4.5 Secondary segments

RETAIL BANKING

Underlying attributable profit

EUR 7,436 mn

EXECUTIVE SUMMARY

Strategy	Business performance[1]	Results
We continued improving **digitization and simplification** of our **products and services** through our **ONE Transformation** programme	**Lending remained stable during the year,** with growth in South America and North America offsetting the decline in Europe. **Deposits grew driven by term deposits**	**Underlying attributable profit of EUR 7,436 million,** down 6% in euros (-7% in constant euros) due to **higher provisions**, partly offset by the good revenue performance

1. In constant euros.

Strategy

In recent years, one of the Group's main priorities has been to intensify our transformation strategy, focusing on the simplification and the digitalization of products, services and processes.

As part of this strategy, in 2022 we launched ONE Transformation, the programme that aims to accelerate structural changes in our model, in three countries (Spain, Mexico and the US) to simplify, automate and improve our retail service. During 2023, we made great progress:

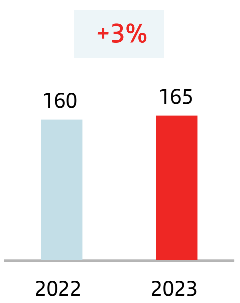
- In terms of simplification, we reduced the number of products by 16% year-on-year.
- We increased the digitalization and automation of processes, which enabled us to reduce the transactions carried out in branches, focusing more on value-added tasks that require advice and personalized attention.
- We made progress in our digital self-service model, which enabled us, for example, to reduce the use of our contact centres by 16%. In Mexico, we digitalized the entire onboarding process.
- We continued to roll out a common operating model and technology for the segment in all countries.

Additionally, and as a final step in our ONE Santander strategy, in September, we announced the consolidation of commercial banking activities into a new global area, Retail & Commercial Banking, which, as of January 2024, will be reported as a primary segment together with four other global businesses.

We will focus on expanding ONE Transformation to the rest of our banks, which will allow us to continue improving efficiency and quality of our service, as well as increasing our customer base and profitability.

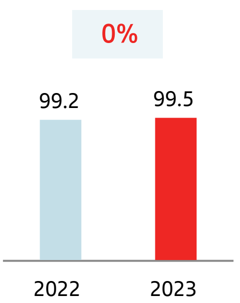
Total customers

Millions



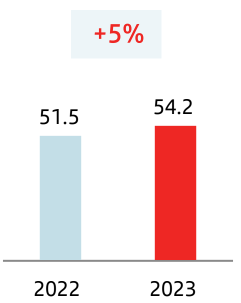
Active customers

Millions



Digital customers

Millions



In addition to the efforts made in terms of transformation, digitalization and process automation, during the year we carried out numerous commercial actions and initiatives such as:

- In the retail segment: in an environment of higher interest rates, we offered savers competitive prices in the UK through an easy-access savings account. In Spain, we increased our market share in payrolls. In Mexico, we increased our market share in credit cards and payroll loans, while consolidating our third position in terms of market share in the auto market. In Argentina, we acquired an unregulated consumer finance company, with more than 30 points of sale in the Buenos Aires metropolitan area. In Uruguay, we strengthened the SOY Santander offer.

- In the SME and Corporate segment: in the US, we remain one of the top 10 Multifamily Real Estate lenders and acquired a 20% stake in a joint venture that will manage the multifamily real estate assets retained by the FDIC following Signature Bank's bankruptcy. In Brazil, we are redesigning our service model for SMEs. In Chile, we expanded our offering of integrated financing, cash management and treasury solutions for companies. In Poland, we were recognized as the Best Bank for SMEs by *Euromoney*.

All this has enabled us to grow the Group's total customer base by 3% to 165 million and digital customers by 5%. We also achieved a top 3 NPS ranking in seven of our countries, a clear recognition of our efforts to improve customer service and attention.

Business performance

Loans and advances to customers increased by 1% compared with 2022. In gross terms, minus reverse repurchase agreements and in constant euros, they remained stable, as growth in North and South America offset lower demand in Europe, affected by the prepayments of mortgages.

Customer deposits rose 4% year-on-year. Minus repurchase agreements and in constant euros, they were up 3%, driven by time deposits (+38%), as demand deposits declined 5% year-on-year.

Results

Attributable profit in 2023 was EUR 7,436 million (62% of the Group's total operating areas), down 6% compared to 2022. In constant euros, it decreased 7%, with the following detail:

- Total income grew 8% driven by higher net interest income (+12%), mainly in Europe and Mexico.

- Administrative expenses and amortizations increased 8%, affected by inflation. Net operating income also grew 8% and efficiency improved to 42.9%.

- Net loan-loss provisions rose 21%, mainly driven by the increase in North America, in line with expectations, and higher provisions in South America.

- The other gains (losses) and provisions line was slightly more negative than in 2022, mainly due to South America and the temporary levy on revenue earned in Spain.

Retail Banking. Underlying income statement

EUR million and % change

			/ 2022	
	2023	2022	%	% excl. FX
Revenue	45,254	42,674	+6	+8
Expenses	(19,396)	(18,552)	+5	+8
Net operating income	**25,858**	**24,123**	**+7**	**+8**
LLPs	(12,295)	(10,212)	+20	+21
PBT	10,872	11,785	(8)	(8)
Attributable profit	**7,436**	**7,933**	**(6)**	**(7)**

Detailed financial information in section 4.6 'Appendix'.

Santander Corporate & Investment Banking

Underlying attributable profit

EUR 3,078 mn

EXECUTIVE SUMMARY

Strategy	Business performance	Results
Become a world-class CIB business **leveraging our strengths**, positioning ourselves as a **strategic advisor to our clients** and delivering profitable **growth**	Activity in 2023 delivered **growth and profitability** in a challenging macroeconomic environment that affected the entire industry. We maintained business levels similar to 2022	**Underlying attributable profit reached EUR 3,078 million** due to an increase in total income. Efficiency remains among the best in the sector

Strategy

At SCIB, we continue advancing in the execution of our strategy to transform the business and position ourselves as our clients' strategic advisor, by offering specialized products and services, focusing on the energy and digital transition.

The goal of this transformation is to continue to grow sustainably and profitably, with the aim of becoming one of the leading investment banks in our areas of expertise.

In the year, we:

- Took the SCIB US franchise to the next level, focusing on accelerating advisory capabilities, maximizing the value of synergies with Santander Capital Markets and selectively expanding our client base and product capabilities, primarily in sectors with the highest growth potential.
- Continued the globalization of the Markets business to increase activity focusing on corporate clients and institutional investors, enhancing our global FX and Over-the-Counter (OTC) derivatives platform in the main commodity markets.
- Accelerated asset rotation to optimize profitability and increase new assets origination capacity.
- Increased collaboration with the Group's other global businesses to capture more business opportunities, leveraging our extensive commercial network.

Some of the key highlights in 2023 include:

- The merger of Amherst Pierpont Securities (APS) and Santander Investment Securities (SIS) to create Santander US Capital Markets (SanCap), a key element in the reorganization and globalization of the Markets business and the growth of the US franchise.
- Continued investment in talent, highlighting the acceleration in building our US advisory capabilities, complementing existing capabilities to carry out new business opportunities.
- Focusing on digital transformation, SCIB formed a partnership with the insurance firm Allianz Trade and the fintech Two (B2B e-commerce payments platform) to offer a new receivables solution that replicates the buy now, pay later (BNPL) model available in the retail segment.
- In ESG, Santander acquired a stake in InnoEnergy's capital acting as a joint advisor in the capital increase, which confirms our commitment to sustainable development objectives and our leadership position in climate tech.

In terms of positioning, we maintained our leadership position in the rankings of different products:

- In Export & Agency Finance, we maintained our global and European leadership, whilst in Structured Finance we reached second position, standing out as leaders in Renewables globally as well as in Europe and Latin America.
- In Debt Capital Markets (DCM), we remained among the top 3 in the bond issuance market in Latin America and continued to be leaders in Spain. In Equity Capital Markets (ECM), we are leaders in Spain and Poland, and in the top 5 in Latin America.
- In M&A, we are leaders in Spain and top 3 in Latin America and Poland.

During 2023, SCIB won several awards in different categories:

2023 Ranking

Award/ranking	Source	Area
Europe Bank of the Year	*Proximo*	Global
Corporate Bond House of the Year / Best Investment Bank in Brazil	*Bonds, Loans LatAm Awards*	Global
Eurobond of the Year	*IFR*	GDF
North America Financial Bond of the Year	*IFR*	GDF
Infrastructure Bank of the Year	*LatinFinance*	GDF
Deal of the Year - Infrastructure and Project Finance for DigitalBridge and Brookfield's majority stake in GD Towers	*The Banker*	GDF
Most Impressive Bank for ESG Capital Markets in Latin America	*Global Capital*	Markets
LatAm's Best Foreign Exchange Bank	*Euromoney*	Markets
Deal of the Year - Equities for Porsche's €9.4bn IPO	*The Banker*	CF
Best Iberian Broker	*Institutional Investor*	CF
Best Bank for Export Finance	*Global Finance*	GTB
Best Bank for Cash Management in Latin America	*Global Finance*	GTB
Best Trade Finance Bank / Best Receivables Finance Provider	*TFG*	GTB
Best Supply Chain Finance Bank	*GTR*	GTB

Business performance

In a challenging macroeconomic and geopolitical environment, our priority has been to support our clients with our advisory and high value-added solutions. In this context, total income reached EUR 8,296 million, growing 12% year-on-year. In constant euros, total income rose 18%, backed by relevant growth across core businesses:

- **Markets** showed solid growth of 22% year-on-year, as a result of managing market volatility well.

  In Europe, sales revenue continued to increase, both from corporate and institutional clients, achieving another year of strong growth, especially in the UK. By product, there were good results in Securities Financing, Equity Derivatives and Credit.

  In Latin America, we saw good year-on-year growth, particularly in Mexico, Chile, Colombia and Uruguay, and especially Commodities, Cash Equity, FI Rates and FX products. In Brazil, the Electricity and Commodities desks stood out.

  In the US, activity increased 30% year-on-year. Despite the macroeconomic challenges faced by some businesses, we continued to capture the synergies and efficiencies related to the creation of SanCap. Securities Financing, Exchange Traded Derivatives and Rates products stood out. There was good activity with corporate clients, including closing several important transactions in FX and Rates whilst flows with institutional clients remained stable compared to 2022.

- **Global Transaction Banking (GTB)** increased total income by 20% year-on-year.

  Cash Management experienced another year of significant growth, both in terms of activity, with a greater number of clients and operations, and in terms of liability income, due to higher volumes and the benefits from high interest rates in the markets where we operate. The team continued to support our clients by creating solutions to optimize their treasury and commercial processes. A clear example was the development of our Nexus Global Collections platform for collection tools, helping to simplify and automate the reconciliation process.

  Trade & Working Capital Solutions continued to strengthen its global and distribution capabilities, consolidating its leadership in the market. Santander was chosen as agent bank for major international transactions, such as a EUR 5 billion confirming programme covering Europe, Asia and the Americas. We acquired a stake in Komgo's capital, and the recent partnership with SAP enabled us to integrate our solutions into our clients' own ERP, already providing good results in confirming and invoice discounting.

  Export Finance maintained its leadership in the ECA financing market, participating in important transactions globally. Highlights include the mandate for the largest transaction in the history of Export Finance, the renewable energy development programme in Mexico, in which Santander acted as global coordinator and ECA Agent, as well as participating in the first offshore wind farm in Poland.

- **Global Debt Financing (GDF)** closed the year with significant growth in total income (+11%). The growth in non-financial fees was particularly strong (+23% year-on-year), as was the efficient use of capital.

  For Debt Capital Markets (DCM), 2023 was a year of recovery in the global debt and loan markets as inflation fell back and interest rate rises slowed. Santander remained top 3 in bond issuances in Latin America and achieved a significant increase in market share globally, with total income growing 27% year-on-year. Good examples were the debt issuances in dollars for the Brazilian Treasury, for AstraZeneca in euros and dollars, and an issuance for the European Union in euros.

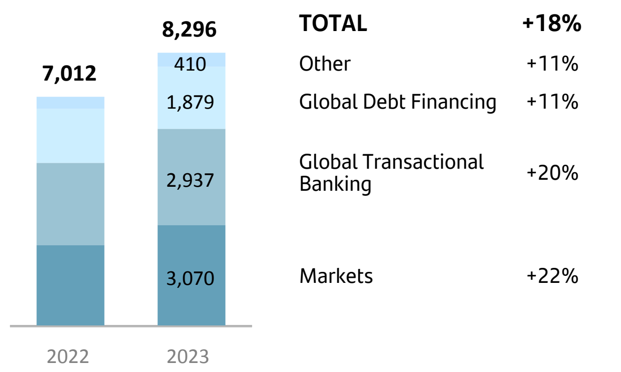
  In Structured Finance, Santander ended the year in second place worldwide and as a leader in Renewables, contributing to total income exceeding the EUR 900 million mark for the first time, growing at 16% year-on-year. Our high value-added services, such as debt advisory or underwritings, contributed to the improvement in profitability. The area is making good progress in positioning towards new energy transition assets (electric vehicle charging, gigafactories, green hydrogen, etc.) with several mandates executed or underway.

We continued developing our investment funds financing activity (Fund Finance).

In the Securitizations business, we continued to rapidly expand our capabilities. Total income grew by 31% year-on-year, allowing us to lead the European ranking.

Total income breakdown

Constant EUR million



- In **Corporate Finance (CF),** despite the general stagnation of the market, there were some signs of recovery in the last quarter 2023. There were major Mergers and Acquisitions (M&A) transactions in Energy, advising on the divestment of wind farms.

In addition, Santander demonstrated its global leadership in environmental transactions related to waste treatment, through the advisory to the Canadian pension fund CPPIB on the acquisition of a stake in FCC Medioambiente and the sale of Sacyr's environmental division.

In the Telecommunications, Media, Technology (TMT) industry, there was significant activity in telecommunications towers and fibre, highlighting the advisory to GIP on the purchase of Vantage Towers and Telefónica on the sale of a majority stake in its fibre network in Latin America to KKR. In the technology area, Santander acted as joint bookrunner in Arm's IPO, one of the year's most important transactions.

In Consumer Retail & Healthcare (CRH), we advised on the spin-off of Grupo Éxito, which was followed by others in Brazil (Viveo, Via Varejo), where capital markets have reopened.

Interest rate hikes during the year had a negative impact on IPOs. However, takeover bids increased significantly in the Spanish market, where Santander maintained a leading position. Santander also participated in large international transactions such as the aforementioned Arm transaction, secondary placements by London Stock Exchange Group and Coty's listing on Euronext Paris.

Collaboration revenue and income from multinational clients outside their local market increased by 9% year-on-year to around EUR 2.5 billion.

Results

Attributable profit increased 9% year-on-year to EUR 3,078 million (25% of the Group's total operating areas). In constant euros, profit increased by 20%. By line:

- Total income rose 18% to EUR 8,296 million, with strong increases in all regions, especially North America which rose 27%.
- Administrative expenses and amortizations increased 20% year-on-year as a result of the investment in products and development of new capabilities in the US. Despite this, the efficiency ratio stood at 40.9% and remained at lower levels than the rest of the sector.
- Lower net loan-loss provisions, which decreased by 34% compared to the previous year, together with adequate capital management, contributed to an RoTE of 25%.

SCIB. Underlying income statement

EUR million and % change

			/ 2022	
	2023	**2022**	**%**	**% excl. FX**
Revenue	8,296	7,378	+12	+18
Expenses	(3,391)	(2,902)	+17	+20
Net operating income	**4,905**	**4,476**	**+10**	**+17**
LLPs	(162)	(249)	(35)	(34)
PBT	4,570	4,097	+12	+20
Attributable profit	**3,078**	**2,817**	**+9**	**+20**

Detailed financial information in section 4.6 'Appendix'.

Wealth Management & Insurance

Underlying attributable profit

EUR 1,637 mn

EXECUTIVE SUMMARY

Strategy	Business performance[1]	Results[1]
We aim to become **the best Wealth and Insurance Manager in Europe and the Americas** by leveraging Group's scale and capabilities	Total **assets under management** grew by 14% year-on-year to **EUR 460 billion**, as a result of **strong commercial dynamics**	**Total contribution to profit** in 2023 **grew 21%** year-on-year to **EUR 3,296 million**, driven by higher net interest income and commercial activity

1. In constant euros.

Strategy

In 2023, we continued to work to become the best Wealth and Insurance Manager in Europe and the Americas. WM&I was one of the Group's growth drivers with a record year of 21% growth in contribution to Group profit. During the year, *Euromoney* named us Latin America's Best Bank for Wealth Management.

- In **Private Banking**, we continued to leverage our global platform so our clients can benefit from our scale and international presence, making it easy for them to move from one region of the Group to another. In terms of collaboration, we remained leaders in investment flows between Latin America, Europe and the US, managing network business volumes (cross-border business between markets) of EUR 53.9 billion (+15% year-on-year).

  Our collaboration business with SCIB continued to increase, especially in Brazil, Chile and BPI. In 2023, total income reached EUR 189 million, 8% higher year-on-year.

  During 2023, we continued to widen our value proposition and to innovate across our product range, seeking the best opportunities for our clients. We had a particular focus on alternatives, structured products, secured lending and socially responsible products (ESG).

  In alternatives, we had almost EUR 3 billion in total capital commitments at the end of the year. In collaboration with Santander Alternative Investments, we launched Santander Innoenergy, a venture capital fund that invests in innovative startups in the field of energy transition. Aiming to select the best managers and the most appropriate strategies, we launched a new fund of funds in our Irish ICAV, Laurion Secondaries, offering a diversified Private Equity portfolio with secondary transactions.

  Our offering in discretionary portfolio management and advisory mandates exceeded EUR 48 billion of total assets in 2023. Consistent performance and customized service has resulted in steady growth in this service in recent years.

  Our real estate investment service, which is capturing a large part of investment flows between Latin America, Europe and the US, reached a total volume of EUR 240 million in transactions in 2023.

  During 2023, *Euromoney* named us the Best Private Bank in Latin America, as well as the Best International Private Bank in Mexico, Argentina, Brazil, Peru, Uruguay, Poland and Portugal. Additionally, we received the prize for the Best Global Private Bank in Cybersecurity and Digital Portfolio Management in Europe by the *Professional Wealth Management* magazine, a *Financial Times* publication.

- **In Santander Asset Management (SAM)**, we had a record year in net sales (EUR 9.0 billion) driven by the adaptation of our value proposition to current market conditions. We are gaining market share in almost all our markets, and we continued to be the global product platform of choice for our retail banks, with EUR 1,128 million in total fees generated, in line with those of the previous year.

  In Spain, we are developing the discretionary portfolio management model and launched two new funds whose advisory services are delegated to top managers such as BlackRock (US equities) and Fidelity (Asia). We continue to complement with our GO range in Luxembourg with two new strategies launched (Global Equity ESG and Asian Equity). Santander Pensiones was also one of the five entities awarded the contract to participate in the Publicly Promoted Employment Pension Fund in Spain (FPEPP), created to promote collective savings.

We also adapted our value proposition for institutional clients and implemented a new coverage model expanding our business beyond our existing footprint. Total net inflows for institutional clients in 2023 surpassed EUR 3 billion.

The range of alternative products is becoming increasingly robust, with 22 vehicles globally and EUR 2.5 billion in total commitments. Our main strategies include Private Debt, Infrastructure, Trade Finance and Real Estate, with the notable launch of Santander Global Real Assets Fund of Funds, for Private Banking clients.

We made further headway in terms of our ESG strategy, with assets under management of around EUR 48 billion. Together with RED, we launched the Santander Prosperity fund in seven countries and won the Best Product Innovation in The Global Private Banker Innovation Awards 2023.

Our efforts to continue offering the best investment solutions were recognized through several awards in the year, both globally (Most Innovative Investment Manager in Europe by Pan Finance magazine) and at a local level (Best Fixed Income Manager in Spain, Best Multi-Asset Manager in the UK, Best Money Market Manager in Brazil and Most Awarded Asset Manager in Chile, just to name a few).

- In **Insurance**, we continued delivering growth in gross premiums (+12% year-on-year), mainly driven by non-related and savings businesses. The credit-related business was slightly affected by the lower demand for credit in general.

  In Europe, non-credit related insurance sales were particularly strong, as a result of new products and the transformation plans deployed across countries to improve customer experience and loyalty. During 2023, we reinforced our value proposition for SMEs and Health, launching a leasing insurance product in Portugal and a new partnership with BUPA in the UK. More recently in the fourth quarter, we reinforced our Savings value offer in Portugal with a new five-year product, offering yields until maturity. In Spain, we also started the commercialization of reverse mortgages with Mapfre.

  In the Americas, new sales in non-credit related insurance business continued with strong growth, especially in savings. In 2023, we completed our Savings offer in Mexico by launching a USD unit linked for Private Banking and Plan Futuro funds for the Select segment. In Chile, we launched a new Health product in alliance with UC Christus, one of the best hospitals in the country. We also reinforced our value offer for SMEs with new products (e.g., Cyber in Mexico, a cyber threat insurance for SMEs). Smart use of data was implemented in all countries to reduce claim processing times by 90% compared to traditional processes.

  The motor vehicle insurance business grew 10% year-on-year. Our Autocompara platform, with presence in Argentina, Brazil, Chile, Mexico and Uruguay, reached 1.4 million active policies and we added new companies in Brazil such as Porto Seguro (market leader in Auto segment) and Azul to further strengthen our competitive position.

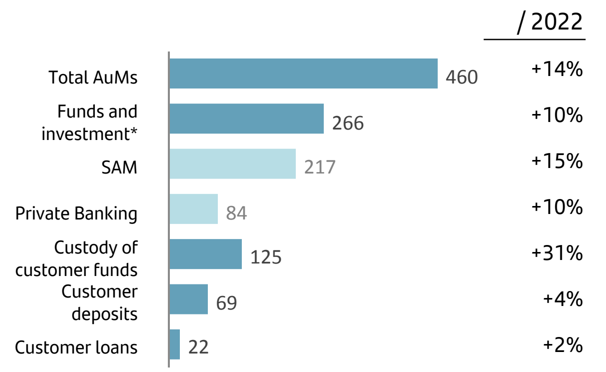
  Our digital strategy continued to drive growth in new sales through digital channels, now representing 20% of total sales.

Business performance

Total assets under management amounted to EUR 460.3 billion, 14% higher year-on-year, driven by intense commercial activity.

Business performance: SAM and Private Banking

EUR billion and % change in constant euros. December 2023



Note: Total assets marketed and/or managed in 2023 and 2022.
(*) Total adjusted private banking customer funds managed by SAM.

- In **Private Banking,** the volume of customer assets and liabilities (CAL) reached EUR 300.4 billion, 15% higher than in 2022. Net new money amounted to EUR 13.7 billion (4.6% of total volume). Profit after tax reached EUR 1,191 million, 75% higher than the contribution in 2022 in constant euros, primarily backed by net interest income and improved commercial activity. Clients increased 9% to 260,000.

- In **SAM,** total assets under management increased 15% year-on-year to EUR 217.1 billion. We had a record year in net sales of more than EUR 9 billion (4.2% of total AuMs) with almost all countries gaining market share. SAM's total contribution to the Group's profit (including fees ceded to the commercial network) was EUR 609 million, +5% year-on-year.

- In **Insurance**, gross written premiums amounted to EUR 13.1 billion (up 12% year-on-year) and fee income rose 2%. Total contribution to profit reached EUR 1,496 million, +2% year-on-year.

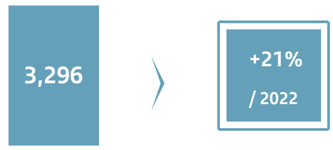
Results

Attributable profit was EUR 1,637 million in 2023, up 46% year-on-year. In constant euros, it was 48% higher:

- Total income increased 31% mainly driven by higher net interest income supported by strong trading activity and rising interest rates.
- Total fee income generated, including those ceded to the commercial network, amounted to EUR 3,725 million, +1% year-on-year, representing 31% of the Group's total fee income.
- Administrative expenses and amortizations were 12% higher year-on-year, due to investments and higher costs related to increased commercial activity.
- As a result, net operating income increased 44% year-on-year and the efficiency ratio improved 5.9 pp in the year to 34.0%.

Total contribution to profit

EUR million and % change in constant euros



The total contribution to the Group's profit (profit after tax plus and total fees generated net of tax) was EUR 3,296 million, 20% higher than in 2022 (+21% in constant euros).

WM&I. Underlying income statement

EUR million and % change

			/ 2022	
	2023	2022	%	% excl. FX
Revenue	3,396	2,635	+29	+31
Expenses	(1,156)	(1,054)	+10	+12
Net operating income	**2,240**	**1,581**	**+42**	**+44**
LLPs	21	(14)	—	—
PBT	2,235	1,531	+46	+48
Attributable profit	**1,637**	**1,119**	**+46**	**+48**

Detailed financial information in section 4.6 'Appendix'.

PagoNxt

Underlying attributable profit

-EUR 77 mn

EXECUTIVE SUMMARY

Strategy	Business performance[1]	Results
Scale up our global platform of **innovative payments and integrated value-added solutions** serving the payment needs for Grupo Santander and for open market customers worldwide	PagoNxt **continued to expand in 2023.** Getnet's Total Payments Volume reached EUR 206 billion globally, a 22% increase versus 2022	**Continued momentum in total income in 2023,** reaching EUR 1,140 million, up 20% year-on-year (+17% in constant euros)

1. In constant euros.

Strategy

PagoNxt aims to be a global leadership in payments through a distinct, holistic and customer-centric value proposition. We are a one-of-a-kind paytech business that provides customers with a wide range of innovative payments and integrated value-added solutions.

Since 2020, PagoNxt has been built through the combination of several strategic and high-growth business segments (e.g. Merchant Acquiring, International Trade and Payments Hub).

Already existing businesses, like Merchant Acquiring in core Santander countries like Brazil, Mexico and Spain, have been combined with newly internally developed global technology platforms (i.e. Merchant Solutions, OneTrade and Account-To-Account Payments) and a limited number of inorganic acquisitions (e.g. Ebury).

PagoNxt's technology platforms and specialist teams serve the payments needs of Grupo Santander's customers and cater to open market opportunities beyond Santander's footprint with in-depth solutions for millions of businesses and people.

PagoNxt runs an efficient global operating model that covers three core regions (Europe, South America and North America) with bank-grade security and compliance embedded in our customer products.

PagoNxt's strategy for the next few years is anchored on 3 key pillars:

- Scaling up our global, cloud-native, secure and efficient platform, which is interconnected and API-based to ensure customer access through a single integration. We process and generate insights to help our customers and their businesses harness the full power of data to make decisions.
- accelerating commercial growth by further strengthening our commerce and trade ecosystem and our distribution through Santander commercial platforms with a focus on SMEs.
- maximizing the open market opportunity through direct commercialization and distribution partnerships (with integrated software vendors (ISVs), financial institutions (FI), non-banking financial institutions (NBFI)), increasing our market penetration in Europe, South America and North America and extending our footprint to additional strategic countries.

This strategy is fully aligned with PagoNxt's short- and medium-term targets, namely, delivering sustained and diversified revenue growth, growing the open market business and ensuring operational leverage for improved scale-driven margins and bottom-line profitability.

Business performance

Getnet, our end-to-end Merchant Acquiring business with presence in Latin America (Brazil, Mexico, Argentina, Chile and Uruguay) and Europe (pan-European activity with active merchants in 15 countries), continued consolidating its franchise and market position and growing above market in most regions. Getnet improved its position in Merchant acquiring to second in Latin America and 17th globally, according to the Nilson reports based on number of transactions.

In 2023, Getnet's Total Payments Volume (TPV) reached EUR 206 billion, +25% year-on-year (+22% in constant euros). This growth was accompanied by margin expansion due to increasing scale and the roll out of innovative value-added services, global e-commerce capabilities and further developed specialized vertical solutions which it shares across countries. Highlights by market were:

- Getnet Brazil's TPV increased 14%. Brazil's focus has been on profitable growth through higher penetration in SMEs, our pre-payments products, and value-added services. We are pursuing opportunities across all sales channels and enhancing open market sales through partnerships with banks and ISVs, direct sales and digital channels.
- Getnet Europe, our pan-European acquirer, grew significantly in the year. TPV increased 31% year-on-year, mainly driven by the Spanish and Portuguese markets. In the UK, we are currently operating with a reduced number of customers under our UK FCA licence. We continue enhancing our platform capabilities, with new payment methods, a vertical solution for airlines and a stronger value-added proposition for SMEs, which enable us to progress on our open market strategy with merchants operating in 15 countries.

- Getnet Mexico's activity remained strong, with TPV increasing 23% year-on-year, driven by higher SME penetration and the strong performance of our open market distribution channels, which include several partnerships with payment's facilitators, ISVs and payment ecosystems. We launched several innovative value-added services like tap-on-phone, DCC and dynamic working capital.
- We are ramping up Getnet's commercial activity in other Latin American countries. Our acquiring businesses in Argentina and Uruguay launched in 2022 are showing strong growth as they start penetrating Santander's merchant base. Chile, with 80% year-on-year TPV growth, is accelerating its penetration in the Chilean market through Santander and open market, which already represents around 50% of new onboardings.

PagoNxt OneTrade platform comprises two different activities: one which offers a range of international business services delivered to our banks and their customers as a Banking-as-a-Service proposition, and another service delivered to open market customers through an Electronic Money Institution.

The Banking-as-a-Service proposition enabled Santander to replace multiple investments in local institutions with a single global one, accelerating implementation while reducing operational and maintenance costs.

In 2023, we achieved significant progress and all core interconnected services are fully operational. Some of the services which have already been rolled out across core markets such as Spain, Mexico and Chile are: OneTrade FX, a digital FX service facilitating currency trading; International Payments, aimed at fostering Corporate and SMEs business; and TradeNxt, a trade finance platform supporting import/export activities.

We expect to ramp up OneTrade open market activities in the first half of 2024 by scaling up its correspondent banking offering (cross-border payments and FX services) targeted at financial institutions, non-banking financial institutions and other entities in need of cross-border payments optimization.

PagoNxt continued to accelerate its roadmap to be Santander's wholesale payments processing provider, centralizing all types of payments (except cards). In 2023, we continued the development of our product capability around five core areas (Instant Payments, Credit Transfers, Bulk Credit Transfers, Direct Debits and International Payments) and implemented functionality across multiple countries and businesses (SCIB, Openbank, Spain, Portugal, Germany, the UK and Mexico). Significant volumes of payments have already been migrated into the new payments platform reaching an annualized volume of 700 million transactions.

Ebury continued to deliver organic top-line growth, with double-digit growth in total income. The business continued to enhance its B2B offerings and recently completed the acquisition of Bexs, the Brazilian cross-border payments and FX transactions specialist.

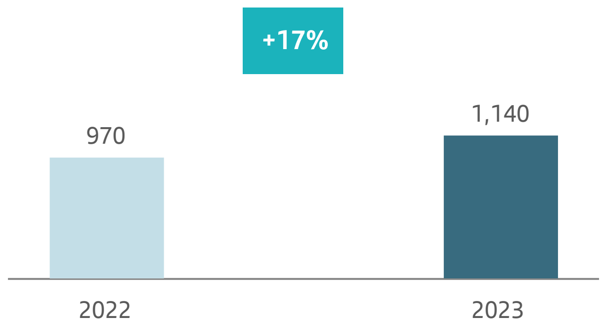
Results

Attributable loss of EUR 77 million in 2023, a marked improvement versus a loss of EUR 215 million in 2022.

Total income continued its upward momentum in 2023 and reached EUR 1,140 million, a 17% increase year-on-year in constant euros, backed by increased activity and volumes, especially in our Merchant and Trade businesses (Getnet and Ebury).

PagoNxt. Total income performance

Constant EUR million



In 2023, administrative expenses and amortizations grew by 6% year-on-year and reflected inflation pressures and the ongoing investment plans to develop and implement global technology.

PagoNxt. Underlying income statement

EUR million and % change

			/ 2022	
	2023	**2022**	**%**	**% excl. FX**
Revenue	1,140	953	+20	+17
Expenses	(1,091)	(1,024)	+7	+6
Net operating income	**49**	**(71)**	**—**	**—**
LLPs	(24)	(44)	(46)	(46)
PBT	(17)	(141)	(88)	(87)
Attributable profit	**(77)**	**(215)**	**(64)**	**(63)**

Detailed financial information in section 4.6 'Appendix'.

4.6 Appendix

Primary segments

EUR million

	Europe				Spain		
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**
Net interest income	15,910	12,565	26.6	27.0	6,641	4,539	46.3
Net fee income	4,399	4,493	(2.1)	(2.2)	2,699	2,818	(4.2)
Gains (losses) on financial transactions [A]	1,033	821	25.9	25.8	688	612	12.3
Other operating income	97	151	(35.8)	(34.2)	105	265	(60.4)
Total income	**21,439**	**18,030**	**18.9**	**19.2**	**10,132**	**8,233**	**23.1**
Administrative expenses and amortizations	(9,030)	(8,523)	5.9	6.4	(4,227)	(3,998)	5.7
Net operating income	**12,409**	**9,507**	**30.5**	**30.5**	**5,905**	**4,236**	**39.4**
Net loan-loss provisions	(2,533)	(2,396)	5.7	5.4	(1,522)	(1,618)	(5.9)
Other gains (losses) and provisions	(1,681)	(1,629)	3.2	2.8	(984)	(539)	82.4
Profit before tax	**8,195**	**5,482**	**49.5**	**49.9**	**3,399**	**2,079**	**63.5**
Tax on profit	(2,371)	(1,492)	58.9	59.2	(1,029)	(518)	98.5
Profit from continuing operations	**5,824**	**3,989**	**46.0**	**46.4**	**2,371**	**1,560**	**51.9**
Net profit from discontinued operations	—	—	—	—	—	—	—
Consolidated profit	**5,824**	**3,989**	**46.0**	**46.4**	**2,371**	**1,560**	**51.9**
Non-controlling interests	(342)	(179)	90.6	84.7	—	—	(26.2)
Profit attributable to the parent	**5,482**	**3,810**	**43.9**	**44.6**	**2,371**	**1,560**	**51.9**
Balance sheet							
Loans and advances to customers	570,067	591,280	(3.6)	(4.8)	239,214	256,397	(6.7)
Cash, central banks and credit institutions	198,451	216,310	(8.3)	(9.1)	116,317	129,113	(9.9)
Debt instruments	115,428	76,319	51.2	49.1	70,072	42,008	66.8
Other financial assets	44,538	47,737	(6.7)	(6.7)	40,926	43,555	(6.0)
Other asset accounts	26,860	26,564	1.1	0.5	17,075	17,995	(5.1)
Total assets	**955,344**	**958,209**	**(0.3)**	**(1.4)**	**483,603**	**489,067**	**(1.1)**
Customer deposits	644,921	643,875	0.2	(1.1)	324,099	329,414	(1.6)
Central banks and credit institutions	104,164	112,254	(7.2)	(7.9)	44,802	43,110	3.9
Marketable debt securities	79,095	71,731	10.3	8.7	28,486	23,674	20.3
Other financial liabilities	53,361	60,010	(11.1)	(11.2)	46,532	52,876	(12.0)
Other liabilities accounts	29,633	27,300	8.5	8.0	22,264	19,600	13.6
Total liabilities	**911,173**	**915,169**	**(0.4)**	**(1.5)**	**466,184**	**468,674**	**(0.5)**
Total equity	**44,171**	**43,040**	**2.6**	**1.2**	**17,419**	**20,394**	**(14.6)**
Memorandum items:							
Gross loans and advances to customers [B]	551,722	579,476	(4.8)	(6.0)	229,803	249,821	(8.0)
Customer funds	725,417	720,910	0.6	(0.5)	386,810	394,679	(2.0)
Customer deposits [C]	620,299	627,630	(1.2)	(2.4)	308,745	322,284	(4.2)
Mutual funds	105,118	93,280	12.7	12.2	78,065	72,395	7.8
Ratios (%), operating means and customers							
RoTE	14.47	9.28	5.19		14.16	7.89	6.27
Efficiency ratio	42.1	47.3	(5.2)		41.7	48.6	(6.8)
NPL ratio	2.32	2.37	(0.05)		3.06	3.27	(0.21)
Total coverage ratio	49.3	51.8	(2.5)		49.1	51.0	(1.9)
Number of employees	67,457	65,581	2.9		26,834	26,839	(0.0)
Number of branches	3,083	3,148	(2.1)		1,874	1,913	(2.0)
Number of total customers (thousands)	46,293	45,564	1.6		15,023	14,320	4.9
Number of active customers (thousands)	28,538	28,124	1.5		8,367	7,852	6.6

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	United Kingdom				Portugal		
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**
Net interest income	5,152	4,992	3.2	5.3	1,465	747	96.2
Net fee income	338	390	(13.3)	(11.5)	464	484	(4.2)
Gains (losses) on financial transactions [A]	29	31	(4.6)	(2.7)	33	56	(41.0)
Other operating income	5	6	(7.2)	(5.3)	21	8	152.5
Total income	**5,525**	**5,418**	**2.0**	**4.0**	**1,982**	**1,295**	**53.1**
Administrative expenses and amortizations	(2,745)	(2,685)	2.2	4.3	(542)	(502)	8.1
Net operating income	**2,779**	**2,733**	**1.7**	**3.7**	**1,440**	**793**	**81.6**
Net loan-loss provisions	(247)	(316)	(21.7)	(20.1)	(77)	(17)	353.6
Other gains (losses) and provisions	(425)	(517)	(17.9)	(16.3)	(49)	(1)	—
Profit before tax	**2,107**	**1,900**	**10.9**	**13.1**	**1,314**	**775**	**69.4**
Tax on profit	(563)	(505)	11.4	13.6	(416)	(240)	73.2
Profit from continuing operations	**1,545**	**1,395**	**10.8**	**13.0**	**898**	**536**	**67.8**
Net profit from discontinued operations	—	—	—	—	—	—	—
Consolidated profit	**1,545**	**1,395**	**10.8**	**13.0**	**898**	**536**	**67.8**
Non-controlling interests	—	—	—	—	(2)	(2)	38.9
Profit attributable to the parent	**1,545**	**1,395**	**10.8**	**13.0**	**896**	**534**	**67.9**
Balance sheet							
Loans and advances to customers	245,743	251,892	(2.4)	(4.5)	36,864	39,126	(5.8)
Cash, central banks and credit institutions	62,387	65,962	(5.4)	(7.5)	8,084	9,634	(16.1)
Debt instruments	10,234	7,294	40.3	37.3	10,991	7,887	39.4
Other financial assets	289	601	(52.0)	(53.0)	1,078	1,095	(1.6)
Other asset accounts	4,363	3,292	32.5	29.7	1,279	1,481	(13.7)
Total assets	**323,016**	**329,042**	**(1.8)**	**(3.9)**	**58,297**	**59,223**	**(1.6)**
Customer deposits	233,453	230,829	1.1	(1.0)	36,366	38,506	(5.6)
Central banks and credit institutions	28,202	37,022	(23.8)	(25.5)	9,237	9,182	0.6
Marketable debt securities	43,850	44,088	(0.5)	(2.7)	4,813	3,288	46.4
Other financial liabilities	3,434	3,549	(3.2)	(5.3)	319	448	(28.8)
Other liabilities accounts	1,704	1,553	9.7	7.4	3,725	4,467	(16.6)
Total liabilities	**310,642**	**317,041**	**(2.0)**	**(4.1)**	**54,460**	**55,890**	**(2.6)**
Total equity	**12,373**	**12,001**	**3.1**	**0.9**	**3,837**	**3,333**	**15.1**
Memorandum items:							
Gross loans and advances to customers [B]	235,111	244,840	(4.0)	(6.0)	37,658	40,066	(6.0)
Customer funds	231,667	228,993	1.2	(1.0)	40,618	42,129	(3.6)
Customer deposits [C]	224,396	221,884	1.1	(1.0)	36,366	38,506	(5.6)
Mutual funds	7,272	7,109	2.3	0.1	4,252	3,623	17.4
Ratios (%), operating means and customers							
RoTE	13.01	10.70	2.31		25.92	15.03	10.89
Efficiency ratio	49.7	49.6	0.1		27.3	38.7	(11.4)
NPL ratio	1.42	1.21	0.22		2.59	2.99	(0.39)
Total coverage ratio	30.3	33.8	(3.4)		82.7	79.3	3.4
Number of employees	22,280	21,185	5.2		4,945	4,952	(0.1)
Number of branches	444	449	(1.1)		376	383	(1.8)
Number of total customers (thousands)	22,481	22,402	0.4		2,908	2,923	(0.5)
Number of active customers (thousands)	13,864	13,995	(0.9)		1,838	1,784	3.0

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	Poland				Other Europe			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	2,543	1,976	28.7	24.7	109	312	(65.0)	(64.4)
Net fee income	589	528	11.6	8.1	309	273	13.2	14.7
Gains (losses) on financial transactions [A]	67	93	(28.2)	(30.4)	217	29	641.1	685.2
Other operating income	(17)	(123)	(85.8)	(86.3)	(16)	(5)	249.6	266.1
Total income	**3,182**	**2,474**	**28.6**	**24.6**	**618**	**609**	**1.6**	**3.2**
Administrative expenses and amortizations	(862)	(692)	24.6	20.7	(653)	(646)	1.1	2.1
Net operating income	**2,320**	**1,782**	**30.1**	**26.1**	**(35)**	**(38)**	**(6.5)**	**(14.4)**
Net loan-loss provisions	(674)	(440)	53.2	48.5	(12)	(6)	112.3	112.2
Other gains (losses) and provisions	(253)	(553)	(54.2)	(55.6)	30	(18)	—	—
Profit before tax	**1,392**	**789**	**76.4**	**71.0**	**(17)**	**(61)**	**(71.5)**	**(72.8)**
Tax on profit	(377)	(247)	52.7	47.9	13	18	(28.5)	(31.7)
Profit from continuing operations	**1,015**	**542**	**87.3**	**81.5**	**(5)**	**(43)**	**(89.1)**	**(89.6)**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**1,015**	**542**	**87.3**	**81.5**	**(5)**	**(43)**	**(89.1)**	**(89.6)**
Non-controlling interests	(342)	(179)	91.2	85.3	2	1	103.7	103.7
Profit attributable to the parent	**674**	**364**	**85.3**	**79.6**	**(3)**	**(42)**	**(93.7)**	**(94.0)**
Balance sheet								
Loans and advances to customers	33,850	29,659	14.1	5.8	14,397	14,206	1.3	4.7
Cash, central banks and credit institutions	9,289	8,898	4.4	(3.2)	2,374	2,703	(12.2)	(10.3)
Debt instruments	15,070	11,865	27.0	17.8	9,060	7,265	24.7	24.9
Other financial assets	733	628	16.8	8.3	1,512	1,857	(18.6)	(16.1)
Other asset accounts	1,974	1,616	22.2	13.3	2,170	2,180	(0.5)	1.1
Total assets	**60,916**	**52,665**	**15.7**	**7.2**	**29,512**	**28,211**	**4.6**	**6.9**
Customer deposits	44,500	39,299	13.2	5.0	6,503	5,827	11.6	15.4
Central banks and credit institutions	4,623	4,969	(7.0)	(13.7)	17,300	17,971	(3.7)	(2.1)
Marketable debt securities	1,945	681	185.6	164.8	—	—	—	—
Other financial liabilities	1,706	1,179	44.7	34.2	1,369	1,958	(30.1)	(28.0)
Other liabilities accounts	1,687	1,378	22.4	13.5	253	302	(16.3)	(15.9)
Total liabilities	**54,462**	**47,506**	**14.6**	**6.3**	**25,425**	**26,058**	**(2.4)**	**(0.3)**
Total equity	**6,454**	**5,159**	**25.1**	**16.0**	**4,087**	**2,153**	**89.9**	**95.2**
Memorandum items:								
Gross loans and advances to customers [B]	34,729	30,524	13.8	5.5	14,420	14,226	1.4	4.7
Customer funds	49,371	42,370	16.5	8.0	16,951	12,740	33.1	35.1
Customer deposits [C]	44,462	39,299	13.1	4.9	6,330	5,658	11.9	15.8
Mutual funds	4,909	3,071	59.9	48.2	10,621	7,082	50.0	50.0
Ratios (%), operating means and customers								
RoTE	17.68	11.93	5.75					
Efficiency ratio	27.1	28.0	(0.9)					
NPL ratio	3.55	3.80	(0.25)					
Total coverage ratio	73.3	74.0	(0.6)					
Number of employees	10,822	10,532	2.8					
Number of branches	381	395	(3.5)					
Number of total customers (thousands)	5,877	5,697	3.2					
Number of active customers (thousands)	4,465	4,316	3.4					

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	North America				United States			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	10,159	9,705	4.7	2.6	5,742	6,140	(6.5)	(3.8)
Net fee income	2,192	1,958	11.9	6.7	766	771	(0.6)	2.2
Gains (losses) on financial transactions [A]	505	204	147.3	147.9	294	164	79.2	84.3
Other operating income	318	449	(29.1)	(24.4)	406	548	(25.9)	(23.8)
Total income	**13,174**	**12,316**	**7.0**	**4.7**	**7,209**	**7,623**	**(5.4)**	**(2.7)**
Administrative expenses and amortizations	(6,465)	(5,871)	10.1	8.0	(3,679)	(3,599)	2.2	5.1
Net operating income	**6,708**	**6,445**	**4.1**	**1.7**	**3,531**	**4,025**	**(12.3)**	**(9.8)**
Net loan-loss provisions	(3,733)	(2,538)	47.1	45.2	(2,593)	(1,744)	48.7	52.9
Other gains (losses) and provisions	(138)	(118)	17.4	9.0	(74)	(20)	278.1	288.9
Profit before tax	**2,837**	**3,790**	**(25.1)**	**(27.2)**	**863**	**2,261**	**(61.8)**	**(60.7)**
Tax on profit	(468)	(869)	(46.1)	(47.9)	69	(478)	—	—
Profit from continuing operations	**2,369**	**2,921**	**(18.9)**	**(21.1)**	**932**	**1,784**	**(47.7)**	**(46.3)**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**2,369**	**2,921**	**(18.9)**	**(21.1)**	**932**	**1,784**	**(47.7)**	**(46.3)**
Non-controlling interests	(15)	(43)	(64.9)	(68.3)	—	—	—	—
Profit attributable to the parent	**2,354**	**2,878**	**(18.2)**	**(20.3)**	**932**	**1,784**	**(47.7)**	**(46.3)**
Balance sheet								
Loans and advances to customers	174,780	171,519	1.9	1.8	126,843	130,390	(2.7)	0.7
Cash, central banks and credit institutions	35,969	35,607	1.0	(1.9)	21,215	20,000	6.1	9.8
Debt instruments	50,311	44,060	14.2	9.7	22,686	21,637	4.8	8.5
Other financial assets	10,937	14,668	(25.4)	(29.6)	4,075	5,241	(22.3)	(19.5)
Other asset accounts	22,829	22,741	0.4	0.8	16,307	17,837	(8.6)	(5.4)
Total assets	**294,827**	**288,595**	**2.2**	**0.8**	**191,126**	**195,106**	**(2.0)**	**1.4**
Customer deposits	175,958	168,748	4.3	3.8	121,782	124,209	(2.0)	1.5
Central banks and credit institutions	34,723	25,294	37.3	29.2	17,411	8,572	103.1	110.3
Marketable debt securities	35,133	41,063	(14.4)	(14.1)	27,059	32,685	(17.2)	(14.3)
Other financial liabilities	18,606	20,883	(10.9)	(15.4)	7,276	8,346	(12.8)	(9.7)
Other liabilities accounts	6,764	6,943	(2.6)	(5.0)	3,119	4,116	(24.2)	(21.6)
Total liabilities	**271,183**	**262,931**	**3.1**	**1.8**	**176,646**	**177,929**	**(0.7)**	**2.8**
Total equity	**23,644**	**25,664**	**(7.9)**	**(9.1)**	**14,480**	**17,177**	**(15.7)**	**(12.7)**
Memorandum items:								
Gross loans and advances to customers [B]	161,401	156,521	3.1	2.6	112,671	115,248	(2.2)	1.2
Customer funds	171,310	164,414	4.2	3.0	108,062	112,856	(4.2)	(0.9)
Customer deposits [C]	141,863	135,955	4.3	3.7	95,697	98,346	(2.7)	0.7
Mutual funds	29,447	28,459	3.5	(0.3)	12,364	14,510	(14.8)	(11.8)
Ratios (%), operating means and customers								
RoTE	9.76	11.06	(1.30)		6.07	9.40	(3.33)	
Efficiency ratio	49.1	47.7	1.4		51.0	47.2	3.8	
NPL ratio	4.09	3.03	1.06		4.57	3.25	1.32	
Total coverage ratio	73.8	93.3	(19.4)		67.7	90.3	(22.6)	
Number of employees	45,593	44,518	2.4		13,489	14,610	(7.7)	
Number of branches	1,784	1,854	(3.8)		415	485	(14.4)	
Number of total customers (thousands)	25,027	24,980	0.2		4,510	4,523	(0.3)	
Number of active customers (thousands)	14,486	14,020	3.3		4,223	4,137	2.1	

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	Mexico				Other North America			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	4,408	3,565	23.7	12.1	8	—	—	—
Net fee income	1,374	1,140	20.5	9.3	52	47	10.0	10.0
Gains (losses) on financial transactions [A]	211	39	435.2	385.2	(1)	—	—	—
Other operating income	(94)	(122)	(22.6)	(29.8)	6	22	(71.7)	(71.7)
Total income	**5,899**	**4,623**	**27.6**	**15.7**	**66**	**70**	**(6.1)**	**(6.1)**
Administrative expenses and amortizations	(2,588)	(2,076)	24.7	13.0	(199)	(196)	1.3	1.4
Net operating income	**3,311**	**2,547**	**30.0**	**17.9**	**(133)**	**(126)**	**5.4**	**5.5**
Net loan-loss provisions	(1,135)	(788)	44.1	30.6	(5)	(6)	(15.2)	(15.2)
Other gains (losses) and provisions	(57)	(94)	(39.1)	(44.7)	(7)	(5)	52.0	52.5
Profit before tax	**2,119**	**1,665**	**27.2**	**15.4**	**(145)**	**(137)**	**6.1**	**6.1**
Tax on profit	(541)	(407)	32.9	20.5	5	17	(70.6)	(70.6)
Profit from continuing operations	**1,577**	**1,257**	**25.4**	**13.7**	**(140)**	**(120)**	**16.8**	**16.8**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**1,577**	**1,257**	**25.4**	**13.7**	**(140)**	**(120)**	**16.8**	**16.8**
Non-controlling interests	(17)	(44)	(61.0)	(64.7)	2	1	103.7	103.7
Profit attributable to the parent	**1,560**	**1,213**	**28.6**	**16.6**	**(138)**	**(119)**	**16.0**	**16.1**
Balance sheet								
Loans and advances to customers	47,905	41,080	16.6	4.8	32	48	(33.3)	(33.3)
Cash, central banks and credit institutions	14,088	15,254	(7.6)	(17.0)	666	354	88.5	88.5
Debt instruments	27,624	22,423	23.2	10.7	2	—	—	—
Other financial assets	6,723	9,257	(27.4)	(34.8)	139	170	(18.0)	(18.0)
Other asset accounts	6,156	4,622	33.2	19.6	366	282	29.8	29.8
Total assets	**102,496**	**92,636**	**10.6**	**(0.6)**	**1,205**	**853**	**41.2**	**41.2**
Customer deposits	53,703	44,309	21.2	8.9	473	230	105.9	105.9
Central banks and credit institutions	17,047	16,592	2.7	(7.7)	265	130	103.1	103.1
Marketable debt securities	8,074	8,378	(3.6)	(13.4)	—	—	—	—
Other financial liabilities	11,189	12,374	(9.6)	(18.8)	141	163	(13.2)	(13.2)
Other liabilities accounts	3,579	2,764	29.5	16.4	66	64	2.9	2.9
Total liabilities	**93,592**	**84,416**	**10.9**	**(0.4)**	**945**	**587**	**61.1**	**61.1**
Total equity	**8,904**	**8,220**	**8.3**	**(2.7)**	**259**	**266**	**(2.6)**	**(2.6)**
Memorandum items:								
Gross loans and advances to customers [B]	48,688	41,218	18.1	6.1	41	55	(24.8)	(24.8)
Customer funds	62,775	51,328	22.3	9.9	473	230	105.9	105.9
Customer deposits [C]	45,693	37,379	22.2	9.8	473	230	105.9	105.9
Mutual funds	17,082	13,949	22.5	10.0	—	—	—	—

Ratios (%), operating means and customers	2023	2022	%
RoTE	17.70	16.92	0.77
Efficiency ratio	43.9	44.9	(1.0)
NPL ratio	2.82	2.32	0.50
Total coverage ratio	100.0	106.6	(6.6)
Number of employees	30,876	28,834	7.1
Number of branches	1,369	1,369	0.0
Number of total customers (thousands)	20,517	20,239	1.4
Number of active customers (thousands)	10,263	9,711	5.7

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	South America				Brazil			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	13,040	12,979	0.5	12.0	9,116	8,901	2.4	2.0
Net fee income	4,684	4,515	3.7	14.0	3,462	3,296	5.0	4.6
Gains (losses) on financial transactions [A]	1,280	1,291	(0.9)	13.8	483	736	(34.5)	(34.7)
Other operating income	(1,033)	(761)	35.8	403.0	43	(23)	—	—
Total income	**17,971**	**18,025**	**(0.3)**	**7.8**	**13,104**	**12,910**	**1.5**	**1.1**
Administrative expenses and amortizations	(6,920)	(6,675)	3.7	16.7	(4,529)	(4,180)	8.3	7.9
Net operating income	**11,050**	**11,350**	**(2.6)**	**2.9**	**8,574**	**8,730**	**(1.8)**	**(2.2)**
Net loan-loss provisions	(5,401)	(5,041)	7.1	8.9	(4,701)	(4,417)	6.4	6.0
Other gains (losses) and provisions	(1,041)	(544)	91.1	212.9	(963)	(259)	272.0	270.4
Profit before tax	**4,608**	**5,764**	**(20.1)**	**(15.4)**	**2,911**	**4,055**	**(28.2)**	**(28.5)**
Tax on profit	(1,121)	(1,549)	(27.7)	(23.4)	(776)	(1,232)	(37.0)	(37.3)
Profit from continuing operations	**3,487**	**4,215**	**(17.3)**	**(12.5)**	**2,135**	**2,822**	**(24.3)**	**(24.7)**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**3,487**	**4,215**	**(17.3)**	**(12.5)**	**2,135**	**2,822**	**(24.3)**	**(24.7)**
Non-controlling interests	(449)	(557)	(19.4)	(19.9)	(215)	(278)	(22.9)	(23.2)
Profit attributable to the parent	**3,038**	**3,658**	**(16.9)**	**(11.2)**	**1,921**	**2,544**	**(24.5)**	**(24.8)**
Balance sheet								
Loans and advances to customers	153,244	144,812	5.8	7.2	96,399	86,202	11.8	6.2
Cash, central banks and credit institutions	67,410	52,358	28.7	30.1	53,618	40,858	31.2	24.6
Debt instruments	64,352	57,106	12.7	18.7	47,325	37,387	26.6	20.2
Other financial assets	20,796	19,854	4.7	7.8	8,161	5,682	43.6	36.4
Other asset accounts	19,247	18,795	2.4	3.6	14,590	14,037	3.9	(1.3)
Total assets	**325,049**	**292,925**	**11.0**	**13.3**	**220,093**	**184,165**	**19.5**	**13.5**
Customer deposits	155,448	137,661	12.9	17.3	110,162	89,957	22.5	16.3
Central banks and credit institutions	48,898	42,921	13.9	14.1	28,333	23,477	20.7	14.6
Marketable debt securities	39,603	35,063	12.9	11.2	27,976	23,997	16.6	10.7
Other financial liabilities	42,438	41,445	2.4	2.7	28,625	25,719	11.3	5.7
Other liabilities accounts	12,768	11,327	12.7	16.8	7,938	5,477	44.9	37.6
Total liabilities	**299,155**	**268,417**	**11.5**	**13.6**	**203,035**	**168,627**	**20.4**	**14.3**
Total equity	**25,894**	**24,508**	**5.7**	**10.1**	**17,058**	**15,539**	**9.8**	**4.2**
Memorandum items:								
Gross loans and advances to customers [B]	160,987	152,435	5.6	6.9	102,583	92,194	11.3	5.7
Customer funds	205,675	182,541	12.7	17.3	145,044	120,911	20.0	13.9
Customer deposits [C]	135,342	123,307	9.8	15.3	90,297	75,767	19.2	13.2
Mutual funds	70,333	59,234	18.7	21.3	54,747	45,144	21.3	15.2
Ratios (%), operating means and customers								
RoTE	14.43	18.77	(4.33)		13.73	19.23	(5.50)	
Efficiency ratio	38.5	37.0	1.5		34.6	32.4	2.2	
NPL ratio	5.72	6.20	(0.49)		6.56	7.57	(1.00)	
Total coverage ratio	78.4	76.0	2.4		84.7	79.5	5.2	
Number of employees	80,997	78,271	3.5		57,775	55,993	3.2	
Number of branches	3,309	3,653	(9.4)		2,580	2,847	(9.4)	
Number of total customers (thousands)	73,028	69,553	5.0		62,804	60,117	4.5	
Number of active customers (thousands)	37,517	38,368	(2.2)		30,460	31,813	(4.3)	

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	Chile				Argentina			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	1,383	1,772	(22.0)	(22.9)	1,879	1,778	5.7	399.4
Net fee income	572	468	22.2	20.8	396	542	(26.9)	245.2
Gains (losses) on financial transactions [A]	320	242	32.2	30.7	341	218	56.0	637.0
Other operating income	11	(33)	—	—	(1,071)	(705)	51.9	617.8
Total income	**2,285**	**2,449**	**(6.7)**	**(7.7)**	**1,544**	**1,833**	**(15.8)**	**298.1**
Administrative expenses and amortizations	(1,020)	(981)	4.0	2.8	(775)	(987)	(21.5)	271.0
Net operating income	**1,265**	**1,468**	**(13.8)**	**(14.8)**	**769**	**846**	**(9.1)**	**329.7**
Net loan-loss provisions	(365)	(399)	(8.5)	(9.5)	(150)	(132)	13.6	436.9
Other gains (losses) and provisions	51	(8)	—	—	(114)	(270)	(57.7)	99.8
Profit before tax	**951**	**1,062**	**(10.4)**	**(11.4)**	**505**	**443**	**13.8**	**437.9**
Tax on profit	(135)	(105)	28.5	27.0	(117)	(118)	(1.4)	366.1
Profit from continuing operations	**816**	**956**	**(14.7)**	**(15.6)**	**388**	**325**	**19.4**	**464.1**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**816**	**956**	**(14.7)**	**(15.6)**	**388**	**325**	**19.4**	**464.1**
Non-controlling interests	(234)	(279)	(16.0)	(16.9)	(2)	(1)	154.0	—
Profit attributable to the parent	**582**	**677**	**(14.1)**	**(15.1)**	**386**	**324**	**19.0**	**462.3**
Balance sheet								
Loans and advances to customers	42,616	43,336	(1.7)	4.4	3,767	5,586	(32.6)	218.7
Cash, central banks and credit institutions	6,373	6,344	0.5	6.6	4,548	3,021	50.6	611.4
Debt instruments	13,273	11,977	10.8	17.6	1,368	5,317	(74.3)	21.6
Other financial assets	12,159	13,898	(12.5)	(7.1)	11	74	(85.8)	(32.7)
Other asset accounts	2,746	2,869	(4.3)	1.6	776	1,017	(23.7)	260.6
Total assets	**77,167**	**78,425**	**(1.6)**	**4.5**	**10,470**	**15,015**	**(30.3)**	**229.5**
Customer deposits	29,578	29,042	1.8	8.1	6,478	10,547	(38.6)	190.2
Central banks and credit institutions	14,808	13,906	6.5	13.0	1,271	1,080	17.6	455.9
Marketable debt securities	10,775	10,415	3.5	9.8	148	153	(3.4)	356.6
Other financial liabilities	12,624	14,650	(13.8)	(8.5)	638	811	(21.3)	272.0
Other liabilities accounts	3,733	4,832	(22.7)	(18.0)	455	514	(11.5)	318.4
Total liabilities	**71,518**	**72,845**	**(1.8)**	**4.2**	**8,990**	**13,105**	**(31.4)**	**224.2**
Total equity	**5,648**	**5,580**	**1.2**	**7.5**	**1,479**	**1,910**	**(22.6)**	**266.0**
Memorandum items:								
Gross loans and advances to customers [B]	43,823	44,588	(1.7)	4.3	3,878	5,781	(32.9)	217.0
Customer funds	40,098	38,014	5.5	12.0	10,288	14,499	(29.0)	235.3
Customer deposits [C]	29,337	28,889	1.6	7.8	6,478	10,547	(38.6)	190.2
Mutual funds	10,761	9,126	17.9	25.2	3,810	3,952	(3.6)	355.5
Ratios (%), operating means and customers								
RoTE	14.82	19.47	(4.65)		55.60	26.23	29.36	
Efficiency ratio	44.6	40.1	4.6		50.2	53.9	(3.7)	
NPL ratio	5.01	4.99	0.02		1.99	2.08	(0.10)	
Total coverage ratio	52.7	56.3	(3.6)		165.7	180.4	(14.7)	
Number of employees	9,948	9,773	1.8		8,455	8,251	2.5	
Number of branches	248	283	(12.4)		322	375	(14.1)	
Number of total customers (thousands)	4,052	3,577	13.3		4,771	4,385	8.8	
Number of active customers (thousands)	2,399	2,196	9.2		3,562	3,203	11.2	

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Primary segments

EUR million

	Other South America				Digital Consumer Bank			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	662	527	25.6	24.1	4,193	4,022	4.3	6.1
Net fee income	254	210	21.2	20.2	796	843	(5.6)	(5.3)
Gains (losses) on financial transactions [A]	137	95	44.5	45.1	117	60	95.5	94.8
Other operating income	(16)	1	—	—	396	344	15.1	15.3
Total income	**1,038**	**832**	**24.6**	**23.5**	**5,502**	**5,269**	**4.4**	**5.9**
Administrative expenses and amortizations	(596)	(527)	13.2	12.7	(2,618)	(2,462)	6.4	8.1
Net operating income	**441**	**306**	**44.3**	**42.1**	**2,884**	**2,807**	**2.7**	**3.9**
Net loan-loss provisions	(186)	(94)	98.4	96.1	(792)	(544)	45.7	47.8
Other gains (losses) and provisions	(15)	(7)	95.0	92.8	(72)	(27)	169.9	167.0
Profit before tax	**241**	**205**	**17.7**	**15.7**	**2,019**	**2,237**	**(9.7)**	**(8.7)**
Tax on profit	(93)	(94)	(0.8)	(1.9)	(493)	(549)	(10.3)	(9.5)
Profit from continuing operations	**148**	**111**	**33.3**	**30.4**	**1,526**	**1,687**	**(9.5)**	**(8.4)**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**148**	**111**	**33.3**	**30.4**	**1,526**	**1,687**	**(9.5)**	**(8.4)**
Non-controlling interests	2	1	96.8	96.8	(327)	(379)	(13.7)	(13.7)
Profit attributable to the parent	**150**	**112**	**33.9**	**31.0**	**1,199**	**1,308**	**(8.4)**	**(6.9)**
Balance sheet								
Loans and advances to customers	10,463	9,689	8.0	3.6	132,692	122,608	8.2	8.5
Cash, central banks and credit institutions	2,870	2,135	34.4	31.9	18,636	12,311	51.4	52.7
Debt instruments	2,386	2,425	(1.6)	(1.2)	5,387	7,644	(29.5)	(29.8)
Other financial assets	466	200	133.3	133.1	135	190	(28.8)	(29.0)
Other asset accounts	1,135	872	30.2	28.9	9,945	8,262	20.4	20.3
Total assets	**17,320**	**15,320**	**13.1**	**9.8**	**166,796**	**151,016**	**10.4**	**10.7**
Customer deposits	9,230	8,116	13.7	12.5	69,334	58,544	18.4	19.0
Central banks and credit institutions	4,486	4,457	0.6	(6.6)	31,965	39,169	(18.4)	(18.5)
Marketable debt securities	703	498	41.3	43.8	44,605	33,749	32.2	32.7
Other financial liabilities	550	265	107.8	105.7	2,218	1,820	21.9	21.4
Other liabilities accounts	641	504	27.4	27.1	5,233	4,704	11.2	11.6
Total liabilities	**15,611**	**13,840**	**12.8**	**9.4**	**153,355**	**137,986**	**11.1**	**11.4**
Total equity	**1,709**	**1,480**	**15.5**	**14.1**	**13,441**	**13,029**	**3.2**	**3.6**
Memorandum items:								
Gross loans and advances to customers [B]	10,703	9,872	8.4	4.1	135,202	124,976	8.2	8.4
Customer funds	10,246	9,117	12.4	11.5	72,963	61,625	18.4	18.9
Customer deposits [C]	9,230	8,105	13.9	12.6	69,334	58,544	18.4	19.0
Mutual funds	1,016	1,011	0.5	2.5	3,629	3,081	17.8	17.8
Ratios (%), operating means and customers								
RoTE					12.33	13.65	(1.32)	
Efficiency ratio					47.6	46.7	0.9	
NPL ratio					2.12	2.06	0.06	
Total coverage ratio					88.0	92.8	(4.8)	
Number of employees					16,795	16,193	3.7	
Number of branches					342	364	(6.0)	
Number of total customers (thousands)					20,193	19,746	2.3	

A. Includes exchange differences.
B. Minus reverse repurchase agreements.
C. Minus repurchase agreements.

Secondary segments

EUR million

	Retail Banking				Corporate & Investment Banking			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	37,985	34,855	9.0	11.9	3,485	3,548	(1.8)	7.5
Net fee income	7,661	7,654	0.1	3.3	2,190	1,981	10.5	13.6
Gains (losses) on financial transactions [A]	214	449	(52.3)	(54.0)	2,581	1,818	42.0	57.0
Other operating income	(606)	(283)	114.2	—	41	31	30.8	(79.5)
Total income	**45,254**	**42,674**	**6.0**	**8.1**	**8,296**	**7,378**	**12.5**	**18.3**
Administrative expenses and amortizations	(19,396)	(18,552)	4.6	8.1	(3,391)	(2,902)	16.8	20.4
Net operating income	**25,858**	**24,123**	**7.2**	**8.1**	**4,905**	**4,476**	**9.6**	**17.0**
Net loan-loss provisions	(12,295)	(10,212)	20.4	20.9	(162)	(249)	(35.0)	(33.7)
Other gains (losses) and provisions	(2,691)	(2,126)	26.6	39.3	(174)	(130)	34.0	33.9
Profit before tax	**10,872**	**11,785**	**(7.8)**	**(8.1)**	**4,570**	**4,097**	**11.5**	**19.6**
Tax on profit	(2,586)	(2,950)	(12.3)	(11.5)	(1,280)	(1,098)	16.6	19.7
Profit from continuing operations	**8,286**	**8,835**	**(6.2)**	**(7.0)**	**3,290**	**2,999**	**9.7**	**19.6**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**8,286**	**8,835**	**(6.2)**	**(7.0)**	**3,290**	**2,999**	**9.7**	**19.6**
Non-controlling interests	(849)	(902)	(5.8)	(6.9)	(212)	(182)	16.3	15.1
Profit attributable to the parent	**7,436**	**7,933**	**(6.3)**	**(7.0)**	**3,078**	**2,817**	**9.3**	**19.9**

A. Includes exchange differences.

Secondary segments

EUR million

	Wealth Management & Insurance				PagoNxt			
Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	1,739	847	105.4	112.1	93	22	325.2	320.8
Net fee income	1,265	1,293	(2.1)	0.5	954	881	8.3	6.3
Gains (losses) on financial transactions [A]	149	123	20.8	29.5	(10)	(14)	(29.4)	(32.0)
Other operating income	242	371	(34.8)	(39.3)	102	64	59.9	58.7
Total income	**3,396**	**2,635**	**28.9**	**31.0**	**1,140**	**953**	**19.6**	**17.5**
Administrative expenses and amortizations	(1,156)	(1,054)	9.7	11.6	(1,091)	(1,024)	6.6	6.0
Net operating income	**2,240**	**1,581**	**41.6**	**43.9**	**49**	**(71)**	**—**	**—**
Net loan-loss provisions	21	(14)	—	—	(24)	(44)	(45.6)	(45.8)
Other gains (losses) and provisions	(26)	(36)	(28.6)	(28.0)	(42)	(26)	62.3	66.1
Profit before tax	**2,235**	**1,531**	**46.0**	**48.3**	**(17)**	**(141)**	**(88.1)**	**(87.0)**
Tax on profit	(528)	(349)	51.2	55.5	(59)	(63)	(5.6)	(9.8)
Profit from continuing operations	**1,707**	**1,182**	**44.4**	**46.2**	**(76)**	**(203)**	**(62.7)**	**(60.9)**
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	**1,707**	**1,182**	**44.4**	**46.2**	**(76)**	**(203)**	**(62.7)**	**(60.9)**
Non-controlling interests	(71)	(63)	11.8	9.9	(1)	(12)	(87.8)	(88.2)
Profit attributable to the parent	**1,637**	**1,119**	**46.3**	**48.4**	**(77)**	**(215)**	**(64.0)**	**(62.5)**

A. Includes exchange differences.

4.7 New reporting structure from 1 January 2024

Description of segments

In addition to what has already been explained in the previous sections of this chapter of the Annual report, and in order to align the operating and management model of the retail and commercial and consumer banking areas with Grupo Santander's strategy, on 18 September 2023 we announced that we would adapt our reporting segments, as a result of these changes in the management, starting with the financial information for the first quarter of 2024.

a. Main changes to the composition of Santander's segments

The main changes, which apply from 1 January 2024 to the management information for all periods included in the consolidated financial statements, are as follows:

1. All of the bank's businesses across all markets have been consolidated into five global areas: Retail & Commercial Banking, Digital Consumer Bank, Corporate & Investment Banking, Wealth Management & Insurance and Payments. These become the new primary segments.
2. The changes in financial information are:
   a. The former Retail Banking has been split into two new segments: Retail & Commercial Banking and Digital Consumer Bank. Our cards business now forms part of the new Payments segment.
   b. The results of activities mainly related to financial management located in the countries are fully allocated to their global businesses based on the segment that generates the financial position.
   c. The local corporate centres are fully allocated to each global business.
   d. The revenue sharing criteria between global businesses have been revised to better reflect the contribution of each business to the Group.
3. The former primary segments (Europe, North America, South America and Digital Consumer Bank - which is renamed DCB Europe) are now our secondary segments. All 2023 and 2022 published figures for the countries, regions and the Corporate Centre remain unchanged.

All the changes described above have no impact on the reported Group consolidated financial statements.

b. New composition of Santander's segments

Primary segments

This primary level of segmentation, which is based on the Group's management structure from 1 January 2024, comprises six reportable segments: five operating areas plus the Corporate Centre. The operating areas are:

Retail & Commercial Banking: new area that integrates the retail banking business (individuals) and commercial banking (SMEs and corporates), except for the consumer finance and the cards businesses.

Digital Consumer Bank: comprises all business originated in the consumer finance companies, plus Openbank, Open Digital Services (ODS) and SBNA Consumer.

Corporate & Investment Banking (CIB): this business, which includes Markets, Investment Banking (Global Debt Finance and Corporate Finance) and Global Transactional Banking, offers products and services on a global scale to corporate and institutional customers, and collaborates with other global businesses to better serve our broad customer base.

Wealth Management & Insurance: includes the asset management business (Santander Asset Management), the corporate unit of Private Banking and International Private Banking in Miami and Switzerland and the insurance business (Santander Insurance).

Payments: digital payments solutions, providing global technology solutions for our banks and new customers in the open market. It is structured in two businesses: PagoNxt (merchant, International Trade, A2A Payments and Consumer) and Cards (cards platform and business in the countries).

Secondary (or geographic) segments

At this secondary level, Santander is structured into the segments that made up the primary segments in 2022 and 2023, which are Europe, North America, South America and DCB Europe:

Europe: comprises all business activity carried out in the region, except that included in DCB Europe. Detailed financial information is provided on Spain, the UK, Portugal and Poland.

North America: comprises all the business activities carried out in Mexico and the US, which includes the holding company (SHUSA) and the businesses of Santander Bank, Santander Consumer USA (SC USA), the specialized business unit Banco Santander International, the New York branch and Santander US Capital Markets (SanCap).

South America: includes all the financial activities carried out by Santander through its banks and subsidiary banks in the region. Detailed information is provided on Brazil, Chile, Argentina, Uruguay, Peru and Colombia.

DCB Europe: includes Santander Consumer Finance, which incorporates the entire consumer finance business in Europe, Openbank in Spain and ODS.

In addition to these operating units, both at the primary and secondary segment level, the Group continues to maintain the area of **Corporate Centre**, which includes the centralized activities relating to equity stakes in financial companies, financial management of the structural exchange rate position, assumed within the sphere of the Group's assets and liabilities committee, as well as management of liquidity and of shareholders' equity via issuances.

As the Group's holding entity, this area manages all capital and reserves and allocations of capital and liquidity with the other businesses. It also incorporates goodwill impairment but not the costs related to the Group's central services (charged to the areas), except for corporate and institutional expenses related to the Group's functioning.

