidity risk is presented below, both at the overall level and at the level of the individual cluster considered.

RISK DRIVERS	Timeframes	Market liquidity risk	Corporate securities	Government securities	Funding liquidity risk	Corporate customers	Retail customers
Climate-	Short term	Minimum	Low	Minimum	Medium	Medium	Medium
related and environmental	Medium term	Minimum	Low	Minimum	Medium	Medium	Medium
risk	Long term	Low	Medium-high	Minimum	Medium	Medium	Medium
	Short term	Minimum	Low	Minimum			
Transition risks	Medium term	Minimum	Low	Minimum			
113/23	Long term	Low	Medium-high	Minimum			
	Short term	Minimum	Minimum	Minimum	Medium	Medium	Medium
Physical risk	Medium term	Minimum	Minimum	Minimum	Medium	Medium	Medium
	Long term	Minimum	Low	Minimum	Medium	Medium	Medium
	Short term	Minimum	Minimum		Medium	Medium	Medium
Acute physical risk	Medium term	Minimum	Minimum		Medium	Medium	Medium
	Long term	Minimum	Low		Medium	Medium	Medium
Chronic	Short term						
physical risk -	Medium term	Minimum	Minimum	Minimum			
environmental	Long term	Minimum	Low	Minimum			

Note: The analysis clusters which, following the relevance analysis described on page 46, present factors of exposure to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.





For the purposes of the materiality analysis of the climate-related and environmental risk factors (physical and transition) with potential impact on the exposure to operational risk, it is assumed that the latter derives – with reference to physical risk drivers – mainly from exposure to the subcategories of risk of disputes and other operational risks (the latter understood as not directly attributable to the legal risks area) and – with reference to transition risk drivers – from exposure to legal responsibility risk. Moreover, it is also assumed that the level of materiality does not differ substantially between the short and medium-term timeframes, based on a hypothesis of the absence of significant variability of physical and transition risk drivers over a period of less than a decade.

The perimeter considered for conducting the analysis concerns:

- the set of properties owned by Group companies and the main operational offices of suppliers of essential or important functions (so-called EIF Suppliers), overall functional to carrying out of business operations, as regards physical risk factors;
- credit counterparties and suppliers of essential or important functions (so-called EIF Suppliers) identified as most significant on the basis of empirical and managerial evidence available, in terms of potential adverse impact produced on the climate and the environment, with regards to transition risk factors.

A) Risk of disputes and other operational risks

As far as the risk of disputes and other operational risks categories are concerned, the materiality analysis with respect to possible physical risk threats is conducted taking as reference empirical evidence of the level of exposure of the properties involved (real estate owned by the Group companies and the main operational offices of EIF suppliers) to specific natural or climate-related threats, expressed in terms of a score calculated according to different methodological approaches depending on whether the real estate assets are located within or outside the European Union. In the first case, the risk scores made available by primary external information providers are used while, in the second, the public domain scores provided by the ThinkHazard! tool are used. In both cases, the analysis includes both chronic and acute physical risk factors.

These metrics are taken as a reference as indicators of the potential exposure of Group companies – in the short, medium and long term – to operational losses resulting from:

- i. legal disputes resulting from occurrence of physical risk such as to cause interruptions in operations and/or damage to third parties (risk of disputes);
- ii. material damage connected to external events that cannot be classified as legal risks, e.g. costs for restoring corporate assets in view of extreme weather events (other operational risks).





As far as the methodological approach adopted for the analysis is concerned, a diagram of the four phases that make it up, common to both risk subcategories, is provided below:

	PHYSICAL RISKS							
	Methodological steps:	1	2	3	4			
onal risk	Risk of disputes Risk of disputes of current and prospective exposure (short, medium and long term) to physical risk threats (acute and risk threats (acute and long term) to physical risk threats (acute and long	 EIF supplier offices: significance of the contractual value of the 	Process of determining the materiality for individual physical risk threats as the level associated with the weighted average score compared to the market value	Process of determining the materiality with respect to the set of physical risk threats as the level associated with the maximum score obtained in relation to the				
Operational	Other operational risks	 assets located in the EU: external data provider methodology assets located outside the EU: ThinkHazard! open- source tool 	outsourced service with a 2 risk levels notch-up with reference to the relevant geographical areas (properties with score ≥ 4 whose overall market/contractual value amounts to > 10% of the total)	(owned properties)/ contractual value (EIF supplier offices) of the properties considered	relevant analytical subcomponents Assumptions: Invariability of exposure for timeframes < 10 years (short and medium)			

The global level of materiality with respect to the set of physical risk threats considered, including in terms of representation by relevant geographical areas, is therefore determined as the level associated with the maximum synthetic score obtained in relation to the relevant analytical subcomponents. In particular, both the risk of disputes, as well as other operational risks were found to have a "low" materiality on the short and medium-term timeframes and a "medium-high" materiality on the long-term timeframe.

RISK DRIVERS	Timeframes	Other operational risks	Disputes
Climate-	Short term	Low	Low
related and environmental	Medium term	Low	Low
risk	Long term	Medium-high	Medium-high
	Short term		
Transition risks	Medium term		
	Long term		
	Short term	Low	Low
Physical risk	Medium term	Low	Low
	Long term	Medium-high	Medium-high
	Short term	Low	Low
Acute physical risk	Medium term	Low	Low
IISK	Long term	Medium-high	Medium-high
Chronic	Short term		
physical risk -	Medium term		
environmental	Long term	Medium-high	Medium-high

Note: The analysis clusters which, following the relevance analysis described on page 46, present factors of exposure to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.





The materiality analysis of operational risk, in terms of legal responsibility risk arising from the effects of climate transition risks, is based on a single-name assessment of the environmental sustainability profile of the counterparties in scope. This, as a signalling factor regarding the Group's potential exposure to operational losses deriving from legal disputes attributable to the maintenance of relationships with said counterparties, due to the possible negative impacts produced by them on the climate and the environment.

As regards credit counterparties, the methodological approach is based, firstly, on the evidence provided by the counterparty's ESG scoring system, broken down by short, medium and long-term timeframes, developed internally by the Bank. With reference to EIF suppliers, the methodology leverages the evidence of the so-called counterparty transition score calculated by qualified external *information providers*. In both cases, to integrate the aforementioned score and evaluate the potential legal responsibility profiles of the debtor and supplier companies examined, an expert-based analysis of the climate-related and environmental profile of said counterparties is carried out examining, if available, the following qualitative and quantitative elements:

- evidence deriving from the internal Loss Data Collection process regarding the possible presence of operational losses recorded following legal disputes (current or past) with counterparties and attributable to negative impacts on the climate and the environment;
- ii. evidence regarding the sensitivity of the economic sector to which the counterparties belong to climate-related and environmental changes;
- iii. the results of the questionnaires completed as part of the ESG Due Diligence process of financed companies;
- iv. evidence deriving from media screening activities conducted to identify and monitor events/factors detrimental to corporate reputation connected to maintaining relationships with controversial counterparties in terms of environmental sustainability;
- evidence deriving from the Operational Risk Self-Assessment process regarding the
 extent of prospective operational losses resulting from legal disputes with controversial
 counterparties in terms of C&E sustainability (functional to the materiality analysis on
 the long-term horizon).

A summary of the methodological approach used for the purposes of the analysis, divided into four steps, is provided below:

		TRANSITION RISKS						
	Methodological steps:	1	2	3	4			
Operational risk		Collection of scores of current and prospective exposure (short, medium and long term) to transition risk threats: • credit counterparties: scoring methodology developed internally • EIF suppliers:	Collection of qualitative and quantitative evidence: • results of internal C&E Due Diligence questionnaires • sector-related evidence (e.g. NZBA, ESG credit policy) / type of outsourced service	Determination of materiality from a single-name perspective using the expert-based approach starting from the evidence collected	Process of determining the materiality with respect to the set of transition risk threats as the level associated with the maximum score obtained in relation to the relevant analytical subcomponents			
o o		external data provider methodology	 evidence deriving from LDC / OpRisk - RepRisk Self Assessment activities media screening 		Assumptions: Invariability of exposure for timeframes < 10 years (short and medium) and transmission channel			

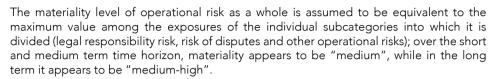


The overall level of materiality of legal responsibility risk, connected to transition risk factors, is assumed as the worst level of materiality among those assessed overall with reference to the individual counterparties in scope: respectively "medium" materiality in the short and medium term and "medium-high" materiality in the long term.

RISK DRIVERS	Timeframes	Legal responsibility
	Short term	Medium
Climate-related and environmental risk	Medium term	Medium
	Long term	Medium-high
	Short term	Medium
Transition risks	Medium term	Medium
	Long term	Medium-high
	Short term	
Physical risk	Medium term	
	Long term	
	Short term	
Acute physical risk	Medium term	
	Long term	
	Short term	
Chronic physical risk - environmental	Medium term	
CHVIIOIIIICHCAI	Long term	

 $Note: The \ analysis \ clusters \ which, following \ the \ relevance \ analysis \ described \ on \ page \ 46, \ present \ factors \ of \ exposure$ to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.





RISK DRIVERS	Timeframes	Operational risk	
Climate-related and environmental risk	Short term	Medium	
	Medium term	Medium	
	Long term	Medium-high	
Transition risks	Short term	Medium	
	Medium term	Medium	
	Long term	Medium-high	
Physical risk	Short term	Low	
	Medium term	Low	
	Long term	Medium-high	
	Short term	Low	
Acute physical risk	Medium term	Low	
	Long term	Medium-high	
Chronic physical risk - environmental	Short term		
	Medium term		
	Long term	Medium-high	

Note: The analysis clusters which, following the relevance analysis described on page 46, present factors of exposure to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.

Reputational risk

With reference to reputational risk, it is assumed that the potential exposure of Group companies to the risk in question arising from climate-related and environmental risk factors primarily depends on the impacts of the transition towards a low-emission economy and does not differ substantially between the short and medium-term timeframes, in the hypothesis of the absence of significant variability of the transition risk drivers over a period of less than a decade.

The scope considered coincides with that referring to the transition risk affecting operational risk (legal responsibility risk). It is therefore represented by the credit counterparties and suppliers of essential or important functions (so-called EIF Suppliers) identified as most significant for the assessment on the basis of empirical and management evidence available in terms of the negative impact produced by them on climate and the environment. The analysis is based on the evaluation of the relevant climate-related and environmental sustainability profile, as a signalling factor regarding the potential exposure of Group companies to reputational damage attributable to maintaining relationships with the identified counterparties.





The methodological approach and the qualitative and quantitative evidence adopted for the purposes of the singlename analysis follow those previously described for the analysis of the materiality of transition risks potentially impacting the exposure to operational risks. These, in turn, are complemented by evidence drawn from the Reputational Risk Self-Assessment process regarding the prospective exposure to reputational risks deriving from relationships with controversial counterparties from the point of view of their environmental sustainability profile (functional to the materiality analysis in the long-term timeframe).

A summary of the four phases that make up the analysis process is provided below:

TRANSITION RISKS					
Methodological steps:	1	2 3		4	
Reputational risk	Collection of scores of current and prospective exposure (short, medium and long term) to transition risk threats: • credit counterparties: scoring methodology developed internally • EIF suppliers: external data provider methodology	Collection of qualitative and quantitative evidence: • results of internal C&E Due Diligence questionnaires • sector-related evidence (e.g. NZBA, ESG credit policy) / type of outsourced service • evidence deriving from LDC / OpRisk - RepRisk Self Assessment activities • media screening	Determination of materiality from a single-name perspective using the expert-based approach starting from the evidence collected	Process of determining the materiality with respect to the set of transition risk threats as the level associated with the maximum score obtained in relation to the relevant analytical subcomponents Assumptions: Invariability of exposure for timeframes < 10 years (short and medium) and transmission channel	

The overall level of materiality of the reputational risk profiles linked to climate transition risk is assumed to be equal to the worst level of materiality among those assessed overall with reference to the individual counterparties in scope; in other words "medium" and "medium-high" respectively from a short-medium term and long-term perspective.

RISK DRIVERS	Timeframes	Reputational risk
		·
Climate-related and environmental risk	Short term	Medium
	Medium term	Medium
	Long term	Medium-high
Transition risks	Short term	Medium
	Medium term	Medium
	Long term	Medium-high
Physical risk	Short term	
	Medium term	
	Long term	
Acute physical risk	Short term	
	Medium term	
	Long term	
Chronic physical risk - environmental	Short term	
	Medium term	
	Long term	

Note: The analysis clusters which, following the relevance analysis described on page 46, present factors of exposure to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.





To conduct materiality analyses of C&E risk factors that impact exposure to strategic and business risk, we consider the scope made up by the following categories of credit counterparties from which the Group obtains flows of net income from interest and commissions from services connected to loans outstanding at the reference date when the analysis is conducted:

- Non-financial companies exposures secured by real estate assets (NFCs secured);
- Non-financial companies exposures not secured by real estate assets (NFCs unsecured).

The potential strategic and business impacts linked to the climate-related and environmental risk of these counterparties, as regards to transition factors only, are assessed at the single-name level and subsequently aggregated at the sectoral cluster level and at the entire scope level, with reference to each of the defined timeframes.

The analysis is based on the consideration of the potential impacts connected to the climate transition on the Bank' core business strategies in terms of dependence of operations profitability on carbon-intensive counterparties and sectors.

