
FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Issuer

Pursuant to Rule 13a-16 or 15d-16
of the Securities Exchange Act of 1934

For the year ended December 31, 2021

Commission File Number: 001-12518

Banco Santander, S.A.

(Exact name of registrant as specified in its charter)

Ciudad Grupo Santander

28660 Boadilla del Monte (Madrid) Spain

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F ☒

Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Yes ☐

No ☒

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Yes ☐

No ☒

BANCO SANTANDER, S.A.

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Section 1

Certain financial information included in Banco Santander, S.A.'s 2021 Form 20-F retrospectively recast as a result of certain changes in the primary and secondary segments of Banco Santander, S.A. and its subsidiaries.

1. Cross reference to Form 20-F

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2. Presentation of financial and other information

Explanatory Note

We are filing this report on Form 6-K to recast our segment financial information and related disclosure for the three years ended 31 December 2021 which were included in our annual report on Form 20-F for the fiscal year ended 31 December 2021 filed with the Securities and Exchange Commission (SEC) on 1 March 2022 (the '2021 Form 20-F'), in order to reflect our new reporting structure.

On 4 April 2022, we announced that, starting and effective with the financial information for the first quarter of 2022, we will carry out changes in our reportable segments to reflect our new reporting structure.

These changes in our reportable segments aim to align the segment information to how segments and units are managed and have no impact at the Group level. The main changes, which have been applied to segment information for all periods included in the consolidated financial statements, are the following:

1. Reallocation of certain financial costs from the Corporate Centre to the country units.
 - Further clarity in the minimum requirement for own funds and eligible liabilities (MREL) and total loss absorbing capacity (TLAC) regulation makes it possible to allocate the cost of the eligible debt issuances to the country units.
 - Other financial costs, primarily associated with the cost of funding the excess capital held by the country units above the Group's CET1 ratio, have been reassigned from the Corporate Centre to the country units.
2. Downsizing of *Other Europe*
 - The Corporate & Investment Banking branches of Banco Santander, S.A. in Europe and other business lines previously reported under '*Other Europe*' have been now integrated into the Spain unit to reflect how the business will be managed and supervised.

The Group recast the corresponding information of earlier periods to reflect these changes in the structure of its internal organization.

In addition to these changes, we have done the annual adjustment of the perimeter of the Global Customer Relationship Model between Retail Banking and Santander Corporate & Investment Banking and between Retail Banking and Wealth Management & Insurance.

In this report we have included only such disclosure as was impacted by the revisions described above and have only revised such disclosure to reflect such revisions. This report does not, and does not purport to, recast the information in any other part of the 2021 Form 20-F filed on 1 March 2022 or update any information in such Form 20-F to reflect any events that have occurred after its filing. References in this report to our consolidated financial statements shall be deemed to refer to our recast consolidated financial statements and related notes that are also included in this Form 6-K. This Form 6-K should be read in conjunction with the above mentioned 2021 Form 20-F and our other filings with the SEC.

Accounting principles

Under Regulation (EC) No. 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 (a 'Member State') and whose securities are admitted to trading on a regulated market of any Member State must prepare their consolidated financial statements in conformity with the International Financial Reporting Standards as previously adopted by the European Union ('EU-IFRS'). The Bank of Spain Circular 4/2004 of 22 December 2004 on Public and Confidential Financial Reporting Rules and Formats ('Circular 4/2004') required Spanish credit institutions to adapt their accounting systems to the principles derived from the adoption by the European Union of International Financial Reporting Standards. This Circular was repealed on 1 January 2018 by Bank of Spain Circular 4/2017, of 27 November 2017 on Public and Confidential Financial Reporting Rules and Formats ('Circular 4/2017'). Therefore, Grupo Santander (the 'Group' or 'Santander') is required to prepare its consolidated financial statements for the years ended 31 December 2021, 31 December 2020 and 31 December 2019 in conformity with EU-IFRS and Bank of Spain's Circulars and International Financial Reporting Standards as issued by the International Accounting Standards Board ('IFRS-IASB') are not material. Therefore, we assert that the financial information contained in this report on Form 6-K complies with IFRS-IASB.