To facilitate like-for-like comparisons, in this section we provide 2022 and 2023 data adjusted to reflect the aforementioned changes.

Underlying results and business volumes for 2023 and 2022 are included below, together with comments on 2023 performance, all in line with the new primary and secondary segmentation.

Summary of the Group's income statements by new primary segment

2023. Main items of the underlying income statement of the new primary segments

EUR million

Primary segments	Net interest income	Net fee income	Total income	Net operating income	Profit before tax	Profit attributable to the parent
Retail & Commercial Banking	25,550	4,497	29,754	16,930	7,989	5,659
Digital Consumer Bank	10,221	1,229	12,296	7,033	2,677	1,901
Corporate & Investment Banking	3,594	2,131	7,527	4,140	3,795	2,440
Wealth Management & Insurance	1,513	1,262	3,210	1,994	1,994	1,467
Payments	2,424	2,952	5,298	2,954	1,205	607
Corporate Centre	(41)	(13)	(439)	(829)	(961)	(998)
TOTAL GROUP	**43,261**	**12,057**	**57,647**	**32,222**	**16,698**	**11,076**

2022. Main items of the underlying income statement of the new primary segments

EUR million

Primary segments	Net interest income	Net fee income	Total income	Net operating income	Profit before tax	Profit attributable to the parent
Retail & Commercial Banking	22,093	4,672	26,994	14,935	7,099	5,017
Digital Consumer Bank	10,121	1,269	12,391	7,194	3,880	2,610
Corporate & Investment Banking	3,816	1,922	6,703	3,802	3,379	2,233
Wealth Management & Insurance	883	1,293	2,678	1,574	1,516	1,101
Payments	2,359	2,653	4,874	2,604	1,398	693
Corporate Centre	(652)	(19)	(1,487)	(1,858)	(2,022)	(2,049)
TOTAL GROUP	**38,619**	**11,790**	**52,154**	**28,251**	**15,250**	**9,605**

Retail

RETAIL & COMMERCIAL BANKING

Underlying attributable profit

EUR 5,659 mn

Business performance

Gross loans and advances to customers, minus reverse repurchase agreements and in constant euros declined 3% year-on-year.

Customer deposits (minus repurchase agreements and in constant euros) grew 3%. Mutual funds decreased 1%. As a result, total customer funds increased 2% in constant euros.

Results

Attributable profit in the year was EUR 5,659 million, 13% higher year-on-year. In constant euros, profit rose 12%. By line:

- Total income increased 12% due to higher net interest income (+19%). On the other hand, net fee income remained stable, gains on financial transactions decreased 27%, while other operating income was 61% more negative.
- Administrative expenses and amortizations were 10% higher but below total income growth. The efficiency ratio improved to 43.1%.
- Net loan-loss provisions rose 11%.
- Other gains (losses) and provisions recorded a EUR 2,401 million loss compared to a EUR 1,950 million loss in 2022.

Retail & Commercial Banking

EUR million

Underlying income statement	2023	2022	%	% excl. FX
Net interest income	25,550	22,093	15.6	18.9
Net fee income	4,497	4,672	(3.8)	(0.1)
Gains (losses) on financial transactions [A]	854	1,141	(25.2)	(27.0)
Other operating income	(1,146)	(913)	25.6	61.2
Total income	**29,754**	**26,994**	**10.2**	**12.5**
Administrative expenses and amortizations	(12,825)	(12,059)	6.3	10.3
Net operating income	**16,930**	**14,935**	**13.4**	**14.2**
Net loan-loss provisions	(6,540)	(5,887)	11.1	11.1
Other gains (losses) and provisions	(2,401)	(1,950)	23.1	33.6
Profit before tax	**7,989**	**7,099**	**12.5**	**11.8**
Tax on profit	(1,927)	(1,676)	15.0	15.6
Profit from continuing operations	**6,062**	**5,423**	**11.8**	**10.6**
Net profit from discontinued operations	—	—	—	—
Consolidated profit	**6,062**	**5,423**	**11.8**	**10.6**
Non-controlling interests	(403)	(406)	(0.9)	(2.9)
Profit attributable to the parent	**5,659**	**5,017**	**12.8**	**11.7**
Business volumes				
Gross loans and advances to customers [B]	618,773	629,478	(1.7)	(3.0)
Customer funds	712,433	689,330	3.4	2.3
Customer deposits [C]	621,598	598,110	3.9	2.8
Mutual funds	90,835	91,220	(0.4)	(1.0)

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Consumer

DIGITAL CONSUMER BANK

Underlying attributable profit

EUR 1,901 mn

Business performance

Gross loans and advances to customers, minus reverse repurchase agreements and in constant euros rose 6% year-on-year.

Customer deposits minus repurchase agreements and in constant euros increased 13%. Mutual funds rose 18% in constant euros and, consequently, total customer funds increased 13%.

Results

Attributable profit in 2023 was EUR 1,901 million, 27% less than in 2022. In constant euros, profit declined 26% as follows:

- Total income grew 1% supported by net interest income (+3%). On the other hand, net fee income and gains on financial transactions decreased 2% and 20%, respectively, and other operating income fell 17%.
- Administrative expenses and amortizations increased 3%, which together with total income growth, resulted in a 0.9pp increase in the efficiency ratio to 42.8%.
- Net loan-loss provisions increased 30%.
- Other gains (losses) and provisions recorded a EUR 250 million loss compared to a EUR 91 million loss in 2022.

Digital Consumer Bank

EUR million

Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	10,221	10,121	1.0	3.5
Net fee income	1,229	1,269	(3.1)	(2.5)
Gains (losses) on financial transactions [A]	116	144	(19.9)	(20.0)
Other operating income	730	856	(14.7)	(17.0)
Total income	**12,296**	**12,391**	**(0.8)**	**1.1**
Administrative expenses and amortizations	(5,263)	(5,197)	1.3	3.5
Net operating income	**7,033**	**7,194**	**(2.2)**	**(0.6)**
Net loan-loss provisions	(4,106)	(3,222)	27.4	29.8
Other gains (losses) and provisions	(250)	(91)	173.0	187.0
Profit before tax	**2,677**	**3,880**	**(31.0)**	**(30.0)**
Tax on profit	(426)	(881)	(51.6)	(50.5)
Profit from continuing operations	**2,251**	**3,000**	**(25.0)**	**(24.0)**
Net profit from discontinued operations	—	—	—	—
Consolidated profit	**2,251**	**3,000**	**(25.0)**	**(24.0)**
Non-controlling interests	(350)	(389)	(10.2)	(10.2)
Profit attributable to the parent	**1,901**	**2,610**	**(27.2)**	**(26.1)**
Business volumes				
Gross loans and advances to customers [B]	206,649	196,878	5.0	5.8
Customer funds	117,963	106,027	11.3	13.1
Customer deposits [C]	114,334	102,946	11.1	13.0
Mutual funds	3,629	3,081	17.8	17.8

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

CIB

CORPORATE & INVESTMENT BANKING

Underlying attributable profit

EUR 2,440 mn

Business performance

Gross loans and advances to customers, minus reverse repurchase agreements and in constant euros decreased 3% year-on-year.

Customer deposits minus repurchase agreements and in constant euros decreased 7% while mutual funds rose 72% in constant euros. As a result, total customer funds declined 3%.

Results

Attributable profit in 2023 was EUR 2,440 million, 9% more than in 2022. In constant euros profit was 16% higher as follows:

- Total income grew 17% supported by net fee income (+14%). Gains on financial transactions increased 126% while net interest income remained stable.
- Administrative expenses and amortizations increased 20% and the efficiency ratio rose 1.7 pp to 45.0%.
- Net loan-loss provisions decreased 35%.
- Other gains (losses) and provisions recorded a EUR 181 million loss compared to a EUR 166 million loss in 2022.

Corporate & Investment Banking

EUR million

Underlying income statement	2023	2022	%	% excl. FX
Net interest income	3,594	3,816	(5.8)	(0.3)
Net fee income	2,131	1,922	10.8	14.1
Gains (losses) on financial transactions [A]	1,795	962	86.6	125.6
Other operating income	7	3	122.7	(95.9)
Total income	**7,527**	**6,703**	**12.3**	**16.9**
Administrative expenses and amortizations	(3,387)	(2,901)	16.7	20.3
Net operating income	**4,140**	**3,802**	**8.9**	**14.3**
Net loan-loss provisions	(165)	(257)	(35.8)	(34.5)
Other gains (losses) and provisions	(181)	(166)	8.9	25.8
Profit before tax	**3,795**	**3,379**	**12.3**	**17.6**
Tax on profit	(1,137)	(955)	19.0	21.4
Profit from continuing operations	**2,658**	**2,424**	**9.6**	**16.0**
Net profit from discontinued operations	—	—	—	—
Consolidated profit	**2,658**	**2,424**	**9.6**	**16.0**
Non-controlling interests	(219)	(191)	14.3	13.0
Profit attributable to the parent	**2,440**	**2,233**	**9.2**	**16.2**
Business volumes				
Gross loans and advances to customers [B]	137,578	142,646	(3.6)	(3.2)
Customer funds	186,410	196,021	(4.9)	(3.3)
Customer deposits [C]	171,845	186,678	(7.9)	(6.8)
Mutual funds	14,565	9,343	55.9	72.0

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Wealth

WEALTH MANAGEMENT & INSURANCE

Underlying attributable profit

EUR 1,467 mn

Business performance

Gross loans and advances to customers, minus reverse repurchase agreements and in constant euros increased 2% year-on-year.

Customer deposits minus repurchase agreements and in constant euros rose 1%. Mutual funds were up 23%, resulting in a 14% increase in total customer funds.

Results

Attributable profit in the year was EUR 1,467 million, 33% increase year-on-year. In constant euros, it rose 35%. By line:

- Total income increased 22%, due to net interest income growth (+76%). Net fee income remained stable and gains on financial transactions increased (+69%), while other operating income decreased 37%.
- Administrative expenses and amortizations rose 12%, which, together with total income growth, resulted in a 3.3 pp improvement in the efficiency ratio to 37.9%.
- Net loan-loss provisions were positive in the year with net releases of EUR 17 million (EUR 21 million net provisions in 2022).
- Other gains (losses) and provisions recorded an EUR 18 million loss compared to a EUR 37 million loss in 2022.

Wealth Management & Insurance

EUR million

Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	1,513	883	71.4	76.0
Net fee income	1,262	1,293	(2.4)	0.2
Gains (losses) on financial transactions [A]	170	108	56.7	69.4
Other operating income	266	394	(32.4)	(36.9)
Total income	**3,210**	**2,678**	**19.9**	**21.6**
Administrative expenses and amortizations	(1,216)	(1,104)	10.2	11.8
Net operating income	**1,994**	**1,574**	**26.7**	**28.4**
Net loan-loss provisions	17	(21)	—	—
Other gains (losses) and provisions	(18)	(37)	(52.5)	(51.0)
Profit before tax	**1,994**	**1,516**	**31.5**	**33.2**
Tax on profit	(454)	(346)	31.2	34.5
Profit from continuing operations	**1,540**	**1,170**	**31.6**	**32.8**
Net profit from discontinued operations	—	—	—	—
Consolidated profit	**1,540**	**1,170**	**31.6**	**32.8**
Non-controlling interests	(73)	(69)	5.1	3.1
Profit attributable to the parent	**1,467**	**1,101**	**33.3**	**34.8**
Business volumes				
Gross loans and advances to customers [B]	22,603	22,247	1.6	2.2
Customer funds	157,142	137,423	14.3	14.0
Customer deposits [C]	57,643	57,014	1.1	1.4
Mutual funds	99,499	80,409	23.7	22.9

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Payments

PAYMENTS

Underlying attributable profit

EUR 607 mn

Business performance

Gross loans and advances to customers, minus reverse repurchase agreements and in constant euros rose 9%.

Results

Attributable profit in the year was EUR 607 million, a 12% decrease year-on-year. In constant euros, profit declined 4% year-on-year, by line:

- Total income increased 12%, driven by growth in net fee income (+13%) and net interest income (+11%) .
- Administrative expenses and amortizations rose 6%, below revenue growth, resulting in a 2.3 pp improvement in the efficiency ratio to 44.2%.
- Net loan-loss provisions increased 45%.
- Other gains (losses) and provisions recorded an EUR 84 million loss compared to a EUR 74 million loss in 2022.

Payments

EUR million

Underlying income statement	**2023**	**2022**	**%**	**% excl. FX**
Net interest income	2,424	2,359	2.8	10.8
Net fee income	2,952	2,653	11.3	13.0
Gains (losses) on financial transactions [A]	1	20	(97.1)	—
Other operating income	(79)	(158)	(50.1)	45.5
Total income	**5,298**	**4,874**	**8.7**	**11.6**
Administrative expenses and amortizations	(2,344)	(2,271)	3.2	6.1
Net operating income	**2,954**	**2,604**	**13.5**	**16.5**
Net loan-loss provisions	(1,666)	(1,132)	47.2	44.8
Other gains (losses) and provisions	(84)	(74)	13.5	41.3
Profit before tax	**1,205**	**1,398**	**(13.8)**	**(9.2)**
Tax on profit	(509)	(603)	(15.6)	(14.2)
Profit from continuing operations	**696**	**795**	**(12.5)**	**(5.2)**
Net profit from discontinued operations	—	—	—	—
Consolidated profit	**696**	**795**	**(12.5)**	**(5.2)**
Non-controlling interests	(89)	(103)	(12.9)	(14.4)
Profit attributable to the parent	**607**	**693**	**(12.4)**	**(3.6)**
Business volumes				
Gross loans and advances to customers [B]	23,709	22,161	7.0	9.1
Customer funds	1,418	688	105.9	105.9
Customer deposits [C]	1,418	688	105.9	105.9
Mutual funds	—	—	—	—

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

5. Research, development and innovation (R&D&I)

Research, development and innovation activity

Innovation and technological development are crucial to Santander's strategy. We focus on operational excellence and customer experience to meet the challenges that stem from digital transformation.

The information we gather through new technology platforms helps us to better understand the customer journey and design a more accurate digital profile which boosts confidence and increases customer loyalty.

In addition to competition from other banks, we must be mindful of new entrants to the financial system that use new technology to stand out from the crowd and gain a competitive advantage.

Developing a sound strategic technology plan must provide:

- greater capacity to adapt to customers' needs (customized products and services, full availability and excellent, secure service on all channels);
- enhanced processes for Santander's professionals to ensure greater reliability and productivity; and
- proper risk management that provides teams with the means to spot and assess all business, operational, reputational, regulatory and compliance risks.

As a global systemically important bank, Santander and its subsidiaries face increasing regulatory demands that impact system models and underlying technology, which require considerable investments to guarantee compliance and legal certainty.

As in previous years, the European Commission's 2023 EU Industrial R&D Investment Scoreboard (based on 2022 data) recognized our technological effort. We were the top Spanish bank and the second bank globally in R&D investment, with EUR 1,748 million. The equivalent investment in R&D&I to that considered in the ranking was EUR 2,197 million. See note 18 to the consolidated financial statements.

Technology strategy

To aid the Group's strategy to become the best open digital platform for financial services, our technology must boost efficiency and minimize risk through optimization, growth and value creation.

Our IT strategy ensures that our technology supports future business growth and is based on simplification, reusable components and platform model. It is consistent with the Group's strategic initiatives and global business and operating models.

As a result, and mainly because of the successful implementation of Gravity in September 2023, Santander was named the World's Most Innovative Bank by *The Banker* magazine. Implementing Gravity laid the foundations for digitalization with its own core banking software.

To ensure the commitment of all Group units to the IT strategy, the active players in the key decisions of the platform model meet monthly in the Global Platform Governance (GPG) formed by the global, regional and global business technology heads.

These principles, combined with the global businesses, guide technological development and integration with such new digital capabilities as agile methodologies, the public and private Cloud, core systems development, and advanced technological skills (API - application programming interface-, artificial intelligence, robotics, blockchain, etc.) and data.

To implement our technology strategy, we use internal regulation, the Group's commitment and experience in working with our entities and a governance model that defines projects and initiatives to shape the strategy across our footprint.

We constantly develop our Technology and Operations (T&O) model as we adapt to business demands. We created Santander Digital Services (SDS) in January 2023, bringing together Santander Global Technology & Operations and Santander Technology and Operations Spain. The company, with 9,000 employees in Spain, Poland, Portugal, the UK, Mexico, the US, Brazil and Chile, is a key element in Santander's technology and operations strategy, offering its services and know-how to the different Group entities and banks.

Innovation is at the core of Santander's activity, with a commitment to the latest technologies that enable more robust, efficient and secure systems and processes, in which SDS teams play a key role.

Finally, like the rest of the Group, SDS is committed to improving its positive impact on society with plans to attract diverse tech talent (BeTech) to help us gain the internal knowledge necessary for our transformation, enhancing internal volunteering initiatives, and implementing specific plans to offset our carbon footprint.

Technological infrastructure

Santander has a network of high-quality data processing centres (CPDs) interconnected by a redundant communications system. They are spread across strategic markets to support and develop our operations. They combine traditional IT systems with the capabilities of a private, on-premise cloud, which, thanks to its swift adoption, enables us to integrate management of the business areas' technology, accelerate digitalization and achieve significant cost savings.

Santander has migrated more than 95% of its technology infrastructure to the cloud and has already started to deploy next generation infrastructure in the on-premise private cloud with a technology architecture that provides greater resilience and efficiency while reducing energy consumption. Our local Cloud Centres of Excellence (CCoEs), coordinated by Global CCoE, guarantee consistent and rigorous cloud adoption across our entities. This minimizes risk in accordance with our public cloud policy. Migration will also contribute towards Santander's responsible banking goals as we expect it to reduce the energy our technology infrastructure consumes by 70%.

Cybersecurity

Cybersecurity is crucial to support our purpose of helping people and businesses prosper and to offer customers excellent digital services. The growing cyber threat combined with the increasing reliance on digital systems make cybersecurity one of Santander's main priorities.

In 2023, Santander continued evolving our cyber defences in line with the Cybersecurity Vision and key strategic initiatives. New controls were implemented following a cyber threat-led approach, covering current areas of risk and new attack methods. In addition to the evolution of our Ransomware readiness and Data Leakage Prevention frameworks developed in 2022, we designed a new Distributed Denial of Service framework, responding to the increased threat derived from the geopolitical backdrop. New controls have been developed, notably around supply chain, backup and recovery and fraud prevention measures reinforced by leveraging behavioural biometric solutions and machine learning technology.

To strengthen our response, streamline operations and maximize resources, we inaugurated the Santander Fusion Centre in 2023, enabling closer collaboration between Cyber and IT Monitoring teams. The Fusion Centre operates 24 hours a day, 7 days per week, providing services to all Group entities, detecting, monitoring and responding to operational failures and cybersecurity events.

In parallel, Santander is preparing for the new requirements of upcoming regulations on cybersecurity matters, whilst decoding the pros and cons derived from emerging technologies, such as Quantum and Generative AI. For example, the collaboration with the World Economic Forum to publish "Quantum Readiness Toolkit: Building a Quantum-Secure Economy", and the implementation of new use cases leveraging AI to improve detection capabilities and automation in cybersecurity operations.

Santander continues boosting public-private collaboration, going beyond information sharing. In 2023, Santander was formally associated with the Cybercrime Atlas initiative of the World Economic Forum as a member of the Steering Co. and co-led the first cyber meeting of the European Financial Services Roundtable and Chairs the European FS-ISAC Board. Santander also hosted the 11th Institute of International Finance (IIF) Cyber Roundtable.

Santander proactively identifies IT assets, systems and information and assesses their risk and protection levels to detect and remediate any potential weaknesses by using vulnerability scanning, penetration testing and red team simulations of real cyberattacks. Internal and external auditors periodically review our information systems.

In addition to regular testing and reviews, independent third-party certification authorities review and certify our critical cybersecurity processes. Certifications, including the International Organization for Standardization (ISO) 27001:2022 and 27017, and the Statement on Standards for Attestation Engagements (SSAE) 18, are periodically reviewed and updated, certifying new processes and controls annually.

For more details on the cybersecurity initiatives we ran in 2023, see the 'Acting responsibly towards customers' section in 'Responsible banking' chapter. For details on the measurement, monitoring and control of cybersecurity-related risks, and their respective mitigation plans, see section 6.2 'Operational risk management' in 'Risk management and compliance' chapter.

Fintech ecosystem

Santander is an active participant in the fintech ecosystem in all the regions where we operate. As part of our efforts to foster and channel innovation into Santander while providing better customer experience and improving our efficiency, we work with fintech companies as partners. Through our Fintech Station programme, we work with startups and scaleups on pilot programmes and either implement or co-create new products and services with them. In 2023, Santander Fintech Station worked on 15 proof of concepts (POCs) and put six initiatives into production. Santander also provides banking services to these fintech companies, including growth financing, transactional banking, FX and advisory services among others. As an example of collaboration with a fintech, in 2023 SCIB partnered with Komgo to digitalize trade finance and made an equity investment in the company.

Santander is an active investor in the fintech sector, sometimes directly (like with Komgo) and through funds sponsored by the Group, such as Mouro Capital (global fintech venture capital fund). To date, Mouro has invested in 47 companies throughout Europe, North America and South America, and continues to be a key tool to spark innovation within the Group. Santander partners with many companies in Mouro's portfolio, for example with ThetaRay for AML/Sanctions screening globally and Autofi for PoS auto financing in the US. Atempo Growth, a pan-European venture debt fund also sponsored by Santander, solidified its market position in 2023, having funded 26 companies, many of them in the fintech space (e.g. Form3, Acin, Clarity.ai). Finally, in 2023, Santander launched a venture debt fund alongside Inveready to provide financing to high growth startups in Spain.

For more details on our digital and innovative products and services for individuals and corporates, as well as references to cybersecurity policies, see section 3.4 'Acting responsibly towards customers' in 'Responsible banking' chapter.

6. Significant events since year end

In accordance with the agreement reached by the March 2023 general shareholders' meeting, on 30 January 2024 the board of directors approved a capital reduction of EUR 179,283,743.50 through the redemption of 358,567,487 shares (representing approximately 2.22% of the share capital), acquired in the First 2023 Share Buyback Programme, with which the share capital has been set at EUR 7,912,789,286, represented by 15,825,578,572 shares.

7. Trend information 2024

This directors' report contains prospective information on the directors' plans, forecasts and estimates, based on what they consider to be reasonable assumptions. Readers of this report should take into account that such prospective information must not be considered a guarantee of our future performance. As the plans, forecasts and estimates are subject to numerous risks and uncertainties, our future performance may not match initial expectations. These risks and uncertainties are described in the 'Risk management and compliance' chapter of this report and in note 54 of the consolidated financial statements.

→ Macroeconomic environment

We expect a moderate economic slowdown in 2024, in an environment of continued uncertainty due to global geopolitical tensions. We expect inflation will continue to decelerate gradually towards the central banks' targets, which should allow regions such as Latin America to continue to cut rates and others, such as the US and Europe, to slowly start reducing them, particularly in the second half of 2024. We do not expect this slowdown to cause a marked pick up in unemployment, given the tight labour supply in most markets.

Our **macroeconomic forecasts for 2024** by country/region are as follows:

Eurozone

Following the economic stagnation in 2023, we expect the weaker tone to continue in 2024 (forecast GDP growth of 0.6%). However, the eurozone may avoid a recession as we expect private consumption and foreign demand to pick up. We believe inflation will continue to fall, though not linearly, as the withdrawal of fiscal measures causes temporary upturns. We expect a slight rise in the unemployment rate while remaining close to historic lows. Fiscal policy is expected to adopt a restrictive tone as the Stability Pact is reactivated. The reduction in inflation could pave the way for interest rate cuts in the second half of 2024.

Spain

We expect GDP growth to slow down in 2024 to 1.6%. Private consumption will likely be the main driver of growth as household disposable income remains high (lower inflation, expected rate cuts in 2024 and a stable labour market). Tourism is expected to grow above GDP, but decelerating. We expect inflation (headline and core) will end the year around 3%. Energy should no longer detract from inflation and the withdrawal of the measures introduced to combat the energy crisis may drive a step up in inflation. Despite this, underlying pressures should moderate and we do not expect second round effects.

UK

Economic growth is forecasted to be practically flat, with 0.4% GDP growth, with weak consumption due to real income restraints (due to higher interest rates, no price subsidies and unchanged tax thresholds, among other reasons). We expect a soft landing in the labour market from full employment to an unemployment rate below 5%. Inflation should be close to 3% by the end of 2024, paving the way for possible Bank of England base rate cuts in the second quarter. We expect rates to end the year at 4.5%.

Portugal

Economic growth is expected to moderate in 2024 (forecast GDP growth of 0.6%), driven by subdued domestic demand, as households and businesses face higher interest rates and weaker purchasing power. In the first half of 2024, external demand will likely be affected by the weak recovery in the eurozone but is expected to reverse in the second half of the year, benefiting Portuguese exports. We project the unemployment rate will rise to 8% (near its natural rate) in 2024, due to the lagged effects from lower economic activity. We believe inflation will remain around 2% throughout the year.

Poland

The economy started to recover in the third quarter of 2023 and we expect higher GDP growth around 3% in 2024, driven by private consumption. The strong labour market and rising real incomes are expected to support domestic demand while the external sector is expected to contribute less to this economic recovery. Our projections show a further decline in inflation to 3% year-on-year in the first quarter and then a pick up to around 7%, dependent on the new government's measures. We assume that the central bank's benchmark interest rate will remain unchanged at 5.75% until the fourth quarter of 2024.

US

After a more dynamic 2023 than expected, in 2024, we believe economic growth will moderate, affected by cumulative interest rate hikes, post-pandemic savings running out and a less expansionary fiscal policy. We are forecasting a soft landing accompanied by a further rebalancing of the labour market contributing to a gradual decline in inflation. The Fed is waiting to make sure that inflation is converging towards the target before lowering rates and will slow down its balance sheet reduction.

Mexico

We expect economic growth to remain robust, driven by investments linked to nearshoring and related infrastructure investment projects. We believe the central bank will begin to cut the official rate, albeit gradually, depending on inflation and whether expectations are anchored at its 3% target.

Brazil

We expect a deceleration due to lower global economic growth partially explained by the strong agricultural growth in 2023, which will be difficult to repeat. Additionally, there will be uncertainty about commodity prices in an environment of lower demand growth in major developed and developing economies. On the other hand, further rate cuts as monetary policy continues to normalize (assuming inflation nears target) will support GDP growth.

Chile

After completing its adjustment process in 2023 and correcting the macro imbalances that were generated in the previous expansionary phase, the economy is well positioned to return to growth rates of around 2.5%. We expect inflation will be very close to the 3% target, allowing the monetary policy to get closer to the neutral rate, accelerating rate cuts.

Argentina

The economy could experience its second year of negative growth, but this time with an intense adjustment programme that aims to balance fiscal accounts and moderate inflation. The extension of the financial agreement with the IMF and an exchange rate more in line with fundamentals, following the devaluation at the end of 2023, should ease external pressures and enable the country to rebuild international reserves.

→ Financial markets

Financial markets ended 2023 pricing in optimism regarding upcoming monetary policy changes in advanced countries.

Historically, as monetary policy eases (especially at the beginning of the cycle) there have been downward corrections in long-term bond yields. We expect this to occur again in 2024, with a greater impact on US debt than German. We also expect a gradual normalization of yield curve slopes in the sovereign bond market once official rates start to decline.

Narrower interest rate differentials and the cyclical gap between the US and eurozone economies closing suggest the US dollar will depreciate gradually.

We believe a soft landing will support equity markets. The global environment suggests positive but low absolute returns for equities in 2024. Lower activity, higher interest burdens and less ability to pass through costs to prices imply more pressure on profit margins.

In emerging markets, the Chinese economy and the measures it will take to solve its real estate problems remain a major source of uncertainty. In Latin America, we believe markets will benefit from the progressive containment of inflation, the rate cuts by Latin American central banks and a more benign global monetary environment in which central banks in advanced countries may also start cutting rates.

The risk in this central scenario is that central banks in advanced economies delay the start of their cuts, or that the Chinese economy slows further, negatively affecting investor appetite.

The banking environment will be shaped by monetary policy, the gradual withdrawal of excess liquidity and a lower economic growth, which are expected to slightly impact net interest income and credit quality.

Risks are slightly skewed to the downside. They may come from non-bank financial players and include potentially disorderly asset price adjustments and liquidity market disruptions. However, most entities should have enough capital to cope.

Aside from the economic environment, banks must digitalize faster while identifying and managing climate change risks.

→ Financial regulation

In 2024, we expect greater emphasis on sustainability, digital and retail banking agendas. European Parliament elections in June 2024 (every five years) could slow down the adoption and presentation of new proposals.

Prudential and resolution

Following the 2023 agreement in Europe on Basel III reform, we expect the final framework to be published in early 2024 and to be implemented from 1 January 2025. The US and the UK will continue to discuss their respective proposals to implement Basel III. The Basel Committee will continue to work on the lessons learned from the collapse of Silicon Valley Bank and Credit Suisse, and on further developments of the prudential framework for cryptoasset exposures. In addition, we expect discussion on specific issues such as the capital buffer framework in Europe as well as on the securitization framework at international level. We do not expect much progress on the crisis management framework review in Europe, given the lack of agreement on highly political and sensitive issues.

Sustainability

We expect agreements on the corporate sustainability due diligence directive, energy efficiency directive and the proposal on regulations for ESG ratings activity in Europe. During 2024, the Commission will work on its commitment to reduce the reporting burden by 20%. The EBA, EIOPA and ESMA are expected to publish their definition of greenwashing in the European financial sector. The EBA plans to analyse the need to review the Pillar 1 framework to ensure that climate and environmental risks are adequately integrated. We also expect it to start work on guidelines on transition plan content for banks. We expect the Basel Committee will reach an agreement to complement the Pillar 3 transparency requirements with environmental risk management information.

Digital

We believe discussions around artificial intelligence (AI) will intensify, given the opportunities and risks of using generative AI. These ongoing discussions prevented adoption of AI regulation in Europe in 2023, and it is now expected in 2024. G7 principles were recently approved and we expect development of more international principles from different platforms. Discussions in the world of data, payments and CBDCs will continue to be very intense. The Financial Stability Board (FSB) approved several framework recommendations for the regulation of cryptoassets and stablecoins during 2023 that are expected to be implemented by some jurisdictions in 2024.

Retail banking

The debate will be very much focused on the European Commission's Retail Investment Strategy and on specific issues in certain jurisdictions linked to the consumer protection debate and the rising cost of living.

These are the main management priorities for 2024 in our Global Business segments and regions:

Retail

Retail & Commercial Banking

A new global business integrating our retail and commercial banking activities

Retail & Commercial Banking's priorities for 2024 are to:

→ **Implement a common operating model**, leveraging the scale of Group and our local presence.

→ Spread **transformation** efforts across our footprint to foster simplification, process automation and deployment of our best-in-class tech platform.

→ **Further increase profitability** supported by customer base growth and cost-to-serve efficiencies.

- With the aim of better serving our customers, improving efficiency and driving value creation, our focus in 2024 will be on converging our retail and commercial customers to a **common operating model**.

  This business and operating model has been designed to deliver our vision of becoming a **digital bank with branches**, powered by the Santander network, making all our products and services available to our customers through our websites and applications, with the branch network serving as a powerful sales and advisory channel.

  The global model will be implemented across our footprint and will leverage the Group's scale and local presence.

- In 2024, we will extend our **One Transformation** efforts to all our countries, having concentrated on Spain, Mexico and the US in 2023 (where we achieved 112 bps in efficiency improvements).

  Our transformation will continue to rest on **three strategic transformation pillars**: i) customer experience; ii) operational leverage; and iii) global technology platform.

  - We will **further simplify our product offering** and make it digitally available to enhance customer experience. By offering a minimum set of products that are highly standardized across markets, we will be able to simplify our operations and improve quality and user experience.

  - We will **streamline additional processes** by promoting the reduction of operational activities, use of automation tools and lean organizational structures. This should enable us to improve our efficiency, accuracy and speed, as well as reduce risks.

  - Our **global technological platform**, based on our award-winning back-end technology (Gravity(and our cloud based front-end technology (ODS), will be a key element in our transformation.

    The first technical integration of Gravity and ODS has already been completed in the US, where a new fully-digital offering will be launched nationwide in 2024. All other local units will adopt and/or converge towards the global technological platform in 2024.

  Executing these three pillars across all our RCB footprint will help the Group progress towards achieving on the targets set out at the 2023 Investor Day.

- Customer growth, cost-to-serve efficiencies and a disciplined approach to capital, will contribute to increased **profitability in 2024**.

  Customer satisfaction across all segments will remain at the core of our agenda in 2024 as a driver for growth. Execution towards our common operating model will contribute to delivering an exceptional user experience which, with advanced data analytics and in-market presence (digital bank with branches), will promote customer growth.

  The streamlining of processes and the deployment of a global tech platform will pave the way towards a **lower cost to serve.**

Customer experience	Operational leverage	Global platform
Product simplification and digital first	**Common operating model,** globally leveraging **process automation**	**Proprietary back-end** (Gravity) and our **cloud based front-end** (ODS) technologies

Consumer

Digital Consumer Bank

A single model across our markets for our consumer and auto finance business and for Openbank

Our priorities for 2024 are to:

→ Expand our **leadership in consumer lending** across our footprint (e.g. #1 finance company in Europe and LatAm, top 5 in the US and top 10 in China in auto finance) by providing the best customer experience and enhancing our global relationships.

→ **Converge towards a more digital global operating model,** building a world-class digital offering in mobility, supporting our partners' transformation journeys.

→ Continue to build **flex-term solutions** (leasing, subscription) based on common platforms.

Our focus is to address our customers' needs, as they evolve both in mobility and consumer financing, by providing them with **best-in-class point of sale solutions, available through their channel of choice**.

We are a growth arm of Santander, by bringing mobility, consumer financing and digital banking capabilities at the same time to any market:

- **Mobility**: we are the largest global franchise in a growing market. DCB's competitive advantages include our global reach, our strong relationships with all players in the value chain and our service quality. We focus on improving digital solutions for our end customers and partners and investing in our leasing and subscription global digital platforms.
- **Consumer financing (non-auto)**: we are a strong player in Europe and Latin America for checkout lending, buy now, pay later, credit cards and direct loans. We have specialized know-how and tech platforms, with the aim of capturing multi-product customers.
- **Digital Banking:** through Openbank and its advanced data, tech and product capabilities, we can quickly expand into other markets with excellent and enhanced deposit gathering possibilities.

In 2024, our strategic projects include:

- **Mobility:** deploy our common leasing platform in a few European markets, continue to develop digital capabilities for OEMs, dealers and new digital players. Expand existing partner relationships across the US and Latin America.
- **Consumer financing:** execute signed flagship deals with major global tech companies and continue to develop solutions in Zinia's new tech stack.
- **Openbank:** further grow customers in Spain and recently entered European markets by continuing to provide a great, fully-digital customer experience.

Moreover, we will continue increasing our **deposit based funding** and the **originate to distribute** model by expanding our securitization programme.

Customer experience	Operational leverage	Global platform
Global relationship management (OEMs, importers and retailers)	**Operational & commercial benchmark** to maximize profitability and growth	From multiple country-specific platforms to **global platforms** (e.g. leasing, BNPL)

CIB

Corporate & Investment Banking

Our global platform to support corporates and institutions

Our aim is to become a focused, world-class Corporate & Investment Banking business, positioning ourselves as a trusted advisor to our clients whilst delivering profitable growth. Our priorities for 2024 are to:

- Deepen our client relationships with a particular focus on the US.
- Make our centres of expertise more sophisticated and further digitalize our business.
- Manage capital actively.

In order to deliver on our 2024 priorities, we will **focus on the following levers**:

- **Deepen client relationships**:
  - Boost strategic dialogue, accelerating advisory/value-added products and services to continue growing our fee business.
  - Focus on executing the plan to take our US CIB franchise to the next level, selectively expanding our client base and product capabilities in areas adjacent to our strengths.
  - Deliver CIB products and services to the Group's customer base, fostering collaboration with other Santander businesses.
- **Global platforms**:
  - Active capital management to optimize returns, deepening the Originate-to-Share model to accelerate asset rotation and increase global origination.
- **Operational leverage:**
  - Reinforce our global centres of expertise.
  - Continue building Global Markets business to increase activity with our corporate and institutional clients.
  - Further leverage technology and invest in AI to digitalize the business and automate end-to-end processes.
- Attract, develop and retain **top talent**.

Customer experience

Trusted advisor for our customers, leveraging our global and local products

Operational leverage

Continue growing **fee and transactional business** through our **global centres of expertise and tech**

Global platform

Optimize capital returns on the back of global origination and **distribution capabilities**

Wealth

Wealth Management & Insurance

Common service models for private banking, asset management and insurance businesses

Our ambition in 2024 is continue building the **best Wealth and Insurance Manager in Europe and the Americas** through 3 strategic pillars:

→ Improve our customer experience and expand our presence to new countries and businesses.

→ Boost operational leverage through our global operations and factories.

→ Continue to build our global platforms.

With the aim of maintaining double-digit growth, better serving our customers and remaining one of the most important growth engines of the Group, we will continue to work to become the best Wealth and Insurance Manager in Europe and the Americas.

To deliver on this ambition, our priorities for 2024 are organized around three pillars:

- **Customer experience and growth through the development of new businesses and expanding our presence to new countries**. We are entering new markets that are key for our business such as the domestic side of the US or the Middle East. On the Asset Management side, we plan to significantly grow our Alternatives and Institutional businesses. In Insurance, we are focusing on businesses with greater growth potential such as Health, Savings or SMEs, while streamlining our processes to deliver a better customer experience.
- **Boost operational leverage through our global operations and factories**. We are reinforcing the collaboration among our businesses and also with Retail & Commercial Banking and Corporate & Investment Banking to offer the best of our factories and footprint to our customers. We are using our global factories to implement our complete Private Banking model across our footprint and to create a systematic approach to investment advice across countries and simplify and streamline our insurance products and services.
- **Continue building our global platform across the three businesses**. Through a new global investments platform, we are digitalizing the way we distribute investments and provide advice in our markets. We are also completing our Private Banking platform with a focus on digital and we are building new global business platforms in Insurance.

Customer experience

Providing our customers with a **specialized product & service** proposition in all countries

Operational leverage

Leverage our global operations and factories **to connect countries** and increase **collaboration with CIB and Retail**

Global platform

Global platforms and infrastructure to improve efficiency and time-to-market

Payments

Payments

Single infrastructures for payments solutions: PagoNxt and Cards

Our priorities for 2024 are to:

→ Scale up our global platform of innovative payments and integrated value-added solutions

→ Roll out our global payment platform to all our regions and the open market

→ Expand our cards business while improving customer experience

PagoNxt

- **Merchant**
  - Strategic management of market share and profitable growth, investing in commercial capabilities to further expand business across Santander's banks and capture opportunities in the open market.
  - Focus on product globalization and delivery of strategic value-added services.
  - Investment in globalizing technology to improve efficiency and lower cost per transaction, and scale up our platform.
- **OneTrade**
  - Complete the deployment of PagoNxt solutions for international business across Santander markets. Scale up open market activities.
  - Leverage our scale to deliver a market leading proposition.
  - Consolidate the OneTrade platform to sustain business growth and capture synergies with the Group.
- **Payments Hub**
  - Continue expansion of the global payments platform reaching seven different markets.
  - Migrate a significant volume of transactions so more than 2 billion are processed through the payments platform in the year.
  - Continue driving a lower cost per transaction through an overall efficiency plan.
- **Ebury**
  - Consolidate customer franchise through product development, enhanced commercial capabilities and geographical expansion.
  - Drive operational leverage and significantly improve profitability.

Cards

We aim to provide exceptional payments experience, fostering customer loyalty and leveraging transactional data to enhance profitability.

To implement this vision we are focusing on three pillars:

- **Expand our business to increase our revenue**.
  - Drive profitable growth in lending through debit and credit cards through the use of data, improving admission process and limits approval.
  - Exploit the commercial cards business by leveraging Santander's presence in the Corporate and SME segments.
  - Connect card issuing and Merchant acquiring platforms, developing new business opportunities between Cards and Getnet.
- **Improve customer experience**:
  - Expand, develop and adopt common digital services that improve customer experience.
  - Invisible payments to offer our customers the most seamless and convenient card payment experience.
- **Become a best-in-class global card issuing tech platform:**
  - In 2024, we aim to roll out our global Cards platform, Plard, in six countries.

Customer experience

Deliver **best-in-class payment solutions** leveraging our global and local scale

Operational leverage

Reduce cost per transaction through capex optimization and operational efficiency

Global platform

Migrate volumes to common global platforms to **gain scale** and offer competitive pricing in the **open market**

Secondary segments

E Europe

Our strategy in Europe is to remain focused on customer experience, service quality and delivering a common operating model. Our top priorities for 2024 are to:

- Improve our customer experience as we progress in our omni-channel strategy, simplifying and adding value to our interactions, moving towards our shared vision of being a digital bank with branches.
- Expand our franchise, leveraging our unique position of geographic diversification and scale.
- Increase efficiency, maintaining strong cost discipline and increasing productivity by implementing a common operating model based on simplification, scale and agility.
- Maximize our business value through agile pricing and active capital management focused on sustainable asset rotation and greater emphasis on high-value origination.

Spain

- Accelerate business transformation, in particular organizational, process and product simplification, leveraging global platforms and new technologies such as generative AI, which allow us to structurally reduce our cost to serve.
- Grow in all business segments focused on further increasing the customer base and loyalty, leveraging our global and regional scale.

United Kingdom

- Grow based on customer loyalty and exceptional customer experience.
- Simplify and digitalize the business to improve efficiency and performance.

Portugal

- Continue our commercial and digital transformation, with the aim of providing the best customer experience.
- Remain best-in-class in terms of efficiency and profitability, providing an adequate return on capital.

Poland

- Improve our customers' and employees' experience.
- Focus on business digitalization increasing services and products offered in all channels.

NA North America

In 2024, we expect to begin to see the impact of our platform development programme as we build on our local strengths and increasingly take advantage of our global businesses capabilities to:

- Launch new capabilities in each of our North American markets, particularly in digital consumer banking.
- Develop our Corporate & Investment Banking platforms in both countries and Wealth Management offshore and in Mexico, to accelerate revenue growth in capital-light businesses.
- Continue to simplify our regional operating model to reduce overlaps and increase efficiency.
- Increase cross-border coordination to leverage our differentiated footprint across Europe and the Americas.

United States

- Digital Consumer Bank: support profitable growth and our digital bank with branches vision by bringing together our consumer finance capabilities with stable sources of USD funding, including the launch our national digital deposit gathering platform.
- Corporate & Investment Banking: continue growing focusing on client relationships, leveraging the enhanced advisory and investment banking capabilities both locally and globally.
- Wealth Management: accelerate growth through initiatives to expand the offshore customer segments that bank with us.

Mexico

- Advance our technological transformation to improve digital channels, drive digital adoption and further improve customer experience by building on technology and data.
- Grow our customer base and increase loyalty, supported by digital products and offerings, new service models and continued product simplification.
- Increase synergies with global businesses to drive new and innovative solutions.
- Support our customers' green transitions while fostering inclusive and sustainable growth.

SA South America

The Group's priorities in the region are to:

- Strengthen connectivity between our countries and with the Group, through the development of our global and regional businesses, fostering inclusive and sustainable businesses.
- Accelerate revenue growth by focusing on more transactional businesses that generate higher fees.
- Increase liabilities business, improve specialized value propositions for corporate customers and strengthen our payment services business through our global platforms.

Brazil

- Consolidate our strategy by focusing on value creation and profitability improvement, while keeping credit quality under control.
- Continue making progress in business diversification and customer loyalty.
- Simplify products and processes, improving operational efficiency and customer experience.

Chile

- Transform our bank digitally to capture new customers, maintain our NPS leadership and consolidate our position in the mass segment with new product offerings such as Getnet.
- Strengthen our corporate and private banking franchise, with specialized value propositions and leadership in FX and Wealth Management transactional products.

Argentina

- Continue to develop our financial platform, strengthening connectivity between businesses and consolidating recent inorganic acquisitions.
- Generate productivity gains and synergies between businesses, focusing on cost management and simplification.

Uruguay

- Increase business volumes, maintaining good levels of efficiency and high profitability.
- Simplify our retail product offering and accelerate digital transformation.

Peru

- Become our customers' main bank in the Corporate and CIB segments, continue leading the auto finance market, expand the microfinance business and take advantage of global platforms and digitalization.

Colombia

- Continue to focus on profitable products for Corporates and CIB, and promote our auto and microcredit businesses (Prospera), with a differentiated value proposition, leveraging regional offerings. We will also analyse additional funding sources to reduce funding costs.

DCBE DCB Europe

Our priorities for 2024 are to:

- Expand our European leadership in profitability and scale in auto and consumer lending with competitive, innovative financing solutions.
- Accelerate transformation of our operating model towards single platforms, building off Group solutions to improve both end customers' and partners' customer experience, providing the best service while maintaining best-in-class efficiency.
- Reduce sensitivity to interest rates by increasing deposit acquisition.
- Continue supporting the green transformation of mobility in Europe.

8. Alternative performance measures (APMs)

In addition to the financial information prepared under IFRS, this consolidated directors' report contains financial measures that constitute alternative performance measures (APMs) to comply with the guidelines on alternative performance measures issued by the European Securities and Markets Authority on 5 October 2015 and non-IFRS measures.

The financial measures contained in this consolidated directors' report that qualify as APMs and non-IFRS measures have been calculated using our financial information but are not defined or detailed in the applicable financial information framework or under IFRS and therefore have neither been audited nor are susceptible to being fully audited.

We use these APMs and non-IFRS measures when planning, monitoring and evaluating our performance. We consider these APMs and non-IFRS financial measures to be useful metrics for management and investors to facilitate operating performance comparisons from period to period. While we believe that these APMs and non-IFRS financial measures are useful in evaluating our business, this information should be considered as supplemental in nature and is not meant as a substitute of IFRS measures. In addition, the way in which Santander defines and calculates these APMs and non-IFRS measures may differ from the calculations used by other companies with similar measures and, therefore, may not be comparable.

Additional APMs to those included in this section are presented in section 9.8 of the chapter 'Responsible banking'.

The APMs and non-IFRS measures we use in this document can be categorized as follows:

Underlying results

In addition to IFRS results measures, we present some results measures which are non-IFRS and which we refer to as underlying measures. These measures allow in our view a better year-on-year comparability given that they exclude items outside the ordinary performance of our business (e.g. capital gains, write-downs, impairment of goodwill) or certain line items have been reclassified in the underlying ("adjusted") income statement, as their impact on profit is zero, to better understand the trends in the business. Further information is included at the end of section 3.2 'Results'.

In addition, the results by business areas in section 4 'Financial information by segment' are presented only on an underlying basis in accordance with IFRS 8. The use of this information by the Group's governance bodies and reconciled on an aggregate basis to our IFRS consolidated results can be found in note 52.c to our consolidated financial statements.

Profitability and efficiency ratios

The purpose of the profitability and efficiency ratios is to measure the ratio of profit to equity, to tangible equity, to assets and to risk-weighted assets, while the efficiency ratio measures how much general administrative expenses (personnel and other) and amortization costs are needed to generate revenue.

Goodwill adjustments have been removed from the RoTE numerator as, since they are not considered in the denominator, we believe this calculation is more correct.

Ratio	Formula	Relevance of the metric
RoE (Return on Equity)	Profit attributable to the parent ——— Average stockholders' equity [A] (excl. minority interests)	This ratio measures the return that shareholders obtain on the funds invested in the bank and as such measures the bank's ability to pay shareholders.
Underlying RoE	Underlying profit attributable to the parent ——— Average stockholders' equity [A] (excl. minority interests)	This ratio measures the return that shareholders obtain on the funds invested in the bank excluding results from operations outside the ordinary course of business.
RoTE (Return on Tangible Equity)	Profit attributable to the parent [B] ——— Average stockholders' equity [A] (excl. minority interests) - intangible assets	This is used to evaluate the profitability of the company as a percentage of its tangible equity. It is measured as the return that shareholders receive as a percentage of the funds invested in the bank less intangible assets.
Underlying RoTE	Underlying profit attributable to the parent [B] ——— Average stockholders' equity [A] (excl. minority interests) - intangible assets	This very common indicator measures the profitability of the tangible equity of a company arising from underlying activities, i.e. excluding results from operations outside the ordinary course of business.
RoA (Return on Assets)	Consolidated profit ——— Average total assets	This metric measures the profitability of a company as a percentage of its total assets. It is an indicator that reflects the efficiency of the bank's total assets in generating profit over a given period.
Underlying RoA	Underlying consolidated profit ——— Average total assets	This metric measures the profitability of a company as a percentage of its total assets excluding results from operations outside the ordinary course of business. It is an indicator that reflects the efficiency of the bank's total assets in generating underlying profit over a given period.
RoRWA (Return on Risk-Weighted Assets)	Consolidated profit ——— Average risk-weighted assets	The return adjusted for risk is a derivative of the RoA metric. The difference is that RoRWA measures profit in relation to the Group's risk-weighted assets.
Underlying RoRWA	Underlying consolidated profit ——— Average risk-weighted assets	This relates the underlying consolidated profit (excluding results from operations outside the ordinary course of business) to the Group's risk-weighted assets.
RoRAC (Return on Risk-Adjusted Capital)	Underlying consolidated profit ——— Average economic capital	This is the return on economic capital required internally (necessary to support all risks inherent in our activity).
Economic Value Added	Underlying consolidated profit – (average economic capital x cost of capital)	Economic value added is the profit generated in excess of the cost of economic capital employed. This measures risk-adjusted returns in absolute terms, complementing the RoRAC approach.
Efficiency (Cost-to-income)	Operating expenses [C] ——— Total income	One of the most commonly used indicators when comparing productivity of different financial entities. It measures the amount of resources used to generate the bank's operating income.

A. Stockholders' equity = Capital and Reserves + Accumulated other comprehensive income + Profit attributable to the parent + Dividends.
B. Excluding the adjustment to the valuation of goodwill.
C. Operating expenses = Administrative expenses + amortizations.

Profitability and efficiency [A B] (EUR million and %)	2023	2022	2021
RoE	**11.91%**	**10.67%**	**9.66%**
Profit attributable to the parent	11,076	9,605	8,124
Average stockholders' equity (excluding minority interests)	93,035	89,986	84,133
Underlying RoE	**11.91%**	**10.67%**	**10.29%**
Profit attributable to the parent	11,076	9,605	8,124
(-) Net capital gains and provisions	—	—	-530
Underlying profit attributable to the parent	11,076	9,605	8,654
Average stockholders' equity (excluding minority interests)	93,035	89,986	84,133
RoTE	**15.06%**	**13.37%**	**11.96%**
Profit attributable to the parent	11,076	9,605	8,124
(-) Goodwill impairment	-20	—	-6
Profit attributable to the parent (excluding goodwill impairment)	11,096	9,605	8,130
Average stockholders' equity (excluding minority interests)	93,035	89,986	84,133
(-) Average intangible assets	19,361	18,164	16,169
Average stockholders' equity (excl. minority interests) - intangible assets	73,675	71,822	67,964
Underlying RoTE	**15.06%**	**13.37%**	**12.73%**
Profit attributable to the parent	11,076	9,605	8,124
(-) Goodwill impairment	-20	—	—
Profit attributable to the parent (excluding goodwill impairment)	11,096	9,605	8,124
(-) Net capital gains and provisions	—	—	-530
Underlying profit attributable to the parent (excluding goodwill impairment)	11,096	9,605	8,654
Average stockholders' equity (excl. minority interests) - intangible assets	73,675	71,822	67,964
RoA	**0.69%**	**0.63%**	**0.62%**
Consolidated profit	12,209	10,764	9,653
Average total assets	1,773,103	1,720,273	1,563,899
Underlying RoA	**0.69%**	**0.63%**	**0.65%**
Consolidated profit	12,209	10,764	9,653
(-) Net capital gains and provisions	—	—	-530
Underlying consolidated profit	12,209	10,764	10,183
Average total assets	1,773,103	1,720,273	1,563,899
RoRWA	**1.96%**	**1.77%**	**1.69%**
Consolidated profit	12,209	10,764	9,653
Average risk-weighted assets	624,031	606,952	572,136
Underlying RoRWA	**1.96%**	**1.77%**	**1.78%**
Consolidated profit	12,209	10,764	9,653
(-) Net capital gains and provisions	—	—	-530
Underlying consolidated profit	12,209	10,764	10,183
Average risk-weighted assets	624,031	606,952	572,136
RoRAC [C]	**15.34%**	**14.00%**	**13.73%**
Consolidated profit	12,209	10,764	9,653
(-) Net capital gains and provisions	—	—	-530
Underlying consolidated profit	12,209	10,764	10,183
Average economic capital	79,605	76,872	74,166
Economic value added [C]	**3,285**	**2,146**	**2,707**
Underlying consolidated profit	12,209	10,764	10,183
(-) Average economic capital x cost of capital	-8,924	-8,617	-7,476
Average economic capital	79,605	76,872	74,166
Cost of capital	11.21%	11.21%	10.08%
Efficiency ratio	**44.1%**	**45.8%**	**46.1%**
Underlying operating expenses	25,425	23,903	21,415
Operating expenses	25,425	23,903	21,415
Net capital gains and provisions impact in operating expenses [D]	—	—	—
Underlying total income	57,647	52,154	46,404
Total income	57,423	52,117	46,404
Net capital gains and provisions impact in total income [D]	224	37	—

A. Averages included in the RoE, RoTE, RoA and RoRWA denominators are calculated using the monthly average over the period, which we believe should not differ materially from using daily balances.
B. The risk-weighted assets included in the denominator of the RoRWA metric are calculated in line with the criteria laid out in the CRR (Capital Requirements Regulation).
C. The 2022 and 2021 economic capital requirements have been recalculated based on the 2023 methodology to facilitate their comparison.
D. Following the adjustments in note 52.c to the consolidated financial statements.

Efficiency ratio by business area (EUR million and %)

	2023			2022		
	%	Operating expenses	Total income	%	Operating expenses	Total income
Europe	**42.1**	**9,030**	**21,439**	**47.3**	**8,523**	**18,030**
Spain	41.7	4,227	10,132	48.6	3,998	8,233
United Kingdom	49.7	2,745	5,525	49.6	2,685	5,418
Portugal	27.3	542	1,982	38.7	502	1,295
Poland	27.1	862	3,182	28.0	692	2,474
North America	**49.1**	**6,465**	**13,174**	**47.7**	**5,871**	**12,316**
US	51.0	3,679	7,209	47.2	3,599	7,623
Mexico	43.9	2,588	5,899	44.9	2,076	4,623
South America	**38.5**	**6,920**	**17,971**	**37.0**	**6,675**	**18,025**
Brazil	34.6	4,529	13,104	32.4	4,180	12,910
Chile	44.6	1,020	2,285	40.1	981	2,449
Argentina	50.2	775	1,544	53.9	987	1,833
Digital Consumer Bank	**47.6**	**2,618**	**5,502**	**46.7**	**2,462**	**5,269**

RoTE by business area (EUR million and %)

	2023			2022		
	%	Profit attributable to the parent (excluding goodwill impairment)	Average stockholders' equity (excl. minority interests) - intangible assets	%	Profit attributable to the parent (excluding goodwill impairment)	Average stockholders' equity (excl. minority interests) - intangible assets
Europe	**14.47**	**5,489**	**37,931**	**9.28**	**3,810**	**41,054**
Spain	14.16	2,371	16,742	7.89	1,560	19,786
United Kingdom	13.01	1,545	11,874	10.70	1,395	13,038
Portugal	25.92	896	3,458	15.03	534	3,553
Poland	17.68	674	3,810	11.93	364	3,047
North America	**9.76**	**2,360**	**24,183**	**11.06**	**2,878**	**26,025**
US	6.07	932	15,355	9.40	1,784	18,968
Mexico	17.70	1,560	8,814	16.92	1,213	7,168
South America	**14.43**	**3,045**	**21,097**	**18.77**	**3,658**	**19,491**
Brazil	13.73	1,921	13,987	19.23	2,544	13,232
Chile	14.82	582	3,925	19.47	677	3,479
Argentina	55.60	386	694	26.23	324	1,237
Digital Consumer Bank	**12.33**	**1,199**	**9,721**	**13.65**	**1,308**	**9,583**

Credit risk indicators

The credit risk indicators measure the quality of the credit portfolio and the percentage of non-performing loans covered by provisions.

Ratio	Formula	Relevance of the metric
NPL ratio (Non-performing loans ratio)	Credit impaired loans and advances to customers, customer guarantees and customer commitments granted / Total Risk [A]	The NPL ratio is an important variable regarding financial institutions' activity since it gives an indication of the level of risk the entities are exposed to. It calculates risks that are, in accounting terms, declared to be credit impaired as a percentage of the total outstanding amount of customer credit and contingent liabilities.
Total coverage ratio	Total allowances to cover impairment losses on loans and advances to customers, customer guarantees and customer commitments granted / Credit impaired loans and advances to customers, customer guarantees and customer commitments granted	The total coverage ratio is a fundamental metric in the financial sector. It reflects the level of provisions as a percentage of the credit impaired assets. Therefore it is a good indicator of the entity's solvency against customer defaults both present and future.
Cost of risk	Allowances for loan-loss provisions over the last 12 months / Average loans and advances to customers over the last 12 months	This ratio quantifies loan-loss provisions arising from credit risk over a defined period of time for a given loan portfolio. As such, it acts as an indicator of credit quality.

A. Total risk = Total loans and advances and guarantees to customers (including credit impaired assets) + contingent liabilities that are credit impaired.

Credit risk (I) (EUR million and %)	2023	2022	2021
NPL ratio	**3.14%**	**3.08%**	**3.16%**
Credit impaired loans and advances to customers, customer guarantees and customer commitments granted	35,620	34,673	33,234
Gross loans and advances to customers registered under the headings 'financial assets measured at amortized cost' and 'financial assets designated at fair value through profit or loss' classified in stage 3 (OCI), excluding POCI (Purchased or Originated Credit Impaired) that is currently impaired	33,821	32,617	31,288
POCI exposure (Purchased or Originated Credit Impaired) that is currently impaired	273	271	358
Customer guarantees and customer commitments granted classified in stage 3	1,517	1,776	1,578
Doubtful exposure of loans and advances to customers at fair value through profit or loss	9	9	10
Total risk	1,133,898	1,124,121	1,051,115
Impaired and non-impaired gross loans and advances to customers	1,059,135	1,058,688	995,646
Impaired and non-impaired customer guarantees and customer commitments granted	74,763	65,433	55,469

Credit risk (II) (EUR million and %)	**2023**	**2022**	**2021**
Total coverage ratio	**66%**	**68%**	**71%**
Total allowances to cover impairment losses on loans and advances to customers, customer guarantees and customer commitments granted	23,490	23,418	23,698
Total allowances to cover impairment losses on loans and advances to customers measured at amortised cost and designated at fair value through OCI	22,788	22,684	22,964
Total allowances to cover impairment losses on customer guarantees and customer commitments granted	702	734	734
Credit impaired loans and advances to customers, customer guarantees and customer commitments granted	35,620	34,673	33,234
Gross loans and advances to customers registered under the headings 'financial assets measured at amortized cost' and 'financial assets designated at fair value through profit or loss' classified in stage 3 (OCI), excluding POCI (Purchased or Originated Credit Impaired) that is currently impaired	33,821	32,617	31,288
POCI exposure (Purchased or Originated Credit Impaired) that is currently impaired	273	271	358
Customer guarantees and customer commitments granted classified in stage 3	1,517	1,776	1,578
Doubtful exposure of loans and advances to customers at fair value through profit or loss	9	9	10
Cost of risk	**1.18%**	**0.99%**	**0.77%**
Underlying allowances for loan-loss provisions over the last 12 months	12,458	10,509	7,436
Allowances for loan-loss provisions over the last 12 months	12,932	10,836	7,436
Net capital gains and provisions impact in allowances for loan-loss provisions	-474	-327	—
Average loans and advances to customers over the last 12 months	1,059,566	1,059,972	968,931

NPL ratio by business area (EUR million and %)

	2023			**2022**		
	%	**Credit impaired loans and advances to customers, customer guarantees and customer commitments granted**	**Total risk**	**%**	**Credit impaired loans and advances to customers, customer guarantees and customer commitments granted**	**Total risk**
Europe	**2.32**	**14,495**	**624,696**	**2.37**	**15,186**	**639,996**
Spain	3.06	8,529	278,569	3.27	9,598	293,197
United Kingdom	1.42	3,518	247,360	1.21	3,059	253,455
Portugal	2.59	1,024	39,503	2.99	1,247	41,755
Poland	3.55	1,397	39,329	3.80	1,268	33,350
North America	**4.09**	**7,805**	**190,720**	**3.03**	**5,629**	**185,614**
US	4.57	6,303	137,893	3.25	4,571	140,452
Mexico	2.82	1,489	52,785	2.32	1,047	45,107
South America	**5.72**	**10,142**	**177,380**	**6.20**	**10,381**	**167,348**
Brazil	6.56	7,479	113,937	7.57	7,705	101,801
Chile	5.01	2,332	46,565	4.99	2,384	47,811
Argentina	1.99	78	3,903	2.08	122	5,844
Digital Consumer Bank	**2.12**	**2,877**	**135,608**	**2.06**	**2,583**	**125,339**

Total coverage ratio by business area (EUR million and %)

	2023			2022		
	%	Total allowances to cover impairment losses on loans and advances to customers, customer guarantees and customer commitments granted	Credit impaired loans and advances to customers, customer guarantees and customer commitments granted	%	Total allowances to cover impairment losses on loans and advances to customers, customer guarantees and customer commitments granted	Credit impaired loans and advances to customers, customer guarantees and customer commitments granted
Europe	**49.3**	**7,147**	**14,495**	**51.8**	**7,871**	**15,186**
Spain	49.1	4,185	8,529	51.0	4,890	9,598
United Kingdom	30.3	1,066	3,518	33.8	1,033	3,059
Portugal	82.7	847	1,024	79.3	990	1,247
Poland	73.3	1,024	1,397	74.0	938	1,268
North America	**73.8**	**5,763**	**7,805**	**93.3**	**5,250**	**5,629**
US	67.7	4,265	6,303	90.3	4,127	4,571
Mexico	100.0	1,489	1,489	106.6	1,116	1,047
South America	**78.4**	**7,948**	**10,142**	**76.0**	**7,886**	**10,381**
Brazil	84.7	6,338	7,479	79.5	6,128	7,705
Chile	52.7	1,230	2,332	56.3	1,343	2,384
Argentina	165.7	128	78	180.4	220	122
Digital Consumer Bank	**88.0**	**2,532**	**2,877**	**92.8**	**2,397**	**2,583**

Cost of risk by business area (EUR million and %)

	2023			2022		
	%	Underlying allowances for loan-loss provisions over the last 12 months	Average loans and advances to customers over the last 12 months	%	Underlying allowances for loan-loss provisions over the last 12 months	Average loans and advances to customers over the last 12 months
Europe	**0.44**	**2,533**	**582,256**	**0.39**	**2,396**	**612,142**
Spain	0.62	1,522	246,660	0.61	1,618	265,051
United Kingdom	0.10	247	251,362	0.12	316	262,973
Portugal	0.20	77	38,546	0.04	17	40,286
Poland	2.08	674	32,385	1.43	440	30,721
North America	**2.05**	**3,733**	**182,037**	**1.49**	**2,538**	**169,980**
US	1.92	2,593	135,190	1.35	1,744	128,834
Mexico	2.43	1,135	46,729	1.95	788	40,348
South America	**3.36**	**5,401**	**160,644**	**3.32**	**5,041**	**151,705**
Brazil	4.77	4,701	98,555	4.79	4,417	92,188
Chile	0.80	365	45,637	0.93	399	42,953
Argentina	6.64	150	2,262	2.91	132	4,541
Digital Consumer Bank	**0.62**	**792**	**128,583**	**0.45**	**544**	**119,524**

Other indicators

The market capitalization indicator provides information on the volume of tangible equity per share. The loan-to-deposit ratio (LTD) identifies the relationship between net customer loans and advances and customer deposits, assessing the proportion of loans and advances granted by the Group that are funded by customer deposits.

The Group also uses gross customer loan magnitudes excluding reverse repurchase agreements (repos) and customer deposits excluding repos. In order to analyse the evolution of the traditional commercial banking business of granting loans and capturing deposits, repos and reverse repos are excluded, as they are mainly treasury business products and highly volatile.

Ratio	Formula	Relevance of the metric
TNAV per share (Tangible net asset value per share)	Tangible book value [A] / Number of shares excluding treasury stock	This is a very commonly used ratio used to measure the company's accounting value per share having deducted the intangible assets. It is useful in evaluating the amount each shareholder would receive if the company were to enter into liquidation and had to sell all the company's tangible assets.
Price to tangible book value per share (X)	Share price / TNAV per share	This is one of the most commonly used ratios by market participants for the valuation of listed companies both in absolute terms and relative to other entities. This ratio measures the relationship between the price paid for a company and its accounting equity value.
LTD (Loan-to-deposit)	Net loans and advances to customers / Customer deposits	This is an indicator of the bank's liquidity. It measures the total loans and advances to customers net of loan-loss provisions as a percentage of customer deposits.
Loans and advances (minus reverse repos)	Gross loans and advances to customers minus reverse repos	In order to aid analysis of the commercial banking activity, reverse repos are excluded as they are highly volatile treasury products.
Deposits (minus repos)	Customer deposits minus repos	In order to aid analysis of the commercial banking activity, repos are excluded as they are highly volatile treasury products.
PAT + After tax fees paid to SAN (in Wealth Management & Insurance)	Net profit + fees paid from Santander Asset Management and Santander Insurance to Santander, net of taxes, excluding Private Banking customers	Metric to assess Wealth Management & Insurance's total contribution to Group's profit.

A. Tangible book value = Stockholders' equity (excl. minority interests) - intangible assets.

Others (EUR million and %)	2023	2022	2021
TNAV (tangible book value) per share	**4.76**	**4.26**	**4.12**
Tangible book value	75,552	70,459	70,346
Number of shares excl. treasury stock (million)	15,886	16,551	17,063
Price to tangible book value per share (X)	**0.79**	**0.66**	**0.71**
Share price (euros)	3.780	2.803	2.941
TNAV (tangible book value) per share	4.76	4.26	4.12
Loan-to-deposit ratio	**99%**	**103%**	**108%**
Net loans and advances to customers	1,036,349	1,036,004	972,682
Customer deposits	1,047,169	1,009,722	900,554
PAT + After tax fees paid to SAN (in WM&I) (Constant EUR million)	**3,296**	**2,730**	
Profit after tax	1,707	1,167	
Net fee income net of tax	1,589	1,563	

Impact of exchange rate movements on profit and loss accounts

The Group presents, at both the Group level as well as the business unit level, the real changes in euros in the income statement as well as the changes excluding the exchange rate effect (i.e. in constant euros), as it considers the latter facilitates analysis, since it enables business movements to be identified without taking into account the impact of converting each local currency into euros.

Said variations, excluding the impact of exchange rate movements, are calculated by converting P&L lines for the different business units comprising the Group into our presentation currency, the euro, applying the average exchange rate for 2023 to all periods contemplated in the analysis. The table below shows the average exchange rates of the main currencies in which the Group operates.

Impact of exchange rate movements on the balance sheet

The Group presents, at both the Group level as well as the business unit level, the real changes in euros in the balance sheet as well as the changes excluding the exchange rate effect for loans and advances to customers minus reverse repurchase agreements and customer funds (which comprise deposits and mutual funds) minus repurchase agreements. As with the income statement, the reason is to facilitate analysis by isolating the changes in the balance sheet that are not caused by converting each local currency into euros.

These changes excluding the impact of exchange rate movements are calculated by converting loans and advances to customers minus reverse repurchase agreements and customer funds minus repurchase agreements, into our presentation currency, the euro, applying the closing exchange rate on the last working day of 2023 to all periods contemplated in the analysis. The table below shows the period-end exchange rates of the main currencies in which the Group operates.

Exchange rates: 1 euro/currency parity

	Average		Period-end	
	2023	2022	2023	2022
US dollar	1.081	1.051	1.105	1.068
Pound sterling	0.870	0.853	0.868	0.887
Brazilian real	5.397	5.421	5.365	5.650
Mexican peso	19.158	21.131	18.691	20.805
Chilean peso	906.417	916.688	965.192	909.200
Argentine peso	282.765	134.786	893.635	189.116
Polish zloty	4.538	4.683	4.343	4.684

Impact of inflation on operating expenses

Santander presents, for both the Group and the business units included in the primary segments, the changes in operating expenses, as well as the changes excluding the exchange rate effect, and the changes of the latter excluding the effect of average inflation in 2023. The reason is that the two latter facilitate analysis for management purposes.

Inflation is calculated as the arithmetic average of the last twelve months for each country and, for the regions, as the weighted average of each country comprising the region's inflation rate, weighted by each country's operating expenses in the region. The table below shows the average inflation rates calculated as indicated for each of the regions and countries.

Average inflation 2023

%

Europe	**5.7**
Spain	3.6
United Kingdom	7.4
Portugal	4.4
Poland	11.6
North America	**4.7**
US	4.2
Mexico	5.6
South America	**19.5**
Brazil	4.6
Chile	7.7
Argentina	127.9
Digital Consumer Bank	**5.5**
Total Group	**9.3**

Profitability and efficiency ratios of new primary segments from 1 January 2024

Ratio	Formula	Relevance of the metric
Global Business RoTE	$\frac{\text{Profit attributable to the parent (excluding goodwill impairment)}}{\text{Average stockholders' equity (excl. minority interests) - intangible assets}^{A}}$	This is used to evaluate the profitability of the company as a percentage of its tangible equity. It is measured as the return that shareholders receive as a percentage of the funds invested in the bank less intangible assets.

A. Allocated according to RWA consumption.

Efficiency ratio by new primary segment (EUR million and %)

	2023			2022		
	%	Operating expenses	Total income	%	Operating expenses	Total income
Retail & Commercial Banking	43.1	12,825	29,754	44.7	12,059	26,994
Digital Consumer Bank	42.8	5,263	12,296	41.9	5,197	12,391
Corporate & Investment Banking	45.0	3,387	7,527	43.3	2,901	6,703
Wealth Management & Insurance	37.9	1,216	3,210	41.2	1,104	2,678
Payments	44.2	2,344	5,298	46.6	2,271	4,874

RoTE by new primary segment (EUR million and %)

	2023			2022		
	%	Profit attributable to the parent (excluding goodwill impairment)	Average stockholders' equity (excl. minority interests) - intangible assets	%	Profit attributable to the parent (excluding goodwill impairment)	Average stockholders' equity (excl. minority interests) - intangible assets
Retail & Commercial Banking	15.15	5,659	37,362	14.15	5,017	35,462
Digital Consumer Bank	11.52	1,901	16,502	15.47	2,610	16,869
Corporate & Investment Banking	17.52	2,440	13,922	15.85	2,233	14,085
Wealth Management & Insurance	72.16	1,467	2,033	52.42	1,101	2,100
Payments	24.94	627	2,512	30.01	693	2,309

Risk, compliance & conduct management

Our **risk, compliance & conduct management** is an essential lever to help people and businesses prosper.

→ Our risk management and control model together with our risk culture and robust governance contribute to maintaining a medium-low risk profile.

→ Risk, compliance & conduct continue to support our customers and all our stakeholders to face a challenging environment.

→ We keep embedding ESG factors across the different risks, both from a regulatory and management perspective.

Santander's risk culture is part of the Santander Way. It represents how we manage risks on a day-to-day basis.

risk pro

Everyone's business

9.0 (over 10)

Average rating by employees agreeing to the statement: "Group leaders frequently highlight the importance of managing risks on our day-to-day"

8.3 (over 10)

Employees rating of Santander's performance.
Development and reward frameworks motivate people to effectively manage risks

1. Risk, compliance & conduct management

1.1 Executive summary and 2023 highlights

This section outlines Santander's risk management and risk profile in 2023 based on key risk indicators and their performance. Additional information on each risk type can be accessed using the links provided for each section.

Credit risk

> Section 3

Credit quality indicators remain in line with expected levels, given the current challenging macroeconomic and geopolitical environment.

NPL ratio	Cost of risk
3.14%	1.18%
▲ 6bp s/2022	▲ 19bp s/2022

This year's NPL rate performance is explained by the lower increase in impaired loans, thanks to proactive management and NPL portfolio sales, and the lower relative growth of the credit risk with customers.

The cost of risk has remained slightly below 120 bp, mainly due to the good performance in the year of loan-loss provisions in Spain, the UK and Chile.

The 2023 credit risk strategy focused on:

- → A customers-related proposal that improves time to market and simplifies the product offer.
- → Managing the effects of increased cost of living (monitoring most affected sectors/customers, playbooks, local customer support measures, among others).
- → Strengthening the balance sheet by divesting less profitable assets (portfolio sales).
- → Driving digital transformation to improve profitability and support subsidiaries in the transition to global business management.

Market, structural and liquidity risk

> Section 4

Our risk profile remained stable, despite some Value at Risk (VaR) spikes due to high market volatility in some periods.

Average VaR	LCR[A]
€ 11.7 Mn	166%
▼ 2.4 Mn s/2022	▲ 14 pp s/2022

A. LCR: Liquidity coverage ratio

VaR remained generally stable throughout the year averaging EUR 11.7 million, rebounding at times of high volatility in the markets (max. EUR 19.3 million) due to events related to the regional banks and the negotiation of the debt ceiling in the United States or the increase in tension in the Middle East.