The estimation model makes it possible to compare the operations profitability that can be obtained from the counterparties in scope in terms of interest margin and commissions with respect to the elasticity of transmission of the expected costs of the transition on the prospective revenues generated by counterparties.

The metrics adopted in the analysis are reported below:

- Implicit profitability indicator: index calculated as the ratio between the core profitability (interest and net commissions) currently obtained from each of the counterparties in scope and the gross credit exposure balance associated with them, with the aim to identify companies capable of ensuring higher characteristic margins therefore strategic for the Bank and estimate the potential impacts due to the green transition process.
- Cost-income elasticity indicator: index calculated as the ratio between the prospective transition costs estimated for the individual company and the amount of turnover from the latest available company financial statements. The metric makes it possible to determine the counterparties that have a greater impact on the current revenue volumes of the expected transition costs that each counterparty would have to bear to achieve their decarbonisation targets, determined by the application of the scenario in each analysis timeframes.

The product of the indicators described above allows us to identify – in the three short, medium and long term timeframes – the existence of potential strategic impacts deriving from counterparts or sector *clusters* which, at the reference date of the analysis, guarantee high intrinsic profitability, but which prospectively risk incurring significant transition costs.

The summary indicator is attributed a single score made up of five values, representing gradually increasing levels of risk.

This classification makes it possible to identify those counterparties (or, based on a bottomup aggregation, those portfolio sector clusters) more or less profitable for the Bank, estimated to have to support significant economic and technological efforts to achieve the



 \Longrightarrow

"net zero emissions" by 2050 goal and on which appropriate strategic actions need to be implemented to support the process of adaptation to the transition, maintaining adequate attractiveness and competitiveness on the market and therefore preserving the margins from operations currently observed.

With regard to the methodology adopted, once the summary indicator mentioned above has been assigned to each debtor company in scope, the individual risk findings are aggregated at the sector level and over the entire scope of analysis, considering as the materiality index the percentage of credit exposure associated with counterparties with summary scores of 4 and 5. This percentage of incidence, calculated in the three forecast timeframes, is then traced back to the six levels of the general assessement scale.

Below we present the summary diagram of the identification of materiality relating to the transition risk drivers impacting the Bank's strategic and business risk profile, broken down into the three distinct time horizons considered in the analysis.

RISK DRIVERS	Timeframes	Strategic and business risk
Climate-related and environmental risk	Short term	Minimum
	Medium term	Low
	Long term	High
Transition risks	Short term	Minimum
	Medium term	Low
	Long term	High
Physical risk	Short term	
	Medium term	
	Long term	
	Short term	
Acute physical risk	Medium term	
	Long term	
Chronic physical risk - environmental	Short term	
	Medium term	
	Long term	

Note: The analysis clusters which, following the relevance analysis described on page 46, present factors of exposure to climate-related and environmental risks that are of little significance in the relevant timeframes, are left blank.



Materiality analysis in the individual Legal Entities of the Group: risks analysed

With a view to increasingly closer alignment with Supervisory Expectations regarding the integration of climate-related and environmental risk management within corporate risk management systems, all the Group's main Legal Entities (LEs) have started an internal analysis of the materiality of C&E risks, proportionally transposing and adapting the framework and analysis guidelines defined at the Parent Company level to each individual company and business area. This evolution in the identification, mapping, control and measurement of C&E risks, including on an individual scale, confirms the entire Banking Group's attention to the management and mitigation of such risks.

Upon completion of the previous and autonomous assessment of the potential exposure to drivers and C&E risk factors, each Group company has identified the traditional risks impacted on which to carry out in-depth materiality analyses. The identified risk categories, shown in the table below, respond to each LEs' desire to carry out more targeted analyses that assess the exposure of their business model and their operations to C&E risks.

RISK DRIVERS	Traditional banking risks analysed in the materiality analyses					
Legal Entity	Credit Risk	Market risk	Liquidity risk	Operational Risk	Reputational risk	Strategic and business risk
Banca Popolare di Sondrio	~	~	~	~	~	~
Factorit SpA*	~	N/A	N/A	~	~	~
Banca della Nuova Terra SpA	~	~	~	~	~	N/A
BPS Suisse SA	BPS Suisse is an LE operating in Switzerland and therefore not subject to European regulation and the regulations to which the Parent Company and other subsidiaries are bound, supervised respectively by the ECB and the Bank of Italy. The BPS Suisse subsidiary is, instead, subject to the supervision of FINMA, the independent Swiss supervisory authority, which, in January 2023, published a guide entitled "Developments with regard to the management of climate risks" in which it underlines the relevance of the impact that ESG-related topics have on the financial context and invites the supervised institution to ensure adequate management of climate-related and environmental risk, in compliance with international standards. In order to guarantee a gradual alignment with the expectations of its supervisory body and a coherent alignment with the activities of the Parent Company, an initial concentration analysis of the credit portfolio was conducted during 2023 to evaluate sector-based exposure of the subsidiary towards the so-called "carbon-related" sectors. Moreover, activities are currently underway to define processes and methodologies to be adopted in order to conduct a targeted materiality analysis of climate and environmental risk factors, with particular attention to transition and physical risk drivers. The Bank aim to achieve this objective by the first half of 2024.					

^{*} Since Factorit SpA is a company primarily specialising in factoring activities, due to its business model and the absence of a securities portfolio, it is not relevant to analyse the market liquidity risk when conducting climate-related and environmental risks materiality analyses. With regard to funding liquidity risk, the analyses were carried out at the consolidated level by the Parent Company.



Measuring and monitoring climate-related and environmental risks

This section describes - appropriately broken down by type of risk - the tools and measurement methodologies that the Bank has adopted to assess the current and prospective risk of climate-related and environmental factors. In addition, we highlight the relevant monitoring systems through which these measurements are observed and reported to the relevant corporate structures and to Top Management.

The Bank periodically measures and monitors the evolution of its exposure to C&E risk factors in order to identify potential changes in the risk profile and highlight critical issues or abnormal trends, in terms of the number or magnitude of expected impacts.

The C&E risk measurement process is carried out through the definition of specific indicators, which, based on different granularity and characteristics, allow to examine the possible exposure that the Bank faces in conducting its business activities.

As for monitoring processes, the C&E risk exposure entails the analysis and assessment of objective and measurable indicators, referring to the various traditional risk categories impacted. These metrics, to which specific and progressive risk limitsare associated, supplement the Group's Risk Appetite Framework schemes at various hierarchical levels, making it possible to control the effects of physical and transition risk sources on current and prospective positions exposed to traditional risks.

In order to formalise and report on this periodic monitoring, a special reporting tool has been defined to illustrate, on a quarterly basis, the risk dynamics of the Bank's business portfolios and operations based on the incidence of ESG factors, including climate-related and environmental factors. The list of summary indicators used to monitor risks related to the environment and climate change, as well as the description of the escalation mechanisms adopted in the event that the set limits are exceeded, are documented, depending on the metrics hierarchical level, in the "Risk Appetite Statement" (RAS) and "Risk Appetite Framework Regulations" of the Group and of Group entities, or within the framework of the specific internal regulations on the management of impacted risk categories.





Credit risk

Tool	Description	Use
ESG scores associated with counterparties and individual entities	Risk metrics that the Bank has developed internally in order to identify the level of exposure of its credit customers to ESG risk factors, and specifically C&E risks. Additional individual counterparty and/or portfolio climate metrics (e.g., WACI, financed emissions, carbon intensity) are also derived from the elemental data used to determine the score	 Credit granting process Credit pricing Definition of credit policies (Single Name) RAF Materiality analysis of C&E risks ESG reporting
ESG Heat Map	A tool developed at the sector level to identify the potential risk of ESG factors linked to the Bank portfolio in relation to the 17 Sustainable Development Goals (SDGs) laid down by the United Nations.	 Credit granting process (in the absence of counterparty ESG score)
C&E risk quantification metrics	Metrics for measuring impacts on traditional credit risk parameters through C&E risk transmission channels	• ICAAP

These tools aim to assess the Bank's exposure to ESG risk factors – in particular climaterelated and environmental ones –, in accordance with the so-called "double materiality" principle, according to which the Bank may be simultaneously subject to the negative influence of ESG factors ("outside-in" perspective) and have - itself or through the economic and financial activities of its counterparties or investment activities - a negative impact on ESG factors ("inside-out" perspective).





Counterparty ESG Score

The Bank has defined a proprietary model, fed both by internal and external data sources, for the attribution of a counterparty ESG score to credit customers (new and existing) belonging to the financed corporate portfolio.

The ESG score identifies climate-related and environmental risk factors (transition and physical) and estimates their impact on counterparties from a forward-looking perspective. This is achieved through the use of prospective climate scenarios and taking into consideration the financial size of companies that register both reclassified financial statements in the Cerved CEBI System and information on their current/prospective greenhouse gas emissions (real GHG equivalent values or provided through proxies from external information providers).

The ESG scoring system takes the form of a summary assessment of the level of vulnerability of companies to climate-related and environmental risk factors and, in particular, to transition and physical risk factors. The calculation methodology allows for a forward-looking estimation, through the assignment of a numerical score and an associated risk class, of the potential financial impacts linked to the counterparties' exposure to risks arising from climate change and environmental degradation.

The counterparty ESG metric is the synthesis of further and more specific evaluation indicators that are significant and valid even on their own.

Transition risks score

Score expressing a summary assessment of the counterparty's degree of resilience to the impacts generated by the transition path to a low-carbon economy

Counterparty ESG Score

Physical risks score

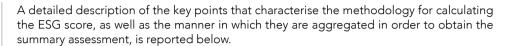
Score expressing a summary assessment of the counterparty's level of exposure to adverse climate-related and environmental events

Indicator for estimating impacts on investments

Indicator expressing the counterparty's economic and financial ability to cope with the reduction of the current level of GHG emissions

Elements comprising the counterparty ESG score





Transition Risk Score

Given the nature of the climate transition and the magnitude of environmental changes, in defining the methodological approach for framing the C&E risk profile of counterparties, the following elements are analysed from a medium- to long-term perspective (2030 – 2050):

- the trends of companies' Scope 1 and 2 GHG emissions;
- the estimate of the impacts on companies' income statement generated by the costs potentially connected to the transition.

Following this forward-looking approach, the current Scope 1 and 2 GHG emissions and EBITDA figures of companies are projected according to the trends of the predictive curves defined by the following three climate scenarios suggested by the NGFS:

- "Net Zero 2050" scenario;
- "Delayed Transition" scenario;
- "Current Policies" scenario.





Acute and chronic physical risks may directly cause material damage or a drop in counterparties' productivity, or indirectly cause consequential events such as production chains disruption, with negative impacts on creditworthiness and/or on the value of the counterparties' real estate collaterals.

In order to obtain a summary physical risk score for each financed company, which can measure the company's vulnerability to adverse climate-related and environmental events, the Bank uses elementary physical risk indicators provided by external qualified information providers.

Specifically, physical risk indicators developed by providers estimate the frequency and intensity levels of natural events expected to happen in the future based on the RCP (Representative Concentration Pathways) climate change scenario 4.5. This scenario is part of those adopted by the Intergovernmental Panel on Climate Change (IPCC, the world's leading authority on climate change), which are based on various assumptions in terms of GHG emission trends and social/economic changes on a global level.

The provider's analysis of the companies in the Bank's Corporate loan portfolio was carried out through the complete geolocation of the production sites using high spatial resolution of the ground (30m to 1km) and for each individual physical risk threat identified, through aggregation functions, attributing to each counterparty a score, which translates the frequency and degree of impact of the physical event.

Two summary indicators are available: an Acute Risk Score and a Chronic Risk Score, representing the overall effect of all natural events classified in one category or the other and shown in the table below, appropriately weighted in the case of multiple physical events.

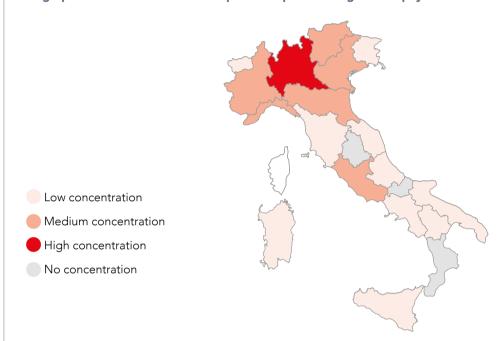
Chronic Physical Risks	Acute Physical Risks
Temperature change	Heat waves
Heat stress	Waves of cold and frost
Changing wind patterns	Fire
Changing patterns and types of precipitation	Windstorm
Thawing of permafrost	Drought
Rise in sea levels	Heavy rainfall
Water stress	Floods
Soil and coastal erosion	Landslides and subsidence
Soil degradation	



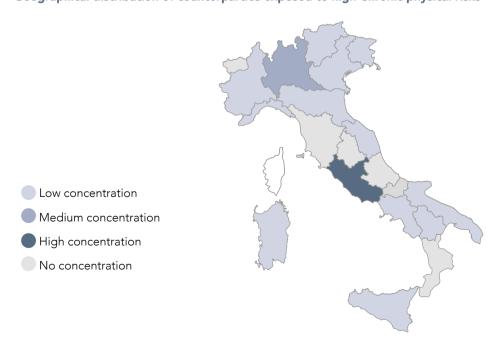


The geographical distribution of corporate portfolio customers exposed to high and medium-high Acute and Chronic physical risks is shown below.