Our auditors, PricewaterhouseCoopers Auditores, S.L., an independent registered public accounting firm, have audited our consolidated financial statements in respect of the years ended 31 December 2021, 2020 and 2019 in accordance with IFRS-IASB. See pages 76, 77 and 78 in Section 2 of this Form 6-K for the audit report issued by PricewaterhouseCoopers Auditores, S.L.

We have presented our financial information according to the classification format for banks used in Spain. We have not reclassified the line items to comply with Article 9 of Regulation S-X. Article 9 is a regulation of the U.S. Securities and Exchange Commission that contains presentation requirements for bank holding company financial statements.

General information

Our consolidated financial statements included in Section 2 of this Form 6-K are in Euros, which are denoted 'euro', 'euros', 'EUR' or '€' throughout this annual report. Also, throughout this annual report, when we refer to:

- 'we', 'us', 'our', the 'Group', 'Grupo Santander' or 'Santander', we mean Banco Santander, S.A. and its subsidiaries, unless the context otherwise requires;
- 'dollars', 'USD', 'US\$' or '\$', we mean United States dollars; and
- 'pounds', 'GBP' or '£', we mean United Kingdom pounds.

When we refer to 'net interest income' we mean 'interest income/(charges)'.

When we refer to 'staff costs' we mean 'personnel expenses'.

When we refer to 'profit before tax' we mean 'operating profit/(loss) before tax'.

When we refer to 'average balances' for a particular period, we mean the average of the month-end balances for that period, unless otherwise noted. We do not believe that monthly averages present trends that are materially different from trends that daily

averages would show. In calculating our interest income, we include any interest payments we received on non-accruing loans if they were received in the period when due.

When we refer to 'loans', we mean loans, leases, discounted bills and accounts receivable, unless otherwise noted. The loan to value 'LTV' ratios disclosed in this report refer to LTV ratios calculated as the ratio of the outstanding amount of the loan to the most recent available appraisal value of the mortgaged asset. Additionally, if a loan shows signs of impairment, we update the appraisals which are then used to estimate allowances for loan losses.

When we refer to the non-performing loans ratio ('NPL ratio'), we mean credit impaired loans and advances to customers, customer guarantees and customer commitments granted divided by total risk (total loans and advances to customers, customer guarantees and customer commitments granted, including those that are credit impaired).

When we refer to 'credit impaired balances', unless otherwise noted, we mean credit impaired loans and advances to customers, customer guarantees and customer commitments granted.

When we refer to 'allowances for credit losses', unless otherwise noted, we mean allowances for inherent losses of impaired assets. Allowances reflect expected credit losses.

When we refer to 'perimeter effect', we mean growth or reduction derived from changes in the companies that we consolidate resulting from acquisitions, dispositions or other reasons.

Where a translation of foreign exchange is given for any financial data, we use the exchange rates of the relevant period (as of the end of such period for balance sheet data and the average exchange rate of such period for income statement data) as published by the European Central Bank (ECB), unless otherwise noted.

Management makes use of certain financial measures in local currency to help in the assessment of ongoing operating performance. These non-GAAP financial measures include the results of operations of our subsidiary banks located outside the eurozone, excluding the impact of foreign exchange. We analyse these banks' performance on a local currency basis to better measure the comparability of results between periods. Because changes in foreign currency exchange rates have a non-operating impact on the results of operations, we believe that evaluating their performance on a local currency basis provides an additional and meaningful assessment of performance to both management and the company's investors. Variances in financial metrics, excluding the exchange rate impact, are calculated by translating the components of the financial metrics to our euro presentation currency using the same foreign currency exchange rate for both periods presented. For a discussion of the accounting principles used in translation of foreign currency-denominated assets and liabilities to euros, see note 2(a) to our consolidated financial statements included in Section 2 of this Form 6-K. In addition, throughout this report on Form 6-K we make use of other alternative performance measures. See more information in 'Section 1.6. Alternative Performance Measures (APMs)', in this Form 6-K.