Robust and diversified liquidity buffer by customers, business and geographies, with ratios well above regulatory requirements.

A summary of our 2023 highlights is described below:

- → Highly liquid balance sheet & well-diversified deposit base, composed mainly by retail deposits with stable structure (approximately 75% are transactional).
- → Reduced exposure to Interest Rate Risk in the Banking Book (IRRBB) with conservative risk appetite limits.
- → Our exposure to unrealized losses on the held-to-collect bond portfolio (HtC) compared to CET1 is among the lowest in the banking system.
- → Trading business focused on customer service.

Capital risk

> Section 5

The latest EBA stress test has once again demonstrated the strength of our business model and, consequently, that our solvency levels would be sufficient to cope with the most severe macroeconomic scenarios.

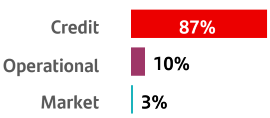
Credit risk stands out in the distribution of risk-weighted assets (RWA) as it is our core business.

CET 1 Fully Loaded

12.3%

22 bp s/2022

RWA



624 bn

15Mn s/2022

Capital optimization with enhanced models and several initiatives. In addition, our new global business model will allow us to improve capital allocation.

Operational risk

> Section 6

- Stable risk profile despite the challenging environment.
- Adaptation to regulatory changes focused on operational resilience and Basel principles related to operational risk, environmental, social and governance (ESG) requirements and capital calculation models.
- Widening of the European cyber risk hub, to other geographies outside Europe.

Compliance and conduct risk

> Section 7

- Reinforcement of the Group's General Code of Conduct and Canal Abierto.
- Development of compliance and conduct frameworks and regulations for CIB.
- Progress in the development of a global control room to prevent illicit conduct and identify potential conflictive transactions.
- One FCC: improved accountability of the first line of defence, strengthened supervision methodology and support for international anti-money laundering initiatives.
- Continuous progress in conduct risk management, especially those derived from sustainability factors in new products, digital channels, financial inclusion and customer vulnerability.
- Progress in reputational risk management derived from climate risk factors (materiality assessment and greenwashing).

Model risk

> Section 8

- Reinforcement of the binding role of internal validation to comply with growing regulatory requirements.
- Definition of the IV Next project to evolve the internal validation function, prioritizing key actions through global management.
- Optimizing model risk management data exploitation.
- Continuous improvement of regulatory models (Internal Rating Based Approach —IRB— e Internal Model Approach —IMA—) to meet supervisory expectations.

Strategic risk

> Section 9

- Focus on monitoring the consequences of inflationary pressure, monetary and fiscal policy.
- We continue to focus on our transformation initiatives.
- Improved challenge of strategic plans, identification and monitoring of emerging risks and analysis of the business model evolution.

ESG risk factors

> Section 10

- Advances in risk appetite with new metrics and limits to support our decarbonization strategy.
- Progress in our materiality assessment methodology, including a more holistic view and advances in biodiversity.
- Progress in the implementation of the climate risk management model through 'The Climate Race' initiative to integrate ESCC factors into the credit granting process.
- Participation in the EBA regulatory exercise 'One-off Fit-for-55 Climate Risk Scenario Analysis', which will be extended to 2024.

Proactive and efficient risk management in a challenging macroeconomic and geopolitical environment by strengthening how we monitor all risks, key indicators and the most affected customers and sectors.

Our business model and solvency levels have demonstrated, once again, their resilience to the most severe macroeconomic scenarios, according to the latest EBA stress exercise.

The transition to a low-carbon economy represents a great business opportunity for financial entities that are committed to sustainability, which is why we embed ESG factors in our risk management model.

We base segment reporting on financial information presented to the chief operating decision maker, which exclude certain statutory results items that distort year-on-year comparisons and are not considered for management reporting. Grupo Santander has aligned the information in this chapter consistently with the information used internally for management reports and with the information presented in other public documents of the Group.

During 2023, the segments were split by geographic area in which profits were earned or by type of business. We prepared the information by aggregating the figures for Santander's various geographic areas and business units, relating it to both the accounting data of the business units integrated in each segment and that provided by management information systems. The same general principles as those used in the Group were applied.

For more details on segments, see section '**4.1 Description of segments**' of the 'Economic and financial review' chapter.

1.2 Emerging risks

Through our emerging risks exercise, we try to identify key threats to our strategic plan under theoretical stress scenarios with low likelihood of occurrence. We aim to detect, assess and monitor risks that may have a significant impact on our business model, profitability and solvency. Proactive risk management is essential to avoid potentially negative impacts on, and deviations from, targets which could be mitigated through action plans drawn up in advance.

Emerging risk identification involves both the first and second line of defence in our subsidiaries and at the corporate centre. We also embed identified risks in the idiosyncratic scenarios of the Group's Internal Capital Adequacy Assessment Process (ICAAP), the Internal Liquidity Adequacy Assessment Process (ILAAP), and recovery and resolution plans.

In 2023, potential threats stemmed from, among others, tighter financial conditions, high inflation, tension in the Middle East, and the continuing war in Ukraine. Some core emerging risks and their associated action plans are:

Macroeconomic and geopolitical environment

Some of the many macroeconomic and geopolitical factors posing risk to our strategy include persistent restrictive monetary policy, intensification of armed conflicts in the Middle East and Ukraine, and rising energy and commodity prices. We analyse situations that we do not include in our base scenario because of their low likelihood (per our emerging risk methodology); however, they can become global risk scenarios that may affect the markets where we operate. For example:

- Higher interest rates for longer. Future rises in inflation or delays in the disinflation roadmap could mean restrictive monetary policy remains in place for longer, which would mainly impact on our subsidiaries in Europe and the US — economies in Latin America are at a different stage of monetary policy. This could trigger a worse than expected economic slowdown, with higher unemployment and a drop in house prices that could jeopardize credit quality and liquidity conditions.
- Escalation of the conflicts in Ukraine and the Middle East, leading to tighter monetary policy as energy prices and inflation soar.
- High increase in public debt levels, triggering a rise in risk premiums, mainly in the eurozone, financial fragmentation, and possible spillover to financial institutions.

Macroeconomic and geopolitical uncertainty can potentially hinder our growth and profitability and diminish asset quality due to a slowdown in one or many of our markets. In addition, our clients' income or the value of their financial assets could also be affected, which would likely impact the recoverability of loans and increase our losses or additional provisioning needs.

Economic volatility might make our estimates seem inaccurate, our processes seem unreliable and our loan-loss provisions seem insufficient.

Grupo Santander has robust risk policies and procedures and manages risk proactively to keep our risk profile within the limits set in our risk appetite statement. This, coupled with our geographical and business diversification, makes us more resilient to macroeconomic and geopolitical risk.

In addition, the constant reinforcement of mitigating measures helped reduce the potential severity of these risks. Throughout 2023, we have developed the following actions:

- frequent monitoring meetings, including special situation forums (where necessary) to review risk profile and business, market and macroeconomic trends, with the spotlight on key indicators related to the potential escalation of the armed conflicts mentioned above;
- playbooks designed and implemented to pursue a quick, forward-looking and proactive response to challenging circumstances;
- a large and diverse base of customer deposits that enables us to address challenges from a strong liquidity position;
- the means to proactively detect credit impairment (especially in the most affected sectors) and get customers the help they need through specific solutions;
- support for our customers in developing sustainable, energy-efficient alternatives to offset the impact of economic cycles and potential energy shocks and adopt the measures implemented by governments to protect the most vulnerable customers; and
- asset-liability committee (ALCO) and market committee meetings to monitor structural, interest rate and FX risk, including the coverage of our capital ratios in all major currencies and, where necessary, adjusting our limits and exposure so that we remain within our risk appetite.

Growing legislative and regulatory pressure

With a business model based on a broad international presence through subsidiaries that maintain relevant market shares in our core geographies in which we operate, Grupo Santander is subject to different regulations. Our status as a global systemically important bank (G-SIB), implies higher capital requirements that could intensify due to new regulations or if supervisors revise current requirements (e.g. on the back of the recent crisis of some regional banks in the US).

New laws or extension of existing legislative measures, an increase in minimum capital requirements following supervisor review and assessment, or levies on credit institutions that impact on our business and relations with customer, could stymie profitability and return on equity, increase funding costs and undermine our resilience to economic disruption and ability to extend credit.

Any law or regulation could lead to new or stricter prudential requirements, especially in terms of capital and liquidity. This could have a direct impact on the Group's or our subsidiaries' solvency and/or liquidity levels.

The key mitigation measures for this risk are:

- monitoring of initiatives included in the capital plan, in line with the continuous improvement of our regulatory models, as well as the mitigation of the possible impacts of Basel standards; and

- creation of multidisciplinary working groups in cooperation with banking associations, regulators and other stakeholders to anticipate possible outcomes of these measures.

Risk of suffering a severe cyber attack

International conflicts such as the Ukraine and Israel crises produced a worsening threat landscape. The growing cyber threat combined with the increasing reliance on digital systems, make cybersecurity one of Santander's main priorities.

Therefore, we aim to become a cyber resilient organization that can resist, detect and rapidly respond to cyberattacks, while constantly enhancing our defences. To achieve this, we have a cyber risk oversight and control framework to measure the control environment and our risk profile.

For more details on the main cybersecurity risks, see 'Cyber risk' in section 6.2 'Operational risk management'.

To counter these threats, Santander counts with different initiatives described in section '5. Research, development and innovation (R&D&I)' on the 'Economic and financial review' chapter.

Risks related to Artificial Intelligence (AI)

Artificial Intelligence (AI) is the creation of intelligent systems through machines. These machines are able to operate with a certain degree of autonomy to generate predictions, recommendations, decisions and other outcomes that can impact on physical and virtual environments. Machine learning, deep learning and other AI analytical techniques have different levels of autonomy and complexity.

Banks have been using AI for several years to boost operational efficiency and strengthen risk management. In fact, they have been relying on AI to identify early warnings against money laundering, enhance customer experience, provide new insights for more rounded analysis, automate processes to reduce operational risk, and for other means.

The use of AI will become more widespread in the coming years, especially as new components like generative AI come to light. We must weigh up the benefits of AI and the oversight and control of using it, which also entails potential risks (complexity and explainability of results, biases, identification of accountability, data privacy, among others) that financial institutions will need to manage and mitigate to remain financially stable.

We are firmly committed to promoting the transformation of the financial sector through the responsible use of AI that prioritizes transparency and customer protection.

Central bank digital currencies (CBDC) and disintermediation risk

The possible launch of digital versions of fiduciary currencies issued by central banks (central bank digital currency — CBDC) could impact on financial stability if they replace traditional accounts, which in turn could affect commercial banks' volume, structure and cost of lending.

An increasing number of central banks are exploring the possibility of issuing CBDC. Some are already running pilot projects to be prepared in case they consider at some point that its issuance is necessary. The focus of the political debate is above all on the versions aimed at the retail market that offer citizens a digital, central bank liability for payments. In the Eurozone, the ECB is making significant headway with the digital euro, which is in what is called the 'preparatory phase' since October 2023.

Depending on their design, CBDC could become the new standard of payments and bank deposits, which could lead to a disintermediation of the financial system. This could exacerbate financial instability in time of economic stress, if customers decide to convert euros in their bank deposits into digital euros, which may be perceived as more secure. A massive and disorderly adoption could also impact the financing of financial entities, which could have an impact on the financing of the economy. In addition, CBDC could replace other payment methods, which could have an impact on other business lines.

It is not clear what services and what business model banks and other payment providers will be able to provide based on these instruments. The final impact of CBDC will depend on their final design, in terms of the introduction of restrictions on remuneration and maximum holding amounts for citizens, as well as the use cases, infrastructure used and compensation model for intermediaries that they envisage. services. The benefits of CBDC, which are also unclear, will depend on each country or region's particularities.

To mitigate CBDC risk, the Group:

- actively participates in the debate on CBDC with national and international authorities in order to explain the risks to financial stability and banks, and propose solutions to mitigate them;

- monitors central banks' CBDC projects to analyse their impact on the business or the possibility of developing new services for our clients.

2. Risk management and control model

Our risk management and control model is underpinned by common principles, a solid risk culture, a clear governance structure and advanced management processes on risk types

2.1 Risk principles and culture

Grupo Santander's risk management and control are based on these mandatory principles, which consider regulatory requirements and best market practices:

1. **All employees are risk managers** who must understand the risks associated with their functions and not assume risks that will exceed the Group's risk appetite or have an unknown impact.
2. **Senior managers must be involved** to make sure we keep our risk profile within risk appetite, with consistent risk conduct, action, communications, and oversight of our risk culture.
3. **Independence of risk management and control functions,** according to our three lines of defence model (described in detail under section 2.3 'Risk and compliance governance').
4. **We take a forward-looking, comprehensive approach** for all businesses and risk types.
5. **Effective information management** to identify, assess, manage and disclose risks at appropriate levels.

Risk culture - *Risk Pro*

The Group's risk culture, which is called Risk Pro (or 'I AM RISK' in the UK and the US), is a core element of both our corporate culture, The Santander Way, and our purpose of helping people and businesses prosper.

Risk Pro is each employee's accountability for the risks taken in their day to day and their individual contribution to identifying, assessing and managing risks properly and responsibly.

Risk Pro is part of all stages of the employee life cycle, so we ran training in the behaviors of our risk culture. Our performance review system, MyContribution, assigns all Santander employees a common risk objective.

In 2023, we continued rolling out our risk culture target operating model, which is based on the best practices identified in the different subsidiaries where we operate. Its main target is to consolidate the risk culture across the Group. We measure how risk cultures is embedded within the organization through YourVoice and other KPIs.

Throughout the year, with the aim of promoting our risk culture, we've celebrated our global Risk Pro Week to raise employees' awareness of why they must manage risk in their day-to-day.

For more details about Group's risk culture, see the section '1. Our culture' of the 'Responsible Banking' chapter.

2.2 Key risk types

Grupo Santander's risk classification is based on our corporate risk framework. It includes the following, which you can find out more about by clicking on the links provided:

Credit risk	Operational risk
Market risk	Financial crime risk
Liquidity risk	Model risk
Structural risk	Reputational risk
	Strategic risk
ESG risk factors	

At Grupo Santander we consider that ESG (environmental, social and governance) risk factors can impact the types of risks that exist in different time horizons. Consequently, they must be identified, evaluated, managed and mitigated in accordance with regulatory requirements and market best practices.

2.3 Risk, compliance & conduct governance

Our risk, compliance & conduct governance structure pursues an effective oversight of every risk according to our risk appetite. It stands on three lines of defence, a clear committee structure and strong group-subsidiary relations guided by our risk culture, Risk Pro.

Lines of defence

Our model of three lines of defence effectively manages and controls risks:

1st The business and support areas that take or originate risks are primarily responsible for managing them. The first line detects, measures, controls, monitors and reports on the risks it originates according to internal risk management policies, models and procedures. Risk management must be consistent with the approved risk appetite and related limits.

2nd The second line of defence, comprising the risk, compliance & conduct areas, independently oversees and challenges risk management at the first line of defence. Its duties include promoting that risks will be managed according to the risk appetite approved by senior management and strengthening our risk culture across the Group.

3rd The third line of defence, which is the Internal Audit area, is fully independent to give the board and senior management assurance of high-quality and efficient internal control, governance and risk management to preserve our value, solvency and reputation.

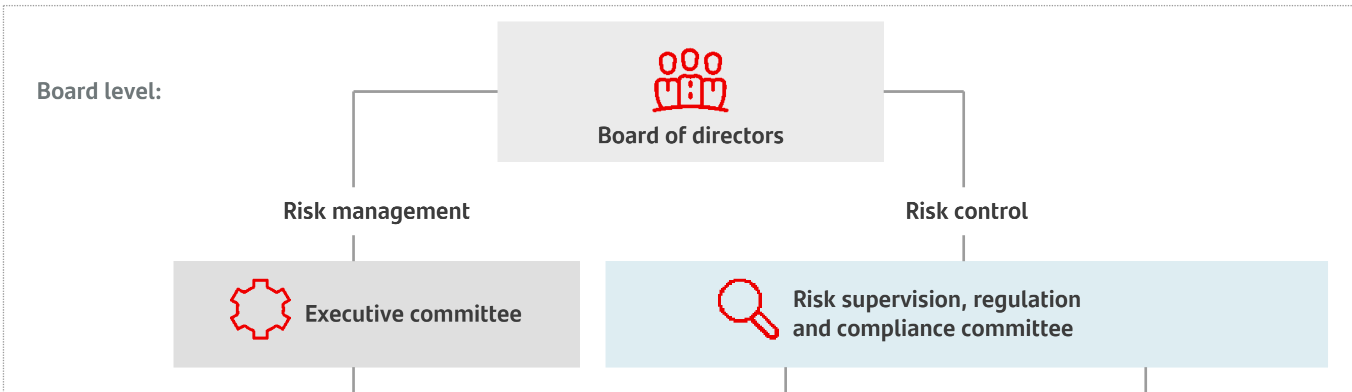
Risk, compliance & conduct, and internal audit functions are sufficiently separate and independent from each other. Each function has direct access to the board and its committees. The risk, compliance and conduct functions report to the risk supervision, regulation and compliance committee and the internal audit function reports to the audit committee.

Risk, compliance & conduct committees' structure

Our risk and compliance & conduct governance aims to:

- facilitate effective and efficient decision-making on risks;
- oversee risk control; and
- check that we manage risks according to the risk appetite set by the Group and subsidiary boards of directors.

To achieve these aims, our risk, compliance & conduct governance keeps risk control and risk-taking separate.



Executive level:	Executive risk committee (ERC)	Risk control committee (RCC)	Compliance and conduct committee
Chair:	CEO	Group CRO	Group CCO
Frequency:	Weekly	Monthly	Monthly
Fora:	• Model approval forum • Risk proposal forum	• Market, structural, liquidity and capital risk control forum • Credit risk control forum • Provisions forum	• Corporate product governance forum • Financial crime compliance forum • Reputational risk forum

The board of directors has final oversight of risk, compliance & conduct management and control to promote a sound risk culture and to review and approve risk appetite and policy, with support from its risk, regulation and compliance committee and its executive committee.

For more details, see section **4.8 'Risk supervision, regulation and compliance committee activities in 2023'** on 'Corporate governance' chapter.

The Group chief risk officer (Group CRO), who leads the application and execution of our risk strategy and promotes proper risk culture, is in charge of overseeing all risks, as well as challenging and advising business lines on risk management.

The Group chief compliance officer (Group CCO) leads the application and execution of the compliance & conduct risk strategy and is in charge of overseeing the risks within their purview and reporting on them to the Group CRO.

The Group CRO and the Group CCO report directly to both the risk supervision, regulation and compliance committee and the board of directors.

The executive risk committee, the risk control committee and the compliance & conduct committee are executive committees with powers delegated from the board of directors.

Executive risk committee (ERC)

The ERC manages risk with board-given authority to accept, modify or escalate important models as well as actions and transactions that may pose significant risk to the Group. It makes the highest-level risk decisions, mindful of risk appetite. It is formed by the CEO and other senior managers from the Risk, Finance and Compliance & Conduct areas. The Group CRO can veto the committee's resolutions.

Risk control committee (RCC)

The RCC controls and provides a holistic overview of risks. It makes sure business lines are managed according to the board-approved risk appetite. It also determines and checks the impact of existing and emerging risks on Grupo Santander's risk profile. It is formed of senior officers from the Risk, Compliance & Conduct, Finance and Management control, and other areas. From time to time, subsidiary-level CROs to report to the committee on risk profile.

Compliance & conduct committee

The committee monitors and reviews compliance & conduct risk management. It also oversees corrective measures for new risks and risks detected among management-related deficiencies. It is formed of senior officers from the compliance & conduct, risk, accounting and management control, and other areas. The chair holds the casting vote over the committee's resolutions.

Executive-level committees delegate some duties to management and control fora and meetings (see chart above) that:

- inform the Group CRO, the Group CCO, the risk control committee, and the compliance and control committee if risks are being managed within risk appetite;
- regularly monitor each key risk type; and
- oversee measures to meet supervisors and auditors' expectations.

The risk and compliance & conduct functions' internal regulation effectively creates the right environment to manage and control all risk types.

Grupo Santander can establish additional governance measures for special situations, as it has done with the covid crisis, the war in Ukraine, the uncertainty caused by the collapse of several regional banks in the US and Credit Suisse, and the current geopolitical situation. We have upgraded the monitoring of all risks, with special attention to the main macroeconomic indicators, liquidity, vulnerable sectors and clients, cybersecurity reinforcement, among other areas. The special situations forums we have activated are enabling us to cope with the geopolitical and macroeconomic environment in a resilient manner.

The Group's relationship with its subsidiaries

Grupo Santander subsidiaries' risk, compliance & conduct management and control model is consistent with the frameworks approved by the Group board of directors. Subsidiaries adhere to the frameworks through their own boards and can only adapt to higher standards according to local law and regulation. As part of our aggregate risk oversight, we challenge and ratify subsidiaries' internal regulation and transactions to create a common risk management and control model across the Group.

The risk, compliance & conduct functions will continue to support the businesses and oversee risk control both globally and locally. We continued to build on our group-subsidiary relations model by leveraging our global scale to uncover synergy under a common operating model and platform. The model promotes process simplification and more enhanced control to help grow the business.

The Group CRO, the Group CCO and regional heads of risk are involved in appointing, setting objectives for, reviewing and compensating their country-unit counterparts to evaluating that risks are adequately controlled.

Each subsidiary's CRO/CCO interacts regularly with the regional head of risk, the Group CRO and the Group CCO in country control meetings. Local and global risk, compliance & conduct functions also hold meetings to address specific matters.

Our subsidiaries cooperate to effectively strengthen group-subsidiary relations through these common initiatives:

- evolution of organizational structures based on subsidiary benchmarks and strategic vision to promote more advanced risk management infrastructures and practices;
- exchange of best practices that will strengthen processes, drive innovation and result in a quantitative impact;
- search for talent in risk and compliance teams with internal mobility through the global risk talent programme and strong succession plans.

For more details on our relationship with our subsidiaries, see section **7. 'Group structure and internal governance'** of the 'Corporate Governance' chapter.

2.4 Risk management processes and tools

In the following section, we describe Grupo Santander's processes and tools to carry out effective risk management.

Risk appetite and structure of limits

Risk appetite is the aggregate level and types of risk we deem prudent for our business strategy, even in unforeseen circumstances.

The risk appetite is expressed through qualitative statements and quantitative limits and metrics representative of the bank's risk profile. Those metrics cover all key risk types according to our corporate risk framework. We articulate them in five axes that provide us with a holistic view of all risks we incur in the development of our business model:

Risk Appetite axes	Key risks: Credit risk	Market risk	Liquidity risk	Structural risk	Operat. risk	Financial Crime Risk	Model risk	Reputat. risk	Strategic risk
P&L volatility	Control of P&L volatility associated with business plan under baseline and stressed conditions								
Solvency	Control of capital ratios under baseline and stressed scenarios (aligned with ICAAP)								
Liquidity	Control of liquidity ratios under base and stress scenarios (aligned with ILAAP)								
Concentration	Control of concentration levels in customers, sectors and portfolios								
Non financial risks	Solid controls on non financial risks aimed to minimize financial, operative, technological losses, as well as legal and regulatory breaches, and conduct events or reputational damage								

Our risk appetite and business model rests on:

- a medium-low, predictable target risk profile, centred on retail & commercial banking, internationally diversified operations and a significant market share;
- stable, recurrent earnings and shareholder remuneration, sustained by a sound base of capital, liquidity and sources of funding;
- autonomous subsidiaries that are self-sufficient in terms of capital and liquidity to safeguard their risk profiles against compromising the Group's solvency;
- an independent risk function and a senior management actively engaged in supporting a robust control environment and risk culture; and
- a conduct model that protects our customers and our Simple, Personal and Fair culture.

Risk appetite is governed throughout the Group by the following principles:

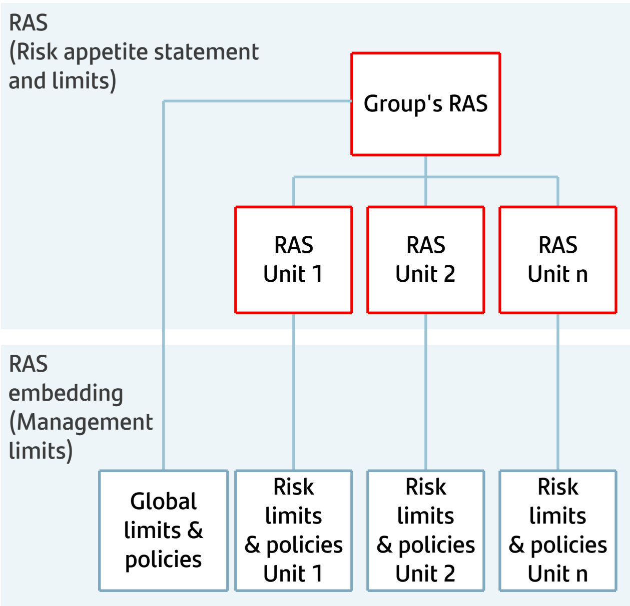
- **Risk appetite is part of the board's duties.** It prepares the risk appetite statement (RAS) for the whole Group every year. In a cascading down process, each subsidiary's board also sets its own risk appetite.
- **Comprehensiveness and forward-looking approach.** Our appetite includes of all material risks that we are exposed to and defines our target risk profile for the current and medium term with a forward-looking view considering stress scenarios.

  To promote that all material risks are adequately represented, we use corporate methodologies to identify and assess the risk to which we are exposed to, in the different counties, and are inherent to our activities (emerging risks and risk control self-assessment — RCSA— among others).

For more details on these exercises see sections 'Management and control model' **6.2 Operational risk management'** and '1.2 **Emerging risks'.**

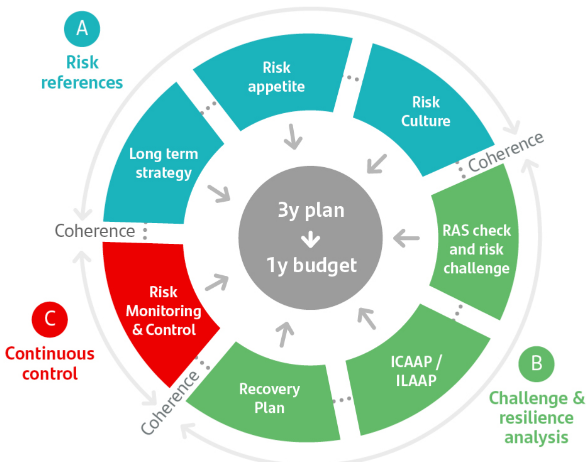
- **Common standards embedded in the day-to-day risk management.** The Group shares the same risk appetite model, which sets common requirements for processes, metrics, governance bodies, controls and standards. It also facilitates an effective and traceable embedding of our appetite into more granular management policies and limits across our subsidiaries.
- **Continuous adaptation** to market best practices, regulatory requirements and supervisors' expectations.

- **Aligning with business plans and strategy.** The risk appetite is a key point of reference for strategic and business planning. We verify that the three-year strategic plans, the annual budget, and capital and liquidity planning are within the limits set in the RAS before we approve them.



We promote that strategic and business plans are aligned with our risk appetite by:

- considering the risk appetite, long-term strategic view and the risk culture when drafting strategic and business plans.
- challenging business and strategic plans against the risk appetite. Misalignments trigger a review of either the three-year strategic plan (to make sure we stay within RAS limits) or risk appetite limits, with independent governance.
- control through the three lines of defence model that the risk appetite limits are subject to periodic oversight and that the specialized control functions report on risk profile and compliance with limits to the board and its committees every month.



Risk profile assessment (RPA)

Identification and assessment are crucial to managing, controlling and reporting on risks properly. Our risk profile assessment (RPA) covers the Group's internal and external risks and vulnerabilities and measures their quantitative and qualitative materiality. Our risk framework outlines all material risk types that stem from the Group's core risk assessments.

We systematically evaluate the risk profile of the Group and its subsidiaries using a single RPA methodology based on the core principles of our risk identification and assessment model: area-level accountability, efficiency, common methodology, comprehensive risk coverage, materiality, and guidance on corrective action and mitigation.

Under the RPA methodology, we calculate risk profiles based on a points system of 'low', 'medium-low', 'medium-high' and 'high' to make sure the board-approved risk appetite remains within a medium-low, predictable risk profile. In addition, it allows a holistic view of all risks at a given moment in time, pinpointing weaknesses in our risk management and deviations from our business plan to take corrective action. It showcases our prudent risk management that translates to solid solvency ratios and comfortable levels of liquidity.

Our risk profile considers these factors:

- Risk type, where we measure exposure under base and stressed scenarios through risk appetite and 'top of the house' metrics and internationally recognized, internal and best practice indicators.
- Group/Subsidiaries, which gives an aggregated view of risks to the Group and its subsidiaries, as well as threats that may impact on business planning and strategic objectives.

The Group's target is to maintain a medium-low risk profile, despite market volatility, a gradual drop in inflation (which remains high) and ongoing geopolitical tension. Our cautious and proactive management led to strong profitability and credit quality indicators, and a robust liquidity risk profile.

Scenario analysis

Scenario analyses enable us to measure the resilience of our balance sheet and our capital adequacy under stressful conditions. The findings of these analyses are used to review our risk appetite and draw up actions to mitigate expected losses or, if needed, to reduce capital and liquidity.

Scenario analyses also enable senior management to comprehend the nature and scope of the vulnerabilities to which the Group is exposed to in the development of its business plan.

Our Research department plays a key role in determining scenarios, macroeconomic variables and other factors that can affect our risk profile in our markets.

We conduct a systematic review of our risk exposure under base, adverse and favourable scenarios that predict an impact on solvency and liquidity. These exercises are fundamental to our processes:

- **Regulatory exercises** based on instructions from EU and domestic supervisors.
- **Business planning** to help set the Group's risk strategy and profile, with:
  - internal capital and liquidity adequacy assessment processes (ICAAP and ILAAP) that measure capital and liquidity in various scenarios;
  - budget and strategic planning when implementing a new risk approval policy, in evaluating the risk profile or when monitoring specific portfolios and business lines;
  - our annual recovery plan, which specifies which tools Grupo Santander could use to survive a severe financial crisis. The plan's financial and macroeconomic stress scenarios have various levels of severity, plus idiosyncratic and/or systemic events; and
  - risk appetite, with stressed metrics to determine how much risk we want to expose ourselves to.
- **Recurrent risk management** also uses scenario analyses for:
  - provisions estimates: involve a value correction of credit operations for those existing or prospective risk factors that have not been considered in the initial approval and rating process, both for individual customers and for total portfolio;
  - regular credit and market risk stress tests that simulate changes in expected losses to estimate required capital and absorb unexpected losses; and

For more details on scenario analysis, see sections **3.2 'Credit risk management'**, **4.2 'Market risk management'** and **4.6 'Liquidity risk management'** and section **'Expected loss estimation'** in Note 54 to the consolidated financial statement.

  - climate change scenario analysis, with the Network for Greening the Financial System (NGFS) & Representative Concentration Pathways (RCP) scenarios and others that we've created to calculate the impact of climate change.

To make stress testing more consistent and robust:

- Our three lines of defence and senior management are involved in scenario analysis governance and oversight.
- The models we develop estimate future metric values (e.g. credit losses).
- Our backtesting and reverse stress exercises challenge model outcomes regularly.
- Our teams contribute expert opinions and a vast understanding of portfolios.
- And we thoroughly monitor models, scenarios, assumptions, results and mitigating management measures.

Against a backdrop of high inflation, record interest rate hikes by central banks, banking sector volatility, armed conflict in Ukraine and the Middle East, initial signs of weak demand for credit, and uncertainty and mistrust in the financial system due to several events in early 2023, scenario analyses were key to pinpointing and managing potential impacts of those events on our portfolios.

We boosted our foresight by drawing up action points, adapting our strategy to maintain solvency levels and considering our more vulnerable customers due to the macroeconomic landscape.

We continued to build up our analysis of potential losses to the highest level of granularity by enhancing our sector-level methodology and projection tool based on the resilience of each company's financial statements to different macroeconomic scenarios. We considered their pledge to meet energy commitments through possible transition plans by quantifying impacts under the assumptions of an orderly, disorderly or non-existent transition to be able to keep our management of the portfolio one step ahead.

Moreover, we conducted sensitivity analysis on retail customers' creditworthiness, with special focus on our mortgage portfolio. The analysis considered several interest rate hike scenarios to propose relief and mitigation measures for the most vulnerable customers.

Risk reporting structure

Senior management gets regular reporting from the Enterprise-wide risk management team on current and future risks so it can remain abreast of our risk profile and exercise sound decision-making. Reporting is dynamic, such that all significant risks are prioritized in a timely and appropriate manner.

Our reports cover every risk included in our corporate risk framework, with all necessary considerations for their proper risk assessment. They also provide a consolidated view of all risks, maintaining the information quality and consistency according to our corporate data framework.

Our risk reporting structure continues to strike a balance between data, analysis and qualitative commentary, incorporating forward-looking measures, risk appetite information and limits, and emerging risks.

We continue to enhance our reporting with simpler, automated processes and tighter controls that adapt to new needs. In 2023, we reported and monitored all the impacts of ongoing armed conflicts; escalated cases of risk from macroeconomic and geopolitical volatility; and paid close attention to every emerging risk that could have a direct or indirect impact on the Group.

3. Credit risk

3.1 Introduction

Credit risk is the risk of financial loss when a customer or counterparty whom Santander has financed or has a contractual obligation with defaults or loses creditworthiness. It includes counterparty risk, country risk and sovereign risk and generates the most exposure and capital consumption.

3.2 Credit risk management

We take a holistic view of the credit risk cycle, including the transaction, the customer and the portfolio to identify, analyse and make decisions about credit risk.

Credit risk identification facilitates active and effective portfolio management. We classify external and internal risk in each business to adopt any corrective or mitigating measures through:

Planning

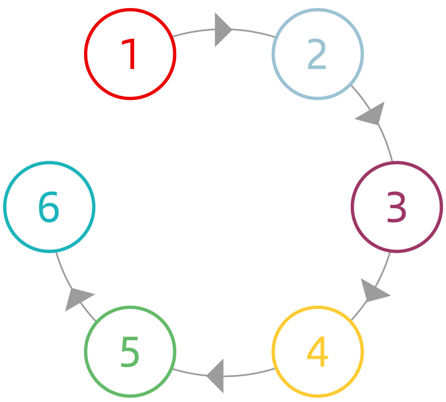
Our planning helps us set business targets and draw up action plans within our risk appetite statement.

Strategic commercial plans (SCPs) are a risk management and control tool the business and risk areas prepare for our credit portfolios. They determine commercial strategies, risk policies, resources and infrastructure, to have a holistic view of portfolios.

Risk assessment and credit rating

Risk approval generally depends on the applicant's ability to repay the debt, regardless of any collateral or personal guarantees we require. We review their regular sources of income, including funds and net cash flows from any businesses.

Our credit quality assessment models are based on the credit rating engines for each of our segments, which we monitor to calibrate and adjust the decisions and ratings they assign.



Collections and recoveries

The Collections & Recoveries area draws up a strategy based on local economic conditions, business models and other recovery-related particulars.

For effective and efficient recoveries management, the area segments customers based on certain aspects, using new digital channels that help create sustainable value.

Scenario analysis

Scenario analyses determine potential risks in credit portfolios; give us a better understanding of their performance under various macroeconomic conditions; and enable us to employ management strategies that will avoid future deviations from set plans and targets.

Mitigation techniques

We generally approve risk according to a borrower's ability to make due payment, regardless of any additional collateral or personal guarantees we may require. We always consider guarantees or collateral as a reinforcement measure in a credit transaction to mitigate a loss if the borrower defaults on their payment obligation.

Monitoring

Our holistic, regular monitoring allows us to track credit quality, spot risk trends early and check credit performance against original targets based on a system that helps us determine monitoring levels, policies and special measures for each customer.

For more details see section **'Credit risk management'**, in Note 54 to the consolidated financial statement

ATOMiC: Advanced Target Operating Model in Collaboration

Since its launch, the ATOMiC has transformed credit risk management as we continue to work on daily business operations as part of our credit risk strategy.

It enables us to continue strengthening our control environment and our ability to anticipate and handle uncertainty caused by complex, unforeseen events like geopolitical conflict and social and economic instability, and adapt to new regulation from recent years.

In 2023, we bolstered our credit risk strategy to help us achieve sustainable and profitable growth. We continued to make headway in digitalization and innovation with the goal of achieving prudent growth. We focused on monitoring portfolio profitability and capital targets with a forward-looking approach in view of the macroeconomic landscape. We also supported the development of the Group's new global businesses, and embedded environmental, social and climate change (ESCC) risk in credit risk management.

Everything we do is consistent with the Group's strategic principles:

- **Think Value:** Adding value by simplifying credit risk procedures through enhanced automation and digitalization, which enables us to continue refining our customer response times, Net Promoter Score (NPS) and other KPIs.
- **Think Customer:** Keeping the customer at the core of our credit risk strategy by promoting flexible limits and quick response, improving decision-making, maintaining focus on the quality of collections and recoveries, and supporting business areas' growth.
- **Think Global:** Working as a global team to adapt better and faster to change, as well as sharing knowledge and best practice among internal talent and networks of Group experts and harnessing the benefits of being a multinational organization.

As a 'living' strategy, it is reviewed and updated annually. In 2023, the Group drew up initiatives in subsidiaries that helped (and will continue to help) drive faster transformation and innovation and tackle new challenges with ATOMiC Pro.

We based these initiatives on four levers we consider vital to their success:

i. advanced target operating models (updated TOMs);

ii. business success case studies (SCS) that help us understand best practices implemented in the Group;

iii. KPIs: metrics that help measure the contribution and impacts of ATOMiC on credit portfolios (including the percentage of automated decisions, time-to-yes, percentage of customers with pre-approved limits); and

iv. local transformational initiatives that promote faster implementation of the strategic lines of credit risk in the Group and are subject to specific KPIs.

Local credit risk strategies are defined based on the starting situation of each country, its budgetary needs and readjusting global objectives to their own reality and particularities. These local strategies therefore jointly build the Group's ambition and credit strategy. ATOMIC enables us to be better prepared for unexpected events, as we constantly strengthen our control framework in terms of:

- risk appetite limits and risk profile;
- credit risk management based on analytical models and automation;
- forward-looking metrics and concentration limits per customer and sector;
- measures that help determine in advance the risk policies and actions to be implemented with clusters of customers in view of the environment (playbooks);
- specific measures for each segment, from individuals to large corporates, such as sectoral exercises with new macroeconomic scenarios, and review of admission cut-off scores; and
- enhanced forecasting, proactive monitoring and recovery management by the Collections and Recoveries area.

3.3 Key metrics

2023 overview

In 2023, the global macroeconomic landscape continued to be affected by inflation — which did, however, begin to gradually decline due to monetary policy. Grupo Santander's performance was largely affected by official interest rate hikes in our markets. We had to make credit risk control processes more forward-looking to be ready for future shifts.

Though lending margins benefited from interest rate hikes, the financial industry is facing increasing headwinds related to lower loan demand, which is cooling rapidly; lower credit quality with higher credit risk in portfolios; and a potential increase in credit losses due to customers having less disposable income.

Our geographical diversification also enables us to tackle the challenging landscape as our markets are at different stages of the economic cycle. Our credit risk maintained a strong, diversified balance of mature and emerging markets: Europe[1] (55%), North America (17%), South America (16%) and DCB (12%).

As at December 2023, credit risk with customers climbed 1% from 2022 (0.8% in constant euros). Increases in Brazil and Mexico (backed by appreciating currency) and in DCB drove the Group's credit risk upwards; however, this was partially offset by a drop in the credit portfolio in our core units in Europe due to early repayment of mortgages.

Lower credit portfolio growth, coupled with an increase in impaired credit assets to 35,620 million euros (up 2.7% on 2022), caused the NPL ratio to rise to 3.14% (+6 bps from 2022). The main increases in impaired credit assets were in

[1] 'Others' not included make up the remaining 0.4% (Corporate Centre).

North America, the United Kingdom, Poland and DCB, offset by decreases in the rest of Europe and South America.

The Group recognized loan-loss provisions of EUR 12,458 million (up 19% compared to 2022) in compliance with IFRS 9, driven by the provisions made in the US (normalization of the Auto portfolio), DCB (due to portfolio growth), Mexico (driven by loan loss provision normalization and growth in loans to individuals) and Poland (related to Swiss Franc mortgages). Our credit profile in the different markets remained good.

Loan-loss reserves totalled EUR 23,490 million. Our NPL coverage ratio decrease to 65.9% (down 1.6 pp on 2022). To understand this coverage ratio, we must consider that mortgages to individuals made up approximately 30% of net customer loans as at December 2023. By and large, these mortgages are found in Spain and the UK and consist of low-risk home mortgages, with low NPL ratios and fewer losses.

Grupo Santander has adopted the measures proposed by the governments of Spain, the UK, Portugal and Poland to ease the burden that interest rate hikes place on vulnerable customers with mortgages. Such measures include extending mortgage terms to bring down payments to levels that customers can afford, in addition to the measures we had in place already.

The Group continuously monitors the government liquidity programs that were launched during the pandemic, where Spain constitutes the majority. 99% of the grace periods have expired, showing positive behaviour with no signs of deterioration.

The tables below show key customer credit risk metrics:

Main credit risk metrics[A]

Data as of 31 December

	Credit risk with customers[B] (EUR million)			Impaired loans (EUR million)			NPL ratio (%)		
	2023	2022	2021	2023	2022	2021	2023	2022	2021
Europe	**624,696**	**639,996**	**636,123**	**14,495**	**15,186**	**19,822**	**2.32**	**2.37**	**3.12**
Spain	278,569	293,197	283,953	8,529	9,598	13,403	3.06	3.27	4.72
UK	247,360	253,455	262,869	3,518	3,059	3,766	1.42	1.21	1.43
Portugal	39,503	41,755	41,941	1,024	1,247	1,442	2.59	2.99	3.44
Poland	39,329	33,350	33,497	1,397	1,268	1,210	3.55	3.80	3.61
North America	**190,720**	**185,614**	**149,792**	**7,805**	**5,629**	**3,632**	**4.09**	**3.03**	**2.42**
US	137,893	140,452	112,808	6,303	4,571	2,624	4.57	3.25	2.33
Mexico	52,785	45,107	36,984	1,489	1,047	1,009	2.82	2.32	2.73
South America	**177,380**	**167,348**	**141,874**	**10,142**	**10,381**	**6,387**	**5.72**	**6.20**	**4.50**
Brazil	113,937	101,801	85,702	7,479	7,705	4,182	6.56	7.57	4.88
Chile	46,565	47,811	41,479	2,332	2,384	1,838	5.01	4.99	4.43
Argentina	3,903	5,844	5,481	78	122	198	1.99	2.08	3.61
Digital Consumer Bank	**135,608**	**125,339**	**116,989**	**2,877**	**2,583**	**2,490**	**2.12**	**2.06**	**2.13**
Corporate Centre	**5,494**	**5,824**	**6,337**	**301**	**894**	**903**	**5.48**	**15.35**	**14.38**
Total Group	**1,133,898**	**1,124,121**	**1,051,114**	**35,620**	**34,673**	**33,234**	**3.14**	**3.08**	**3.16**

	NPL coverage ratio (%)			Loan-loss provisions[C] (EUR million)			Cost of risk (%/risk)[D]		
	2023	2022	2021	2023	2022	2021	2023	2022	2021
Europe	**49.3**	**51.8**	**49.4**	**2,533**	**2,396**	**2,293**	**0.44**	**0.39**	**0.39**
Spain	49.1	51.0	51.4	1,522	1,618	2,320	0.62	0.61	0.92
UK	30.3	33.8	25.8	247	316	-245	0.10	0.12	(0.09)
Portugal	82.7	79.3	71.7	77	17	38	0.20	0.04	0.09
Poland	73.3	74.0	73.9	674	440	200	2.08	1.43	0.67
North America	**73.8**	**93.3**	**134.9**	**3,733**	**2,538**	**1,210**	**2.05**	**1.49**	**0.93**
US	67.7	90.3	150.3	2,593	1,744	419	1.92	1.35	0.43
Mexico	100.0	106.6	95.0	1,135	788	791	2.43	1.95	2.44
South America	**78.4**	**76.0**	**98.3**	**5,401**	**5,041**	**3,251**	**3.36**	**3.32**	**2.60**
Brazil	84.7	79.5	111.2	4,701	4,417	2,715	4.77	4.79	3.73
Chile	52.7	56.3	63.3	365	399	341	0.80	0.93	0.85
Argentina	165.7	180.4	153.8	150	132	140	6.64	2.91	3.01
Digital Consumer Bank	**88.0**	**92.8**	**107.8**	**792**	**544**	**527**	**0.62**	**0.45**	**0.46**
Corporate Centre	**32.8**	**1.5**	**3.6**	**(2)**	**-10**	**155**	**(0.04)**	**(0.14)**	**2.45**
Total Group	**65.9**	**67.5**	**71.3**	**12,458**	**10,509**	**7,436**	**1.18**	**0.99**	**0.77**

A. Management perimeter according to the reported segments.
B. Includes gross loans and advances to customers, guarantees and documentary credits.
C. Post write-off recoveries (EUR 1,592 million).
D. Provisions to cover losses due to impairment of loans in the last 12 months / average customer loans and advances of the last 12 months.

For more details on the main subsidiaries see section 'Detail of the main geographical areas' in Note 54 of the consolidated accounts.

From 1Q'24 (inclusive), Grupo Santander's financial information will reflect changes in the segments we report on, as a result of its new structure/business model. Risk disclosures will also follow these new criteria.

Reconciliation of key figures

Santander's 2023 consolidated financial statements disclose loans and advances to customers before and after loan-loss reserves. Credit risk with customers also includes off-balance sheet risk or contingent liabilities. This table shows the relationship between those concepts:

		Gross credit risk with customers[A] 1,133,898				
Gross credit risk with customers 1,133,898	=	Gross loans and advances to customers & others 1,059,137			+	Contingent liabilities 74,761
Loans and advances to customers(Gross) 1,059,137	=	Financial assets measured at amortised cost (Gross)[B] 1,032,511	+	Financial assets held for trading[B] 11,634	+	Financial assets at fair value (Gross)[B] 14,992
Loan-loss reserves -22,788	=	Loan-loss reserves -22,666		+		Loan-loss reserves -122
Net loans and advances to customers 1,036,349	=	Net financial assets measured at amortised cost 1,009,845	+	Financial assets held for trading 11,634	+	Net financial assets at fair value 14,870
		Net loans and advances to customers 1,036,349				

Section 3. Credit risk   Balance sheet item from consolidated financial statement

A. Includes gross loans and advances to customers, guarantees and documentary credits.
B. Before loan-loss allowances.

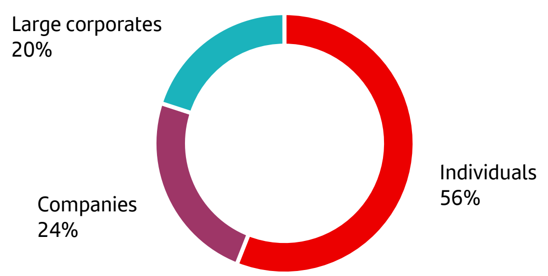
Distribution by market and segment

Santander organizes its credit risk function around three customer groups:

- **Individuals:** All natural persons that are not self-employed individuals, subdivided by income level to manage risk properly by customer type.
- **SMEs, corporates and institutions:** Companies and self-employed individuals, state-owned entities and private not-for-profit organizations.
- **Large corporates:** Corporate customers, financial institutions and sovereigns, which make up a closed list that is revised annually. This list is determined through a complete analysis of the customer (business type, geographic diversification, product types used, volume of income it represents for Santander, among others).

The graph below breaks down credit risk (including gross loans and advances to customers, guarantees and letters of credit):

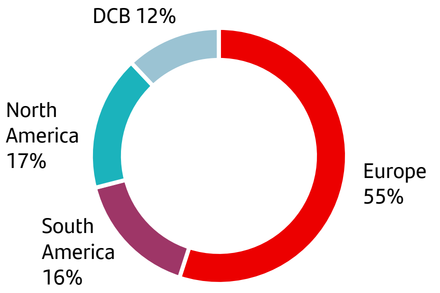
Credit risk distribution

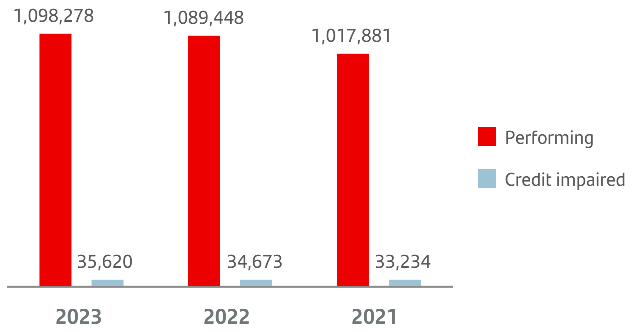


Below is a breakdown of performing loans and credit impaired by region and segment:

Total

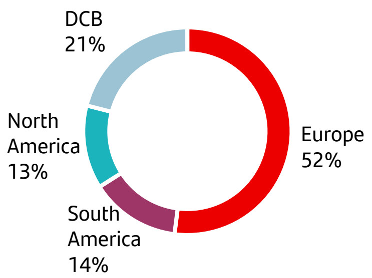
Total
Eur Mn
1,133,898

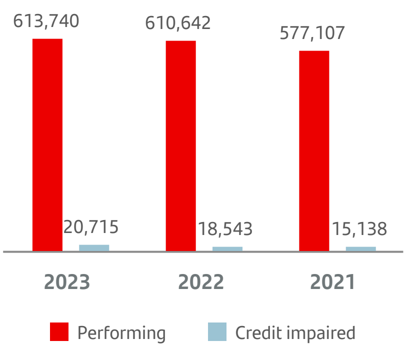




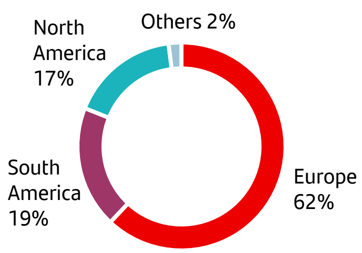
Segments

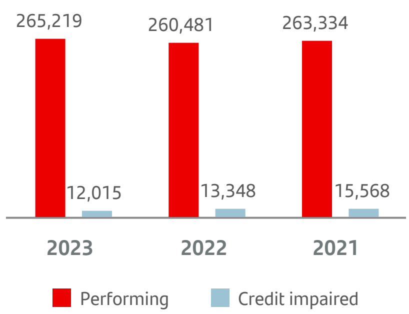
Individuals
Eur Mn 634,455



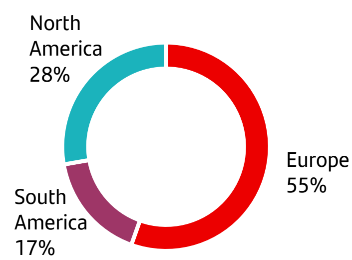


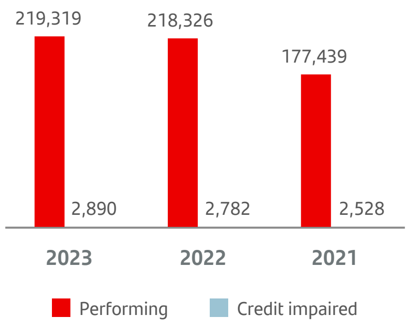
SME, Commercial Banking and Institutions
Eur Mn 277,234





Large Corporates
Eur Mn 222,209





'Others' include Corporate Centre.

- **Europe:** The NPL ratio fell 5 bps to 2.32% from 2022, due to a significant reduction in impaired loans in Spain and Portugal on the back of portfolio sales.
- **North America:** The NPL ratio climbed 106 bps to 4.09% from 2022, mainly because the increase in SC USA (normalisation of the portfolio) and in Mexico (portfolio growth in higher return-risk segment).
- **South America:** The NPL ratio fell 48 bps to 5.72% from 2022, due to the portfolio growth in Brazil and the performance of the Chilean portfolio.
- **Digital Consumer Bank:** The NPL ratio climbed 6 bps to 2.12% due to a slight increase in impaired loans, not offset by portfolio growth.

Financial asset impairment

The IFRS 9 impairment model applies to financial assets valued at amortized cost; debt instruments valued at fair value with changes in other comprehensive income; leasing receivables; and commitments and guarantees not measured at fair value.

The portfolio of IFRS 9 financial instruments is split according to three credit risk stages:

Observed credit risk impairment since the initial recognition of the financial instrument

Risk category	Stage 1	Stage 2	Stage 3
Classification criteria	Financial instruments with no significant increase in risk since initial recognition.	Financial instruments with a significant credit risk increase since initial recognition but with no materialized impairment event.	Financial instruments with true signs of impairment as a result of one or more events resulting in a loss.
Provisions recognised	The impairment provision reflects expected credit losses from defaults over 12 months from the reporting date.	The impairment provision reflects expected losses from defaults over the financial instrument's residual life.	The impairment provision reflects expected losses from defaults over the financial instrument's residual life. In this stage, the calculation considers that loss events have already occurred and, therefore, the only possible scenario is that they will materialize in losses.

Impairment provisions include expected credit risk losses over the expected residual life of purchased or originated credit impaired (POCI) financial instruments.

The following table shows credit risk exposure by stage and geography:

Exposure by stage and geography[A]

EUR million. Dec.23

	Stage 1	Stage 2	Stage 3	Total
Europe	**531,686**	**48,215**	**14,495**	**594,396**
Spain	235,757	16,141	8,529	260,426
UK	205,707	26,118	3,518	235,344
Portugal	34,489	3,990	1,024	39,503
Poland	35,906	1,907	1,397	39,209
North America	**152,026**	**11,861**	**7,805**	**171,692**
US	103,811	9,377	6,303	119,490
Mexico	48,191	2,484	1,489	52,164
South America	**152,964**	**13,726**	**10,142**	**176,832**
Brazil	96,799	9,130	7,479	113,408
Chile	40,198	4,033	2,332	46,562
Argentina	3,469	357	78	3,903
Digital Consumer Bank	**128,145**	**4,569**	**2,877**	**135,591**
Corporate Centre	**3,930**	**934**	**301**	**5,165**
Total Group	**968,751**	**79,305**	**35,620**	**1,083,676**

A. Does not include EUR 31,396 million in temporary purchases of stage 1 assets, nor EUR 18.826 million in unimpaired risk.

Stage 3 financial instruments (showing impairment) performed as follows:

2021 - 2023 Impaired credit assets

EUR million

	2023	2022	2021
Start of period	**34,673**	**33,234**	**31,767**
Net entries	14,658	13,257	10,027
Perimeter	(59)	—	—
FX and others	195	417	529
Write-off	(13,847)	(12,235)	(9,089)
End of period	**35,620**	**34,673**	**33,234**

2021 - 2023 loan loss reserves

EUR million

	2023	2022	2021
Start of period	**23,418**	**23,698**	**24,271**
Stage 1 and 2	9,272	9,983	10,491
Stage 3	14,146	13,714	13,780
Gross provision for impaired assets and write-downs	13,524	11,665	8,824
Provision for other assets	526	305	(6)
FX and other	(132)	(14)	(303)
Write-off	(13,847)	(12,235)	(9,089)
End of period	**23,490**	**23,418**	**23,698**
Stage 1 and 2	9,026	9,272	9,983
Stage 3	14,464	14,146	13,714

We quantify expected losses from credit events using an unbiased, weighted consideration of up to five future scenarios that could affect our ability to collect contractual cash flows. They consider the time-value of money, information from past events, and current conditions and projections of GDP, house pricing, unemployment and other important macroeconomic factors.

We calculated impairment losses using parameters (mainly EAD[2], PD[3], LGD[4] and discount rate) based on internal models and regulatory and management expertise. As they are far from a simple adaptation, we define and validate them according to IFRS 9 guidelines.

For more information regarding Financial asset impairment, see **'Credit risk management'** in section '2. Main aggregates and variations' on Note 54 to the consolidated financial statement.

Forbearance

Grupo Santander's internal forbearance policy is a standard for our subsidiaries and follows regulations and supervisory expectations such as the EBA Guidelines on the management of credit impaired and forborne exposures.

Its rigorous criteria for assessing and monitoring forbearances allows for the strictest possible care and diligence in recoveries. Forbearance must aim to recover outstanding debt, with payment obligations adapted to customers' circumstances.

Forborne debt should remain classified as 'doubtful' or put on a watch-list for sufficient time in order to determine both associated risk and reasonable certainty about recovery of ability to pay. Forbearance may never be used to delay the immediate recognition of losses or hinder the appropriate recognition of risk of default.

In 2023, forbearance stock fell again (6% in the year), and stood at EUR 31,963 million, due to the good payment behaviour in the main geographies. In terms of credit quality, 47% are classified as credit impaired with average coverage of 44%.

Key forbearance figures

EUR million

	2023	2022	2021
Performing	16,919	18,988	20,504
Credit impaired	15,044	15,185	15,539
Total forborne	31,963	34,173	36,042
% Total coverage[A]	**25%**	**24%**	**23%**

A. Total forbearance portfolio loan-loss allowances/total forborne portfolio.

3.4 Other credit risk details

Credit risk from financial markets activities

This section covers the credit risk generated from treasury activity with customers (especially credit institutions) through money market financing and counterparty risk products to meet the needs of customers and the Group's own needs in their management.

Counterparty credit risk is the risk that a customer will default before the final settlement of a transaction's cash flows. It creates a bilateral credit risk because it can affect both parties to a transaction. It is also uncertain because it depends on market factors, which can be volatile.

We manage counterparties with several credit risk models based on their characteristics and needs. Model segmentation is organized by business and risk treatment and based on counterparty disclosures as well as the credit risk cycle. The exposure that the counterparty credit risk model cover includes derivatives contracts, repurchase agreements, securities and commodities lending, long settlements and margin lending.

An infrastructure that can measure current and potential exposure quickly and dynamically with various degrees of aggregation and granularity to generate detailed reports is key to decision-making.

We measure exposure using two methods: 'Mark-to-market' (MtM - replacement cost of derivatives), plus potential future exposure ('add-on'); and the Monte Carlo simulation for certain countries and products. We also calculate capital at risk and unexpected loss (e.g. economic capital net of collateral and recoveries, after deducting expected loss).

At market close, we recalculate exposure by adjusting transactions to a new time horizon, adapting potential future exposure, and applying netting, collateral and other mitigants. That way, we can check exposure daily against the limits approved by senior management within risk appetite. We control risk by using a real-time, integrated system that shows the exposure limit with a counterparty for any product and term, and for all subsidiaries.

Counterparty credit risk can also give rise to 'wrong-way' risk if exposure to a portfolio or a counterparty increases but credit quality declines. It can happen when rising default risk increases exposure to a counterparty. Santander has specific models to measure this risk.

Settlement risk occurs when a transaction is settled through an exchange of flows or assets between two counterparties. For instance, when a counterparty exchanges dollars for euros, settlement implies that one party gives euros and receives an equivalent amount of dollars from the other. Settlement risk is the possibility that one of the parties will default on their settlement commitments. We use a global infrastructure and specific models to measure this risk.

[2] Exposure at Default
[3] Probability of Default
[4] Loss Given Default

Counterparty risk exposures: over-the-counter (OTC) transactions and organized markets (OM)

As at December 2023, the positive market value of total exposure (under management criteria) with netting and collateral agreements for counterparty risk was 13,428 million euros (net credit risk equivalent of 48,372 million euros). In 2023, despite the geopolitical and macroeconomic uncertainty, there was no significant increase in market value or exposure.

Counterparty risk: exposure in terms of market value and credit risk equivalent, including the mitigation effect[A]

EUR million

	2023	2022	2021
Market value with netting effect and collateral[B]	13,428	13,249	5,491
Net CRE[C]	48,372	45,157	31,444

A. Figures under internal risk management criteria. Listed derivatives have a market value of zero. No collateral is received for these types of transactions.
B. Includes the mitigation of netting agreements and deducting the collateral received.
C. CRE (credit risk equivalent): net value of replacement plus the maximum potential value, less collateral received.

The chart below shows counterparty risk products (especially interest rate and FX hedging instruments) by nominal risk:

Counterparty risk by nominal[A]

EUR million

	2023	2022	2021
	Nominal	Nominal	Nominal
Credit derivatives[B]	24,528	14,765	17,164
Equity derivatives	20,326	26,177	79,062
Fixed income derivatives	4,793	13,320	4,409
Exchange rate derivatives	1,256,997	1,069,870	947,061
Interest rate derivatives	6,775,004	5,538,173	4,915,150
Commodity derivatives	20,061	13,496	12,022
Total OTC derivatives	**7,909,027**	**6,479,325**	**5,786,114**
Derivatives organised markets[C]	**192,682**	**196,476**	**188,755**
Repos	**421,937**	**259,946**	**129,085**
Securities lending	**61,374**	**52,269**	**48,346**
Total counterparty risk[D]	**8,585,020**	**6,988,017**	**6,152,300**

A. Figures under internal risk management criteria.
B. Credit derivatives acquired including hedging of loans.
C. Refers to transactions involving listed derivatives (proprietary portfolio). Listed derivatives have a market value of zero. No collateral is received for these types of transactions.
D. Spot transaction not included.

As the following table shows, most of Santander's derivatives reach maturity in up to five years, and repurchase agreements and securities lending in up to one year.

Counterparty risk: Distribution of nominal risk by maturity[A]

EUR million. Dec.23 data

	Up to 1 year	Up to 5 years	Up to 10 years	More than 10 years
Credit derivatives[B]	14%	58%	25%	3%
Equity derivatives	63%	35%	2%	—%
Fixed income derivatives	97%	3%	—%	—%
Exchange rate derivatives	56%	27%	11%	6%
Interest rate derivatives	40%	38%	14%	8%
Commodity derivatives	71%	27%	2%	—%
Total OTC derivatives	**42%**	**36%**	**14%**	**8%**
Derivatives organised markets[C]	**65%**	**23%**	**10%**	**2%**
Repos	**94%**	**6%**	**—%**	**—%**
Securities lending	**98%**	**2%**	**—%**	**—%**
Total counterparty risk	**46%**	**34%**	**13%**	**7%**

A. Figures under internal risk management criteria.
B. Credit derivatives acquired, including coverage of loans.
C. Refers to transactions involving listed derivatives (proprietary portfolio). Listed derivatives have a market value of zero. No collateral is received for these types of transactions.

Even if the credit quality of some counterparties declines, most counterparty credit risk is with customers with high credit quality (88% rated A or higher), especially financial institutions (23%) and clearing houses (71%).

Counterparty risk: Notional values by customer rating[A]

Dec.23 data

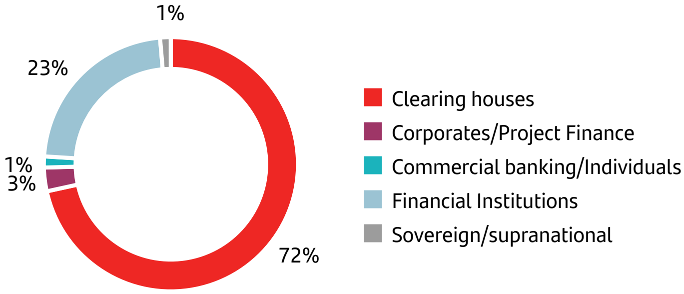
Rating	%
AAA	0.81%
AA	2.38%
A	84.36%
BBB	11.32%
BB	1.03%
B	0.08%
Other	0.02%

A. Ratings based on internally defined equivalences between internal ratings and credit agency ratings.

Transactions with clearing houses and financial institutions are subject to netting and collateral agreements, which we also seek to use to cover all other transactions. In general, the collateral agreements Santander signs are bilateral; still, we do sign some unilateral agreements in the customer's favour, mainly with multilateral organizations and securitization funds.

Counterparty risk: Notional values by customer segment

Dec. 23 data



We use collateral to reduce counterparty risk. It consists of highly liquid instruments with economic value. They are deposited or transferred from one counterparty to another to guarantee or reduce counterparty credit risk from portfolios of cross-risk derivatives.

We measure trades subject to collateral agreements daily, with parameters to determine the amount of collateral to be paid or received from the counterparty (in cash or securities).

Our processes to manage collateral properly and more often have proved effective amid high volatility.

Most of the collateral received under Credit Support Annex (CSA), Overseas Securities Lending Agreement (OSLA), International Securities Market Association (ISMA), Global Master Repurchase Agreement (GMRA) and other agreements signed by the Group has been effective (41%); the rest is subject to strict quality policies in regard to the issuer and their rating, debt seniority and haircuts.

Because of the credit risk we assume with each counterparty, we apply credit valuation adjustments (CVA) to over-the-counter (OTC) derivatives when calculating the results of trading portfolios.

A CVA is a change to the market value of OTC derivatives that accounts for counterparty credit risk throughout the contract life. A counterparty's CVA adds up to the CVA on all maturity dates. It discounts the value of a derivative offered by a buyer based on the chance that the counterparty will default. We calculate it with exposure at default, probability of default, loss given default, the discount curve and other inputs.

We also apply debt valuation adjustments (DVA), which are similar to CVA but result from credit risk assumed by OTC counterparties trading with Grupo Santander. Both CVA and DVA are done within the potential period of exposure.

At the end of December 2023, CVA adjustments of EUR 293 million and DVA adjustments of EUR 330 million were recorded, down 16.5% and 9.3% respectively, compared to 2022. These declines are mainly due to movements in the credit markets whose spread levels have been moderately reduced compared to December 2022, partly offset by the upward movement in interest rates.

Counterparty risk, organized markets and clearing houses

Santander's policies promote early action according to regulation on OTC derivatives, repurchase agreements and securities lending (whether settled through clearing houses or bilaterally). In recent years, we have been standardizing OTC transactions to settle and clear new contracts through clearing houses according to current regulation, in addition to promoting internal use of electronic execution systems.

We actively manage contracts not settled by clearing houses to optimize volume, in accordance with regulation on margins and capital.

While our counterparty risk management does not contemplate credit risk in such transactions, we have been calculating regulatory credit exposure for organized market exchanges since the Capital Requirements Directive (CRD) and the Capital Requirements Regulation (CRR), transposing the Basel principles on capital calculation.

The table below shows the weight of contracts settled by CCP versus total counterparty risk as of December 2023:

Counterparty risk: Notional values by settlement channel and product[A]

Nominal in EUR million

	Bilateral		CCP[B]		Organised markets[C]		Total
	Nominal	%	Nominal	%	Nominal	%	
Credit derivatives	14,388	58.7%	10,140	41.3%	—	—%	24,528
Equity derivatives	14,980	73.7%	559	2.8%	4,786	23.5%	20,326
Fixed income derivatives	4,793	100.0%	—	—%	—	—%	4,793
Exchange rate derivatives	1,186,033	94.4%	44,152	3.5%	26,812	2.1%	1,256,997
Interest rate derivatives	786,925	11.6%	5,844,580	86.3%	143,500	2.1%	6,775,004
Commodity derivatives	2,477	12.3%	—	—%	17,584	87.7%	20,061
Repos	228,551	54.2%	193,386	45.8%	—	—%	421,937
Securities lending	61,374	100.0%	—	—%	—	—%	61,374
Total	**2,299,521**		**6,092,817**		**192,682**		**8,585,020**

A. Figures under internal risk management criteria.
B. Central counterparties (CCP).
C. Refers to transactions involving listed derivatives (proprietary portfolio). Listed derivatives have a market value of zero. No collateral is received for these types of transactions.

Risk settled by CCP and product[A]

Nominal in EUR million

	2023	2022	2021
Credit derivatives	10,140	4,848	6,714
Equity derivatives	559	758	—
Fixed income derivatives	—	15	—
Exchange rate derivatives	44,152	24,349	38,755
Interest rate derivatives	5,844,580	4,555,519	4,054,711
Commodity derivatives	—	—	—
Repos	193,386	109,248	35,284
Securities lending	—	—	—
Total	**6,092,817**	**4,694,737**	**4,135,464**

A. Figures under internal risk management criteria.

Credit derivatives

We use credit derivatives to hedge transactions, customer business in financial markets and trading. The credit derivatives Santander has negotiated have a low notional value: 0.4% of the notional value of counterparty risk. Furthermore, we subject credit derivatives to internal robust controls and procedures to minimize operational risk.

Concentration risk

Concentration risk control is key to our management. We continuously monitor credit risk concentration by region and country, economic sector, customer type and other criteria.

The board sets concentration limits according to risk appetite. Accordingly, the executive risk committee develops risk policies and reviews the appropriate exposure levels so we can effectively manage credit risk concentration.

Because Santander is subject to the CRR stipulations on large risks, exposure with a customer or group of associated customers will be considered 'large exposure' if its value is equal to, or greater than, 10% of eligible capital.

No large exposure should exceed 25% of the entity's eligible capital, including the credit risk reduction effect set out in the regulation.

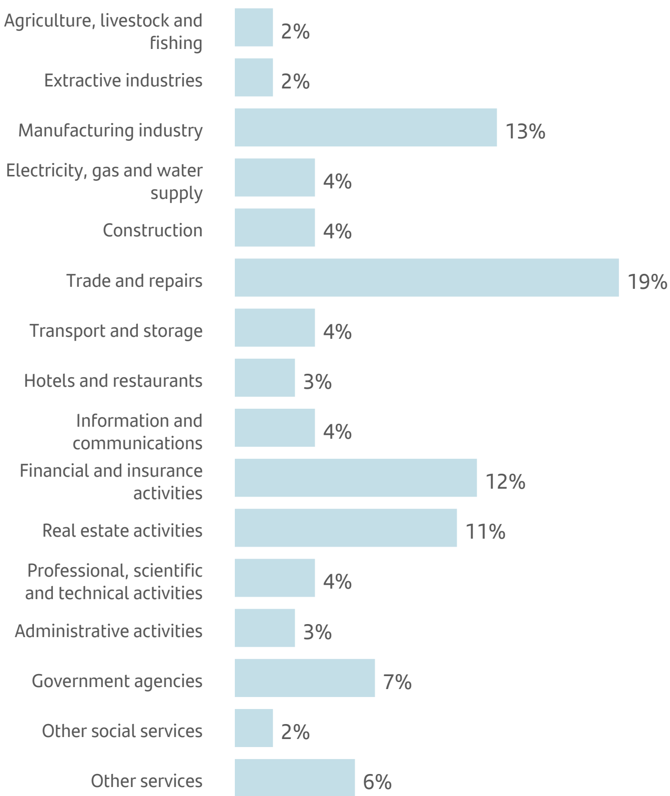
The use of risk mitigation techniques resulted in no groups triggering those thresholds as at the end of December. 5.6% of total credit risk (including loans to customers and off-balance-sheet risk) is with the 20 'large exposure' groups, according to regulation on credit exposure. While 8.5% of total credit risk is with the 40 'large exposure' groups.

Our Risk division works closely with the Finance division on actively managing credit portfolios with credit derivatives, securitizations and other techniques to reduce exposure concentration and optimize risk-reward.

As indicated in the key metrics section of this chapter, our credit risk is diversified among our core markets (Spain 25%, the UK 22%, the US 12%, Brazil 10%, etc.). Grupo Santander is enhancing these markets with global businesses that will help boost local performance to add value.

In terms of sector diversification, 56% of our credit risk is with individuals, who are inherently highly diverse. It is also well distributed, with no significant concentration in a particular industry. The chart below shows credit risk by industry as at December 2023:

Diversification by economic sector[A]



A. Excluding individuals and reverse repos.

Sectors identification and management

Grupo Santander conducts a quarterly review of exposure to customers operating in sectors that could be more affected by macroeconomic conditions (energy consumption, commodity prices, and key macroeconomic variables).

It considers:

- Market information: Industries' stock market performance.
- Analysts' EBITDA forecasts for the coming years.
- Internal information: Changes in credit exposure, defaults (in different timelines) and stagings.
- Our industry experts' opinion, based on specific details about our exposures and our relationships with customers.

Country risk

In credit risk, country risk involves transactions with customers residing in a particular country with unusual business risk. It includes sovereign risk and transfer risk, as well as war, natural disaster, balance of payments crisis and other things that can disrupt international finance. In accordance with regulation, our models and provisioning processes contemplate country risk.

We assume country risk very selectively in transactions that enhance our global relations with customers. And we follow highly cautious standards to manage it.

Sovereign risk and risk with government agencies

Sovereign risk arises from central bank transactions (including regulatory cash reserves), government bonds (public debt) and transactions with non-commercial government institutions funded exclusively by a state's budget revenue.

Our standard for sovereign risk differs somewhat from the EBA's standard for regular stress testing. In particular, the EBA does not consider deposits with central banks, exposures with insurance companies or indirect exposures from guarantees and other financial instruments. However, its standard does generally include entities run by regional, local and central governments.

We continue to track and manage transactions with sovereign risk based on available information, such as reports by rating agencies and international organizations. We monitor each country where we have cross-border[5] and sovereign risk. We analyse events that could affect the country's political or institutional stability and assign its government or central bank a credit rating. This helps us set limits for transactions with sovereign risk.

Our exposure to local sovereign risk not in the issuer country's currency at the end of December was minor (EUR 4,404 million or 1.1% of total sovereign risk), based on our management criteria. Exposure to non-local sovereign issuers with cross-border risk was also minor[6] (EUR 11,085 million or 2.7% of total sovereign risk). The sovereign debt we hold in Latin America, which is recorded in local ledgers, is predominantly in local currency and short-term.