Geographical distribution of counterparties exposed to high Acute physical risks



Geographical distribution of counterparties exposed to high Chronic physical risks





Indicator for estimating green transition impacts on investments

The last element included in the definition of the counterparty ESG score is the indicator estimating the impacts of the climate and environment transition on the investment needs of the company.

This indicator reflects the counterparty's economic and financial ability to make the necessary investments to support the decarbonisation of its own production processes.

The indicator for estimating the impact on investments makes it possible to identify the counterparties most sensitive to transition risk. They are identified through a statistical analysis based on the distribution of values obtained at a sector level.

Representation of the counterparty ESG score

The final ESG score is given by the arithmetic sum of the three components described above. For the purpose of determining the score, account is taken of C&E risk mitigation elements, represented by the possible presence of ISO certifications attesting to the correct environmental and energy management (ISO 14001 and 50001), as well as of the economic benefits provided by the Gestore dei Servizi Energetici (GSE, the Italian grid operator) of which the company may be a beneficiary as an incentive for the production of energy from renewable sources.

Finally, the numerical score resulting from the sum is translated into a qualitative judgement expressed in classes. Each class represents a level of increasing climate-related and environmental risk, ranging from 1 to 5: the higher the value assumed by the summary score, the worse a company's exposure to C&E risk factors (both physical and transition) is expected to be.

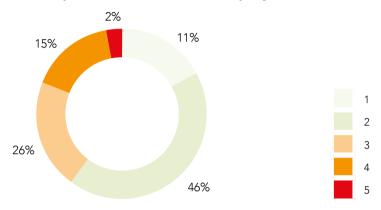
Risk level	Score
Low	1
Medium-Low	2
Medium	3
Medium-High	4
High	5



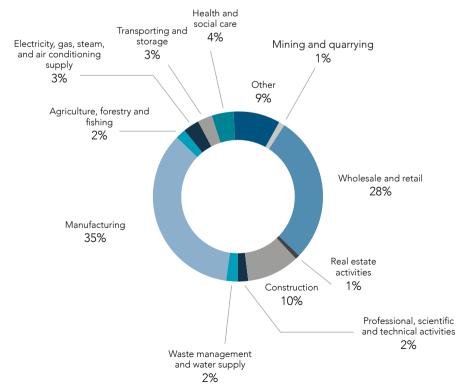


Moreover, the Bank has provided for the possibility of recalibrating the final score through the retrieval of additional or more up-to-date information than that already available for the automatic calculation of the same, acquired directly through the so-called "ESG Due Diligence" process, in other words by completing – when granting credit or on other specific occasions of contact with the customer – specific ESG questionnaires.

Breakdown of the counterparties included in the Counterparty ESG Score



Breakdown by sector of counterparties included in the High – Medium-High ESG Score







INSIDE-OUT PERSPECTIVE

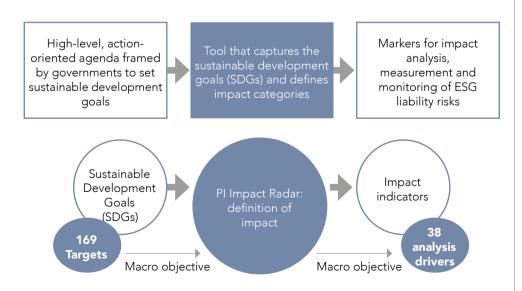
Sector ESG Heat Map

The Bank has developed its own ESG Heat Map, a risk-based classification tool defined at the sector level, which aims to identify the potential risk generated by customers (loan portfolio and advances) with regard to its impact on the environment and respect for ethical and social values.

The ESG Heat Map consists of a double-entry matrix, instrumental to the sector mapping of economic activities from the point of view of their exposure to climate-related and environmental, social and governance risk factors. This assessment matrix makes it possible to associate a score to each economic sector based on assessments of the potential environmental damage caused by the activities or the possible negative aspects from the point of view of the principles of social equity or good governance of the corporate organisation characterising each sector.

The sector-level ESG risk mapping process underlying the construction of the ESG Heat Map uses the analysis and classification standard published periodically by UNEP FI – an initiative developed based on the collaboration between UNEP (United Nations Environment Programme) and the global financial sector – as its main source for defining the matrix's categorisations. In particular, UNEP FI is involved in several initiatives aimed at integrating the principles of environmental, social and governance sustainability within the financial market. By identifying specific areas or categories of negative impact, the tool used (Impact Radar – Portfolio Impact Analysis Tool for Banks), makes it possible to determine the extent to which a given sector of economic activity is at risk of harming the achievement of one or more of the 17 SDGs laid down by the UN.

The 17 SDGs are translated by UNEP FI into 38 categories of negative impact from ESG liability risks, with the assessment conducted at a sector level using specific indicators.



UNEP FI's model for determining the negative impact drivers on the achievement of the SDGs







The methodological approach is based on the "inside-out", materiality perspective, aimed at assessing the sectoral impact of the risk to which the Bank may be exposed in dealing with counterparties/sectors that could be responsible for actions, behaviours or practices likely to cause negative impacts, in relation not only to the quality of the environment and to climate change, but also to the respect for socially recognised values and rules of good corporate governance.

The following table shows the negative impact factors defined by UNEP FI for each economic sector and analysed by the Bank in the preparation of the sectoral Heat Map, grouped by the relevant ESG area.

ESG Pillars	UNEP FI factors
Environmental	 Water quality Air quality Soil quality Species and habitat Natural resources Climate stability Waste
Social	 Availability of water Availability of food Availability of housing Healthcare Child labour Privacy Education Access to energy Mobility Conflicts and modern slavery Natural disasters Access to finance Access to information Access to culture Justice Ethnic/racial equality Age discrimination Protection of vulnerable groups
Governance	 Safety and social protection Employment Strong institutions, peace and stability





Sectoral ESG impact factors defined by Unep FI

On the basis of the impact level of ESG factors defined by the Heap Map, a risk scale was created based on five different levels identified by five colours indicating the "potential risk" of each economic macro/sub-sector, both as part of an overall ESG assessment or as an individual environmental, social and governance component.

The ESG risk scale used is illustrated below.

Colour	Risk level	Description
	HIGH	Significant impact of ESG Factors
	MEDIUM-HIGH	Medium-high impact of ESG factors
	MEDIUM	Medium impact of ESG Factors
	MEDIUM-LOW	Medium-low impact of ESG factors
	LOW	Low impact of ESG Factors

ESG Heat Map Risk Scale

The sector-specific scoring calculated through the Heat Map is used as part of the credit granting process in the absence of counterparty ESG score information, referred to above.





The Bank is developing more advanced models for quantifying C&E risks for Corporate and Retail counterparties, primarily based on quantitative approaches and internal methodologies. These models contribute to the integration of C&E elements into the IFRS 9 framework for the calculation of impairment and the revision of the current ESG counterparty score.

More specifically, the effect of transition and physical risk has been incorporated in the estimation of the PD and LGD factors for the financed counterparties. Concerning the methodology applied on the PD, the approach aims to investigate the impact of the evolution of GHG emissions (and the related cost) on the individual counterparty's financial statements. The defined methodology can be used regardless of the counterparty's sector and consists of two steps: (i) calculation of the impact of climate-related risk on company financial statements and (ii) transfer of the impact on the customer/PD risk. With regard to the LGD parameter, the approach applied takes into account the impact of both transition risks and physical risks. With regard to transition, the effect of the expected increase in the costs for restructuring and maintenance of counterparties' real estate assets with the aim of achieving a target energy class is estimated. With regard to physical risk, the expected effect of "chronic" (e.g. temperature change, rising water levels) and "acute" (e.g. floods, landslides, fires) threats affecting the value of the real estate collateral and thus the final LGD is assessed.

Climate-related adjustments to the PD and LGD parameters will also allow for adjustments to be made to the current counterparty ESG score by the first quarter of 2024. As of the second half of 2023, the Bank has in fact already initiated a series of preparatory activities to: i) expand the population covered by the current internal ESG scoring system (also extending the loans and advances portfolio to the "Households" segment); ii) implement alternative approaches for quantifying the climate-related risk components already incorporated into the score; iii) model additional components currently not covered by the score (i.e. real estate collateral, Social and Governance components).

The following is a summary of the main actions planned for the new ESG score:

- **Scope**: extension of the coverage of the "Corporate" portfolio and inclusion of "Households" (individuals and small businesses) with exposures secured by real estate assets.
- **Model**: definition of six score determination components, four of which are new and one significantly revised. In addition, an estimate of the score is promptly provided at the individual counterparty and individual collateral level, calculating the impact of C&E risks on the company's financial statements (estimated PD) and the impact on the appraisal value of the individual collateral (estimated LGD).
- **Counterparty risk**: estimate from the calculation of the impact of climate-related risk on company financial statements and evaluation of the counterparty PD climate adjustment, deriving from the aforementioned impact.
- **Real estate collateral risk**: provision of two new components measuring the potential loss of real estate collateral value: (i) resulting from the adjustment process towards a low-carbon economy (transition risk) and (ii) due to the occurrence of more frequent extreme weather events (physical risk).
- Social and Governance components: inclusion of two new components covering Social and Governance-related aspects (provided by qualified external providers).





The Bank has supplemented the Group's Risk Appetite Framework by, on the one hand, including qualitative indications and objectives relating to ESG risk governance and management aspects and, on the other hand, by introducing at a complementary level (Level 2) a quantitative parameter for measuring the extent of climate-related and environmental risk profiles in the context of the credit risk exposure of the "Corporate" portfolio.

With regard to qualitative objectives, the Bank has demonstrated:

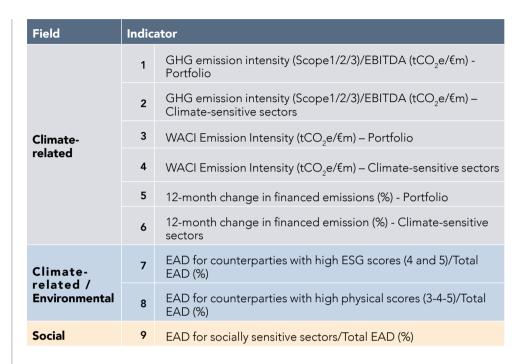
- a commitment to the adoption of policies to guide the reconversion of bank credit towards green and sustainable sectors, as well as the definition of evaluation elements – current and prospective – concerning the impact of climate-related and environmental factors on the economic and financial stability of counterparties;
- the recognition of the risks of environmental degradation and climate change as significant sources of credit risk, resulting in the adoption of systems to measure these factors at the individual counterparty level. The single-name scoring of customers, used to assess their exposure to climate-related and environmental factors, and the portfolio summary through specific risk appetite metrics are considered strategic guidelines for the Group, especially as regards to (i) the formulation and implementation of the credit strategy, (ii) the offer of financing products to customers, and (iii) the definition of lending pricing logics;
- the promotion of the integration of additional and new ESG risk assessments in the definition of the Group's risk appetite, to help guide strategic choices with a view to limiting the impact of these factors on credit and investment, strategic, reputational and legal risk exposures, including through the development of dedicated qualitative and quantitative metrics.

Using risk-based analysis tools, the Group also aims to: (i) refrain from investing in counterparties with adverse impacts on the environment, climate and human rights, also in the future; (ii) define appropriate impact mitigation measures proportionate to the materiality of key ESG factors.

The Level 2quantitative indicator was defined to measure the concentration, in the loan portfolio of the "Corporate" segment, of borrower counterparties with a negative assessment of vulnerability to climate-related and environmental risk factors summarised through the aforementioned internal ESG scoring system. A risk trigger is applied to the indicator, calculated as the ratio between the value of exposure to counterparties with a negative climate-related and environmental risk score and the total exposure of the "Corporate" portfolio covered by the scoring system. This indicator is monitored through appropriate systems for detecting, reporting and signalling deviations (alert or escalation procedures) regulated within the Group's RAF Regulation.

At Level 3 of the RAF metrics structure related to credit risk, additional operational indicators were defined to monitor ESG risk in its various forms: emission intensity of counterparty companies, level of financed GHG emissions, concentration towards counterparties with a negative C&E risk assessment, concentration in socially sensitive sectors (arms, tobacco, gaming).





During 2024, a development activity is planned to revise the set of monitoring indicators, in line with the materiality analysis of C&E risks, with the aim of strengthening the identification of the most relevant physical and transition risk profiles for credit risk exposures. These analyses, in fact, showed evidence of high risk materiality in some economic sectors of the portfolio with regard to the transition risk of corporate customers and in some geographical areas with regard to the physical risk of corporate customers and households.





In order to monitor climate-related and environmental risks associated with investments in financial instruments, the Bank uses dedicated metrics, calculated on the basis of information provided by primary external providers, highlighted below:

Tool	Description	Use
Environmental Rating (E Rating)	A useful tool to provide a summary opinion on the issuers of securities in the portfolio with regard to climaterelated and environmental issues (physical and transition risks).	ESG reportingRAF
Quantification of greenhouse gas emissions	Carbon footprint and weighted average carbon intensity (WACI) of the securities portfolio.	ESG reportingRAF
Portfolio alignment analysis	A tool for measuring the alignment of the securities portfolio with climate targets used to monitor the degree to which the Paris Climate Agreement's targets to limit global warming are being met.	• ESG reporting
Prospective climate scenarios (CVaR)	Quantification of the potential prospective financial impact on the securities portfolio, in terms of the change in the present value (delta Present Value) that would occur under certain climate scenarios.	 ESG reporting RAF ICAAP Materiality analysis of C&E risks





The Environmental Rating is a metric designed to provide a ranking of issuers of financial instruments in the portfolio with regard to climate-related and environmental issues. The methodology – differentiated between Corporate and Sovereign issuers – is based on an analysis of specific Key Issues defining the entity's C&E profile, each of which pertains to a specific theme.

