8. Report on climate change and other environmental and social issues

The financial sector and climate change

The fight against climate change is one of the biggest disruptive events of all time, with extraordinary economic consequences to which all actors (governments, regulators, businesses, consumers and society in general) must adapt.

Climate change and the transition toward a low-carbon economy have significant implications on the value chains of most production sectors, and may require significant investments in many industries. However, technological progress in the fields of energy efficiency, renewable energies, efficient mobility and the circular economy will continue to generate new opportunities for all.

Nevertheless, customers, markets and society as a whole not only expect large companies to create value, but to also make a positive contribution to society. In particular, that the economic development to which they contribute with their activity is inclusive.

BBVA is aware of the key role that banking plays in this transition toward a more sustainable world through its financial activity, has adhered to the Principles for Responsible Banking promoted by the UN, the Katowice Commitment and the Collective Commitment to Climate Action and is keen to play a central role, as demanded by society, and to help its customers in their transition toward this sustainable future.

As a financial institution, BBVA has an impact on the environment and society directly through the consumption of natural resources and its relationship with stakeholders; and indirectly (and most importantly) through its lending activity and the projects it finances.

Under Law 7/2021, of May 20, on climate change and energy transition (hereafter Law 7/2021), BBVA has submitted a report (hereafter, Climate Change Report), which includes, among others, the following matters: the organization's governance structure, the strategic focus, both in terms of adaptation and mitigation of the entity to manage the financial risks associated with climate change, the real and potential impacts of the risks and opportunities associated with climate change, the processes of identification, evaluation, control and management of the risks related to the climate and the metrics, scenarios and objectives used to evaluate and manage the relevant risks and opportunities associated with climate change.

In this context, BBVA has also incorporated this Climate Change Report into the Group's Management Report, which is attached to the Consolidated Financial Statements for 2021, as covered in the article 32 in the Law 7/2021.

Table 100. Contents index of the Law 7/2021, of May 20, about climate change and energetic transition

Topic	Reporting criteria
Govern	Governance structure of organization, including the role that its various bodies perform, in relation to the identification, evaluation and management of risks and opportunities related to climate change.
Strategy	Strategic approach, in terms of adaptation and mitigation of the entities to manage the financial risks associated with climate change, taking into account the current risks at the time of writing the report, and those that may arise in the future, identifying the actions necessary at that time to mitigate such risks.
Impacts	The real and potential impacts of risks and opportunities associated with climate change on the organization's activities and its strategy, as well as on its financial planning.
Risk management	The processes for identifying, evaluating, controlling and managing climate-related risks and how these are integrated into its global business risk analysis and its integration into the organization's global risk management.
Metrics and goals	Metrics, scenarios and objectives used to assess and manage important risks and opportunities related to climate change and, if calculated, the scope 1, 2 and 3 of its carbon footprint and how its reduction is addressed .

8.1. Committed to sustainability

BBVA aims to align its activity steadily to the Paris Agreement and use its role as a bank to help its customers through finance, advice and innovative solutions to transition toward a more sustainable future, inspired by the Sustainable Development Goals. Specifically, the Group wants to help face challenges as important as climate change or support inclusive growth. Helping customers in their transition also represents a great opportunity, as it requires an unprecedented level of investment to innovate and deploy new technologies in practically all the sectors.

To this end, in 2021 BBVA has continued to make progress in decarbonizing its portfolio. It has announced its intention of reducing its exposure to coal-related activities to zero, and stopping the finance of companies in these activities by 2030 in developed countries and by 2040 in the rest of the countries where it operates. It has also set intermediate goals to decarbonize its portfolio in four emission-intensive industries, such as electricity generation, automotive, steel and cement which represent 60% of the world's CO_2 emissions[10]. Moreover, the Group will focus its efforts on supporting customers with finance, advice and innovative solutions in the joint effort of decarbonization.

8.2. Governance model

Corporate bodies

BBVA's corporate bodies have defined and driven the Group's strategy that incorporates sustainability and the fight against climate change as one of its priorities, having approved its basic elements (through its incorporation to the Group's strategic plan in 2019, and with the approval of the General Sustainability Policy in 2020) and carrying out periodic monitoring of its implementation in the Group.

For the Board of Directors, an essential element of this strategic approach is the integration of sustainability and the fight against climate change into the Group's activities, managing the risks associated with these areas, and considering them a great opportunity for business in which to support its growth strategy. Combined with this is the establishment of targets which facilitate their execution, supervision and monitoring. This approach allows the Group's corporate bodies to define the basic lines of action for BBVA as regards the management of opportunities and risks arising from sustainability and oversee their execution by the executive areas in all spheres of the Entity's operations.

In this work monitoring and supervising the implementation of the Group's sustainability, the Board is assisted by its committees specialized in their respective areas. Thus, the active role of the Executive Committee is particularly important in driving this strategy in the monitoring of the integration of sustainability in the Group's processes of business and activity, and their impact on its activity and results in accordance with its monitoring and analysis function of the development of the Group's key performance indicators.

Also important is the role of the Risk and Compliance Committee, which assists the Board of Directors in the integration of sustainability in the analysis, planning and management of the Group's risks, and in supervising their execution; that of the Audit Committee, in supervising the public information on sustainability reported to the market; and the Remuneration Committee, in driving the integration of indicators related to sustainability in the Group's variable remuneration model.

A specific example of this activity is the work of the Board in adopting very important decisions for the Group in the area of sustainability which are described in this report, such as the increased commitment to sustainable finance (Pledge 2025); the adoption of the Net Zero pledge for 2050; the determination of commitments related to the decarbonization of the portfolio; decisions related to the integration of risks associated with climate change in the management processes; as well as the creation of the Group's new Sustainability Area, raising the function to the highest executive level of the organization, as described in this report.

In addition to this, there is the work of the corporate supervisory and monitoring bodies for the implementation of the Group's sustainability strategy and activity, and compliance with the organization's objectives, which is carried out on the basis of the reports received by the Sustainability Area and the different areas of the Bank which incorporate sustainability into their daily businesses and activities. These reports are carried out for corporate bodies according to their competence, as described in the above paragraphs, either periodically or ad hoc (worth particular mention are the specific presentations drawn up at least twice a year for the Board of Directors and the Executive Committee).

In addition to the above and in order to achieve the best performance of its duties in this matter, the Board considered it necessary to strengthen its own knowledge and experience in sustainability, by onboarding people with extensive knowledge and experience and by a continuous training program to include sustainability-related subjects, such as sustainable finance or main trends that are being developed in the market on this matter.

Transversal integration of sustainability into the executive sphere

BBVA incorporates sustainability as part of its daily activities and everything it does, encompassing not only relations with customers but also internal processes. In this sense, the definition and execution of a strategy, which includes sustainability and climate change as one of its priorities, has a transversal nature, being the responsibility of all areas of the Group to incorporate it progressively into their strategic agenda and their work dynamics.

In 2021, BBVA gave a renewed boost to its strategy of increasing sustainability to the highest executive level of the organization, reporting directly to the Chief Executive Officer and the Group Executive Chairman (in this case, both linked to strategy and transformation), creating the global area Sustainability business area with the aim of

[10] According to the International Energy Agency and UNEP.

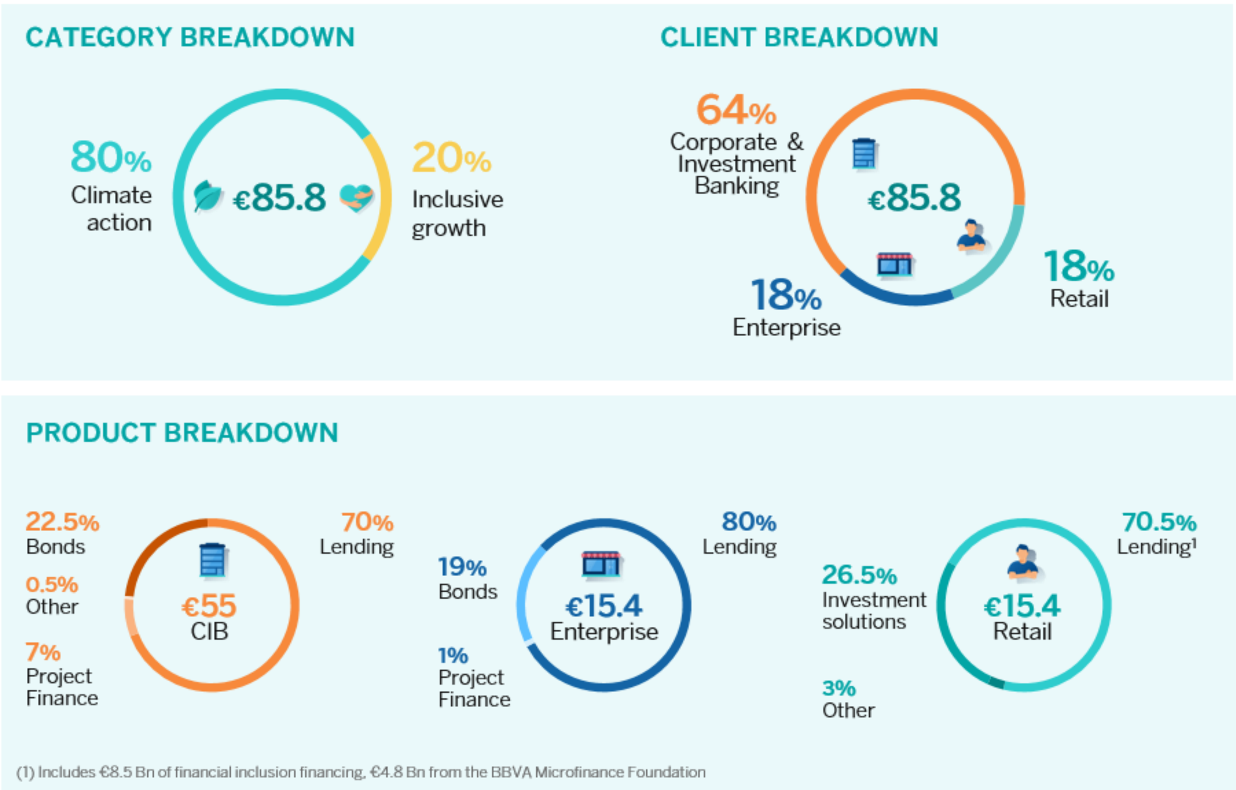
becoming the model bank for customers in sustainability solutions.

In a context in which all the Group employees and areas integrate sustainability into their day-to-day activity, the new global area will design the strategic sustainability agenda, define and promote the lines of work in this area of the different global and transformation units (including Risk, Finance, Talent and Culture, Data, Engineering, and Organization) and develop new sustainable products.

In addition, BBVA has established a network of experts, comprising sustainability specialists from different areas of the Group (Client Solutions, Corporate & Investment Banking, Global Risk Management, Communication & Responsible Business), coordinated as a network by the global Sustainability area. These experts are responsible for building knowledge in the field of sustainability at the Group. This knowledge is then used to provide customer guidance, support areas in developing new value propositions in the sphere of sustainability, make climate risks part of risk management, and draw up a public agenda and set of sustainability standards.