In recent years, total sovereign risk exposure has remained within regulatory requirements and strategy defined for its management. Because exposure spans several countries, each with its distinct macroeconomic outlook and growth scenario, it varies due to our liquidity management strategy and our interest and FX rate coverage, which apply limits based on each country's credit rating. The table below shows exposure ratios by rating[7]:

	2023	2022	2021
AAA	18%	27%	15%
AA	19%	19%	32%
A	41%	34%	26%
BBB	12%	11%	11%
Lower than BBB	10%	9%	16%

Sovereign exposure at the end of December 2023 is shown in the table below (data in million euros):

	2023					2022
	Portfolio					
	Financial assets held for trading and Financial assets designated as FV with changes in results	Financial assets at fair value through other comprehensive income	Financial assets at amortised cost	Non-trading financial assets mandatory at fair value through profit or loss	Total net direct exposure	Total net direct exposure
Spain	4,996	97	34,534	—	39,627	29,095
Portugal	462	1,247	5,150	—	6,859	5,456
Italy	(2,187)	415	7,366	—	5,594	7,415
Greece	—	—	—	—	—	—
Ireland	—	—	—	—	—	—
Rest Eurozone	2,899	604	4,621	—	8,124	5,651
UK	1,261	607	1,919	—	3,787	2,106
Poland	194	6,340	4,733	—	11,267	8,715
Rest of Europe	16	2,467	310	—	2,793	132
US	2,049	5,253	14,002	—	21,304	23,298
Brazil	11,715	10,273	5,745	—	27,733	23,728
Mexico	3,311	12,075	5,439	—	20,825	17,306
Chile	97	1,040	5,148	—	6,285	6,485
Rest of America	277	543	1,430	—	2,250	1,964
Rest of the World	229	2,843	1,455	—	4,527	3,542
Total	**25,319**	**43,804**	**91,852**	**—**	**160,975**	**134,893**

[5] Risks with domestic public or private borrowers in foreign currency and originated outside the country.
[6] Countries that are not considered low risk by Banco de España.
[7] Internal ratings are applied.

4. Market, structural and liquidity risk

4.1 Introduction

This section is about Grupo Santander's management and control of market risk in 2023, including trading risk, liquidity risk and structural risk. It provides a brief description of our methodologies and metrics.
Market risk comes from movements in interest rates, inflation, foreign exchange, equity prices, credit spread, commodity prices, volatility, liquidity risk from products and the balance sheet, and other market variables that can affect transaction performance. It also includes trading and structural risk.

Options, futures, forwards, swaps and other derivatives can mitigate some or all of these risks.

Market risk factors that require more complex hedging are correlation, market liquidity, pre-payment and underwriting risk.

On-balance sheet liquidity risk, where the bank is unable to meet payment obligations promptly or would do so at a high price, is also key. Losses may result from a forced asset disposal and a cash flow imbalance.

Pension and actuarial risk also depend on market variables (for more details, see the end of this section).

For further detail on market factors see section **'Activities subject to market risk and types of market risk'**, in Note 54 to the consolidated financial statement.

In 2023, we heightened our focus on climate and environmental factors, which arises from the possibility that climate change could adversely affect the value of a financial instrument or a portfolio, or the bank's liquidity; we use market and liquidity risk stress scenarios to measure their potential exposure.

We check our compliance with the Basel Committee's Fundamental Review of the Trading Book (FRTB) and its implementation according to the EU's Capital Requirements Regulation (CRR II) and the EBA's guidelines on market risks.

In 2023, we ran several projects to give control teams the best tools to manage market risk and capital consumption. They included:

- We ran numerous initiatives to enhance the calculation of market risk-related capital requirements under the Fundamental Review of the Trading Book - Standard Approach (FRTB- SA) methodology. In particular:
  - rounded off the scope of calculation for entities and risk factors subject to market risk-related capital;
  - made necessary amendments to adapt the calculation to the most recent regulation;
  - strengthened the control environment over metrics, static risks and technical procedures through an overhaul of data architecture to reduce calculation times and enable us to run simulations; and
  - built up the exploitation layer of capital data under FRTB SA.
- We enhanced the procedures related to positions measured at fair value to meet regulatory requirements.
- We developed and implemented new valuation adjustment methodologies using corporate tools and common standards.
- We broadened the content and analysis of market risk reporting to top management.
- We enhanced the governance framework for the approval and use of market risk models.

4.2 Market risk management

Because factors inside and outside a unit can give rise to market risk, management and control must cover all potential risk sources with coordinated, uniform treatment by all subsidiaries.

The Group's senior management receives thorough, accurate reporting on a regular basis to measure subsidiaries' risk profiles and gain a holistic view of risk for global analysis and control.

Limits management and control system

The market risk area runs a daily checks so that market risk positions remain within approved limits and assesses the performance of, and significant changes in, related metrics.

We set market risk limits in a dynamic process according to risk appetite levels in the annual limits plan prepared by senior management and extended to all subsidiaries.

To establish that these limits cover all market risk factors based on risk appetite, we take a prudent approach that includes:

- value at risk (VaR) and stressed VaR (sVaR) limits;
- equivalent and/or nominal position limits;
- interest rate sensitivity limits;
- Vega limits;
- limits for risk of delivery of short sales (bonds and equities);
- limits to reduce effective losses or protect profits during the year ('Loss trigger' and 'Stop loss');

- credit limits (limits for total exposure and jump-to-default by issuer); and
- origination limits.

Those general limits have sub-limits that make the structure granular enough to control market risks from trading. We monitor subsidiaries' positions every day.

We set global approval and control limits, global approval limits with subsidiary-run control and subsidiary-level approval and control limits. Each subsidiary's business unit manager requests limits based on business particulars and budgetary targets so that they will match the risk-reward ratio. Risk bodies approve limits according to established governance.

Subsidiaries must adhere to approved limits. The day a limit breach occurs, subsidiary business managers must provide a written explanation with an action plan to correct it.

Market risk-related capital requirements

We use internal and standard models to determine market risk-related capital requirements.

We also use internal models to calculate regulatory capital for the trading books of our subsidiaries in Chile, Mexico and Spain (Santander España's trading book includes Santander London Branch, which helps diversify its positions).

We launched the Market risk advanced platform (MRAP), a global initiative to strengthen market risk infrastructure according to the new Fundamental Review of the Trading Book (FRTB); and to adapt internal market risk models to the latest Targeted Review of Internal Models (TRIM) and to supervisory demands.

This initiative includes all subsidiaries that generate market risk; the market risk, T&O, front office, finance and regulatory affairs areas.

In 2023, the MRAP programme continued to work on enhancing our processes to measure 'fair value'. We developed new valuation adjustment methodologies; set corporate standards for valuation adjustment procedures to use them consistently in all the Group's units; built on control and reporting of positions measured at fair value; and drew up new standards and methodologies to classify financial instruments into levels of fair value. We rolled out all these enhancements in our core markets through corporate tools, enabling us to automate processes and reduce the use of expert judgement significantly.

Our internal market risk model calculates the Group's consolidated regulatory capital as subsidiaries' total regulatory capital that the ECB has approved. Because it does not consider capital savings owing to geographical diversification, our model is conservative.

It uses advanced methods with VaR, sVaR, Incremental Risk Charge (IRC) and Risk Not in Model (RNIM) as fundamental metrics to calculate ECB-approved regulatory capital in trading consistently with the Basel requirements set out in the CRR.

Methodologies and key aspects

a) Value at Risk (VaR)
Value at risk (VaR), our standard methodology for managing and controlling market risk, measures maximum expected loss with a certain confidence level over a given time. For standard historical simulation, the confidence level is 99% and the time window is one day. We also apply a two-year horizon or VaR over 520 days and other statistical adjustments in order to quickly and efficiently account for recent events that influence risk levels.

We report the highest of two VaR figures, which we calculate every day. One figure includes an exponential decay factor with a low weighting on the oldest observations; the other weights all observations the same. We also use the same methodology to calculate value at earnings (VaE), which gives maximum potential earnings within a certain confidence level and time horizon.

As a risk metric, historical VaR simulation has many advantages. It states a portfolio's market risk in a single figure according to market movements. Still, it does have its limitations:

- VaR is calibrated to a certain confidence level, above which it does not reveal potential losses.
- The liquidity horizon of products in a portfolio is longer than the VaR model's.
- VaR is not a dynamic measure of risk even if it is subject every day to significant, albeit unlikely, changes.
- High sensitivity to time windows.
- Inability to show plausible high-impact events outside the time window.
- No market inputs (e.g. correlations, dividends or recovery rates) for measurement parameters.
- Slow adaptation to new volatility and correlations, as the weighting of the newest and the oldest data is the same.

To circumvent some limitations, we use stressed VaR (sVaR) and expected shortfall (ES); calculate VaR with exponential decay; make conservative measurement adjustments; and run analyses and backtesting to assess the accuracy of the VaR calculation model.

b) Stressed VaR (sVaR) and Expected Shortfall (ES)
Every day, we calculate sVaR for our main portfolios using the same VaR calculation method but with these exceptions:

- A window of 260 observations (as opposed to 520 for VaR) over a continuous stress period. For each portfolio, we review the history of a subset of market risk factors (selected with expert criteria) and the most significant positions per books.
- Unlike VaR, the percentile we take to get sVaR has uniform weighting and is not the highest one based on exponential and uniform weightings.

We calculate ES as expected loss above VaR at a 99% confidence level. We also weight all observations the same. Unlike VaR, ES has the advantage of showing tail risk (i.e. the risk of loss due to a rare event) while being a subadditive metric.

According to the Basel Committee, 97.5% ES is a risk level similar to 99% VaR.

c) Scenario analysis
Santander's risk measures are based on normal market conditions, price stability, sufficient liquidity and other assumptions used in daily risk management and decision-making. However, it is possible that extreme movements and strong unforeseen changes will not be properly anticipated.

Scenario analysis enables us to recognize unexpected outcomes and estimate how much capital could be needed to absorb losses stemming from those outcomes.

We regularly calculate and review stress test scenarios for all the trading books of the Group and our subsidiaries, such as:

Historical scenarios
Historical scenarios consider trading portfolio performance during a crisis or significant past market events to estimate maximum losses if such events reoccur (e.g. the subprime crisis of 2007-2008 and the Covid-19 pandemic).

Hypothetical scenarios
We use extreme scenarios based on market risk shocks that do not relate to past events (e.g. abrupt crisis with strong movements in all risk factors, worst-case scenarios, scenarios based on regulatory stress exercises, and forward-looking scenarios). Unlike generally *ex post* historical scenarios, hypothetical scenarios are ex ante.

Reverse stress test scenarios
Reverse stress test scenarios indicate loss-causing market variables that may compromise the bank's survival. They supplement traditional stress test scenarios and point out potentially vulnerable business areas, hidden risks and correlations between risk factors.

Other stress test scenarios
In addition to the above scenarios, other stress tests are calculated on a quarterly basis to identify potential losses or significant impacts on capital arising from extreme market movements (e.g. IRC scenarios, proxy stress scenarios in the VaR calculation, liquidity and concentration scenarios).

d) Calibration and backtesting
According to regulation, the VaR model must accurately show material risks. Because VaR uses statistical techniques under normal conditions for a certain confidence level over a set time horizon, the estimate of maximum potential loss may differ from actual losses. We review and contrast the VaR calculation model on a regular basis to verify its accuracy.

We run internal backtesting, contrast VaR and review assumptions about portfolios for subsidiaries that follow the internal market risk model. For subsidiaries with an approved internal model, we run regulatory backtesting to find exceptions (where daily profit or loss is higher than VaR or VaE) that will influence the calculation of regulatory capital requirements for market risk.

Through backtesting, we assess the quality and general effectiveness of our risk measurement model. Our backtesting compares daily VaR/VaE observed on D-1 to profit and loss (P&L) observed on D: Economic P&L, actual P&L, hypothetical P&L, and theoretical P&L.

We run daily backtesting for our subsidiaries, as well as daily, weekly and monthly internal (non-regulatory) backtesting depending on portfolio granularity.

The number (or proportion) of exceptions we record is one of the most intuitive indicators of a model's soundness. As our regulatory backtesting covers a historical period of one year (250 days) and a 99% VaR, we expect two to three exceptions per year. To calculate regulatory capital for market risk, we take the regulatory K[8] from the number of exceptions we find in actual and hypothetical backtesting.

e) Analysis of positions, sensitivities and results
Santander uses positions to quantify the market value of derivative transactions by main risk factor and with the Delta value of futures and options. We can express risk positions in subsidiaries' base currency and in the currency used to standardize information. We monitor positions every day to correct any incidents we find immediately.

Sensitivity to market risk is the estimated impact of change in a risk factor on the market value of an instrument or portfolio. We measure it with partial derivatives or a full portfolio revaluation to get an analytical approximation.

The Market risk area's daily P&L statement is an excellent indicator of the impact of changes of financial variables on portfolios.

f) Derivatives activities and credit management
Because of their atypical characteristics, we have special measures to monitor derivatives and credit management daily. On the one hand, we monitor the sensitivity of underlying assets to price movements (Delta and Gamma) to volatility (Vega[9]) and over time (Theta). On the other hand, we systematically check measurements of their sensitivity to spread risk, jump-to-default risk and position concentrations by rating.

Based on regulation and the Basel Committee's recommendations, we also calculate the IRC, an additional metric for credit risk in the trading book.

The IRC covers default risk and rating migration risk (which VaR does not show adequately) by taking credit spread changes into account. In general, we apply it to government and corporate bonds; to forwards, options and other bond derivatives; and to credit default swaps, asset-backed securities and other credit derivatives. To calculate it, we take direct measurements of loss distribution tails at the right percentile (99.9%) over a one-year horizon and follow the Monte Carlo method with one million simulations.

g) Credit valuation adjustment (CVA) and debit valuation adjustment (DVA)
The Group calculates trading book results through CVA and DVA.

For further detail on CVA and DVA see 'Credit risk from financial markets activities' in section **3.4 'Other credit risk aspect'**

[8] K: Parameter to calculate regulatory capital consumption for market risk.
[9] Vega represents the sensitivity of the value of a portfolio to changes in the price of market volatility.

4.3 Market risk key metrics

In 2023, trading risk levels stayed low amid the high volatility caused by consistently high inflation and pressures on central banks' monetary policies. Additionally, political issues such as debt ceiling talks in the US, elections in certain countries, continuing war in Ukraine or the Middle East conflict, along with the collapse of some regional banks in the US and Credit Suisse case, compounded market volatility.

Risks continued to originate from trading non-complex instruments with customers. Most were hedges for interest rate and FX risk.

2023 saw generally low consumption of trading limits, which are based on the Group's market risk appetite.

VaR analysis

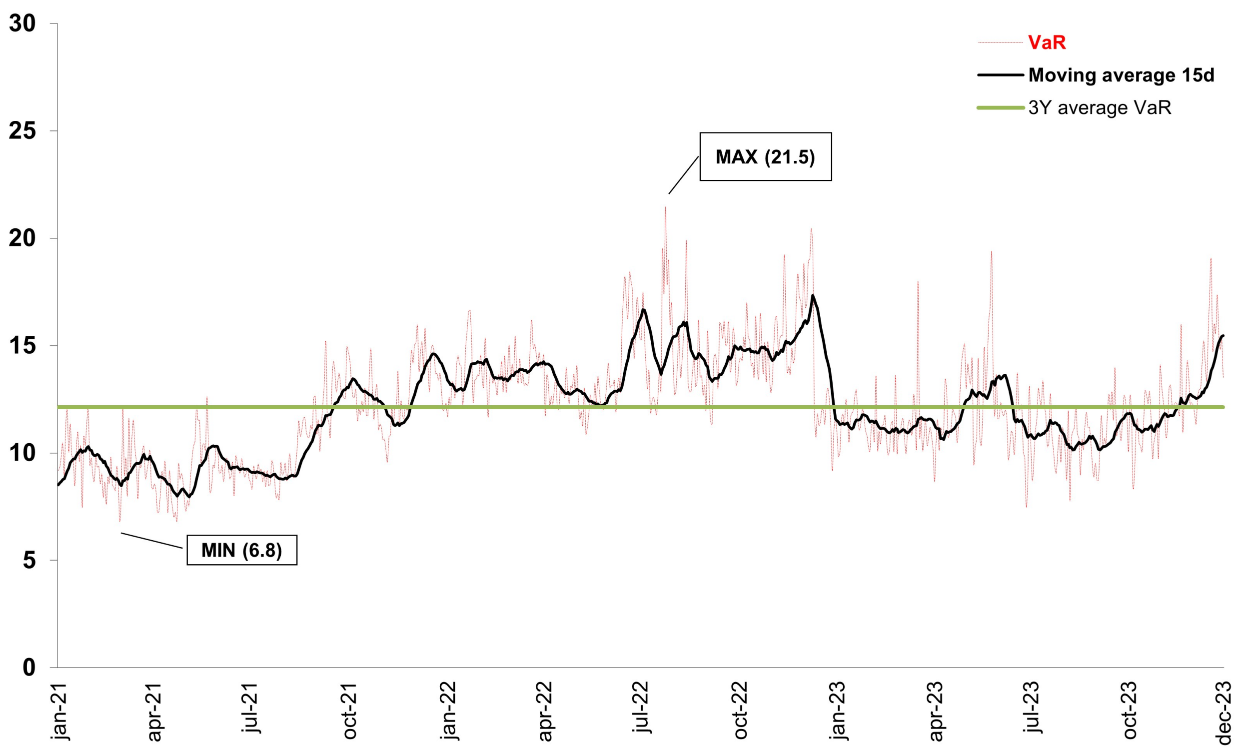
As the VaR of CIB's trading book shows, market risk strategy focuses on trading with customers to minimize net directional exposure and keep risk diversified by geography and risk factor.

Market volatility throughout the year (especially in terms of interest rates) caused VaR to stay mostly above its three-year average — it ended 2023 at EUR 13.5 million.

In 2023, VaR fluctuated between EUR 19.3 and EUR 7.5 million. Average VaR in 2023 was EUR 11.7 million, lower than 2022 which was marked by high volatility driven by the impact of the Ukraine conflict on energy prices and its effect on inflation, and slightly higher than 2021 (EUR 14.1 million and EUR 10.5 million, respectively).

VaR 2021-2023

EUR million. VaR at 99% over a one day horizon



Risk by factor

This table shows the latest and average VaR at a 99% confidence level by risk factor in the last three years. It also shows the high and low VaR values in 2023 and 97.5% expected shortfall (ES) at the end of December 2023:

VaR statistics and Expected Shortfall by risk factor[A]

EUR million. VaR at 99% and ES at 97.5% with a one-day time horizon

	2023					2022		2021	
	VaR (99%)				ES (97.5%)	VaR		VaR	
	Min	Average	Max	Latest	Latest	Average	Latest	Average	Latest
Total Trading	**7.5**	**11.7**	**19.3**	**13.5**	**12.5**	**14.1**	**11.6**	**10.5**	**12.3**
Diversification effect	(8.5)	(14.9)	(27.3)	(17.1)	(18.9)	(14.6)	(15.5)	(12.9)	(13.4)
Interest rate	8.9	12.2	20.3	11.1	11.5	12.6	9.9	9.6	9.1
Equities	1.4	3.2	7.3	6.0	6.1	4.2	5.5	3.5	5.1
Exchange rate	2.3	5.3	9.4	4.8	4.9	4.8	3.6	4.2	5.7
Credit spread	2.7	4.3	6.4	6.1	5.9	5.4	5.8	4.8	5.1
Commodities	0.7	1.6	3.2	2.6	3.0	1.7	2.3	1.3	0.7
Total Europe	**6.6**	**9.4**	**14.7**	**11.8**	**11.1**	**12.2**	**10.5**	**9.3**	**9.9**
Diversification effect	(5.3)	(10.5)	(21.6)	(13.8)	(14.9)	(10.4)	(14.2)	(9.3)	(12.6)
Interest rate	5.6	9.1	16.5	8.2	9.3	10.2	10.1	7.7	7.1
Equities	1.5	2.8	7.1	5.8	5.3	3.6	5.5	3.3	5.8
Exchange rate	2.1	3.5	5.7	5.2	5.2	3.4	3.3	2.8	4.5
Credit spread	2.7	4.3	6.4	6.1	5.9	5.4	5.8	4.8	5.1
Commodities	—	0.2	0.6	0.3	0.3	—	—	—	—
Total North America	**1.8**	**4.0**	**6.4**	**5.0**	**5.0**	**2.3**	**2.7**	**2.5**	**2.7**
Diversification effect	(0.3)	(0.7)	(2.6)	(0.5)	(0.5)	(0.8)	(1.1)	(0.7)	(0.6)
Interest rate	1.8	3.7	6.3	5.0	5.0	2.2	2.7	2.5	2.7
Equities	—	0.2	0.5	—	—	0.1	0.1	0.1	—
Exchange rate	0.3	0.8	2.2	0.5	0.5	0.8	1.0	0.6	0.6
Total South America	**4.2**	**7.3**	**13.3**	**7.0**	**6.2**	**8.0**	**6.2**	**5.9**	**6.3**
Diversification effect	(1.3)	(6.2)	(14.2)	(6.6)	(7.6)	(5.0)	(4.2)	(4.9)	(5.1)
Interest rate	4.3	7.3	12.6	5.6	5.4	7.0	5.5	5.5	5.8
Equities	—	1.4	3.7	2.4	2.5	1.6	1.7	1.2	1.1
Exchange rate	0.5	3.2	8.0	3.0	2.9	2.7	0.9	2.8	3.8
Commodities	0.7	1.6	3.2	2.6	3.0	1.7	2.3	1.3	0.7

A.In the Americas, credit spread VaR and North Americas' commodity VaR are negligible and, thus, not shown.

VaR at the end of December was slightly higher (EUR 1.9 million difference) compared to the end of 2022, reflecting the spike in market volatility after the latest meetings of the main Central Banks, albeit generally less volatile this year than previous one.

Average VaR was lower for all risk factors except exchange rate, which was slightly higher. Temporary VaR increases owe more to short-term price volatility than to significant changes in positions.

By region, average VaR fell mainly in Europe (in almost every risk factor), while the slight increase in North America was due to interest rates.

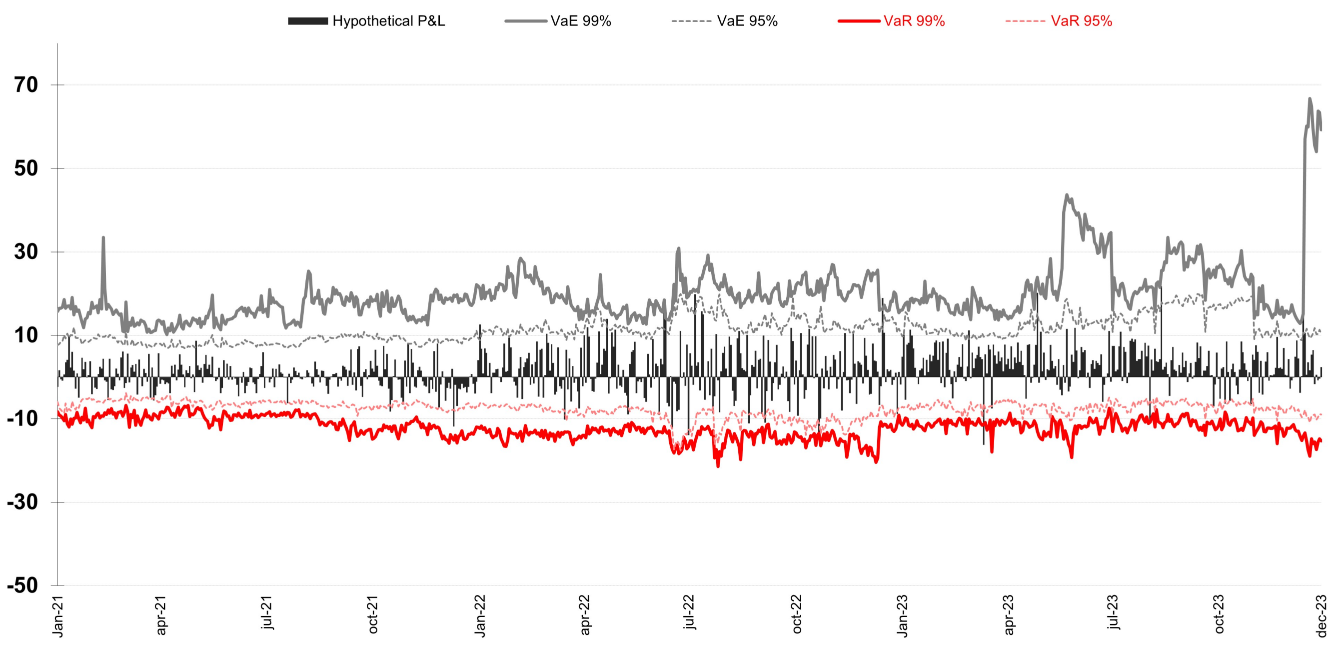
Backtesting

Actual losses can differ from predicted losses because of VaR's limitations. Santander measures the accuracy of our VaR calculation model to make sure it is reliable (see 'Methodologies' in section 4.2 'Market risk management'). The most important tests we run involve backtesting:

- Backtesting of hypothetical P&L and of the entire trading book showed an exception on 13 March (higher daily loss than VaR) on the back of market volatility triggered by the collapse of some regional banks in the US. Regarding VaE at 99%, an exception (daily profit higher than VaE) was observed on 13 December as a result of the devaluation of the Argentine peso.
- These results are consistent with assumptions in the VaR calculation model.

Backtesting of trading portfolios: daily results vs. VaR for previous day

EUR million



Derivatives risk management

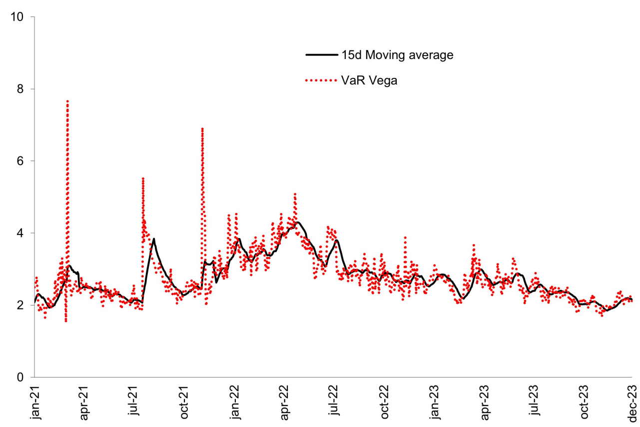
Our operations with derivatives consist mainly in selling investment products and hedging risks for customers. We aim to keep open net risk as low as possible. Trading includes equity, fixed-income and FX options, chiefly in Spain, Brazil, the UK and Mexico.

The graph shows the VaR vega of structural derivatives over the last three years. On average, it has increased some EUR 2.8 million. In general, high VaR values stem from sudden spikes in market volatility, such as at the start of the health crisis, amid changes to monetary policy, or at times of political uncertainty in our geographies.

Average VaR was based mainly on interest rates, followed by equities and FX rates. In 2023, average risk (EUR 2.4 million) was slightly lower than in 2021 and 2022, considering the high volatility in interest rates throughout the year (see table below):

Change in risk over time (VaR) of structure derivatives

EUR million. VaR Vega at a 99% over a one day horizon



Financial derivatives. Risk (VaR) by risk factor

EUR million. VaR at a 99% over a one day horizon

	2023				2022		2021	
	Minimum	Average	Maximum	Latest	Average	Latest	Average	Latest
Total VaR Vega	**1.7**	**2.4**	**3.7**	**2.1**	**3.2**	**2.7**	**2.6**	**3.7**
Diversification effect	(0.8)	(1.9)	(8.6)	(1.2)	(1.1)	(1.0)	(0.9)	(0.1)
Interest rate VaR	1.0	2.0	8.6	1.5	2.0	1.4	1.4	1.2
Equity VaR	1.0	1.4	2.0	1.2	1.4	0.9	1.2	1.6
FX VaR	0.5	0.9	1.7	0.6	0.9	1.4	0.9	1.0
Commodity VaR	—	—	—	—	—	—	—	—

Thanks to our risk culture and prudent risk management, exposure to complex structured instruments and vehicles is minor. At the end of December 2023, we had exposure to:

- hedge funds (as the counterparty in derivative contracts): EUR 57 million (indirect). We review this type of counterparty risk on a case-by-case basis, setting collateralization ratios based on each fund's characteristics and assets; and
- monolines: no exposure at 2023 year end.

Our policy on approving new derivatives transactions has always been extremely prudent and conservative. It is reviewed by senior management.

Scenario analysis

The table below shows worst case (i.e. maximum volatility) scenario results from late December 2023:

Stress scenario: maximum volatility (worst case)

EUR million. Dec. 2023

	Interest rate	Equities	Exchange rate	Credit spread	Commodities	Total
Total trading	**(37.5)**	**(10.4)**	**(32.3)**	**(0.5)**	**—**	**(80.7)**
Europe	(10.1)	(4.9)	(21.4)	(0.5)	—	(36.9)
North America	(0.6)	(0.1)	(1.0)	—	—	(1.7)
South America	(26.8)	(5.4)	(9.9)	—	—	(42.1)

Our analysis found that Santander's trading books would lose EUR 81 million in market value in the worst-case scenario of market stress. Losses would mainly affect South America (especially if interest rates fall) and Europe (if the euro were to appreciate).

Connection with balance sheet items

Below are items on Santander's consolidated balance sheet that generate market risk. The table distinguishes positions whose main risk metric is VaR from other positions that are monitored with other risk metrics.

Risk metric values on the consolidated balance sheet

EUR million. Dec. 2023

		Main market risk metrics		
Assets subject to market risk	**Balance sheet amount**	**VaR**	**Other**	**Main risk factors for 'Other' balance**
Cash, cash balances at central banks and other deposits on demand	220,342		220,342	Interest rate
Financial assets held for trading	176,921	176,921		
Non-trading financial assets mandatorily at fair value through profit or loss	5,910	4,068	1,842	Interest rate, spread
Financial assets designated at fair value through profit or loss	9,773	1,360	8,413	Interest rate, spread
Financial assets at fair value through other comprehensive income	83,308	1,761	81,547	Interest rate, spread
Financial assets measured at amortised cost	1,191,403		1,191,403	Interest rate, spread
Hedging derivatives	5,297		5,297	Interest rate, exchange rate
Changes in the fair value of hedged items in portfolio hedges of interest risk	(788)		(788)	Interest rate
Other assets	104,896			
Total assets	**1,797,062**			
Liabilities subject to market risk				
Financial liabilities held for trading	122,270	122,270		
Financial liabilities designated at fair value through profit or loss	40,367	450	39,917	Interest rate, spread
Financial liabilities at amortised cost	1,468,703		1,468,703	Interest rate, spread
Hedging derivatives	7,656		7,656	Interest rate, exchange rate
Changes in the fair value hedged items in portfolio hedges of interest rate risk	55		55	Interest rate
Other liabilities	53,770			
Total liabilities	**1,692,821**			
Total equity	**104,241**			

4.4 Structural balance sheet risk management

Structural risk is the risk that market or balance sheet movements will change the value or profit generation of assets or liabilities in the banking book.

It covers insurance and pension risks, as well as the risk that Santander will not have sufficient capital (in terms of quantity or quality) to meet internal business targets, regulatory requirements or market expectations.

Limits management and control systems

The policies of senior management dictate mechanisms to monitor and control structural risk according to regulatory requirements and our risk appetite. The mechanisms consider sub-types of structural risk and their implications, contingencies and interrelations.

The Structural risk area's role in the second line of defence is to oversee that structural risks are understood, controlled and reported to senior management according to established governance:

- It sets interest rate risk metrics and reviews and challenges the structural risk appetite and limits proposed by the first line of defence.
- It oversees the first line of defence's structural risk management and checks compliance with set limits.
- It regularly reports on risk profile to senior management and issues guidelines to business lines about measures it deems necessary.
- It reviews and challenges business proposals and helps senior management and business units understand the interest rate risk of the Group's businesses and operations.
- It develops and revises models and policy. And it checks that structural risk procedures are fit and proper.

Like market risk, structural risk also has an annual plan framework to set structural balance sheet risk limits according to risk appetite.

These are the main limits we use:

- Structural interest risk in the banking book:
  - Net interest income (NII) sensitivity limit over a one-year horizon.
  - Economic value of equity (EVE) sensitivity limit.
  - Market value limit on ALCO portfolios under stress scenarios and with a potential influence on shareholder equity based on their accounting entry (fair value through shareholder equity).
- Structural FX risk:
  - Limit on the net permanent position of the core capital ratio.
  - Limit on the individual hedge required for each currency.

Business lines' risk managers must provide explanations for potential limit and sub-limit breaches as well as an action plan to correct them.

Methodologies and other key details

a) Structural interest rate risk

As part of structural risk, interest rate risk in the banking book (IRRBB) is a key balance sheet risk.

Santander measures the potential impact of interest rate movements on EVE and NII. Because of the effect of changing rates, we must manage and control many subtypes of interest rate risk, such as repricing risk, yield curve risk, basis risk and option risk (e.g. behavioural or automatic).

Interest rate positions on the balance sheet and market conditions and outlooks could necessitate certain financial measures to achieve the Group's risk profile target.

Metrics for checking IRRBB include NII and EVE sensitivity to interest rate movements.

- Net interest income (NII) and sensitivity: NII is the difference between interest income from assets and the interest cost of liabilities in the banking book over a typical one- to three-year horizon (one year being standard in Santander). It enables us to see short-term risks and supplement economic value of equity (EVE) sensitivity.
- Economic value of equity (EVE) and sensitivity: EVE is the difference between the present value of all assets minus the present value of all liabilities in the banking book. It does not include shareholder equity and non-interest-bearing instruments. It enables us to see long-term risks and supplement NII sensitivity.

b) Credit spread risk

The metrics we use to monitor credit spread risk in the banking book (CSRBB) includes NII and EVE sensitivity to changes in spread curves as well as the impact of stress scenarios on positions that have been identified as affecting CSRBB.

c) Interest rate models

Interest rate risk metrics consider the behaviour of financial products under stress scenarios in which uncertainty is common and the failure to meet contractual obligations is possible. We have methodologies that help explain how such products will behave. These are our key interest rate risk models:

- Treatment of liabilities without stated maturity. The Group's model shows balances of all accounts without maturity using stable and unstable volumes, settlement speed over time, customer and market types, and other variables.
- Prepayment treatment for certain assets. Prepayment risk mainly affects fixed-rate mortgages in subsidiaries where contractual rates are below market rates and customers have the incentive to pay off all or part of their mortgage early.

d) Structural exchange rate risk/hedging of results

We measure FX positions, VaR and P&L every day.

e) Structural equity risk

We measure equity positions, VaR and P&L.

4.5 Structural balance sheet risk key metrics

In line with previous years, the market risk profile of the Group's balance sheet remained moderate in 2023.

Each subsidiary's finance division manages interest rate risk from retail banking and is responsible for handling structural risk from interest rate fluctuations.

To measure interest rate risk, we use statistical models based on strategies to mitigate structural risk with interest-rate instruments (such as bonds and derivatives) and keep risk profile within risk appetite.

Exposure across all our footprint was moderate in relation to annual budget and capital levels in 2023.

The NII and EVE sensitivities below are based on scenarios of parallel interest rate movements between -100 and 100 bps.

Structural interest rate risk

Europe

At the end of December, sensitivity of NII on our core balance sheets to interest rate hikes was positive, while EVE sensitivity was negative in the case of UK and positive sensitivity in Spain considering the same scenario.

Under the scenarios described above, at the end of December, the most significant risk of NII sensitivity to the euro amounted to EUR 886 million; to the pound sterling, EUR 246 million; to the US dollar, EUR 99 million; and to the Polish zloty, EUR 24 million, all with the risk of rate cuts.

Net interest income (NII) sensitivity

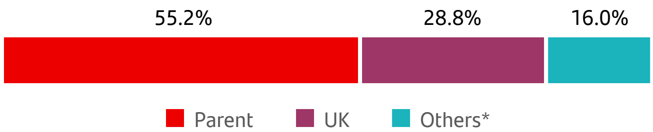
% of total

* Other: Portugal and SCF.

Significant risk of EVE sensitivity to yield curves of the euro was EUR 391.9 million; of the pound sterling, EUR 392.1 million; of the US dollar, EUR 364 million; and of the Polish zloty, EUR 176 million, mostly with the risk of rate rises.

Economic value of equity (EVE) sensitivity

% of total



* Other: Poland, Portugal and SCF.

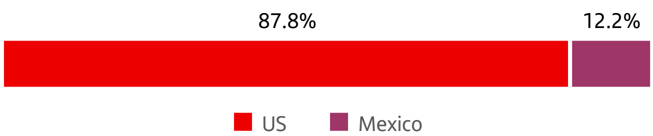
North America

At the end of December, sensitivity of NII on our North America balance sheet to interest rate hikes was positive, while EVE sensitivity was negative.

At the end of December, the most significant risk to NII was mainly in the US and amounted to EUR 117 million.

Net interest income (NII) sensitivity

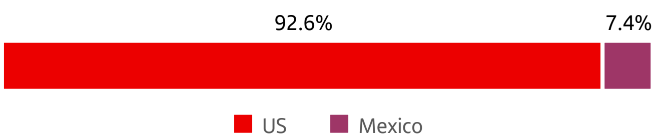
% of total



The most significant risk to EVE was in the US and amounted to EUR 786 million.

Economic value of equity (EVE) sensitivity

% of total



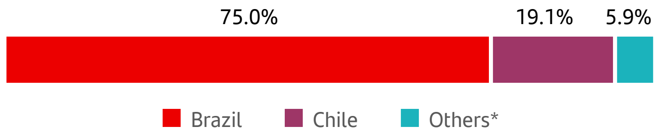
South America

The EVE and NII of our main South American balance sheets are positioned for interest rate cuts.

At the end of December, the most significant risks to NII were mainly in Chile (EUR 36 million) and Brazil (EUR 141 million).

Net interest income (NII) sensitivity

% of total

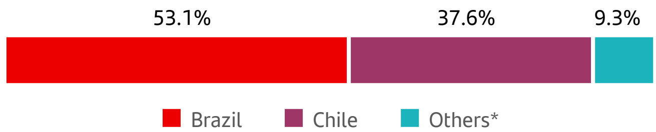


* Other: Argentina, Peru and Uruguay.

The most significant risks to EVE were recorded in Chile (EUR 255 million) and Brazil (EUR 360 million).

Economic value of equity (EVE)

% of total



* Other: Argentina, Peru and Uruguay.

Structural foreign exchange rate risk/results hedging

Our structural FX risk exposure mainly stems from the performance of, and hedges for, permanent financial investments. In our dynamic management of this risk, we aim to limit the impact of FX rate movements on the core capital ratio. In 2023, we hedged nearly all currencies that have an impact on our core capital ratio.

In December 2023, our permanent exposures (with potential impact on shareholder equity) were, from largest to smallest, in US dollars, British pounds sterling, Brazilian reais, Mexican pesos, Chilean pesos and Polish złoty.

We use FX derivatives to hedge part of those permanent positions. The Finance division manages FX risk and hedging for the expected profits and dividends of subsidiaries whose base currency is not the euro.

Structural equity risk

Santander holds equity positions in its banking and trading books. They are either equity instruments or stock, depending on the share of ownership or control.

Equities in the banking book at the end of December 2023 were diversified, with securities from Spain, China, Morocco, Poland and other countries. Most of them invest in the financial and insurance sectors. We have minor equity exposure to property and other sectors.

Structural equity positions are exposed to market risk. We calculate their VaR with a set of market prices and proxies. At the end of December 2023, VaR at a 99% confidence level over a one-day horizon was EUR 171 million (EUR 195 million in 2022 and EUR 309 million in 2021).

Structural VaR

Homogenous metrics like VaR make it possible to monitor all market risk in the banking book (minus CIB trading; see section 4.3 'Market risk key metrics'). We differentiate fixed income based on interest rates and credit spreads in ALCO portfolios, FX rates and shares.

In general, the structural VaR of our total assets and equity is minor.

Structural VaR

EUR million. VaR at a 99% over a one day horizon

	2023				2022		2021	
	Minimum	Average	Maximum	Latest	Average	Latest	Average	Latest
Structural VaR	**552.7**	**705.0**	**914.5**	**749.5**	**664.0**	**538.5**	**993.7**	**1,011.9**
Diversification effect	(368.7)	(416.6)	(422.2)	(444.1)	(417.1)	(422.4)	(327.3)	(240.2)
VaR Interest Rate[A]	273.3	348.4	478.0	380.2	350.8	304.5	400.7	287.8
VaR Exchange Rate	477.0	580.4	661.1	642.9	493.4	461.0	600.6	655.2
VaR Equities	171.1	192.8	197.6	171.1	236.9	195.4	319.7	309.1

A. Includes credit spread VaR on ALCO portfolios.

4.6 Liquidity risk management

The second line of defence oversees that liquidity risk is understood, controlled and reported to senior management and across the Group according to established governance. For this purpose:

- It defines liquidity risk and provides detailed measurements of current and emerging liquidity risks.
- It sets liquidity risk metrics, and reviews and challenges risk appetite and limits proposed by the first line of defence.
- It assesses and challenges commercial and business proposals, and gives senior management and business units the information they need to understand Santander's liquidity risk.
- It oversees the first line of defence's liquidity risk management and measures how long business will remain within risk appetite limits.
- It reports to governing bodies on compliance with risk appetite limits and any exceptions.
- It provides a comprehensive overview of our liquidity risk exposure and profile.
- It makes sure that liquidity risk procedures are appropriate to manage the business within risk appetite limits.

In 2023, high inflation and the collapse of several regional banks in the US and Credit Suisse in Europe caused considerable uncertainty in the markets. Nonetheless, these events had no impact on Grupo Santander due to our highly diversified sources of financing and assets across markets and businesses.

Additionally, our subsidiaries have a sound balance sheet and stable funding structure, supported by a large base of customer deposits, low dependence on short-term funding and liquidity metrics well above local and corporate regulatory requirements and within risk appetite limits.

4.7 Main liquidity risk metrics

Our solid liquidity position stands on a decentralized model under which each subsidiary manages its own liquidity autonomously. To measure liquidity risk, we use tools and metrics for the right risk factors. We follow the guidelines set out in the Capital Requirements Regulation (CRR II) and the Capital Requirements Directive (CRD IV) to draw up liquidity risk metrics. We determine liquidity scenarios for internal metrics based on the behaviour of other banks in liquidity crises, regulatory assumptions, and expert opinion.

These are our core monitoring metrics in the Group:

A) Regulatory metrics:

a. Liquidity coverage ratio (LCR) assesses the short-term resilience of our liquidity profile by making sure we have enough high-quality liquid assets to withstand a considerable market stress scenario for 30 calendar days. In 2023, the LCR remained stable and well above the regulatory threshold.

b. Net stable funding ratio (NSFR) measures long-term liquidity risk. It is the ratio of available stable funding to required stable funding. In 2023, the NSFR of our core subsidiaries and the Group remained above the regulatory requirement of 100% and the internal risk appetite of 101.5%.

B) Internal metrics:

a. Liquidity buffer assesses whether liquid assets are enough for the bank to survive for set time horizons under several liquidity stress scenarios.

b. Wholesale liquidity metric measures the number of days the Group would survive if it used liquid assets to cover lost liquidity from a wholesale deposit run-off (without possible renewal) over a set time horizon. We also use it as an internal short-term liquidity metric to reduce risk from dependence on wholesale funding.

c. Structural asset encumbrance metrics. We calculate two metrics to measure asset encumbrance risk. One the one hand, the asset encumbrance ratio is encumbered assets to total assets; on the other hand, the structural asset encumbrance ratio gives the proportion of encumbered assets by structural funding transaction (namely long-term collateralized issues and credit transactions with central banks).

d. Other liquidity metrics. Grupo Santander has a set of additional liquidity indicators to complement those listed above and to measure other non-covered liquidity risk factors. These include concentration metrics, such as the main and the five largest funding counterparties, and the distribution of funding by maturity.

e. Liquidity risk scenario analysis. Grupo Santander has five standard scenarios:

i. An idiosyncratic scenario of events that are detrimental only to Santander.

ii. A local market scenario of events that are highly detrimental to Grupo Santander's base country's financial system or real economy.

iii. A global market scenario of events that are highly detrimental to the global financial system.

iv. A combined scenario of more severe idiosyncratic and local and global market events, occurring simultaneously in an interconnected manner.

v. Climate scenarios, with various stress situations based on the potential economic effects of climate change.

We use these stress test outcomes as tools to determine risk appetite and support business decision-making.

f. Early-warning liquidity indicators. The system of early warning indicators consists of quantitative and qualitative liquidity indicators that help predict stress situations and weaknesses in the funding and liquidity structure of Grupo Santander entities. External indicators relate to market-based financial variables; internal indicators relate to our own performance.

g. Intraday liquidity metrics. Santander follows Basel regulation and calculates several metrics and stress scenarios for intraday liquidity risk to maintain a high level of control.

For more details on liquidity metrics, see section **3.4 'Liquidity and funding management'** of 'Economic and financial review' chapter.

4.8 Pension and actuarial risk management

Pension risk

Grupo Santander runs several defined benefit pension schemes that generate financial, market, credit and liquidity risks from assets and investments, as well as market and actuarial risks from pension obligations.

Our pension risk management and control involves identifying, measuring, mitigating and reporting on sources of pension risk to reduce long-term exposure.

Grupo Santander uses a VaR methodology to measure pension risk, set pension risk appetite limits and calculate economic capital. Moreover, we estimate combined losses each year on assets and liabilities under a stress scenario that includes shifts in interest rates, exchange rates, inflation, stock markets, property values and credit spreads.

The majority of our defined benefit pension schemes are in Brazil, Germany, Portugal, Spain and the UK.

In 2023, the markets' effect on pension risk was negative, mainly due to the decrease in discount rates in our main subsidiaries during the last quarter, after increasing expectation in the markets about the possibility that the main Central Banks ended their cycles of interest rates increases. Throughout the year, we took measures to reduce our exposure to pension and actuarial risk by taking advantage of current interest rate levels.

Actuarial risk

Actuarial risk stems from biometric changes in defined benefit recipients' and life insurance policyholders' life expectancy; and from suddenly higher non-life insurance payments.

These are the actuarial risks we distinguish:

- Life liability risk: Risk of loss on liabilities due to changing risk factors that affect pension obligations, split into mortality/longevity risk, morbidity risk, withdrawal/surrender risk, expense risk, and catastrophe risk.
- Non-life liability risk: Risk of loss on liabilities due to changing risk factors that increase Santander's non-life payment obligations towards employees, split into premium risk, reserve risk, and catastrophe risk.

5. Capital risk

5.1 Introduction

Our structural risk includes the risk of insufficient quality or quantity of capital to meet internal business objectives, regulatory requirements and market expectations.

We oversee first-line capital management and check that our capital adequacy and coverage match our risk profile through our Capital Risk area, which is part of our second line of defence. We also oversee transactions that could be considered significant risk transfers (SRT).

Capital management falls under the Group's capital framework and model. It brings together capital planning and adequacy, budget execution and tracking, and the ongoing measurement, reporting and disclosure of capital data.

5.2 Capital risk management

The Capital Risk function independently oversees the capital activities carried out by the first line of defence. These activities are split into four workflows to promote an appropriate level and efficient use of capital, meet internal solvency targets and regulatory requirements, and match our risk profile:

1. Capital planning
We draw up a capital plan (consistent with the strategic plan) that sets out our solvency targets and the actions required to execute it. The control area reviews the plan to assess the risks that may impact on fulfilling it.

2. Capital adequacy
We measure capital levels against the risk assumed, based on a risk profile assessment and our risk appetite framework, and under stress scenarios. Oversight of this process aims to:

- cover all significant risks in the course of our operations;
- confirm that results are reasonable and consistent with business strategy, the macroeconomic environment and system variables; and
- check that planning methodologies and assumptions are appropriate.

3. Capital risk assessment
The required actions to measure capital metrics, based on a set methodology to obtain final figures. It also supports the stages of capital management, monitoring, oversight and control

Continuous monitoring of our regulatory capital measurement is an additional control function to count with the right capital risk profile. It involves a review of capital metrics and set thresholds, as well as oversight of compliance with capital risk appetite to keep capital levels above regulatory requirements and market expectations.

4. Origination
Assessment of our portfolios' capital efficiency for securitization, risk mitigation, asset sales and other capital optimization initiatives.

We oversee securitizations that might be significant risk transfers originated by Santander, in accordance with articles 243 and 245 of Regulations (EU) 2017/2401 and 2017/2402.

Oversight is an essential prerequisite for synthetic and traditional securitizations, especially if they can reduce risk-weighted assets (RWA) under regulatory standards.

The aim is to make sure that oversight includes analysis of the conditions that could alter the securitization's SRT classification, namely:

- if it meets the requirements of an effective risk transfer;
- if it complies with all prudential regulation requirements;
- if its risk parameters follow our methodology; and
- if its economic rationale meets Group-wide standards.

In today's macroeconomic landscape of high inflation, geopolitical tension, market volatility and other events, we focused on protecting the Group's solvency and meet the internal objectives. We pinpointed and assessed the risks that could affect solvency and continuously monitored key metrics.

The Capital Risk function regularly assesses potential deviations in capital forecasts to set budget uncertainty levels. We oversee progress with the organic capital plan, securitization plan and other initiatives that impact on capital, as well as IRB model reviews.

In 2023, we continued to enhance monitoring of the achievement of subsidiaries' capital contribution targets to spot risk and opportunity relating to our capital targets for the year. We also checked the impact of market variables on capital levels. Moreover, we continued to implement hedging policies to mitigate exchange rate volatility on our CET1 ratio.

According to the results obtained in the EBA's stress test, published in July 2023, under the adverse scenario Santander would destroy 170 bps of fully loaded CET1 capital compared to the peer average of 418 bps and to the average of European banking system of nearly 500 bps. This implies that, in absolute terms, the Group at the end of the stressed horizon, would have a fully-loaded CET 1 ratio 30 bps better than the average of its European peers.

The Capital Risk function and first line of defence set the solvency appetite limits, which were consistent with the Group's medium-low risk profile and resilient to stress conditions.

We updated this exercise and added a new distance to maximum distributable amount (MDA) metric for the Group to make our risk appetite framework more robust.

Regarding planning, in 2023 we performed a more detailed review of our Group and subsidiary recovery plans to enhance measures and hypotheses.

We introduced stricter standards to enhance reporting and governance of SRT securitization oversight during origination. To make monitoring more robust, subsidiaries became more involved in exercises and we drove further automation through use of the corporate tool.

5.3 Key metrics

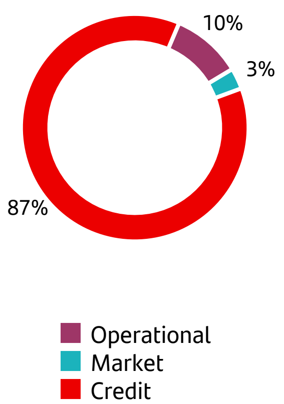
Banco Santander's strong capital position is consistent with our business model, balance sheet structure, risk profile and regulatory requirements. Our robust balance sheet and profitability enable us to finance growth and accumulate capital.

Our model of subsidiaries with autonomy over liquidity and capital enables us to mitigate risk. Our capital metrics are stable, with ratios that remain comfortably above regulatory requirements.

The distribution of risk-weighted assets (RWA) by risk factor and by region at year end reflects the Group's core business in credit risk and geographic diversification:

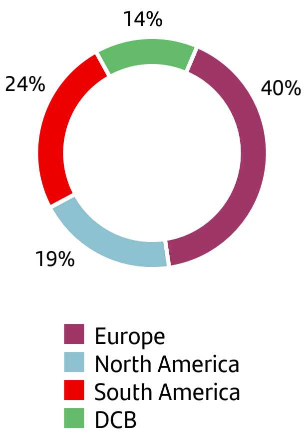
RWA by risk type[A]

Dec. 23 data



RWA by region[B]

Dec. 23 data



A. Credit risk included counterparty credit risk, securitizations and amounts below the thresholds for deduction.
B. Others, not included, represent 3% (Corporate centre)

At the end of December, our fully-loaded CET1 was 12.3%, above our 11-12% target.

The fully-loaded CET1 ratio rose 22 bp. We achieved a gross organic generation of 119 bp and recognized a 106 bp charge for shareholder remuneration, of which 44 bp owed to the shareholder remuneration against the results of 2023 (consistent with the target payout of 50%) and 62 bp to the share buyback programme.

Under IFRS 9 transitional arrangements, the CET1 phased-in ratio at the end of December was 12.3% and the total phased-in capital ratio was 16.4%, comfortably meeting the Basel Committee's 9.3% and 13.5% minimum levels, respectively.

The fully-loaded leverage ratio was 4.69% and the phased-in ratio was 4.71%, which also met the Basel Committee's 3.5% minimum comfortably.

We kept all the Group's risk appetite metrics above the set solvency limits throughout the whole year.

For more details, see section **3.5 'Capital management and adequacy. Solvency ratios'** in the 'Economic and financial review' chapter.

6. Operational risk

6.1 Introduction

In accordance with the Basel framework, Santander defines operational risk as the risk of loss due to inadequate or failed internal processes, people, and systems or to external events. It covers risk types such as fraud, third party supplier risk, technology risk, cyber risk, legal risk[10] and conduct risk.

Operational risk is inherent in all products, activities, processes, and systems, and is generated in all business and support areas. All employees are responsible for managing and controlling the operational risks generated by their activities.

Our operational risk management and control model is based on a continuous process of identifying, evaluating and mitigating sources of risk, regardless of whether they have materialized or not. Throughout the application of this process, risk management priorities are established appropriately, and internal controls are defined and executed to manage and mitigate the risk across the organization.

6.2 Operational risk management

Management and control model

Our operational risk model establishes the core components needed to manage and control operational risk properly according to advanced regulatory standards and best practices. Its phases are:

- strategic planning: covers the activities necessary to define the Group's objective operational risk profile, including setting the risk appetite, estimating annual losses and reviewing the management perimeter.
- identification and assessment of risks and internal controls: this process aims to identify the risks and factors that may cause operational risk in the organization and assess their potential impact quantitatively or qualitatively.
- ongoing monitoring of the operational risk profile, to regularly analyse available information on the nature and extent of the risks incurred in the development of the Group's activities through an adequate alerts system, based on tools, such as indicators and escalation procedures.
- risk response decisions including risk mitigation and risk transfer measures: once the operational risk assessment has been carried out, it is important to identify risk mitigation measures to prevent risks from occurring and, if necessary, to minimize the impact of the risks that have occurred.
- disclosure and reporting, including obtaining, disseminating and making available the information necessary for decision-making to the relevant persons.

The main operational risk tools used by the Group throughout the management cycle are the following:

- **Internal event database:** registry of operational risk events, whose impact could be financial (e.g., losses, irrespective of their amount) or non-financial (i.e., relating to regulation, customers, or services). This information:
  - enables the analysis of root causes;
  - increases the awareness of risks for better operational risk management;
  - enables the escalation of relevant operational risk events to senior risk executives in the shortest time possible;
  - facilitates regulatory reporting; and
  - facilitates the development of the economic capital model within the internal capital adequacy assessment process (ICAAP).
- Our **Operational risk control self-assessment** (RCSA) integrates specific reviews that allow for the identification of cyber, technology, fraud, third party supplier risk as well as others risk drivers that could lead to operational risk, as well as the failure to meet regulatory expectations. In addition, the RCSA incorporates reviews related to regulatory compliance, conduct and financial crime risk (for more details, see section 7.2 'Compliance and conduct risk management').

[10] Legal proceedings stemming from operational risk.

- **Key Operational Risks** (KORs): top – down operational risk assessment, that promotes an open communication from Senior Management about their operational risk concerns so that they are properly evaluated by the rest of the organization and included in the RCSA.
- **External events data**: quantitative and qualitative information about external operational risk events. This information facilitates detailed and structured analysis of relevant events in the industry; the comparison to Group and subsidiaries' loss profiles; as well as the preparation for RCSA exercises, insurance and scenario analysis.
- **Operational risk scenario analysis** identifies highly unlikely events that could result in significant losses and establishes appropriate mitigating measures based on the assessment and opinion of experts from business lines and risk managers. Scenario analysis results are also used as an input to the economic capital models.
- **Key risk indicators** that provide quantitative information about our risk exposure and control environment. The most relevant indicators are those related to the bank´s main risk exposures, and are part of the operational risk appetite.
- **Risk appetite**, which has the following structure:
  - a global non-financial risk appetite statement, which asserts our commitment to controlling and limiting non-financial risk events that can result in financial losses; fraud events; operational and technological incidents; legal and regulatory infractions; issues associated with conduct; or reputational damage. This statement has associated loss and control environment metrics.
  - statements regarding technology risk, cyber risk, cloud, fraud, financial crime compliance, product sales, regulatory compliance, model risk, data management, and supplier risk management, and their own forward-looking monitoring metrics.
- **Economic capital model**: a loss distribution approach (LDA) model that captures our operational risk profile, with information collected from the internal loss database, external data, and scenarios. Its purpose is to determine operational risk economic capital and estimate expected and stressed losses for operational risk appetite.
- Other instruments are used to analyse and manage operational risk, such as the assessment of new products and services, and transformation initiatives; business continuity plans (BCP); review of corporate insurance; review of the management perimeter; recommendations from internal and external auditors, and supervisors; and the quality assurance process.

Heracles, which is our management and reporting system for operational risk, supports the operational risk programme and tools with a Governance, Risk and Compliance (GRC) approach. It provides information for management and reporting at subsidiaries and throughout the Group. Heracles also facilitates better operational risk management decisions by using a common set of taxonomies and methodological standards to allow information consolidation, duplication prevention, and reporting simplification. Through Heracles, we aim that employees can have a timely, complete, and precise view of their risks.

The main objective of the second line of defence is to challenge and oversee the operational risk profile through the ongoing monitoring of the previously described toolset.

Operational resilience and the business continuity plan

Digital transformation is revolutionizing how banks operate, presenting new business opportunities. At the same time this structural change is also giving rise to new emerging risks such as technology risk, cyber risk, and an increased dependency on third party suppliers, which increase the potential exposure to events that could affect the provision of services to our clients.

We are also witnessing changes in regulations that are increasingly focused on the importance of Operational Resilience, such as:

- the published Basel Principles for Operational Resilience guidelines;
- the policy statement and final rules, Building the UK Financial Sector's Operational Resilience, by the Bank of England (BoE), the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA);
- the EU's Digital Operational Resilience Act (DORA).

These regulations require banks to strengthen their ability to recover from disruptive events that could have an impact on their core business services and operations.

We are firmly committed to maintaining a robust control environment according to the best standards in the banking industry. This allows us to reinforce our operational resilience against potential disruptive events, thus promoting the provision of services to our customers as well as systemic stability.

A major pillar of our operational resilience is our business continuity management system (BCMS), which promotes the continuity of our business processes in all our subsidiaries in the event of a severe incident or disaster. It is a holistic management process that identifies potential threats and their impact to our operations and resources. It also defines the proper protocols and governance to provide an effective response.

In 2023, we continued to enhance and revise our BCMS to adapt it to the new Operational Resilience regulatory requirements, with particular emphasis on the following aspects:

- critical services identification, establishing the impact tolerance for disruption for each of them, according to the bank's risk appetite, risk capacity and risk profile;
- the bank's operational resilience approach approved by the board of directors, considering the bank's risk appetite and the tolerance for disruption to its critical services;
- internal continuity strategies to minimize the impact on business activities derived from the potential disruptions in the services provided by critical suppliers;

- mandatory risk assessments and cost-benefit analyses in order to select the necessary continuity strategies for each contingency scenario identified;
- strengthening the HQ contingency sites with the goal of having proper risk coverage and a quick recovery of critical business activities in the case of contingency scenarios impacting main offices, or other situations such as ransomware attacks, power shortages affecting the homes of staff; and
- enhancing the methodology to manage and monitor the maturity level of subsidiary business continuity programmes.

Important mitigating measures

We continuously implement and monitor mitigation actions for major sources of risk identified by internal operational risk management tools and other external sources of information.

The main sources of operational risk and their respective mitigation measures are described below:

Fraud

The transformation and digitalization of the business has given rise to new risks and threats, such as more payment scams and identity fraud. To mitigate these risks, we enhanced control mechanisms and implemented new solutions. Strong customer authentication processes, in line with the EU's Payment Service Directive (PSD2), such as biometric validation (e.g., facial recognition) in customer onboarding and enhancing anti-fraud alerts in origination are becoming increasingly widespread to mitigate fraud risk.

Examples of the controls that we are implementing to mitigate the risk of fraud in Cards include:

→ transaction monitoring using advanced fraud prevention models;

→ e-Commerce fraud mitigation with 3D Secure and;

→ use of biometric authentication in ATMs and branches.

Additional examples of controls that we are implementing for online banking fraud include:

→ Strong customer authentication and signature to approve transactions;

→ behavioural biometrics and anti-malware protection and;

→ identification and secure registration of customer devices.

Cyber risk

International conflicts in Ukraine and Middle East and the professionalization of cybercriminals produced a worsening threat landscape increasing the frequency and severity of cyberattacks that are impacting businesses, third parties, critical infrastructure and even governments. This situation has made cybersecurity a top risk concern for financial institutions; thus, we heightened our activity in terms of cybersecurity initiatives to mitigate emerging threats.

Our greater reliance on digital systems also makes cybersecurity one of the main non-financial risks of the business. Our goal is to make Grupo Santander a cyber-resilient organization that can quickly prevent, detect, and respond to cyberattacks, with constantly improving our defences.

In the reporting period, an increase in cybersecurity events has been observed, primarily related to Distributed Denial of Service (DDoS) attacks derived from the geopolitical situation, and isolated events involving third-party service providers, which were promptly addressed and resolved. None of these events materially affected our operations. Our team remains vigilant and committed to enhancing our cybersecurity measures to protect against evolving digital threats.

In that sense, we continue to improve our risk management and develop controls in line with the Group's global cybersecurity framework and international best practices.

From a second line of defence perspective, there is a framework to measure and monitor the cyber risk profile and its control environment.

The main areas of focus for this year have been:

- Consolidation of a Global second line of defence Center of Excellence for cyber risk providing an opportunity to strengthen control risk activities while achieving efficiencies, simplification, and harmonization.
- Establishing homogeneous criteria for regulatory requirements (mostly in SOx and new SEC cyber security requirements).
- Deep dive reviews of BAU processes; and metric assurance processes.
- Automation and comprehensive, predictive dashboards for enabling detailed cyber risk information.

For more details on cyber security, see section 5 **'Research, development and innovation (R&D&I)'** on 'Economic and financial review' chapter.

IT risk

The process of digital transformation as well as Santander's mission to become the best open financial services platform requires that we constantly review, assess and improve our controls to mitigate and manage IT risk.

Despite a demanding environment that is constantly changing, we are quickly adapting our business model and our technology to meet the new needs of our customers as well as new regulatory requirements. In this regard, we are transforming our business and operating model through our global technology initiatives to build a digital bank with branches that provides access to financial services for our customers through several channels.

For 2023, the key aspects of our IT Risk Management programme are summarized below:

- The adoption of a risk-based approach to prioritize the necessary resources and corrective actions taking into consideration the criticality of our IT assets.

- The thresholds of our risk appetite metrics that are used to monitor the different channels availability have been stressed. We made significant progress on reducing the level of obsolescence in key IT assets that is also measured as part of our risk appetite.

- We continued the enhancement of an automated tool that enables IT risk data correlation, analysis, and reporting. This tool facilitates information gathering and consolidation to enable the prioritization of risk management activities, allowing for more efficient independent oversight of IT risk.

- A specific tool has been developed to help risk practitioners in the analysis and forecasting of potential obsolescence problems in IT assets and thus helping with the strategic budget planning.

- Monitoring and reporting of IT relevant incidents. It is important to note that, even with the current digital transformation, relevant IT incidents at Group level have continued their downward trend in comparison with recent years.

- Detailed deep dive analyses of relevant IT risks as identified in our RCSA to gain an in-depth understanding of these risks, controls and appropriate mitigation plans.

- Oversight and challenge of the main IT transformation initiatives.

- Regular review of KRI's and related thresholds to reinforce a consistent oversight of our most relevant IT Risks.

Supplier risk management

Our digitalization strategy sets out to offer our customers the best solutions and products in the market. This can entail an increase in third-party services and the use of new technologies such as cloud.

In 2023, in light of an increase in cyber and environmental related risks, as well as regulatory requirements (in particular DORA), the Group has strengthened the supplier risk management model and the internal control framework. A new IT platform is being developed to properly assess and manage the risks in outsourcing and third-party agreements.

We revised our methodologies and tools to enhance the monitoring of third-party risk in our subsidiaries. In addition, we adopted a risk-based approach that focuses on those suppliers, in the different entities of the Group, that could increase the potential risk level in our operations and client services. We have implemented enhanced monitoring of those suppliers with the goal that:

- they present an appropriate control environment in accordance with established Group policies and that mitigate the risk level of the service provided;

- business continuity plans are in place to allow the delivery of the service even in the event of a disruption;

- the proper controls are in place to protect the information processed during the provision of services;

- contracts and third-party agreements include the required clauses to protect the interests of the Group and our customers, while providing coverage of the legal obligations in force;

- regular monitoring of these providers is carried out, with particular attention to the monitoring of service level agreements and to the regular testing of the supplier´s business continuity plans; and

- exit strategies are defined, including reversion or migration plans, particularly for those services with a high impact on business continuity and complex substitution.

In addition, a deep dive analysis and reinforced monitoring has been performed in order to assess the situation of our suppliers potentially impacted by the Middle East conflict. The main risks and the required controls have been identified, as well as the potential alternatives for the service provided.

We are embedding our environmental, social and governance approach in our strategy and culture to build a more responsible bank. In this regard, as our suppliers can affect the environment and broader society, we hold them to strict ethical, social and environmental standards. A new certification process is being implemented to revise that our suppliers follow the ESG sustainability standards and criteria required by the Group.

Other key mitigating actions

We are constantly improving our risk mitigation measures related to customer, products, and business practices. Santander has specific frameworks and policies on the marketing and selling of products and services; customer complaint handling and analysis; financial crime prevention; and compliance with new regulations.

For more details on compliance risk mitigation, see section **7.2 'Compliance and conduct risk management'.**

Insurance in operational risk management

Santander considers insurance to be an important component in the management of operational risk. The Corporate Insurance function is responsible for the use of risk transfer formulas to optimize and safeguard the bank´s financial results. The Corporate Insurance function, in collaboration with Non-Financial Risk (NFR), performs the continuous oversight and supervision of entities across the Group to promote the proper application of policies and procedures to manage risk that is insurable. This collaboration is governed by:

- NFR participation as a permanent member in the quarterly Corporate Insurance forum.

- NFR attendance of the quarterly Claims forum, which monitors and enhances processes for loss recovery via insurance.

- Procedures outlining the interaction model between NFR and Corporate Insurance, as well as other functions that correspond to the various insurance typologies (e.g., facilities, cybersecurity, legal, among others). These procedures pursue the proper management of insurance throughout the entire process of identification, assessment, transfer, and retention of risk.

- The coordination on an annual basis of the mapping of risks to insurance across the Group, with the objective of monitoring the effectiveness of insurance coverage, and identifying and correcting any potential gaps in coverage.

We continue to adapt the use of insurance to align our management with changes in the risk environment. As a result, we have expanded our analysis and implemented coverage related to climate change, ESG, cyber risk, the digital environment, and other elements. To respond to these and other transversal risks, we have global insurance programmes for property damage, general liability, fraud, expenses arising from cybersecurity breaches, and third-party claims against directors and officers of the Group (D&O insurance). These global policies are complemented by local insurance policies that adapt to the characteristics of each subsidiary and are purchased according to the Corporate Insurance risk management model implemented in each geography.

Analysis and oversight of controls in Corporate & Investment Banking (CIB)

Given the nature, specificity, and complexity of financial markets, CIB improves operational risk management and control on a continuous basis. The following enhancements were implemented in 2023:

- Continuous review of processes to improve and drive automation and operational excellence in the services provided to our clients, reinforcing a culture of quality and promoting the best CIB standards in all geographies.
- The control framework has undergone continuous improvement through regular review of controls and reporting tools that facilitate holistic supervision and monitoring of market activity. The risk of unauthorized trading continues to be monitored on a priority basis, using a specific risk appetite metric that measures the evolution of key risk mitigation controls.
- Constant monitoring of incidents and risks is maintained to resolve them promptly for more effective operational risk mitigation measures.
- Continuous improvement of the control model related to regulatory requirements such as MiFID[11] II, the Dodd-Frank Act, EMIR[12], Margin and other regulations.
- The vendor risk management function continues to be strengthened through tasks such as watch lists and targeted reviews of critical third-party process, improving the risk profile and promoting the compliance with internal and regulatory requirements.
- With respect to cyber controls, we have continued to enhance the controls related to data leakage, vulnerability management (focus on vulnerabilities identified in the global platform applications) and control over user access to systems (Zero trust). In addition, monitoring and challenge exercises have been maintained to correct the execution of controls.

For more details on regulatory compliance in markets, see section **'CIB Compliance'** in 7.2 'Compliance and conduct risk management'

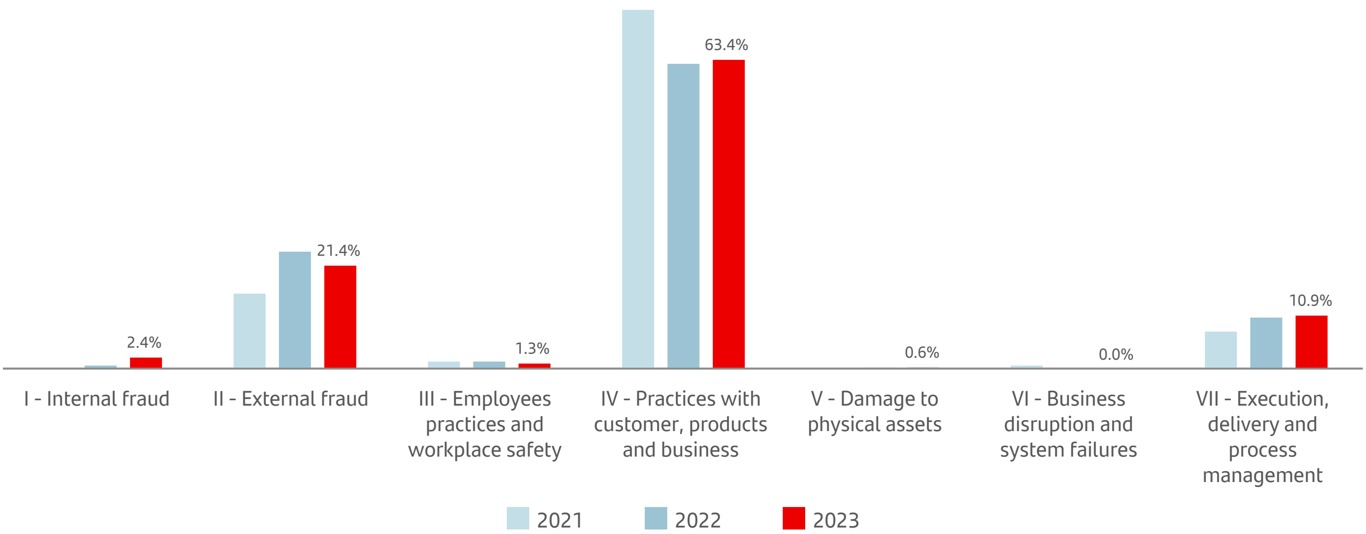
[11] Markets in Financial Instruments Directive.
[12] European Market Infrastructure Regulation.

6.3 Key metrics

Net losses (including incurred losses and net provisions) as per Basel[13] risk categories in the last three years were:

Net losses by operational risk category[A]

(% o/total)



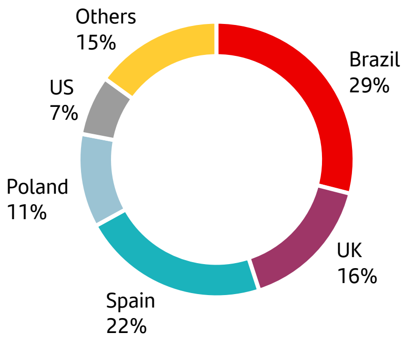
A. Does not include employees litigations in Brazil.

Losses due to practices with customers, products and business are stable, compared to the previous year. However, those due to execution, delivery and process management as well as external fraud losses have decreased.

The net losses by country were:

Net losses by country[A]

(% o/total)



A. Does not include employees litigations in Brazil.

Santander considers employee litigation in Santander Brazil to be a staff expense. Our governing bodies continuously monitor expense levels with specific risk appetite metrics and take special actions to reduce them. These expenses are reported under the categories defined by the Basel Operational Risk framework.

In 2023, the most significant losses by category and geography are related to litigation in Santander Brazil (with ongoing root cause analyses of the main products), Spain (due to legacy cases) and the UK (due to fraud and legacy cases).

[13] The Basel categories incorporate risks which are detailed in section 7 'Compliance and conduct risk'.

7. Compliance & conduct risk

7.1 Introduction

The compliance and conduct activity takes into consideration supervisory requirements, ethical principles and good conduct, for the benefit of employees, customers, shareholders and the community in general, and also covers the risks described below:

- Regulatory compliance risk: Risk of non-compliance with legal and regulatory requirements, as well as supervisors' expectations, which may result in legal or regulatory sanctions, including fines or other economic consequences.
- Conduct risk with customers (product governance and customer protection): Risk arising by inadequate practices in the Group's relationship with customers, including the way they are treated, as well as the products and services offered and their suitability for each customer.
- Financial crime risk: Risk arising from actions or the use of the Group's means, products and services in criminal or illegal activities. These activities include, among others, money laundering, terrorist financing, violation of international sanctions programs, corruption, bribery and tax evasion.
- Reputational risk: the risk of current or potential negative economic impact to the bank due to damage to the perception of the bank on the part of employees, customers, shareholders/investors and the wider community.