The theme investigated for the environmental rating are presented below:

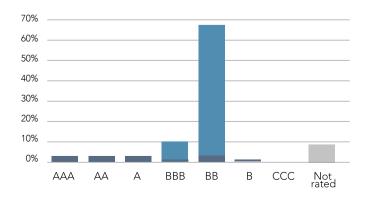
Corporate	Sovereign
 Climate change Consumption of natural resources Pollution and waste management Environmental opportunities 	 Management of natural resources External environmental factors and vulnerability to external events

With reference to the Corporate rating, the information provider assigns to each Key Issue deemed relevant to an issuer's economic sector: a) a numerical score obtained by assessing the issuer's exposure to each specific C&E risk factor and the issuer's ability to manage that exposure, and b) a weighting factor defined at each GICS (Global Industry Classification Standard) sub-sector level. After taking into account any (overrides), the final score is mapped onto a rating scale between AAA (best) and CCC (worst).

In the case of Government securities, the Environmental component inherent in the global ESG rating issued by the information provider is used, the purpose of which is to reflect the ways in which the exposure to and management of ESG risk factors by States can influence the social-environmental sustainability and long-term competitiveness of their economies. Both the inherent risk exposure and the sovereign State's ESG risk management ability are taken into account in the analysis.

Finally, for shares of funds, the Environmental Rating is determined directly by external providers based on the study of the underlying investments (constituents).

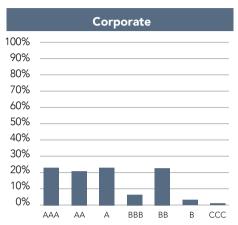
The percentage breakdown of exposure volumes by environmental rating ranges of the securities portfolio at the end of December 2023 is provided below.

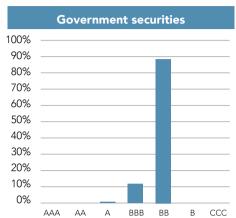


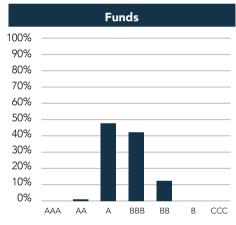
Rating type		% Exposure
	Corporate	15.0%
	Government securities	75.8%
	Funds	0.7%
	Not rated	8.4%















The quantification of greenhouse gas emissions associated with the securities portfolio is carried out based on the following metrics recommended by the TCFD and the Partnership for Carbon Accounting Financials (PCAF):

- Financed emissions (carbon footprint), representing the amount of greenhouse gas emissions attributable to a given portfolio or its sub-aggregates through the investment share in the issuers of the securities. As recommended by PCAF, the allocation is made by weighting the quantities of greenhouse gas (GHG) emissions of each company by the share that the investor holds of its value, given by the sum of the capital, the debt issued and the liquidity (so-called *Enterprise Value Including Cash*, EVIC). The carbon footprint in absolute terms is called the Total Financed Carbon Emission (TFCE). The Financed Carbon Emission (FCE) normalizes the TFCE value per million of investment allowing for a consistent comparison of different portfolios or sub-portfolios. These metrics are calculated exclusively for Corporate securities and Corporate funds.
- Weighted Average Carbon Intensity (WACI), which measures the portfolio's exposure to issuers with high levels of greenhouse gas emissions compared to the volume of activity. The metric is calculated as a weighted average of the carbon intensity of each issuer in the portfolio (expressed as tonnes of carbon dioxide equivalent per unit of revenue for corporate securities and as a ratio of local GHG emissions and the country's GDP for Government securities), with weightings equal to the percentage weight of the exposure to the issuer (present value of financial instruments issued) on the Bank's overall portfolio or its sub-aggregates. The metric can be calculated for all types of clusters in the portfolio.

Portfolio alignment analysis

The tools for measuring the alignment of the securities portfolio to global climate targets (Portfolio Alignment) supplied by providers are used to monitor the degree to which the 2015 Paris Climate Agreement's targets to limit gloabl warming are being met.

The Implied Temperature Rise (ITR) is a metric designed to provide an indication of the degree to which issuers of portfolio securities are aligned with climate targets to curb global warming. The ITR can be interpreted as the temperature increase that would be observed in the year 2050 if the world economy followed the same level of GHG emissions as those projected for the issuers in the portfolio, under the assumption that no climate change policies or actions would be implemented.





Prospective climate scenarios

In order to quantify the prospective impacts on the financial asset portfolio from climate-related and environmental risks, the Climate VaR (CVaR) methodology described in the previous chapter is used. This methodology makes it possible to quantify the potential financial impact, in terms of the change in the present value (delta Present Value) that would occur under certain climate scenarios.

Based on scenarios published by the NGFS (Network for Greening the Financial System), the provider supplies multiple scenarios using different Integrated Assessments Models (IAMs). The Bank decided to focus its analysis on three of the six NGFS scenarios available:

- "Net Zero 2050" scenario;
- "Delayed Transition" scenario;
- "Current Policies" scenario.

Risk Appetite Framework

On a quarterly basis, in addition to providing an up-to-date representation of the C&E metrics outlined above in its ESG reporting also showing the latest trends, the Bank monitors a number of specific indicators summarised below, falling within the RAF Level 3 Key Risk Indicators (KRIs).

Indi	cator	Indicator type
1	Mkt Value of securities with low E RATING (B and CCC)/Total Mkt Value (%)	Climate indicator
2	WACI Emission Intensity (tCO $_2$ e/ \in m) – Corporate	Historical climate indicator
3	WACI Emission Intensity (tCO ₂ e/€m) – Government	Historical climate indicator
4	WACI Emission Intensity (tCO ₂ e/€m) – Corporate Funds	Historical climate indicator
5	WACI Emission Intensity (tCO $_2$ e/ ϵ m) – Government funds	Historical climate indicator
6	FCE financed emissions (tons CO ₂ e/€m) – Corporate	Historical climate indicator
7	FCE financed emissions (tons CO ₂ e/€m) – Corporate Funds	Historical climate indicator
8	Climate Var (%) – Net Zero Scenario	Prospective climate indicator
9	Climate Var (%) - Current Policy Scenario	Prospective climate indicator
10	Climate Var (%) - Delayed Transition Scenario	Prospective climate indicator

Next year, the first of the ten indicators on the list, representing the share of securities at greater C&E risk on the total portfolio covered (Low E Rating equal to B and CCC), will become part of the set of Level 2 RAF indicators, further strengthening the existing oversight.





In general, the Bank monitors its expected liquidity position by conducting differentiated stress tests involving, starting in 2023, a specific scenario based on climate-related risk events.

Starting from the results of the materiality analyses of the C&E factors relevant for liquidity risk, from which significant impact forecasts emerged in relation to the so-called funding liquidity risk, the potential effects of the occurrence of acute physical risk events – on which such analysis is based – were investigated. Among the many threats considered (e.g. forest fires, landslides, droughts, storms and cyclones, etc.), landslides were of particular relevance to the Banking Group's depositors as a whole and, specifically, to those in the province of Sondrio, the Parent Company's operational core area.

The integration of the internal stress test framework on liquidity risks with the addition of a simulative scenario focused on landslide events and their effects in terms of liquidity outflows has been broken down into two stress drivers: the bank run connected to retail funding and the unexpected utilisation of credit lines granted to the Corporate segment and still available.

The quantification of the stress hypotheses is broken down according to the following impact calibrations:

Stress event	Impacted operations	Overall event impact	Total event duration *
Climate-related and environmental changes	On-demand retail funding	-20%	20 days
	Committed corporate credit lines	20%	
	Uncommitted corporate credit lines	Double the weight of the relevant LCR 1.1.7.1 node	20 days

The effects of the aforementioned negative events are simulated on basic scenarios outlined by assuming, with the exception of the elements characterising the stress scenario under examination, the projection over a future horizon of the financial statements structure and market conditions recorded at the reference date. The basic assumption of stability makes it possible to define the future evolution of the position highlighted by the operational Maturity Ladder (maturity of expected cash flows over an annual time horizon) and the related Survival Days and Counterbalancing Capacity short-term management indicators, as well as the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) regulatory indicators.

The calculation of liquidity risk metrics in the event of stress related to adverse natural events (landslides) has a monthly periodicity for all the indicators under review, except for the NSFR coefficient, calculated on a quarterly basis. These stress tests are performed on both the consolidated perimeter and the individual liquidity position of the Parent Company.



^{*} The timeframes indicated are working days



Operational and reputational risks

Below we present a summary of the assessment tools used in the analyses of operational risk (risk of disputes, other operational risks and legal responsibility risk subcategories) and reputational risk pertaining to climate-related and environmental risk factors.

TOOLS			
Risk categ	ory	Description and scope of application	Use
Risk of disputes Other operational risks	Other operational	Collection of scores of current and prospective exposure (short, medium and long term) to physical risk threats (acute and chronic): a) real estate assets owned by the Group and EIF suppliers located in the EU: external data provider methodology b) real estate assets owned by the Group and EIF suppliers located outside the EU: ThinkHazard!	Materiality analysis of C&E risksICAAP
Reputationa	Legal responsibility risk	Collection of scores of current and prospective exposure (short, medium and long term) to transition risk threats: c) credit counterparties: scoring methodology developed internally d) EIF suppliers: external data provider methodology	Materiality analysis of C&E risks





Additional details on the tools listed above are provided below, broken down by scope of application.

a) Physical risks: real estate assets owned by the Group and EIF suppliers located in the EU

Physical risk scores, broken down by reference timeframe (current/future), are calculated by leading external data providers based on a proprietary methodology focusing on the joint analysis of the danger of the geographical area of the property and the sector vulnerability of its owner. In more detail, the following are provided:

 a synthetic score of acute physical risk, as a summary calculation of the scores recorded in relation to the following threats:

Acute physical risk threats		
Heat waves	Heavy rainfall (water, hail, snow/ice)	
Waves of cold/frost	Floods (coastal, rivers, rainfall)	
Forest fires	Landslides and subsidence	
Windstorms (cyclones, hurricanes, typhoons, tornadoes)	Drought	

 a synthetic score of chronic physical risk, as a summary calculation of the scores recorded in relation to the following threats:

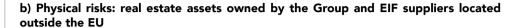
Chronic physical risk threats					
Temperature change	erature change Rise in sea levels				
Thawing of permafrost	Water stress				
Thermal stress	Soil or coastal erosion				
Changing wind patterns	Soil degradation				
Changing patterns and types of precipitation (rain, hail, snow/ice)					





By analysing the scores assigned to the real estate assets owned by Group companies, it was possible to define the degree of materiality with respect to physical and acute risk threats of these assets over the long term:





The scores obtained from the ThinkHazard! tool, available at a detailed geographical level (e.g. province/canton) and specific to identified physical risk threats, are associated with five risk exposure classes and traced back to the general assessment scale based on which the qualitative levels of materiality are defined for individual risk threats.

For each asset in scope, the following overall scores are then developed:

a synthetic score of acute physical risk, as a summary calculation of the scores recorded in relation to the following threats:

Acute physical risk threats					
Floods / urban floods	Fire				
Floods / coastal floods	Heat wave				
Floods / river floods	Tsunami				
Landslide					

a synthetic score of chronic physical risk, equivalent to the score attributed to the "Water stress" threat.

(c) Transition risk: credit counterparties

As regards credit counterparties, the methodological approach is based on the evidence of impacts of climate transition risks provided by the Counterparty ESG Score system*, broken down by short, medium and long-term timeframes, developed internally by the Bank.



Reference should be made to pages 67 to 72 for additional details on the methodology for calculating the Counterparty ESG Score.



d) Transition risk: EIF suppliers

As regards EIF providers' transition risk exposure, the assessment methodology relies on the evidence of the so-called counterparty transition score calculated by qualified external information providers based on the three components described below:

- transition scenarios ("Net Zero 2050"* and "Hot House World"** scenarios used as inputs);
- 2. macroeconomic drivers supplied by NGFS, instrumental to providing an overview of the three main climate transition factors impacted by the prospective evolution in each scenario: policy/regulation, technology and market demand;
- 3. modelling the incidence of the transition risk for each transmission channel (revenues, investments and business costs) through a combination of: i) a top-down approach, aimed at assessing the influence that the transition process to a zero-carbon economy may have on each economic sector, and ii) a bottom-up approach, aimed at measuring the impact of the transition at the single-name level through an analysis of the main financial indicators of the counterparties and the adaptation of the estimated sector impacts to the specific characteristics of the individual company.

TRANSITION SCENARIOS

Net Zero 2050 - Ordinary Transition **Hot House World - Current Policies** Top down component Bottom up component Macro drivers Impact by sector Impact on the individual debtor Estimation of satellite models Prospective impacts on P&L and BS of Policy and regulation Technology Demand appropriately segmented at the sector the individual company based on: level (based on the contribution to GHG emissions and taxonomy). **REVENUES - INVESTMENTS - COSTS** Carbon Price Value Added Energy Mix GHG Portfolio impact Single-name impact Energy demand GDP Coal price Integrated approach **Corporate & Large Corporate segment**

SMES & Small Businesses

^{** &}quot;Current Policy" transition scenario: climate and environmental policies already implemented are kept unchanged, causing climate change to fully take place in terms of global warming and the severity of associated natural impacts.