8.3. Sustainable finance

With respect to finance, in 2021 BBVA increased its Pledge 2025, doubling its initial target of channelling sustainable finance to €200 billion through 2025. From 2018 to 2021, BBVA earmarked a total of €85,817 million in sustainable activities, distributed as follows:



Figures in € Billion

In 2021 the Group has also strengthened its community involvement to support inclusive growth in countries where it operates, for which €550 million will be allocated directly and through its support to foundations between 2021 and 2025. For more information about the community involvement, see the section "Community Commitment" in the chapter "Our stakeholders" in the Group's Consolidated Management Report.

Among the solutions promoted by BBVA focused on identifying opportunities arising from climate change and inclusive growth, as well as creating value propositions and offering advice to individual and corporate customers that can be highlighted are:

Sustainable solutions for wholesale (corporate and institutional) customers as well as businesses

In 2021, in the sphere of sustainable corporate lending, the Bank mobilized globally a total of €10,044m in financed linked to the achievement of certain environmental and social indicators (KPI-linked) and linked to the customer's ESG rating (ESG-linked), both bilaterally and as a syndicate, among which are pioneering operations in the food sector. In Spain, BBVA has been a pioneer in incorporating mechanisms for the donation of part of the profit margin to sustainable or charity projects and BBVA remains one of the leading entities in the market in sustainable finance, having been lead sustainable coordinator in significant deals for the fifth year in a row. Outside Spain, BBVA has spearheaded several landmark operations, including a number of the main syndicated finance deals in Germany, the UK, Belgium, Mexico, Peru and Colombia. BBVA continues to work with its customers to develop new and demanding formats to link its long-term commitment to sustainability and to the objectives set by the European taxonomy and the Paris Agreement respectively.

Furthermore, BBVA remained extremely active in the financing of sustainable projects throughout 2021, participating in the mobilization of €1,274m (BBVA participation) of sustainable finance in the following main areas: (i) renewable projects; (ii) self-generation and energy efficiency; (iii) sustainable mobility projects; (iv) finance of sustainable agriculture; (v) social projects in the health and telecommunication sector to facilitate access to new technologies; and (vi) sustainable infrastructure projects.

Throughout 2021, BBVA has been very active in the issuance of green, social and sustainable bonds, and bonds linked to environmental indicators for customers in the United States, Mexico, South America, Asia and Europe, including Spain, with BBVA's total disintermediated volume being €6,683m. In 2021 European customers were very active. BBVA continues to support the development of the green bond market in Mexico, Colombia, Argentina and Asia, as lead arrangers of the inaugural issuance of bonds in many of these regions.

Moreover, in the transaction area, BBVA has signed operations for €4,958m, using its sustainable banking framework, as well as adding sustainability-linked transactions to its sustainable product offering. The market for financial products linked to sustainability is relatively new and it is growing rapidly, thereby allowing companies and sectors searching for ways to start or expand their sustainable trajectory to gain access to sustainable financing. Products linked to sustainability are intended to facilitate and support economic activity and growth in both environmental and social spheres. This new approach allows BBVA to actively support its customers in the transformation toward more sustainable business models.

To complete the sustainable offer, in 2020 the ESG Advisory service was created to help global customers in their transition to a sustainable future, with advice based on data and geared to facilitating commitments that customers are assuming, each from a different starting point, to align with the Paris Agreement and make progress in the UN Sustainable Agenda 2030. BBVA offers value-added information on regulation, best practices and the challenges and opportunities to sectors faced by the path to sustainability.

Moreover, BBVA promotes an overview of the whole range of sustainable products and services that can be offered from the Corporate & Investment Banking area, both in terms of debt and equity. This service has a global scope and is open to all sectors of activity.

Sustainable solutions for retail customers

BBVA wants to support its retail customers adopt more sustainable habits that help reduce their CO_2 emissions and wants to do so proactively, through the use of data-based tools and solutions that help control their consumption and emissions. To this end, it is working on making a wide range of investment and finance products available to customers to help them in this transition, adapting to the situation in each of the geographies in which the Group operates.

The sustainable solutions offering in the different countries aims to support energy efficiency and the decarbonization of the economy with products such as financing lines for the acquisition of hybrid and electric vehicles, green mortgages for sustainable housing, or loans for improving the efficiency of homes. In 2021, BBVA achieved its commitment in Spain of offering a sustainable alternative to all its products in this segment.

Also in Spain, in 2021 BBVA became the first entity to use data analytics to calculate the carbon footprint of all its individual customers, obtaining an approximate estimate of CO_2 emissions into the atmosphere, based on gas and light bills and payments for fuel.

Also, a line of inclusive growth is being boosted in the retail segment, mobilizing funds to the investment needed to build inclusive infrastructures and support inclusive economic development. Within this line, the products targeted at individuals are credit (cards, loans and mortgages), which comply with the income and/or vulnerability thresholds established for each country. Worth noting is the social mortgage, which is targeted at the segments of the population with the lowest purchasing power, and which subsidizes part of the total amount of the mortgage.

BBVA also supports entrepreneurs by granting loans to natural persons or legal entities which have begun an economic activity within the last 3.5 years, and offering finance to microenterprises, provided that they comply with the threshold levels for revenues established in BBVA's social taxonomy for each country. Of relevance for this segment is the program for financing female entrepreneurs BBVA has in Turkey, so women who have small and medium-sized enterprises can access loans in preferential conditions.

During 2021, BBVA mobilized a total of €6,471m: €4,250m in Spain; €548m in Mexico; €350m in Turkey; €56m in Colombia; €19m in Peru; and €13m in

Argentina, €1,114m through the BBVA Microfinance Foundation and €121m in the United States.

Sustainable investment solutions

In 2021, BBVA Asset Management (BBVA AM), the Group's investment management unit that brings together all its asset management activities around the world, has made significant progress integrating sustainability, above all in the following aspects:

- Incorporation of the ESG extra-financial criteria in the process of investment and risk control decision-making for vehicles and portfolios they manage, both in the investment process and voting policy.
- Commitment to best sustainable investment practices which, in 2021, has consisted in adherence to the Responsible Investment Principles promoted by the United Nations, the Net Zero Asset Managers Commitment, to arrive in 2050 with net zero emission portfolios and the participation in other collective initiatives involving companies and governments.
- Exclusion policies. The exclusion policy affects companies which belong to sectors that are considered intrinsically harmful to society. For its application, BBVA uses exclusion lists of companies and countries, drawn up and updated periodically, with the help of an independent expert advisor. These lists include companies and countries related to defense materiel (military, police and security armaments, ammunition, explosives, etc.). Also excluded are investments in companies that severely infringe the principles of the United Nations Global Compact.

In 2021, the offer of sustainable products has been extended, meaning products which incorporate sustainable targets or metrics in their investment policy; with a total of 4 new mutual funds (2 in Spain, 1 in Mexico and 1 in Peru) and 7 pension plans (6 in Spain and 1 in Portugal). The assets under management in sustainable solutions at the close of 2021 was €5,598m and net new assets amounted to €1,559m.

Table 101. Assets under management with Sri criteria (BBVA Asset Management. Million Euros)

	2021	2020
Total assets under management	**119,307**	**109,355**
Europe	80,981	72,376
Mexico	30,179	26,034
South America	4,252	7,433
Turkey	3,895	3,512
SRI strategy applied		
Exclusion (1)	119,307	109,355
Vote (2)	111,160	72,376
Integration (3)	80,981	9,053

(1) The exclusion strategy applies to 100% of the assets under management.

(2) The vote strategy applies to 100% of the assets under management in Europe for those instruments, in BBVA AM portfolios, that generate voting rights and their issuers are in the European geographical area.

(3) The integration strategy is applied in SRI pension plans and mutual funds of the Europe business.

8.4. Risks and opportunities associated with climate change

Climate change risks for BBVA

There are two type of risks that impact the business of BBVA or its customers:

Transition risks

These are the risks pertaining to the transition to a low-carbon economy, and which arise from changes in legislation, the market, consumers, etc., to mitigate and address the requirements derived from climate change.

Table 102. Transition Risks

Risk subtype	Risks associated with climate change	Risk description	Time horizon (1)
Legal and regulatory	Increase in the cost of CO_2 emissions	Financial risk to BBVA clients whose liquidity or earnings could be harmed from having to face higher costs or, alternatively, higher investments in emission neutralization, resulting from regulatory changes	ST
		Increased cost of direct emissions from the Bank in its operations	ST
	Increase in monitoring and tracking requirements	Increased staffing and economic resources for the study and monitoring of the Group's clients, and tracking of their compliance with environmental requirements	ST
	Changes in the regulation of existing products and services	Uncertainty for financial agents regarding changes and their implementation	ST
		Impairment of client asset positions due to the generation of stranded assets (assets that prior to the end of their economic life are no longer able to earn an economic return)	MT
		Sales drop due to adjustments to offerings, to align with new legal specifications for a product	MT
	Increase in regulatory capital requirements due to risk associated with climate change	Possibly different prudential treatment of financial assets in terms of riskweighted assets based on their exposure to physical and transition risks	MT
	Increase in regulatory capital requirements due to risk associated with climate change	Adverse regulatory changes that may cause certain exposures on BBVA's climate change balance sheet to have higher capital consumption	ST
	Risks of environmental lawsuits	Possible lawsuits against BBVA for not complying with environmental regulations in its business or supply chain	ST
	Risk of lawsuits against third parties	Potential lawsuits for environmental crimes against BBVA clients. BBVA could be impacted by its clients' loss of solvency resulting from an increase in litigation costs	ST
Technological	Replacement of existing products and services with lower-emission alternatives	BBVA clients with a position in sectors that are outperformed by alternative technologies could suffer solvency problems and their ability to cope with their credit commitments could be diminished	ST
	Failed investment in new technologies	Clients that invest in failed technology may go through solvency difficulties and be unable to meet their credit commitments	ST
	Cost of transitioning to low-emission technology	The investments which BBVA clients need to make to change their production models can be an opportunity but they can also negatively impact the balance sheet structure or profitability of said clients if not done properly. On the other hand, the necessary R&D investments could undermine the clients' ability to meet their commitments	ST
		Costs of investing in remodeling and adapting BBVA-owned buildings	ST
Market	Changes in (market) trends, financial agent and consumer preferences	Changes in demand caused by changes in consumer preferences can lead to falls in sales for BBVA clients and result in loss of profits and solvency	ST
		Reduction in demand for certain products can cause price falls that affect the valuation of companies' assets (crude oil reserves, fossil fuel cars, etc.)	ST
		Increased demand for certain products or services may impact on the price of certain raw materials. While this may be reflected in prices, it may lead to lower profits or the loss of BBVA's clients' market share	ST
		Risk of change in the Bank's client preferences for not considering the Bank well positioned in the sustainable segment	ST
	Uncertainty in market signals	Difficulty or impediments to proper price formation or allocation of financing or investment sums	ST
		Forecasts made by research agencies or services to dictate the strategy of entities may not be fulfilled due to abrupt changes in the market caused by changes in regulations or demand	ST
	Increased cost of raw materials	Sharp changes in the price of raw materials, resulting in changes in supply or energy cost, can lead to deteriorating liquidity and declining profits for clients. It can be mitigated with end-product price increases	ST
		BBVA's energy supply cost could also be affected	ST
	Financial risks	Risk of a significant increase in the cost of financing clients with higher exposure to climate risks, in a way that affects their solvency by making it more difficult for them to cope with their credit commitments	ST
		Risk of worsening the credit rating of clients with exposure to climate change risks, with the associated adverse effects for BBVA	ST

Risk subtype	Risks associated with climate change	Risk description	Time horizon [1]
Reputational	Change in consumer preferences	Direct risk of client loss for not meeting what various stakeholders expect from BBVA as regards the climate change challenge and fostering a more inclusive world	ST
		Indirect risk of our clients losing business, which affects their solvency, because they engage in an activity that is not considered sustainable	ST
		Demand from clients to limit our operations' direct impacts	ST
	Stigmatization of a sector	Risk of assets stranded by a sharp change in the perception of a sector, with significant loss of sales	ST
	Investment exclusions in certain sectors due to market pressures	Withdrawal from profitable deals due to reputational risk or a sectoral ban	ST

[1] ST: <4 years MT: 4-10 years LT: >10 years

Physical risks

Risks which arise from climate change and can originate from increased frequency and severity of extreme weather events or long-term weather changes, and which may imply physical damage to companies' assets, disruptions in supply chains or increase in the expenses needed to face such risks.