7.2 Compliance and conduct risk management

The compliance and conduct risk function is an independent control function within the second line of defence. It reports directly and regularly to the board of directors and its committees through the Group Chief Compliance Officer (Group CCO). It facilitates critical, independent debate, overseeing and control in terms of regulatory compliance, product governance, consumer protection, financial crime and reputation risk. It also measures the impact of compliance and conduct risk on risk appetite and risk profile.

The compliance and conduct function reports to governance bodies on risk when necessary and, especially, breaches of risk appetite. It also promotes a common risk culture and gives expert judgement and guidance on important compliance and conduct risk matters.

Banco Santander and each subsidiary run compliance programmes that suit their size and complexity. Programmes are structured according to the four management risks mentioned earlier, and set out the core initiatives to be undertaken throughout the year. They are essential for oversight of subsidiaries' Compliance and conduct risk control environment.

Regulatory compliance

The Regulatory Compliance function oversees and controls regulatory risk from employees, those related to the securities markets (market abuse), regulatory disclosures to the CNMV and other regulatory bodies where Santander is a publicly traded company, and personal data processing.

In 2023, we strengthened the two compliance risk oversight functions we created last year through pinpointing, monitoring and reporting on the major risks on investment platforms[14], and in restructuring area; and through the monitoring of the use and contribution of benchmarks.

The main parts of regulatory compliance are:

A. Employees

We promote a culture of ethics and compliance among our employees, with standards for preventing crime risk, conflicts of interest and anti-competitive practices according to the General Code of Conduct (GCC). On the other hand, we manage the Canal Abierto, Grupo Santander whistleblowing channel, through which employees and other stakeholders can communicate anonymously and confidentially report financial and accounting irregularities of potential significance, as well as violations of internal and external regulation and our corporate behaviours.

In 2023, we reviewed the internal regulation that governs Canal Abierto in Spain to make it consistent with *Ley 2/2023, de 20 de febrero, de Protección al Informante* (Spain's whistleblower protection law). We updated the Grupo Santander Canal Abierto policy and the related Usage and Operation procedure, which the board of directors had approved in June. Both documents are available on our corporate website and the Canal Abierto platform. In addition, the Group Chief Compliance Officer has been appointed as the person responsible for this channel for Banco Santander S.A.[15]

We enhanced communications with core vendors to share Santander's conduct guidelines and standards regarding ethics behaviour according to our culture and the GCC. For the third year running, we ran initiatives in the compliance and conduct area to promote diversity, equity and inclusion and to spread awareness with Fundación Universia about including professionals from different backgrounds.

[14] Investments in debt and or equity through a specialized fund manager. Characteristics of the businesses IPU participates are that Banco Santander invests in both the fund and the asset manager.
[15] Includes Corporate Centre and Santander España.

Employees' compliance functions

Canal Abierto

- Provides a channel for employees to report unethical conduct and breaches of internal regulation.
- Manages and investigate reported cases.
- Promotes a culture of speaking up and truly listening.

Disciplinary proceedings

- Investigate conduct that is misaligned with our ethics and compliance principles.
- Assess disciplinary measures.

Appointments

- Assess the suitability of the Group's board and senior management nominations.*

Anti-trust

- Manage the anti-trust compliance programme.

Training and awareness

- Develop employee training programmes and awareness campaigns on corporate defense and employee' compliance.
- Issue messages about ethics to the entire Group to build relationships based on trust.
- Train the Group's board members.

Policies and procedures

- Promote compliance with the GCC and enact special policies and procedures to enforce it.
- Report to governing bodies regularly.

Queries about ethics

- Manage queries from employees and members of governing bodies about ethics and internal regulation.
- Provide advice on ethics amid controversies.

(*) Run by the Corporate Centre Regulatory Compliance, Legal and Internal Governance areas.

For more details on Canal Abierto, see section **'7.2 Ethical channels'** of the Responsible Banking chapter.

B. Market abuse

Control room team is responsible for applying the Code of conduct in securities markets (CCSM) to prevent unlawful conduct and uncover transactions that could lead to a conflict of interest. In 2023, we continued to build on the initiative to create a Global Control Room to review current policies and procedures and enhance reporting systems. Also regulatory compliance function reviews treasury shares and Group buyback programmes.

C. Regulatory communications

The Regulatory communications team's core functions are:

- disclosing relevant information as well as key inside information on the Group to the markets, which can be found on both our website and the *Comisión Nacional del Mercado Valores* (Spain's securities market commission or 'CNMV').
- reporting on transactions with treasury shares or significant holdings of Banco Santander, and on transactions and remuneration schemes of executive directors and senior managers to CNMV and other regulatory bodies where Santander is a publicly traded company.

D. Personal data processing

The regulatory compliance function also oversees Grupo Santander's personal data management risks through:

Personal data protection

At Santander, we have a specialist area that enforces our corporate policy on personal data protection, which sets out guidelines for all subsidiaries. We strengthened our governance model overseen by each subsidiary's data protection officer to check compliance with corporate policy.

We continued to roll out a comprehensive compliance programme to over 90 Group subsidiaries to manage personal data protection risks effectively. It is supported by a robust control framework based on regular KPIs and each subsidiary's annual self-assessment. We have adapted this programme to the diverse regulation — in nature and maturity — that applies to our subsidiaries and businesses.

Automatic exchange of tax information between countries

The data management function oversees automatic tax disclosure between subsidiaries (pursuant to FATCA[16] and CRS[17]) by checking regular reporting obligations and execution of local action plans.

[16] Foreign Account Tax Compliance Act
[17] Common Reporting Standards

E. Market regulation

The SCIB compliance function also oversees the risks from core international market regulations applicable to Banco Santander, such as:

- EU Regulation: It has continued to monitor compliance with EU Regulations (mainly MiFID II and EMIR), paying close attention to Reporting, Inducements and requirements related with Algorithmic Trading. The bank has been working also to implement the modifications arising from EMIR Refit.

- US Regulation: From a Dodd-Frank perspective, Swap Dealer and Security Based Swap Dealer's compliance frameworks monitoring has been focused on the swap/security-based swap data reporting. Ongoing work streams are constantly analysing potential enhancements to ensure trade reporting accuracy and completeness. From a Volcker Rule perspective every new activity is monitored and assessed to identify any proprietary trading activities and investment in Covered Funds, under the implemented Moderate Compliance Program across the Group.

In addition, there is a specialist team in place focused on the prevention, control and mitigation of risks related to market abuse and different conduct regulatory requirements through a robust Surveillance program on the transactions and communications mainly of markets activity, ALCO and other investment banking business areas. This team works to have global visibility of the group's businesses, carrying out an oversight function over the group's core subsidiaries and standardizing the controls of Banco Santander S.A. and its international branches.

Conduct risk with customers: product governance and customer protection

Our product governance and customer protection area promotes that we base our actions on our customers' interests, regulation, our values and our principles. That means promoting a customer-centric culture with a Simple, Personal and Fair approach, through the following pillars:

1. Action and governance principles:

→ Establish the internal guidelines on customer service in the conduct risk management model, which is developed in a robust regulatory framework. These guidelines promote a robust, customer-centric culture throughout the commercialization process and retail customer relations.

→ Run corporate product governance forum to approve new products and services, and escalate customer conduct risk issues. We carry this out through the conduct and customer voice follow-up meetings, and especially to the compliance, risk, responsible banking and board committees.

2. Oversight of key procedures to check that:

→ our products and services are designed to meet customer's needs with the right balance of risk, cost and profitability;

→ sales are carried out to the right target markets and provide transparent information, with proper sales force training and customer-centric remuneration schemes; and

→ our customer and post-sale services strive to be Simple, Personal and Fair, and we carry out a follow-up and root-cause analysis of our customers' voice and product evolution to check for product deterioration and process shortcomings.

3. Risk management by:

→ reporting to senior managers to enable correct decisions on customer strategy, and drawing up and tracking action plans;

→ oversight of the design and use of controls for marketing and customer relations, and reviews of the management and control model in the second line of defence;

→ risk detection and measurement with methodologies that involve customer survey analysis, management indicators follow-up, thematic assessments, first-line self-assessments, regulatory trends, industry practices, supervisor and auditor opinions, learning from internal and external events and other sources.

Product and service governance

We have a two-pronged governance approach to product approval. Each subsidiary has its own approval body that manages conduct risk from marketing new products and services to meet the needs of the target market and check that they are sold through appropriate channels and processes, and have clear and fair terms and conditions. New products and services are first escalated to the corporate product governance forum (CFGP, which all the Group's support and control areas attend) to be approved.

In addition, the meetings of the fiduciary risk function control that the investment products have an adequate definition of their investment policies and their management is carried out in a robust risk control environment, according to that defined in the Group's fiduciary risk admission, monitoring and control policy.

In 2023, products and services design included the following new features:

1. Making products, services and business models sustainable:

→ Investment services: (i) products and services transformation towards ESG classification; and (ii) modification of the convenience and suitability tests to comply with the European Securities and Markets Authority (ESMA) guidelines, through the incorporation of aspects related to the customers' sustainability preferences.

→ Sustainable development: Running innovation and sustainable development initiatives to promote user awareness and responsible consumption (e.g. carbon footprint service).

→ Financial inclusion: Undertaking initiatives to enable access to financial products and services (e.g. salary advances through SuperMóvil).

2. Digital strategy:

- Digital channels: Enhancing coverage, quality and user experience of online products and services (e.g. launch in Mexico of DiMo, a service for intermediary payments between accounts via mobile phone number).
- Transformation project: Customer impact assessment, offer simplification and special attention to process automation.
- Digital assets and Blockchain: (i) development of internal regulations; (ii) review of proposals in the subsidiaries' pipeline; and (iii) participation of Banco Santander, S.A. in the Fnality pilot, which is under the supervision of the Bank of England and is aimed at making payments between financial institutions via a platform based on blockchain technology.

Key conduct risk lines of action in 2023

	Objectives	Lines of action
Continue to enhance conduct risk management with customers	Adapting internal rules and management models to the shifting landscape and customers' needs.	→ Keeping retail customer conduct guidelines consistent with regulation and industry best practice. → Embedding lessons learned from customer conduct risks detected, measured and mitigated by our risk management, especially through first-line self-assessments that boost awareness and accountability. → Exploring advanced analysis and machine learning techniques through the development of algorithms that correlate customer voice data with business indicators to monitor customer's conduct, embracing innovation and technology for an effective process of corrective measures.
Awareness and accountability of the first line of defence	Raising awareness of conduct risk management and prevention in business and support areas.	→ Regularly training our local first- and second-line defence teams on conduct risk. In 2023, we updated mandatory conduct training for all Group employees. → Linking first-line teams' remuneration to conduct and quality, with a holistic view of branches, online channels, remote customer assistance, and services.
Sustainable products and services	Supporting projects relating to the Group's transition towards a more sustainable economy.	→ Transparent reporting on investment products and services for retail customers. → Embedding ESG risks in our management through measurement tools and methodologies that enable us to categorize products appropriately, measure ESG risk and meet customers' sustainability needs.
Vulnerable customers and special cases	Treating vulnerable customers fairly and appropriately, and making sure we consider their circumstances as part of our services.	→ Developing our global vulnerable customer strategy and helping units implement it. → Monitoring collection and recovery indicators every month. → Performing special monitoring of practices for customers who are affected by the rising cost of living, have disabilities, and are senior citizens.

Financial Crime Compliance (FCC)

Financial crime risk is the risk arising from actions or the use of the Group's means, products and services in criminal or illegal activities. Such activity includes money laundering, terrorist financing, violation of international sanctions, corruption, bribery and tax evasion.

Financial crimes are universal, globalised phenomena that take advantage of cross-border economic activity, and thus their detection, deterrence and disruption call for a coordinated global response by the international community and the financial sector.

Our commitment to partnering with law enforcement and competent authorities to disrupt threat finance networks is key to supporting the societies in which the Group operates, including implementing international sanctions programmes aimed at defending human rights and civil liberties, and deterring corruption and armed conflict. We are fully committed to the fight against financial crime and seek continuous improvement in our control framework. Our FCC function continues to identify and develop new approaches, both internally and via public-private partnership, on responding to existing and emerging threats.

Our business functions maintain the primary responsibility for identifying, managing and reporting financial crime risk. We monitor and oversee financial crime risks and promote adequate policies and procedures have been implemented to manage effectively the business within the Group's established risk appetite and supporting the organisation's risk culture.

The FCC Strategic Transformation Programme has been underway to strengthen the Group's control framework and operating model, embed a sustainable and dynamic approach to customer due diligence, and implement next generation technological platforms on transaction monitoring and sanctions screening.

Our board of directors and senior management continue to see and reinforce the importance of the FCC Strategic Transformation Programme in order to build the Group's functional and technical control framework for the future.

Key achievements over 2023 include:

- The publication and transposition of a revised AML/CFT policy, which crystalizes the accountability of the business in managing financial crime risk;
- An enhanced methodology for compliance monitoring to check that all subsidiaries subject to FCC policies and procedures follow a consistent approach to supervising and assessing financial crime risk;
- Restructuring reporting lines and job profiles across the FCC function, under the Group's target operating model;
- Supporting the Group-wide Anti-Bribery and Corruption Policy (ABC), which aligns to international and supranational guidance such as the Organization for Economic Cooperation and Development Anti-Bribery Convention, with extensive training sessions to target stakeholders across the bank in areas exposed to greater ABC risk;
- Continuing to hub FCC-related activities in newly established operational centres of excellence; and
- Moving into production in various jurisdictions with the Group's strategic platform for sanctions screening and transaction monitoring, with results indicating strong advancement on screening effectiveness.

In 2023, we continued to focus heavily on the intersection of financial crime compliance and financial inclusion to ensure both objectives can mutually reinforce one another. We provided subject matter expert support to a UN initiative aimed at building a self-assessment diagnostic tool to evaluate a financial institution's 'awareness of modern slavery and human trafficking risks'. And we continue to pursue public-private partnerships focused on disrupting human trafficking and modern-day slavery, for instance in Europol's Financial Intelligence Public Private Partnership. These initiatives are all part of the Group's larger commitment to Sustainable Development Goal 8 (SDG 8), Decent Work and Economic Growth, which includes ending modern slavery, trafficking and child labour.

Our capacity building initiatives continue, leveraging in our face-to-face training sessions external guests from law enforcement, regional and international governmental organizations, and key stakeholders from civil society, covering topics like correspondent banking risk, advanced transaction monitoring using artificial intelligence, virtual currencies, data analytics, and human trafficking. Specialist training sessions were also held for stakeholders in the bank with elevated exposure to key risks, such as sanctions and bribery and corruption (for more information see section '2.4 Financial crime compliance and relations with political parties' in Responsible banking chapter), and in-person training to the board of directors focused on emphasizing the interconnectedness between the Group's focus on an effective FCC framework and advancing on the UN SDG through real examples across our subsidiaries.

We also implemented a FCC MLRO (Money Laundering Reporting Officer) Training Academy in 2023, where the inaugural academy focused on promoting collaboration with other functions within the Group on anti-bribery and corruption compliance, environmental and social risk management, and cyber-security.

The financial sector's role in supporting national and supra-national diplomacy continued to be a priority for Santander in 2023. Sanctions programmes such as the Global Magnitsky Sanctions, aimed at fighting human rights abuses and corruption, are applied Group wide, and with the on-going war in Ukraine, we continue to enforce sanctions compliance across the Group's international operations.

Santander FCC function also continues to serve as chair of the United Nations Office on Drugs and Crime's Private Sector Dialogue on the Financial Disruption of Forestry Crime, now expanded to cover all types of environmental crime. It brings together actors from the public and private sector, as well as civil society, to coordinate on disrupting the financial networks behind environmental crimes. Highlights over 2023 included case studies from the NGO TMT[18] on unregulated and illegal fishing, a presentation from the Ukrainian Financial Intelligence Unit on illegal logging and corruption networks supplying

[18] Non-governmental organization Trygg Mat Tracking

Europe, and a demonstration by Santander Brazil on the use of satellite imagery in the due diligence process for assessing illegal deforestation risk in the Amazon.

The FCC function also played a key role in opening the Latin America Chapter of United for Wildlife in July 2023, and collaborates regularly with other initiatives focused on environmental crime, like the recently launched Nature Crime Alliance. Advances on disrupting environmental crime are part of the Group's larger commitment to SDG[19] 13, Climate Action.

Highlights over 2023 in our key activities include:

- 240,542 disclosures to authorities
- 396,482 investigations conducted
- 177,298 employees trained
- 34 specialised training sessions for experienced FCC staff

Reputational risk

Reputational risk can arise from multiple sources: from business or business support activities, as a consequence of other risks, from the economic, social and political environment or from events related to our competitors. Our reputation could also suffer if we are the subject of negative coverage in the media, whether it has merit or not.

Our reputational risk model takes a preventive management and control approach, with effective handling of early warnings as well as procedures to identify, manage and monitor risk events. It also includes elements for identification, analysis and monitoring of key stakeholders' perception of Grupo Santander and the financial sector, and how that perception may change. Our model is also aligned with the risk management and control processes (risk profile, risk appetite, ICAAP, emerging risks, among others).

2023 highlights:

We continued to enhance management and control, updating guidelines for certain areas. In particular, we:

- reviewed policies and criteria for action in the financing of sensitive sectors and donations, as well as procedures that develop them;
- collaboration with other areas to prepare greenwashing management and control guidelines in order to determine key processes, duties and governance to identify, assess and manage greenwashing risk and meet regulatory requirements;
- worked with other areas to prepare humanitarian crisis management guidelines in order to set crisis assessment criteria and the Group's actions;
- analysed the impact and defined preventative and mitigation actions of reputational risks related to climate (e.g. deforestation, fossil fuels, nuclear energy), the cost of living, humanitarian crises, and others;
- enhanced our risk materiality assessment methodology, with the spotlight on climate risk and a more detailed description of the reputational impact assessment for internal capital procedures;
- enhanced event database and reputational risk standardization procedures according to a new identification, assessment, reporting and escalation methodology;
- ran initiatives to share best practices with subsidiaries, including enhancements of collaborative tools and 'Best Practice' workshops;
- updated the corporation's and subsidiaries' global reputational risk assessment procedure, including new risks and further developing ESG aspects;
- built on the reputational risk tool that measures stakeholders' perception of the Group and the financial sector;
- enhanced management consolidation and reporting based on a forward-looking risk approach in the corporation and in subsidiaries; and
- strengthened subsidiary oversight in terms of governance and challenge, and updated subsidiaries' oversight guidelines.

[19] Sustainable Development Goals

8. Model risk

8.1 Introduction

A model is a system, approach or a quantitative method that applies statistical, economic, financial or mathematical theories, techniques and assumptions to transform data into quantitative estimates.

We use models mainly for credit scoring/rating, performance, capital and provisioning, market and structural risk, operational, compliance and liquidity risk, and financial accounting and control, among others.

The use of models entails certain risks, such as the potential negative consequences of decisions based on poorly developed, poorly implemented or incorrectly used models. Model risk can lead to financial losses, inappropriate business or strategic decisions or damage to the Group's operations.

8.2 Model risk management

The model risk function in Grupo Santander has evolved and matured in recent years, enabling robust management both in the corporation and in the main subsidiaries.

For the proper management of model risk, we have clear internal regulations that establish the principles, responsibilities and processes of the model´s life cycle, and describe their inventory, governance, management and validation.

The intensity of model risk management is relative to the importance of each model. The concept of tiering is the main attribute used to summarise the level of importance of non-regulatory models. The regulatory models, given their particular relevance for the Group, follow the most intense control and management standards.

At Grupo Santander we define the following phases of the model's life cycle:

1. Identification
The identified models must be included in the scope of model risk control. For sound management, a complete inventory of all models in use is key. There is a Group centralized inventory, a single platform based on an uniform taxonomy for all models used in the business units. The inventory contains all relevant information of each model, enabling to closely monitor them according to their relevance and the tiering criteria.

2. Planning
An internal annual exercise approved by our subsidiaries' governance bodies and ratified by the global team, which formulates strategic measures for models managed by the Model Risk area and pinpoints needs for any models to be developed, reviewed or implemented during the year.

3. Development
In this phase, the Model unit contributes to strengthening risk management by developing models and using data in accordance with existing regulatory requirements.

This unit leads the development of models for all types of risks with the spotlight on complying with regulatory expectations (Internal Rating Based Approach -IRB-, IFRS9 and Internal Model Approach -IMA models, among others). To develop models, we have specialized local and global teams. The experts in each geography are responsible for the development of local models, since they know the particularities and needs of each unit, while the global experts define the modelling standards, develop global models and support the geographies in the application of these standards and/or in the development of their own modes if required.

Moreover, we use a boxification methodology that enables us to automate, standardize and maintain the quality of model development.

Throughout the year, the development function has focused mainly on the completion of the IRB repair program, the delivery of stress test models and the development of models for climate change risk management, among others.

At Santander, we believe in the innovation by using machine learning/generative artificial intelligence in a responsible way to develop models. We cooperate with Banco de España on issues related to explainability and control of bias in machine learning models, promoting the use of these new techniques for risks management.

4. Internal validation
Independent model validation is a regulatory requirement and key feature of our model risk management and control.

A specialist unit that is totally independent from developers and users issues technical assessments of internal model suitability. These assessments are expressed through a rating that summarizes the model risk associated to it. Validation intensity and frequency are well-defined and risk-driven.

We have an unique validation approach led by the Single Validation Office, which strengthen the second line of defence promoting a consistent and standardized model risk management across the Group. It has allowed a greater decentralised organizational structure.

5. Approval
Before the model´s implementation and use, internal governing bodies must approve it through a governance circuit in place for our model inventory, based on its level of importance.

6. Implementation and use
In this phase, we add new models to our IT systems. Because this is another source of model risk, technical teams and model owners test proper model integration based on methodology and expectations.

7. Monitoring and control
We regularly review models to check they are working correctly and that they are suitable for their purpose. Otherwise, the must be adapted and redesigned. Control teams must pursue that models are managed according to the general model risk framework and other related internal rules.

Main activities in 2023

The MRM Next strategic plan (2022-2025) was launched in 2022 with the aim of strengthening the Group's model risk culture and positioning Santander as a benchmark in this area in the industry. During 2023, the strategy focused on:

- strengthening the binding role of internal validation to meet increasing regulatory requirements;
- definition of the IV Next project to evolve the validation function, prioritising key actions through a global management of validation recommendations and including mitigation elements to focus on the most material risks;
- optimising the exploitation of model risk management data;
- and continuous improvement of regulatory models (IRB and IMA) to ensure that they are fully aligned with supervisory expectations.

9. Strategic risk

9.1 Introduction

Strategic risk is the risk of loss or damage arising from strategic decisions or their poor implementation, or from an inability to adapt to external developments, that may impact the long-term interests of our key stakeholders.

Grupo Santander's business model is a key element of strategic risk, it must be viable, sustainable and capable of generating results in line with the annual objectives and for at least the following three years, in a manner consistent with the Group's long-term vision.

Strategic risk has three components:

1. **Business model risk,** which includes the risk of the model being out of date, becoming irrelevant and/or losing its capacity to continue generating the desired results.
2. **Strategy design risk,** which relates to the strategy and assumptions set out in Grupo's long-term plan, considering that this plan may be unsuitable in its nature or because of its assumptions, which could result in the Group not achieving the expected results.
3. **Strategy execution risk,** which involves the three-year strategic plan and potential deviations from it due to internal and external factors, the lack of capacity to respond to changes in the business environment and the risks associated with corporate development transactions.

9.2 Strategic risk management

Our strategy and business model pillars are customer focus, our global scale with local presence, and geographical, business and product diversification. Our global businesses are key to driving more value creation, profitability and shareholder remuneration.

Santander views strategic risk as a transversal risk. Subsidiaries refer to our operating model that covers the governance, procedures and necessary tools for robust monitoring and control within board-approved risk appetite.

We constantly monitor changes in competition, regulation, market conditions and our organization to determine if we need to revise strategy and verify mitigating factors and resolution plans. The Strategic Risk team engages with key areas of the first- and second-line of defence to pursue that measures are defined and implemented when necessary.

In 2023, strategic risk centred around macroeconomic uncertainty, with inflation remaining high and a possible overreaction regarding monetary policy; geopolitical risk related to the potential escalation of military conflicts and deterioration of ties between the US and China; cyber attacks; and execution risk stemming from our transformation initiatives.

Our strategic risk model is based on:

- Challenging strategic plans: With the support of other specialized areas within the Risk division, the Strategic Risk team challenges the three-year financial plan and long-term strategic plan, including a specific chapter in both that identifies potential threats and changes in the environment that could undermine strategic objectives. In 2023, we focused on analysing the plans of our new five global businesses as a driver of value creation in our local markets and globally.

- Emerging risks: Santander proactively identifies, measures, monitors and manages risks that, under stressed scenarios, could have a significant impact on profitability, liquidity and solvency. In 2023, we worked with our local units to enhance our emerging risks identification and assessment.

For more details, see section **'1.2 Emerging risks'** in this chapter.

- Analysis of the business model performance: To identify and assess the main threats to the bank's business plan and strategic objectives in four areas:
  - Strategy execution: Assessing the risk of deviation from plans, targets, and strategic and transformation initiatives.
  - Viability and sustainability: Assessing our position against competitors and the risk of failing to create shareholder value.
  - Business plan volatility: Assessing the risk that our planning will be unstable and profits will not be recurrent in the long term.
  - Likelihood of meeting strategic objectives: Risk of failing to achieve our three-year financial plan goals.
  - In 2023, we continued developing our business model assessment methodology to consider the peculiarities of our local markets more profoundly.
- New products commercialization: Assessing new product and service proposals before Santander launches them, to check that they are consistent with the Group's strategy.
- Corporate development transactions: Contributing that transactions of this nature are subject to an assessment of their impact on the risk profile and risk appetite of the Group.

- Monitoring strategic projects: The Strategic Risk team works with other areas on drawing up and monitoring strategic projects. Progress with these projects is reviewed twice a year, including an independent challenge from the second line of defence, which is key to assessing strategic risk. In 2023, we delved deeper into the execution risk of our transformation initiatives, including the Retail & Commercial Transformation initiative that brings together our consumer and commercial customers under a common operating model to deliver profitable and sustainable growth.

As the second line of defence, our Corporate Centre and subsidiaries' Strategic Risk teams provide a consolidated view of our exposure to this risk as well as an independent opinion and challenge of first-line of defence activities. The Strategic Risk Report is regularly submitted to senior management, which includes an update on strategy execution, threats and emerging risks, business model performance, corporate development transactions, products commercialization, and strategic projects.

10. ESG risk factors

10.1 Introduction

Environmental

Managing climate and environmental risk factors is crucial to implementing our strategy, aiding the transition to a low-carbon economy, and fulfilling our ambition to be net zero by 2050.

Social

Our social risk management is supported by the definition of several policies and internal frameworks that are leveraged on best practices, conventions, international protocols and codes of conduct in each matter.

Governance

The management of risks derived from governance is a relevant aspect in two facets: on the one hand, in the internal governance of the Grupo Santander, and on the other, in the evaluation we make of the governance of our customers.

Due to the climate emergency, the data availability and methodology, the environmental aspects within ESG are a focus of attention in the banking industry, among others. For this reason, the following section is more targeted on climate and environmental risks factors, which are considered transversal and likely to have an impact on existing risk typologies such as credit, market, liquidity, operational, reputational and strategic, mainly. These risk factors include the physical effects of climate change and the transition to a low-carbon economy.

Physical risk (PR): effects of climate change on economic activity, labour supply, communities, markets, assets and investors. It comprises:

Acute	More intense extreme weather events, such as droughts, hurricanes or floods.
Chronic	Changes in rainfall patterns, extreme weather variability, average temperature rises, severe heatwaves and rising sea levels.

Transition risk (TR): effects of the transition to a low-carbon economy, including changes in regulation, technology and market trends:

Market sentiment	Changes in the supply and demand of certain commodities, products and services as they consider climate risk and opportunity, which could lead to reputational and other issues.
Policy action	Implementing carbon pricing mechanisms to reduce greenhouse gas emissions; using energy sources with lower emissions; adopting energy efficient solutions; and promoting water efficiency measures and more sustainable land use practices.
Technology	The need to build and innovate to support the transition to an energy efficient financial system with lower CO_2 emissions. This can have a significant impact on companies as new technology displaces obsolete systems and disrupts some components of the financial system as we know it.

In addition, these factors pose a risk and an opportunity for Grupo Santander and our customers. On the one hand, they can impact on customers' financial solvency across different time horizons and on banks' reputations. On the other hand, the urgent transition to a low-carbon economy presents a considerable business opportunity for banks like Santander that are committed to offering increasingly sustainable products and services, supporting our customers in their transition.

We measure the impact of the climate and environmental factors of each risk type across several time horizons. This table shows pre-mitigation impact, our progress with climate matters in 2023, and next steps:

Risk type	Key climate drivers[1]	Main time horizon[2]	Potential impact on climate risk factors	What we're doing to manage climate risk	Next steps
Credit		Medium-long term	→ Extreme weather can lead to higher retail and corporate loan default and lower collateral value. It can also cause income to fall, harm agriculture, and increase insurance coverage and premiums. Moreover, changes in wind patterns that reduce energy production can lead to higher operating costs and hamper productivity. This may increase asset depreciation and early disposal due to property damage in 'high risk' locations. → A failure by borrowers to adapt their business models to a low-carbon economy could heighten credit risk and, therefore, the risk of a reduction in income or activity that may increase default or cause the business to lose value. → Adverse weather conditions can cause significant financial loss, endanger communities, harm the environment and affect the value of guarantees. → Market sentiment that influences demand; obsolete technology; customer preferences. → Higher operating costs for carbon-intensive customers; information requirements (data gathering), especially on emissions (e.g. Scope 3) and green taxonomy disclosures; and new EU financial information directives stemming from government measures.	→ Conducting materiality assessments to spot physical and transition risk in our portfolios. → Analysing short-, medium- and long-term risk concentration by sector and region. → Creating heatmaps that follow orderly, disorderly and Hot House World scenarios up to 2050. → Implementing mitigation measures such as policies, thresholds and insurance to combat risks and their impact. → Conducting scenario analyses and measuring sensitivities to forecast changes in ratings, PD and LGD in view of physical and transition risk. → Drawing up credit risk metrics to monitor and control E&CC[3] risk factors in BAU processes. → Measuring E&CC factors in customer and transaction analysis and ratings. → Setting risk appetite limits and alerts to manage climate-related sectors.	→ Run the second phase of 'Climate Race', our credit risk target operating model for climate and environmental factors and embedding of E&CC factors in the entire credit cycle to pinpoint and mitigate physical and transition risk. → Include climate factors in internal physical and transition risk models and embed scenario analysis techniques in risk management through a forward-looking approach by sector and geography. → Develop tools to monitor E&CC factors that consider physical and transition risk in the property sector.
Market		Short-Medium term	→ Higher volatility in market factors under stress scenarios. → Changes in market perception leading to wider credit spreads for business in impacted sectors.	→ Regular reviews of climate stress scenarios and subsidiaries that apply them. → Stress testing using physical and transition risk scenarios. → Portfolio analysis of current exposure to climate-sensitive business activities.	→ Enhancing analysis of material climate impact on trading portfolios to help with future sector-based stress testing. → Enriching stress testing and reviewing new scenarios to be included. → Adapting stress testing to best market practices.
Liquidity		Short-Medium term	→ Market impacts on the value of high quality liquid assets in Santander's liquidity buffer. → More frequent extreme weather stifling economic growth in countries susceptible to climate change, causing sovereign debt to rise and limiting access to capital markets. → Cash outflows from companies trying to boost their reputation in the market or solve problems with climate scenarios.	→ Qualitative and quantitative climate scenario analyses of impacts on highly liquid assets (HQLAs) and financing of exposed companies. → Analysis of higher outflows due to changes in market perception of corporations in climate-sensitive business activities.	→ Enhancing stress testing and reviewing new scenarios to be included. → Adapting stress testing to best market practices, including new liquidity scenarios to measure their impact.

Risk type	Key climate drivers[1]	Main time horizon[2]	Potential impact on climate risk factors	What we're doing to manage climate risk	Next steps
Operational		Medium-long term	→ Severe climate events can cause damage to our assets, including branches, offices and data centres. They can also affect business continuity, processes and staff. → Climate-related factors can also lead to operational risk losses from litigation (e.g., if a bank is perceived to misrepresent sustainability-related practices).	→ Conducting operational risk and control self-assessments that include ESG-related risks to evaluate our exposure. → Conducting mandatory operational risk scenario analysis that covers physical and transition risk. → Adding ESG flag to the operational risk events database to classify incidents and environmental- and climate-related losses. → Including an assessment of climate threats in business continuity scenarios.	→ Enhance operational risk reporting on climate-related factors. → Update documentation and provide training on the embedding of ESG factors in operational risk management.
Reputational		Short-medium-long term	→ Customers, investors and other stakeholders who believe banks aren't doing enough to meet low-carbon targets, act against their policies or that their public commitments can pose reputational risk. → Misleading customers, investors and stakeholders with statements, actions, announcements, policies and the sustainability features of products or 'greenwashing' practices.	→ Updating climate and environmental risk policies and procedures. → Addressing reputational risk through corporate credit committees that assess sensitive transactions that involve climate and environmental risk. → Holding formal meetings to review reputational issues (including climate matters), involving the legal, responsible banking, investor relations, risk and other teams. → Implementing proactive measures to support companies' green transition and decarbonization.	→ Continue driving cooperation between the reputational risk area and other teams to address reputational impact. → Conduct a materiality assessment to measure climate-related and environmental reputational risk. → Implement a methodology to quantify the reputational impact of climate and environmental risk.
Strategic		Short-medium-long term	→ A failure to achieve our climate and environmental targets, including those relating to our own and our customers' operations, could affect our strategy.	→ Checking that ESG targets are embedded in the Group's strategic planning. → Monitoring the Group's strategic 'Climate change' project, including net zero KPIs. → Identifying emerging risks, which includes an ESG risk event and analysis of how low-probability stress scenarios might impact on the Group's strategic targets to draw up suitable action plans. → Monitoring ESG initiatives presented at the corporate product governance forum (CGPF) and investors' forum. → Reviewing ESG factors and KPIs in the business model.	→ Continue monitoring climate and environmental threats as part of emerging risk identification. → Revise ESG KPIs regularly so that they remain consistent with the Group's strategy. → Continue reviewing ESG factors in relation to business model performance.

1. Though all climate drivers impact on risk factors, we have only included the key ones in this table.
2. Short term: up to one year. Medium term: up to three years. Long term: five years and beyond.
3. E&CC: environmental and climate change.

Acute Chronic Market sentiment Policy action Technology

10.2 ESG factors risk management

As part of our climate and environmental risk factors management, we are gradually introducing decarbonization targets in sectors that are considered 'highly polluting', as well as embedding climate and environmental factors in our risk management and cross-cutting enterprise risk management processes, such as our risk appetite and in the emerging risks identification exercise. One of the elements that has contributed to integrating these factors into our strategy is their inclusion in the credit granting and monitoring process.

For more information regarding climate and environmental risks factors, see our 'Climate Finance Report' on our corporate website.

We identify and assess the factors that are most material to each risk type.

The following chart describes how we are integrating climate and environmental factors into the risk management cycle.

Risk management cycle

Identification

Through the exercise of emerging risks related to climate change (which have a climate subcategory and a biodiversity subcategory), we evaluate internal and external threats that could affect our profitability, solvency or strategy.

Our emerging risks exercise focuses on ESG risks, such as greenwashing, the environment and biodiversity.

Planning

As part of our public sustainability commitments, we included decarbonization targets in strategic planning, with separate time horizons: short-term budget (one year); medium-term financial plan (three years); long-term strategic plan (five years); and ad hoc analysis.

Assessment

We use materiality assessments, quantitative and qualitative heatmaps, scenario analyses and other tools and techniques to analyse the potential impact of climate and environmental factors on our portfolios. For instance, we run a quarterly materiality assessment to pinpoint the loan portfolios with the highest physical and transition risk.

Our automated corporate tool 'Klima' enables us to monitor the Group's loan portfolios. This tool includes forward-looking analysis of companies' performance by sector and geography, using orderly, disorderly and hot house world scenario analyses to calculate physical and transition risk impact across several time horizons. In 2023, we added a physical risk assessment module for collateral and customer portfolios, which we break down by economic activity. Our physical and transition risk assessments rate each sector on a 5-point scale from 'Low' to 'Very high'.

The following table shows the latest materiality analysis prepared by the Group with data at the end of Q3 2023.

Materiality assessment - Climate risk analysis and portfolio heatmap

September 2023 (pre-mitigation) - EUR billion

		TR	PR	CIB	Other segments
Power (conventional)		High	Medium	28	2
Power (renewables)		Low	Medium	12	0
Oil & Gas		Very High	Moderately Low	23	1
Mining y metals		Very High	Moderately Low	14	8
Transport		High	Moderately Low	28	12
Auto Consumer		Moderately Low	Low	0	159
Real Estate		Moderately Low	Medium	8	388
Other climate-related sectors	Agriculture	Medium	Medium	2	9
	Construction	Moderately Low	Low	17	14
	Manufacturing	Medium	Moderately Low	49	26
	Water & Waste	Medium	Medium	3	1
Climate sectors				**184**	**620**
Other sectors		Low	Low	58	230
Total portfolio				**242**	**850**

Low · Moderately Low · Medium · High · Very High

TR: transition risk. PR: physical risk.
CIB: REC (on and off-balance sheet lending + guarantees + derivatives PFE: Potential Future Exposure).
Other segments: Drawn amount; includes individuals, SCF, Auto US, Corporates and Institutions, and SMEs.
Other sectors: considered as low risk; include: CIB, Corporate and SMEs outside the risk taxonomy perimeter // Individuals and SCF: cards and other consumer credit // Private Banking (excl. mortgages).
Exposure 0 represents exposure below EUR 500 million.

Finally, we highlight the methodological progress made in our materiality assessment, with improvements to the scope of the existing methodology, including a more holistic view of how climate and environmental factors can impact the main types of risks set out in our framework.t

For more information regarding our materiality assessment, see our 'Climate Finance Report' on our corporate website.

Monitoring

At Grupo Santander, we constantly monitor the risk profile and our compliance with risk appetite limits through control functions that report to the board. From 2021, we have been enhancing our risk appetite statement with a quantitative metric for thermal coal counterparties, energy and mining related customers. Moreover, we have a decarbonization roadmap to set risk appetite limits that are consistent with our commitments for 2030. In 2023, we approved new quantitative metrics — adding to the ones we set for thermal coal and power — for oil and gas, steel, and aviation, which we will implement and monitor in 2024. For the automotive sector, we are making progress in designing a metric for approval in 2024.

We are in permanent contact with our customers to monitor and support their transition planning. Specifically, we continue to embed environmental, social and climate change (ESCC) risk factors into the credit risk granting and monitoring process, through our operating model, 'The Climate Race'. This model is underpinned by the following pillars: strategic planning, risk management, loan approval and tracking, models and systems, and culture and governance. The timeline to implement it ends in late 2024, when we expect to have met supervisory expectations and to have rolled out a common strategy for the whole Group.

Mitigation

Policies are key to mitigating climate and environmental risk factors. Our ESCC policy sets out our public commitments and aims to support our strategy for sensitive and prohibited activities in the oil and gas, power generation and transmission, mining and metals sectors, and those derived from businesses dedicated to soft commodities.

We also have internal policies and frameworks that include climate and environmental factors in risk management. Our credit granting policies consider climate and environmental factors through our internal taxonomy (SFICS), credit committees, CIB rating and Corporate clients, collateral management, and other means. Moreover, we continue to use insurance and compensation funds to mitigate climate risks.

Throughout 2023, Grupo Santander has promoted a wide range of specific training on ESG matters, with the aim of raising employee awareness, both through internal continuous training and through international certifications for those professionals directly involved in this subject. In addition, we have best case studies, to establish the best practices regarding the integration of climate and environmental factors in the credit cycle.

Finally, another mitigation element is the multidisciplinary working group on ESG controversies, coordinated by the reputational risk function and where any matter that may have a reputational impact derived from said controversies is escalated.

Reporting

Transparent and regular reports to senior managers and stakeholders help us manage climate and environmental factors and comply with the law and supervisors' expectations.

Our reporting on climate and environmental risk management includes our Annual Report, the Climate Finance Report, the ICAAP exercise, and our Pillar III disclosures report.

Our approach to nature and biodiversity

At Grupo Santander we know some of our customers' endeavours may have bad consequences for the environment. That's why it's crucial we assess and mitigate whatever negative role our lending may play in harming nature.

We run two simultaneous exercises under an internal risk assessment methodology to assess environmental impact and dependency. We take a qualitative score to measure each sector's sensitivity to ecosystem services.

Our findings enable us to decide on the key parameters of risk assessments for customers whose activity may be affected by the degradation of ecosystem services and the destruction of the environmental and biodiversity-related assets in the coming years.

In 2023, we followed the TNFD (Taskforce on Nature-related Financial Disclosures) recommendations on environmental risk assessments to analyse our corporate portfolio. We focused on a heatmap to determine and compare the portfolio's physical and transition risks and the level of threat of potential environmental and biodiversity events that may have a negative impact on Santander's customers. These events can come from physical risks such as the organization's dependency on the environment; or from transition risks related to government measures, advances in technology, market shifts, litigation, and changes in customer preferences.

Main activities in 2023

- In 2023 we began our participation in the Fit-for-55 Climate Risk Scenario Analysis regulatory exercise, established by the EBA to verify the resilience of Financial Institutions to meet the climate objectives of the European Green Deal defined by the Commission. The exercise will also be extended to 2024.
- Advances in risk appetite, establishing new metrics and limits to support the bank's decarbonization strategy.
- Progress in our materiality assessment' methodology, with improvements in the scope of the existent methodology, including a more holistic view of how climate and environmental factors can impact the main risk types established in our corporate framework.
- Advances in the analysis of materiality in terms of biodiversity, through an internal assessment methodology of both impacts related to nature and its dependencies.
- Improvements in the identification, prevention and control of potential sources of greenwashing allegations.
- Progress in the implementation of the climate risk management model through the 'Climate Race' initiative to integrate ESCC factors into the credit risk granting process.
- Advances in the identification and management of physical risks, including improvements in data sources and their granularity, as well as their implementation in our monitoring tool (Klima).

Glossary of terms, acronyms and abbreviations

2023 AGM	Annual general shareholders' meeting of Banco Santander held on 31 March 2023 at second call
2024 AGM	Annual general shareholders' meeting of Banco Santander called for 21 or 22 March 2024 at first or second call, respectively
ABC	Anti-bribery and corruption
Act 10/2014	Act 10/2014, of 26 June, on the organization, supervision and solvency of credit institutions
Active customer	Those customers who comply with the minimum balance, income and/or transactionality requirements as defined according to the business area
ADR	American depositary receipts
ADS	American depositary shares
AEOI	Automatic Exchange of Information standard
AI	Artificial intelligence
ALCO	Assets and liabilities committee
ALM	Asset and liability management
AML	Anti-money laundering
API	Application programming interface
APM	Alternative performance measure
APS	Amherst Pierpont Securities
AuM	Assets under management
Banesto	Banco Español de Crédito, S.A.
BCMS	Business continuity management system
BCP	Business continuity plan
bn	Billion
BNPL	Buy-now-pay-later. Short-term financing that allows consumers to make purchases and pay for them at a future date
BoE	Bank of England
bps	Basis points
BRRD	Directive 2014/59/EU establishing a framework for the recovery and resolution of credit institutions and investment firms, as amended from time to time
Bylaws	Bylaws of Banco Santander, S.A.
CAE	Chief Audit Executive
CAGR	Compounded annual growth rate
CAO	Chief Accounting Officer
CARF	*Conselho Administrativo de Recursos Fiscais* (Administrative Council for Tax Appeals)
CBDC	Central bank digital currency
CCCA	Collective Commitment to Climate Action
CCO	Chief Compliance Officer
CCPS	Contingent convertible preferred stock
CCR	Counterparty credit risk
CCSM	Code of Conduct in Securities Markets
CDI	CREST Depositary Interests
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CFT	Combating the financing of terrorism

CHF	Swiss franc
CIB	Corporate & Investment Banking
CIO	Chief Information Officer
CNBV	*Comisión Nacional Bancaria y de Valores* (Mexican stock market authority)
CNMV	*Comisión Nacional del Mercado de Valores* (Spanish stock market authority)
CoE	Cost of equity
COFINS	*Contribuiçao para Financiamiento da Seguridade Social* (Contribution for Social Security Financing)
Constant euros	Excluding exchange rates impact
COSO	Committee of Sponsoring Organizations of the Treadway Commission
Costs in real terms	Costs excluding the effect of average inflation over the last twelve months
CPGF	Corporate product governance forum
CRD	Capital Requirements Directive
CRE	Credit risk equivalent
CRO	Chief Risk Officer
CRR	Regulation (EU) 575/2013 on prudential requirements for credit institutions and investment firms, as amended from time to time
CRS	Common reporting standards
CSA	Credit Support Annex
CSLL	*Contribuçao Social sobre o Lucro Liquido* (Social Contribution on Net Profit)
CSRBB	Credit spread risk in the banking book
CSRD	Corporate Sustainability Reporting Directive
CVA	Credit valuation adjustment
DCB	Digital Consumer Bank
Digital customer	Every consumer of commercial banking services who has logged on to their personal online banking and/or mobile banking in the last 30 days
DNSH	Do not significant harm
DORA	Digital Operational Resilience Act
DPO	Data protection officer
DTA	Deferred tax asset
DVA	Debt valuation adjustment
E&CC	Environmental and climate change related
EAD	Exposure at default
EBA	European Banking Authority
EBITDA	Earnings before interest, taxes, depreciation and amortization
ECB	European Central Bank
EIB	European Investment Bank
EIOPA	European Insurance and Occupational Pensions Authority
EMIR	European Market Infrastructure Regulation
eNPS	Employee Net Promoter Score is a method of measuring employee satisfaction
EOIR	Exchange Of Information on Request standard
EPC	Energy performance certificate
EPS	Earnings per share
Equal pay gap	The equal pay gap measures differences in remuneration between women and men in the same job at the same level
ESCC	Environmental, social and climate change related
ESG	Environmental, social and governance
ESMA	European Securities and Markets Authority
ESRS	European Sustainability Reporting Standards
EU	European Union
EV	Electric vehicle

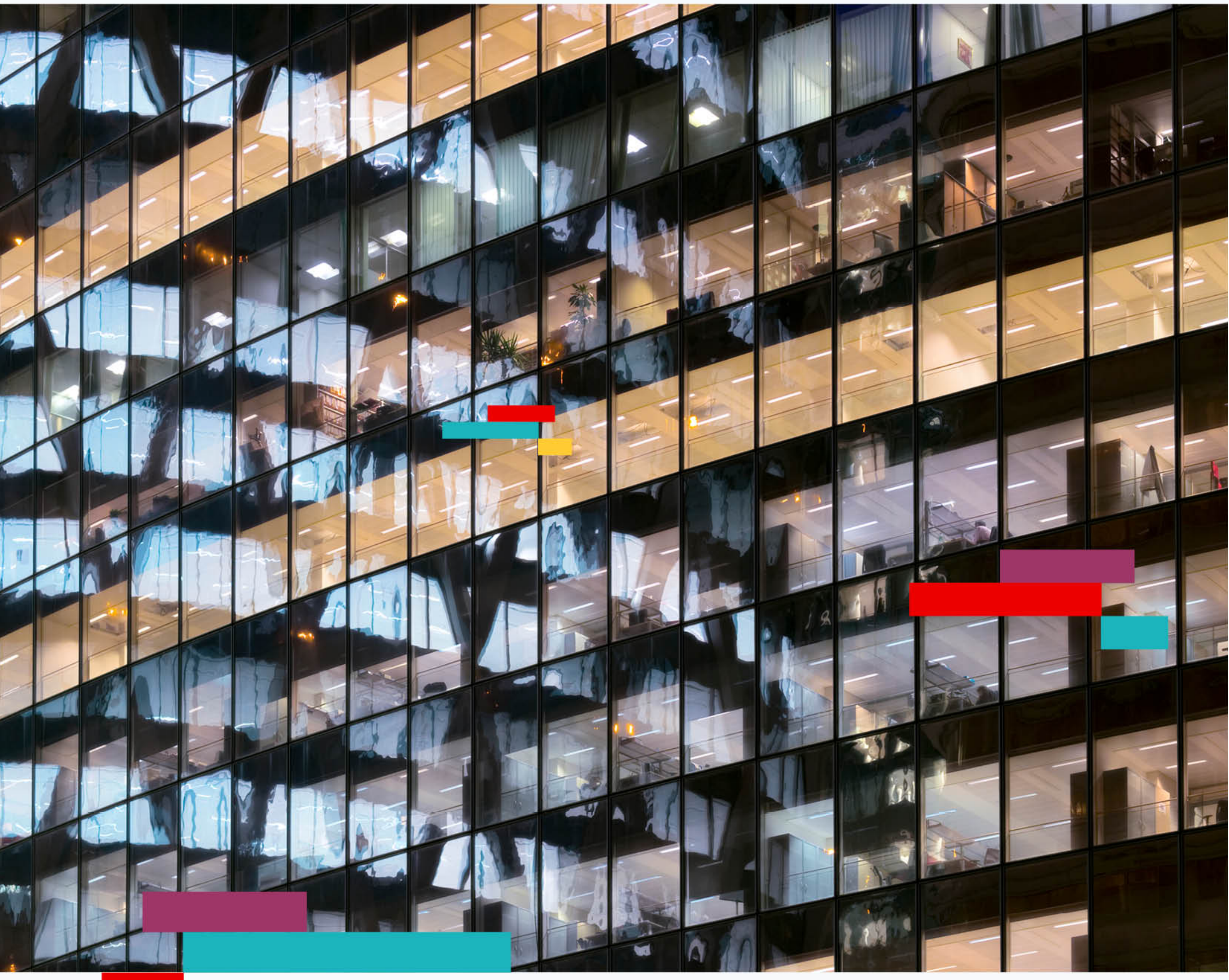
EVA	Economic value added
EVP	Employee value proposition
FATCA	Foreign Account Tax Compliance Act
FCA	Financial Conduct Authority
FCC	Financial crime compliance
Fed	Federal Reserve
Financial inclusion	Number of people who are unbanked, underbanked, in financial difficulty, with difficulties in accessing credit who, through the Group's products and services, are able to access the financial system or receive tailored finance. Financially underserved groups are defined as people who do not have a current account, or who have an account but obtained alternative (non-bank) financial services in the last 12 months. Beneficiaries of various programmes are included in the quantification process only once in the entire period. Only new empowered people are counted, taking as a base year those existing since 2019
First 2023 Buyback Programme	First buyback programme carried out within the 2023 shareholder remuneration policy
FL CET1	Fully-Loaded Common Equity Tier 1
FRTB	Fundamental review of the trading book
FSB	Financial Stability Board
FX	Foreign exchange
G-SIB	Global systemically important bank
GAR	Green asset ratio
GBP	Sterling pound
GCC	General Code of Conduct
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
Gender pay gap	The gender pay gap measures differences in remuneration between women and men in an organization, business, industry or the broader economy, irrespective of the type of work
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse gases
GMRA	Global master repurchase agreement
GRC	Governance, risk and compliance
GRI	Global Reporting Initiative
GSGM	Group-Subsidiary governance model
GTB	Global transactional banking
HQLA	High-quality liquid assets
HtC	Held to collect
ICAAP	Internal capital adequacy assessment process
ICAC	*Instituto de Contabilidad y Auditoría de Cuentas* (Institute of accounting and auditing)
ICE	Internal combustion engines
ICFR	Internal control over financial reporting
ICO	*Instituto Oficial de Crédito* (Spanish public credit institution)
ICS	Internal control system
Identified staff	Other executives whose activities may have a significant impact on the Group's risk profile
IEA	International Energy Agency
IFRS	International Financial Reporting Standards
ILAAP	Internal liquidity adequacy assessment process
IMA	International model approach
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPO	Initial Public Offering
IRB	Internal ratings-based

IRC	Incremental risk charge
IROs	Impacts, risks and opportunities
IRPJ	*Imposto sobre a Renda das Pessoas Jurídicas* (Corporate Income Tax)
IRRBB	Interest rate risk in the banking book
ISMA	International Securities Market Association
JPY	Japanese yen
KOR	Key operational risks
KPI	Key performance indicators
KRI	Key risk indicators
LCR	Liquidity coverage ratio
LDA	Loss distribution approach
LGD	Loss given default
LLP	Loan-loss provisions
Loyal customer	Active customers who receive most of their financial services from the Group according to the commercial segment to which they belong. Various loyalty customer levels have been defined taking profitability into account
LTD	Loan to deposit ratio. Ratio of loans and advances to customers over customer deposits
LTV	Loan to value ratio. Ratio of loans and advances to customers to the value of the asset used as collateral
LUC	*Land use change* (cambio en el uso del terreno)
M/LT	Medium-and long-term
Material Risk Taker	Other executives whose activities could have a significant impact on the Group's risk profile
MDA	Maximum distributable amount
MiFID	Markets in Financial Instruments Directive
MILRO	Money Laundering Reporting Officer
mn	Million
MRAP	Market risk advanced platform
MREL	Minimum requirements for own funds and eligible liabilities which are required under the BRRD
MSS	Minimum social safeguards
NACE	Nomenclature of Economic Activities of the European Union
NFR	Non-financial risk
NGFS	Network for greening the financial system
NGO	Non-governmental organization
NGO TMT	Non-governmental organization Trygg Mat Tracking
NII	Net interest income
NPL	Non-performing loans
NPS	Net Promoter Score
NSFR	Net stable funding ratio
NYSE	New York Stock Exchange
NZAMi	Net Zero Asset Managers initiative
NZBA	Net Zero Banking Alliance
NZE	Net zero emissions
OECD	Organization for Economic Cooperation and Development
OEM	Original equipment manufacturer
OTC	Over-the-counter
P&L	Profit and loss statement
PBT	Profit before taxes
PCAF	Partnership for Carbon Accounting Financials
PCAOB	Public Company Accounting Oversight Board
PD	Probability of default

PHEV	plug-in hybrid electric vehicle
PIS	*Programa de Integraçao Social* (Social Integration Programme)
POCI	Purchased or originated credit impaired
PoS	Point of sale
pp	Percentage point
PRA	Prudential Regulation Authority
PRB	Principles for responsible banking
PSD2	Payment Services Directive Two
RAS	Risk appetite statement
RBF	Responsible banking forum
RBSCC	Responsible banking, sustainability and culture committee
RCP	Representative concentration pathway
RCSA	Risk control self-assessment
Repos	Repurchase agreements
RoA	Return on assets
RoE	Return on equity
RoRWA	Return (net of tax) on risk weighted assets for a particular business
RoTE	Return on tangible equity
RPA	Risk profile assessment
RPK	Revenue passenger kilometers
RWA	Risk-weighted assets
S&P 500	Index maintained by S&P Dow Jones Indices LLC
SAM	Santander Asset Management
SBNA	Santander Bank N.A.
SBTi	Science Based Targets initiative
SBTN	Science Based Targets Network
SC USA	Santander Consumer US
SCF	Santander Consumer Finance
SCIB	Santander Corporate & Investment Banking
SDG	Sustainable development goals
SEC	Securities and Exchange Commission
Second 2023 Buyback Programme	Second share buyback programme charged against 2023 results
SFDR	Sustainable Finance Disclosure Regulation
SFICS	Sustainable finance and investment classification system
SHUSA	Santander Holding USA, Inc
SME	Small and medium enterprises
SOx	Sarbanes-Oxley Act of 2002
Spanish Corporate Governance Code	CNMV's Good Governance Code for Listed Companies
Spanish Securities Markets Act	Act 6/2023, of 17 March, on the Securities Markets and on Investment Services
SPC	Strategic commercial plans
SPF	Simple, Personal and Fair
SRB	European Single Resolution Board
SREP	Supervisory review and evaluation process
SRI	Socially responsible investment
SRT	Significant risk transfer
SSM	Single Supervisory Mechanism. The system of banking supervision in Europe. It is composed of the ECB and the competent supervisory authorities of the participating EU countries

STEM	Science, Technology, Engineering, Mathematics
STR	Suspicious transaction reporting
T&O	Technology & operations
TCFD	Task Force on Climate-related Financial Disclosures
TLAC	Total loss-absorbing capacity requirement which is required to be met under the CRD V package
TLTRO	Targeted longer-term refinancing operations
TNAV	Tangible net asset value
TNFD	Taskforce on Nature-related Financial Disclosure
TOM	Target operating model
TPV	Total payments volume
TRIM	Targeted review of internal models
TSR	Total shareholder return
UK	United Kingdom
UNEP FI	United Nations Environmental Programme Finance Initiative
US	United States of America
USD	United States dollar
VaR	Value at risk
VAT	Value added tax
vkm	Vehicle-kilometer
WBCSD	World Business Council for Sustainable Development
YoY	Year-on-Year

Auditor's report and consolidated financial statements



Auditor's report

This version of our report is a free translation of the original, which was prepared in Spanish. All possible care has been taken to ensure that the translation is an accurate representation of the original. However, in all matters of interpretation of information, views or opinions, the original language version of our report takes precedence over this translation.

Independent auditor's report on the consolidated annual accounts

To the shareholders of Banco Santander, S.A.

Report on the consolidated annual accounts

Opinion

We have audited the consolidated annual accounts of Banco Santander, S.A. (the Parent company) and its subsidiaries (the Group or Grupo Santander), which comprise the balance sheet as at 31 December 2023, and the income statement, statement of recognised income and expense, statement of changes in total equity, statement of cash flows and related notes, all consolidated, for the year then ended.

In our opinion, the accompanying consolidated annual accounts present fairly, in all material respects, the equity and financial position of the Group as at 31 December 2023, as well as its financial performance and cash flows, all consolidated, for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and other provisions of the financial reporting framework applicable in Spain.

Basis for opinion

We conducted our audit in accordance with legislation governing the audit practice in Spain. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated annual accounts* section of our report.

We are independent of the Group in accordance with the ethical requirements, including those relating to independence, that are relevant to our audit of the consolidated annual accounts in Spain, in accordance with legislation governing the audit practice. In this regard, we have not rendered services other than those relating to the audit of the accounts, and situations or circumstances have not arisen that, in accordance with the provisions of the aforementioned legislation, have affected our necessary independence such that it has been compromised.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated annual accounts of the current period. These matters were addressed in the context of our audit of the consolidated annual accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

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Inscrita en el R.O.A.C. con el número S0242 - NIF: B-79031290

Banco Santander, S.A. and its subsidiaries

Key audit matters	How our audit addressed the key audit matters

Estimation of impairment of financial assets at amortised cost - loans and advances to customers – for credit risk

The models used to estimate the expected credit losses along with the adaptations made in the context of the current environment, imply a high complexity by incorporating new estimates and judgments, especially those related to the management overlays made to the models to determine the expected credit loss in the current uncertain macroeconomic environment. These estimates require an elevated component of judgement by management and are one of the most significant and complex estimates in the preparation of the consolidated annual accounts as at December 31, 2023 included herein, therefore they have been considered one of the key audit matters.

The main judgements and assumptions used by management are the following:

- The estimation of the Probability of Default (PD) and Loss Given Default (LGD) parameters.
- Identification and classification of the staging criteria of loans and advances to customers.
- The definition and evaluation of management overlays to adapt the parameters estimated by the models to the conditions and current environment.
- The main assumptions used in the determination of provisions for expected credit losses estimated individually.

The Group's loans and advances to customers lending business is concentrated in nine key markets (Brazil, Chile, Spain, United States, Mexico, Poland, Portugal, United Kingdom and the consumer finance business in Europe).

We have obtained, in collaboration with our credit risk and economic forecasting experts, an understanding of management's process to estimate the impairment of financial assets at amortised cost - loans and advances to customers - over the estimation of impairment of financial assets assessed collectively and individually, including the potential climate risk impact, on which we have made inquiries to management as part of our understanding audit procedures.

In regards with the internal control, we have focused on testing the design and operating effectiveness of key controls over the following processes:

- Calculation methodologies, calibrations, monitoring and back-testing performed by management.
- Compliance with internal policies and functionality of the internal models approved by management.
- Reliability of the data sources used in the calculations and the suitability of the models taking into account the circumstances.
- Periodic review process of borrower to determine proper staging criteria.
- Review process over the calculation of the principal models and portfolios.
- Review process of the updates to the expected credit loss models made by management due to the conditions and current uncertain environment.
- Review process of the Internal Validation Unit over the models and their governance.
- Loan collateral assignment and valuation process associated with mortgage collateral operations, including collateral recovery process.

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Banco Santander, S.A. and its subsidiaries

Key audit matters	How our audit addressed the key audit matters
As a result, for the year ended 2023 the Group has recognised an amount of EUR 12,912 million of impairment of financial assets at amortised cost. Please refer to Notes 2, 10 and 54 of the consolidated annual accounts as at December 31, 2023.	In addition, in collaboration with our credit risk, economic forecasting and real estate valuation experts we performed the following tests of details: • Tests of principal models with respect to: i) calculation and segmentation methods; ii) methodology used for the estimation of the expected loss parameters; iii) data and main assumptions used, iv) staging criteria and v) scenario information and assumptions. • Evaluation of the management updates to the expected credit loss models made by management due to the conditions and current environment, if applicable. • Verification of the correct assignment of the loan collaterals, especially those that are classified as doubtful. • Reperformance of collective impairment losses based on the expected credit loss models parameters. • On a sample basis, evaluating individual credit files to determine the adequacy of their accounting and classification, discounted cash flows and, where appropriate, corresponding impairment. We have not identified exceptions outside of a reasonable range in the procedures outlined above.
Goodwill impairment assessment	
Goodwill impairment assessment is an exercise that requires a high degree of judgement and estimation therefore it has been considered one of the key audit matters. Due to their relevance to Grupo Santander, management monitors goodwill, particularly the Santander US Auto Cash Generating Unit (CGU) and assesses goodwill for impairment at the end of each annual reporting period or whenever there is any indication of impairment.	We have obtained, in collaboration with our valuation experts, an understanding of the process performed by management to assess the recoverable amount. In regards with the internal control, we have focused on testing the design and operating effectiveness of key controls over the following processes: • Definition of the Group's CGUs. • Methodology used by management for the goodwill impairment assessment, including the controls in place to supervise the process and the related approvals.

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Banco Santander, S.A. and its subsidiaries

Key audit matters	How our audit addressed the key audit matters
The assumptions used by management to estimate the value in use of the Cash-Generating Units (CGUs) includes financial projections, discount rates and perpetual growth rates. Such valuations, and some of these assumptions, are performed by management's experts. The amount of the Group's consolidated goodwill balance as at December 31, 2023 is EUR 14,017 million. Please refer to Notes 2 and 17 of the consolidated annual accounts as at December 31, 2023.	• Budgeting process on which the projections used in the discounted cash flow projections are based on. • Management's capability of reliable prediction through the comparison of previous years' estimations and impairment assessments with the actual results. • Review process of the reasonableness of the discount rates and perpetual growth rates used by management's experts. • Review process of the mathematical accuracy of the valuation models used by management experts. We also conducted tests of details to evaluate the discounted cash flow projections used by management in their estimation, including the budgetary compliance of the main CGUs and the evaluation of the reasonableness of the assumptions, such as discount rates and perpetual growth rates. In addition, we have performed, among other, the following tests of details: • Verifying the mathematical accuracy of the goodwill impairment test, including the discounted cash flow projections. • Comparing the fair value of the listed CGUs to their recoverable amount. • Obtain and evaluate the valuation reports regarding the goodwill impairment test performed by management's internal and external experts. • Verifying the adequacy of the information disclosed in the consolidated annual accounts in accordance with applicable regulations. We have not identified exceptions outside of a reasonable range in the procedures outlined above.

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Banco Santander, S.A. and its subsidiaries

Key audit matters	How our audit addressed the key audit matters
Litigation provisions and contingencies	
The Group is party to a range of tax, labour and legal proceedings - administrative and judicial - which primarily arise in the ordinary course of its operations. Also, there are other situations not yet subject to any judicial process that, however, have required the recognition of provisions, such as aspects of conduct with clients and the possible compensations that could be derived. These proceedings generally take a long period of time to run their course, giving rise to complex processes in accordance with the applicable legislation across the different jurisdictions where the Group operates, therefore it has been considered one of the key audit matters. Management decides when to recognize a provision for these contingent liabilities, based on an estimate using certain procedures consistent with the nature of the uncertainty of the obligations. Among these provisions, the most significant are those that cover the tax and labour proceedings in Brazil and those that cover the legal proceedings in Brazil, Spain, Poland, Mexico and United Kingdom. The amount of the litigation provisions and contingencies as at December 31, 2023 is EUR 4,038 million. Please refer to Notes 2 and 25 of the consolidated annual accounts as at December 31, 2023.	We have obtained, in collaboration with our experts, an understanding of the estimation process performed by management for litigation provisions and contingencies. In regards with the internal control, we have focused on testing the design and operating effectiveness of key controls over the following processes: • Additions, logs and updates over the completeness of the legal matters in the systems. • Accuracy of the key data, maintained in the systems, used in the calculation of the litigations provisions and contingencies. • Assessment of the criteria used to estimate the expected losses from litigation provisions and contingencies and evaluation of the adequacy over the calculation of the provisions for regulatory, legal or tax procedures and their recognition. • Reconciliation between the minutes of the tax inspections and the amounts accounted for. In addition, we have performed the following tests of details: • Analysis for reasonableness of the expected outcomes of the most significant tax, labour and legal proceedings. • Assessment of possible contingencies relating to compliance with the tax obligations for all the years open to inspection, of the communications with the supervisory bodies and analysis of the ongoing supervisory inspections. • Sending, obtaining and analysing, if any, audit confirmation letters from external and internal lawyers and external tax advisors who work with the Group or performing alternative procedures if confirmations are not received. • Analysis of the recognition and reasonableness of the provisions recorded.

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Banco Santander, S.A. and its subsidiaries

Key audit matters	How our audit addressed the key audit matters
	• Verifying the adequacy of the information disclosed in the consolidated annual accounts in accordance with applicable regulations. In the procedures described above, no exceptions were identified outside of a reasonable range.
Information systems	
The Group's financial information is highly dependent on information technology (IT) systems in the geographies where it operates, therefore an adequate control of these systems is crucial to ensuring correct data processing. In this context, it is vital to evaluate aspects such as the organization of the Group's Technology and Operations department, controls over software maintenance and development, physical and logical security controls, and controls over computer operations, therefore it has been considered one of the key audit matters. In this respect, management continues monitoring the internal controls over IT systems, including the access controls that support the Group's technology processes.	We have evaluated, in collaboration with our IT system specialists, the internal controls over the IT systems, databases and applications that support the Group's financial reporting. For this purpose, we have performed procedures over the design and operating effectiveness of key controls and test of details related to: • The function of the IT governance framework. • Access and logical security controls over the applications, operating systems and databases that support the relevant financial information. • Application development and change management. • Maintenance of computer operations. In addition, considering the monitoring carried out by management over its internal controls over IT systems, our approach and audit plan included the following aspects: • Evaluation of the monitoring made by management as part of its internal control environment of the Group. • Testing of the design and operating effectiveness of the controls implemented by management, including access controls. In the procedures described above, no relevant exceptions were identified related to this matter.

Other information: Consolidated Directors' report

Other information comprises only the consolidated Directors' report for the 2023 financial year, the formulation of which is the responsibility of the Parent company's directors and does not form an integral part of the consolidated annual accounts.

Our audit opinion on the consolidated annual accounts does not cover the consolidated Directors' report. Our responsibility regarding the consolidated Directors' report, in accordance with legislation governing the audit practice, is to:

a) Verify only that the consolidated statement of non-financial information, certain information included in the Annual Corporate Governance Report and the Annual Report on Directors' Remuneration, as referred to in the Auditing Act, have been provided in the manner required by applicable legislation and, if not, we are obliged to disclose that fact.

b) Evaluate and report on the consistency between the rest of the information included in the consolidated Directors' report and the consolidated annual accounts as a result of our knowledge of the Group obtained during the audit of the aforementioned financial statements, as well as to evaluate and report on whether the content and presentation of this part of the consolidated Directors' report is in accordance with applicable regulations. If, based on the work we have performed, we conclude that material misstatements exist, we are required to report that fact.

On the basis of the work performed, as described above, we have verified that the information mentioned in section a) above has been provided in the manner required by applicable legislation and that the rest of the information contained in the consolidated Directors' report is consistent with that contained in the consolidated annual accounts for the 2023 financial year, and its content and presentation are in accordance with applicable regulations.

Responsibility of the directors and the audit committee for the consolidated annual accounts

The Parent company's directors are responsible for the preparation of the accompanying consolidated annual accounts, such that they fairly present the consolidated equity, financial position and financial performance of the Group, in accordance with IFRS-EU and other provisions of the financial reporting framework applicable to the Group in Spain, and for such internal control as the aforementioned directors determine is necessary to enable the preparation of consolidated annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated annual accounts, the Parent company's directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the aforementioned directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Parent company's audit committee is responsible for overseeing the process of preparation and presentation of the consolidated annual accounts.

Auditor's responsibilities for the audit of the consolidated annual accounts

Our objectives are to obtain reasonable assurance about whether the consolidated annual accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with legislation governing the audit practice in Spain will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated annual accounts.

As part of an audit in accordance with legislation governing the audit practice in Spain, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Parent company's directors.

- Conclude on the appropriateness of the Parent company's directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated annual accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated annual accounts, including the disclosures, and whether the consolidated annual accounts represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated annual accounts. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Parent company's audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Parent company's audit committee with a statement that we have complied with relevant ethical requirements, including those relating to independence, and we communicate with the aforementioned those matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Parent company's audit committee, we determine those matters that were of most significance in the audit of the consolidated annual accounts of the current period and are therefore the key audit matters.

We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

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Banco Santander, S.A. and its subsidiaries

Report on other legal and regulatory requirements

European single electronic format

We have examined the digital files of the European single electronic format (ESEF) of Banco Santander, S.A. and its subsidiaries for the 2023 financial year that comprise an XHTML file which includes the consolidated annual accounts for the financial year and XBRL files with tagging performed by the entity, which will form part of the annual financial report.

The directors of Banco Santander, S.A. are responsible for presenting the annual financial report for 2023 financial year in accordance with the formatting and markup requirements established in the Delegated Regulation (EU) 2019/815 of 17 December 2018 of the European Commission (hereinafter the ESEF Regulation).

Our responsibility is to examine the digital files prepared by the Parent company's directors, in accordance with legislation governing the audit practice in Spain. This legislation requires that we plan and execute our audit procedures in order to verify whether the content of the consolidated annual accounts included in the aforementioned digital files completely agrees with that of the consolidated annual accounts that we have audited, and whether the format and markup of these accounts and of the aforementioned files has been effected, in all material respects, in accordance with the requirements established in the ESEF Regulation.

In our opinion, the digital files examined completely agree with the audited consolidated annual accounts, and these are presented and have been marked up, in all material respects, in accordance with the requirements established in the ESEF Regulation.

Report to the audit committee of the Parent company

The opinion expressed in this report is consistent with the content of our additional report to the audit committee of the Parent company dated 19 February 2024.

Appointment period

The General Ordinary Shareholders' Meeting held on 31 March 2023 appointed us as auditors of the Group for a period of one year, for the year ended 31 December 2023.

Previously, we were appointed by resolution of the General Ordinary Shareholders' Meeting for a period of three years and we have audited the accounts continuously since the year ended 31 December 2016.

Services provided

Services provided to the Group for services other than the audit of the accounts are disclosed in note 47 to the consolidated annual accounts.

PricewaterhouseCoopers Auditores, S.L. (S0242)

Julián González Gómez (20179)

19 February 2024

Consolidated financial statements

Translation of the consolidated annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to the Group in Spain (see Notes 1 and 55). In the event of a discrepancy, the Spanish- version prevails.