^{* &}quot;Orderly Transition" scenario: climate change policies are adopted in a timely and effective manner, triggering a gradual transition to achieve the global "Net Zero" target by 2050.



With regard to the RAF framework, a series of operational level (Level 3) indicators are currently being implemented relating to operational and reputational risk exposure factors attributable to ESG profiles, of which 5 relate to the climate and environmental dimension (E) and 3 to the social and good governance dimension (S and G):

Field	Indicator				
Climate- related / Environmental	1	Number of significant operating loss events due to restoration of damage to corporate assets resulting from physical risk threats			
Climate- related / Environmental	2	Number of operational loss events resulting from legal disputes resulting from the occurrence of physical risk such as to cause interruptions in operations and/or damage to third parties			
Climate- related / Environmental	3	Number of complaints related to lack of/apparent compliance with "Environmental" issues			
Climate- related / Environmental	4	Number of out-of-court appeals related to lack of/apparent compliance with "Environmental" issues			
Climate- related / Environmental	5	Number of legal disputes related to lack of/apparent compliance with "Environmental" issues			
Social & Governance	6	Number of complaints related to lack of/apparent compliance with "Social" and "Governance" issues			
Social & Governance	7	Number of out-of-court appeals related to lack of/apparent compliance with "Social" and "Governance" issues			
Social & Governance	8	Number of legal disputes related to lack of/apparent compliance with "Social" and "Governance" issues			



Quantifying climate-related and environmental risks

Based on the materiality analyses of C&E risks carried out and with particular reference to expectation 11 included in the aforementioned "Guide on climate-related and environmental risks" published by the ECB, in which supervised entities are required to incorporate climate-related and environmental risk factors in the reference scenarios of their stress tests, the Bank has integrated C&E risk factors into its internal capital and liquidity adequacy assessment processes (ICAAP and ILAAP) using dedicated impact measurements (for example on the values of portfolios and corporate assets, on operating volumes and profitability, on management and regulatory measures of exposure to existing risks, etc.) based on the application of prospective simulation scenarios of the climate transition and/or on assumptions of severity of the effects of relevant physical risks.

Already in 2022 the Bank had started working on the definition and implementation of the key components of its internal climate risk management framework, collecting recurring data focused on the climate-related and environmental factors relevant to its business operations and adopting analytical simulation calculation engines to estimate the impacts of physical and transition risks on its main business portfolios. The framework, which is currently in the process of being gradually structured and integrated, was further developed during the last financial year.

Overall, by carrying out scenario analyses and stress tests in relation to climate-related and environmental risks, the Bank aims to understand the potential impacts, including those of a managerial nature and relating to economic and financial sustainability, deriving from the propagation of these particular factors on traditional risk measures. Specifically, these analyses aim to evaluate: i) how the Group could be affected by the prospective effects of the occurrence of physical and transition risks; ii) how climate-related and environmental risks could evolve under various climate change trend scenarios, taking into account that, typically, they are not fully reflected in historical data; iii) to what extent C&E risks could materialise in the short, medium and long term timeframes, depending on the scenarios considered.

In the ICAAP cycle as at 31 December 2023, the Bank has made significant changes to the methodologies adopted to conduct analyses in the direction prescribed by the Supervisory Authority, evaluating the resilience of its capital adequacy profile to physical and transition risks through impact simulations on exposure to traditional risks falling within the first pillar, such as credit, market and operational risk. In particular, the framework was refined in order to include the potential impacts deriving from the transmission channels of climate risks on traditional risk measures, namely: i) for credit risk, the Group examined the potential impacts generated on risk drivers regarding the portfolio of loans to businesses, private individuals and related collaterals received; ii) for operational risk, the impacts resulting from the occurrence of acute physical risk events involving potential losses on the Group's real estate assets were taken into consideration and finally iii) for market risk the analysis focused on estimating the financial impacts caused from changes in the present value of the securities in the portfolio.

The components implemented and used within the framework to perform climate-risk adjusted simulations support the introduction of climate-related key risk indicators (KRIs), completing the broader process of identifying, measuring and monitoring climate-related risks.





Credit risk

Within the ICAAP, the Bank has developed an organic stress testing system aimed at quantifying the potential impacts on specific credit risk exposure measures under different timeframes (short, medium and long term) and under predefined scenarios of adverse development of climate-related and environmental factors to which the borrowing companies in the portfolio and the real estate assets guaranteeing the credit lines granted to households and corporate customers are typically exposed.

The framework used evaluates the impacts on credit risk under stress conditions due to:

- adverse events generated by acute and chronic physical risks;
- amplification of the effects of acute physical risks in the medium to long term, as a result of worsening climate conditions;
- climate transition events/policies imposed by the external technological or political environment (e.g. European decarbonisation policies and/or technological innovations).

The identification of the physical and transition risk factors on which to focus the impact analyses was based on the results of the quantitative materiality analyses to which all the potential climate-related and environmental risk factors and the related transmission channels were subjected.

In setting up this year's ICAAP, the Bank also carried out and quantified an analytical, forward looking and scenario-dependent mapping of its exposure to the aforementioned risks\transmission channels, in terms, for example, of sectors, counterparties, portfolios and geographical areas, as regards the credit risk drivers of the probability of default and loss given default. The Bank used the following logical components to quantify the impact of physical and climate transition risks on portfolio credit drivers:

- input data from internal sources (e.g. exposures, master data) and from external providers;
- **prospective climate scenarios** aligned with the NGFS (Network for Greening the Financial System), made available by a qualified external provider and applied:
- in the short, medium and long term;
- on key economic and financial variables, in line with the forward-looking scenarios also used in other key processes of the Bank;
- in terms of the financed companies' economic sector;
- **Transition Risk Engine (TRE)**: analytical tool used to measure the impacts of climate transition risk on prospective financial statements and, consequently, on the creditworthiness of financed companies;
- Physical Risk Engine (PRE): analytical tool used for: a) measuring the impacts generated by adverse physical events (e.g. drought and heat waves) on the business performance and on the operational continuity of companies financed; b) the measurement of the potential effects on the market value of real estate collaterals (commercial and residential) exposed to acute physical risks (e.g. floods and landslides) and chronic adverse risks, likely to affect the valuation of the real estate assets that support an exposure towards private individuals or businesses.





Finally, the Bank uses a simulation engine to incorporate the outputs of the physical and transition risk analytical engines and quantifies the final impacts in relation to the credit risk parameters (PD, LGD) and, consequently, to the dynamics of risk weighted assets (RWA) and the credit risk cost.

Climate scenarios used

For the climate risk simulations, the following forecast scenarios defined by the NGFS and integrated into the macroeconomic and financial forecasts were used:

Net Zero 2050 - Orderly transition

It limits global warming to +1.5 °C through strong climate policies and innovation, but with increased disorder and greater physical and transition risks vs. Phase III

Delayed Transition – Disorderly transition

2 It assumes annual GHG emissions do not decline until 2030. Strict policies to limit global warming below +2 °C.

Current Policies ("HH World")

3 No increase in ambition compared to existing climate policies, failure to achieve global warming targets, increase of physical phenomena

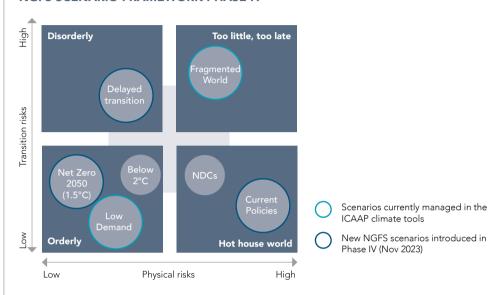
OT3 ("Orderly Transition 3")

Intermediate scenario between the Net Zero and Current Policies scenarios, although closer to the first. Also used as a reference scenario for the financial sustainability analyses carried out by the Bank with a view to joining the Net Zero Banking Alliance initiative.





NGFS SCENARIO FRAMEWORK PHASE IV



Source: NGFS Scenarios for central and supervisors, 2023 positioning of scenarios is approximate, based on an assessment of physical and transition risks out to 2100.

The climate hypotheses defined by these scenarios were then appropriately implemented and modelled to reflect the economic dynamics characterising the current European context. This made it possible to analyse scenarios which, on the one hand, are economically up-to-date and, on the other, include the phenomena/climate hypotheses formulated by the international body.

Scope of the analysis and timeframes

For this stress test, the same perimeter used to carry out the materiality analyses of the climate-related and environmental factors was examined. The following segments are included:

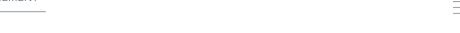
- Non-financial companies exposures secured by real estate assets (NFCs secured);
- Non-financial companies exposures not secured by real estate assets (NFCs unsecured).
- Households exposures secured by real estate assets (HHs secured).

Specifically, to carry out the physical risk quantification analyses, the climate stress test is based only on the real estate collaterals located in Italy.

The analyses focused on a 30 year horizon (2023-2050), with particular focus on the short-term (3 years), medium-term (7 years up to 2030) and long-term (up to 2050) views for both reference climate scenarios*.

^{*} For additional details on the rationales for the timeframes used, please refer to the "Risk management" section (Climate-related and environmental risk identification and materiality analyses" paragraph).





ANALYTICAL TOOLS

Measurement of transition risk

For the quantification of the transition risk and the related impacts on the main prospective and scenario-dependent credit drivers considered within the corporate financing portfolio (probability of counterparty default), the Bank used:

- the Transition Risk Engine (TRE);
- sector-specific satellite models integrated with climate-adjusted drivers;
- the analytical calculation engine that estimates the impacts on credit risk.

Transition Risk Engine (TRE)

As already outlined in the "Long-term planning framework" section, the transition risk measurement tool is an analytical calculation engine that, at the level of the individual company, estimates the impacts of specific climate-related assumptions and of the relevant macroeconomic/sector variables on the income and financial items in the company's financial statements, in order to determine the degree of sensitivity of financed companies to transition policies. This engine consists of the following models:

- Sector model: its purpose is to calculate the production, import/export, standard costs, demand and output prices of industrial sectors.
- Transition risk model: calculates the additional direct/indirect costs primarily
 due to the impact of the application of the carbon tax and the change in energy prices (according to the sector dynamic energy mix).
- Single-name financial forecasting model: allows to forecast a single company's financial statement models by taking the variables identified by the sector models as exogenous inputs. It also calculates different risk indicators derived from financial statement forecasts.

In particular, by using sector economic forecasts, the engine is able to determine the counterparty transition risk profile. Based on a forward-looking perspective, a scenario-dependent approach and taking into account the emission profile of the company under analysis (current and, if available, also forward-looking), it estimates:

- direct costs related to the application of a carbon tax on GHG emissions, in the case of companies participating in the UE trading system (EU ETS);
- indirect costs related to increased energy costs and changes in the company's energy mix, also in response to the climate/technology transition;
- the investment/debt needs for the technological improvement or upgrading necessary to gradually reduce GHG emissions of business processes and arising from the use of production factors;
- the resulting consequences of the above aspects on unit margins, corporate profits and on other financial statement items of companies, also taking into account the sector ability to translate cost increases into the prices of outputs used downstream by other product sectors (consideration of supply chains and input-output relations) or intended for end customers.

^{*} The cost of the carbon tax/ETS is obtained by applying expected emissions to the cost of the carbon tax/ETS in different countries and scenarios (NGFS).



The calculation engine, appropriately configured, makes it possible to postulate scenarios of "climate stress" caused by the transition and to analytically incorporate the relevant effects in terms of credit dynamics, taking into account the specific elements of the Bank's corporate portfolio and its sector composition.

The tool outputs therefore allow to define appropriate key risk indicators (KRIs) related to the portfolio's transition risk profile (e.g. concentration of exposures and income in high-risk sectors/customers).

Sector-specific satellite models integrated with climate-adjusted drivers

The sector-specific satellite models simulate the systemic component by linking the macroeconomic variables associated with the climate scenarios to the PD dynamics, capturing the different reactivity of the sectors to the possible occurrence of physical and transition risk factors.

Analytical engine for estimating impacts on credit risk

The objective of the calculation engine is to estimate the impact of the climate-related transition risk on the main credit risk parameters, in particular on the PD parameters (point-in-time parameters used for IFRS 9 calculations), on risk-weighted assets (RWA), on the cost of credit risk (expected loss) and on the dynamics of loans in the different climate scenarios and simulated timeframes.

Measurement of physical risk

For the quantification of physical risk (chronic and acute) and the related impacts on the main prospective and scenario-dependent credit drivers considered (probability of default and loss given default of the counterparties), the Bank used:

- Physical Risk Engine (PRE);
- the analytical calculation engine for estimating the impacts on credit risk.

Physical Risk Engine (PRE)

The tool, as already described in the "Long-term planning framework" section, aims to determine and measure the impacts of certain physical events:

- on the prospective financial statements of financed companies;
- on the market values of real estate assets (residential and commercial) received as collateral for financing transactions (both corporate and private), thus enabling the mapping of the aforementioned portfolios according to the physical risk profile, which can be determined prospectively and scenario-dependently, in the short, medium and long term.