Table 103. Physical Risks

Risk subtype	Risks associated with climate change	Risk description	Time horizon [1]
Acute risks	Increased severity of extreme weather events, such as cyclones and flooding	Reduced revenue from decreased production capacity (e.g. transport difficulties and supply chain disruptions)	MT
		Direct losses from asset damage (BBVA and clients)	MT
		Increased cost of insurance	MT
	Business continuity problems	Damage to BBVA facilities from environmental catastrophes that hinder normal service provision	MT
Chronic risks	Changes in precipitation patterns and extreme variability i weather patterns	Loss of value of clients' assets (guarantees) because they are located in areas with water supply problems (desertification)	MT
		Increases in clients' operating costs (investments in agriculture)	MT
		Lower renewables production (hydro and wind)	MT
	Rising average temperatures	Population movements that can lead to depression in certain areas, accompanied by loss of business	LT
	Sea level rise	Threats to client assets that can lead to loss of profits and their solvency	LT

[1] ST: <4 years MT: 4-10 years LT: >10 years

Climate change opportunities for BBVA

As well as the risks described above, a number of associated opportunities have arisen which BBVA is considering to use and position itself correctly with respect to the major disruption represented by climate change.

Table 104. Climate change Opportunities for BBVA

Sector	Opportunity	Time Horizon [1]
Oil & Gas	Liquefied Natural Gas (LNG) as an alternative to other fossil fuels as it has a much lower level of emissions	MT
	Possibility of reusing oil & gas transport assets for biofuels and hydrogen	MT
Chemicals	Carbon capture and storage through chemical separation of carbon dioxide for later reuse	ST
Electricity	Strong boost to renewable energy, electricity storage	ST
	Energy efficiency services and hydrogen development	MT
Construction & infrastructures	Renovation of buildings (headquarters, housing, premises, etc.) as well as industrial plants in need of energy-efficiency improvements because of the increased regulatory impact	ST
	Infrastructures to improve climate change adaptation: changes in cities, development of a smart grid, charging infrastructure for electric vehicles	ST
Transportation	Efficient low-emission and mobility services (electrical, LNG and hydrogen)	ST
Mining & metals	Production of metals to manufacture electric vehicles (copper, lithium, cobalt and nickel among others)	MT
Agriculture	Efficient irrigation systems, use of waste as a source of biogas	MT
	Development of new anti-drought products	ST
Other sectors	Circular economy, recycling, waste and water treatment, tree planting, food industry, tourism industry conversion to carbon neutrality (Fossil fuel change, etc.)	ST

[1] ST: <4 years MT: 4-10 years LT: >10 years

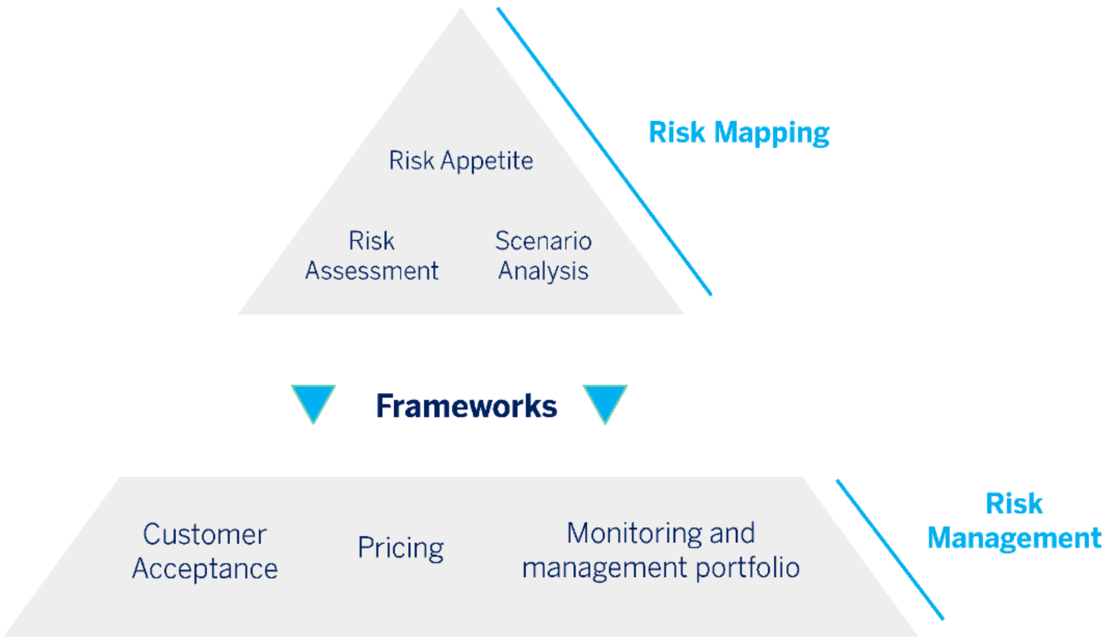
8.5. Risk management associated with climate change

Integrating climate change into risk planning

The risks associated with climate change (transition and physical) are considered an additional factor that impacts the risk categories already identified and defined in the Group. Because of this they are managed through the Group's risk management frameworks (credit, market, liquidity, operational and other non-financial risks). As a result, the integration of the risks related to climate change within BBVA Group's risk management framework is based on the incorporation of correctly established processes and governance, taking into account regulations and supervisory trends.

Correct planning requires reliable, complete and up-to-date data. To this end, in 2021 a sustainable data strategy was implemented, based in the Principles for effective risk data aggregation and risk BSBC239, in which the sustainability data needs have been identified, the data gaps have been assessed and a conceptual model and implementation plan has been drawn up. All this is geared to guaranteeing a comprehensive vision of the Group's climate risks to ensure their correct control and management. Among the data incorporated, which respond both to regulatory and business needs, those related to customer climate scores, energy efficiency certificates, environmental indicators, greenhouse-gas emissions and sector metrics.

Climate risk management in BBVA Group is based on the process of risk planning which is marked by the defined risk appetite and makes use of management frameworks which establish how these risks are to be treated in day-to-day business activity.



Risk planning: Risk appetite Framework (RAF)

BBVA's Risk Appetite Framework, approved by the corporate governance bodies and applicable to all the Group's material geographical areas, determines the risk levels that BBVA is willing to assume to achieve its targets, considering the organic evolution of the business. It is organized as a pyramid structure that is based on thresholds of core and by risk type metrics and implemented through a framework of risk limits. The Framework has a general statement that sets out the general principles of the risk strategy and the target risk profile. The statement includes a commitment to sustainable development as one of the elements defined by the BBVA business model, stressing customer support in the transition to a sustainable future, and starting in 2022 incorporating the climate factor in risk management. This statement is complemented and detailed with an appetite quantification through metrics and thresholds that provide clear and concise guidance on the defined maximum risk profile.

In 2021 a transition risk metric was incorporated. This High Transition Risk metric measures Exposure at Default (EAD) in relation to capital of the activities most exposed to transition risk in accordance with the Taxonomy defined internally, specifically the activities classified as High or Very High risk. This taxonomy has been developed following recommendations by the TCFD with the aim of developing processes that identify and value climate risks, as well as the ECB Guide on environmental and climate-related risks. With respect to this metric, the Board of Directors of BBVA has approved thresholds at a Group and geographical area level, which determine the maximum appetite for this risk.

The definition of the levels of tolerance established in the Risk Appetite Framework are based on the Risk Assessment and Scenario analyses described below.

Risk Assessment

This section provides, firstly, a self-assessment of how the different climate-change related risk factors impact on the main types of risk currently existing (credit, market, liquidity, etc.); secondly, an analysis of the sectors that are most sensitive to this risk (under the so-called "internal risk taxonomy"); and, finally, the methodology used to assess the climate vulnerability of the relevant geographical areas where the BBVA Group operates. These last two aspects are integrated into the management through processes such as admission frameworks or the establishment of risk limits.

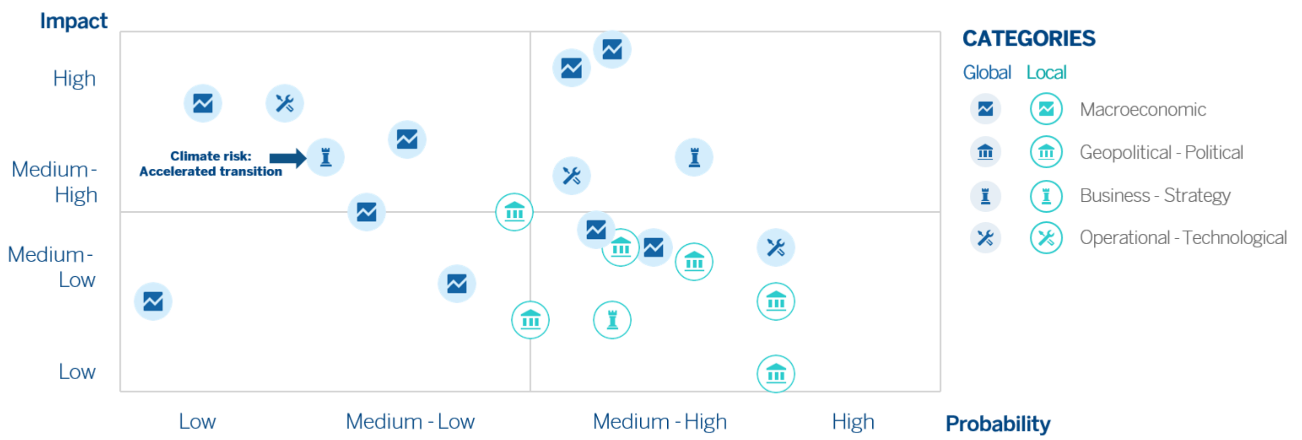
As part of its General Risk Management and Control Model, the Group develops periodic risk identification and assessment processes to, among other things, identify material risks that could have a negative impact on its risk profile and to manage those risks actively and proactively. These processes cover all types of risks faced by the Group in its daily activity, including those risks that are more difficult to quantify. The General Risk Management and Control Model approved this year is considered the specific form of sustainability as an essential part of the Group's strategy.