Grupo Santander

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2023, 2022 AND 2021

EUR million

ASSETS	Note	2023	2022[A]	2021[A]
CASH, CASH BALANCES AT CENTRAL BANKS AND OTHER DEPOSITS ON DEMAND		**220,342**	**223,073**	**210,689**
FINANCIAL ASSETS HELD FOR TRADING		**176,921**	**156,118**	**116,953**
Derivatives	9 and 11	56,328	67,002	54,292
Equity instruments	8	15,057	10,066	15,077
Debt securities	7	62,124	41,403	26,750
Loans and advances		43,412	37,647	20,834
Central banks	6	17,717	11,595	3,608
Credit institutions	6	14,061	16,502	10,397
Customers	10	11,634	9,550	6,829
NON-TRADING FINANCIAL ASSETS MANDATORILY AT FAIR VALUE THROUGH PROFIT OR LOSS		**5,910**	**5,713**	**5,536**
Equity instruments	8	4,068	3,711	4,042
Debt securities	7	860	1,134	957
Loans and advances		982	868	537
Central banks	6	—	—	—
Credit institutions	6	—	—	—
Customers	10	982	868	537
FINANCIAL ASSETS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS		**9,773**	**8,989**	**15,957**
Debt securities	7	3,095	2,542	2,516
Loans and advances		6,678	6,447	13,441
Central banks	6	—	—	—
Credit institutions	6	459	673	3,152
Customers	10	6,219	5,774	10,289
FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME		**83,308**	**85,239**	**108,038**
Equity instruments	8	1,761	1,941	2,453
Debt securities	7	73,565	75,083	97,922
Loans and advances		7,982	8,215	7,663
Central banks	6	—	—	—
Credit institutions	6	313	—	—
Customers	10	7,669	8,215	7,663
FINANCIAL ASSETS AT AMORTIZED COST		**1,191,403**	**1,147,044**	**1,037,898**
Debt securities	7	103,559	73,554	35,708
Loans and advances		1,087,844	1,073,490	1,002,190
Central banks	6	20,082	15,375	15,657
Credit institutions	6	57,917	46,518	39,169
Customers	10	1,009,845	1,011,597	947,364
HEDGING DERIVATIVES	**36**	**5,297**	**8,069**	**4,761**
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	**36**	**(788)**	**(3,749)**	**410**

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2023, 2022 AND 2021

EUR million

ASSETS	Note	2023	2022[A]	2021[A]
INVESTMENTS	**13**	**7,646**	**7,615**	**7,525**
Joint venture entities		1,964	1,981	1,692
Associated entities		5,682	5,634	5,833
ASSETS UNDER REINSURANCE CONTRACTS		**237**	**308**	**283**
TANGIBLE ASSETS		**33,882**	**34,073**	**33,321**
Property, plant and equipment	16	32,926	33,044	32,342
For own-use		13,408	13,489	13,259
Leased out under an operating lease		19,518	19,555	19,083
Investment properties	16	956	1,029	979
Of which leased out under an operating lease		*851*	*804*	*839*
INTANGIBLE ASSETS		**19,871**	**18,645**	**16,584**
Goodwill	17	14,017	13,741	12,713
Other intangible assets	18	5,854	4,904	3,871
TAX ASSETS		**31,390**	**29,987**	**25,196**
Current tax assets		10,623	9,200	5,756
Deferred tax assets	27	20,767	20,787	19,440
OTHER ASSETS		**8,856**	**10,082**	**8,595**
Insurance contracts linked to pensions	14	93	104	149
Inventories		7	11	6
Other	19	8,756	9,967	8,440
NON-CURRENT ASSETS HELD FOR SALE	**12**	**3,014**	**3,453**	**4,089**
TOTAL ASSETS		**1,797,062**	**1,734,659**	**1,595,835**

A. Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 55 and appendices are an integral part of the consolidated balance sheet as of 31 December 2023.

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2023, 2022 AND 2021

EUR million

LIABILITIES	Note	2023	2022[A]	2021[A]
FINANCIAL LIABILITIES HELD FOR TRADING		**122,270**	**115,185**	**79,469**
Derivatives	9 and 11	50,589	64,891	53,566
Short positions	9	26,174	22,515	12,236
Deposits		45,507	27,779	13,667
Central banks	20	7,808	5,757	1,038
Credit institutions	20	17,862	9,796	6,488
Customers	21	19,837	12,226	6,141
Marketable debt securities	22	—	—	—
Other financial liabilities	24	—	—	—
FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS		**40,367**	**40,268**	**14,943**
Deposits		34,996	34,841	9,489
Central banks	20	1,209	1,740	607
Credit institutions	20	1,735	1,958	1,064
Customers	21	32,052	31,143	7,818
Marketable debt securities	22	5,371	5,427	5,454
Other financial liabilities	24	—	—	—
Memorandum items: subordinated liabilities	23	—	—	—
FINANCIAL LIABILITIES AT AMORTIZED COST		**1,468,703**	**1,423,858**	**1,349,169**
Deposits		1,125,308	1,111,887	1,078,587
Central banks	20	48,782	76,952	139,757
Credit institutions	20	81,246	68,582	52,235
Customers	21	995,280	966,353	886,595
Marketable debt securities	22	303,208	274,912	240,709
Other financial liabilities	24	40,187	37,059	29,873
Memorandum items: subordinated liabilities	23	*30,912*	*25,926*	*26,196*
HEDGING DERIVATIVES	**36**	**7,656**	**9,228**	**5,463**
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	**36**	**55**	**(117)**	**248**
LIABILITIES UNDER INSURANCE CONTRACTS	**15**	**17,799**	**16,426**	**18,560**
PROVISIONS	**25**	**8,441**	**8,149**	**9,583**
Pensions and other post-retirement obligations		2,225	2,392	3,185
Other long term employee benefits		880	950	1,242
Taxes and other legal contingencies		2,715	2,074	1,996
Contingent liabilities and commitments		702	734	733
Other provisions		1,919	1,999	2,427
TAX LIABILITIES		**9,932**	**9,468**	**8,649**
Current tax liabilities		3,846	3,040	2,187
Deferred tax liabilities	27	6,086	6,428	6,462
OTHER LIABILITIES	**26**	**17,598**	**14,609**	**12,698**
LIABILITIES ASSOCIATED WITH NON-CURRENT ASSETS HELD FOR SALE		**—**	**—**	**—**
TOTAL LIABILITIES		**1,692,821**	**1,637,074**	**1,498,782**

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2023, 2022 AND 2021

EUR million

EQUITY	Note	2023	2022[A]	2021[A]
SHAREHOLDERS´ EQUITY	**30**	**130,443**	**124,732**	**119,649**
CAPITAL	**31**	**8,092**	**8,397**	**8,670**
Called up paid capital		8,092	8,397	8,670
Unpaid capital which has been called up		—	—	—
SHARE PREMIUM	**32**	**44,373**	**46,273**	**47,979**
EQUITY INSTRUMENTS ISSUED OTHER THAN CAPITAL	**34**	**720**	**688**	**658**
Equity component of the compound financial instrument		—	—	—
Other equity instruments issued		720	688	658
OTHER EQUITY	**34**	**195**	**175**	**152**
ACCUMULATED RETAINED EARNINGS	**33**	**74,114**	**66,702**	**60,273**
REVALUATION RESERVES	**33**	**—**	**—**	**—**
OTHER RESERVES	**33**	**(5,751)**	**(5,454)**	**(4,477)**
Reserves or accumulated losses in joint venture investments		1,762	1,553	1,572
Others		(7,513)	(7,007)	(6,049)
(-) OWN SHARES	**34**	**(1,078)**	**(675)**	**(894)**
PROFIT OR LOSS ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT		**11,076**	**9,605**	**8,124**
(-) INTERIM DIVIDENDS	**4**	**(1,298)**	**(979)**	**(836)**
OTHER COMPREHENSIVE INCOME OR LOSS	**29**	**(35,020)**	**(35,628)**	**(32,719)**
Items that will not be reclassified to profit or loss		(5,212)	(4,635)	(4,241)
Items that may be reclassified to profit or loss		(29,808)	(30,993)	(28,478)
NON-CONTROLLING INTEREST	**28**	**8,818**	**8,481**	**10,123**
Other comprehensive income or loss		(1,559)	(1,856)	(2,104)
Other items		10,377	10,337	12,227
TOTAL EQUITY		**104,241**	**97,585**	**97,053**
TOTAL LIABILITIES AND EQUITY		**1,797,062**	**1,734,659**	**1,595,835**
MEMORANDUM ITEMS: OFF BALANCE SHEET AMOUNTS	**35**			
Loan commitments granted		279,589	274,075	262,737
Financial guarantees granted		15,435	12,856	10,758
Other commitments granted		113,273	92,672	75,733

A. Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 55 and appendices are an integral part of the consolidated balance sheet as of 31 December 2023.

CONSOLIDATED INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER 2023, 2022 AND 2021

EUR million

		(Debit) Credit		
	Note	**2023**	**2022[A]**	**2021[A]**
Interest income	38	105,252	71,430	46,463
Financial assets at fair value through other comprehensive income		*5,995*	*5,479*	*2,582*
Financial assets at amortized cost		*77,701*	*59,214*	*40,471*
Other interest income		*21,556*	*6,737*	*3,410*
Interest expense	39	(61,991)	(32,811)	(13,093)
Interest income/(charges)		**43,261**	**38,619**	**33,370**
Dividend income	40	571	488	513
Income from companies accounted for using the equity method	13	613	702	432
Commission income	41	16,321	15,867	13,812
Commission expense	42	(4,264)	(4,077)	(3,310)
Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net	43	96	149	628
Financial assets at amortized cost		*(3)*	*34*	*89*
Other financial assets and liabilities		*99*	*115*	*539*
Gain or losses on financial assets and liabilities held for trading, net	43	2,322	842	1,141
Reclassification of financial assets at fair value through other comprehensive income		—	—	—
Reclassification of financial assets at amortized cost		—	—	—
Other gains (losses)		*2,322*	*842*	*1,141*
Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss	43	204	162	132
Reclassification of financial assets at fair value through other comprehensive income		—	—	—
Reclassification of financial assets at amortized cost		—	—	—
Other gains (losses)		*204*	*162*	*132*
Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net	43	(93)	968	270
Gain or losses from hedge accounting, net	43	63	74	(46)
Exchange differences, net	44	41	(542)	(562)
Other operating income	45	1,104	1,510	2,255
Other operating expenses	45	(2,827)	(2,803)	(2,442)
Income from insurance and reinsurance contracts		460	2,698	1,516
Expenses from insurance and reinsurance contracts		(449)	(2,540)	(1,305)

CONSOLIDATED INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER 2023, 2022 AND 2021

EUR million

		(Debit) Credit		
	Note	2023	2022[A]	2021[A]
Total income		**57,423**	**52,117**	**46,404**
Administrative expenses		(22,241)	(20,918)	(18,659)
Staff costs	*46*	*(13,726)*	*(12,547)*	*(11,216)*
Other general administrative expenses	*47*	*(8,515)*	*(8,371)*	*(7,443)*
Depreciation and amortisation cost	16 and 18	(3,184)	(2,985)	(2,756)
Provisions or reversal of provisions, net	25	(2,678)	(1,881)	(2,814)
Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes		(12,956)	(10,863)	(7,407)
Financial assets at fair value through other comprehensive income		*(44)*	*(7)*	*(19)*
Financial assets at amortized cost	*10*	*(12,912)*	*(10,856)*	*(7,388)*
Impairment or reversal of impairment of investments in subsidiaries, joint ventures and associates, net	17 and 18	—	—	—
Impairment or reversal of impairment on non-financial assets, net		(237)	(239)	(231)
Tangible assets	*16*	*(136)*	*(140)*	*(150)*
Intangible assets	*17 and 18*	*(73)*	*(75)*	*(71)*
Others		*(28)*	*(24)*	*(10)*
Gain or losses on non-financial assets and investments, net	48	313	12	53
Negative goodwill recognized in results		39	—	—
Gains or losses on non-current assets held for sale not classified as discontinued operations	49	(20)	7	(43)
Operating profit/(loss) before tax		**16,459**	**15,250**	**14,547**
Tax expense or income from continuing operations	27	(4,276)	(4,486)	(4,894)
Profit/(loss) from continuing operations		**12,183**	**10,764**	**9,653**
Profit/(loss) after tax from discontinued operations	37	—	—	—
Profit/(loss) for the year		**12,183**	**10,764**	**9,653**
Profit/(loss) attributable to non-controlling interests	28	1,107	1,159	1,529
Profit/(loss) attributable to the parent		11,076	9,605	8,124
Earnings/(losses) per share				
Basic	4	0.654	0.539	0.438
Diluted	4	0.651	0.537	0.436

A. Presented for comparison purposes only (note 1.d).
The accompanying notes 1 to 55 and appendices are an integral part of the consolidated income statement for the year ended 31 December 2023.

CONSOLIDATED STATEMENTS OF RECOGNISED INCOME AND EXPENSE FOR THE YEARS ENDED 31 DECEMBER 2023, 2022 AND 2021

EUR million

	Note	2023	2022[A]	2021[A]
CONSOLIDATED PROFIT/(LOSS) FOR THE YEAR		**12,183**	**10,764**	**9,653**
OTHER RECOGNISED INCOME AND EXPENSE		**614**	**(2,660)**	**(220)**
Items that will not be reclassified to profit or loss	**29**	**(964)**	**(399)**	**754**
Actuarial gains and losses on defined benefit pension plans		(1,038)	(56)	1,567
Non-current assets held for sale		—	—	—
Other recognised income and expense of investments in subsidiaries, joint ventures and associates		(5)	17	(1)
Changes in the fair value of equity instruments measured at fair value through other comprehensive income		(162)	(497)	(171)
Gains or losses resulting from the accounting for hedges of equity instruments measured at fair value through other comprehensive income, net	36	—	—	—
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedged item)		*(29)*	*18*	*117*
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedging instrument)		*29*	*(18)*	*(117)*
Changes in the fair value of financial liabilities at fair value through profit or loss attributable to changes in credit risk		(120)	88	(99)
Income tax relating to items that will not be reclassified		361	49	(542)
Items that may be reclassified to profit or loss	**29**	**1,578**	**(2,261)**	**(974)**
Hedges of net investments in foreign operations (effective portion)	36	(1,888)	(2,467)	(1,159)
Revaluation gains (losses)		*(1,888)*	*(2,467)*	*(1,159)*
Amounts transferred to income statement		—	—	—
Other reclassifications		—	—	—
Exchanges differences		1,017	3,658	3,082
Revaluation gains (losses)		*1,009*	*3,658*	*3,082*
Amounts transferred to income statement		*8*	—	—
Other reclassifications		—	—	—
Cash flow hedges (effective portion)	36	2,592	(3,016)	(938)
Revaluation gains (losses)		*(30)*	*(1,762)*	*(1,739)*
Amounts transferred to income statement		*2,622*	*(1,254)*	*801*
Transferred to initial carrying amount of hedged items		—	—	—
Other reclassifications		—	—	—
Hedging instruments (items not designated)	36	—	—	—
Revaluation gains (losses)		—	—	—
Amounts transferred to income statement		—	—	—
Other reclassifications		—	—	—
Debt instruments at fair value with changes in other comprehensive income		858	(2,086)	(3,250)
Revaluation gains (losses)	*29*	*852*	*(2,591)*	*(3,063)*
Amounts transferred to income statement		*6*	*(99)*	*(545)*
Other reclassifications		—	*604*	*358*
Non-current assets held for sale		—	—	—
Revaluation gains (losses)		—	—	—
Amounts transferred to income statement		—	—	—
Other reclassifications		—	—	—
Share of other recognised income and expense of investments		19	85	19
Income tax relating to items that may be reclassified to profit or loss		(1,020)	1,565	1,272
Total recognised income and expenses for the year		**12,797**	**8,104**	**9,433**
Attributable to non-controlling interests		1,401	1,410	1,255
Attributable to the parent		11,396	6,694	8,178

A. Presented for comparison purposes only (note 1.d).
The accompanying notes 1 to 55 and appendices are an integral part of the consolidated statement of recognised income and expense for the year ended 31 December 2023.

CONSOLIDATED STATEMENTS OF CHANGES IN TOTAL EQUITY FOR THE YEARS ENDED 31 DECEMBER 2023, 2022 AND 2021

EUR million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings
Balance at 31 December 2022[A]	**8,397**	**46,273**	**688**	**175**	**66,702**
Adjustments due to errors	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—
Opening balance at 1 January 2023[A]	**8,397**	**46,273**	**688**	**175**	**66,702**
Total recognised income and expense	**—**	**—**	**—**	**—**	**—**
Other changes in equity	**(305)**	**(1,900)**	**32**	**20**	**7,412**
Issuance of ordinary shares	—	—	—	—	—
Issuance of preferred shares	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—
Capital reduction	(305)	(1,900)	—	—	—
Dividends	—	—	—	—	(963)
Purchase of equity instruments	—	—	—	—	—
Disposal of equity instruments	—	—	—	—	—
Transfer from equity to liabilities	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—
Transfers between equity items	—	—	—	—	8,375
Increases (decreases) due to business combinations	—	—	—	—	—
Share-based payment	—	—	—	(60)	—
Others increases or (-) decreases in equity	—	—	32	80	—
Balance at 31 December 2023	**8,092**	**44,373**	**720**	**195**	**74,114**

A. Presented for comparison purposes only (note 1.d).
The accompanying notes 1 to 55 and appendices are an integral part of the consolidated statement of changes in total equity for the year ended 31 December 2023.

						Non-controlling interest		
Revaluation reserves	**Other reserves**	**(-) Own shares**	**Profit attributable to shareholders of the parent**	**(-) Interim dividends**	**Other comprehensive income**	**Other comprehensive income**	**Other items**	**Total**
—	**(5,454)**	**(675)**	**9,605**	**(979)**	**(35,628)**	**(1,856)**	**10,337**	**97,585**
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	**(5,454)**	**(675)**	**9,605**	**(979)**	**(35,628)**	**(1,856)**	**10,337**	**97,585**
—	**—**	**—**	**11,076**	**—**	**320**	**294**	**1,107**	**12,797**
—	**(297)**	**(403)**	**(9,605)**	**(319)**	**288**	**3**	**(1,067)**	**(6,141)**
—	—	—	—	—	—	—	1	1
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	305	1,900	—	—	—	—	—	—
—	—	—	—	(1,298)	—	—	(748)	(3,009)
—	—	(3,109)	—	—	—	—	—	(3,109)
—	13	806	—	—	—	—	—	819
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	(37)	—	(9,605)	979	288	3	(3)	—
—	—	—	—	—	—	—	(364)	(364)
—	—	—	—	—	—	—	—	(60)
—	(578)	—	—	—	—	—	47	(419)
—	**(5,751)**	**(1,078)**	**11,076**	**(1,298)**	**(35,020)**	**(1,559)**	**10,377**	**104,241**

CONSOLIDATED STATEMENTS OF CHANGES IN TOTAL EQUITY FOR THE YEARS ENDED 31 DECEMBER 2023, 2022 AND 2021

EUR million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings
Balance at 31 December 2021[A]	**8,670**	**47,979**	**658**	**152**	**60,273**
Adjustments due to errors	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—
Opening balance at 1 January 2022[A]	**8,670**	**47,979**	**658**	**152**	**60,273**
Total recognised income and expense	**—**	**—**	**—**	**—**	**—**
Other changes in equity	**(273)**	**(1,706)**	**30**	**23**	**6,429**
Issuance of ordinary shares	—	—	—	—	—
Issuance of preferred shares	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—
Capital reduction	(273)	(1,706)	—	—	—
Dividends	—	—	—	—	(869)
Purchase of equity instruments	—	—	—	—	—
Disposal of equity instruments	—	—	—	—	—
Transfer from equity to liabilities	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—
Transfers between equity items	—	—	—	—	7,298
Increases (decreases) due to business combinations	—	—	—	—	—
Share-based payment	—	—	—	(49)	—
Others increases or (-) decreases in equity	—	—	30	72	—
Balance at 31 December 2022[A]	**8,397**	**46,273**	**688**	**175**	**66,702**

A. Presented for comparison purposes only (note 1.d).
The accompanying notes 1 to 55 and appendices are an integral part of the consolidated statement of changes in total equity for the year ended 31 December 2023.

Revaluation reserves	Other reserves	(-) Own shares	Profit attributable to shareholders of the parent	(-) Interim dividends	Other comprehensive income	Non-controlling interest: Other comprehensive income	Non-controlling interest: Other items	Total
—	**(4,477)**	**(894)**	**8,124**	**(836)**	**(32,719)**	**(2,104)**	**12,227**	**97,053**
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	**(4,477)**	**(894)**	**8,124**	**(836)**	**(32,719)**	**(2,104)**	**12,227**	**97,053**
—	**—**	**—**	**9,605**	**—**	**(2,911)**	**251**	**1,159**	**8,104**
—	**(977)**	**219**	**(8,124)**	**(143)**	**2**	**(3)**	**(3,049)**	**(7,572)**
—	—	—	—	—	—	—	9	9
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	(756)	(756)
—	—	—	—	—	—	—	—	—
—	273	1,706	—	—	—	—	—	—
—	—	—	—	(979)	—	—	(500)	(2,348)
—	—	(2,050)	—	—	—	—	—	(2,050)
—	7	563	—	—	—	—	—	570
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	(12)	—	(8,124)	836	2	(3)	3	—
—	—	—	—	—	—	—	31	31
—	—	—	—	—	—	—	—	(49)
—	(1,245)	—	—	—	—	—	(1,836)	(2,979)
—	**(5,454)**	**(675)**	**9,605**	**(979)**	**(35,628)**	**(1,856)**	**10,337**	**97,585**

CONSOLIDATED STATEMENTS OF CHANGES IN TOTAL EQUITY FOR THE YEARS ENDED 31 DECEMBER 2023, 2022 AND 2021

EUR million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings
Balance at 31 December 2020[A]	**8,670**	**52,013**	**627**	**163**	**65,583**
Adjustments due to errors	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—
Opening balance at 1 January 2021[A]	**8,670**	**52,013**	**627**	**163**	**65,583**
Total recognised income and expense	**—**	**—**	**—**	**—**	**—**
Other changes in equity	**—**	**(4,034)**	**31**	**(11)**	**(5,310)**
Issuance of ordinary shares	—	—	—	—	—
Issuance of preferred shares	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—
Capital reduction	—	—	—	—	—
Dividends	—	(477)	—	—	—
Purchase of equity instruments	—	—	—	—	—
Disposal of equity instruments	—	—	—	—	—
Transfer from equity to liabilities	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—
Transfers between equity items	—	(3,557)	—	—	(5,310)
Increases (decreases) due to business combinations	—	—	—	—	—
Share-based payment	—	—	—	(62)	—
Others increases or (-) decreases in equity	—	—	31	51	—
Balance at 31 December 2021[A]	**8,670**	**47,979**	**658**	**152**	**60,273**

A. Presented for comparison purposes only (note 1.d).
The accompanying notes 1 to 55 and appendices are an integral part of the consolidated statement of changes in total equity for the year ended 31 December 2023.

					Non-controlling interest			
Revaluation reserves	**Other reserves**	**(-) Own shares**	**Profit attributable to shareholders of the parent**	**(-) Interim dividends**	**Other comprehensive income**	**Other comprehensive income**	**Other items**	**Total**
—	**(3,596)**	**(69)**	**(8,771)**	**—**	**(33,144)**	**(1,800)**	**11,646**	**91,322**
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	**(3,596)**	**(69)**	**(8,771)**	**—**	**(33,144)**	**(1,800)**	**11,646**	**91,322**
—	**—**	**—**	**8,124**	**—**	**54**	**(274)**	**1,529**	**9,433**
—	**(881)**	**(825)**	**8,771**	**(836)**	**371**	**(30)**	**(948)**	**(3,702)**
—	—	—	—	—	—	—	17	17
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	(836)	—	—	(648)	(1,961)
—	—	(1,645)	—	—	—	—	—	(1,645)
—	23	820	—	—	—	—	—	843
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	(275)	—	8,771	—	371	(30)	30	—
—	—	—	—	—	—	—	(5)	(5)
—	—	—	—	—	—	—	—	(62)
—	(629)	—	—	—	—	—	(342)	(889)
—	**(4,477)**	**(894)**	**8,124**	**(836)**	**(32,719)**	**(2,104)**	**12,227**	**97,053**

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED 2023, 2022 AND 2021

EUR million

	Note	2023	2022[A]	2021[A]
A. CASH FLOWS FROM OPERATING ACTIVITIES		**5,015**	**27,706**	**56,691**
Profit or loss for the year		**12,183**	**10,764**	**9,653**
Adjustments made to obtain the cash flows from operating activities		**26,948**	**23,970**	**21,363**
Depreciation and amortisation cost		*3,184*	*2,985*	*2,756*
Other adjustments		*23,764*	*20,985*	*18,607*
Net increase/(decrease) in operating assets		**74,982**	**108,774**	**27,258**
Financial assets held-for-trading		*18,332*	*30,837*	*2,064*
Non-trading financial assets mandatorily at fair value through profit or loss		*286*	*218*	*969*
Financial assets at fair value through profit or loss		*874*	*(7,083)*	*(32,746)*
Financial assets at fair value through other comprehensive income		*(4,470)*	*(22,358)*	*(9,152)*
Financial assets at amortized cost		*60,525*	*105,618*	*73,181*
Other operating assets		*(565)*	*1,542*	*(7,058)*
Net increase/(decrease) in operating liabilities		**46,080**	**107,244**	**56,945**
Financial liabilities held-for-trading		*5,450*	*29,533*	*(1,386)*
Financial liabilities designated at fair value through profit or loss		*(11)*	*27,705*	*(11,528)*
Financial liabilities at amortized cost		*40,138*	*55,595*	*79,114*
Other operating liabilities		*503*	*(5,589)*	*(9,255)*
Income tax recovered/(paid)		**(5,214)**	**(5,498)**	**(4,012)**
B. CASH FLOWS FROM INVESTING ACTIVITIES		**(5,366)**	**(3,898)**	**(3,715)**
Payments		**15,056**	**11,776**	**11,669**
Tangible assets	*16*	*11,446*	*9,066*	*10,015*
Intangible assets	*18*	*2,197*	*1,774*	*1,388*
Investments	*13*	*139*	*152*	*126*
Subsidiaries and other business units		*1,274*	*784*	*140*
Non-current assets held for sale and associated liabilities		—	—	—
Other payments related to investing activities		—	—	—
Proceeds		**9,690**	**7,878**	**7,954**
Tangible assets	*16*	*7,074*	*5,558*	*6,382*
Intangible assets	*18*	—	—	—
Investments	*13*	*814*	*533*	*672*
Subsidiaries and other business units		*885*	*734*	*6*
Non-current assets held for sale and associated liabilities	*12*	*917*	*1,053*	*894*
Other proceeds related to investing activities		—	—	—
C. CASH FLOW FROM FINANCING ACTIVITIES		**(2,058)**	**(9,964)**	**(1,322)**
Payments		**10,187**	**10,665**	**7,741**
Dividends	*4*	*2,261*	*1,848*	*1,313*
Subordinated liabilities	*23*	*2,931*	*2,291*	*2,684*
Redemption of own equity instruments		—	—	—
Acquisition of own equity instruments		*3,109*	*2,050*	*1,645*
Other payments related to financing activities		*1,886*	*4,476*	*2,099*
Proceeds		**8,129**	**701**	**6,419**
Subordinated liabilities	*23*	*7,007*	*119*	*5,340*
Issuance of own equity instruments		—	—	—
Disposal of own equity instruments		*825*	*573*	*854*
Other proceeds related to financing activities		*297*	*9*	*225*

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED 2023, 2022 AND 2021

EUR million

	Note	2023	2022[A]	2021[A]
D. EFFECT OF FOREIGN EXCHANGE RATE DIFFERENCES		**(322)**	**(1,460)**	**5,196**
E. NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**(2,731)**	**12,384**	**56,850**
F. CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		**223,073**	**210,689**	**153,839**
G. CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**220,342**	**223,073**	**210,689**
COMPONENTS OF CASH AND CASH EQUIVALENTS AT END OF THE YEAR				
Cash		*8,621*	*8,929*	*8,142*
Cash equivalents at central banks		*199,932*	*200,830*	*193,102*
Other financial assets		*11,789*	*13,314*	*9,445*
Less, bank overdrafts refundable on demand		—	—	—
TOTAL CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**220,342**	**223,073**	**210,689**
In which, restricted cash		—	—	—

A. Presented for comparison purposes only (note 1.d).
The accompanying notes 1 to 55 and appendices are an integral part of the consolidated statement of cash flows for the year ended 31 December 2023.

Notes to the consolidated financial statements

Banco Santander, S.A., and Companies composing Grupo Santander

Notes to the consolidated financial statements (consolidated annual accounts) for the year ended 31 December 2023.

1. Introduction, basis of presentation of the consolidated financial statements (consolidated annual accounts) and other information

a) Introduction

Banco Santander, S.A. ('the parent' or 'Banco Santander'), is a private-law entity subject to the rules and regulations applicable to banks operating in Spain, where it was constituted and currently maintains its legal domicile, which is paseo de Pereda, numbers 9 to 12, 39004, Santander, Spain.

The principal headquarters of Banco Santander are located in Ciudad Grupo Santander, Avenida Cantabria s/n, 28660, Boadilla del Monte, Madrid, Spain.

The corporate purpose of Banco Santander, S.A., mainly entails carrying out all kinds of activities, operations and services inherent to the banking business in general and permitted by current legislation, and the acquisition, holding, enjoyment and disposal of all kinds of securities.

In addition to the operations carried on directly by it, Banco Santander is the head of a group of subsidiaries that engage in various business activities and which compose, together with it, Grupo Santander ('Santander' or 'the Group'). Therefore, Banco Santander is obliged to prepare, in addition to its own separate financial statements, the Group's consolidated financial statements, which also include the interests in joint ventures and investments in associates.

At 31 December 2023, Grupo Santander consisted of 762 subsidiaries of Banco Santander, S.A. In addition, other 165 companies are associates of the Group, joint ventures or companies of which the Group holds more than 5% (excluding the Group companies of negligible interest with respect to the fair presentation that the annual accounts must express).

Grupo Santander consolidated financial statements for 2021 were approved by the shareholders at the group´s annual general meeting on 1 April 2022. Grupo Santander consolidated financial statements for 2022 were approved by the shareholders at the group´s annual general meeting on 31 March 2023. The Group's 2023 consolidated financial statements, the financial statements of the parent and of substantially all the Group companies have not been approved yet by their shareholders at the respective annual general meetings. However, Banco Santander board of directors considers that the aforementioned financial statements will be approved without any significant changes.

b) Basis of presentation of the consolidated financial statements

Under Regulation (EC) n.º 1606/2002 of the European Parliament and of the Council of 19 July 2002 all companies governed by the law of an EU Member State and whose securities are admitted to trading on a regulated market of any Member State must prepare their consolidated financial statements for the years beginning on or after 1 January 2005 in conformity with the International Financial Reporting Standards ('IFRS') previously adopted by the European Union ('EU-IFRS').

In order to adapt the accounting system of Spanish credit institutions with the principles and criteria established by the IFRS adopted by the European Union ('EU-IFRS'), the Bank of Spain published circular 4/2017, dated 27 November 2017, on Public and Confidential Financial Reporting Standards and Financial Statement Formats and the following regulations.

Particularly, during 2023 and 2021, the Bank of Spain published Circulars 1/2023 of 24 February of 2023, and 6/2021 of 22 December of 2021, amending Circular 4/2017 of 27 November to credit institutions on Public and Confidential Financial Reporting Standards and Financial Statement Formats.

Grupo Santander consolidated financial statements for 2023 were authorised by the Bank's directors (at the board meeting on 19 February 2024) in accordance with International Financial Reporting Standards as adopted by the European Union and with Bank of Spain circular 4/2017 and subsequent modifications, and Spanish corporate and commercial law applicable to the Group, using the basis of consolidation, accounting policies and measurement bases set forth in note 2, accordingly, they present fairly the Group's equity and financial position at 31 December 2023, 2022 and 2021 and the consolidated results of its operations and the consolidated cash flows in 2023, 2022 and 2021. These consolidated annual accounts have been prepared on the basis of the accounting records held by Banco Santander and by each of the other companies of the Group, and include the adjustments and reclassifications required to standardise the accounting policies and valuation criteria applied by Grupo Santander.

The notes to the consolidated financial statements contain additional information to that presented in the consolidated balance sheet, consolidated income statement, consolidated statement of recognised income and expense, consolidated statement of changes in total equity and consolidated statement of cash flows. The notes provide, in a clear, relevant, reliable and comparable manner, narrative descriptions and breakdowns of these statements.

The figures of the consolidated annual accounts are presented in millions of euros unless another alternative monetary unit is indicated, rounded to the nearest million unit.

Adoption of new standards and interpretations issued

The following modifications came into force and were adopted by the European Union in 2023:

- IFRS 17 Insurance Contracts and amendments to IFRS 17: new general accounting standard for insurance contracts, which includes the recognition, measurement, presentation and disclosure of information. Insurance contracts combine financial and service provision features that, in many cases, generate variable long-term cash flows. To properly reflect these characteristics, IFRS 17 combines the measurement of future cash flows with the recording of the result of the contract during the service provision period, presents separately the financial results from the results for the provision of the service and allows entities, through the choice of an accounting policy option, to recognize the financial results in the income statement or in other comprehensive income. Applicable retrospectively from 1 January 2023.

  The Group has carried out a project to implement IFRS 17 with all affected Group entities and concluded the analysis of the effects of this new standard without having identified any material impact on its consolidated financial statements due to the effects of the first application of standard, except for a reclassification of the balance sheet to the heading 'Liabilities covered by insurance or liabilities under insurance contracts' (see note 1.d).

  The most significant aspects of the insurance policy established by the Group are detailed in note 2.i.

- The amendments to IAS 1 Presentation of Financial Statements require companies to disclose material information about their accounting policies rather than their significant accounting policies. Applicable from 1 January 2023.

- The amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors clarifies how to distinguish changes in accounting policies, which are generally applied retrospectively, from changes in accounting estimates, which are generally applied prospectively. Applicable from 1 January 2023.

- The amendments to IAS 12 Income Taxes require companies to:

  (i) recognise deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. In addition, entities should recognise deferred tax assets (to the extent that it is probable that they can be utilised) and deferred tax liabilities at the beginning of the earliest comparative period for all deductible and taxable temporary differences associated with:

  - Right-of-use assets and lease liabilities.
  - Decommissioning, restoration and similar liabilities, and the corresponding amounts recognised as part of the cost of the related assets.

  The cumulative effect of recognising these adjustments is recognised in retained earnings, or another component of equity, as appropriate. Applicable from 1 January 2023.

  (ii) the second amendment applies to income taxes arising from tax law enacted or substantively enacted to implement the Pillar Two model rules published by the Organisation for Economic Co-operation and Development (OECD), including tax law that implements qualified domestic minimum top-up taxes described in those rules. The amendment includes the mandatory and temporary exception to the recognition and breakdown of deferred tax assets and liabilities derived from said Pillar Two model rules (applicable from the date of publication of the amendment and retrospectively) and establishes additional information requirements:

  - If the tax law has entered into force, the related tax expense will be disclosed separately.

  - If the tax law is enacted or substantially enacted but has not yet entered into force, reasonably estimable qualitative and quantitative information will be disclosed that helps users of financial information understand the entity's exposure to the rules of the Pillar two model.

  The Group applies the exception to the recognition and disclosure of assets and liabilities for deferred taxes in relation to Pillar two taxes, in accordance with the amendments to the IAS 12. However, since Pillar two legislation is not in force at the reporting date of these consolidated annual accounts, Grupo Santander does not have the corresponding exposure to current tax. However, at the end of fiscal year 2023, there are geographies with tax laws for the implementation of substantially enacted Pillar two model rules that have not come into force, including the information required in note 27.f.

The application of the aforementioned amendments to accounting standards and interpretations did not have any material effects on Grupo Santander consolidated financial statements.

Likewise, at the date of approval of these consolidated annual accounts, the following standards which effectively came into force have effective dates after 31 December 2023:

- Amendment to IFRS 16 Lease Liability in a Sale and Leaseback requires a seller-lessee to subsequently measure lease liabilities arising from a leaseback without recognising any amount of the gain or loss that relates to the right of use retained. This new requirement does not prevent a seller-lessee from recognising in profit or loss any gain or loss relating to the partial or full termination of a lease. It will be applied retrospectively from 1 January 2024.
- Classification of Liabilities, amendments to IAS 1 Presentation of Financial Statements, considering non-current liabilities those in which the entity has the possibility of deferring payment for more than 12 months from the closing date of the reporting period.

  Likewise, an additional amendment to IAS 1 on the classification of liabilities with covenants as current or non-current has been approved, specifying that covenants that must be complied with after the reporting date do not affect the classification of liabilities and require additionally their respective breakdowns.

  It must be applied retrospectively in accordance with the normal requirements in IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. It will apply from 1 January 2024.

  Finally, at the date of approval of these consolidated annual accounts, the following standards which effectively come into force after 31 December 2023 had not yet been adopted by the European Union:

- IAS 7 Statement of Cash Flows and IFRS 7 Financial Instruments: Additional disclosures are required for companies entering into supplier financing arrangements. The objective of the new disclosures is to provide information on Supplier Finance Arrangements (SFA) that allows investors to evaluate the effects on an entity's liabilities, cash flows and liquidity risk exposure. These modifications will be applicable from 1 January 2024.
- IAS 21 Effects of changes in foreign currency exchange rates: IAS 21 established the requirements to apply when there is a temporary lack of interchangeability between two currencies, but did not give indications when this situation was not temporary. Given this scenario, IAS 21 has been modified establishing the criteria to identify these situations, specifying how entities should estimate the spot exchange rate, the methodologies and data to be considered, as well as the associated disclosure requirements. It will be applicable from 1 January 2025.

Grupo Santander is currently analyzing the possible effects of these new standards and interpretations, and unless expressly indicated otherwise, no significant impacts are expected from their application.

All accounting policies and measurement bases with a material effect on the consolidated financial statements for 2023 were applied in the preparation of these consolidated annual accounts.

c) Use of critical estimates

The consolidated results and the determination of consolidated equity are sensitive to the accounting policies, measurement bases and estimates used by the directors of Banco Santander in preparing the consolidated financial statements.

The main accounting policies and measurement bases are set forth in note 2.

In the consolidated financial statements estimates were occasionally made by the senior management of Grupo Santander in order to quantify certain of the assets, liabilities, income, expenses and obligations reported herein. These estimates, which were made on the basis of the best information available, relate basically to the following:

- The impairment losses on certain assets: it applies to financial assets at fair value through other comprehensive income, financial assets at amortised cost, non-current assets held for sale, investments, tangible assets and intangible assets (see notes 6, 7, 10, 12, 13, 16, 17, 18 and 54).
- The assumptions used in the actuarial calculation of the post-employment benefit liabilities and commitments and other obligations (see note 25).
- The useful life of the tangible and intangible assets (see notes 16 and 18).
- The measurement of goodwill arising on consolidation (see note 17).
- The calculation of provisions and the consideration of contingent liabilities (see note 25).
- The fair value of certain unquoted assets and liabilities (see notes 6, 7, 8, 9, 10, 11, 20, 21 and 22).
- The recoverability of deferred tax assets (see note 27).
- The fair value of the identifiable assets acquired and the liabilities assumed in business combinations in accordance with IFRS 3 (see note 17).

To update the previous estimates, the Group's management has taken into account the current macroeconomic scenario resulting from the complex geopolitical situation, the levels of inflation and interest rates, as well as the resilience of the labour market being a priority monitoring focus due to the potential uncertainty generated in the Group's estimates.

For this reason, the Management of the Group has particularly evaluated the uncertainties caused by the current environment in relation to credit, liquidity and market risk, taking into account the best information available, to estimate the impact on the provisions for impairment of the credit portfolio, on the rates of interest, and in the valuation of debt instruments, developing in the notes the main estimates made during the period ended December 31, 2023 (see notes 10, 17, 50 and 54).

Although these estimates have been made on the basis of the best information available at the end of the year 2023, and considering information updated at the date of preparation of these consolidated annual accounts, it is possible that events that may take place in the future may make it necessary to modify them (upwards or downwards) in the coming years, which would be done, if appropriate, in a prospective manner, recognising the effects of the change in estimate in the corresponding consolidated income statement.

d) Information relating to 2022 and 2021

The information contained in the consolidated financial statements for the financial years 2022 and 2021 was prepared with the standards in force in said years, and exclusively for comparative purposes with the information relating to the year ended 31 December 2023.

In accordance with the information contained in note 1.b regarding the first application of IFRS17, it has been restated the balance sheet information relating to "Liabilities under insurance contracts" corresponding to the years closed on 31 December 2022 and 2021, recorded at 1 January 2023, of a portfolio of products for an amount of approximately EUR 16 billion at 31 December 2022 (EUR 18 billion at 31 December 2021), derived from the different treatment that this new standard establishes for the components of an insurance contract.

Additionally, the segment information corresponding to the year ended 31 December 2021 was restated for comparative purposes. In accordance with the Group's organizational structure, as required by IFRS 8 (see note 52).

In order to interpret the changes in the balances with respect to 31 December 2023, it is necessary to take into consideration the exchange rate effect arising from the volume of foreign currency balances held by Grupo Santander in view of its geographic diversity (see note 52.b) and the impact of the appreciation/depreciation of the various currencies against the euro in 2023, based on the exchange rates at the end of 2023: Mexican peso (11.31%), US dollar (-3.40%), Brazilian real (5.31%), Argentine peso (-78.84%), Sterling pound (2.19%), Chilean peso (-5.80%), and Polish zloty (7.86%); as well as the evolution of the comparable average rates: Mexican peso (10.30%), US dollar (-2.77%), Brazilian real (0.43%), Sterling pound (-1.96%), Chilean peso (1.13%) and Polish zloty (3.20%).

e) Capital management

i. Regulatory and economic capital

Credit institutions must meet a number of minimum capital and liquidity requirements. These minimum requirements are governed by the European Capital Requirements Regulation (hereinafter CRR) and the Capital Requirements Directive (hereinafter CRD).

On 27 October of 2021, the European Commission published the draft of a review of European banking legislation: CRR and CRD. At 8 November 2022, the European Council's proposal was published, and at 24 January 2023, that of the European Parliament. Throughout 2023, progress was made in the discussions on the new texts that will be approved in the first months of the year and their publication is expected to occur between the months of April and May 2024.

The update of the banking package pursues, on the one hand, the implementation of the final Basel III reforms and, on the other hand, strengthening the harmonization of banking supervision in the European Union (EU).

The Basel III final reform, which was agreed at the end of 2017, aims to introduce greater sensitivity in standardised metrics, reduce variability in risk-weighted assets at banks using internal models when calculating requirements and facilitate comparability among banks. Specifically, they propose changes concerning, among other matters, key risk factors, standardised credit risk, internal models, the output floor and operational risk.

The goal of achieving stronger supervision and protection of financial stability is expressed in a series of provisions concerning fit-and-proper requirements, extending the scope by revising certain definitions and additions on establishing third-country branches in the EU in order to achieve greater harmonisation of rules and better supervision of these type of entities.

The new CRR/CRD regulations are generally expected to apply from 1 January 2025, although there will be certain provisions for which an earlier application is foreseen, such as requirements on own funds for cryptoasset exposures.

In addition, during the month of December the EBA, in order to comply with the mandates given in the new banking package, published a consultation to amend some aspects of the Pillar III disclosure framework specifically, the changes include new disclosure requirements on output floor and credit valuation adjustment (CVA) risk and amendments to existing disclosure requirements on credit risk and market risk. Following this consultation, the final text proposal will be submitted to the European Commission in June 2024.

On the other hand, the EBA also published the consultation on the Pillar III Data Hub, which aims to respond to one of the requirements established by the new CRR, to centralise institutions' prudential disclosures and make prudential information readily available through a single electronic access point on the EBA website. This initiative will facilitate access, usability and comparability of prudential information by all interested users, strengthening the transparency and market discipline of the EU banking sector and further contributing to the soundness of the European financial system.

With regard to the resolution framework, institutions must have an adequate funding structure to ensure that, in the event of financial distress, the institution has sufficient liabilities to absorb losses in order to recover its position or be resolved, while ensuring the protection of depositors and financial stability. For this purpose, global systemically institutions must therefore meet several minimum loss-absorbing requirements, named Total Loss-Absorbing Capacity (TLAC) and Minimum Requirement for own funds and Eligible Liabilities (MREL), which are regulated by the CRR and by the Bank Recovery and Resolution Directive (BRRD).

On 25 October 2022, the regulation on the prudential treatment for global systemically important banks was published. This modified both the CRR and the BRRD (Bank Recovery and Resolution Directive) as regards prudential treatment of global systemically important banks (G-SIBs) with a multiple point of entry (MPE) resolution strategy, as well as the methods for indirect underwriting of eligible instruments (Daisy Chains) to meet the minimum requirement for own funds and eligible liabilities. This Regulation, known as the 'Quick Fix', covers the following two objectives:

- The inclusion in BRRD and CRR of references to third countries subsidiaries to adjust the deduction for the holding of TLAC instruments issued from subsidiaries in third countries based on the excess TLAC/MREL existing in those subsidiaries, as well as the adjustment where the sum of the requirements for own funds and eligible liabilities of G-SIBs under an MPE strategy are higher than the theoretical requirements for the same group under a single point of entry (SPE) strategy. That is, the latter adjustment is based on a comparison between the two possible resolution strategies.

  Additionally, for those subsidiaries in jurisdictions without a resolution regime in place, the Regulation provides for a transitional period until 31 December 2024. During this transitional period the institutions may adjust the deductions based on the excesses above the capital requirements in subsidiaries in third countries, if they meet certain requirements.

- Inclusion of a deduction scheme for MREL instrument holdings through entities of the same resolution group other than the resolution entity. This Regulation sets a deduction for the intermediate entity (Daisy Chains) that repurchases instruments, and, as there is such a deduction, the intermediate entity is obliged to issue the same amount as it is repurchasing, transferring the internal MREL needs to the resolution entity that will cover it with external MREL.

This Regulation is applicable since the 14 November 2022, except for the provisions relating to Daisy Chains, which apply since the 1 January 2024.

As regards Deposit Guarantee Schemes (DGSs), these are regulated by the Deposit Guarantee Schemes Directive (DGSD), which has not undergone any significant changes since its publication in 2014. The Directive aims to harmonise the DGSs of the Member States, thus ensuring stability and balance in the various different countries. It creates an appropriate framework for depositors to have better access to DGSs through clear scope of coverage, shorter repayment periods, better information and robust funding requirements. This Directive is transposed into Spanish law by Royal Decree 2606/1996, with additional amendments set forth in Royal Decree 1041/2021.

To ensure that eligible deposits are covered, the DGSs collect available financial means through contributions from their members which are performed at least once a year; being the target level of 0.8% of the covered deposits amount as of the 3 July 2024. Annual contributions are determined depending on the covered deposits and the risk profile faced by the institutions which are members of each DGS. The method for calculating contributions is set out in the EBA Guidelines (EBA/GL/2023/02).

In addition to the DGS, the Single Resolution Board (SRB) has built up the Single Resolution Fund (SRF) with annual contributions from banks and investment firms since 2016. The target level of this fund is 1% of covered deposits and the contributions to be made by members are calculated by the SRB based on euro area banks balance sheets and risk profiles. It has recently been officially announced that during 2024 the SRB will not issue a call for contributions to the SRF.

Lastly, on 18 April 2023, the European Commission published its proposal to review the Crisis Management and Deposit Insurance (CMDI) framework. Specifically, several proposals have been submitted:

- Early intervention measures, conditions for resolution and funding for the resolution measure;
- The scope of deposit coverage, use of funds of the deposit guarantee schemes, cross-border cooperation and transparency, and
- Certain aspects of the minimum requirement for own funds and eligible liabilities.

These proposals imply amending regulations such as:

- CRR,
- BRRD,
- Single Resolution Mechanism Regulation (SRMR), which establishes uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism (SRM) and a Single Resolution Fund (SRF).
- Deposit Guarantee Schemes Directive (DGSD).

Additionally, Regulation 241/2014, which establishes the system applicable to prior authorisation to reduce own funds and establishes requirements on eligible liability instruments, was amended in April 2023. Firstly, this amendment extends the need to request approval to be able to reduce, buy back or redeem eligible liabilities; which until April 2023 was limited to own funds. Secondly, additional amendments were made, such as the creation of a new concept of prior general approval to buy back own funds and eligible liability instruments, as well as extending the period granted to the Supervisor and/or Resolution Authority, where appropriate, from 3 months to 4 months.

As regards prudential scope in the field of sustainability, the CRR mandated the EBA to evaluate whether specific prudential analysis of environmental and social risks was appropriate, prior to consulting the European Systemic Risk Board (ESRB). In the last quarter of 2023, both institutions published their respective reports on how existing micro and macroprudential tools can be used to manage environmental and social risks. In its own publication, the EBA made short-term recommendations to expedite integration of the environmental and social risks into the prudential framework, while recommending further work that could lead to a more comprehensive review of the framework.

At the international level, and particularly as regards reporting obligations on climate risks, it is important to note that the Basel Committee published a consultation paper at the end of 2023 proposing a series of qualitative and quantitative requirements that should be disclosed in entities' Pillar III reports. In this document, the Committee acknowledges that precise, consistent and quality climate data is still evolving, yet the Committee believes that the disclosure requirements will expedite the availability of said information and will facilitate banks' prospective risk assessments.

In parallel with the sustainable agenda, at the Digital level, the Basel Committee that sets the standards for prudential regulation of the banking sector and which published its principles on the prudential treatment of these exposures in 2022, has opened a consultation to propose specific adjustments to its standard on the prudential treatment of banks' cryptoasset exposures with the purpose of incorporating the developments that these products have undergone in the market. In addition, Basel also published a consultation on future disclosure requirements for banks' on-balance sheet exposures to cryptoassets at the end of 2023. Market discipline, also with regard to new products such as cryptoassets, will undoubtedly continue to be a focus of dialogue between regulators and the industry.

At 31 December 2023 Grupo Santander met the minimum capital requirements established by current legislation (see note 54.d).

f) Environmental impact

In view of the business activities carried on by the Group entities, the Group does not have any environmental liability, expenses, assets, provisions or contingencies that might be material with respect to its consolidated equity, financial position or results (see note 54.a).

g) Events after the reporting period

In accordance with the agreement reached by the March 2023 general shareholders' meeting, on 30 January 2024 the board of directors has approved a capital reduction of EUR 179,283,743.50 through the redemption of 358,567,487 shares (representing approximately 2.22% of the share capital), acquired in the first share buyback program of 2023, with which the share capital has been set at EUR 7,912,789,286, represented by 15,825,578,572 shares.

2. Accounting policies

The accounting policies applied in preparing the consolidated financial statements were as follows:

a) Foreign currency transactions

i. Presentation currency

Banco Santander's functional and presentation currency is the euro. Also, the presentation currency of the Group is the euro.

ii. Translation of foreign currency balances

Foreign currency balances are translated to euros in two consecutive stages:

- Translation of foreign currency to the functional currency (currency of the main economic environment in which the entity operates).
- Translation to euros of the balances held in the functional currencies of entities whose functional currency is not the euro.

Translation of foreign currency to the functional currency

Foreign currency transactions performed by consolidated entities (or entities accounted for using the equity method) not located in European Monetary Union ("EMU") countries are initially recognised in their respective currencies. Monetary items in foreign currency are subsequently translated to their functional currencies using the closing rate.

Furthermore:

- Non-monetary items measured at historical cost are translated to the functional currency at the exchange rate at the date of acquisition.
- Non-monetary items measured at fair value are translated at the exchange rate at the date when the fair value was determined.
- Income and expenses are translated at the average exchange rates for the year for all the transactions performed during the year. When applying this criterion, the Group considers whether there have been significant changes in the exchange rates in the year which, in view of their materiality with respect to the consolidated financial statements taken as a whole, would make it necessary to use the exchange rates at the transaction date rather than the aforementioned average exchange rates.
- The balances arising from non-hedging forward foreign currency/foreign currency and foreign currency/euro purchase and sale transactions are translated at the closing rates prevailing in the forward foreign currency market for the related maturity.

Translation of functional currencies to euros

The balances in the financial statements of consolidated entities (or entities accounted for using the equity method) whose functional currency is not the euro are translated to euros as follows:

- Assets and liabilities, at the closing rates.
- Income and expenses, at the average exchange rates for the year.
- Equity items, at the historical exchange rates.

iii. Recognition of exchange differences

The exchange differences arising on the translation of foreign currency balances to the functional currency are generally recognised at their net amount under 'Exchange differences, net' in the consolidated income statement, except for exchange differences arising on financial instruments at fair value through profit or loss, which are recognised in the consolidated income statement without distinguishing them from other changes in fair value, and for exchange differences arising on non-monetary items measured at fair value through equity, which are recognised under 'Other comprehensive income–Items that may be reclassified to profit or loss–Exchange differences' except for exchange differences on equity instruments, where the option to irrevocably elect to be measured at fair value through changes in accumulated other comprehensive income, which are recognised in accumulated 'Other Comprehensive Income - Items not to be reclassified to profit or loss - Changes in fair value of equity instruments measured at fair value' through other comprehensive income (see note 29).

The exchange differences arising on the translation to euros of the financial statements denominated in functional currencies other than the euro are recognised in 'Other comprehensive income–Items that may be reclassified to profit or loss–Exchange differences' in the consolidated balance sheet, whereas those arising on the translation to euros of the financial statements of entities accounted for using the equity method are recognised in equity under 'Other comprehensive income–Items that may be reclassified to profit or loss and Items not reclassified to profit or loss–Other recognised income and expense' of investments in subsidiaries, joint ventures and associates (see note 29), until the related item is derecognised, at which time they are recognised in profit or loss.

Exchange differences arising on actuarial gains or losses when converting to euros the financial statements denominated in the functional currencies of entities whose functional currency is different from the euro are recognised under equity 'Other comprehensive income–Items not reclassified to profit or loss–Actuarial gains or (-) losses' on defined benefit pension plans (see note 29).

iv. Entities located in hyperinflationary economies

When a subsidiary operates in a country with hyperinflationary economy, IAS 29 Financial Information in Hyperinflationary Economies is applied, which means that:

– Historical cost of non-monetary assets and liabilities and of the various items of equity have to be adjusted to reflect the changes in the purchasing power of the currency due to inflation from their date of acquisition or incorporation into the consolidated balance sheet.

– The different items of the income statement are adjusted by the inflationary index since their generation, with a balancing entry in 'Other comprehensive income'.

– The loss on the net monetary position is recorded in the income for the year against 'Accumulated Other comprehensive income'.

– All components of the financial statements of the subsidiary are translated at the closing exchange rate.

The deterioration of the economic situation in Argentina over the last years caused, among other impacts, a significant increase in inflation, which by the end of 2018 had reached 48% per year (147% accumulated in three years). This led the Group to conclude that it was necessary to apply IAS 29 Financial Information in Hyperinflationary Economies to its activities in the country in question in its consolidated financial statements from that year on.

Inflation during 2023, to the national consumer price index published by the National Statistics and Census Institute, was 211.2% for the year (94.8% at 31 December 2022). The exchange rate at 31 December 2023 has been of 893.63 Argentine pesos per euro (189.12 Argentine pesos per euro at 31 December 2022).

At 31 December 2023, no other country in which the consolidated and associated entities of Grupo Santander are located is considered to have a hyperinflationary economy in accordance with the criteria established in this regard by the International Financial Reporting Standards adopted by the European Union.

v. Exposure to foreign currency risk

Grupo Santander hedges a portion of its long-term foreign currency positions using foreign exchange derivative financial instruments (see note 36). Also, the Group manages foreign exchange risk dynamically by hedging its short-term position (with a potential impact on profit or loss) in order to limit the impact of currency depreciations while optimising the cost of financing the hedges.

The following tables show the sensitivity of the consolidated income statement and consolidated equity to percentage changes of ± 1% in the foreign exchange rate positions arising from investments in Grupo Santander companies with currencies other than the euro (with its hedges) and in their results (with its hedges), in which the Group maintains significant balances.

The estimated effect on the consolidated equity attributable to Grupo Santander and on consolidated profit and loss account of a 1% appreciation of the euro against the corresponding currency is as follows:

EUR million

	Effect on consolidated equity			Effect on consolidated profit		
Currency	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
US dollar	(136.9)	(146.0)	(133.3)	(3.4)	(4.4)	(8.6)
Chilean peso	(35.3)	(14.8)	(11.4)	(2.3)	(2.0)	(2.4)
Pound sterling	(79.1)	(94.7)	(105.9)	(3.1)	(1.5)	(2.3)
Mexican peso	(36.4)	(27.7)	(23.1)	(0.1)	(2.0)	(0.9)
Brazilian real	(175.7)	(100.1)	(80.8)	(6.5)	(5.9)	(15.4)
Polish zloty	(48.8)	(19.8)	(27.5)	—	(1.3)	(1.1)
Argentine peso	(7.5)	(17.1)	(10.7)	(4.2)	(2.1)	(2.5)

Similarly, the estimated effect on the Group's consolidated equity and on consolidated profit and loss account of a 1% depreciation of the euro against the corresponding currency is as follows:

EUR million

	Effect on consolidated equity			Effect on consolidated profit		
Currency	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
US dollar	139.7	148.9	136.0	3.4	4.5	8.8
Chilean peso	36.0	15.1	11.6	2.3	2.1	2.4
Pound sterling	80.7	96.7	108.0	3.1	1.5	2.3
Mexican peso	37.1	28.2	23.6	0.1	2.0	0.9
Brazilian real	179.3	102.1	82.4	6.6	6.0	15.7
Polish *zloty*	49.8	20.2	28.0	—	1.4	1.1
Argentine peso	7.7	17.4	11.0	4.2	2.2	2.6

The above data were obtained as follows:

a) Effect on consolidated equity: in accordance with the accounting policy detailed in note 2.a.iii, foreign exchange rate impact arising on the translation to euros of the financial statements in the functional currencies of the Group entities whose functional currency is not the euro are recognised in consolidated equity. The potential effect that a change in the exchange rates of the related currency would have on the Group's consolidated equity was therefore determined by applying the aforementioned change to the net value of each unit's assets and liabilities -including, where appropriate, the related goodwill- and by taking into consideration the offsetting effect of the hedges of net investments in foreign operations.

b) Effect on consolidated profit: the effect was determined by applying the up and down movements in the average exchange rates of the year, as indicated in note 2.a.ii (except in the case of Argentina, which is a hyperinflationary economy and has applied the closing exchange rate), to translate to euros the income and expenses of the consolidated entities whose functional currency is not the euro, taking into consideration, where appropriate, the offsetting effect of the various hedging transactions in place.

The estimates used to obtain the foregoing data were performed considering the effects of the changes in the exchange rate in standalone basis not considering the effect of the performance of other variables whose changes would affect equity and profit or loss, such as variations in the interest rates of the reference currencies or other market factors. Accordingly, all variables other than the exchange rate variations were kept constant with respect to their positions at 31 December 2023, 2022 and 2021.

b) Basis of consolidation

i. Subsidiaries

Subsidiaries are defined as entities over which the Bank has the capacity to exercise control. The Bank controls an entity when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

The financial statements of the subsidiaries are fully consolidated with those of the Bank. Accordingly, all balances and effects of the transactions between consolidated companies are eliminated on consolidation.

On acquisition of control of a subsidiary, its assets, liabilities and contingent liabilities are recognised at their acquisition-date fair values. Any positive differences between the acquisition cost and the fair values of the identifiable net assets acquired are recognised as goodwill (see note 17). Negative differences are recognised in profit or loss on the date of acquisition.

Additionally, the share of third parties of Grupo Santander equity is presented under 'Non-controlling interests' in the consolidated balance sheet (see note 28). Their share of the profit for the year is presented under 'Profit attributable to non-controlling interests' in the consolidated income statement.

The results of subsidiaries acquired during the year are included in the consolidated income statement from the date of acquisition to year-end. Similarly, the results of subsidiaries for which control is lost during the year are included in the consolidated income statement from the beginning of the year to the date of disposal.

At 31 December 2023, apart from the structured consolidated entities, Grupo Santander does not control any company in which it maintains a percentage of direct participation in its share capital of less than 50%.

The appendices contain significant information on the subsidiaries.

ii. Interests in joint ventures

Joint ventures are deemed to be entities that are not subsidiaries but which are jointly controlled by two or more unrelated entities. This is evidenced by contractual arrangements whereby two or more parties have interests in entities so that decisions about the relevant activities require the unanimous consent of all the parties sharing control.

In the consolidated financial statements, investments in joint ventures are accounted for using the equity method, i.e. at the Group's share of net assets of the investee, after taking into account the dividends received therefrom and other equity eliminations. The profits and losses resulting from transactions with a joint venture are eliminated to the extent of the Group's interest therein.

The appendices contain relevant information on the joint ventures.

iii. Associates

Associates are entities over which Banco Santander is in a position to exercise significant influence, but not control or joint control. It is presumed that Banco Santander exercises significant influence if it holds 20% or more of the voting power of the investee.

In the consolidated financial statements, investments in associates are accounted for using the equity method, with the same criteria applicable to shares in joint ventures.

There are certain investments in entities which, although Grupo Santander owns 20% or more of their voting power, are not considered to be associates because the Group is not in a position to exercise significant influence over them. At 31 December 2022, 2021 and 2020 this was the situation of the investment in Project Quasar Investments 2017, S.L., despite maintaining a 49% interest in its share capital (see appendix II). The remaining investments are not significant for the Group.

There are also certain investments in associates where the Group owns less than 20% of the voting rights, as it is determined that it has the capacity to exercise significant influence over them. The impact of these companies is immaterial in the Group's consolidated financial statements.

The appendices contain significant information on the associates.

iv. Structured entities

In some cases, Grupo Santander incorporates entities, or holds ownership interests therein, to enable its customers to access certain investments, or for the transfer of risks or other purposes. Those entities are called 'structured entities' and they are characterized by the fact that since the voting, or similar power is not a key factor in deciding who controls the entity. The control is determined by using internal criteria and procedures and taking into consideration the applicable legislation, as described above. Specifically, for those entities to which this policy applies (mainly investment funds and pension funds), the Group analyses the following factors:

- Percentage of ownership held by Grupo Santander; 20% is established as the general threshold.

- Identification of the fund manager, and verification as to whether it is a company controlled by the Group since this could affect Grupo Santander ability to direct the relevant activities.

- Existence of agreements between investors that might require decisions to be taken jointly by the investors, rather than by the fund manager.

- Existence of currently exercisable removal rights (possibility of removing the manager from his position), since the existence of such rights might limit the manager's power over the fund, and it may be concluded that the manager is acting as an agent of the investors.

- Analysis of the fund manager's remuneration regime, taking into consideration that a remuneration regime that is proportionate to the service rendered does not, generally, create exposure of such importance as to indicate that the manager is acting as the principal. Conversely, if the remuneration regime is not proportionate to the service rendered, this might give rise to an exposure that would lead the Group to a different conclusion.

These structured entities also include the securitisation special purpose vehicles, which are consolidated in the case of the Special Purpose Vehicles (SPVs) over which, being exposed to variable yield, it is considered that the Group continues to exercise control.

The exposure associated with unconsolidated structured entities, additional to investments in the equity of investment funds (note 8), are not material with respect to the Group's consolidated financial statements.

v. Business combinations

A business combination is the bringing together of two or more separate entities or economic units into one single entity or group of entities.

Business combinations whereby Grupo Santander obtains control over an entity or a business are recognised for accounting purposes as follows:

- Grupo Santander measures the cost of the business combination, which is normally the consideration transferred, defined as the acquisition-date fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity instruments issued, if any, by the acquirer. In cases where the amount of the consideration to be transferred has not been definitively established at the acquisition date, but rather depends on future events, any contingent consideration is recognised as part of the consideration transferred and measured at its acquisition-date fair value. Moreover, acquisition-related costs do not for these purposes form part of the cost of the business combination.

- The fair values of the assets, liabilities and contingent liabilities of the acquired entity or business, including any intangible assets identified in the business combination which might not have been recognised by the acquiree, are estimated and recognised in the consolidated balance sheet; the Group also estimates the amount of any non-controlling interests and the fair value of the previously held equity interest in the acquiree.

- Any positive difference between the aforementioned items is recognised as discussed in note 2.m. Any negative difference is recognised under 'Negative Goodwill' recognised in the consolidated income statement.

Goodwill is only calculated and recognised once, when control of a business or an entity is obtained.

vi. Changes in the levels of ownership interests in subsidiaries

Acquisitions and disposals not giving rise to a change in control are recognised as equity transactions, and no gain or loss is recognised in the income statement and the initially recognised goodwill is not remeasured. The difference between the consideration transferred or received and the decrease or increase in non-controlling interests, respectively, is recognised in reserves.

Similarly, when control over a subsidiary is lost, the assets, liabilities and non-controlling interests and any other items recognised in 'Other Comprehensive income' of that company are derecognised from the consolidated balance sheet, and the fair value of the consideration received and of any remaining equity interest is recognised. The difference between these amounts is recognised in profit or loss.

c) Classification of financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

The following transactions are not treated for accounting purposes as financial instruments:

- Investments in associates and joint ventures (see note 13).
- Rights and obligations under employee benefit plans (see note 25).
- Rights and obligations under insurance contracts (see note 15).
- Contracts and obligations relating to employee remuneration based on own equity instruments (see note 34).

i. Classification of financial assets for measurement purposes

Financial assets are initially classified into the various categories used for management and measurement purposes, unless they have to be presented as 'Non-current assets held for sale' or they relate to 'Cash, cash balances at central banks and other deposits on demand', 'Changes in the fair value of hedged items in portfolio hedges of interest rate risk (asset side)', 'Hedging derivatives and Investments', which are reported separately.

Classification of financial instruments: the classification criteria for financial assets depends on the business model for their management and the characteristics of their contractual flows.

Grupo Santander business models refer to the way in which it manages its financial assets to generate cash flows. In defining these models, the Group takes into account the following factors:

- How key entity staff are assessed and reported on the performance of the business model and the financial assets held in the business model.
- The risks that affect the performance of the business model (and the financial assets held in the business model) and, specifically, the way in which these risks are managed.
- How business managers are remunerated.
- The frequency, the calendar and volume of sales in previous years, as well as expectations of future sales and the reasons of the sales.

The analysis of the characteristics of the contractual flows of financial assets requires an assessment of the congruence of these flows with a basic loan agreement. The Group determines if the contractual cash flows of its financial assets that are only principal and interest payments on the outstanding principal amount at the beginning of the transaction. This analysis takes into consideration four factors (performance, clauses, contractually linked products and currencies). Furthermore, among the most significant judgements used by the Group in carrying out this analysis, the following ones are included:

- The return on the financial asset, in particular in cases of periodic interest rate adjustments where the term of the reference rate does not coincide with the frequency of the adjustment. In these cases, an assessment is made to determine whether or not the contractual cash flows differ significantly from the flows without this change in the time value of money, establishing a tolerance level of 5%.
- When contractual clauses that may modify the cash flows of the financial asset exist, the structure of the cash flows before and after the activation of such clauses is analysed, regardless of the probability of occurrence of the contingent event. The evaluation of contractual flows of financial assets with characteristics associated with ESG is included in this analysis.
- Financial assets whose cash flows have different priority for payment due to a contractual link to underlying assets (e.g. securitisations) require a look-through analysis by the Group so as to review that both the financial asset and the underlying assets are only principal and interest payments and that the exposure to credit risk of the set of underlying assets belonging to the tranche analysed is less than or equal to the exposure to credit risk of the set of underlying assets of the instrument.

Depending on these factors, the asset can be measured at amortised cost, at fair value with changes in other comprehensive income, or at fair value with changes through profit and loss. IFRS 9 also establishes an option to designate an instrument at fair value with changes in profit or loss, when doing so eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as 'accounting asymmetry') that would otherwise arise from measuring assets or liabilities or recognising gains and losses on different bases.

Grupo Santander uses the following criteria for the classification of the financial debt instruments:

- Amortised cost: financial instruments under a business model whose objective is to collect principal and interest flows, over which there is no significant unjustified sales and fair value is not a key element in the management of these assets and contractual conditions they give rise to cash flows on specific dates, which are only payments of principal and interest on the outstanding principal amount. In this sense, unjustified sales are considered to be those other than those related to an increase in the credit risk of the asset, unanticipated funding needs (stress case scenarios). Additionally, the characteristics of its contractual flows represent substantially a 'basic financing agreement'.

- Fair value with changes in other comprehensive income: financial instruments held in a business model whose objective is to collect principal and interest cash flows and the sale of these assets, where fair value is a key factor in their management. Additionally, the contractual cash flow characteristics substantially represent a 'basic financing agreement'.
- Fair value with changes in profit or loss: financial instruments included in a business model whose objective is not obtained through the above mentioned models, where fair value is a key factor in managing of these assets, and financial instruments whose contractual cash flow characteristics do not substantially represent a 'basic financing agreement'. In this section it can be enclosed the portfolios classified under 'Financial assets held for trading', 'Non-trading financial assets mandatorily at fair value through profit or loss' and 'Financial assets at fair value through profit or loss'. In this regard, most of the financial assets presented in the category of 'Financial assets designated at value reasonable with change in results' are instruments financial services that, not being part of the portfolio of negotiation, are contracted jointly with other financial instruments that are recorded in the category of 'held for trading', and that by both are recorded at fair value with changes in results, so your record in any other category would produce accounting asymmetries.

Equity instruments will be classified at fair value under IFRS 9, with changes in profit or loss, unless the Group decides, for non-trading assets, to classify them at fair value with changes in other comprehensive income (irrevocably) at initial recognition.

ii. Classification of financial assets for presentation purposes

Financial assets are classified by nature into the following items in the consolidated balance sheet:

- Cash, cash balances at Central Banks and other deposits on demand: cash balances and balances receivable on demand relating to deposits with central banks and credit institutions.

- Loans and advances: includes the debit balances of all credit and loans granted by the Group, other than those represented by securities, as well as finance lease receivables and other debit balances of a financial nature in favour of the Group such as cheques drawn on credit institutions, balances receivable from clearing houses and settlement agencies for transactions on the stock exchange and organised markets, bonds given in cash, capital calls, fees and commissions receivable for financial guarantees and debit balances arising from transactions not originating in banking transactions and services, such as the collection of rentals and similar items. They are classified, on the basis of the institutional sector to which the debtor belongs, into:

  - Central banks: credit of any nature, including deposits and money market transactions received from the Bank of Spain or other central banks.

  - Credit institutions: credit of any nature, including deposits and money market transactions, in the name of credit institutions.

  - Customers: includes the remaining credit, including money market transactions through central counterparties.

- Debt securities: bonds and other securities that represent a debt for their issuer, that generate an interest return, and that are in the form of certificates or book entries.

- Equity instruments: financial instruments issued by other entities, such as shares, which have the nature of equity instruments for the issuer, other than investments in subsidiaries, joint ventures or associates. Investment fund units are included in this item.

- Derivatives: includes the fair value in favour of the Group of derivatives which do not form part of hedge accounting, including embedded derivatives separated from hybrid financial instruments.

- Repurchase agreements and reverse repurchase agreements: Purchases of financial instruments under a non-optional resale (repurchase) agreement at a fixed price (repos) are recognised in the consolidated balance sheet as financing granted, based on the nature of the debtor, under 'Loans and advances with central banks', 'Loans and advances to credit institutions' or 'Loans and advances to customers. Differences between the purchase and sale prices are recognised as interest over the contract term.

- Changes in the fair value of hedged items in portfolio hedges of interest rate risk: this item is the balancing entry for the amounts credited to the consolidated income statement in respect of the measurement of the portfolios of financial instruments which are effectively hedged against interest rate risk through fair value hedging derivatives.

- Hedging derivatives: Includes the fair value in favour of the Group of derivatives, including embedded derivatives separated from hybrid financial instruments, designated as hedging instruments in hedge accounting.

iii. Classification of financial liabilities for measurement purposes

Financial liabilities are initially classified into the various categories used for management and measurement purposes, unless they have to be presented as 'Liabilities associated with non-current assets held for sale' or they relate to 'Hedging derivatives' or changes in the fair value of hedged items in portfolio hedges of interest rate risk (liability side), which are reported separately.

In most cases, changes in the fair value of financial liabilities designated at fair value through profit or loss, caused by the entity's credit risk, are recognized in other comprehensive income.

Financial liabilities are included for measurement purposes in one of the following categories:

- Financial liabilities held for trading (at fair value through profit or loss): this category includes financial liabilities incurred for the purpose of generating a profit in the near term from fluctuations in their prices, financial derivatives not designated as hedging instruments, and financial liabilities arising from the outright sale of financial assets acquired under reverse repurchase agreements ("reverse repos") or borrowed (short positions).

- Financial liabilities designated at fair value through profit or loss: financial liabilities are included in this category when they provide more relevant information, either because this eliminates or significantly reduces recognition or measurement inconsistencies (accounting mismatches) that would otherwise arise from measuring assets or liabilities or recognising the gains or losses on them on different bases, or because a group of financial liabilities or financial assets and liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and information about the group is provided on that basis to the Group's key management personnel.

Liabilities may only be included in this category on the date when they are incurred or originated.

- Financial liabilities at amortised cost: financial liabilities, irrespective of their instrumentation and maturity, not included in any of the above-mentioned categories which arise from the ordinary borrowing activities carried on by financial institutions.

iv. Classification of financial liabilities for presentation purposes

Financial liabilities are classified by nature into the following items in the consolidated balance sheet:

- Deposits: includes all repayable balances received in cash by Grupo Santander, other than those instrumented as marketable securities and those having the substance of subordinated liabilities (amount of the loans received, which for credit priority purposes are after common creditors), except for the debt instruments. This item also includes cash bonds and cash consignments received the amount of which may be invested without restriction. Deposits are classified on the basis of the creditor's institutional sector into:

  - Central banks: deposits of any nature, including credit received and money market transactions received from the Bank of Spain or other central banks.

  - Credit institutions: deposits of any nature, including credit received and money market transactions in the name of credit institutions.

  - Customer: includes the remaining deposits, including money market transactions through central counterparties.

  During the 2019 financial year, the European Central Bank announced a new program of longer-term financing operations with a specific objective (TLTRO III), which included special conditions, including a reduction in the interest rate applicable between June 2020 and June 2022 subject to compliance with a certain volume of eligible loans.

  Grupo Santander chose to accrue interest in accordance with the specific periods of adjustment to market rates, so that the interest corresponding to said period (-1%) has been recorded in the income statement from June 2020 to June 2022, having met the computable loan threshold that gave rise to the extra rate on that date.