While mapping these portfolios according to the physical risk profile, which can be determined with a forward-looking and scenario-dependent approach, in the short, medium and long term, the engine uses the following elements:

- geolocation: to locate real estate assets or production units of financed companies on specific geographical maps and calculate distances of interest (e.g. from rivers or forests):
- maps and risk indexes: to determine climate events of interest for specific geographical areas (downscaling) and to calculate the probability and magnitude of physical events; in particular it includes the calculation of the so-called Synthetic Physical Risk Indicator (SPRI), a granular metric for each location with the possibility of aggregation, where necessary, from local units to a counterparty level;
- damage functions: specific, statistically calculated damage functions will be applied to effectively measure physical risks, allowing to determine the indicators in the previous point and to calculate:
- the potential losses in value of the properties used as collateral due to floods, landslides, fires and gusts of wind;
- the extent of damage generated by drought events and heat waves at the economic and financial KPIs level (e.g. turnover, added value, etc.) of the production units and, through aggregation, of the financed companies.

With regard to the physical risk for companies, the impacts of damage functions can then be combined with the financial statement forecast module to enable measuring the impacts of events on the whole financial statements – and thus on the solvency – of companies.

The application of strong and highly differentiated damage functions allows to determine the physical risk profile of real estate assets and financed companies based on a methodologically consistent approach. This quantitative measurement allows the integration of physical stress events characterised by different degrees of severity and under different scenario assumptions within the credit risk simulations, impacting the drivers of likelihood of default (companies) and loss given default (commercial and residential real estate collaterals). Having these values at its disposal, the Bank has therefore supplemented its projections, making them climate-adjusted and identifying the operational segments potentially subject to the monitoring of specific key risk indicators (KRIs).

Analytical engine for estimating impacts on credit risk

The objective of the calculation engine is to estimate the impact of the climate-related physical risk on the main credit risk parameters, in particular on the PD and LGD parameters (point-in-time parameters used for IFRS 9 calculations), on risk-weighted assets (RWA) and on the dynamics of loans in the different climate scenarios and simulated timeframes.

The portfolio projection is carried out by the application from an aggregate perspective, based on specific analysis drivers considered significant for discriminating between the assets and the risk parameter dynamics such as, for example, the LGD satellite model cluster, the regulatory asset class, the risk segment, the rating class and the legal entity.



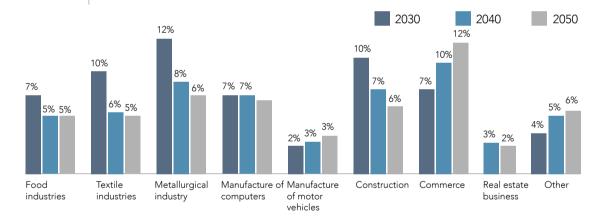


The quantification of the expected impacts of climate-related and environmental factors deriving from acute and chronic physical risk phenomena, in the climate scenarios described above, is carried out as follows:

- i. hypothesis of impairment of market value of the properties used as collateral for loans disbursed to customers and consequent impact on the LGD risk parameter;
- **ii.** hypothesis of interruption or reduction of the operational capacity of portfolio companies based on the prospective impacts observed on the main financial statement parameters, reflected in the creditworthiness in terms of PD.

Below are some of the key figures concerning the quantification analyses carried out, primarily with regard to the impairment of the properties securing the loans and the impacts that affect the economic sectors of greatest importance for the Bank and which will be most influenced by climate-related and environmental risk factors in prospective scenarios.

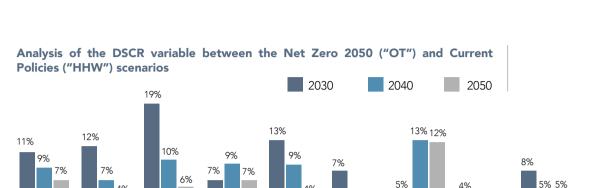
Analysis of the NFP/EBITDA variable between the Net Zero 2050 ("OT") and Current Policies ("HHW") scenarios



The graph illustrates the impact of the transition towards a low CO $_{\rm 2}$ emission economy determined by the OT scenario, compared to a Baseline HHW scenario representative of current climate policies.

The percentage change in the NFP/EBITDA ratio shows how some sectors (e.g. textile industries) will be able to face the challenges of the transition with significant investments and a relative evolution in the degrees of debt over the various timeframes. Conversely, sectors such as Commerce and Manufacture of motor vehicles could face greater challenges in achieving the objectives of an orderly "Net Zero 2050" transition.





3% 3%

Construction Commerce

4%

business

The graph above illustrates the percentage decrease in the DSCR (Debt Service Coverage Ratio) of the portfolio companies between the two scenarios. The analysis shows how the prospective ability of financed companies to use their operating income to repay major financial debts linked to the energy transition process is most impacted by 2030, followed by an improvement trend in subsequent years.

Manufacture of Manufacture

computers

of motor

vehicles

Metallurgical

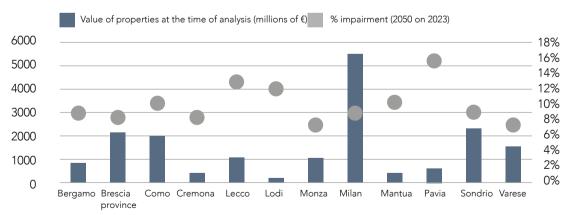
industry

industries

industries

For both graphs, it can be summarised that, already in the medium term (2030), the majority of the sectors in the portfolio are strongly impacted by the transition towards a low CO₂ emissions economy; only a few economic sectors, such as Commerce, would appear to show greater difficulty in mitigating transition risks in the long term (2050).

Provincial distribution of the value of properties located in Lombardy and value reduction % expected by 2050 in the Current Policies scenario ("HHW")



The graph shows the provincial distribution of the real estate value used to guarantee the loans granted to customers (in millions of Euros) – with reference to the assets located in the Italian region where the Bank primarily carries out its business, in other words Lombardy - with respect to the percentage impairment of the expected market value of properties by 2050 in the "Hot House World" scenario, a climate scenario which foresees a significant rise in global temperatures and an increase of the magnitude and the probability of occurrence of acute and chronic adverse physical phenomena.





Market risk

The framework used for the ICAAP exercise as at 31 December 2023 with reference to the climate risk analyses relating to the securities portfolio is based on the same methodology described earlier for the materiality analysis of C&E factors, namely the use of the Climate VaR (CVaR) metric.

The scope of financial assets subject to evaluation includes debt securities, equity securities and options on shares and indexes of the Group's banking portfolios and trading books divided into the following clusters:

- Corporate securities;
- Government securities
- Corporate funds;
- Government funds.

The financial impact given by the change in the present value of the securities in the portfolio is analysed taking into consideration the three scenarios adopted for C&E risk management and distinctly along three timeframes (short, medium and long term).

The outcome of the management CVaR impacts deriving from the three scenarios analysed at the end of December 2023 is presented below.

		NET ZERO	CURRENT POLICY	DELAYED TRANSITION	
	Exposure	Climate VaR	Climate VaR	Climate VaR	
Corporate securities	20.3%	-3.0%	-1.0%	-1.8%	
Government securities	79.1%	-0.5%	0.0%	0.0%	
Corporate funds	0.4%	-22.6%	-7.3%	-20.1%	
Government funds	0.2%	-0.5%	-0.0%	-0.2%	



Operational risk

For the purposes of carrying out a specific stress test for the ICAAP exercise as at 31 December 2023, the Bank has developed an initial scenario analysis approach aimed at examining and estimating the impact on exposure to operational risk resulting from C&E risk factors, focused on the hypothesis of the occurrence of natural catastrophes or other external events caused by an acute physical risk, with consequent operational losses resulting from damage or destruction of material assets owned by the Bank.

To ensure the relevance of the scenario applied, focus was given on the threat of floods/ heavy rainfall in the municipality of Sondrio – the city where the Bank's registered office, the top management and central offices are located – taking into account:

- i. results of the materiality analysis on C&E risks according to the approach described above:
- ii. high concentration of the Bank's operational offices in the Province of Sondrio;
- iii. previous events that have affected the geographical area (Flood in Valtellina dating back to 1987) and current/potential exposure of the area examined to hydrogeological risks.

Specifically, it is hypothesised that in the short term the Municipality of Sondrio will be affected by heavy and prolonged rainfall, with flooding and damage in some areas of the city; more specifically, part of the historic centre and the related buildings, including those owned by the Bank, subject to flooding by the Mallero river, with consequent considerable damage in terms of:

- i. economic losses connected to restoration/repair costs for damaged properties or deriving from the interruption of processes carried out in the physical locations involved (direct impact);
- ii. lost profit/lower revenue achievable on the operations affected by the risk (indirect impact).

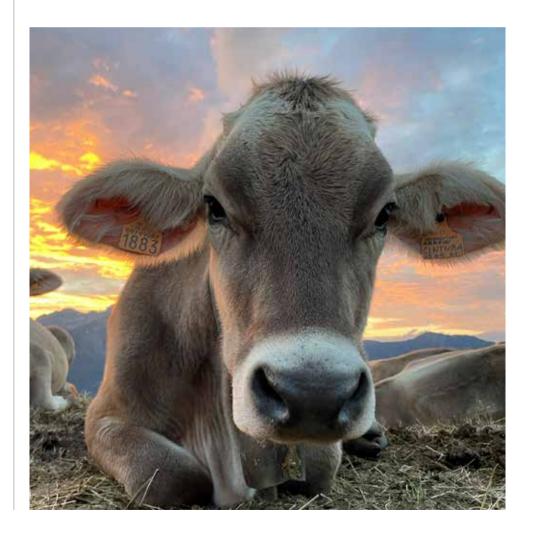
In order to analyse the potential impacts of operational loss in the medium and long term, this scenario was integrated by assuming the occurrence of additional floods affecting other geographical areas in which the Bank is present, with infrastructural damage and interruptions in branch operations, which for analytical purposes are identified a priori with a size equal to the average size of current branch offices.

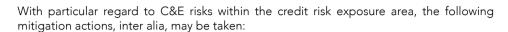


Climate-related and environmental risk mitigation

Any critical issues identified downstream of the climate-related and environmental risk identification, assessment and measurement processes, as well as during the periodic monitoring of the relevant exposure, can determine the activation of specific mitigation actions for the corresponding risks. This may occur, in general, as a result of the periodic measurement of key risk indicators (KRIs) that reveal excessive exposure to climate-related and environmental risks, both physical and transition, in relation to established risk limits.

In order, therefore, to manage these potential critical issues, the Bank defines a series of possible tools and management actions aimed at containing and reducing its exposure to C&E risks in the different business areas affected. Mitigation initiatives are specifically defined based on the traditional types of risk within which the climate-related and environmental factors tend to manifest themselves.





- activation of centralised decision-making procedures and in-depth single-name analyses as part of the "ESG Due Diligence" process, used for the granting of financing to businesses and/or counterparties with a high degree of exposure to C&E risk factors. This process is made by selecting the counterparties based on GHG emission levels and is aimed at collecting timely information useful for carrying out an accurate assessment of customers from a C&E perspective, by completing a specific internal ESG questionnaire;
- offering of specific financing products (e.g. "Next" sustainable product range and other forms of green lending) aimed at fostering the process of enhancement of climaterelated and environmental profiles of corporate customers and households, supporting their transition to a low-carbon economy;
- inclusion of specific clauses on climate-related and environmental performance measurement (e.g. green covenants) in contractual agreements with customers when granting new credit lines to counterparties more exposed to C&E risk factors.

In addition, in order to integrate further actions in line with those described above, the Bank is strengthening its framework for mitigating C&E risks along multiple lines of action. In particular, the Bank is:

- developing specific solutions to contain the physical risk of the properties used as collateral such as: i) the sponsorship of insurance policies against the weather threats to which the mortgaged properties are exposed, and ii) the launch of a dedicated project aimed at defining solutions to reduce the physical climate risk on vulnerable properties (DNSH), in line with the requirements of the EU Taxonomy;
- defining a series of GHG emissions reduction targets financed by 2050, accompanied by a series of intermediate objectives by 2030, for those so-called "carbon-related" sectors. The definition of these targets is a direct consequence of the Bank's key desire to play a leading role in the ecological transition towards business models with low carbon emissions and, furthermore, in view of the commitment undertaken when joining the Net Zero Banking Alliance (NZBA);
- implementing direct engagement strategies for customers most exposed to C&E risk factors, in order to raise awareness and establish a profitable dialogue with these counterparties.

With regard, instead, to C&E risks within the **market risk** exposure area, the following mitigation actions, inter alia, may be taken:

• refocusing investment policies to redefine the composition of the financial asset portfolio, favouring a reduction in the overall exposure to C&E risks.

With regard to C&E risks within the **operational** and **reputational risks** area, the following mitigation actions can be taken:

monitoring the level of development and completeness of physical security procedures
and energy efficiency standards for the Group's real estate assets, also through the
definition of specific business continuity and disaster recovery plans (subject to periodic
assessment of their effectiveness), to prevent or proactively manage the occurrence of
physical risks;



- underwriting and periodically reviewing the adequacy of insurance policies taken out by the Bank to cover potential operational risks arising from climate-related and environmental factors;
- refocusing Group's policies for the selection and engagement of suppliers and business counterparties based on compliance with certain requirements concerning the environmental sustainability of their business, with reference both to physical risk threats and to compliance with applicable climate-related and environmental regulations;
- refocusing core business policies (e.g. financial services to customers, granting and management of loans) towards approaches that favour the prevention and/or reduction of overall exposure to C&E risks, with direct or indirect benefits for the Group (e.g. effect on complaints and penalties);
- monitoring the reputation in terms of sensitivity to climate-related and environmental issues, possibly activating campaigns to restore the corporate image (e.g. emergency plans and crisis management, communication flows for the public acknowledgement of corporate choices) in the event that the Bank is perceived as not complying or only apparently complying with environmental sustainability aspects (so-called "greenwashing").