Global Risk Assessment is a prospective exercise which updates at least twice a year, and allows a comparison between risk types, business activities and moments in time, facilitating the understanding of the Bank's positioning and its development, and identifying the material risks to cover with capital. Since 2020 the Group has carried out a qualitative climate assessment, which assesses BBVA's vulnerability to transition and physical risk. As in the case of the global assessment, the climate assessment process is participative and global in the GRM area. The proposed assessment for each risk type is based on the risk specialists and verified by other group and geographical risk units. The results of the assessment are submitted to the highest executive risk committed (GRMC), as well as the corporate bodies, as this assessment is integrated in key corporate processes such as the Risk Appetite Framework and the Internal Capital Adequacy Assessment Process (ICAAP).

The climate risk assessment process runs parallel to the Group's global risk assessment, although there are two major differences with respect to it. First, there are still no mature indicators to assess the different risks quantitatively (although they are being developed); and second, the time horizon of the analysis is much more extensive. Specifically, the analysis is carried out for a short-term horizon coinciding with the planning horizon (4 years), medium term (4-10 years) and long term (over 10 years). The climate risk assessment, like the other risks, is carried out from two perspectives. First, risk events are identified that could materially affect the Group over a 12-18 month horizon. Next, the risk event matrix identified in 2021 is included. The events are ordered according to their severity, which is estimated on the basis of the likelihood allocated to each event and their estimated impact on the BBVA Group. In the event matrix, these risks are represented graphically by their estimated impact on BBVA Group and its allocated probability.

Climate risk has been included as a material event in this inventory since 2019. In the 2021 assessment the analysis of climate risk events has been broken down into physical and transition risks. In the short term an accelerated transition to a low-carbon economy is thought to involve an event of medium-high impact, although the probability given to this type of scenario is currently medium-low. In a long-term time horizon, the risk of physical climate change is incorporated into the inventory of emerging risks (those that could have an impact in a longer time horizon) and it is assigned a medium-high risk.

Risks with materialization in the short term: 12-18 month time horizon



The second approach followed in risk assessment is based on an assessment of the profile of each type of risk expressed in a heat map. In 2021 the climate risk assessment exercise was given greater profundity by including new risk factors including the customers' carbon footprints, the energy efficiency of real-estate secured loans and financed emissions. Similarly, work has been done on the preliminary inclusion of quantitative metrics for some risk factors and it has been extended to BBVA Group's material geographical areas.

The conclusions of the assessment for 2021 suggest that the main risks emerge in medium- and long-term loan portfolios, with an earlier impact on transition risk in Spain given the speed of this geographical area in adopting decarbonization policies. The factor with the biggest long-term impact on credit risk is that derived from investment in climate change which will have to be carried out by companies in the decarbonization process.

With respect to the impact of physical risk on loan portfolios, the greater frequency/severity of extreme meteorological events and structural changes in climate patterns explains the deterioration shown in the assessment at longer-term horizons.

The impact of transition risk on liquidity risk is due to the stability of the retail deposit base and the high asset quality of the liquid asset buffer. Market risk is equally low, due to the diversification of the equity portfolio and low exposure to sectors sensitive to transition risk in the fixed-income portfolio.

In operational risk, there is a difference in the perceived risk in Spain (medium-low) and in the rest of the geographical areas (medium-high), due to the greater exposure of the latter to physical risk in the medium and long term.

Table 105. Risk Assessment Climate Change 2021

	Spain			Rest of geographical areas		
	ST	MT	LT	ST	MT	LT
Transition risk						
Credit						
Liquidity and funding						
Structural equities risk						
Credit spread risk						
Markets (trading)						
Insurance						
Operational						
Reputational						
TOTAL						
Phisycal risk						
Credit						
Liquidity and funding						
Structural equities risk						
Credit spread risk						
Markets (trading)						
Insurance						
Operational						
TOTAL						

Temporary horizons definitions:

ST: short term; up to 4 years (planning horizon)

MP: medium term from 4 to 10 years

LP: long term; more than 10 years

Low risk

Moderate-low risk

Moderate-high risk

High risk

Not applicable

In 2021 there has been an increase in transition risk, derived from the drive in Europe for both new regulations and updates of existing ones. Similarly, the determination of the decarbonization path to be taken in carbon-intensive sectors represents an expected increase in investment in capital expenditure (CAPEX), with the resulting impacts on credit risk. To this has to be added the greater awareness of people in general, foreseeable change in the demand for these emission-intensive sectors, as well as the increase in the price of CO_2 emission rights, which hit a high in Europe of €88.87/TCO2 in December 2021.

All this has highlighted the importance of clearly defining what sectors include a material transition risk and to what extent this could affect BBVA.

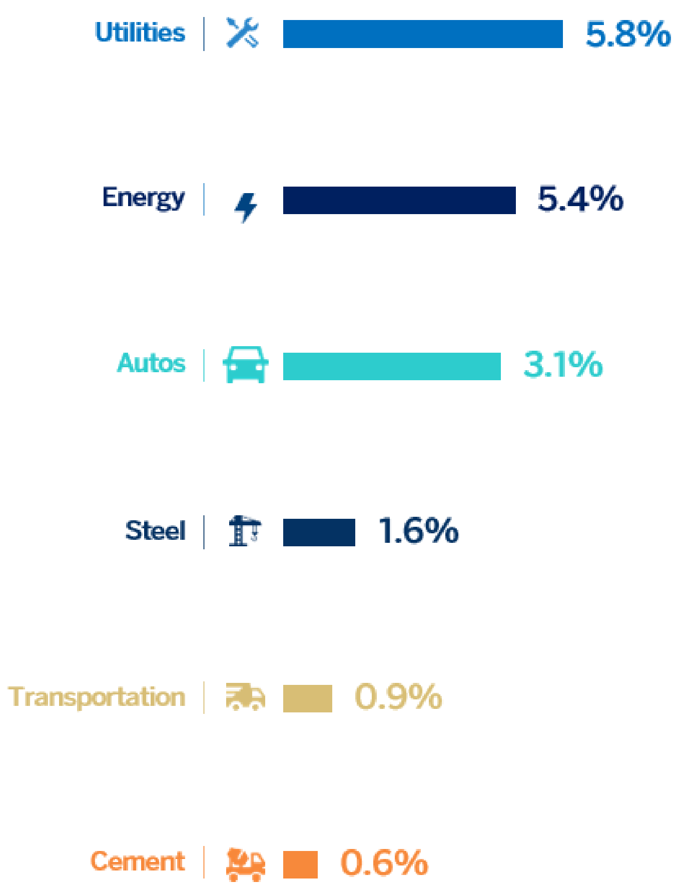
BBVA, within the scope of preparing and defining its industry frameworks governing the credit admission process, has developed an internal Taxonomy of transition risk in order to classify industries according to their sensitivity to transition risk. In addition, metrics are identified at the client level to assess their vulnerability and to integrate this aspect into risk and customer support decisions.

The estimation of the transition risk-sensitivity level is based on the qualitative analysis of the amount of exposure to regulatory, technological and market changes caused by decarbonization that may have a financial impact on the companies of the industry and on the estimation of the time horizon impact of these effects.

Thus, industries are categorized according to their level of sensitivity to transition risk: very high, high, moderate or low. The industries identified as most sensitive to transition risk are energy or fossil fuel generation sectors (energy, utilities, coal mining); emission-intensive basic industries (steel, cement); and activities that are final users of energy through their products or services (vehicles manufacturers, air and sea transportation).

As a result of this exercise, with data at 31 December 2021, 17.4% of the exposure measured by EAD of the wholesale portfolio (equivalent to 9.0% of the Group's portfolio) has been identified as corresponding to sectors defined as "high transition risk", with a high or very high level of exposure to this risk. This calculation was made on a portfolio of €190,880m (of the Group's total EAD of €368,819m), corresponding to the EAD of the wholesale lending portfolio.

The percentage of exposure measured by EAD of the sectors sensitive to the transition risk of the wholesale portfolio over the EAD of the wholesale portfolio at December 31, 2021 are as follows:



Internal development. It includes the percentage of exposure (exposure at default) of activities internally defined as "transition risk sensitive" over the EAD of the wholesale portfolio at December 31, 2020 (does not include subsidiaries of Garanti, Forum Chile, Uruguay, Venezuela and BPI). The "transition risk sensitive" portfolio includes activities that generate energy or fossil fuels (energy, utilities - excluding renewable generation and water and waste treatment -, coal mining), basic industries with emission-intensive processes (steel, cement) and final activities users of the energy through their products or services (vehicles manufacturers, air and sea transportation), with an intermediate, high or very high level of sensitivity to this risk.

Work is also being done to extend this calculation to the SME and self-employed sector. The preliminary results obtained with data as of June 2021 indicate that the EAD associated with high or very high transition risk in this portfolio is limited, at around 3%, and focused mainly in Spain and in the automotive (components) sector.

In addition, climate and environmental risk impact has been incorporated into country risk analysis since 2019, as an additional input for establishing risk policies affecting exposures to private or sovereign administrations of all the countries with which the Bank has some type of risk (100+ countries).

To this end, a Climate Vulnerability Index (hereinafter, the CVI) has been created for more than 190 countries, which captures the physical risk and, to a lesser extent, the transition risk of each country, based on international indicators (e.g., Global Adaptation Index of the University of Notre Dame, ND-GAIN, and the Energy Transition Index, ETI, produced by the World Economic Forum). Subsidiarily, vulnerability indices issued by other international organizations and by the three rating agencies are also taken into account.

The methodology establishes 5 climate vulnerability levels, which are a comparative classification, as all countries have a certain level of vulnerability given the global nature of this phenomenon. The CVI has been integrated into risk management by including a specific section in country risk reports, so it is a factor that is taken into account when establishing risk limits (particularly in the most vulnerable countries). It is also taken into account in setting country ratings and outlooks.

In 2020 a methodology was also launched to determine climate vulnerability at the sub-national level (regions, provinces, cities). To this end, indicators developed by internationally renowned institutions such as the Andean Development Corporation (CAF), the EU or BBVA Research. Work has also been done to incorporate transition risk to a greater extent in the CVI.

Analysis of scenarios and stress testing

Scenarios and internal stress tests

Scenario analysis is one of the main tools for integrating climate change into risk management, as it allows a valuation of the vulnerabilities with a prospective vision, thus allowing early adoption of mitigating measures which prevent the materialization of severe shocks. Scenario analysis also enables the assessment of the risk factors' impact on the metrics defined in the Risk Appetite Framework.

In 2021 the climate scenarios have been integrated into the governance of BBVA Group's internal scenarios, with initiatives being developed in three areas:

1. Reflection on the climate has been present in preparing the baseline budget scenario for 2021.
2. The climate driver has been integrated into the high-level risk scenarios (HLRS) which are monitored and assessed continuously in the Group by the Scenario Working Group. They serve as a basis for choosing the scenario which is used in the Group's internal capital adequacy process (ICAAP).
3. An internal pilot project has been carried out to assess the short-term (4 years) and long-term (20 years) impact on credit risk of two climate stress scenarios. A start has been made in Spain, the most important geography for the Group, and for transition risk, because of its greatest relevance, severity and plausibility in the short term, rather than physical risk, which has longer-term material and persistent impacts.