  Subsequently, and as a result of the modifications introduced by the European Central Bank in the conditions of the program, which include changes in its interest rates, the Group has updated the effective interest rate at which interest accrues on said financial liability, maintaining the criterion adopted in previous years, and considering said modifications a change in the variable interest rate (which affects the EIR) and is applied prospectively.

- Marketable debt securities: includes the amount of bonds and other debt represented by marketable securities, other than those having the substance of subordinated liabilities (amount of the loans received, which for credit priority purposes are after common creditors, and includes the amount of the financial instruments issued by the Group which, having the legal nature of capital, do not meet the requirements to qualify as equity, such as certain preferred shares issued). This item includes the component that has the consideration of financial liability of the securities issued that are compound financial instruments.

- Derivatives: includes the fair value, with a negative balance for the Group, of derivatives, including embedded derivatives separated from the host contract, which do not form part of hedge accounting.

- Short positions: includes the amount of financial liabilities arising from the outright sale of financial assets acquired under reverse repurchase agreements or borrowed.

- Other financial liabilities: includes the amount of payment obligations having the nature of financial liabilities not included in other items (includes, among others, the balance of lease liabilities), and liabilities under financial guarantee contracts, unless they have been classified as non-performing.

- Repurchase agreements and reverse repurchase agreements: Sales of financial instruments under a non-optional resale (repurchase) agreement at a fixed price (repos) are recognised in the consolidated balance sheet as financing received, based on the nature of the creditor, under 'Deposits from central banks', 'Deposits from credit institutions' or 'Customer deposits'. Differences between the purchase and sale prices are recognised as interest over the contract term.

- Changes in the fair value of hedged items in portfolio hedges of interest rate risk: this item is the balancing entry for the amounts charged to the consolidated income statement in respect of the measurement of the portfolios of financial instruments which are effectively hedged against interest rate risk through fair value hedging derivatives.

- Hedging derivatives: includes the fair value of the Group's liability in respect of derivatives, including embedded derivatives separated from hybrid financial instruments, designated as hedging instruments in hedge accounting.

- The preference shares contingently convertible into ordinary shares eligible as Additional Tier 1 capital (PPCC) -perpetual shares, which may be repurchased by the issuer in certain circumstances, the interest on which is discretionary, and would convert into variable number of newly issued ordinary shares if the capital ratio of the Bank or its consolidated group falls below a given percentage (trigger event), as those two terms are defined in the related issue prospectuses are recognised for accounting purposes by the Group as compound instruments. The liability component reflects the issuer's obligation to deliver a variable number of shares and the equity component reflects the issuer's discretion in relation to the payment of the related coupons. In order to effect the initial allocation, the Group estimates the fair value of the liability as the amount that would have to be delivered if the trigger event were to occur immediately and, accordingly, the equity component, calculated as the residual amount, is zero. In view of the aforementioned discretionary nature of the payment of the coupons, they are deducted directly from equity.

- Capital perpetual preference shares (PPCA), with the possibility of purchase by the issuer in certain circumstances, whose remuneration is discretionary, and which will be amortised permanently, totally or partially, in the event that the bank or its consolidated group submits a capital ratio lesser than a certain percentage (trigger event), as defined in the corresponding prospectuses, are accounted for by the Group as equity instruments.

- Derivatives embedded in other financial instruments or in other host contracts are accounted for separately as derivatives if their risks and characteristics are not closely related to those of the host contracts, provided that the host contracts are not classified as financial assets/liabilities designated at fair value through profit or loss or as 'Financial assets/liabilities held for trading'.

d) Measurement of financial assets and liabilities and recognition of fair value changes

In general, financial assets and liabilities are initially recognised at fair value which, in the absence of evidence to the contrary, is deemed to be the transaction price.

In this regard, IFRS 9 states that regular way purchases or sales of financial assets shall be recognised and derecognised on the trade date or on the settlement date. Grupo Santander has opted to make such recognition on the trading date or settlement date, depending on the convention of each of the markets in which the transactions are carried out. For example, in relation to the purchase or sale of debt securities or equity instruments traded in the Spanish market, securities market regulations stipulate their effective transfer at the time of settlement and, therefore, the same time has been established for the accounting record to be made.

The fair value of instruments not measured at fair value through profit and loss is adjusted by transaction costs. Subsequently, and on the occasion of each accounting close, they are valued in accordance with the following criteria:

i. Measurement of financial assets

Financial assets are measured at fair value are valued mainly at their fair value without deducting any transaction cost for their sale.

The fair value of a financial instrument on a given date is taken to be the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The most objective and common reference for the fair value of a financial instrument is the price that would be paid for it on an active, transparent and deep market (quoted price or market price). At 31 December 2023, there were no significant investments in quoted financial instruments that had ceased to be recognised at their quoted price because their market could not be deemed to be active.

If there is no market price for a given financial instrument, its fair value is estimated on the basis of the price established in recent transactions involving similar instruments and, in the absence thereof, of valuation techniques commonly used by the international financial community, taking into account the specific features of the instrument to be measured and, particularly, the various types of risk associated with it.

All derivatives are recognised in the balance sheet at fair value from the trade date. If the fair value is positive, they are recognised as an asset and if the fair value is negative, they are recognised as a liability. The fair value on the trade date is deemed, in the absence of evidence to the contrary, to be the transaction price. The changes in the fair value of derivatives from the trade date are recorded in the consolidated income statement. Specifically, the fair value of financial derivatives traded in organised markets included in the portfolios of financial assets or liabilities held for trading is deemed to be their daily quoted price and if, for exceptional reasons, the quoted price cannot be determined on a given date, these financial derivatives are measured using methods similar to those used to measure derivatives.

The fair value of derivatives is taken to be the sum of the future cash flows arising from the instrument, discounted to present value at the date of measurement (present value or theoretical close) using valuation techniques commonly used by the financial markets: net present value, option pricing models and other methods.

The amount of debt securities and loans and advances under a business model whose objective is to collect the principal and interest flows are valued at their amortised cost, as long as they comply with the 'SPPI' (Solely Payments of Principal and Interest) test, using the effective interest rate method in their determination. Amortised cost refers to the acquisition cost of a corrected financial asset or liability (more or less, as the case may be) for repayments of principal and the part systematically charged to the consolidated income statement of the difference between the initial cost and the corresponding reimbursement value at expiration. In the case of financial assets, the amortised cost includes, in addition, the corrections to their value due to the impairment. In the loans and advances covered in fair value hedging transactions, the changes that occur in their fair value related to the risk or the risks covered in these hedging transactions are recorded.

The effective interest rate is the discount rate that exactly matches the carrying amount of a financial instrument to all its estimated cash flows of all kinds over its remaining life.

For fixed rate financial instruments, the effective interest rate coincides with the contractual interest rate established on the acquisition date plus, where applicable, the fees and transaction costs that, because of their nature, form part of their financial return. In the case of floating rate financial instruments, the effective interest rate coincides with the rate of return prevailing in all connections until the next benchmark interest reset date.

Equity instruments and contracts related with these instruments are measured at fair value. However, in certain circumstances the Group estimates cost value as a suitable estimate of the fair value. This can happen if the recent event available information is not enough to measure the fair value or if there is a broad range of possible measures and the cost value represents the best estimates of fair value within this range.

The amounts at which the financial assets are recognised represent, in all material respects, the Group's maximum exposure to credit risk at each reporting date. Also, Grupo Santander has received collateral and other credit enhancements to mitigate its exposure to credit risk, which consist mainly of mortgage guarantees, cash collateral, equity instruments and personal security, assets leased out under finance lease and full-service lease agreements, assets acquired under repurchase agreements, securities loans and credit derivatives.

ii. Measurement of financial liabilities

In general, financial liabilities are measured at amortised cost, as defined above, except for those included under 'Financial liabilities held for trading' and 'Financial liabilities designated at fair value through profit or loss' and financial liabilities designated as hedged items (or hedging instruments) in fair value hedges, which are measured at fair value. The changes in credit risk arising from financial liabilities designated at fair value through profit or loss are recognised in accumulated other comprehensive income, unless they generate or increase an accounting mismatch, in which case changes in the fair value of the financial liability in all respects are recognised in the income statement.

iii. Valuation techniques

The financial instruments at fair value determined on the basis of published price quotations in active markets (level 1) include government debt securities, private-sector debt securities, derivatives traded in organised markets, securitised assets, shares, short positions and fixed-income securities issued.

In cases where price quotations cannot be observed, management makes its best estimate of the price that the market would set, using its own internal models, described in note 50.c. In most cases, these internal models use data based on observable market parameters as significant inputs (level 2) and, in cases, they use significant inputs not observable in market data (level 3). In order to make these estimates, various techniques are employed, including the extrapolation of observable market data. The best evidence of the fair value of a financial instrument on initial recognition is the transaction price, unless the fair value of the instrument can be obtained from other market transactions performed with the same or similar instruments or can be measured by using a valuation technique in which the variables used include only observable market data, mainly interest rates.

iv. Recognition of fair value changes

As a general rule, changes in the carrying amount of financial assets and liabilities are recognised in the consolidated income statement. A distinction is made between the changes resulting from the accrual of interest and similar items, (which are recognised under Interest income or Interest expense, as appropriate), and those arising for other reasons, which are recognised at their net amount under 'Gains/losses on financial assets and liabilities'.

Adjustments due to changes in fair value arising from:

- 'Financial assets at fair value with changes in other comprehensive income' are recorded temporarily, in the case of debt instruments in 'Other comprehensive income - Elements that can be reclassified to profit or loss - Financial assets at fair value with changes in other comprehensive income', while in the case of equity instruments are recorded in 'other comprehensive income - Elements that will not be reclassified to line item - Changes in the fair value of equity instruments valued at fair value with changes in other comprehensive income'.

  Exchange differences on debt instruments measured at fair value with changes in other comprehensive income are recognised under 'Exchange Differences, net' of the consolidated income statement. Exchange differences on equity instruments, in which the irrevocable option of being measured at fair value with changes in other comprehensive income has been chosen, are recognised in 'Other comprehensive income - Items that will not be reclassified to profit or loss - Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income'.

- Items charged or credited to 'Items that may be reclassified to profit or loss – Financial assets at fair value through other comprehensive income' and 'Other comprehensive income – Items that may be reclassified to profit or loss – Exchange differences in equity' remain in the Group's consolidated equity until the asset giving rise to them is impaired or derecognised, at which time they are recognised in the consolidated income statement.

- Unrealized capital gains on financial assets at fair value through other comprehensive income classified as 'Non-current assets held for sale' because they form part of a disposal group or a discontinued operation that are recorded in the equity balancing entry 'Other accumulated comprehensive income - Items that can be reclassified in income - Non-current assets as held for sale.

v. Hedging transactions

The consolidated entities use financial derivatives for the following purposes: i) to facilitate these instruments to customers who request them in the management of their market and credit risks; ii) to use these derivatives in the management of the risks of the Group entities' own positions and assets and liabilities (hedging derivatives); and iii) to obtain gains from changes in the prices of these derivatives (derivatives).

Financial derivatives that do not qualify for hedge accounting are treated for accounting purposes as trading derivatives.

Additionally, certain financial assets and liabilities can be designated as hedging instruments to cover exchange rate risk.

A derivative qualifies for hedge accounting if all the following conditions are met:

1. The derivative hedges one of the following three types of exposure:

a. Changes in the fair value of assets and liabilities, as well as firm commitments, due to fluctuations, among others, in the interest rate and/or exchange rate to which the position or balance to be hedged is subject (fair value hedge).

b. Changes in the estimated cash flows arising from assets and liabilities, commitments and highly probable forecast transactions (cash flow hedge).

c. The net investment in a foreign operation (hedge of a net investment in a foreign operation).

2. It is effective in offsetting exposure inherent in the hedged item or position throughout the expected term of the hedge, which means that:

a. At the date of arrangement the hedge is expected, under normal conditions, to be highly effective (prospective effectiveness).

b. There is sufficient evidence that the hedge was actually effective during the whole life of the hedged item or position (retrospective effectiveness). To this end, the Group checks that the results of the hedge were within a range of 80% to 125% of the results of the hedged item.

3. There must be adequate documentation evidencing the specific designation of the financial derivative to hedge certain balances or transactions and how this hedge was expected to be achieved and measured, provided that this is consistent with the Group's management of own risks.

The changes in value of financial instruments qualifying for hedge accounting are recognised as follows:

a. In fair value hedges, the gains or losses arising on both the hedging instruments and the hedged items attributable to the type of risk being hedged are recognised directly in the consolidated income statement.

b. In fair value hedges of interest rate risk on a portfolio of financial instruments, the gains or losses that arise on measuring the hedging instruments are recognised directly in the consolidated income statement, whereas the gains or losses due to changes in the fair value of the hedged amount (attributable to the hedged risk) are recognised in the consolidated income statement with a balancing entry under Changes in the fair value of hedged items in portfolio hedges of interest rate risk on the asset or liability side of the balance sheet, as appropriate.

c. In cash flow hedges, the effective portion of the change in value of the hedging instrument is recognised temporarily in Other comprehensive income – under Items that may be reclassified to profit or loss – Hedging derivatives – Cash flow hedges (effective portion) until the covered element affects the results, when it is recognised in the consolidated income statement, unless, if the forecast transactions result in the recognition of non-financial assets or liabilities, it is included in the cost of the non-financial asset or liability.

d. In hedges of a net investment in a foreign operation, the gains or losses attributable to the portion of the hedging instruments qualifying as an effective hedge are recognised temporarily in Other comprehensive income under Items that may be reclassified to profit or loss – Hedges of net investments in foreign operations until the gains or losses – on the hedged item are recognised in profit or loss.

e. The ineffective portion of the gains or losses on the hedging instruments of cash flow hedges and hedges of a net investment in a foreign operation is recognised directly under 'Gains/losses on financial assets and liabilities (net)' in the consolidated income statement, in Gains or losses from hedge accounting, net.

If a derivative designated as a hedge no longer meets the requirements described above due to expiration, ineffectiveness or for any other reason, the derivative is classified for accounting purposes as a trading derivative.

When fair value hedge accounting is discontinued, the adjustments previously recognised on the hedged item are amortised to profit or loss at the effective interest rate recalculated at the date of hedge discontinuation. The adjustments must be fully amortised at maturity.

When cash flow hedge accounting is discontinued, any cumulative gain or loss on the hedging instrument recognised in equity under other comprehensive income 'Items that may be reclassified to profit or loss' (from the period when the hedge was effective) remains in this equity item until the forecast transaction occurs, at which time it is recognised in profit or loss, unless the transaction is no longer expected to occur, in which case the cumulative gain or loss is recognised immediately in profit or loss.

e) Derecognition of financial assets and liabilities

The accounting treatment of transfers of financial assets depends on the extent to which the risks and rewards associated with the transferred assets are transferred to third parties:

1. If the Group transfers substantially all the risks and rewards to third parties unconditional -sale of financial assets, sale of financial assets under an agreement to repurchase them at their fair value at the date of repurchase, sale of financial assets with a purchased call option or written put option that is deeply out of the money, securitisation of assets in which the transferor does not retain a subordinated debt or grant any credit enhancement to the new holders, and other similar cases-, the transferred financial asset is derecognised and any rights or obligations retained or created in the transfer are recognised simultaneously.

2. If the Group retains substantially all the risks and rewards associated with the transferred financial asset -sale of financial assets under an agreement to repurchase them at a fixed price or at the sale price plus interest, a securities lending agreement in which the borrower undertakes to return the same or similar assets, and other similar cases-, the transferred financial asset is not derecognised and continues to be measured by the same criteria as those used before the transfer. However, the following items are recognised:

a. An associated financial liability, which is recognised for an amount equal to the consideration received and is subsequently measured at amortised cost, unless it meets the requirements for classification under 'Financial liabilities designated at fair value through profit or loss'.

b. The income from the transferred financial asset not derecognised and any expense incurred on the new financial liability, without offsetting.

3. If the Group neither transfers nor retains substantially all the risks and rewards associated with the transferred financial asset -sale of financial assets with a purchased call option or written put option that is not deeply in or out of the money, securitisation of assets in which the transferor retains a subordinated debt or other type of credit enhancement for a portion of the transferred asset, and other similar cases- the following distinction is made:

a. If the transferor does not retain control of the transferred financial asset, the asset is derecognised and any rights or obligations retained or created in the transfer are recognised.

b. If the transferor retains control of the transferred financial asset, it continues to recognise it for an amount equal to its exposure to changes in value and recognises a financial liability associated with the transferred financial asset. The net carrying amount of the transferred asset and the associated liability is the amortised cost of the rights and obligations retained, if the transferred asset is measured at amortised cost, or the fair value of the rights and obligations retained, if the transferred asset is measured at fair value.

Accordingly, financial assets are only derecognised when the rights to the cash flows they generate have expired or when substantially all the inherent risks and rewards have been transferred to third parties. Similarly, financial liabilities are only derecognised when the obligations they generate have been extinguished or when they are acquired with the intention either to cancel them or to resell them.

Regarding contractual modifications of financial assets, Grupo Santander has differentiated them into two main categories in relation to the conditions under which a modification leads to the disposal of the financial asset (and the recognition of a new financial asset) and those under which the accounting of the original financial instrument with the modified terms is maintained:

- Contractual modifications for commercial or market reasons, which are generally carried out at the request of the debtor to apply current market conditions to the debt. The new contract is considered a new transaction and, consequently, it is necessary to derecognize the original financial asset and recognize a new financial asset subject to the classification and measurement requirements established by IFRS 9. The new financial asset will be recorded at fair value and, if applicable, the difference between the carrying amount of the asset derecognized and the fair value of the new asset will be recognized in profit or loss.

- Modifications due to refinancing or restructuring, in which the payment conditions are modified to allow a customer that is experiencing financial difficulties (current or foreseeable) to meet its payment obligations and that, if such modification had not been made, it would be reasonably certain that it would not be able to meet such payment obligations. In this case, the modification does not result in the derecognition of the financial asset, but rather the original financial asset is maintained and does not require a new assessment of its classification and measurement. When assessing credit impairment, the current credit risk (considering the modified cash flows) should be compared with the credit risk at initial recognition. The gross carrying amount of the financial asset (the present value of the renegotiated or modified contractual cash flows that are discounted at the original effective interest rate of the financial asset) should be recalculated, with a gain or loss recognized in profit or loss for the difference.

f) Offsetting of financial instruments

Financial asset and liability balances are offset, i.e. reported in the consolidated balance sheet at their net amount, only if the Group entities currently have a legally enforceable right to set off the recognised amounts and intend either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

g) Impairment of financial assets

i. Definition

Grupo Santander associates an impairment in the value to financial assets measured at amortised cost, debt instruments measured at fair value with changes in other comprehensive income, lease receivables, assets from contracts and loan commitments and the financial guarantees issued that are not measured at fair value through profit or loss.

The impairment for expected credit losses is recorded with a charge to the consolidated income statement for the period in which the impairment arises. In the event of occurrence, the recoveries of previously recognised impairment losses are recorded in the consolidated income statement for the period in which the impairment no longer exists or is reduced.

In the case of purchased or originated credit-impaired assets, the Group only recognizes at the reporting date the changes in the expected credit losses during the life of the asset since the initial recognition as a credit loss. In the case of assets measured at fair value with changes in other comprehensive income, the changes in the fair value due to expected credit losses are charged in the consolidated income statement of the year where the change happened, reflecting the rest of the valuation in other comprehensive income.

As a rule, the expected credit loss is estimated as the difference between the contractual cash flows to be recovered and the expected cash flows discounted using the original effective interest rate. In the case of purchased or originated credit-impaired assets, this difference is discounted using the effective interest rate adjusted by credit rating.

Depending on the classification of financial instruments, which is mentioned in the following sections, the expected credit losses may be along 12 months or during the life of the financial instrument:

- 12-month expected credit losses: arising from the potential default events, as defined in the following sections that are estimated to be likely to occur within the 12 months following the reporting date. These losses will be associated with financial assets classified as 'normal risk' as defined in the following sections.

- Expected credit losses over the life of the financial instrument: arising from the potential default events that are estimated to be likely to occur throughout the life of the financial instruments. These losses are associated with financial assets classified as 'normal risk under watchlist' or 'doubtful risk'.

With the purpose of estimating the expected life of the financial instrument all the contractual terms have been taken into account (e.g. prepayments, duration, purchase options, etc.), being the contractual period (including extension options) the maximum period considered to measure the expected credit losses. In the case of financial instruments with an uncertain maturity period and a component of undrawn commitment (e.g.: credit cards), the expected life is estimated through quantitative analyses to determine the period during which the entity is exposed to credit risk, also considering the effectiveness of management procedures that mitigate such exposure (e.g. the ability to unilaterally cancel such financial instruments, etc.).

The following constitute effective guarantees:

a) Mortgage guarantees on housing as long as they are first duly constituted and registered in favour of the entity. The properties include:

   i. Buildings and building elements, distinguishing among:

   – Houses.

   – Offices, stores and multi-purpose premises.

   – Rest of buildings such as non-multi-purpose premises and hotels.

   ii. Urban and developable ordered land.

   iii. Rest of properties that classify as: buildings and building elements under construction, such as property development in progress and halted development, and the rest of land types, such as rustic lands.

b) Collateral guarantees on financial instruments in the form of cash deposits, debt securities or equity instruments issued by creditworthy issuers.

c) Other types of real guarantees, including properties received in guarantee and second and subsequent mortgages on properties, as long as the entity demonstrates its effectiveness. When assessing the effectiveness of the second and subsequent mortgages on properties the entity will implement particularly restrictive criteria. It will take into account, among others, whether the previous charges are in favour of the entity itself or not and the relationship between the risk guaranteed by them and the property value.

d) Personal guarantees, as well as the incorporation of new owners, covering the entire amount of the financial instruments and implying direct and joint liability to the entity of persons or other entities whose solvency is sufficiently proven to ensure the repayment of the loan on the agreed terms.

The different aspects that the Group considers for the evaluation of effective guarantees are set out below in relation to the individual analysis.

ii. Financial instruments presentation

For the purposes of estimating the impairment amount, and in accordance with its internal policies, the Group classifies its financial instruments (financial assets, commitments and guarantees) measured at amortised cost or fair value through other comprehensive income in one of the following categories:

- Normal Risk ('stage 1'): includes all instruments that do not meet the requirements to be classified in the rest of the categories.

- Normal risk under watchlist ('stage 2'): includes all instruments that, without meeting the criteria for classification as doubtful or default risk, have experienced significant increases in credit risk since initial recognition.

In order to determine whether a financial instrument has increased its credit risk since initial recognition and is to be classified in stage 2, the Group considers the following criteria:

Quantitative criteria	Changes in the risk of a default occurring through the expected life of the financial instrument are analysed and quantified with respect to its credit level in its initial recognition. With the purpose of determining if such changes are considered as significant, with the consequent classification into stage 2, each Group unit has defined the quantitative thresholds to consider in each of its portfolios taking into account corporate guidelines ensuring a consistent interpretation in all units. Within the quantitative thresholds, two types are considered: A relative threshold is those that compare current credit quality with credit quality at the time of origination in percentage terms of change. In addition, an absolute threshold compares both references in total terms, calculating the difference between the two. These absolute/relative concepts are used homogeneously (with different values) in all geographies. The use of one type of threshold or another (or both) is determined in accordance with the process described in note 54, below, and is marked by the type of portfolio and characteristics such as the starting point of the average credit quality of the portfolio.
Qualitative criteria	In addition to the quantitative criteria indicated, various indicators are used that are aligned with those used by the Group in the normal management of credit risk. Irregular positions of more than 30 days and renewals are common criteria in all Group units. In addition, each unit can define other qualitative indicators, for each of its portfolios, according to the particularities and normal management practices in line with the policies currently in force (i.e. use of management alerts, etc.). The use of these qualitative criteria is complemented with the use of an expert judgement, under the corresponding governance.

In the case of forbearances, instruments classified as 'normal risk under watchlist' may be generally reclassified to 'normal risk' in the following circumstances: at least two years have elapsed from the date of reclassification to that category or from its forbearance date, the client has paid the accrued principal and interest balance, and the client has no other instruments with more than 30 days past due balances.

- Doubtful Risk ('stage 3'): includes financial instruments, overdue or not, in which, without meeting the circumstances to classify them in the category of default risk, there are reasonable doubts about their total repayment (principal and interests) by the client in the terms contractually agreed. Likewise, off-balance-sheet exposures whose payment is probable and their recovery doubtful are considered in stage 3. Within this category, two situations are differentiated:

  – Doubtful risk for non-performing loans: financial instruments, irrespective of the client and guarantee, with balances more than 90 consecutive days on material arrears for principal, interest or expenses contractually agreed.

  This category also includes all loan balances for a client when the operations with more than 90 consecutive days on material arrears are greater than 20% of the amounts pending collection.

These instruments may be reclassified to other categories if, as a result of the collection of part of the past due balances, the reasons for their classification in this category do not remain and the client does not have balances more than 90 consecutive days on material arrears in other loans.

– Doubtful risk for reasons other than non-performing loans: this category includes doubtful recovery financial instruments that are not more than 90 consecutive days on material arrears.

Grupo Santander considers that a financial instrument to be doubtful for reasons other than delinquency when one or more combined events have occurred with a negative impact on the estimated future cash flows of the financial instrument. To this end, the following indicators, among others, are considered:

a) Negative net equity or decrease because of losses of the client's net equity by at least 50% during the last financial year.

b) Continued losses or significant decrease in revenue or, in general, in the client's recurring cash flows.

c) Generalised delay in payments or insufficient cash flows to service debts.

d) Significantly inadequate economic or financial structure or inability to obtain additional financing by the client.

e) Existence of an internal or external credit rating showing that the client is in default.

f) Existence of overdue customer commitments with a significant amount to public institutions or employees.

These financial instruments may be reclassified to other categories if, as a result of an individualised study, reasonable doubts do not remain about the total repayment under the contractually agreed terms and the client does not have balances of 90 days on material arrears.

In the case of forbearances, instruments classified as doubtful risk may be reclassified to the category of 'normal risk under watchlist' when the following circumstances are present: a minimum period of one year has elapsed from the forbearance date, the client has paid the accrued principal and interest amounts, and the client has no other loan balances of 90 days on material arrears.

- Default Risk: includes all financial assets, or part of them, for which, after an individualised analysis, their recovery is considered remote due to a notorious and irrecoverable deterioration of their solvency.

  In any event, except in the case of financial instruments with effective collateral covering a substantial portion of the transaction amount, the Group generally consider as remote the following:

  - Those operations that, after an individualized analysis, are categorized as unsustainable debt, assuming an irrecoverability of such debt.

  - Transactions classified as doubtful due to non-performing loans with recovery costs that exceed the amounts receivable.

  - The operations on which the award is executed. The queue of these operations shall be included under default risk, as the recovery of the flows, provided that no further guarantees associated with the operation remain after the award of the property.

  - Those operations on which a deduction is made, the portion of the operation corresponding to that deduction, will be given as a balance at the time of signature.

A financial asset amount is maintained in the balance sheet until they are considered as a "default risk", either all or a part of it, and the write-off is registered against the balance sheet.

In the case of operations that have only been partially derecognised, for forgiveness reasons or because part of the total balance is considered unrecoverable, the remaining amount shall be fully classified in the category of 'doubtful risk', except where duly justified.

The classification of a financial asset, or part of it, as a 'default risk' does not involve the disruption of negotiations and legal proceedings to recover the amount.

iii. Impairment valuation assessment

Grupo Santander has policies, methods and procedures in place to hedge its credit risk, both due to the insolvency attributable to counterparties and its residence in a specific country.

These policies, methods and procedures are applied in the concession, study and documentation of financial assets, commitments and guarantees, as well as in the identification of their impairment and in the calculation of the amounts needed to cover their credit risk.

The impairment represents the best estimation of the financial assets expected credit losses at the balance sheet date, assessed both individually and collectively.

- Individually: for the purposes of estimating the provisions for credit risk arising from the insolvency of a financial instrument, the Group individually assesses impairment by estimating the expected credit losses on those financial instruments that are considered to be significant and with sufficient information to make such an estimate.

  Therefore, this classification mostly includes wholesale banking customers —Corporations, specialised financing— as well as some of the largest companies —Chartered and real estate developers— from retail banking. The determination of the perimeter in which the individualised estimate is applied is detailed in a later section.

  The individually assessed impairment estimate is equal to the difference between the gross carrying amount of the financial instrument and the estimated value of the expected cash flows receivable discounted using the original effective interest rate of the transaction. The estimate of these cash flows takes into account all available information on the financial asset and the effective guarantees associated with that asset. This estimation process is detailed below.

- Collectively: the Group also assesses impairment by estimating the expected credit losses collectively in cases where they are not assessed on an individual basis. This includes, for example, loans with individuals, sole proprietors or businesses in retail banking subject to a standardised risk management.

  For the purposes of the collective assessment of expected credit losses, the Group has consistent and reliable internal models. For the development of these models, instruments with similar credit risk characteristics that are indicative of the debtors' capacity to pay are considered.

  The credit risk characteristics used to group the instruments are, among others: type of instrument, debtor's sector of activity, geographical area of activity, type of guarantee, aging of past due balances and any other factor relevant to estimating the future cash flows.

Grupo Santander performs retrospective and monitoring tests to evaluate the reasonableness of the collective estimate.

On the other hand, the methodology required to estimate the expected credit loss due to credit events is based on an unbiased and weighted consideration by the probability of occurrence of a series of scenarios, considering a range of three to five possible future scenarios, depending on the characteristics of each unit, which could have an impact on the collection of contractual cash flows, always taking into account the time value of money, as well as all available, reasonable and sustainable information on past events, current conditions and forecasts of the evolution of macroeconomic scenarios that are shown to be relevant for the estimation of this amount (for example: GDP (Gross Domestic Product), housing price, unemployment rate, etc.).

The estimation of expected losses requires expert judgment and the support of historical, current and future information. The probability of loss is measured considering past events, the present situation and future trends of macroeconomic scenarios.

Grupo Santander uses forward-looking information in both internal risk management and prudential regulation processes, so that for the calculation of the impairment loss allowance, various scenarios are incorporated that take advantage of the experience with such information, thus ensuring consistency in obtaining the expected loss.

The complexity of the estimation in this exercise has been derived from the current macroeconomic scenario as a consequence of the war in Ukraine, as well as the increasing level of inflation and interest rates, and the difficulties in the supply chains, which has generated some uncertainty in the evolution of the economy.

Grupo Santander has internally ensured the criteria to be followed for guarantees received from government bodies, both through credit lines and other public guarantees, so that when they are adequately reflected in each of the contracts, they are recognised as mitigating factors of the potential expected losses, and therefore of the provisions to be recognised, based on the provisions of the applicable standard (IFRS 9 Par. B5.5.55). Furthermore, where applicable, these guarantees are appropriately reflected in the mitigation of the significant increase in risk, considering their nature as personal guarantees.

For the estimation of the parameters used in the estimation of impairment provisions -EAD (exposure at default), PD (probability of default), LGD (loss given default)-, the Group based its experience in developing internal models for the estimation of parameters both in the regulatory area and for management purposes, adapting the development of the impairment provision models under IFRS 9.

- Exposure at default: is the amount of estimated risk incurred at the time of the counterparty's analysis.
- Probability of default: is the estimated probability that the counterparty will default on its principal and/or interest payment obligations.
- Loss given default: is the estimate of the severity of the loss incurred in the event of non-compliance. It depends mainly on the updating of the guarantees associated with the operation and the future cash flows that are expected to be recovered.

In any case, when estimating the flows expected to be recovered, portfolio sales are included. It should be noted that due to the Group's recovery policy and the experience observed in relation to the prices of past sales of assets classified as stage 3 and/or default risk, there is no substantial divergence between the flows obtained from recoveries after performing recovery management of the assets with those obtained from the sale of portfolios of assets discounting structural expenses and other costs incurred.

The definition of default implemented by the Group for the purpose of calculating the impairment provision models is based on the definition in Article 178 of Regulation 575/2013 of the European Union (CRR), which is fully aligned with the requirements of IFRS 9, which considers that a 'default' exists in relation to a specific customer/contract when at least one of the following circumstances exists: the entity considers that there are reasonable doubts about the payment of all its credit obligations or that the customer/contract is in an irregular situation for more than 90 consecutive days past due material balances with respect to any significant credit obligation.

Grupo Santander aligned partially and voluntarily during 2022 the accounting definition of Stage 3, as well as the calculation of impairment provision models, to the New Definition of Default, incorporating the criteria defined by the EBA in its implementation guide of the definition of default, capturing the economic deterioration of the operations (days in default - on a daily basis - and materiality thresholds - minimum amount in arrears). The alignment of criteria was done taking into account the criteria of IFRS 9 as well as the accounting principles of unbiased presentation of financial information. Grupo Santander registered an increase in the default rate at around 19 basis points, with no material impact on the provision figures for credit risk.

In addition, the Group considers the risk generated in all cross-border transactions due to circumstances other than the usual commercial risk of insolvency (sovereign risk, transfer risk or risks arising from international financial activity, such as wars, natural catastrophes, balance of payments crisis, etc.).

IFRS 9 includes a series of practical solutions that can be implemented by entities, with the aim of facilitating its implementation. In order to achieve a complete and high-level implementation of the standard, and following the best practices of the industry, the Group applies these practical solutions adapting them to their own characteristics and circumstances:

- Rebuttable presumption that the credit risk has increased significantly, when payments are more than 30 days past due: this threshold is used as an additional, but not primary, indicator of significant risk increase.
- Assets with low credit risk at the reporting date: the Group adopts this practice prioritizing its reduced and punctual use and its systematic and periodic justification through quantitative evidence.

This information is provided in more detail in note 54.b.

iv. Detail of individual estimate of impairment

For the individual estimate of the assessment for impairment of the financial asset, the Group has a specific methodology to estimate the value of the cash flows expected to be collected:

- Recovery through the debtor's ordinary activities (going approach).
- Recovery through the execution and sale of the collateral guaranteeing the operations (gone approach).

Gone approach:

a. Evaluation of the effectiveness of guarantees

Grupo Santander assesses the effectiveness of all the guarantees associated considering the following:

- The time required to execute these guarantees.
- Grupo Santander's ability to enforce or assert these guarantees in its favour.
- The existence of limitations imposed by each local unit´s regulation on the foreclosure of collateral.

Under no circumstances the Group considers that a guarantee is effective if its effectiveness depends substantially on the solvency of the debtor, as could be the case:

- Promises of shares or other securities of the debtor himself when their valuation may be significantly affected by a debtor's default.
- Personal cross-collateralisation: when the guarantor of a transaction is, at the same time, guaranteed by the holder of that transaction.

The different types of effective guarantees have been detailed in section i. Definition

b. Valuation of guarantees

Grupo Santander assesses the guarantees on the basis of their nature in accordance with the following:

- Mortgage guarantees on properties associated with financial instruments, using complete individual valuations carried out by independent valuation experts and under generally accepted valuation standards. If this is not possible, alternative valuations are used with duly documented and approved internal valuation models.
- Personal guarantees are valued individually on the basis of the guarantor´s updated information.
- The rest of the guarantees are valued based on current market values.

c. Adjustments to the value of guarantees and estimation of future cash flow inflows and outflows

Grupo Santander applies a series of adjustments to the value of the guarantees in order to improve the reference values:

- Adjustments based on the historical sales experience of local units for certain types of assets.
- Individual expert adjustments based on additional management information.

Likewise, to adjust the value of the guarantees, the time value of money is taken into account based on the historical experience of each of the units, estimating:

- Period of adjudication.
- Estimated time of sale of the asset.

In addition, the Group takes into account all those cash inflows and outflows linked to that guarantee until it is sold:

- Possible future income commitments in favour of the borrower which will available after the asset is awarded.
- Estimated foreclosure costs.
- Asset maintenance costs, taxes and community costs.
- Estimated marketing or sales costs.

Finally, since it is considered that the guarantee will be sold in the future, the Group applies an additional adjustment ('index forward') in order to adjust the value of the guarantees to future valuation expectations.

v. Impairment individual assessment scope

Grupo Santander determines the perimeter over which it makes an estimate of the assessment for impairment on an individual basis based on a relevance threshold set by each of the geographical areas and the stage in which the operations are located. In general, the Group applies the individualised calculation of expected losses to the significant exposures classified in stage 3, although Banco Santander, S.A. has also extended its analyses to some of the exposures classified in stage 2.

It should be noted that, in any case and irrespective of the stage in which their transactions are carried out, for customers who do not receive standardised treatment, a relational risk management model is applied, with individualised treatment and monitoring by the assigned risk analyst. In addition to wholesale customers (Santander Corporate & Investment Banking or SCIB) and large companies, this relational management model also includes other segments of smaller companies for which there is information and capacity for more personalised and expert analysis and monitoring. As indicated in the Group's wholesale credit model, the individual treatment of the client facilitates the continuous updating of information. The risk assumed must be followed and monitored throughout its life cycle, enabling anticipation and action to be taken in the event of possible impairments. In this way, the customer's credit quality is analysed individually, taking into account specific aspects such as his competitive position, financial performance, management, etc. In the wholesale risk management model, every customer with a credit risk position is assigned a rating, which has an associated probability of customer default. Thus, individual analysis of the debtor triggers a specific rating for each customer, which determines the appropriate parameters for calculating the expected loss, so that it is the rating itself that initially modulates the necessary coverage, adjusting the severity of the possible loss to the guarantees and other mitigating factors that the customer may have available. In addition, if as a result of this individualised monitoring of the customer, the analyst finally considers that his coverage is not sufficient, he has the necessary mechanisms to adjust it under his expert judgement, always under the appropriate governance.

h) 'Non-current assets' and 'liabilities associated with non-current assets held for sale'

Non-current assets held for sale' includes the carrying amount of individual items, disposal groups or items forming part of a business unit earmarked for disposal (discontinued operations), whose sale in their present condition is highly likely to be completed within one year from the reporting date. Therefore, the recovery of the carrying amount of these items -which can be of a financial nature or otherwise- will foreseeably be effected through the proceeds from their disposal.

Specifically, property or other non-current assets received by the consolidated entities as total or partial settlement of their debtors' payment obligations to them are deemed to be 'Non-current assets held for sale', unless the consolidated entities have decided to make continuing use of these assets.

'Liabilities associated with non-current assets held for sale' includes the balances payable arising from the assets held for sale or disposal groups and from discontinued operations.

'Non-current assets and disposal groups of items that have been classified as held for sale' are generally recognised at the date of their allocation to this category and are subsequently valued at the lower of their fair value less costs to sell or its book value. 'Non-current assets and disposal groups of items that are classified as held for sale' are not amortised as long as they remain in this category.

The valuation of the portfolio of non-current assets held for sale has been made in compliance with the requirements of International Financial Reporting Standards in relation to the estimate of the fair value of tangible assets and the value-in-use of financial assets.

The value of the portfolio is determined as the sum of the values of the individual elements that compose the portfolio, without considering any total or batch grouping in order to correct the individual values.

For the purposes of its consideration in initial recognition, the Group obtains, at the time of award, the fair value of the corresponding asset by requesting an appraisal from external valuation agencies.

Grupo Santander has in place a corporate policy that ensures the professional competence and the independence and objectivity of the external appraisal agencies, in accordance with the regulations, which require appraisal agencies to meet independence, neutrality and credibility requirements, so that the use of their estimates does not reduce the reliability of its valuations. This policy establishes that all the appraisal companies and agencies with which the Group works in Spain should be registered in the Official Register of the Bank of Spain and that the appraisals performed by them should follow the methodology established in Order ECO/805/2003, of 27 March. The main appraisal companies and agencies with which the Group worked in Spain in 2023 are as follows: Tinsa Tasaciones Inmobiliarias, S.A.U., Krata Sociedad de Tasación, S.A., Sociedad de Tasación, S.A., Global Valuation, S.A.U., Gesvalt Sociedad de Tasación, S.A. y Valoraciones Mediterraneo, S.A.

Also, this policy establishes that the various subsidiaries abroad work with appraisal companies that have recent experience in the area and the type of asset under appraisal and meet the independence requirements established in the corporate policy. They should verify, inter alia, that the appraisal company is not a party related to the Group and that its billings to the Group in the last twelve months do not exceed 15% of the appraisal company's total billings.

At 31 December 2023 the fair value less costs to sell of non-current assets held for sale exceeded their carrying amount by EUR 624 million (EUR 631 million at 31 December 2022); however, in accordance with the accounting standards, this unrealised gain could not be recognised.

Banco Santander, in compliance with Bank of Spain Circular 4/2017, and subsequent amendments, on public and private financial reporting standards and financial statement models, has developed a methodology that enables it to estimate the fair value and costs of sale of assets foreclosed or received in payment of debts. This methodology is based on the classification of the portfolio of foreclosed assets into different segments. Segmentation enables the intrinsic characteristics of Banco Santander's portfolio of foreclosed assets to be differentiated, so that assets with homogeneous characteristics are grouped by segment.

Thus, the portfolio is segmented into (i) finished assets of a residential and tertiary nature, (ii) developments in progress and (iii) land.[1]

In determining the critical segments in the overall portfolio, assets are classified on the basis of the nature of the asset and its stage of development. This segmentation is made in order to seek the liquidation of the asset (which should be carried out in the shortest possible time).

When making decisions, the situation and/or characteristics of the asset are fundamentally taken into account, as well as the evaluation of all the determining factors that favour the recovery of the debt. For them, the following aspects are analyzed, among others:

- The time that has elapsed since the adjudication.
- The transferability and contingencies of the foreclosed asset.
- The economic viability from the real estate point of view with the necessary investment estimate.
- The expenses that may arise from the marketing process.
- The offers received, as well as the difficulties in finding buyers.

In the case of real estate assets foreclosed in Spain, which represent 85% of the Group’s total non-current assets held for sale, the valuation of the portfolio is carried out by applying the following models:

- Market Value Model used in the valuation of finished properties of a residential nature (mainly homes and car parks) and properties of a tertiary nature (offices, commercial premises and multipurpose buildings). For the valuation of finished assets whose availability for sale is immediate, a market sale value provided by a third party external to Banco Santander is considered, calculated under the AVM methodology by the comparable properties method adjusted by our experience in selling similar assets, given the term, price, volume, trend in the value of these assets and the time elapsing until their sale and discounting the estimated costs of sale.

  The market value is determined on the basis of the definition established by the International Valuation Standards drawn up by the IVSC (International Valuation Standards Council), understood as the estimated amount for which an asset or a liability should be exchanged on the measurement date between a willing buyer and a willing seller, in an arm's length transaction, after appropriate marketing, and in which the parties have acted with sufficient information, prudently and without coercion.

  The current market value of the properties is estimated on the basis of automated valuations obtained by taking comparable properties as a reference; simulating the procedure carried out by an appraiser in a physical valuation according to Order ECO 805/2003: selection of properties and obtaining the unit value by applying homogenisation adjustments. The selection of the properties is carried out by location within the same real estate cluster and according to the characteristics of the properties, filtering by type[2], surface area range and age. The model enables a distinction to be made within the municipality under study as to which areas are similar and comparable and therefore have a similar value in the property market, discriminating between which properties are good comparators and which are not.

  Adjustments to homogenize the properties are made according to: (i) the age of the property according to the age of the property to be valued, (ii) the deviation of the built area from the common area with respect to the property to be valued and (iii) by age of the date of capture of the property according to the price evolution index of the real estate market.

  In addition, for individually significant assets, complete individual valuations are carried out, including a visit to the asset, market analysis (data relating to supply, demand, current sale or rental price ranges and supply-demand and revaluation expectations) and an estimate of expected income and costs.

1. The assets in a situation of 'stopped development' are included under 'land

2. Assets qualified as protected housing are taken into account. The maximum legal value of these assets is determined by the VPO module, obtained from the result of multiplying the State Basic Module (MBE) by a zone coefficient determined by each autonomous community. To carry out the valuation of a protected property, the useful surface area is used in accordance with current regulations.

For this segmentation of assets, when they are completed, the real costs are known and the actual expenses for the marketing and sale of the asset must be taken into account. Therefore, Banco Santander uses the actual costs in its calculation engine or, failing that, those estimated on the basis of its observed experience.

- Market Value Model according to Evolution of Market Values used to update the valuation of developments in progress. The valuation model estimates the current market value of the properties based on complete individual valuations by third parties, calculated from the values of the feasibility studies and development costs of the promotion, as well as the selling costs, distinguishing by location, size and type of property. The inputs used in the valuation model for residential assets under construction are actual revenues and costs.

  For this purpose, in order to calculate the investment flows, Banco Santander considers, on the basis of the feasibility studies, the expenditure required for construction, the professional fees relating to the project and to project management, the premiums for mandatory building insurance, the developer's administrative expenses, licenses, taxes on new construction and fees, and urban development charges.

  With respect to the calculation of income flows, Banco Santander takes into account the square metres built, the number of homes under construction and the estimated selling price over 1.5 years.

  The market value will be the result of the difference between the income flows and the investment flows estimated at each moment.

- Land Valuation model. The methodology followed by the Group regarding land valuation consists of updating the individual reference valuation of each of the land on an annual basis, through updated valuation valuations carried out by independent professionals and following the methodology established in the Order ECO/805/2003, of 27 March, whose main verifications in the case of land valuation, regardless of the degree of urbanisation of the land, correspond to:

  – Visual verification of the assessed property.

  – Registry description.

  – Urban planning.

  – Visible easements.

  – Visible state of occupation, possession, use and exploitation.

  – Protection regime.

  – Apparent state of preservation.

  – Correspondence with cadastral property.

  – Existence of expropriation procedure, expropriation plan or project, administrative resolution or file that may lead to expropriation.

  – Expiry of the urbanization or building deadlines.

  – Existence of a procedure for failure to comply with obligations.

  – Verification of surfaces.

For the purposes of valuation, the land will be classified in the following levels:

  – Level I: It will include all the lands that do not belong to level II.

  – Level II: It shall include land classified as undeveloped where building is not allowed for uses other than agriculture, forestry, livestock or linked to an economic exploitation permitted by the regulations in force. Also included are lands classified as developable that are not included in a development area of urban planning or that, in such an area, the conditions for its development have not been defined.

  In those cases where the Group does not have an updated reference value through an ECO valuation for the current year, we use as a reference value the latest available ECO valuation reduced or corrected by the average annual coverage ratio of the land on which we have obtained an updated reference value, through an ECO valuation.

  Grupo Santander applies a discount to the aforementioned reference values that takes into account both the discount on the reference value in the sales process and the estimated costs of marketing or selling the land; discount on reference value = % discount on sales + % marketing costs being:

  – % discount on Sales: = 100 - (sales price / updated appraisal value).

  – marketing costs: calculated on the basis of our historical experience in sales and in accordance with the marketing management fees negotiated with our suppliers of this type of service.

In this way the Group obtains the corrected market value, an amount that we compare with the net cost of each piece of land to determine its correct valuation and conclude with our valuation process.

In addition, in relation to the previously mentioned valuations, less costs to sell, are contrasted with the sales experience of each type of asset in order to confirm that there is no significant difference between the sale price and the valuation.

Impairment losses on an asset or disposal group arising from a reduction in its carrying amount to its fair value (less costs to sell) are recognised under 'Gains or (losses) on non-current assets held for sale not classified as discontinued operations' in the consolidated income statement.

The gains on a non-current asset held for sale resulting from subsequent increases in fair value (less costs to sell) increase its carrying amount and are recognised in the consolidated income statement up to an amount equal to the impairment losses previously recognised.

i) Assets under reinsurance contracts and Liabilities under insurance contracts

The Group has prepared the accounting policy that establishes the criteria for recording insurance contracts, in accordance with IFRS 17. This standard defines insurance contracts as contracts under which one party accepts a significant insurance risk from another party by agreeing to compensate the policyholder if a specific uncertain future event negatively affects the policyholder.

IFRS 17 requires a level of aggregation of contracts that the Group identifies in portfolios of contracts with similar risks and that are managed jointly. The Group then divides each portfolio into a minimum of three groups: (i) contracts that are onerous on initial recognition; (ii) contracts that, upon initial recognition, have no significant possibility of subsequently becoming onerous; and (iii) any remaining contract.

For contracts that are considered not to be onerous, a profit margin is recognized in the profit and loss account (referred to as 'Contractual Service Margin' or 'CSM') throughout the period in which the entity performs the service. However, if at the time of initial recognition, or during the period in which the entity performs the service, the contract is onerous, the entity recognizes the loss in the income statement.

Contract limits define the term up to which compliance cash flows must be considered in order to measure an insurance contract. Fulfillment cash flows comprise an unbiased, probability-weighted estimate of future cash flows, a discount adjustment to the present value to reflect the time value of money for monetary and financial risks, and a risk adjustment for non-fulfillment risks. financial. The identification of the contractual limit under IFRS 17 is essential not only for measuring the fulfillment cash flows of a group of contracts, but also for determining the applicable measurement model, in case the contractual limits are identified in a year or more.

Cash flows are within the contractual limit of an insurance contract if they arise from substantial rights and obligations that exist during the reporting period, in which the entity can obligate the insurance policyholder to pay premiums or in which the entity has a substantive obligation to provide services to the insured.

The Group has carried out an analysis of the limits of insurance and reinsurance contracts under IFRS 17, separately, generally applying the General Model (Building Block Approach) to all contracts, except those eligible to be valued by the Simplified Model (Premium Allocation Approach), or the Variable Commission Approach ('VCA' or Variable Fee Approach).

The general model measures a group of contracts as the sum of the fulfillment cash flows and the Contractual Service Margin. The CSM represents benefits not yet recorded that the entity will recognize as providing services under the insurance contract.

Insurance contracts with direct participation apply the VCA as a modified version of the General Model. This should reduce the volatility of results due to the asymmetry between the accounting treatment of the profit and losses of the underlying items attributable to the policyholders and the accounting treatment of the liability owed to those policyholders.

Another aspect considered in measuring the present value of the future cash flows of a group of insurance contracts is the discount rate applied to reflect the time value of money and the financial risks related to those cash flows. The Group has established a generally chosen methodology and guarantees that the calculation components have a homogeneous basis, previously approved by the Group, establishing the base curves provided by the Group and allowing adjustments to these curves based on the expert criteria of each local address.

Likewise, measuring compliance cash flows requires a risk adjustment for non-financial risk. Risk adjustment for non-financial risk is the compensation necessary to withstand uncertainty about the amount and timing of cash flows arising from non-financial risks. If a change in the assumptions occurs, it could affect the income statement or the Other comprehensive income, depending on its nature. The risks covered by the risk adjustment for non-financial risk are insurance risk and other non-financial risks, such as interruption risk and expense risk.

j) Tangible assets

Tangible assets includes the amount of buildings, land, furniture, vehicles, computer hardware and other fixtures owned by the consolidated entities or acquired under finance leases. Tangible assets are classified by use as follows:

i. Property, plant and equipment for own use

Property, plant and equipment for own use – including tangible assets received by the consolidated entities in full or partial satisfaction of financial assets representing receivables from third parties which are intended to be held for continuing use and tangible assets acquired under finance leases– are presented at acquisition cost, less the related accumulated depreciation and any estimated impairment losses (carrying amount higher than recoverable amount).

Depreciation is calculated, using the straight-line method, on the basis of the acquisition cost of the assets less their residual value. The land on which the buildings and other structures stand has an indefinite life and, therefore, is not depreciated.

The annual tangible asset depreciation charge is recognised in the consolidated income statement and are essentially equivalent to the following amortization percentages (determined based on the years of estimated useful life, on average, of the different elements):

	Average annual rate
Buildings for own use	2.6%
Furniture	10.3%
Fixtures	10.3%
Office and IT equipment	23.8%
Lease use rights	Less than the lease term or the useful life of the underlying asset

At the end of each reporting period, consolidated entities assess whether there is any indication that the carrying amount of an asset exceeds its recoverable amount, in which case they write down the carrying amount of the asset to its recoverable amount and adjust future depreciation charges in proportion to its adjusted carrying amount and to its new remaining useful life, if the useful life needs to be re-estimated.

Similarly, if there is an indication of a recovery in the value of a tangible asset, the consolidated entities recognise the reversal of the impairment loss recognised in prior periods and adjust the future depreciation charges accordingly. In no circumstances may the reversal of an impairment loss on an asset raise its carrying amount above that which it would have if no impairment losses had been recognised in prior years.

The estimated useful lives of the items of property, plant and equipment for own use are reviewed at least at the end of the reporting period with a view to detecting significant changes therein. If changes are detected, the useful lives of the assets are adjusted by correcting the depreciation charge to be recognised in the consolidated income statement in future years on the basis of the new useful lives.

Upkeep and maintenance expenses relating to property, plant and equipment for own use are recognised as an expense in the period in which they are incurred, since they do not increase the useful lives of the assets.

ii. Investment property

'Investment property' reflects the net values of the land, buildings and other structures held either to earn rentals or for obtaining profits by sales due to future increase in market prices.

The criteria used to recognise the acquisition cost of investment property, to calculate its depreciation and its estimated useful life and to recognise any impairment losses thereon are consistent with those described in relation to property, plant and equipment for own use.

In order to evaluate the possible impairment Grupo Santander determines periodically the fair value of its investment property so that, at the end of the reporting period, the fair value reflects the market conditions of the investment property at that date. This fair value is determined annually, taking as benchmarks the valuations performed by independent experts. The methodology used to determine the fair value of investment property is selected based on the status of the asset in question; thus, for properties earmarked for lease, the valuations are performed using the sales comparison approach, whereas for leased properties the valuations are made primarily using the income capitalisation approach and, exceptionally, the sales comparison approach.

In the sales comparison approach, the property market segment for comparable properties is analysed, inter alia, and, based on specific information on actual transactions and firm offers, current prices are obtained for cash sales of those properties. The valuations performed using this approach are considered as level 2 valuations.

In the income capitalisation approach, the cash flows estimated to be obtained over the useful life of the property are discounted taking into account factors that may influence the amount and actual obtainment thereof, such as: (i) the payments that are normally received on comparable properties; (ii) current and probable future occupancy; (iii) the current or foreseeable default rate on payments. The valuations performed using this approach are considered as Level 3 valuations, since significant unobservable inputs are used, such as current and probable future occupancy and/or the current or foreseeable default rate on payments.

iii. Assets leased out under an operating lease

'Property, plant and equipment' - Leased out under an operating lease reflects the amount of the tangible assets, other than land and buildings, leased out by the Group under an operating lease.

The criteria used to recognise the acquisition cost of assets leased out under operating leases, to calculate their depreciation and their respective estimated useful lives and to recognise the impairment losses thereon are consistent with those described in relation to property, plant and equipment for own use.

k) Accounting for leases

The main aspects contained in the regulation (IFRS 16) adopted by the Group are included below:

When the Group acts as lessee, it recognises a right-of-use asset representing its right to use the underlying leased asset with a corresponding lease liability on the date on which the leased asset is available for use by the Group.

Each lease payment is allocated between liability and finance charge. The finance charge is allocated to the income statement during the term of the lease in such a way as to produce a constant periodic interest rate on the remaining balance of the liability for each year.

The right-of-use asset is depreciated over the useful life of the asset or the lease term, whichever is shorter, on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is amortized over the useful life of the underlying asset.

Assets and liabilities arising from a lease are initially measured at present value. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including inflation-linked payments), less any lease incentive receivable.
- Variable lease payments that depend on an index or rate.
- The amounts expected to be paid by the lessee under residual value guarantees.
- The exercise price of a purchase option if the lessee is reasonably certain that it will exercise that option.
- Lease termination penalty payments, if the term of the lease reflects the lessee's exercise of that option.

Lease payments are discounted using the interest rate implicit in the lease. When this interest rate cannot be obtained, the interest rate used in these cases, is the lessee's incremental borrowing rate at the related date. For this purpose, the entity has calculated this incremental borrowing rate taking as reference the listed debt instruments issued by the Group; in this regard, the Group has estimated different interest rate curves depending on the currency and economic environment in which the contracts are located.

In order to construct the incremental borrowing rate, a methodology has been developed at the corporate level. This methodology is based on the need for each entity to consider its economic and financial situation, for which the following factors must be considered:

- Economic and political situation (country risk).
- Credit risk of the company.
- Monetary policy.
- Volume and seniority of the company’s debt instrument issues.

The incremental borrowing rate is defined as the interest rate that a lessee would have to pay for borrowing, given a similar period to the duration of the lease and with similar security, the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment. The Group entities have a wide stock and variety of financing instruments issued in different currencies to that of the euro (pound, dollar, etc.) that provide sufficient information to be able to determine an "all in rate" (reference rate plus adjustment for credit spread at different terms and in different currencies). In circumstances, where the leasing company has its own financing, this has been used as the starting point for determining the incremental borrowing rate. On the other hand, for those Grupo Santander entities that do not have their own financing, the information from the financing of the consolidated subgroup to which they belong was used as the starting point for estimating the entity's curve, analysing other factors to assess whether it is necessary to make any type of negative or positive adjustment to the initially estimated credit spread.

Right-of-use assets are valued at cost which includes the following:

- The amount of the initial measurement of the lease liability.
- Any lease payment made at or before the commencement date less any lease incentive received.
- Any initial direct costs.
- Restoration costs.

The Group recognises the payments associated with short-term leases and leases of low-value assets on a straight-line basis as an expense in the income statement. Short-term leases are leases with a lease term less than or equal to 12 months (a lease that contains a purchase option is not a short term lease).

l) Intangible assets

Intangible assets are identifiable non-monetary assets (separable from other assets) without physical substance which arise as a result of a legal transaction or which are developed internally by the consolidated entities.

Only assets whose cost can be measured reliably and it is likely that the consolidated entities obtain future economic benefits are recognised.

Intangible assets are recognised initially at acquisition or production cost and are subsequently measured at cost less any accumulated amortisation and any accumulated impairment losses.

i. Goodwill

Any excess of the cost of the investments in the consolidated entities and entities accounted for using the equity method over the corresponding underlying carrying amounts acquired, adjusted at the date of first-time consolidation, is allocated as follows:

a. If it is attributable to specific assets and liabilities of the companies acquired, by increasing the value of the assets (or reducing the value of the liabilities) whose fair values were higher (lower) than the carrying amounts at which they had been recognised in the acquired entities’ balance sheets.

b. If it is attributable to specific intangible assets, by recognising it explicitly in the consolidated balance sheet provided that the fair value of these assets within twelve months following the date of acquisition can be measured reliably.

c. The remaining amount is recognised as goodwill, which is allocated to one or more cash-generating units (CGU) (a cash-generating unit is the smallest identifiable group of assets that, as a result of continuing operation, generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets). The cash-generating units represent the Group's geographical and/or business segments.

Goodwill (only recognised when it has been acquired by consideration) represents, therefore, a payment made by the acquirer in anticipation of future economic benefits from assets of the acquired entity that are not capable of being individually identified and separately recognised.

At the end of each annual reporting period or whenever there is any indication of impairment goodwill is reviewed for impairment (i.e. a reduction in its recoverable amount to below its carrying amount) and, if there is any impairment, the goodwill is written down with a charge to 'Impairment or reversal of impairment on non-financial assets, net - Intangible assets' in the consolidated income statement.

An impairment loss recognised for goodwill is not reversed in a subsequent period.

In the event of sale or departure of an activity that is part of a CGU, the part of the goodwill that can be assigned to said activity would be written-off, taking as a reference the relative value of the same over the total of the CGU at the time of sale or abandonment. If applicable, the distribution by currency of the remaining goodwill will be performed based on the relative values of the remaining activities.

ii. Other intangible assets

Other intangible assets includes the amount of identifiable intangible assets, such as purchased customer lists and computer software.

Other intangible assets can have an indefinite useful life -when, based on an analysis of all the relevant factors, it is concluded that there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows for the consolidated entities- or a finite useful life, in all other cases.

Intangible assets with indefinite useful lives are not amortised, but rather at the end of each reporting period or whenever there is any indication of impairment the consolidated entities review the remaining useful lives of the assets in order to determine whether they continue to be indefinite and, if this is not the case, to take the appropriate steps.

Intangible assets with finite useful lives are amortised over those useful lives using methods similar to those used to depreciate tangible assets.

The intangible asset amortisation charge is recognised under 'Depreciation and amortisation' in the consolidated income statement.

In both cases the consolidated entities recognise any impairment loss on the carrying amount of these assets with a charge to 'Impairment or reversal of impairment on non-financial assets, net - Intangible assets in the consolidated' income statement.

The criteria used to recognise the impairment losses on these assets and, where applicable, the reversal of impairment losses recognised in prior years are similar to those used for tangible assets (see note 2.k).

Internally developed computer software

Internally developed computer software is recognised as an intangible asset if, among other requisites (basically the Group's ability to use or sell it), it can be identified and its ability to generate future economic benefits can be demonstrated.

Expenditure on research activities is recognised as an expense in the year in which it is incurred and cannot be subsequently capitalised into the carrying amount of the intangible asset.

m) Other assets

Other assets' in the consolidated balance sheet includes the amount of assets not recorded in other items, the breakdown being as follows:

- Inventories: this item includes the amount of assets, other than financial instruments, that are held for sale in the ordinary course of business, that are in the process of production, construction or development for such purpose, or that are to be consumed in the production process or in the provision of services. Inventories include land and other property held for sale in the property development business.

  Inventories are measured at the lower of cost and net realisable value, which is the estimated selling price of the inventories in the ordinary course of business, less the estimated costs of completion and the estimated costs required to make the sale.

  Any write-downs of inventories -such as those due to damage, obsolescence or reduction of selling price- to net realisable value and other impairment losses are recognised as expenses for the year in which the impairment or loss occurs. Subsequent reversals are recognised in the consolidated income statement for the year in which they occur.

  The carrying amount of inventories is derecognised and recognised as an expense in the period in which the revenue from their sale is recognised.

- Other: this item includes the balance of all prepayments and accrued income (excluding accrued interest, fees and commissions), the net amount of the difference between pension plan obligations and the value of the plan assets with a balance in the entity's favour, when this net amount is to be reported in the consolidated balance sheet, and the amount of any other assets not included in other items.

n) Other liabilities

'Other liabilities' includes the balance of all accrued expenses and deferred income, excluding accrued interest, and the amount of any other liabilities not included in other categories.

o) Provisions and contingent liabilities (assets)

When preparing the financial statements of the consolidated entities, Banco Santander's directors made a distinction between:

- Provisions: credit balances covering present obligations at the reporting date arising from past events which could give rise to a loss for the consolidated entities, which is considered to be likely to occur and certain as to its nature but uncertain as to its amount and/or timing.

- Contingent liabilities: possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more future events not wholly within the control of the consolidated entities. They include the present obligations of the consolidated entities when it is not probable that an outflow of resources embodying economic benefits will be required to settle them. The Group does not recognise the contingent liability. The Group will disclose a contingent liability, unless the possibility of an outflow of resources embodying economic benefits is remote.

- Contingent assets: possible assets that arise from past events and whose existence is conditional on, and will be confirmed only by, the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. Contingent assets are not recognised in the consolidated balance sheet or in the consolidated income statement, but rather are disclosed in the notes, provided that it is probable that these assets will give rise to an increase in resources embodying economic benefits.

Grupo Santander's consolidated financial statements include all the material provisions with respect to which it is considered that it is more likely than not the obligation will have to be settled. In accordance with accounting standards, contingent liabilities must not be recognised in the consolidated financial statements, but must rather be disclosed in the Notes.

Provisions (which are quantified on the basis of the best information available on the consequences of the event giving rise to them and are reviewed and adjusted at the end of each year) are used to cater for the specific obligations for which they were originally recognised. Provisions are fully or partially reversed when such obligations cease to exist or are reduced.

Provisions are classified according to the obligations covered as follows (see note 25):

- Provision for pensions and similar obligations: includes the amount of all the provisions made to cover post-employment benefits, including obligations to pre-retirees and similar obligations.

- Provisions for contingent liabilities and commitments: include the amount of the provisions made to cover contingent liabilities -defined as those transactions in which the Group guarantees the obligations of a third party, arising as a result of financial guarantees granted or contracts of another kind- and contingent commitments -defined as irrevocable commitments that may give rise to the recognition of financial assets.

- Provisions for taxes and other legal contingencies and Other provisions: include the amount of the provisions recognised to cover tax and legal contingencies and litigation and the other provisions recognised by the consolidated entities. Other provisions includes, inter alia, any provisions for restructuring costs and environmental measures.

p) Own equity instruments

Own equity instruments are those meeting both of the following conditions:

- The instruments do not include any contractual obligation for the issuer (i) to deliver cash or another financial asset to a third party; or (ii) to exchange financial assets or financial liabilities with a third party under conditions that are potentially unfavourable to the issuer.

- The instruments will or may be settled in the issuer's own equity instruments and are: (i) a non-derivative that includes no contractual obligation for the issuer to deliver a variable number of its own equity instruments; or (ii) a derivative that will be settled by the issuer through the exchange of a fixed amount of cash or another financial asset for a fixed number of its own equity instruments.

Transactions involving own equity instruments, including their issuance and cancellation, are charged directly to equity.

Changes in the value of instruments classified as own equity instruments are not recognised in the consolidated financial statements. Consideration received or paid in exchange for such instruments, including the coupons on preference shares contingently convertible into ordinary shares and the coupons associated with CCPP, is directly added to or deducted from equity.

q) Equity-instrument-based employee remuneration

Own equity instruments delivered to employees in consideration for their services, if the instruments are delivered once the specific period of service has ended, are recognised as an expense for services (with the corresponding increase in equity) as the services are rendered by employees during the service period. At the grant date the services received (and the related increase in equity) are measured at the fair value of the equity instruments granted. If the equity instruments granted are vested immediately, Grupo Santander recognises in full, at the grant date, the expense for the services received.

When the requirements stipulated in the remuneration agreement include external market conditions (such as equity instruments reaching a certain quoted price), the amount ultimately to be recognised in equity will depend on the other conditions being met by the employees (normally length of service requirements), irrespective of whether the market conditions are satisfied.

If the conditions of the agreement are met but the external market conditions are not satisfied, the amounts previously recognised in equity are not reversed, even if the employees do not exercise their right to receive the equity instruments.

r) Recognition of income and expenses

The most significant criteria used by Grupo Santander to recognise its income and expenses are summarised as follows:

i. Interest income, interest expenses and similar items

Interest income, interest expenses and similar items are generally recognised on an accrual basis using the effective interest method. Dividends received from other companies are recognised as income when the consolidated entities' right to receive them arises.

ii. Commissions, fees and similar items

Fee and commission income and expenses are recognised in the consolidated income statement using criteria that vary according to their nature. The main criteria are as follows:

- Fee and commission income and expenses relating to financial assets and financial liabilities measured at fair value through profit or loss are recognised when paid.
- Those arising from transactions or services that are performed over a period of time are recognised over the life of these transactions or services.
- Those relating to services provided in a single act are recognised when the single act is carried out.

iii. Non-finance income and expenses

They are recognised for accounting purposes when the good is delivered or the non-financial service is rendered. To determine the amount and timing of recognition, a five-step model is followed: identification of the contract with the customer, identification of the separate obligations of the contract, determination of the transaction price, distribution of the transaction price among the identified obligations and finally recording of income as the obligations are satisfied.

iv. Deferred collections and payments

These are recognised for accounting purposes at the amount resulting from discounting the expected cash flows at market rates.

v. Loan arrangement fees

Loan arrangement fees, mainly loan origination, application and information fees, are accrued and recognised in income over the term of the loan.

s) Financial guarantees

Financial guarantees are considered contracts that require the issuer to make specific payments to reimburse the creditor for the loss it incurs when a specific debtor defaults on its due date payment obligation in accordance with the original or modified conditions of debt instrument, regardless of its legal form, which may be, among others, a deposit, financial guarantee, insurance contract or credit derivative.

Grupo Santander initially recognises the financial guarantees provided on the liability side of the consolidated balance sheet at fair value, which is generally the present value of the fees, commissions and interest receivable from these contracts over the term thereof, and simultaneously the Group recognises the amount of the fees, commissions and similar interest received at the inception of the transactions and a credit on the asset side of the consolidated balance sheet for the present value of the fees, commissions and interest outstanding.

Financial guarantees, regardless of the guarantor, instrumentation or other circumstances, are reviewed periodically so as to determine the credit risk to which they are exposed and, if appropriate, to consider whether a provision is required. The credit risk is determined by application of criteria similar to those established for quantifying impairment losses on debt instruments carried at amortised cost (described in note 2.g above).

The provisions made for these transactions are recognised under 'Provisions - Provisions for commitments and guarantees given in the consolidated balance sheet' (see note 25). These provisions are recognised and reversed with a charge or credit, respectively, to 'Provisions or reversal of provisions', net, in the consolidated income statement.

t) Assets under management and investment and pension funds managed by the Group

Assets owned by third parties and managed by the consolidated entities are not presented on the face of the consolidated balance sheet. The investment funds and pension funds managed by the consolidated companies are also not presented in the Group's consolidated balance sheet, as they are owned by third parties.

The commissions generated by these activities are included in the balance of the 'Commission income' chapter of the consolidated profit and loss account.

Note 2.b.iv describes the internal criteria and procedures used to determine whether control exists over the structured entities, which include, inter alia, investment funds and pension funds.

u) Post-employment benefits

Under the collective agreements currently in force and other arrangements, the Spanish banks included in the Group and certain other Spanish and foreign consolidated entities have undertaken to supplement the public social security system benefits accruing to certain employees, and to their beneficiary right holders, for retirement, permanent disability or death, and the post-employment welfare benefits.

Grupo Santander's post-employment obligations to its employees are deemed to be defined contribution plans when the Group makes pre-determined contributions (recognised under Personnel expenses in the consolidated income statement) to a separate entity and will have no legal or effective obligation to make further contributions if the separate entity cannot pay the employee benefits relating to the service rendered in the current and prior periods. Post-employment obligations that do not meet the aforementioned conditions are classified as defined benefit plans (see note 25).

Defined contribution plans

The contributions made in this connection in each year are recognised under 'Personnel expenses' in the consolidated income statement.

The amounts not yet contributed at each year-end are recognised, at their present value, under 'Provisions - Provision for pensions' and similar obligations on the liability side of the consolidated balance sheet.

Defined benefit plans

Grupo Santander recognises under 'Provisions - Provision for pensions and similar obligations on the liability side of the consolidated balance sheet' (or under 'Other assets' on the asset side, as appropriate) the present value of its defined benefit post-employment obligations, net of the fair value of the plan assets.

Plan assets are defined as those that will be directly used to settle obligations and that meet the following conditions:

- They are not owned by the consolidated entities, but by a legally separate third party that is not a party related to the Group.

- They are only available to pay or fund post-employment benefits and they cannot be returned to the consolidated entities unless the assets remaining in the plan are sufficient to meet all the benefit obligations of the plan and of the entity to current and former employees, or they are returned to reimburse employee benefits already paid by Grupo Santander.

If Grupo Santander can look to an insurer to pay part or all of the expenditure required to settle a defined benefit obligation, and it is practically certain that said insurer will reimburse some or all of the expenditure required to settle that obligation, but the insurance policy does not qualify as a plan asset, the Group recognises its right to reimbursement -which, in all other respects, is treated as a plan asset- under 'Insurance contracts linked to pensions' on the asset side of the consolidated balance sheet.

Grupo Santander will recognise the following items in the income statement:

- Current service cost, (the increase in the present value of the obligations resulting from employee service in the current period), is recognised under 'Staff costs'.

- The past service cost, which arises from changes to existing post-employment benefits or from the introduction of new benefits and includes the cost of reductions, is recognised under 'Provisions or reversal of provisions'.

- Any gain or loss arising from a liquidation of the plan is included in the Provisions or reversion of provisions.

- Net interest on the net defined benefit liability (asset), i.e. the change during the period in the net defined benefit liability (asset) that arises from the passage of time, is recognised under 'Interest expense' and similar charges ('Interest and similar income' if it constitutes income) in the consolidated income statement.

The remeasurement of the net defined benefit liability (asset) is recognised in 'Other comprehensive income' under Items not reclassified to profit or loss and includes:

- Actuarial gains and losses generated in the year, arising from the differences between the previous actuarial assumptions and what has actually occurred and from the effects of changes in actuarial assumptions.

- The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset).

- Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

v) Other long-term employee benefits

Other long-term employee benefits, defined as obligations to pre-retirees -taken to be those who have ceased to render services at the entity but who, without being legally retired, continue to have economic rights vis-à-vis the entity until they acquire the legal status of retiree-, long-service bonuses, obligations for death of spouse or disability before retirement that depend on the employee’s length of service at the entity and other similar items, are treated for accounting purposes, where applicable, as established above for defined benefit post-employment plans, except that actuarial gains and losses are recognised under 'Provisions or reversal of provisions', net, in the consolidated income statement (see note 25).

w) Termination benefits

Termination benefits are recognised when there is a detailed formal plan identifying the basic changes to be made, provided that implementation of the plan has begun, its main features have been publicly announced or objective facts concerning its implementation have been disclosed.

x) Income tax

The expense for Spanish income tax and other similar taxes applicable to the foreign consolidated entities is recognised in the consolidated income statement, except when they arise from a transaction whose results are recognised directly in equity, in which case the related tax effect is recognised in equity.

The current income tax expense is calculated as the sum of the current tax resulting from application of the appropriate tax rate to the taxable profit for the year (net of any deductions allowable for tax purposes), and of the changes in deferred tax assets and liabilities recognised in the consolidated income statement.

'Deferred tax assets' and liabilities include temporary differences, which are identified as the amounts expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities and their related tax bases, and tax loss and tax credit carryforwards. These amounts are measured at the tax rates that are expected to apply in the period when the asset is realised or the liability is settled.