Finally, with regard to C&E risks able to affect the exposure to liquidity risk, no further specific managerial actions aimed at mitigating risk are considered in addition to those already described above, as they already mitigate potential negative effects on liquidity.









Decarbonising the economy is a long-term historical priority for countries and companies. The many initiatives that have been promoted so far at an international level include, as a common goal, the ambitious reductions in greenhouse gas (GHG) emissions, first and foremost carbon dioxide (CO₂).

Following the Paris Agreement, which sets the goal of limiting global warming to well below 2°C and continuing efforts to limit it to 1.5°C, with the Green Deal, launched in 2019, the European Union confirmed its commitment towards Net Zero Emissions by 2050 and to meet interim targets set for 2030 and 2040. In particular, GHG emissions are expected to be reduced by 55% from 1990 levels by 2030.

To achieve climate neutrality, the European Commission has committed to raise up to one trillion Euro over the next decade.

The Group's Business Plan includes concrete actions to contribute to the fight against climate change and environmental protection, as essential prerequisites for sustainable development in the long term. It is precisely in this context that the Bank's commitment to the implementation of a solid climate strategy is present, as an accelerator for the identification of useful targets for reducing emissions financed by the Bank.

In December 2023, the Bank joined the Net-Zero Banking Alliance, an important international initiative aiming to accelerate the Sustainable transition of the banking sector, through the commitment of member banks to align their credit and investment portfolios to achieve net zero climate-changing emissions by 2050. Membership of BPS, which already supported the TCFD, is a further important step in the fight against climate change.

For additional information on the preparatory activities to joining the NZBA, please refer to the "BPS's carbon footprint reduction targets" section.



European Taxonomy as a universal metrics tool

Regulation (EU) 2020/852 (so-called Taxonomy) defines the criteria for determining whether an economic activity can be considered environmentally sustainable, starting with the identification of six environmental objectives:

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

The Taxonomy requires all economic operators to measure and report the percentage of their economic activities that contribute to these Sustainability objectives. In particular, the Bank is aware of the role that the Taxonomy plays in assigning the banking system the decisive task of being a stimulus to the real economy, to pursue the European Union's ambitious strategy for Sustainable development and climate transition.

For the disclosure pursuant to Article 8 of the Taxonomy, reference should be made to the 2023 NFS, "Environment, Climate Change and C&E Risk Management" section.





GHG inventory

An effective corporate strategy to combat climate change requires a detailed understanding of the Company's own climate-changing emissions, through an accurate GHG inventory.

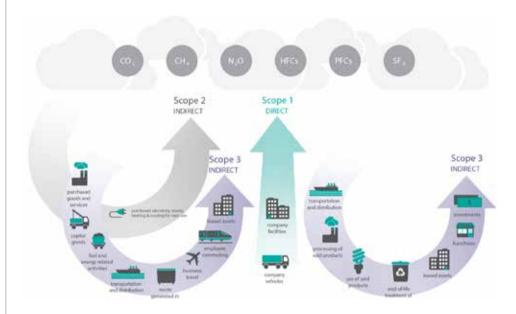


Image source: GHG Protocol – Technical Guidance for Calculating Scope 3 Emissions – Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)

As defined in its Environmental Policy, the Group aims to take a precautionary approach to major environmental issues with the dual purpose of mitigating risks related to commercial operations and seizing new business opportunities in all strategic areas.

In line with the objectives provided for by the Business Plan, the Bank carries out an accurate analysis of the carbon footprint, namely the calculation of the emissions of climate-changing gases or greenhouse gases attributable to a product, an organisation or an individual. The most commonly reported emissions are those of carbon dioxide (CO₂), which, however, only constitute one type of climate-changing gas. In general, to be able to consider and compare the impact of different greenhouse gases on global warming, a measurement is also used that takes into account all greenhouse gases, converting them into the equivalent CO₂ quantity (so-called equivalent carbon dioxide or CO₂e). Emissions are classified by Scope, which defines whether the emissions were generated by the organisation or were produced by activities or parties connected to it, such as the energy supplier, waste production, corporate travel, etc.





Scope 1 shows the CO, equivalent emissions directly generated by the Group, mainly resulting from the consumption of fuel used for heating, for the vehicle fleet and refrigerant gas leakage. In particular, direct greenhouse gas emissions from combustion heat generators are periodically inspected and combustion-tested in accordance with Italian Presidential Decree 74/2013. All interventions carried out on building systems by third parties are recorded through an "Intervention Report" document according to the Ordinary Scheduled Maintenance Procedure: the Technical and Safety Prevention Office requires a series of checks, based on the type of system and the time frequency.

	UoM	2023	2022	2021
Total direct emissions	t CO₂e	3,413	3,383	4,368
Heating oil	t CO ₂ e	1,209	1,214	1,293
Diesel for motor vehicles	t CO ₂ e	187	220	196
Petrol	t CO ₂ e	54	51	30
LPG (liquefied petroleum gas)	t CO ₂ e	6	6	0
Natural gas	t CO ₂ e	1,957	1,885	2,736
Fluorinated greenhouse gases (F-gas)	t CO ₂ e	0	0	113

Source of emission factors: ISPRA (Italian Institute for Environmental Protection and Research) with transformation into CO, e according to the procedure set out in the "Guidelines on the application of the GRI (Global Reporting Initiative) Standards on environmental issues in banks" published by ABI Lab. The gases included in the calculation are CO₂, CH4, N2O.

Biogenic emission are not calculated since they are not material for BPS. In order to calculate the equivalent tonnes of ĆO,, the GWP (Global Warming Potential) is used as indicated by the reports produced by the IPCC specified by the ABI Guidelines.





Scope 2 emissions

Scope 2 refers to indirect emissions of CO₂e deriving from the consumption of purchased electricity and heat: specific analyses to determine the consumption benchmarks of the various buildings are carried out every six months or yearly; generally, this data is compared with the average sector data collected by the ABI Energia Group, as well as with best practices, with the aim of targeting specific actions or undertaking different energy management measures.

The GRI standard provides for two different approaches to calculate Scope 2 emissions: "Location-Based" and "Market-Based". The "Location-based" approach involves the use of average emission factors relating to the specific national energy mixes for the production of electricity; the emission coefficient used for Italy is equal to 267.94 g CO $_2$ /kWh for 2023, 260 g CO $_2$ /kWh for 2022 and 278.02 g CO $_2$ /kWh for 2021 (source of emission factors: ISPRA, the Italian Institute for Environmental Protection and Research, with transformation into CO $_2$ according to the procedure set out in the "Guidelines on the application of the GRI Standards on environmental issues in banks" published by ABI Lab). The "Market-based" approach,instead, involves the use of emission factors defined on a contractual basis with the electricity supplier. In the absence of specific contractual agreements between Group companies and the electricity supplier, for this approach the emission factor relating to the national "residual mix" was used, which for Italy is equal to 457.15 g CO $_2$ /kWh for 2022 and 459 g CO $_2$ /kWh for 2021 (source of emission factors: AIB, European Residual Mixes, with transformation into CO $_2$ equivalent according to the procedure set out in the aforementioned document).

Indirect emissions (Scope 2)	UoM	2023	2022	2021
Total indirect emissions – "Location- based" method	tCO ₂ e	5,201	5,231	5,502
Total electricity purchased (renewable and non-renewable) (national grid average emission factor)	tCO ₂ e	4,805	4,854	5,126
Total district heating purchased (renewable and non-renewable)	tCO ₂ e	396	377	376
Other (specify)	tCO ₂ e	0	0	0
Total indirect emissions - "Market- based" method	tCO ₂ e	497	576	592
Non-renewable electricity purchased	tCO ₂ e	201	199	216
Electricity purchased from renewable sources	tCO ₂ e	0	0	0
Total district heating purchased (renewable and non-renewable)	tCO ₂ e	278	377	376
Other (specify)	tCO ₂ e	0	0	0

Source of emission factors: "Guidelines on the application of the GRI (Global Reporting Initiative) Standards on environmental issues in banks" published by ABI Lab.

In order to calculate the equivalent tonnes of CO_{2^t} the GWP (Global Warming Potential) is used as indicated by the reports produced by the IPCC specified by the ABI Guidelines.

The data relating to consumption from purchased district heating (renewable and non-renewable) – "Market Based" method – are restated, following the use of a different emission factor.





The term "Scope 3 emissions" refers to GHG emissions generated along the value chain of an organisation, upstream and downstream, thus from sources not owned or controlled by the organisation itself. These emissions include those related to the production of purchased material and fuel used by vehicles not owned by the organisation, as well as the end use of products or services and investments made. Until recently, companies have focused on calculating Scope 1 and 2 emissions: "The time to Green Finance" report, published by CDP, notes that only a small number of credit institutions report their Scope 3 emissions and states that the ratio of indirect GHG emissions of financial institutions (associated with investment, lending and underwriting activities) to direct GHG emissions is 700 to 1. The direct GHG emissions of financial undertakings should be considered residual compared to what is generated by the companies they finance or invest in.

The Bank is aware of the need to account for emissions along its value chain in order to comprehensively manage risks related to its carbon footprint: not only to meet the demands of the regulator and the expectations of the market, but above all to embark on a process of self-analysis aimed at defining new environmental and climate targets. For this reason, starting in 2021, the Bank has undertaken a study of its Scope 3 emissions, beginning with an analysis of the emissions of its credit portfolio.

The data collection methodology follows two key literature references:

- GHG Protocol Technical Guidance for Calculating Scope 3 Emissions Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD);
- PCAF Partnership for Carbon Accounting Financials, the Global GHG Accounting and Reporting Standard for the Financial Industry, Second edition and the Financed Emission Standard.

Scope 3 emissions: credit portfolio

The tables below illustrate the emissions connected to the Bank's credit portfolio, in line with the Pillar 3 disclosure (so-called Pillar 3 pursuant to Regulation (EU) 2013/575, Capital Requirements Regulation, of the European Parliament and of the Council of 26 June 2013, on prudential requirements for credit institutions and investment firms and disclosure requirements).

The information used to calculate financed emissions derives from:

"Information provider" databases, containing information and statistical data relating to emissions per individual counterparty and NACE sector. Specifically, the methodology used by the information provider to estimate GHG emissions adopts a "bottom-up" approach, starting from the estimate of emissions for each branch office, subsequently aggregated at the company level. The estimate for each branch office is carried out considering its size and the emission characteristics of the sector in which it operates, taken from recognised institutional sources such as, for example, the European Environmental Agency and Eurostat. In the event that the branch office in question is included in institutional databases such as the E-PRTR (European Pollutant Release and Transfer Register), the emissions data retrieved directly from this source is used. Finally, a subsequent aggregation is carried out starting from the information for each individual branch office to determine emissions at a company level. For companies





belonging to a group whose amount of Scope 1, Scope 2 or Scope 3 GHG emissions has been reported in the Consolidated Non-Financial Statement, the company's estimated emissions are recalibrated to obtain an estimate of emissions consistent with the reported data.

- "Reported data" databases, containing the GHG emissions reported on the Non-Financial Statements published by groups and companies.
- BPS financial statements register, containing information on customers' individual or consolidated reclassified financial statements.
- FINREP standardised reporting, from which, specifically, information relating to the degree of customer indebtedness towards the Bank is collected.

According to the PCAF, financial institutions shall report the absolute Scope 1 and 2 emissions of their counterparties; meanwhile, as for the reporting of Scope 3 emissions of customers, the PCAF follows a gradual introduction:

Phase in period	Sectors considered by NACE L2
For reports published from 2021 onwards	Sectors: energy (oil & gas) and mining (NACE L2: 05-09, 19, 20)
For reports published from 2023 onwards	Sectors: transporting, construction, real estate, materials and industrial activities (NACE L2: 10-18, 21-23, 41-43, 49-53, 81)
For reports published from 2025 onwards	All sectors

Source: PCAF (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition.

List of sectors for which Scope 3 emissions reporting is required, as defined by the EU TEG.

Starting from the 2022 NFS, BPS provides the calculation of its emissions related to the corporate loans portfolio; specifically, the sum of Scope 1, 2 and 3 emissions (Upstream Goods and Services component only) of the financed entities is indicated, according to an attribution factor of the emissions produced by the customer. This attribution factor is calculated based on the ratio between the amount financed (numerator) and the value of the financed company (denominator).