To do so, and in line with supervisory expectations, three alternative transition risk scenarios have been selected based on a set of representative scenarios defined by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS):

- Current Policies Hot House in which only the climate policies currently implemented are continued and therefore there is no transition risk, but with a high exposure to physical risks given the increase in global warming. This is considered the baseline scenario.
- Orderly transition with Carbon Dioxide Removal (CDR), managing to limit temperature growth to 1.5ºC.
- Disorderly transition with limited CDR, managing to limit temperature growth to 1.5ºC.

The two transition scenarios are relevant for the purposes of a bank stress test. The disorderly scenario of 1.5°C is not only consistent with the Paris Agreement target, but requires the highest carbon prices of all the set of NGFS scenarios; it is therefore the most intense transition scenario and the highest risks, which makes it an obvious candidate for a stress test. Moreover, the orderly 1.5°C scenario presents a trajectory in which the adjustments for transition are progressive and gradual, as well as ambitious, although they also represent vulnerabilities.

The pilot internal stress test has been structured on the basis of these latest scenarios. This pilot project has been undertaken with a sector-based approach, adapting existing models, and transferring to the main macro variables the impact of temperature growth.

This analysis concludes that in the short term, the most affected portfolios will be SMEs and Mortgages. In SMEs the most emission-intensive sectors have a high impact at expected loss level, although in staging the impact it is very low as a result of the good quality of the current portfolio. In terms of the impact by sectors of Transition Vulnerability Factors (TVFs), which are risk factors specific to the industry which capture the dependence of an industry to CO_2 emissions in relation to the economy as a whole, in the short term both in the orderly and disorderly transition scenarios the greatest impact is observed in the same emission-intensive sectors.

In the long term, the impact of TVFs does not alter the order of the top 3 obtained in the short term.

Regulatory and supervisory scenarios and stress tests

In October 2021, the ECB published the methodology for the stress tests on climate change risk programmed for 2022 in the months March to July. This test represents major challenges from the perspective of data and methodologies. In 2021 work has been done on a preparatory phase for providing a response to it.

Identification, Measurement and Integration of climate change into risk management

Once climate risk is incorporated into the Risk Appetite Framework and the business strategy, it also must be included in the day-to-day risk management, which is a part of the risk decision making that supports the Group’s clients.

For that purpose, the identification and measurement of this risk type for subsequent integration into the existing management frameworks and processes is required, including the adaptation of policies, procedures, tools, parameterization, risk limits and risk controls in a consistent manner. In a first phase, adaptation is focused on the integration of this risk in the industry frameworks (a basic tool in the definition of our risk appetite in wholesale loan portfolios), and in the Mortgage and Auto Operating Frameworks in retail credit. Currently, BBVA is developing the methodologies and tools it needs to identify and measure the different components of climate risk, and the financial impact analysis of each of them for subsequent integration into the management.

Loan portfolio alignment with Paris Agreement

The role of the bank is key as the financier of all the productive sectors. The influence which may be exercised by this finance on its customers' behavior and in their environmental performance, is critical for achieving the targets of the Paris Agreement.

Within the framework of this focus of climate action, in April 2021 BBVA announced the Net Zero 2050 commitment (net zero emissions by 2050), including the emissions of customers who receive finance from the Bank. BBVA wants to support its customers in their transition towards a more sustainable, with plans and specific targets. It has undertaken to publish alignment targets for the sectors defined in the Guide to set the Net Zero Banking Alliance objectives.

BBVA has pledged to reduce its exposure to carbon-related activities to zero, and stopping the finance of companies in these activities by 2030 in developed countries and by 2040 in the rest of the countries where it operates.

BBVA, together with four banks which have signed the Katowice commitment, and with the support of the think tank 2 Degree Investing Initiative (2DII), has adapted the methodology called PACTA (Paris Agreement Capital Transition Assessment) to the banking sector. The concept of alignment seeks the transformation of activities considered particularly CO2 intensive, and as a result contrary to compliance with the Paris Agreements. This alignment creates an incentive for companies to shift their productive model to greener activities.

The commitment to alignment acquired by BBVA implies establishing a framework which is composed of objectives and commitments for the different sectors committed within the methodology chosen over the next 20 years. In 2021, BBVA published intermediate decarbonization objectives through 2030 for the electricity generation, automobile, steel and cement sectors which represent, together with coal, 60% of the global CO_2 emissions.

Below are details of the metrics chosen to measure alignment within the framework of the Katowice group for the sectors in which decarbonization targets have been set for 2021. Included are the scope of emissions considered, benchmark scenarios, the metrics of the current situation and the target for decarbonization through 2030.

Table 106. Decarbonization sectors

Sector	Emissions scope	Metric	Benchmark scenario	BBVA baseline (2020)	BBVA 2030 target	Absolute effort	CAGR [1]
Power	1+2	kg CO_2e/MWh	IEA Net Zero 2050	**249**	**120**	(52)%	(7.0)%
Auto	3	g CO_2/km	IEA Net Zero 2050	**220**	**118**	(46)%	(6.0)%
Steel	1+2	kg CO_2/tonne steel	IEA Net Zero 2050	**665**	**515**	(23)%	(2.5)%
Cement	1+2	kg CO_2/tonne cement	IEA Net Zero 2050	**695**	**575**	(17)%	(1.9)%
Coal	NA [1]	Portfolio tred (€Mn)	NA [1]	Phase out plan already announced in March 2021: • 2030 for developed countries • 2040 globally			

[1] Does not apply

[2] Percentages are the Compound Annual Growth Rate between the base year (2020) and 2030

Calculation of financed emissions

BBVA has been working on this carbon footprint measurements for customers or financial assets, so that it attributes to BBVA in its accounting or indirect emissions the equivalent percentage issues of the debt.

To make this measurement, BBVA is implementing the PCAF (Partnership for Carbon Accounting Financials). This project will cover all the portfolios and geographies to obtain a global vision of the emissions financed, identify in what portfolios and sectors these emissions are focused and then define mitigation plans for them, and a cross-cutting vision of the quality of the data we have available to make these calculations.

In an initial estimate of the emissions of the finance to corporate clients and SMEs determined by BBVA SA (made with emission factors based on customer activity), we obtain 80% of the emissions focused on 6 sectors, of which the biggest emitters are: manufacturing, mining and electricity generation.

Measurement and integration of transition risk

The need to decarbonize the economy, as a consequence of climate change, requires a reallocation of resources between more emission intensive activities and those less affected. This dynamic between sectors can be further accelerated in those industries where transition risk brings the time horizon impact closer, or where regulatory measures or technological developments set the implementation schedule.

It is therefore natural to integrate these two factors results in the integration of climate factors into credit risk management processes. through the wholesale credit industry frameworks of those sectors most strongly impacted.

In 2021, sustainability factors have been incorporated as one of the dimensions of the analysis in the Operating Frameworks of all the sectors are included in the taxonomy as "high transition risk". These frameworks analyze, based on long-term scenarios aligned with the targets of the Paris Agreement, the financial impact of decarbonization of risks and opportunities, as well as the time horizon of the changes generated by climate transition. This is done by considering the impact on the sector of factors such as the carbon price, new regulations related to the climate transition, technological investment or transformation (change in the generation mix of energy/utilities, or electrification in the case of vehicles) and the changes in the patterns of consumption of customers or consumers. The industry frameworks take into account the transition strategies developed by the Bank’s main client in each sector.

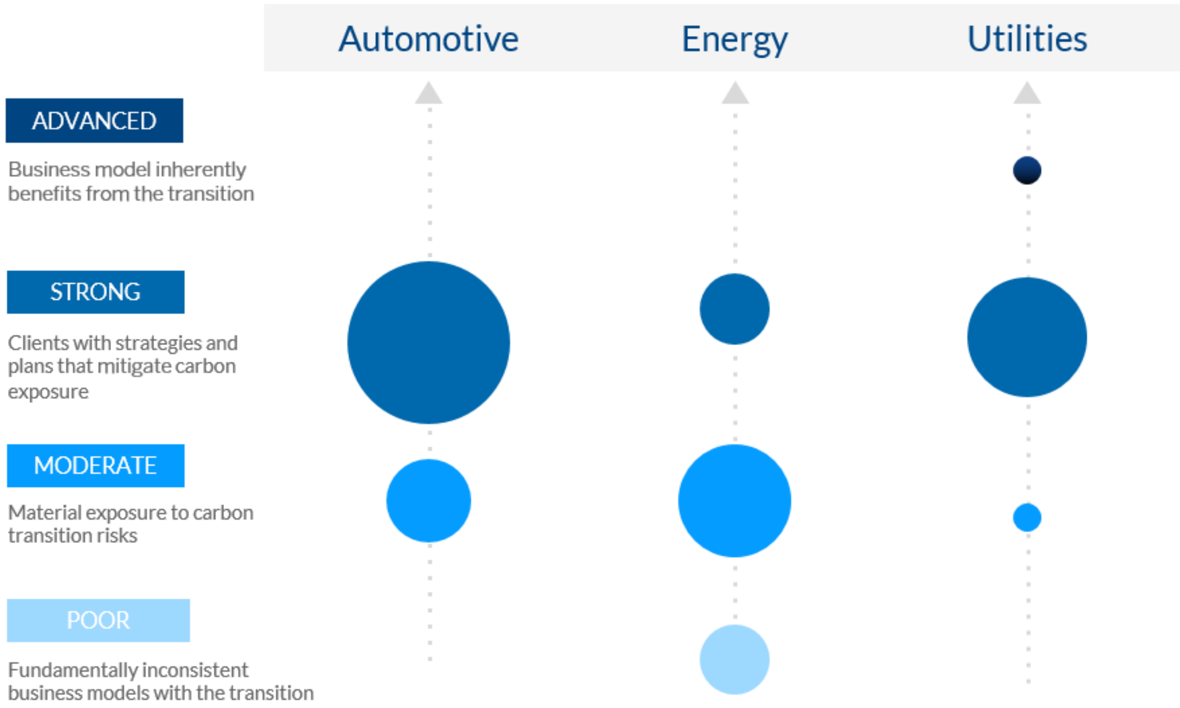
This exercise has allowed climate transition risks and opportunities to be incorporated in the risk portfolio view exercise which is carried out every year, where risk appetite is defined at sector level. Based on the analysis, the vision of risks of some of the sectors and subsectors with greatest exposure to transition risks has been revised.

Together with the integration into the industry frameworks, the systematic integration of sustainability factors into the customer analysis processes for credit origination purposes began in 2021, thus allowing their incorporation in decision making. BBVA has aligned the loan policies to origination and monitoring guidelines issued by the European Banking Authorities. It assesses customers' ESG and climate risks, with particular attention to the sectors classified as sensitive, called sectors with high transition risk.

This analysis is carried out based on an ESG questionnaire which reveals the climate change strategies, governance strategies and climate change risks and opportunities, decarbonization metrics and targets, and progress made in the management of other material ESG aspects for the customers' sector of activity. This questionnaire allows us to generate a transition scorecard for customers in any sector.