'Tax assets' include the amount of all tax assets, which are broken down into current -amounts of tax to be recovered within the next twelve months- and deferred -amounts of tax to be recovered in future years, including those arising from tax loss or tax credit carryforwards.

Tax liabilities' includes the amount of all tax liabilities (except provisions for taxes), which are broken down into current -the amount payable in respect of the income tax on the taxable profit for the year and other taxes in the next twelve months- and deferred -the amount of income tax payable in future years.

Deferred tax liabilities are recognised in respect of taxable temporary differences associated with investments in subsidiaries, associates or joint ventures, except when the Group is able to control the timing of the reversal of the temporary difference and, in addition, it is probable that the temporary difference will not reverse in the foreseeable future. In this regard, no deferred tax liabilities of EUR 394.6 million were recognised in relation to the taxation that would arise from the undistributed earnings of certain Group holding companies, in accordance with the legislation applicable in those jurisdictions.

Deferred tax assets are only recognised for temporary differences to the extent that it is considered probable that the consolidated entities will have sufficient future taxable profits against which the deferred tax assets can be utilised, and the deferred tax assets do not arise from, in its initial recognition of (i)a business combination, (ii) an operation that does not affect either the tax result or the accounting result or (iii) on the date of the transaction, does not generate deductible and taxable temporary differences for the same amount (in which case assets and deferred tax liabilities). Other deferred tax assets (tax loss and tax credit carryforwards) are only recognised if it is considered probable that the consolidated entities will have sufficient future taxable profits against which they can be utilised.

Differences generated by the different accounting and tax treatment of any of the income and expenses recorded directly in equity to be paid or recovered in the future are accounted for as temporary differences.

The deferred tax assets and liabilities are reassessed at the reporting date in order to ascertain whether any adjustments need to be made on the basis of the findings of the analyses performed.

y) Residual maturity periods

In note 51 it is provided an analysis of the maturities of the balances of certain items in the consolidated balance sheet.

Santander Group has recorded as 'time liabilities' those recognised financial liabilities in which the counterparty may require payments.

Likewise, when Grupo Santander has committed to having amounts available at different maturity periods, these amounts have been recorded in the first year in which they may be required.

Additionally, for the financial guarantee contracts issued, the Group has recorded the maximum amount of the financial guarantee issued in the first year in which the guarantee can be executed.

z) Consolidated statement of recognised income and expense

This statement presents the income and expenses generated by the Group as a result of its business activity in the year, and a distinction is made between the income and expenses recognised in the consolidated income statement for the year and the other income and expenses recognised directly in consolidated equity.

Accordingly, this statement presents:

a. Consolidated profit for the year.

b. The net amount of the income and expenses recognised in 'Other comprehensive income' under items that will not be reclassified to profit or loss.

c. The net amount of the income and expenses recognised in Other comprehensive income under items that may be reclassified subsequently to profit or loss.

d. The income tax incurred in respect of the items indicated in b and c above, except for the valuation adjustments arising from investments in associates or joint ventures accounted for using the equity method, which are presented net.

e. Total consolidated recognised income and expense, calculated as the sum of a) to d) above, presenting separately the amount attributable to the parent company and the amount relating to non-controlling interests.

The statement presents the items separately by nature, grouping together items that, in accordance with the applicable accounting standards, will not be reclassified subsequently to profit and loss since the requirements established by the corresponding accounting standards are met.

aa) Statement of changes in total equity

This statement presents all the changes in equity, including those arising from changes in accounting policies and from the correction of errors. Accordingly, this statement presents a reconciliation of the carrying amount at the beginning and end of the year of all the consolidated equity items, and the changes are grouped together on the basis of their nature into the following items:

a. Adjustments due to changes in accounting policies and to errors: include the changes in consolidated equity arising as a result of the retrospective restatement of the balances in the consolidated financial statements, distinguishing between those resulting from changes in accounting policies and those relating to the correction of errors.

b. Income and expense recognised in the year: includes, in aggregate form, the total of the aforementioned items recognised in the consolidated statement of recognised 'Income and expense'.

c. Other changes in equity: includes the remaining items recognised in equity, including, inter alia, increases and decreases in capital, distribution of profit, transactions involving own equity instruments, equity-instrument-based payments, transfers between equity items and any other increases or decreases in consolidated equity.

ab) Consolidated statement of cash flows

The following terms are used in the consolidated statements of cash flows with the meanings specified:

- Cash flows: inflows and outflows of cash and cash equivalents, which are short-term, highly liquid investments that are subject to an insignificant risk of changes in value, irrespective of the portfolio in which they are classified.

  Grupo Santander classifies as cash and cash equivalents the balances recognised under 'Cash, cash balances at central banks' and 'Other deposits on demand' in the consolidated balance sheet.

- Operating activities: the principal revenue-producing activities of credit institutions and other activities that are not investing or financing activities.

- Investing activities: the acquisition or disposal of long-term assets and other investments not included in cash and cash equivalents.

- Financing activities: activities that result in changes in the size and composition of the equity and liabilities that are not operating activities.

During 2023 Grupo Santander received interest amounting to EUR 101,029 million (EUR 69,282 and EUR 48,081 in 2022 and 2021, respectively) and paid interest amounting to EUR 50,954 million (EUR 23,390 and EUR 12,738 in 2022 and 2021, respectively).

Also, dividends received and paid by the Group are detailed in notes 4, 28 and 40, including dividends paid to minority interests (non-controlling interests)

3. Grupo Santander

a) Banco Santander, S.A., and international Group structure

The growth of Grupo Santander in the last decades has led Banco Santander to also act, in practice, as a holding entity of the shares of the various companies in its Group, and its results are becoming progressively less representative of the performance and earnings of the Group. Therefore, each year the bank determines the amount of the dividends to be distributed to its shareholders on the basis of the consolidated net profit, while maintaining the Group's objectives of capitalisation and taking into account that the transactions of the Bank and of the rest of the Group are managed on a consolidated basis (notwithstanding the allocation to each company of the related net worth effect).

At the international level, the various banks and other subsidiaries, joint ventures and associates of the Group are integrated in a corporate structure comprising various holding companies which are the ultimate shareholders of the banks and subsidiaries abroad.

The purpose of this structure, all of which is controlled Banco Santander, is to optimise the international organisation from the strategic, economic, financial and tax standpoints, since it makes it possible to define the most appropriate units to be entrusted with acquiring, selling or holding stakes in other international entities, the most appropriate financing method for these transactions and the most appropriate means of remitting the profits obtained by the group's various operating units to Spain.

The Appendices provide relevant data on the consolidated group companies and on the companies accounted for using the equity method.

b) Acquisitions and disposals

Following is a summary of the main acquisitions and disposals of ownership interests in the share capital of other entities and other significant corporate transactions performed in the last three years or pending to be completed:

i. Tender offers for shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México

On 21 October 2022, Banco Santander, S.A. ('Banco Santander') announced that it intends to make concurrent cash tender offers to acquire all of the shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México ('Santander Mexico') in Mexico (Shares) and United States (American Depositary Shares ('ADSs')) which were not owned by Grupo Santander, which amount to approximately 3.76% of Santander Mexico's share capital.

The offers were launched on 7 February 2023 and were originally scheduled to close on 8 March 2023. On 1 March 2023, Banco Santander announced its decision to extend the expiration date of the offers so that they could be concluded on 10 April 2023. Finally, after the offers' closing, 3.6% of the capital accepted the offer, which raised the Group's stake in Santander México from 96.2% to 99.8%.will be settled on 13 March 2023.

Shareholders who participated in the offerings received 24.52 Mexican pesos (approximately EUR 1.20) per Share and USD 6.6876 in cash for each ADS (i.e., the equivalent in United States dollars of 122.6 Mexican pesos in cash for each ADS at the US dollar/Mexican peso exchange rate on the expiration date of 10 April 2023),which corresponded to the book value of the Santander México share according to the quarterly report of Santander México corresponding to the fourth quarter of the year 2022 in accordance with applicable legislation, with a total disbursement by Banco Santander of approximately EUR 300 million.

The operation has led to an increase of EUR 13 million in Reserves and a decrease of EUR 313 million in minority interests.

Once the offers were concluded and settled, Banco Santander proceeded to: (i) withdraw the ADSs from the listing on the New York Stock Exchange ("NYSE") and the Shares from the registry before the Securities and Exchange Commission ('SEC') in the United States and; (ii) cancel the registration of the Shares in the National Securities Registry of the National Banking and Securities Commission ('CNBV'') and withdraw the listing of the Shares in the Mexican Stock Exchange, S.A.B. de C.V. ('BMV').

Said cancellation was approved by the extraordinary general shareholders' meeting of Santander México held on 30 November 2022, with the favourable vote of the holders of the shares that represent more than 95% of the shares of Santander Mexico, as required by the Mexican Securities Market Law.

Pursuant to Mexican law, on 12 May 2023, Banco Santander and Santander México established a trust (the "Repurchase Trust"), to which the holders of the Shares that remain outstanding after the conclusion of the offers, to sell said Shares to the repurchase trust, at the same cash price that would have been paid to them in the Mexican offer with respect to the same. At the end of the year, said trust has already been liquidated and the Group's effective participation amounts to 99.98%.

Likewise, on 26 March 2021, Banco Santander, S.A. announced its intention to make a tender offer for all shares of Banco Santander Mexico, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México ('Santander México') that were not owned by Grupo Santander (8.3% of the share capital of Santander México at that time). The announcement was subsequently supplemented by other publications on 24 May, 8 June and 28 October 2021, in which amendments to some of the terms of the offer were announced.

The offer was finally launched on 3 November 2021 and was settled on 10 December. Banco Santander accepted all of the Santander Mexico Shares and Santander Mexico American Depositary Share (ADS) (securities listed on the New York Stock Exchange, each represented 5 shares of Santander Mexico) tendered and not withdrawn representing approximately 4.5% of the share capital of Santander México. After the transaction, Grupo Santander held approximately 96.2% of Santander México share capital.

The shareholders who tendered their shares in the offer received MXN 26.5 (approximately EUR 1) per share of Santander México and USD 6.2486 in cash per each ADS (the USD equivalent of MXN 132.50 per ADS based on the USD/MXN exchange rate on the expiration date of 7 December 2021) which meant a disbursement of approximately EUR 335 million.

This transaction entailed a decrease of reserves of EUR 41 million and a decrease of EUR 294 million of minority interests.

ii. Agreement to acquire a significant holding in Ebury Partners Limited

On 28 April 2020, the investment announced on 4 November 2019 in Ebury, a payments and foreign exchange platform for SMEs, was completed. The transaction involved a total disbursement of GBP 357 million (approximately EUR 409 million) of which GBP 70 million (approximately EUR 80 million) was for new shares. By the end of 2019, the Group had already acquired 6.4% of the company for GBP 40 million (approximately EUR 45 million). Following the disbursement made in April 2020, which gave the Group 50.38% of the economic rights of the company, without the conditions to obtain control being met, this interest was recorded under 'Investments - Associated entities' in the consolidated balance sheet.

In April 2022 Grupo Santander acquired a new package of shares for GBP 113 million (approximately EUR 135 million) and subscribed in full to a new capital increase, paying an additional GBP 60 million (approximately EUR 72 million). Following these transactions, the Group holds 66.54% of the economic rights and control of the company.

The total value of the net assets identified in the business combination amounted to EUR 413 million, mainly intangible assets (IT developments, customer lists and brand) and resulted in the recognition of goodwill of EUR 316 million.

No gain or loss was recorded for the difference between the book value and the fair value of the previous holding as this difference was not significant.

The amount contributed by this business to the Group's net attributable profit since the date of acquisition is immaterial. Similarly, the result that this business would have contributed to the Group if the transaction had been carried out on 1 January 2022 would also have been immaterial.

iii. Purchase by SHUSA for shares of Santander Consumer USA

In August 2021 Santander Holdings USA, Inc. ('SHUSA') and Santander Consumer USA Holdings Inc. ('SC') entered into a definitive agreement pursuant to which SHUSA acquired all outstanding shares of common stock of SC not already owned by SHUSA via an all-cash tender offer (the 'Tender Offer') for USD 41.50 per SC common share (the 'Offer Price'), followed by a second-step consisting of a merge (together with the Offer, the 'Transaction') in which a wholly owned subsidiary of SHUSA was merged with and into SC, with SC surviving as a wholly owned subsidiary of SHUSA, and all outstanding shares of common stock of SC not tendered in the Tender Offer were converted into the right to receive the Offer Price in cash. The Offer Price represented a 14% premium to the closing price of SC common stock of USD 36.43 as of 1 July 2021, the last day prior to the announcement of SHUSA's initial offer to acquire the remaining outstanding shares of SC's common stock.

On 31 January 2022, after completion of the customary closing conditions, the Transaction was performed and SHUSA increased its share up to the 100% of SC's common stock. The transaction has meant a disbursement of USD 2,510 million (around EUR 2,239 million) for the Group, with a decrease of reserves of EUR 487 million and a decrease of EUR 1,752 million of minority interests.

iv. Acquisition of Amherst Pierpont Securities LLC, a US fixed-income broker dealer

On 15 July 2021, Santander Holdings USA, Inc. (SHUSA), reached an agreement to acquire Amherst Pierpont Securities LLC, a market-leading independent fixed-income and structured products broker dealer, through the acquisition of its parent holding company, Pierpont Capital Holdings LLC, for a total consideration of approximately USD 450 million (around EUR 405 million). The operation was closed on 11 April 2022 once the pertinent regulatory approvals have been obtained. Immediately after the acquisition, SHUSA has lent financing to the company for an amount of USD 163 million (approximately EUR 147 million), which the company will use to cancel debt with third parties. Amherst Pierpont Securities LLC will become part of Santander Corporate & Investment Banking, Global business line.

The business combination meant the recognition of a goodwill of EUR 158 million and EUR 24 million of intangible assets (mainly relationships with customers) identified in the purchase price allocation, without other relevant value adjustments to net assets of the business.

The amount contributed by this business to the group net attributable profit since the date of acquisition is not material. Similarly, the result that this business would have brought to the group if the transaction had been carried out on 1 January 2022 is also immaterial.

c) Offshore entities

Spanish regulation

According to current Spanish regulation (Law 11/2021, of 9 July, Royal Decree 1080/1991, of 5 July and Order HFP/115/2023, of 9 February), Santander has one subsidiary and three branches in the non-cooperative jurisdictions of Jersey, the Isle of Man and the Cayman Islands (offshore entities). Santander also has two other subsidiaries incorporated in non-cooperative jurisdictions that are tax resident in the UK and subject to British tax law.

i. Offshore subsidiaries

At the reporting date, Grupo Santander has only one subsidiary resident in Jersey, Abbey National International Limited, with activity of services, immaterial losses and no employees as of December 2023.

ii. Offshore branches

Grupo Santander also has three offshore branches in the Cayman Islands, the Isle of Man and Jersey. They report to, and consolidate balance sheets and income statements with, their foreign headquarters. They are taxed either with their headquarters (the Cayman Islands branch in Brazil) or in the territories they are located in (Jersey and Isle of Man, pertain to the UK).

These three offshore branches have a total of 166 employees as of December 2023.

iii. Subsidiaries in non-cooperative jurisdictions that are tax resident in the United Kingdom

Grupo Santander also has two subsidiaries that were incorporated in offshore jurisdictions (one in Bermuda without activity and one in Guernsey with leasing activity) but are not deemed offshore entities because they only operate from and are tax resident in the UK and, thus, are subject to British tax law.

iv. Other offshore holdings

From Brazil, Grupo Santander manages Santander Brazil Global Investment Fund SPC, a segregated portfolio company located in the Cayman Islands. Grupo Santander also has other non-controlling financial interest of a reduced amount in entities located in non-cooperative jurisdictions.

The European Union (EU)

As of October 2023, the EU blacklist comprises 16 jurisdictions where Santander is only present in The Bahamas. In this jurisdiction, Santander has one bank without third-party activity, Santander Bank & Trust Ltd., and one branch of the Swiss bank Banco Santander International SA. These entities have a total of 26 employees as of December 2023.

In 2023, one subsidiary residing in The Bahamas moved its domicile to Spain.

Additionally, the EU grey list comprises 14 jurisdictions which have sufficiently committed to adapt their legislation to international standards, subject to monitoring by the EU. Within these jurisdictions, Santander is mainly present in Hong Kong through a branch.

Organization for Economic Cooperation and Development (OECD)

Grupo Santander is not present in any jurisdictions non-compliant with both OECD standards on transparency and exchange of information for tax purposes (Automatic exchange of information standard -AEOI- and Exchange of information on request standard -EOIR-) according to the last annual report of the OECD Global forum on transparency and exchange of information for tax purposes released in November 2023.

However, the Group is present in The Bahamas and Chile. Although these territories have complete legal and regulatory frameworks in place for the application of the AEOI standard, they need to improve the effectiveness of this standard.

The Group's presence in offshore territories at the end of 2023 is as follows:

Presence of the Group in non-cooperative jurisdictions[a]	**Spanish legislation**		**Council of the EU blacklist**		**OECD[b]**	
	Sub.	**Branch**	**Sub.**	**Branch**	**Sub.**	**Branch**
Jersey	1	1				
Isle of Man		1				
Cayman Islands		1				
The Bahamas			1	1		
2023[c]	**1**	**3**	**1**	**1**	**—**	**—**
2022	**1**	**3**	**2**	**1**	**—**	**—**

a Additionally, there is one subsidiary constituted in Guernsey and one in Bermuda, but residents for tax purposes in the UK.
b Jurisdictions non-compliant with both OECD standards on transparency and exchange of information for tax purposes (AEOI and EOIR). Jersey, the Isle of Man and the Cayman Islands continue to fully comply with both OECD standards.
c In 2023, one subsidiary residing in The Bahamas moved its domicile to Spain.

Grupo Santander has the right mechanisms (risk management, supervision, verification and review plans, and regular reporting) to prevent reputational, tax and legal risk in entities resident in non-cooperative jurisdictions. Grupo Santander also maintains its policy of limiting and reducing its presence in non-cooperative jurisdictions when possible.
PwC (PricewaterhouseCoopers) member firms audited the financial statements of Grupo Santander's offshore entities in 2023, 2022 and 2021.

4. Distribution of Banco Santander's profit, shareholder remuneration scheme and earnings per share

a) Distribution of Banco Santander's profit and shareholder remuneration scheme

The distribution of the Bank's current annual results that the board of directors will propose for approval by the shareholders at the annual general meeting is as follows:

EUR million	
To dividends	2,769
Dividend paid at 31 December[A]	1,298
Complementary dividend[B]	1,471
To voluntary reserves[C]	6,470
Net profit for the year	**9,239**

A. Total amount paid as interim dividend, at the rate of EUR 8.10 fixed cents per eligible share (recorded in 'Shareholders' equity - Interim dividends').
B. Fixed complementary dividend of EUR 9.50 gross cents per eligible share, payable in cash as from 2 May 2024. The total amount has been estimated on the assumption that, as a result of the partial implementation of the buyback program announced on February 19, 2024, the number of the Bank's outstanding shares eligible for the dividend will be 15,483,617,874. Therefore, the total amount of the complementary dividend may be higher if fewer shares are acquired in the buyback program than expected, or lower in the opposite case.
C. Estimated amount corresponding to a complementary dividend of EUR 1,470,943,698. To be increased or reduced by the same amount by which the total amount of the complementary dividend is respectively lower or higher than the estimate of that complementary dividend.

The transcribed proposal comprises the part of the 2023 shareholder remuneration policy that is implemented through cash dividends (the interim dividend paid in November 2023 of EUR 8.10 cents per share with dividend entitlement, approved by the board of directors on 26 September 2023, and the complementary dividend expected to be paid as of 2 May 2024, of EUR 9.50 cents per share with the dividend entitlement, proposed by the board of directors on 19 February 2023, and therefore subject to approval by the General Meeting of Shareholders).

In addition, the 2023 remuneration policy also includes expected shareholder remuneration through the implementation of a share buyback program to which an amount equivalent to 25% of the Group's ordinary profit. The first of these programs based on the results of 2023, for an approximate amount of EUR 1,310 million, was completed between September 2023 and January 2024. A second buyback program on account of the 2023 results is planned for an amount of EUR 1,459 million. It also submits to the general meeting of shareholders the agreement for reduction of capital that will allow the amortization of own shares acquired in the repurchase program, subject to the relevant regulatory authorization.

The accounting statement, prepared by the Bank pursuant to legal requirements, evidencing the existence of sufficient liquidity for the payment of the interim dividend on the date and for the amount mentioned above, was as follows:

EUR million	31 August 2023
Profit before taxes	5,109
Tax expense	267
Dividends paid in cash	—
Distributable maximum amount	**4,842**
Available liquidity	107,067

Finally, and although it is not part of the remuneration charged to the 2023 financial year, it should be noted that pursuant to the resolution of the Bank's General Meeting of Shareholders held on 31 March 2023, on 2 May 2023 the Bank paid a complementary cash dividend of EUR 5.95 cents per share charged to the results of the 2022 financial year. Finally, also charged to the results of 2022, the Bank implemented repurchase programs. The first of them for a maximum amount of EUR 979 million, which ended on January 2023 and the second one, for a maximum amount of EUR 921 million, which ended in April 2023.

b) Earnings/loss per share from continuing and discontinued operations

i. Basic earnings / loss per share

Basic earnings/loss per share are calculated by dividing the net profit attributable to the Group, adjusted by the after-tax amount of the remuneration of contingently convertible preference shares (PPCC) recognised in equity and the capital perpetual preference shares (PPCA) (see note 23), if applicable, by the weighted average number of ordinary shares outstanding during that period, excluding the average number of own shares held through that period.

Accordingly:

	2023	2022	2021
Profit (Loss) attributable to the Parent (EUR million)	11,076	9,605	8,124
Remuneration of PPCC and PPCA (EUR million) (note 23)	(492)	(529)	(566)
	10,584	9,076	7,558
Of which:			
Profit (Loss) from discontinued operations (non controlling interest net) (EUR million)	—	—	—
Profit (Loss) from continuing operations (non-controlling interest and PPCC and PPCA net) (EUR million)	*10,584*	*9,076*	*7,558*
Weighted average number of shares outstanding	16,172,084,714	16,848,344,667	17,272,055,430
Adjusted number of shares	16,172,084,714	16,848,344,667	17,272,055,430
Basic earnings (Loss) per share (euros)	**0.654**	**0.539**	**0.438**
Of which, from discounted operations (euros)	**—**	**—**	**—**
Basic earnings (Loss) per share from continuing operations (euros)	**0.654**	**0.539**	**0.438**

ii. Diluted earnings / loss per share

Diluted earnings/loss per share are calculated by dividing the net profit attributable to the Group, adjusted by the after-tax amount of the remuneration of contingently convertible preference shares recognised in equity (PPCC) recognised in equity and the capital perpetual preference shares (PPCA) (see note 23), by the weighted average number of ordinary shares outstanding during the year, excluding the average number of treasury shares and adjusted for all the dilutive effects inherent to potential ordinary shares (share options, and convertible debt securities).

Accordingly, diluted earnings/loss per share were determined as follows:

	2023	2022	2021
Profit (Loss) attributable to the Parent (EUR million)	11,076	9,605	8,124
Remuneration of PPCC and PPCA (EUR million) (Note 23)	(492)	(529)	(566)
Dilutive effect of changes in profit for the period arising from potential conversion of ordinary shares	—	—	—
	10,584	9,076	7,558
Of which:			
Profit (Loss) from discontinued operations (net of non-controlling interests) (EUR million)	—	—	—
Profit (Loss) from continuing operations (net of non-controlling interests and PPCC and PPCA) (EUR million)	*10,584*	*9,076*	*7,558*
Weighted average number of shares outstanding	16,172,084,714	16,848,344,667	17,272,055,430
Dilutive effect of options/rights on shares	75,180,407	55,316,206	48,972,459
Adjusted number of shares	16,247,265,121	16,903,660,873	17,321,027,889
Diluted earnings (Loss) per share (euros)	**0.651**	**0.537**	**0.436**
Of which, from discounted operations (euros)	**—**	**—**	**—**
Diluted earnings (Loss) per share from continuing operations (euros)	**0.651**	**0.537**	**0.436**

5. Remuneration and other benefits paid to the Bank's directors and senior managers

The following section contains qualitative and quantitative disclosures on the remuneration paid to the members of the board of directors —both executive and non-executive directors — and senior managers for 2023 and 2022:

a) Remuneration of Directors

i. Bylaw-stipulated emoluments

The annual general meeting held on 22 March 2013 approved an amendment to the Bylaws, whereby the remuneration of directors in their capacity as board members became an annual fixed amount determined by the annual general meeting. This amount shall remain in effect unless the shareholders resolve to change it at a general meeting. However, the board of directors may elect to reduce the amount in any years in which it deems such action justified.

The maximum remuneration established by the annual general meeting was EUR 6 million in 2023 (EUR 6 million in 2022), with two components: (a) an annual emolument and (b) attendance fees.

The specific amount payable for the above-mentioned items to each of the directors is determined by the board of directors. For such purpose, it takes into consideration the positions held by each director on the board, their membership of the board and the board committees and their attendance to the meetings thereof, and any other objective circumstances considered by the board.

The total Bylaw-stipulated emoluments earned by the directors in 2023 amounted to EUR 5.3 million (EUR 4.7 million in 2022).

Annual allotment

In accordance with the remuneration policy approved at the general shareholders' meeting on 31 March 2023, the annual allotment for board and committee membership (except for the executive committee) increased EUR 3,000 compared to the amount approved and established for 2022. Each director received the amounts for serving on the board and its committees and positions held in them included in the chart below for 2022 and 2023:

Amount per director in euros	2023	2022
Members of the board of directors	98,000	95,000
Members of the executive committee	170,000	170,000
Members of the audit committee	43,000	40,000
Members of the appointments committee	28,000	25,000
Members of the remuneration committee	28,000	25,000
Members of the risk supervision, regulation and compliance committee	43,000	40,000
Members of the responsible banking, sustainability and culture committee	18,000	15,000
Members of the innovation and technology committee	28,000	25,000
Chair of the audit committee	70,000	70,000
Chair of the appointments committee	50,000	50,000
Chair of the remuneration committee	50,000	50,000
Chair of the risk supervision, regulation and compliance committee	70,000	70,000
Chair of the responsible banking, sustainability and culture committee	50,000	50,000
Chair of the innovation and technology committee	70,000	70,000
Lead independent director[A]	110,000	110,000
Non-executive Vice Chair	30,000	30,000

A. Since 2015, Bruce Carnegie-Brown has been allocated EUR 700,000 (including annual allowances and attendance fees) in minimum total annual pay set for the lead independent director, for his services to the board and its committees, particularly as Chair of the nomination and remuneration committees and also as lead independent director; and for the required time and dedication to perform these roles. Bruce Carnegie-Brown has stepped down from his role of Lead Independent Director on 1 October 2023, when he has been succeeded in this position by Glenn Hutchins.

Attendance fees

The directors receive fees for attending board and committee meetings, excluding executive committee meetings, where no attendance fees are received.

For 2023 the board voted to keep the same amounts set out in the 2022 policy.

The fees have not been modified since 2016. For 2023 and 2022 they are as follows:

Attendance fees per director per meeting in euros	2023	2022
Board of directors	2,600	2,600
Audit committee and risk supervision, regulation and compliance committee	1,700	1,700
Other committees (excluding executive committee)	1,500	1,500

ii. Salaries

The executive directors receive salaries. In accordance with the policy approved by the annual general meeting, salaries are composed of a fixed annual remuneration and a variable one, which consists in a unique incentive, which is a deferred variable remuneration plan linked to multi-year objectives, which establishes the following payment scheme:

- 40% of the variable remuneration amount, determined at year-end on the basis of the achievement of the established objectives, is paid immediately.
- The remaining 60% is deferred over five years, to be paid in five portions, provided that the conditions of permanence in the Group and non-concurrence of the malus clauses are met, and subject to long term metrics, taking into account the following accrual scheme:
  - The accrual of the first and second portion (payment in 2025 and 2026) will be conditional on none of the malus clauses being triggered.
  - The accrual of the third, fourth, and fifth portion (payment in 2027, 2028 and 2029), is linked to objectives related to the period 2023—2025 and the metrics and scales associated with these objectives. The fulfilment of the objectives determines the percentage to be paid of the deferred amount in these three annuities, and these targets can reduce these amounts and the number of deferred instruments, or increase them up to a maximum achievement ratio of 125%, so executives have the incentive to exceed their targets.

In accordance with current remuneration policies, the amounts already paid will be subject to a possible recovery (clawback) by the Bank during the period set out in the policy in force at each moment.

The immediate payment (or short-term), as well as each deferred payment (linked to long term metrics and not linked to long-term metrics) will be settled 50% in cash and the remaining 50% in instruments, consisting of Banco Santander, S.A. shares, Banco Santander, S.A. share options and restricted stock units (RSUs) of PagoNxt, split as:

◦ the amount of PagoNxt RSUs set for each year; and

◦ the rest, all in instruments of Banco Santander, S.A. The executive director must decide between receiving such amount all in shares, or receiving in equal parts shares and share options of Banco Santander, S.A. In 2023 both directors have chosen all in shares.

Comparative of executive remuneration (Chair and CEO)

The board voted to maintain the same target incentive for Ana Botín in 2023 as in 2022 and established a variable remuneration target for Hector Grisi of EUR 4,200 thousand (aligned with that of his predecessor José Antonio Álvarez). In turn, after five years with no review of gross annual salary, the board resolved that Ana Botín's gross annual salary would increase a 3% in respect of 2022.

Variable contributions to pensions were not modified in 2023, so the amounts are the 22% of the 30% of the last three assigned bonus' average.

In 2023, Santander's strong performance and excellent execution of our strategy enabled us to deliver record attributable profit of EUR 11,076 million (+15.3% vs. 2022) and a capital ratio of 12.30% (achieving our public target). We also achieved a very high total shareholder return of 40.5%(5% above our official group of nine peers in relative terms). Because of the double digit growth in net profit coupled with the highest TSR in the last 14 years, the board approved to maintain the same bonus pool as in 2022 at 138.91% for which an extraordinary adjustment of + 15.57% was made, in the same manner as the 2021 and 2019 pools were both reduced by extraordinary adjustments (due to worse shareholders return), with a combined impact of -30%.

As a result, and considering the exceptional contribution made by the Chairman and the CEO to the achievement of these exceptional figures, on the basis of the detailed pool disclosed in the Remuneration section, and due to the fulfillment of their individual objectives, the board of directors, upon recommendation of the remuneration committee, approved the variable remuneration disclosed below, which means an increase of 5% of Executive Chair's total compensation, and a reduction of 9% in the case of Héctor Grisi (compared to his predecessor).

Moreover, the ratio of executive directors' total remuneration to underlying attributable profit fell to 0.19% from 0.23% in 2022.

iii. Detail by director

The detail, by bank director, of the short-term (immediate) and deferred (not subject to long-term goals) remuneration for 2023 and 2022 is provided below:

EUR thousand

	2023								
	Bylaw-stipulated emoluments								
	Annual emolument								
	Board[F]	Executive committee	Audit committee	Appointments committee	Remuneration committee	Risk supervision, regulation and compliance oversight committee	Responsible banking, sustainability and culture committee	Innovation and technology committee	Attendance fees and commissions
Ana Botín	98	170	—	—	—	—	—	98	45
Héctor Grisi[A]	98	170	—	—	—	—	—	28	44
José Antonio Álvarez	128	170	—	—	—	—	—	28	45
Bruce Carnegie-Brown	203	127	—	78	66	—	—	21	81
Homaira Akbari	98	—	43	—	—	—	18	28	78
Javier Botín[B]	98	—	—	—	—	—	—	—	39
Sol Daurella	98	—	—	28	28	—	18	—	77
Henrique de Castro	98	—	43	—	28	—	—	28	87
Gina Díez	98	—	—	28	—	—	17	—	68
Luis Isasi	98	170	—	—	28	43	—	—	78
Ramiro Mato	98	170	43	—	—	43	68	—	96
Belén Romana	98	170	43	—	—	113	18	28	102
Pamela Walkden	98	—	113	—	—	43	—	—	87
Germán de la Fuente	98	—	43	—	—	43	—	—	87
Glenn Hutchins[2]	193	—	—	28	41	—	—	28	83
Álvaro Cardoso[C]	—	—	—	—	—	—	—	—	—
R. Martín Chavez[D]	—	—	—	—	—	—	—	—	—
Sergio Rial[E]	—	—	—	—	—	—	—	—	—
Total 2023	**1,700**	**1,147**	**328**	**162**	**191**	**285**	**139**	**287**	**1,096**
Total 2022	**1,561**	**1,020**	**301**	**139**	**159**	**241**	**114**	**229**	**930**

A. Director since 1 January 2023.
B.All amounts received were reimbursed to Fundación Botín.
C.Stepped down as director on 1 April 2022.
D.Stepped down as director on 1 July 2022.
E.Stepped down as director on 1 January 2023.
F.Also includes emoluments for other roles in the board.
1. Includes EUR 1,000 thousand for the role as non-executive Chair of Santander España and for Santander España board and committees meetings for Luis Isasi. For José Antonio Álvarez, this amount includes remuneration as strategic advisor of Grupo Santander, life and health insurance contributions (EUR 722 thousand) and the supplement for having waived the death and disability policy (EUR 710 thousand).
2. From 1 October 2023, the Lead Independent Director, non-executive Vice Chair and Chair of remuneration committee is Mr. Glenn Hutchins, succeeding Mr. Carnegie-Brown.

	2023									2022
	Short-term and deferred (not subject to long-term goals) salaries of executive directors									
		Variable - immediate payment		Deferred variable						
	Fixed	In cash	In instruments	In cash	In instruments	Total	Pension contribution	Other remuneration[1]	Total	Total
Ana Botín	3,271	1,780	1,780	1,068	1,068	8,967	1,144	1,022	11,544	11,001
Héctor Grisi[A]	3,000	1,220	1,220	732	732	6,904	966	47	8,257	—
José Antonio Álvarez	—	—	—	—	—	—	—	3,182	3,553	9,086
Bruce Carnegie-Brown	—	—	—	—	—	—	—	—	576	700
Homaira Akbari	—	—	—	—	—	—	—	—	265	244
Javier Botín[B]	—	—	—	—	—	—	—	—	137	129
Sol Daurella	—	—	—	—	—	—	—	—	249	230
Henrique de Castro	—	—	—	—	—	—	—	—	284	261
Gina Díez	—	—	—	—	—	—	—	—	211	172
Luis Isasi	—	—	—	—	—	—	—	1,000	1,417	1,412
Ramiro Mato	—	—	—	—	—	—	—	—	518	500
Belén Romana	—	—	—	—	—	—	—	—	572	549
Pamela Walkden	—	—	—	—	—	—	—	—	341	323
Germán de la Fuente	—	—	—	—	—	—	—	—	271	137
Glenn Hutchins[2]	—	—	—	—	—	—	—	—	372	10
Álvaro Cardoso[C]	—	—	—	—	—	—	—	—	—	39
R. Martín Chavez[D]	—	—	—	—	—	—	—	—	—	147
Sergio Rial[E]	—	—	—	—	—	—	—	—	—	131
Total 2023	**6,271**	**3,000**	**3,000**	**1,800**	**1,800**	**15,871**	**2,110**	**5,251**	**28,567**	**—**
Total 2022	**5,717**	**2,827**	**2,829**	**1,697**	**1,697**	**14,767**	**1,892**	**3,719**		**25,071**

Footnotes in previous table.

Following is the detail by executive director of the salaries linked to multi-year objectives at their fair Value, which will only be received if the conditions of permanence in the Group, non-applicability of malus clauses and achievement of the established objectives are met (or, as the case may be, of the minimum thresholds thereof, with the consequent reduction of amount agreed-upon at the end of the year) in the terms described in Note 46.

EUR thousand

	2023				2022
	Variable subject to long-term objectives[1]				
	In cash	In shares	In RSUs	Total	Total
Ana Botín	1,121	911	210	2,243	2,128
Héctor Grisi	769	592	176	1,537	—
José Antonio Álvarez	—	—	—	—	1,436
Total	**1,890**	**1,504**	**386**	**3,780**	**3,564**

1. Corresponds with the fair value of the maximum amount they are entitled to in a total of 3 years: 2027, 2028 and 2029, subject to conditions of continued service, with the exceptions provided, and to the non-applicability of malus clauses and achievement of the objectives established.

The fair value has been determined at the grant date based on the valuation report of an independent expert, Willis Towers Watson. Based on the design of the plan for 2023 and the levels of achievement of similar plans in comparable entities, the fair value considered is 70% of the variable remuneration subject to long-term objectives. (see note 46).

Note 5.e below includes disclosures on the shares delivered from the deferred remuneration schemes in place in previous years and for which delivery conditions were met, as well as on the maximum number of shares that may be received in future years in connection with the aforementioned 2023 and 2022 variable remuneration plans.

b) Remuneration of the board members as representatives of the Bank

By resolution of the executive committee, all the remuneration received by the Bank's directors who represent the Bank on the boards of directors of listed companies in which the Bank has a stake, paid by those companies and relating to appointments made on or after 18 March 2002, accrues to the Group. In 2023 the Bank's directors did not receive any remuneration in respect of these representative duties.

On the other hand, in their personal capacity, in 2023 Homaira Akbari was paid USD 120 thousand (EUR 111 thousand) as member of the board of Santander Consumer USA Holdings, Inc. and EUR 200 thousand as member of the board of PagoNxt S.L., and Henrique de Castro and José Antonio Álvarez were each paid the same EUR 200 thousand as members of the board of PagoNxt S.L. José Antonio Álvarez also received BRL 755 thousand (EUR 141 thousand) as member of Banco Santander (Brasil) S.A. Likewise, Pamela Walkden was paid GBP 132 thousand (EUR 152 thousand) as member of Santander UK plc and Santander UK Group Holdings.

Likewise, Luis Isasi was paid EUR 1,000 thousand as non-Executive Chair of the board of Santander España and for attending its board and committee meetings (amounts paid by Banco Santander, S.A.).

And finally, José Antonio Álvarez, as strategic adviser of Grupo Santander, received fixed remuneration of EUR 1,750 thousand. In addition, he received the life and health insurance contributions, and the supplement for having waived the death and disability policy.

c) Post-employment and other long-term benefits

In 2012, the contracts of Ana Botín and other members of the Bank's senior management with defined benefit pension commitments were modified to transform these commitments into a defined contribution system, which covers the contingencies of retirement, disability and death. From that moment on, the Bank makes annual contributions to their pension system for their benefit.

This system gives them the right to receive benefits upon retirement, regardless of whether or not they are active at the Bank at such time, based on contributions to the system, and replaced their previous right to receive a pension supplement in the event of retirement.

The initial balance for Ana Botín in the new defined benefits system corresponded to the market value of the assets from which the provisions corresponding to the respective accrued obligations had materialised on the date on which the old pension commitments were transferred into the new benefits system.

Since 2013, the Bank has made annual contributions to the benefits system for executive directors and other members of executive team, in proportion to their respective pensionable bases, until they leave Grupo Santander or until their retirement within the Group, death, or disability.

The benefit plan system is outsourced to Santander Seguros y Reaseguros, Compañía Aseguradora, S.A., and the economic rights of the foregoing directors under this plan belong to them regardless of whether or not they are active at the Bank at the time of their retirement, death or disability.

In accordance with the provisions of the remuneration regulations, contributions made calculated on variable remuneration are subject to the discretionary pension benefits regime. Under this regime, contributions are subject to malus clauses and clawback according to the policy in force at any given time and during the same period in which the variable remuneration is deferred.

Furthermore, they must be invested in bank shares for a period of five years from the date when the executive director leaves the Group, regardless of whether or not they leave to retire. Once that period has elapsed, the amount invested in shares will be reinvested, along with the remainder of the cumulative balance corresponding to the executive director, or it will be paid to the executive director or to their beneficiaries in the event of a contingency covered by the benefits system.

As per the director´s remuneration policy approved at the 23 March 2018 general shareholder´s meeting, the system was changed with a focus on:

- Aligning the annual contributions with practices of comparable institutions.
- Reducing future liabilities by eliminating the supplementary benefits scheme in the event of death (death of spouse or parent) and permanent disability of serving directors.
- Not increasing total costs for the Bank.

The changes to the system were the following:

- Fixed and variable pension contributions were reduced to 22% of the respective pensionable bases. The gross annual salaries and the benchmark variable remuneration were increased in the corresponding amount with no increase in total costs for the Bank. The pensionable base for the purposes of the annual contributions for the executive directors is the sum of fixed remuneration plus 30% of the average of their last three variable remuneration amounts. For Héctor Grisi, CEO from 1 January 2023, since he has not been in position for three years, the calculation of variable portion was calculated with his gross variable remuneration agreed in that year.
- The death and disability supplementary benefits were eliminated since 1 April 2018. A fixed remuneration supplement (included in other remuneration in section a.iii in this note) was implemented the same date.
- The total amount insured for life and accident insurance was increased.

The provisions recognised in 2023 and 2022 for retirement pensions were as follows:

EUR thousand

	2023	2022
Ana Botín	1,144	1,081
Héctor Grisi	966	—
José Antonio Álvarez	—	811
Total	**2,110**	**1,892**

Following is a detail of the balances relating to each of the directors under the welfare system as of 31 December 2023 and 2022:

EUR thousand

	2023	2022
Ana Botín	49,257	46,725
Héctor Grisi	585	—
José Antonio Álvarez	19,495	18,958
Total	**69,338**	**65,683**

d) Insurance

The Group pays for life insurance policies for the Bank's directors, who will be entitled to receive benefits if they are declared disabled. In the event of death, the benefits will be payable to their heirs. The premiums paid by the Group are included in the 'Other remuneration' column of the table shown in Note 5.a.iii above. Also, the following table provides information on the sums insured for the Bank's directors:

Insured capital

EUR thousand

	2023	2022
Ana Botín	21,054	20,988
Héctor Grisi	50	—
José Antonio Álvarez	11,910	17,345
Total	**33,014**	**38,333**

The insured capital has been modified in 2018 for Ana Botín as part of the pension systems transformation set out in note 5.c) above, which has encompassed the elimination of the supplementary benefits systems (death of spouse and death of parent) and the increase of the life insurance annuities.

During 2023 and 2022, the Group has disbursed a total amount of EUR 13.2 million and EUR 48.2 million, respectively, for the payment of civil-liability insurance premiums. These premiums correspond to several civil-liability insurance policies that hedge, among others, directors, senior management and other managers and employees of the Group and the Bank itself, as well as its subsidiaries, in light of certain types of potential claims of third parties. For this reason, it is not possible to disaggregate or individualize the amount that correspond to the directors and executives.

As of 31 December 2023 and 2022, no life insurance commitments exist for the Group in respect of any other directors.

e) Deferred variable remuneration systems

The following information relates to the maximum number of shares to which the executive directors are entitled at the beginning and end of 2023 and 2022 due to their participation in the deferred variable remuneration systems, which instrumented a portion of their variable remuneration relating to 2023 and prior years, as well as on the deliveries, in shares or in cash, made to them in 2023 and 2022 once the conditions for the receipt thereof had been met (see Note 46):

i) Deferred conditional variable remuneration plan

From 2011 to 2015, the bonuses of executive directors and certain executives (including senior management) and employees who assume risk, who perform control functions or receive an overall remuneration that puts them on the same remuneration level as senior management and employees who assume risk (all of whom are referred to as identified staff) have been approved by the board of directors and instrumented, respectively, through various cycles of the deferred conditional variable remuneration plan. Application of these cycles, insofar as they entail the delivery of shares to the plan beneficiaries, was authorized by the related annual general meetings.

The purpose of these plans was to defer a portion of the bonus of the plan beneficiaries (60% in the case of executive directors) over a period of five years (three years for the plans approved up to 2014) for it to be paid, where appropriate, in cash and in Santander shares. The remaining 40% portion of the bonus is paid in cash and Santander shares (in equal parts), upon commencement of this plan, in accordance with the rules set forth below.

In addition to the requirement that the beneficiary remains in Grupo Santander's employ, the accrual of the deferred remuneration was conditional upon none of the following circumstances existing in the opinion of the board of directors - following a proposal of the remuneration committee-, in relation to the corresponding year, in the period prior to each of the deliveries: (i) poor financial performance of the Group; (ii) breach by the beneficiary of internal regulations, including, in particular, those relating to risks; (iii) material restatement of the Group's consolidated financial statements, except when it is required pursuant to a change in accounting standards; or (iv) significant changes in the Group's economic capital or its risk profile. All the foregoing shall be subject in each case to the regulations of the relevant plan cycle.

Similarly, Banco Santander can clawback any paid variable amounts in the scenarios and for the period dictated by the terms and conditions in the said policy.

On each delivery, the beneficiaries are paid an amount in cash equal to the dividends paid for the amount deferred in shares and the interest on the amount deferred in cash. If the Santander Dividendo Elección scrip dividend scheme is applied, payment will be based on the price offered by the Bank for the bonus share rights corresponding to those shares.

The maximum number of shares to be delivered is calculated taking into account the daily volume-weighted average prices for the 15 trading sessions prior to the date on which the board of directors approves the bonus for the Bank's executive directors for each year.

This plan and the Performance Shares (ILP) plan described below have been integrated for the executive directors and other senior managers in the deferred variable compensation plan linked to multiannual objectives, in the terms approved by the General Meeting of Shareholders held on March 18, 2016.

2021 was the last financial year in which a payment was made in application of this plan.

ii) Deferred variable compensation plan linked to multiannual objectives

In the annual shareholders meeting of 18 March 2016, with the aim of simplifying the remuneration structure, improving the ex-ante risk adjustment and increasing the incidence of long-term objectives, the bonus plan (deferred and conditioned variable compensation plan) and ILP were replaced by one single plan.

The variable remuneration of executive directors and certain executives (including senior management) corresponding to 2023 has been approved by the board of directors and implemented through the eighth cycle of the deferred variable remuneration plan linked to multi-year objectives. The application of the plan was authorised by the annual general meeting of shareholders, as it entails the delivery of shares to the beneficiaries.

As indicated in section a.ii of this note, 60% of the variable remuneration amount is deferred over five years for executive directors, to be paid, where appropriate, in five portions, provided that the conditions of permanence in the Group, according to the following accrual scheme:

- The accrual of the first and second parts (instalments in 2025 and 2026) is conditional on none of the malus clauses being triggered.
- The accrual of the third, fourth and fifth parts (instalments in 2027, 2028 and 2029) is linked to non-concurrence of malus clauses and the fulfilment of certain objectives related to the 2022- 2025 period. These objectives and their respective weights are:
  - Banco Santander's consolidated Return on tangible equity (RoTE) target in 2025 (weight of 40%).
  - Relative performance of Banco Santander's total shareholder return (TSR) in 2023-2025 in respect of the weighted TSR of a peer group comprising 9 credit institutions, with the appropriate TSR ratio based on the group's TSR among its peers (weight of 40%).
  - Four ESG (environmental, social and governance) metrics. Each of the four Responsible banking targets have the same weighting (and total weight of ESG objective, 20%).

The degree of compliance with the above objectives determines the percentage to be applied to the deferred amount in these three annuities, with a maximum achievement ratio of 125%, so executives have the incentive to exceed their targets.

Both the immediate (short-term) and each of the deferred (long-term and conditioned) portions are paid 50% in cash and the remaining 50% in instruments.

The accrual of deferred amounts (whether or not subject to performance measures) is conditioned, in addition to the permanence of the beneficiary in the Group, to non-occurrence, during the period prior to each of the deliveries, of any the circumstances giving rise to the application of malus as set out in the Group's remuneration policy in its chapter related to malus and clawback. Likewise, the amounts already paid of the incentive will be subject to clawback by the Bank in the cases and during the term foreseen in said policy, and in accordance with the terms and conditions foreseen in it.

Malus and clawback clauses are triggered by poor financial performance of Banco Santander, a division or area, or exposures from staff as a result of an executive(s)'s management of, at least, one of these factors:

(i) Significant failures in risk management committed by the entity, or by a business unit or risk control.

(ii) The increase suffered by the entity or by a business unit of its capital needs, not foreseen at the time of generation of the exposures.

(iii) Regulatory sanctions or judicial sentences from events that could be attributable to the unit or the personnel responsible for those. Also, the breach of internal codes of conduct of the entity.

(iv) Irregular conduct, whether individual or collective. In this regard, the negative effects derived from the marketing of inappropriate products and the responsibilities of the people or bodies that made those decisions will be specially considered.

In addition to the existing policy on malus and clawback clauses of our remuneration policy, the board of directors of Banco Santander at its meeting held on 28 November 2023, following the proposal from the remuneration committee on 27 November 2023, approved an addendum to our remuneration policy to comply with new SEC (US Securities and Exchange Commission) regulations relating to the recoupment of compensation erroneously received by the executive directors of Banco Santander, S.A. and senior management (according to the regulation) in the event of a financial restatement, as defined under the rule, resulting from material noncompliance with financial reporting requirements under federal securities laws. The new addendum to our remuneration policy, entitled "Financial Statement Restatement Compensation", is included as an exhibit to our Annual Report on Form 20-F report filed with the SEC.

Effective from 2023 variable remuneration plan, the maximum number of shares to be delivered is calculated by taking into account the average weighted daily volume of the average weighted listing prices corresponding to the fifty trading sessions prior to the previous Friday (excluded) to the date on which the bonus is agreed by the board of executive directors of the Bank.

iii) Shares assigned by deferred variable remuneration plans

The following table shows the number of Santander shares assigned to each director already in service and pending delivery as of 1 January 2022, 31 December 2022 and 31 December 2023, as well as the gross shares that were delivered to them in 2022 and 2023, either in the form of an immediate payment or a deferred payment. In this case after having been appraised by the board, at the proposal of the remuneration committee, that the corresponding one-fifth of each plan had accrued. They come from the deferred conditional and linked to multi-year objectives in 2017, 2018, 2019, 2020, 2021, 2022 and 2023 were formalized.

Share-based variable remuneration

	Maximum number of shares to be delivered at January 1,2022	Shares delivered in 2022 (immediate payment 2021 variable remuneration)	Shares delivered in 2022 (deferred payment 2020 variable remuneration)	Shares delivered in 2022 (deferred payment 2019 variable remuneration)	Shares delivered in 2022 (deferred payment 2018 variable remuneration)	Shares delivered in 2022 (deferred payment 2017 variable remuneration)	Variable remuneration 2022 (Maximum number of shares to be delivered)
2017 variable remuneration							
Ana Botín	62,722	—	—	—	—	(31,361)	—
José Antonio Álvarez	41,946	—	—	—	—	(20,973)	—
	104,668					**(52,334)**	
2018 variable remuneration							
Ana Botín	103,201	—	—	—	(34,400)	—	—
José Antonio Álvarez	68,963	—	—	—	(22,988)	—	—
	172,164				**(57,388)**		
2019 variable remuneration							
Ana Botín	425,853	—	—	(106,463)	—	—	—
José Antonio Álvarez	284,599	—	—	(71,150)	—	—	—
	710,452			**(177,613)**			
2020 variable remuneration							
Ana Botín	186,369	—	(37,274)	—	—	—	—
José Antonio Álvarez	101,229	—	(20,246)	—	—	—	—
	287,598		**(57,520)**				
2021 variable remuneration							
Ana Botín	1,480,622	(592,249)	—	—	—	—	—
José Antonio Álvarez	999,259	(399,704)	—	—	—	—	—
	2,479,881	**(991,953)**					
2022 variable remuneration							
Ana Botín	—	—	—	—	—	—	631,829
José Antonio Álvarez	—	—	—	—	—	—	426,475
							1,058,305
2023 variable remuneration[1]							
Ana Botín	—	—	—	—	—	—	—
Héctor Grisi	—	—	—	—	—	—	—

1. For each director, 40% of the shares indicated correspond to the short-term variable (or immediate payment). The remaining 60% is deferred for delivery, where appropriate, by fifths in the next five years, the last three being subject to the fulfilment of multiannual objectives.

Maximum number of shares to be delivered at December 31, 2022	Instruments matured but not consolidated at January 1, 2023[2]	Shares delivered in 2023 (immediate payment 2022 variable remuneration)	Shares delivered in 2023 (deferred payment 2021 variable remuneration)	Shares delivered in 2023 (deferred payment 2020 variable remuneration)	Shares delivered in 2023 (deferred payment 2019 variable remuneration)	Shares delivered in 2023 (deferred payment 2018 variable remuneration)	Shares delivered in 2023 (deferred payment 2017 variable remuneration)	Variable remuneration 2023 (Maximum number of shares to be delivered)	Maximum number of shares to be delivered at December 31, 2023
31,361	—	—	—	—	—	—	(31,361)	—	—
20,973	—	—	—	—	—	—	(20,973)	—	—
52,334							**(52,334)**		
68,800	—	—	—	—	—	(34,400)	—	—	34,400
45,975	—	—	—	—	—	(22,988)	—	—	22,988
114,776						**(57,388)**			**57,388**
319,390	(106,453)	—	—	—	(35,452)	—	—	—	177,485
213,449	(71,143)	—	—	—	(23,693)	—	—	—	118,614
532,839	**(177,595)**				**(59,145)**				**296,099**
149,095	—	—	—	(37,274)	—	—	—	—	111,821
80,983	—	—	—	(20,246)	—	—	—	—	60,737
230,078				**(57,520)**					**172,558**
888,373	—	—	(177,675)	—	—	—	—	—	710,698
599,555	—	—	(119,911)	—	—	—	—	—	479,644
1,487,928			**(297,586)**						**1,190,342**
631,829	—	(273,410)	—	—	—	—	—	—	358,419
426,475	—	(184,521)	—	—	—	—	—	—	241,954
1,058,305		**(457,931)**							**600,374**
—	—	—	—	—	—	—	—	1,127,208	1,127,208
—	—	—	—	—	—	—	—	749,143	749,143
								1,876,351	**1,876,351**

2. The levels of achievement of the multi-year metrics of the long-term variable remuneration plans:

1) Fifth cycle of the deferred multi-year objectives variable remuneration plan (2020): 83.3% of achievement for the period 2020-2022.
a. CET1 metric at 100% of achievement for 2022 year-end period (target 12.00%). Weight of 33.3%.
b. Underlying BPA growth at 150% of achievement (target growth of 10%). Weight of 33.3%.
c. TSR metric at 0% of achievement (minimum target of 33% not reached). Weight of 33.3%.

2) Fourth cycle of the deferred multi-year objectives variable remuneration plan (2019): 33.3% of achievement for the period 2019-2021.
a. CET1 metric at 100% of achievement for 2021 year-end period (target 12.00%). Weight of 33.3%.
b. Underlying BPA growth at 0% of achievement (target growth of 15%). Weight of 33.3%.
c. TSR metric at 0% of achievement (minimum target of 33% not reached). Weight of 33.3%.

3) Third cycle of the deferred multi-year objectives variable remuneration plan (2018): 33.3% of achievement for the period 2018-2020.
a. CET1 metric at 100% of achievement for 2020 year-end period (target 11.30%). Weight of 33.3%.
b. Underlying BPA growth at 0% of achievement (target growth of 25%). Weight of 33.3%.
c. TSR metric at 0% of achievement (minimum target of 33% not reached). Weight of 33.3%.

Furthermore, the maximum number of RSUs of PagoNxt, S.L. to be delivered under the current plan is 9,529 and 8,005 units for Ana Botín and Héctor Grisi, respectively.

In addition, the table below shows the cash delivered in 2023 and 2022, by way of either immediate payment or deferred payment, in the latter case once the Board had determined, at the proposal of the remuneration committee, that one-fifth relating to each plan had accrued:

EUR thousand

	2023		2022	
	Cash paid (immediate payment 2022 variable remuneration)	**Cash paid (deferred payments from 2021, 2020, 2019 and 2018 variable remuneration)**	**Cash paid (immediate payment 2021 variable remuneration)**	**Cash paid (deferred payments from 2020, 2019, 2018 and 2017 variable remuneration)**
Ana Botín	1,689	1,117	1,838	1,102
Héctor Grisi	1,823	697	—	—
José Antonio Álvarez	1,140	737	1,241	726
Total	**4,652**	**2,551**	**3,079**	**1,827**

iv) Information on former members of the board of directors

The chart below includes information on the maximum number of shares to which former members of the board of directors, are entitled for their participation in the various deferred variable remuneration systems, which instrumented a portion of their variable remuneration relating to the years in which they were executive directors. Also set forth below is information on the deliveries, whether in shares or in cash, made in 2023 and 2022 to former board members, upon achievement of the conditions for the receipt thereof (see note 46):

Maximum number of shares to be delivered

	2023	**2022**
Deferred conditional variable remuneration plan and linked to objectives (2016)	—	—
Deferred conditional variable remuneration plan and linked to objectives (2017)	—	33,783
Deferred conditional variable remuneration plan and linked to objectives (2018)	29,860	36,543
Deferred conditional variable remuneration plan and linked to objectives (2019)	48,980	98,092
Deferred conditional variable remuneration plan and linked to objectives (2020)	106,536	—
Deferred conditional variable remuneration plan and linked to objectives (2021)	300,000	—
Deferred conditional variable remuneration plan and linked to objectives (2022)	—	—

Number of shares delivered

	2023	**2022**
Deferred conditional variable remuneration plan and linked to objectives (2016)	—	60,251
Deferred conditional variable remuneration plan and linked to objectives (2017)	6,145	33,783
Deferred conditional variable remuneration plan and linked to objectives (2018)	29,860	18,272
Deferred conditional variable remuneration plan and linked to objectives (2019)	24,490	32,698
Deferred conditional variable remuneration plan and linked to objectives (2020)	42,632	—
Deferred conditional variable remuneration plan and linked to objectives (2021)	75,000	—
Deferred conditional variable remuneration plan and linked to objectives (2022)	—	

In addition, EUR 1,417 thousand and EUR 2,759 thousand relating to the deferred portion payable in cash of the aforementioned plans were paid each in 2023 and 2022.

f) Loans

Grupo Santander's direct risk exposure to the bank's directors and the guarantees provided for them are detailed below. These transactions were made on terms equivalent to those that prevail in arm's-length transactions or the related compensation in kind was recognized:

EUR thousand

	2023			2022		
	Loans and credits	Guarantees	Total	Loans and credits	Guarantees	Total
Ana Botín	26	—	26	20	—	20
José Antonio Álvarez	4	—	4	7	—	7
Bruce Carnegie-Brown	—	—	—	—	—	—
Javier Botín	4	—	4	23	—	23
Sol Daurella	51	—	51	49	—	49
Belén Romana	—	—	—	—	—	—
Ramiro Mato	—	—	—	1	—	1
Homaira Akbari	—	—	—	—	—	—
Henrique de Castro	—	—	—	—	—	—
Pamela Walkden	—	—	—	—	—	—
Luis Isasi	—	—	—	—	—	—
Sergio Rial[1]	—	—	—	5	—	5
Héctor Grisi	8	—	8	—	—	—
Gina Díez Barroso	1	—	1	—	—	—
Glenn Hutchins	—	—	—	—	—	—
Germán de la Fuente	—	—	—	—	—	—
	94	**—**	**94**	**105**	**—**	**105**

1. Ceased as director of Banco Santander, S.A. on 1 January 2023

g) Senior management

The table below includes the amounts relating to the short-term remuneration of the members of senior management at 31 December 2023 and those at 31 December 2022, excluding the remuneration of the executive directors, which is detailed above. This amount has been reduced by 38% compared to that reported in 2014 (EUR 80,792 thousand):

EUR thousand

		Short-term salaries and deferred remuneration							
			Variable remuneration (bonus) - Immediate payment		Deferred variable remuneration				
Year	Number of persons	Fixed	In cash	In instruments[2]	In cash	In instruments[3]	Pensions	Other remuneration[1]	Total
2023	14	17,109	7,355	7,356	3,219	3,220	4,775	7,135	50,169
2022	14	18,178	7,733	7,733	3,398	3,399	5,339	6,956	52,736

1. Includes other remuneration items such as life and medical insurance premiums and localization aids and lastly RSUs from PagoNxt S.L., for his work as a director in said entity.
2. The amount of immediate payment for 2023 is 1,567,930 shares and 1,386,491share options (2,504,000 Santander shares in 2022).
3. The deferred amount in instruments not linked to long-term objectives for 2023 is 700,305 shares and 554,597 share options (1,101,000 Santander shares in 2022).

The board of directors approved the 2023 Digital Transformation Incentive which is a variable remuneration scheme which delivers PagoNxt, S.L. RSUs and premium priced options (PPOs), and is aimed at up to 50 employees whose roles are considered key to PagoNxt's success, including 1 senior executive who will receive EUR 200 thousand.

See note 46 to the 2023 Group's consolidated financial statements for further information on the Digital Transformation Incentive.

In 2023, the ratio of variable to fixed pay components was 120% of the total for senior managers, well within the maximum limit of 200% set by 2023 AGM.

Also, the detail of the breakdown of the remuneration linked to long-term objectives of the members of senior management at 31 December 2023 and 31 December 2022 is provided below. These remuneration payments shall be received, as the case may be, in the corresponding deferral periods, upon achievement of the conditions stipulated for each payment (see note 46):

EUR thousand

		Variable remuneration subject to long-term objectives[1]		
Year	Number of people	Cash payment	Instrument payment	Total
2023	14	3,380	3,381	6,761
2022	14	3,568	3,569	7,137

1. Relates to the fair value of the maximum annual amounts for years 2027, 2028 and 2029 of the eighth cycle of the deferred conditional variable remuneration plan (2026, 2027 and 2028 for the seventh cycle of the deferred variable compensation plan linked to annual objectives for the year 2022).

Additionally, members of senior management who stepped down from their roles in 2023 consolidated salary remuneration and other remuneration for a total amount of EUR 3,560 thousand (EUR 3,691 thousand in 2022). In 2023 they did not generate any right regarding variable pay subject to long-term objectives (this right has been generated in 2022 for a total amount of EUR 447 thousand).

The maximum number of Santander shares that the members of senior management at each plan grant date (excluding executive directors) were entitled to receive as of 31 December 2023 and 31 December 2022 relating to the deferred portion under the various plans then in force is the following (see note 46):

Maximum number of shares to be delivered

	2023	2022
Deferred conditional variable remuneration plan and linked to objectives (2016)	—	18,500
Deferred conditional variable remuneration plan and linked to objectives (2017)	—	76,053
Deferred conditional variable remuneration plan and linked to objectives (2018)	72,734	155,758
Deferred conditional variable remuneration plan and linked to objectives (2019)	176,704	949,917
Deferred conditional variable remuneration plan and linked to objectives (2020)	728,200	1,438,437
Deferred conditional variable remuneration plan and linked to objectives (2021)	1,824,824	2,711,926
Deferred conditional variable remuneration plan and linked to objectives (2022)	2,320,032	—

Since the conditions established in the corresponding deferred share-based remuneration schemes for prior years had been met, the following number of Santander shares was delivered in 2023 and 2022 to the senior management, in addition to the payment of the related cash amounts:

Number of shares delivered

	2023	2022
Deferred conditional variable remuneration plan and linked to objectives (2016)	—	114,006
Deferred conditional variable remuneration plan and linked to objectives (2017)	11,046	107,891
Deferred conditional variable remuneration plan and linked to objectives (2018)	72,734	79,037
Deferred conditional variable remuneration plan and linked to objectives (2019)	88,352	288,041
Deferred conditional variable remuneration plan and linked to objectives (2020)	292,737	360,614
Deferred conditional variable remuneration plan and linked to objectives (2021)	456,206	2,556,117
Deferred conditional variable remuneration plan and linked to objectives (2022)	2,070,634	—

As indicated in note 5.c above, senior management participate in the benefit system created in 2012, which covers the contingencies of retirement, disability and death. Banco Santander makes annual contributions to the benefit plans of its senior managers. In 2012, the contracts of the senior managers with benefit pension commitments were amended to transform them into a contribution system. The system, which is outsourced to Santander Seguros y Reaseguros, Compañía Aseguradora, S.A., gives senior managers the right to receive benefits upon retirement, regardless of whether or not they are active at Banco Santander at such time, based on contributions to the system. This new system replaced their previous right to receive a pension supplement in the event of retirement. In the event of pre-retirement, and up to the retirement date, senior managers appointed prior to September 2015 are entitled to receive an annual allowance.

In addition, further to applicable remuneration regulations, from 2016 (inclusive), a discretionary pension benefit component of at least 15% of total remuneration in contributions to the pension system has been included. Under the regime corresponding to these discretionary benefits, the contributions that are calculated on variable remunerations are subject to malus and clawback clauses, subject to policies applicable at each time, and during the same period in which the variable remuneration is deferred.

Likewise, the annual contributions calculated on variable remunerations must be invested in Bank shares for a period of five years from the date that the senior manager leaves the Group, regardless of whether or not they leave to retire. Once that period has elapsed, the amount invested in shares will be reinvested, along with the remainder of the cumulative balance corresponding to the senior manager, or it will be paid to the senior manager or to their beneficiaries in the event of a contingency covered by the benefits system.

The contracts of some members of senior management were modified at the beginning of 2018 with the same objective and changes indicated in section c of this note for Ana Botín. The modifications, which are aimed at aligning the annual contributions with the practices of comparable institutions and reducing the risk of future obligations by eliminating the supplementary scheme for death (widowhood and orphanhood) and permanent disability in service without increasing the costs to the bank, are as follows:

- Contributions to the pensionable bases were reduced. Gross annual salaries were increased in the corresponding amount.
- The death and disability supplementary benefits were eliminated since 1 January 2018 for some members of senior management and since 1 April 2018 for executive directors. A fixed remuneration supplement reflected in other remuneration in the table above was implemented on the same date.
- The amounts insured for life and accident insurance were increased.

All of the above was done without an increase in total cost for the Bank.

The balance as of 31 December 2023 in the pension system for those who were part of senior management at year end amounted to EUR 57 million (EUR 54 million at 31 December 2022).

The net charge to income corresponding to pension amounted to EUR 4.7 million in 2023 (EUR 5.3 million in 31 December 2022).

In 2023 and 2022 there have been no payments in the form of a single payment of the annual voluntary pre-retirement allowance.

Additionally, the capital insured by life and accident insurance at 31 December 2023 of this group amounts to EUR 84.4 million (EUR 98 million at 31 December 2022).

h) Post-employment benefits to former directors and former senior executive vice presidents

The post-employment benefits and settlements paid in 2023 to former directors of the Bank, other than those detailed in note 5.c amounted to EUR 5.6 million and EUR 5.6 million in 2022, respectively. Also, the post-employment benefits and settlements paid in 2023 to former executive vice presidents amounted to EUR 15 million and EUR 4.8 million in 2022, respectively.

Contributions to insurance policies that hedge pensions to previous members of the Bank's board of directors, amounted to EUR 0.17 million in 2023 (EUR 0.17 million in 2022). Likewise, contributions to insurance policies that hedge pensions for previous senior managers amounted to EUR 3.3 million in 2023 (EUR 3.1 million in 2022).

During the 2023 financial year, no releases or charges were recorded in the consolidated income statement for pension commitments and similar obligations held by the Group with previous former members of the bank's board of directors or former members of senior management in 2023 and 2022.

In addition, 'Provisions - Pension Fund and similar obligations' in the consolidated balance sheet as at 31 December 2023 included EUR 46 million in respect of the post-employment benefit obligations to former Directors of the Bank (EUR 48 million at 31 December 2022) and EUR 88 million corresponding to former members of senior management (EUR 99 million at 31 December 2022).

i) Pre-retirement and retirement

The board of directors approved an amendment to the contracts of executive directors whereby they ceased to have the right to pre-retire in case of termination of his contract.

j) Contract termination

The executive directors and members of senior management have indefinite-term employment contracts. Executive directors or senior managers whose contracts are terminated voluntarily or due to breach of duties are not entitled to receive any economic compensation. If Banco Santander terminates the contract for any other reason, they will be entitled to the corresponding legally-stipulated termination benefit, without prejudice to any compensation that may for non-competition obligations, as detailed in the directors' remuneration policy.

If Banco Santander were to terminate her contract, Ana Botín would have to remain at Banco Santander's disposal for a period of 4 months in order to ensure an adequate transition, and would receive her fixed salary during that period.

k) Information on investments held by the directors in other companies and conflicts of interest

None of the members of the board of directors have declared that they or persons related to them may have a direct or indirect conflict of interest with the interests of Banco Santander, S.A., as set forth in article 229 of the Corporate Enterprises Act.

6. Loans and advances to central banks and credit institutions

The detail, by classification, type and currency, of Loans and advances to central banks and credit institutions in the consolidated balance sheets is as follows:

EUR million

	2023	2022	2021
CENTRAL BANKS			
Classification			
Financial assets held for trading	17,717	11,595	3,608
Non-trading financial assets mandatorily at fair value through profit or loss	—	—	—
Financial assets designated at fair value through profit or loss	—	—	—
Financial assets designated at fair value through other comprehensive income	—	—	—
Financial assets at amortised cost	20,082	15,375	15,657
	37,799	**26,970**	**19,265**
Type			
Time deposits	17,747	15,180	13,275
Reverse repurchase agreements	20,052	11,790	5,990
Impaired assets	—	—	—
Valuation adjustments for impairment	—	—	—
	37,799	**26,970**	**19,265**
CREDIT INSTITUTIONS			
Classification			
Financial assets held for trading	14,061	16,502	10,397
Non-trading financial assets mandatorily at fair value through profit or loss	—	—	—
Financial assets designated at fair value through profit or loss	459	673	3,152
Financial assets designated at fair value through other comprehensive income	313	—	—
Financial assets at amortised cost	57,917	46,518	39,169
	72,750	**63,693**	**52,718**
Type			
Time deposits	8,560	8,891	10,684
Reverse repurchase agreements	35,846	27,321	18,853
Non- loans advances	28,353	27,487	23,188
Impaired assets	—	—	1
Valuation adjustments for impairment	(9)	(6)	(8)
	72,750	**63,693**	**52,718**
CURRENCY			
Euro	34,229	26,024	24,286
Pound sterling	3,539	4,474	3,228
US dollar	17,602	18,468	12,639
Brazilian real	47,151	34,863	24,011
Other currencies	8,028	6,834	7,819
TOTAL	**110,549**	**90,663**	**71,983**

The loans and advances to credit institutions classified under 'Financial assets at amortised' cost are mainly time accounts and deposits.

Note 51 contains a detail of their residual maturity periods.

This line item also includes irrevocable payment commitments to the Single Resolution Fund made in accordance with article 70.3 of Regulation 806/2014, which establishes uniform rules and a uniform procedure for the resolution of credit institutions and certain security service companies. investment within the framework of a Single Resolution Mechanism and a Single Resolution Fund, for which, in accordance with the standard, no provision has been recorded, these commitments have not been significant regarding the consolidated annual accounts.

At 31 December 2023 the gross exposure by impairment stage of the assets accounted subject to impairment for amounts to EUR 78,321 million, EUR 0 million and EUR 0 million (EUR 61,898, EUR 1 million and EUR 0 million in 2022 and EUR 54,833 million, EUR 0 million and EUR 1 million in 2021), and the loan loss provision by impairment stage amounts to EUR 9 million, EUR 0 million and EUR 0 million (EUR 6 million, EUR 0 million and EUR 0 million in 2022 and EUR 8 million, EUR 0 million and EUR 0 million in 2021) in stage 1, stage 2 and stage 3, respectively.

7. Debt securities

a) Detail

The detail, by classification, type and currency, of Debt securities in the consolidated balance sheets is as follows:

EUR million	2023	2022	2021
Classification			
Financial assets held for trading	62,124	41,403	26,750
Non-trading financial assets mandatorily at fair value through profit or loss	860	1,134	957
Financial assets designated at fair value through profit or loss	3,095	2,542	2,516
Financial assets designated at fair value through other comprehensive income	73,565	75,083	97,922
Financial assets at amortised cost	103,559	73,554	35,708
	243,203	**193,716**	**163,853**
Type			
Spanish government debt securities	40,321	26,876	20,638
Foreign government debt securities	145,732	121,018	102,976
Issued by financial institutions	14,681	10,176	12,324
Other fixed-income securities	42,294	35,468	27,850
Impaired financial assets	461	404	280
Impairment losses	(286)	(226)	(215)
	243,203	**193,716**	**163,853**
Currency			
Euro	90,857	63,903	45,197
Pound sterling	9,284	6,732	6,304
US dollar	38,161	37,749	34,229
Brazilian real	46,190	35,841	35,907
Other currencies	58,997	49,717	42,431
Debt securities excluding impairment adjustments	**243,489**	**193,942**	**164,068**
Impairment losses	(286)	(226)	(215)
	243,203	**193,716**	**163,853**

The increase in the year of the debt securities portfolio under the heading 'Financial assets at fair value with changes in other comprehensive income' is mainly due to the increase in exposure in sovereign debt portfolio.

Likewise, the increase in the debt securities portfolio under the heading 'Financial assets at amortized cost' is due to the continuation of the strategy started in the previous year in which two new business models were created for the optimization of excess liquidity and the management of the maturity of the balance sheet credit and deposit portfolios.

At 31 December 2023, 2022 and 2021 the gross exposure by impairment stage of the book assets amounted to EUR 176,697 million, EUR 148,384 million and EUR 133,437 million in stage 1; EUR 203 million, EUR 75 million and EUR 128 million in stage 2, and EUR 461 million, EUR 404 million and EUR 280 million in stage 3, respectively.

In addition, at 31 December 2023, the Group had EUR 49 million of exposure in assets purchased with impairments, which correspond mainly to the business combinations carried out by the Group with any additional impairment signs.