For loans to businesses and equity investments in private companies, the denominator is understood as the sum of the company's total equity and debt, as per the available company financial statements:

Attribution factor =
$$\sum_{c} \frac{Outstanding amount}{Total equity+Debt}$$

As regards loans to companies listed on the stock exchange, the denominator is given by the EVIC:

Attribution factor =
$$\sum_{c} \frac{Outstanding amount_{c}}{Enterprise Value Including Cash_{c}(EVIC)}$$

Finally, once the attribution factor has been obtained, the emissions of the portfolio considered are calculated as follows:

Financed emissions = \sum Attribution factor, x Company emissions,

(with c = borrower or investee company)





In addition, portfolio emissions for 2023 are presented according to the following PCAF metrics:

Metric	Description	Objective	2023 Value	2022 Value
Financed Emissions	Emissions relating to corporate loans portfolio	Evaluate the emission intensity of the financed activities	7.7 m t $\mathrm{CO_2}$ e	6.6m tCO ₂ e
Financed Emissions Of which Scope 3	Emissions relating to corporate loans portfolio	Evaluate the emission intensity of the financed activities	6.4m tCO ₂ e	5.2m tCO ₂ e
Weighted average carbon intensity (WACI)	Quantity of emissions of a given company per Euro of turnover	Evaluate the emission intensity of the portfolio (or parts of the portfolio) per monetary unit. It enables the assessment of the degree of pollution that different companies produce, for the same turnover	101 tCO ₂ e/€m	114 tCO₂e/€m

It should be noted that the Bank, for the publication of the data relating to the 2023 financial year, improved its calculation of the financed emissions, making important developments in the calculation of the attribution factor; specifically:

- by integrating information from consolidated financial statements for GHG Scope 1, 2, 3 emissions stated by the counterparties at a group level;
- by including further debts in addition to financial ones in the Total equity + Debt component (Denominator);
- by integrating the GHG Scope 1, 2, 3 emissions obtained during the Due Diligence process;
- by improving the process of breaking down Scope 1, 2, 3 GHG emissions stated by customers at a consolidated level, redistributing among individual subsidiaries, with particular regard to corporate group holdings.

Due to these important methodological developments, the Bank restated the information relating to the FY 2022 financed emissions in order to guarantee the comparability of the information.





Macro-sector	% Exposure	% Financed Emissions	WACI
B - Mining and quarrying	0.5%	0.4%	477
D - Electricity, gas, steam and air conditioning supply	5.5%	1.8%	375
C1 - Manufacturing (high energy intensity)	13.0%	62.2%	225
E - Water supply	1.4%	0.4%	175
A - Agriculture, forestry and fishing	1.6%	0.2%	101
H - Transportation and storage	2.8%	0.8%	98
F - Construction	7.9%	4.8%	95
C2 - Manufacturing (other)	19.1%	26.0%	89
M - Professional, scientific and technical activities	5.7%	0.3%	69
Q - Human health and social work activities	1.5%	0.1%	40
G - Wholesale and retail trade	17.3%	2.3%	36
S - Other service activities	0.3%	0.0%	32
L - Real estate activities	11.1%	0.1%	28
I - Accommodation and food service activities	5.2%	0.1%	26
N - Administrative and support service activities	2.2%	0.2%	23
R - Arts, entertainment and recreation	1.2%	0.0%	22
P - Education	0.2%	0.0%	18
J - Information and communication	2.5%	0.0%	17
K - Financial and insurance activities	1.1%	0.0%	9
O - Public administration and defence	0.0%	0.0%	-





Scope 3 emissions: asset management

	2023	2022
GHG emissions (Scope 1+ 2+ 3)	220,874 tCO ₂ e	252,454 tCO ₂ e
WACI	309 tCO₂e/€m	350 tCO₂e/€m

For the first year the Bank reports the $\rm CO_2e$ emissions deriving from its asset management portfolios. The information is calculated through the use of data from a primary information provider.

Scope 3 emissions: proprietary portfolio

				2023
-	GHG emissions tCO ₂ e	GHG emissions tCO₂e/€m (EVIC*)	C WACI tCO₂e/€m (turnover)	G WACI tCO₂e/ €m(GDP**)
Corporate	84,781	52	52	0
Funds	7,704	106	134	195
Government securities	0	0	0	220
Total	92,485	158	186	415

				2022
-	GHG emissions tCO ₂ e	GHG emissions tCO₂e/€m (EVIC*)	C WACI tCO₂e/€m (turnover)	G WACI tCO₂e/ €m(GDP**)
Corporate	77,262	65	94	0
Funds	27,061	109	174	209
Government securities	0	0	0	225
Total	104,323	174	268	434

^{*} EVIC, Enterprise Value Including Cash

For the portfolio of corporate and sovereign issuers' securities and funds, the carbon footprint and emission intensity (WACI) are analysed. Data provided above refers to the scope of consolidation (BPS, BPS (SUISSE) SA and BNT).



^{**} GDP, Gross Domestic Product

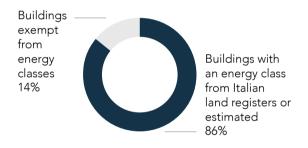


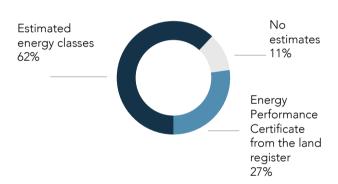
Focus: the real estate energy classes of the mortgage portfolio

According to the International Energy Agency (World Energy Outlook, October 2022), the real estate sector is a strategic area where energy efficiency measures can greatly influence the achievement of the tCO_2 e reduction target. The building and construction sectors are responsible for more than one third of global energy consumption and almost 40% of total direct and indirect CO_2 e emissions. Energy demand from buildings and construction activities continues to increase, driven by improved access to energy in developing countries, the use of energy-consuming devices (such as household appliances) and the rapid growth in the overall floor area of buildings.

Analysis of exposures secured by real estate assets

Breakdown of exposures secured by real estate assets by type of energy class





Detail of estimated energy classes



Detail of energy classes from Italian land registers

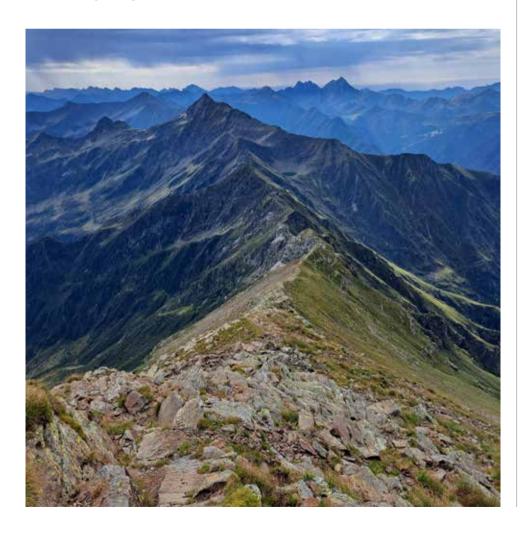




BPS's carbon footprint reduction targets

Among the initiatives of the 2022-2025 "Next Step" Business Plan, the Bank has included the integration of ESG factors into business and operations, through the definition of quantitative targets and their monitoring using performance indicators selected from international best practices.

In particular, the Bank has defined an ambitious path with respect to the reduction of its environmental and climate impacts, setting the challenging goal of adhering to the UN Principles for Responsible Banking ("PRB") and joining the Net Zero Banking Alliance (NZBA) by 2023. This goal was achieved in December 2023. The activity of defining decarbonisation targets as required by the NZBA positions the Bank in line, in particular, with the Paris Agreement (2015) and the European Green Deal (2019) and with European and international best practices requiring greater commitment from the private sector in climate change mitigation actions.

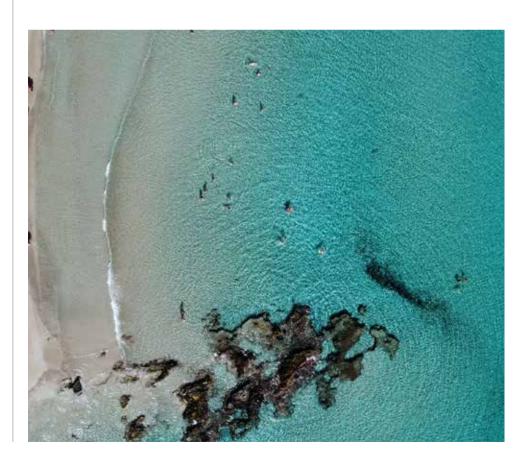


The Bank is aware of the need to account for emissions along its value chain in order to comprehensively manage risks related to its carbon footprint: not only to meet the demands of the regulator and the expectations of the market, but above all to embark on a process of self-analysis aimed at defining new environmental and climate targets. During 2023, it therefore identified the main stages of the process aimed at defining the decarbonisation targets for the corporate credit portfolio, planning the activities necessary to identify a set of preliminary portfolio targets (so-called "pre-targets"), formulated based on the methodology published by the NZBA to support corporate bodies in adopting an informed and consistent commitment to the initiative.

Pre-targets will be subjected to further analysis, which will be conducted after the commitment, in 2024, and which will include more in-depth analyses to evaluate their relevance and to refine them, with the end goal of obtaining a first set of targets to be sent to the NZBA, according to the provisions of its methodology.

In fact, it should be noted that the Bank is aware that the decarbonisation targets subject to publication according to the NZBA commitment could undergo changes or updates compared to the pre-targets, following the analyses and in-depth study conducted on the methodology during 2024.

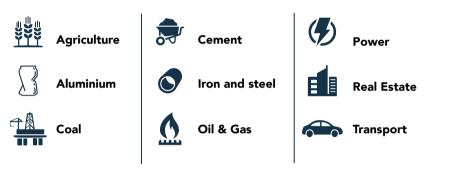
As explored in the section dedicated to "Environment, Climate Change and C&E risks", to set solid decarbonisation targets based on a scientific methodology the Bank has chosen to follow internationally recognised standards, both for the calculation of financed emissions (GHG Protocol and PCAF) and for the definition of the targets themselves (NZBA).



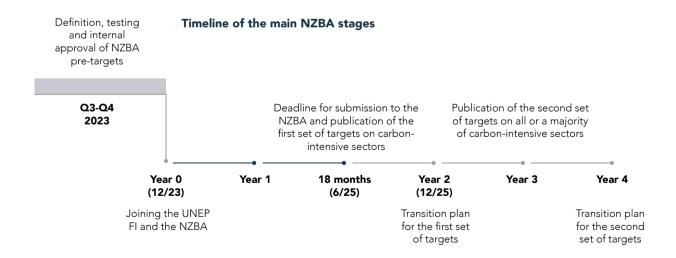


The methodology for setting targets recommended by the NZBA is characterised by some key elements:

- the portfolio decarbonisation targets must be set for all or a substantial majority of carbon-intensive sectors, where data and methodologies allow it;
- alignment with the decarbonisation targets established by the Paris Agreement (1.5 °C) and with transition paths based on consolidated and internationally recognised scientific methodologies (IPCCC) is necessary;
- the targets must have two main time horizons, 2030 and 2050;
- in the first phase of defining the objectives (within 18 months of joining the initiative) the publication of targets for priority carbon intensive sectors in terms of greenhouse gas emissions, emission intensity and/or financial exposure is expected:



 it is mandatory to include in the targets customer companies that derive more than 5% of their revenues from coal mining or electricity production activities.







In order to join the NZBA correctly and consciously, the Bank has launched the following projects:

- analysis of the corporate credit portfolio as at 31/12/2022 with particular focus on:
- financed emissions:
- emissions from corporate customers, deriving from non-financial information or from data flows provided by external providers;
- possible presence of corporate emission reduction targets, publicly communicated;
- sector classification of the companies included in the credit portfolio, dividing them between the carbon intensive and non-carbon intensive sectors according to the NZBA;
- reviewing and modifying, where necessary, the sector classification of some companies in line with the NZBA sectors;
- identification of a group of companies to be included in the pre-targets, in order to comply with NZBA requirements;
- identification of sector decarbonisation scenarios in line with NZBA requirements, respecting methodological best practices and the evidence generated from benchmark studies, leading to the selection of those reported below:
- NZE2050 Scenario, International Energy Agency, 2021, classified as a SSP2 scenario according to the IPCC, referred to in presentations as the IEA NZ2050 Scenario;
- One Earth Climate Model (OECM) Net Zero Pathway, 2022, classified as a SSP1 scenario according to the IPCC, referred to in presentations as the UNEP FI Scenario;
- SBTi 1.5 °C pathways to Net Zero, Science-Based Targets Initiative, referred to in presentations as the SBTi scenario;
- application of scenarios on the companies in scope, to guarantee the definition of sector reduction targets by 2030 and 2050, in line with NZBA requirements, identifying the specific decarbonisation percentages for each sector;
- finalisation of a set of portfolio pre-targets, submitted, each with respect to their areas of expertise, to the:
- Sustainability Management Committee;
- Sustainability Board Committee;
- Board Control and Risk Committee;
- Board of Directors.

Following the resolution by the Bank's Board of Directors to join the NZBA, in December 2023 the Bank sent a Commitment Statement, signed by the Managing Director to declare the commitment to:

- align credit and investment portfolios with Net-Zero scenarios by 2050;
- within 18 months of the Commitment, set targets for 2030 and 2050 with 5-year intermediate targets from 2030 onwards;
- identify targets for 2030 that focus on the priority sectors of the portfolio (carbon intensive):
- integrate the other sectors within 36 months;
- communicate, on an annual basis, the progress of the targets and the transition strategy approved at Board of Directors level;
- define a high-level Transition Plan within 12 months of submitting its targets to the NZBA.





Some "pre-targets" on carbon intensive sectors used to evaluate membership in the NZBA



AGRICULTURE

-31% by 2030



OIL & GAS

Oil: -29% by 2030

Gas: -14% by 2030



POWER

-50% by 2030



AUTOMOTIVE

-25% by 2030

Note: Preliminary analysis carried out on the credit portfolio as at 31/12/2022 (baseline), in which Scope 1, 2 and 3 emissions were included and the UNEP FI or IEA scenarios were primarily applied. Definition of pre-targets for absolute reduction of CO₂, defined through the identification of a mix of companies, on *carbon intensive* sectors indicated by the NZBA, to cover the majority of financed emissions.



Layout:

Messagegroup

Photos:

We would like to thank the colleagues who participated in the photo contest.

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