Moreover, for sectors classified as of high transition risk, an advanced scorecard has been developed to incorporate transition risk dimensions in the customer's profile. The scorecard assesses the current low-carbon profile; its transition risk in the geographical areas where it operates (and the measures taken to mitigate its exposure to long-term transition risk); its level of reporting on climate management, and the integration of results into the Paris Agreement commitments. The result of the scorecard is a valuable tool to enhance commitment to customers by identifying their strengths and weaknesses and allows specific products to be defined to help them in the transition to low-carbon business models.

The following chart shows the results of the scorecard of the main customers in BBVA's automobile, oil and gas as well as utilities portfolio.



In 2022, work was done to integrate these tools and measure the transition risk of customers and portfolios (in the rules, policies and procedures for managing habitual risks).

In the retail area the transition risk analysis was focused on the Mortgage, Auto Loan and SME portfolios. In all of them, one of the main aspects that determines the transition risk are carbon emissions associated with each of them. These emissions are associated with the use of fossil fuels or electricity, or dependence on them for the correct operation of the asset or customer. The PCAF financed emissions are thus used as a level to identify the customers or assets most sensitive to changes in regulation, fuel prices or depreciation of certain types of "unsustainable" assets. In turn, to mitigate risk, BBVA also acts as a financing facilitator to address the investments required for climate change mitigation and adaptation to climate change with more sustainable forms of life and products.

In the case of mortgages, significant progress has been made to define the sustainable criteria for classification when a mortgage guarantee is considered sustainable according to its efficiency in the use of energy or water resources. These criteria determine the customer's option to choose a sustainable product which, in general, includes discounts. Thus in 2021 the necessary mechanisms have been implemented to promote the acquisition of sustainable housing, thus increasing BBVA's ratio of sustainable finance. Moreover, it is worth noting that for transition risk and the estimation of emissions, detailed information is needed on the characteristics of mortgage collateral (size, efficiency, location, etc.). In 2021, in geographical areas such as Spain (the most important geography in the portfolio by volume of exposure), these data were captured for the first time with an extensive coverage. In 2022 work will continue to improve the availability of data in the rest of the geographical areas.

In the case of vehicle loans, as well as the type of fuel, mechanisms are being implemented to have information available associated with average emissions of each vehicle based on its make, model and version. As in the case of mortgages, finance with sustainable products is promoted when they comply with sustainability criteria, which define the maximum emissions for each geographic area under the Worldwide Harmonized Light Vehicles Test Procedure (WLTP), a protocol for the approval of vehicles within the European Union).

Classification and measurement of physical risk

Physical risk is associated with the location of customer assets and activity. It may be materialized in credit risk by different channels of transmission, impacting multiple forms such as customer purchasing power, business productivity, market demand and asset value. In 2021, BBVA's learning curve increased exponentially in this field and its level of maturity and knowledge of the different methodologies to evaluate the physical risk made considerable progress. The most relevant initiatives to highlight are the construction of sector vulnerability heat maps, the assessment of sources of climate data and market suppliers and the physical risk exercises carried out with a variety of suppliers to calculate a marker with both end-to-end solutions and with geospatial technology suppliers. This work will continue very active in 2022.

With respect to sector vulnerability, a physical risk vulnerability heat map has been developed for Wholesale and Investment Banking and SMEs, following the best practices identified by the Taskforce on Climate-Related Financial Disclosure (TCFD) and the United Nations Environment Program Finance Initiative (UNEP FI). The heat map is the basis for generating a qualitative classification of the portfolios in accordance with their potential exposure to climate risks. It also allows the identification of sectors whose business model and activity may be impacted by chronic or acute changes in the climate.

The heat map indicates the potential exposure, according to eight vulnerability indicators at the subsector level which allows the identification of vulnerability at the different stages of the value chain:

- Supply chain: dependence on natural resources and sensitivity of the supply chain to climate changes.
- Logistics: dependence on transport routes.
- Own operations: vulnerability of assets and processes, dependence of the labor force and vulnerability of its productivity, dependence on energy supply and impact of physical risks in the social and environmental performance of the asset.
- Sales: sensitivity of sales to physical climate change.

As a result, the sectors identified with the greatest vulnerability to physical risks, have been energy generation, utilities, basic materials, construction, consumption and real estate.

In addition, as part of the work group of UNEP-FI, BBVA carried out an exercise to assess the physical risk score with a sample of the mortgage portfolio, based on the location of the collateral. For this, physical risk was analyzed for a variety of climate dangers estimated for the year 2040 with a scenario of a greenhouse gas concentration of RCP 8.5 (hog house IPCC scenario). The results obtained show that in the case of Spain the most significant dangers are water stress, forest fires and heat stress. These dangers are related to the increase in temperature and reduction in average precipitation. The risks of flooding are limited and focused on the coast and river banks. In the case of Mexico, the most significant risks are the same as for Spain, with the added risk of hurricanes, which are extremely significant in the far east and west of the country. In South America, the risks associated with water, heat and fire stress are relevant, but also worth noting is the greater risk of flooding due to the local geography and changes in expected precipitation patterns.

The progress made in 2021 has allowed a definition of an action plan whose objective is to measure the exposure of wholesale and retail portfolios to the different climate dangers and begin to integrate risks into the risk policies and processes.

Finally, and as mentioned in previous sections, the BBVA Group is committed to sustainable development, being one of the elements that defines BBVA's business model. In this regard, the General Retail Credit Risk Policy establishes that one of the general principles governing retail credit risk management in the BBVA Group is respect for equality and diversity, preventing access to financial products there is unfair bias for reasons such as gender, color, ethnicity, disability, religion, sexual orientation, or political opinion.

Additionally, the Model's General Risk Management Policy establishes that in order to avoid unfair biases in access to financial products for reasons such as gender, color, ethnic origin, disability, religion, sexual orientation or political opinion; none of these variables will be included in the admission and pricing models.

8.6. Management of direct and indirect impacts

As a financial institution, BBVA has an impact on the environment and society directly through the consumption of natural resources and its relationship with stakeholders; and indirectly, and most importantly, through its lending activity and the projects it finances.

Management of direct environmental impacts

BBVA has a clear commitment to both society and the environment. The global strategy of the reduction of direct impacts is organized around four core elements: reduction in consumption through the energy efficiency initiatives; use of renewable energy; awareness and involvement of employees and other stakeholders in the path toward a low-carbon economy; and offsetting its carbon footprint through the purchase of credits of projects of the Voluntary Carbon Market to comply with the commitment acquired in 2020 to be a carbon-neutral company.

This commitment embodies in BBVA's climate change strategy (the Pledge 2025), whose objectives are, first, a reduction of 68% of Scope 1 and 2 CO_2 emissions with respect to 2015, and a consumption of 70% of renewable energy by 2025, and 100% by 2030. In line with the latter objective, BBVA has since 2018 adhered to the RE100 initiative, through which the most influential companies in the world have agreed that their energy would be 100% renewable by 2050.

New Global Eco-Efficiency Plan

BBVA has also established other ambitious objectives in its climate strategy. They are included in the Global Eco-Efficiency Plan, in force from 2008, and which was renewed in 2021 for the period 2021-2025[11].

The New Global Eco-Efficiency Plan sets direct targets for year-on-year impact reduction and the achievement of the Pledge 2025:

Table 107. Global Ecoefficiency Plan Goals 2021-2025

Vector	Indicators	Global target(1)	Pledge target(2)
Consumptions	Renewable electricity (%)	77 %	70 %
	Electricity consumption per employee (MWh/FTE)	(10)%	
	Energy consumption per employee (MWh/FTE)	(7)%	
	Water consumption per employee (m^3/FTE)	(11)%	
	Paper consumption per employee (kg/FTE)	(11)%	
Circular economy	Net waste per employee (t/FTE)	(4)%	
Carbon footprint	Scope 1&2 carbon emissions (tCO_2e)	(67)%	(68)%
Sustainable building	Environmentally certified area (%)	45 %	

(1) Base year 2019.

(2) Base year 2015.

This plan is based on four lines of action:

1. Consumption

   With the aim of reducing BBVA's environmental footprint, the following lines of actions will be implemented:

   – Electricity consumption: BBVA's strategy is focused on the use of renewable energy, given that the most important level for contributing to the decarbonization of energy markets where the Group operates. The goal is to increase steadily its weight to comply with the Pledge 2025. The strategy for this consists of reaching Power Purchase Agreements (PPAs), such as those already in place in Mexico, Spain and Argentina, as well as the acquisition of renewable energy certificates and Guarantees of Origin in Spain and Portugal, or international Renewable Energy Certificates (iRECs) in Mexico, Colombia, Peru and Turkey. There will also be a commitment to self-generation of renewable energy by the installation of solar photovoltaic and solar thermal panels in the Group's facilities, as is already happening in a number of subsidiaries in Turkey, Uruguay and Spain.

   – Implementation of energy saving measures (ESMs) for the operation of buildings, to control and reduce consumption.

   – Initiatives for the reduction of water consumption, such as gray water recycling systems and rainwater recirculation for irrigation in the headquarters of Spain and Mexico, and the installation of waterless urinals in some of the buildings in Spain.

   – Finally, there are measures for the digitalization and centralization of printing to reduce the consumption of paper, 76% of which is also recycled or environmentally certified in most of the geographies.

11 To establish the PGE 2021-2025 targets the base year 2019 has been used, as consumption in 2020 was skewed by the effect of the pandemic.

2. The circular economy

   Waste generation is becoming a serious problem at global level, so part of BBVA's contribution to sustainable development must consist in transitioning linear consumption practices to circular consumption. BBVA has been working for many years to reduce this impact through sustainable construction standards and the implementation of environmental management systems certified with ISO 14001. The aim is to reduce to a minimum the waste which is sent to landfills, so our facilities have clearly differentiated and clearly marked zones which allow us to carry out a correct segregation and recycling of waste. Moreover, under our action plan all these sustainable practices comply with zero waste management standards in some of the Group's geographic areas such as Turkey and Spain. Moreover, in Argentina the BBVA headquarters in Buenos Aires received the Green Seal of the city's government in 2021, certifying its responsible waste management.

3. Carbon footprint

   The reduction of the carbon footprint is one of the goals established within the Pledge 2025. BBVA's total emissions are composed of:

   – Scope 1 greenhouse gas emissions, which include direct emissions from combustion facilities for own use, combustion of the fleet of vehicles and refrigerant gasses.
   – Scope 2 greenhouse gas emissions, including indirect emissions related to electricity production, purchased and consumed by buildings and branches.
   – Scope 3 greenhouse gas emissions, which include other indirect emissions. This scope for BBVA includes the emissions from business trips (plane or train), emissions by waste management and emissions due to the trips made by our employees to their place of work.

   Both Scope 1 and 2 emissions and Scope 3 emissions are calculated according to the GHG Protocol standard established by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

   Since 2020, BBVA has been a Carbon Neutral company by offsetting its residual emissions through the purchase of credits on the Voluntary Carbon Market. Moreover, in line with the recommendations of the Taskforce on Scaling Voluntary Carbon Markets, BBVA has established requirements for the selection of projects with which to offset its residual emissions. Among these requirements are the obligation for projects to be certified under the maximum quality standards such as the Verra Verified Carbon Standard (VCS) and the Gold Standard; and that preferably they should be projects for the absorption or capture of CO_2.

4. Sustainable construction

   Another of the objectives is to guarantee the implementation of the best environmental and energy standards in BBVA buildings to achieve a large percentage of environmentally certified area. In fact, the BBVA facilities hold a number of construction and management certification.

   Among the construction certifications, there are 16 buildings and 1 Group branch with the prestigious LEED (Leadership in Energy and Environmental Design) for sustainable construction. These buildings include the Group's headquarters in Spain, Mexico, Argentina and Turkey. Three of them have also received the highest certification, the LEED Platinum.

   With respect to management certifications, BBVA has implemented an Environmental Management System in many of its buildings, based on the ISO 14.001:2015 Standard, which is certified every year by an independent entity. This certification is used to control and evaluate environmental performance in the operations of some of its buildings. This system is implemented in 86 buildings and 1,034 branches in the main countries where the Group operates. Moreover, the headquarters in Turkey also has the WWF Green Office certification, which promotes the reduction in the carbon footprint and carbon emissions; and the Ciudad BBVA, the Bank's headquarters in Spain, has obtained the AENOR "toward zero waste" seal as a prior stage to obtaining the "zero waste" certification of a standard which promotes the circular economy. Finally, three of our buildings in Spain also have an Energy Management System that has been certified by an independent third party and complies with the ISO 50.001:2018 standard.

Table 108. Main indicators of the global ecoefficiency plan[1]

	2021				2020
	2021 Goal (%)	**Reference value**	**Δ 21-19**	**Δ 21-20**	**Reference value**
Renewable electricity (%)	73 %	79 %			71 %
Electricity consumption per employee (MWh/FTE)	(5)%	5.76	(14)%	(4.4)%	6.02
Energy consumption per employee (MWh/FTE)	(4)%	6.46	(14)%	(3)%	6.65
Water consumption per employee (m^3/FTE)	(1)%	17.9	(5)%	— %	17.98
Paper consumption per employee (kg/FTE)	(8)%	33.8	(32)%	4 %	32.65
Net waste per employee (t/FTE) [2]	(2)%	0.02	(52)%	(10)%	0.02
Scope 1&2 carbon emissions (tCO_2e) [3]	(59)%	91,994.55	(54)%	14 %	80,390.37
Environmentally certified area (%) [4]	41 %	39 %			41 %

Note: These indicators are calculated on the basis of full time employees. The base year for the new Global Ecoefficiency Plan will be 2019 since 2020 has been a year that, due to the circumstances of the pandemic, could distort the evolution.

[1] The data shown here includes the countries Argentina, Colombia, Spain and Portugal, Mexico, Peru, Turkey and Uruguay. Some of the data for 2021 are estimates, as complete information for the year was not yet available at the close of the report.

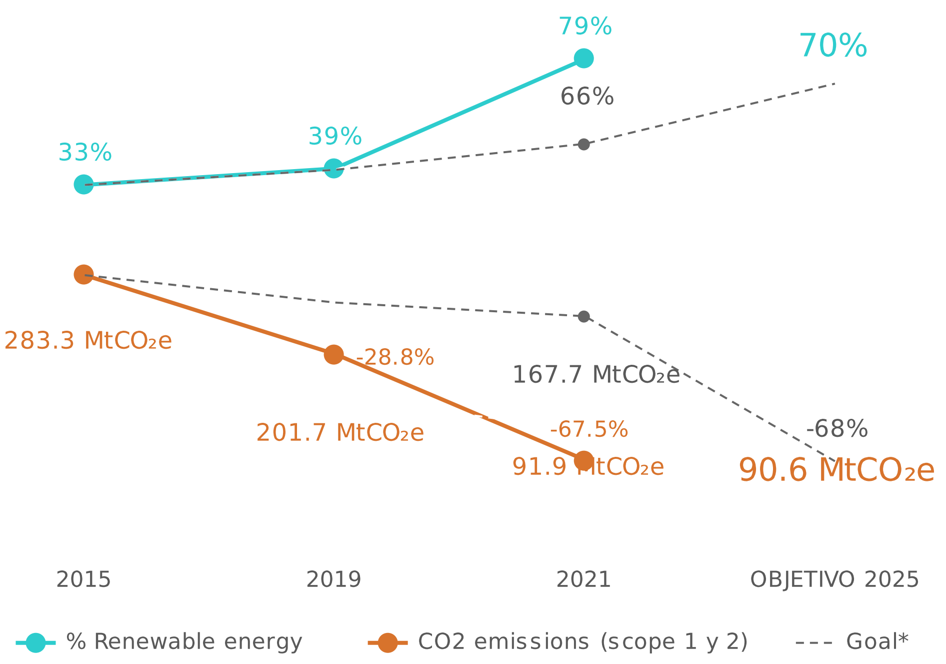
[2] Net waste is the total waste generated minus the waste that is recycled.

[3] Includes scope 1 (fuels in installations and vehicle fleet and refrigerant gases), scope 2 market-based.

[4] Includes ISO 14001, ISO 50001, LEED, Edge and WWF Green Office certifications.

Environmental performance in 2021

Chart 21. Environmental performance in 2021



*CO2 Emissions Goal (scope 1&2) in $MtCO_{2e}$

The Group's environmental footprint shows very positive data compared to the baseline year 2019[12], with reductions of 54% in Scope 1 and 2 emissions (according to the market-based method), 14% in electricity consumption, 5% in water consumption and 32% in paper (all per person). The percentage of renewable energy consumption has reached 79%, and the environmentally certified area was 39%.

[12] The base year of 2019 has been used because consumption in 2020 was skewed by the effect of the pandemic.

Table 109. Environmental footprint (BBVA Group) [1]

	2021	2020 [7]
Consumption		
Total water comsuption (cubic meters)	1,925,850	1,924,660
Public water supply (cubic meters)	1,873,473	1,924,660
Recycled water (cubic meters)	52,377	*nd*
Paper (tons)	3,636	3,521
Energy (Megawatt hour) [2]	695,140	717,011
Energy from renewable sources (Megawatt hour)	491,542	*462,280*
Energy from non renewable sources (Megawatt hour)	203,598	*254,731*
CO_2 emissions		
Scope 1 emissions (tons CO_2e)[3]	49,639	12,235
Emissions from fuels in facilities (t CO_2e)	13,669	12,235
Emissions from vehicle fleet fuels (t CO_2e)	8,509	*nd*
Emissions from refrigerant gases (t CO_2e)	27,461	*nd*
Scope 2 emissions (tons CO_2e) market-based method [4]	42,355	*68,155*
Scope 2 emissions (tons CO_2e) location-based method [5]	202,492	243,033
Scope 1&2 emissions (tons CO_2e) market-based method	**91,995**	**80,390**
Scope 1&2 emissions (tons CO_2e) location-based method	**252,131**	**255,268**
Scope 3 emissions (t CO_2e) [6]	9,432	5,843
Emissions from waste management (t CO_2e)	1,034	nd
Emissions from business travel (t CO_2e)	3,073	5,843
Emissions from employees commuting (t CO_2e)	5,325	0
Total CO_2e emissions (t CO_2e) market-based method	**101,426**	**86,233**
Total CO_2e emissions (t CO_2e) location-based method	**261,563**	**261,111**
Social cost of carbon (Scope 1&2) (€) [8]	4,121,480	nd
Waste		
Hazardous waste (tons)	120	31
Recycled hazardous waste (tons)	59	nd
Disposed hazardous waste (tons)	61	nd
Non-hazardous waste (tons)	4,198	3,250
Recycled non-hazardous waste (tons)	2,343	nd
Disposed non-hazardous waste (tons)	1,855	nd
Single-use plastics [9]	27	nd
Donated IT equipment (units)	1,165	347,382

(1) The data shown here include Argentina, Colombia, Spain and Portugal, Mexico, Peru, Turkey and Uruguay. Some of the data for 2021 are estimates, as complete information for the year was not yet available at the close of the report.

(2) Includes consumption of electricity and fossil fuels (diesel, natural gas and LP gas), except fuels consumed in vehicle fleets.

(3) Emissions from direct energy consumption (fossil fuels) and calculated based on the emission factors of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. The IPCC Fifth Assessment Report and the IEA have been used as sources for conversion to CO2e. From 2021 onwards, emissions derived from the use of the vehicle fleet and refrigerant gas leaks at our facilities have been included in this scope.

(4) Emissions from electricity consumption and calculated based on contractual data and, failing that, on the latest available IEA emission factors for each country.

(5) Emissions from electricity consumption and calculated based on the energy mix of each geography. Emission factors are the latest available according to IEA for each country.

(6) From 2021 onwards, in addition to emissions from business travel by air, emissions from business travel by train, emissions from waste management and emissions from employee commuting have been included in this scope, using emission factors published by DEFRA in 2021. For our employees' commuting emissions, a survey has been sent to BBVA employees although only those from Central Services in Argentina, Colombia, Spain, Mexico, Peru, Portual and Uruguay have been taken into account so that the data compares with those published in 2019.

(7) 2020 data differ from those published in the previous annual report due to the exit of the USA from the perimeter.

(8) The impact of greenhouse gas emissions for 2021 is calculated only with Scope 1 and 2 emissions and using the CO_2 social cost factor according to a proportional estimate of the EPA's social cost of carbon for 2020 ($51/t$CO_2$) and 2025 ($56/tCO_2), (discount rate of 3%, with exchange rate 1.183 €/USD).

(9) Masks purchased for our employees in Argentina, Colombia, Spain, Mexico and Peru have been taken into account, although these quantities do not form part of the data on non-hazardous waste disposed of as they have not always been deposited in our containers for disposal. Also the data provided on single-use plastics from catering suppliers in Spain and Mexico.

Given the business activities in which the BBVA Group engages, the Group has no environmental liabilities, expenses, assets, provisions or contingencies that are significant in relation to its equity, financial position and earnings. As such, as of December 31, 2021, the accompanying consolidated Annual Accounts do not include any item that warrants inclusion in the environmental information document provided for in Order JUS/318/2018, of March 21, approving a new template for filing the consolidated annual accounts at the Companies Register for those entities obligated to disclose such information.

Management of indirect environmental and social impacts

BBVA addresses environmental and social risks from the perspective of impact prevention and mitigation. To do this, it uses tools such as the Environmental and Social

Framework or the Equator Principles that have an environmental and social focus, and which are described below. Managing the impacts that customers generate on the environment is part of the Pledge 2025. To manage them, BBVA has implemented a number of initiatives and tools.

Environmental and social framework

In 2020, the Environmental and Social Framework for the due diligence in the field of mining, agribusiness, energy, infrastructure and defense was approved (Framework), which revised and integrated the previous Sector Norms (approved in 2018) and the Rules of Conduct in Defense (in force since 2012).

In line with the previous regulation, this Framework provides a decision-making guideline with regard to transactions and customers that operate in these five sectors (mining, agribusiness, energy, infrastructure and defense); as they are considered to have a bigger social and environmental impact. The Framework is public and available on the BBVA shareholders and investors website.

To guarantee its effective implementation, BBVA receives advice from an independent external expert, with whose collaboration it carries out an enhanced due diligence on its customers and transactions, in order to mitigate the risks associated with these sectors and contribute to the compliance with the General Sustainability and Social Corporate Responsibility Policies.

For the Framework review, new market trends in this area, the expectations of stakeholders and the strengthening of the implementation procedures are taken into account.

The following were the highlights of the December 2020 review:

- restriction to the applying of exceptions in the field of mining and energy for countries with high energy dependence only to projects under construction and existing customers;
- the reduction from 35% to 25% of the threshold applied to the exclusion of customers with high coal exposure, which applies both to the extractive activity and the energy generation;
- extension of the prohibition related to bituminous sands;
- the incorporation of new prohibited activities such as deep-sea mining, artic oil and gas transportation, as well as large dams that are not built under the World Commission on Dams (WDC) framework.

In the March 2021 review, BBVA highlighted the commitment to remove customer exposure to carbon by 2030 for developed countries and 2040 globally, by dialog with customers and active monitoring with their portfolios.

Equator Principles

Energy, transport and social service infrastructures, which drive economic development and create jobs, can have an impact on the environment and society. BBVA's commitment is to manage the financing of these projects to reduce and avoid negative impacts and in this way enhance their economic, social and environmental value.

All decisions to finance projects are based on the criterion of principle-based profitability. This implies meeting stakeholder expectations and the social demand for adaptation to climate change and respect for human rights.

In line with this commitment, since 2004 BBVA has adhered to the Equator Principles (EP), which include a series of standards for managing environmental and social risk in project financing. The EPs were developed on the basis of the International Finance Corporation's (IFC) Policy and Performance Standards on Social and Environmental Sustainability and the World Bank's General Guidelines on Environment, Health and Safety. These principles have set the benchmark for responsible finance.

The analysis of the projects consists of subjecting each operation to an environmental and social due diligence process, including potential impacts on human rights. The first step is the allocation of a category (A, B or C), which reflects the project's level of risk. Category A: projects with potentially significant adverse social or environmental impacts that are irreversible or unprecedented. Category B: Projects with potentially limited adverse social and environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures. Category C: Projects with minimal or no social or environmental impacts. Reviewing the documentation provided by the customer and independent advisers is a way to assess compliance with the requirements established in the EPs, according to the project category. Financing agreements include the customer's environmental and social obligations. The application of the EPs at BBVA is integrated into the internal processes for structuring, acceptance and monitoring of operations, and is subject to regular checks by the Internal Audit area.

BBVA has reinforced due diligence procedures associated with the financing of projects whose development affects indigenous peoples. When this circumstance occurs, the prior free and informed consent is required from these communities, irrespective of the geographic location of the project, including for projects in countries where a robust legislative system is presupposed, which guarantees the protection of the environment and the social rights of its inhabitants. When identifying potential risks, the operation must include an effective form of management of these risks, as well as operational mechanisms to support claims management.

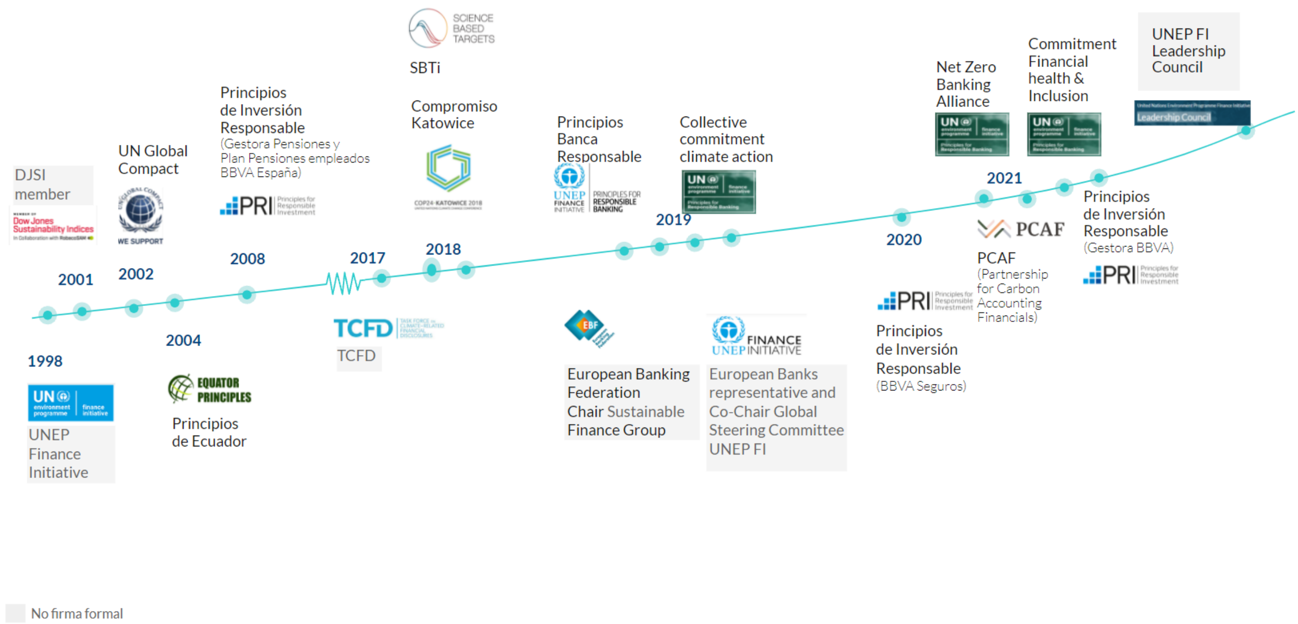
In 2020 the fourth version of the Principles has come into force. This update, after an extensive public consultation period, incorporates new and more demanding requirements in the review of projects in relation to human rights and climate change. BBVA has actively participated in the updating process and its contribution in recent years has been recognized with a new mandate in the Management Committee of the Association of the Equator Principles.

Table 110. Operational data analyzed according to the Equator Principles criteria

Category A			Category B			Category C		
	2021	2020		2021	2020		2021	2020
Number of transactions	2	1	Number of transactions	23	21	Number of transactions	17	8
Total amount (millions of euros)	2227.6	869.6	Total amount (millions of euros)	10954.5	8220.4	Total amount (millions of euros)	5466.1	2971.4
Amount financed by BBVA (millions of euros)	109.4	39.4	Amount financed by BBVA (millions of euros)	1714.1	824.1	Amount financed by BBVA (millions of euros)	756.3	441.0

Note: of the 42 transactions analyzed, 20 fail under the Equator Principles, and the remaining 22 were analyzed voluntarily by BBVA using the same criteria in 2021 (30, 9 and 21 respectively, in 2020).

8.7. Participation in international initiatives



For over 20 years, BBVA has participated actively in various supranational initiatives. As well as repeating our commitment to the UN Global Compact once more this year, as part of the Pledge 2025, BBVA actively participates in numerous initiatives, always in close collaboration with all its stakeholders (such as the industry itself, regulators and supervisors, investors and organizations from civil society).

Universal reference frameworks

BBVA was one of 28 founding banks in the Principles for Responsible Banking promoted by the United Nations Environment Program Finance Initiative (UNEP FI), This initiative is a benchmark for corporate responsibility in the banking sector, which aims to respond to the growing demand from different stakeholders for a comprehensive framework that covers all aspects of sustainable banking through six core areas. Currently, more than 250 entities worldwide, approximately 40% by asset volume of the banking system, have already signed these Principles. BBVA believes that these Principles will help reaffirm its purpose, enhance its contribution to both the United Nations SDGs and the commitments derived from the Paris Climate Agreements, and align its business strategy with said commitments.

In 2020 and 2021, BBVA has reported its progress and achievements in each of the 2021 six principles to UNEP FI, in the first and second year they have been implemented. For more information on the progress and developments reported, see the chapter named "UNEP FI Principles for Responsible Banking Reporting Index" in the Group's Consolidated Management Report..

Within the framework of these Principles, in 2021 BBVA was one of the founding banks of the Collective Commitment to Financial Health and Inclusion promoted by UNEP FI with the aim of promoting universal financial inclusion and a banking sector which supports the financial health of all its customers.

BBVA also participates in global initiatives such as the United Nations Global Compact, Principles for Responsible Investment, and the Thun Group, which describes how the United Nations Guiding Principles on Business and Human Rights (UNGPs) should be applied in the banking sector.

Transparency

In September 2017, BBVA committed to the TCFD recommendations of the FSB and has been reporting on its objectives, plans and performance in line with its utmost commitment to transparency. Also, in accordance with these recommendations, in 2020 BBVA published disclosures following the two most advanced standards in the market:

- WEF-IBC core metrics: BBVA has been one of the first entities in the world to support the Measuring Stakeholder Capitalism initiative of the International Business Council (IBC) of the World Economic Forum (WEF), assuming the commitment to report according to its metrics and disclosures which were published in September, 2020.
- Sustainability Accounting Standards Board (SASB) - Commercial Bank standards: The SASB sets the standards to guide companies in

the disclosure of financially relevant information and consistent in terms of sustainability, which are followed by an increasing number of relevant institutional investors at a global level.

In the Group’s Consolidated Management Report, BBVA has taken a further step forward in transparency and includes not only the above standards, but the following disclosures:

- Expanded WEF-IBC metrics
- Sustainability Accounting Standards Board (SASB) - Mortgage Finance and Consumer Finance

Compliance with these international standards is included in the chapter "Alignment of BBVA Group's non-financial information with the WEF-IBC and SASB standards" in the Group’s Consolidated Management Report.

8.8. Sustainability index

BBVA participates annually in the main sustainability analyses conducted by rating agencies in this area. Based on the evaluations obtained through these analyses, companies are chosen to be part of the sustainability indices.

In 2021, BBVA has obtained the highest score (89 points) among world banks[13] in the Dow Jones Sustainability Index (DJSI), which measures the performance of the largest companies by market capitalization in economic, environmental and social matters. The Group has achieved the highest score (100 points) in the sections on financial inclusion, environmental and social information, development of human capital, materiality and tax strategy.

BBVA has been included for the fourth consecutive year in the Bloomberg Gender Equality Index, which represents recognition of its commitment to create trusting work environments, where all employees' professional development and equal opportunities are guaranteed, regardless of their gender. BBVA is a member of the following sustainability indices[14]:

Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA	MSCI	FTSE4Good
1st World Bank (1)	Member of MSCI ESG Leaders Indexes. (Rating AAA)	Member of FTSE4Good Index Series (Score 4/5)

Euronext V.E	Ethibel	Bloomberg Gender-Equality Index 2021	CDP
Member of Euronext Vigeo Eurozone 120	Member of Ethibel Sustainability Excellence Europe y Ethibel Sustainability Excellence Global	Member of Bloomberg Gender-Equality (Score 77,29/100)	Score B

(1) Shared ranking position

In addition, in 2020 the Bank joined the Nasdaq Sustainable Bond Network (NSBN). It is the only Spanish entity on this platform, which brings together the world's various issuers of sustainable debt and provides a clear reference framework for socially responsible investment.

[13] Shared ranking position

[14] The inclusion of BBVA in any MSCI indices and the use of the logos, trademarks, service marks or index names does not constitute the sponsorship or promotion of BBVA by MSCI or any of its subsidiaries. The MSCI indices are the exclusive property of MSCI. MSCI and the MSCI indices and logos are trademarks or service marks of MSCI or its subsidiaries.