3. Cautionary statement regarding forward-looking statements

Banco Santander advises that this report on Form 6-K contains statements that constitute 'forward-looking statements' within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements include, but are not limited to, information regarding:

- exposure to various types of market risks;
- management strategy;
- capital expenditures;
- earnings and other targets; and
- asset portfolios.

Forward-looking statements may be identified by words such as 'expect,' 'project,' 'anticipate,' 'should,' 'intend,' 'probability,' 'risk,' 'VaR,' 'RoRAC,' 'RoRWA,' 'TNAV,' 'target,' 'goal,' 'objective,' 'estimate,' 'future' and similar expressions, which are found throughout this report on Form 6-K. We include forward-looking statements throughout this Form 6-K, including but not limited to, the 'Operating and Financial Review and Prospects' and 'Quantitative Analysis About Market Risk' sections. Forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ materially from those in the forward-looking statements.

Written and/or oral forward-looking statements may also be made in the periodic reports to the U.S. Securities and Exchange Commission, shareholder' and investors' reports, offering circulars, prospectuses, press releases and other written materials, and in oral statements made by our directors, officers or employees to third parties, including financial analysts.

You should understand that the following important factors, in addition to those discussed in 'Section 4. Risk Factors', 'Section 5. Information on the Company', 'Consolidated Directors' Report - Economic and Financial Review', 'Section 6. Supplement to the Operating and Financial Review Disclosure in the Directors' Report- Consolidated Income Statement' in Part 1 of the 2021 Form 20-F, elsewhere in the 2021 Form 20-F and in this Form 6-K, could affect our future results and could cause those results or other outcomes to differ materially from those anticipated in any forward-looking statement:

Economic and Industry Conditions

- general economic or industry conditions in Spain, the UK, the U.S., other European countries, Brazil, other Latin American countries and the other areas where we have significant operations or investments;
- effects of the covid-19 pandemic in the global economy;
- exposure to various market risks, principally including interest rate risk, foreign exchange rate risk, equity price risk and risks associated with the replacement of benchmark indices;
- a worsening of the economic environment in Spain, the UK, the U.S., other European countries, Brazil, other Latin American countries and the other areas where we have significant operations or investments, and increase of the volatility in the capital markets;
- the effects of a decline in real estate prices, particularly in Spain and the UK;
- the effects of results of UK political developments, including the UK's exit from the European Union;
- monetary and interest rate policies of the ECB and various central banks;
- inflation or deflation;
- the effects of non-linear market behaviour that cannot be captured by linear statistical models, such as the VaR model we use;
- changes in competition and pricing environments;
- the inability to hedge some risks economically;
- changes in demographics, consumer spending, investment or saving habits;
- potential losses from early repayments on our loan and investment portfolio, declines in value of collateral securing our loan portfolio, and counterparty risk; and
- changes in competition and pricing environments as a result of the progressive adoption of the internet for conducting financial services and/or other factors.

Political and Governmental Factors

- political stability in Spain, the UK, the U.S., other European countries, Brazil, other Latin American countries and the other areas where we have significant operations or investments;
- changes in Spanish, UK, EU, U.S., Latin American, or other jurisdictions' legislation, regulations or taxes, including changes in regulatory capital and liquidity requirements, especially in view of the UK exit of the EU; and
- increased regulation in response to financial crises.

Transaction and Commercial Factors

- damage to our reputation;
- acquisitions or restructurings of businesses that may not perform in accordance with our expectations and our ability to integrate successfully our acquisitions and related challenges that result from the inherent diversion of management's focus and resources from other strategic opportunities and operational matters; and
- the outcome of our negotiations with business partners and governments.

Operating Factors

- the adequacy of loss reserves;
- potential losses associated with an increase in the level of impairment by counterparties to other types of financial instruments;
- technical difficulties and/or failure to improve or upgrade our information technology;
- changes in our access to liquidity and funding on acceptable terms, including as a result of credit spread shifts or downgrades in our credit ratings or those of our more significant subsidiaries;
- our exposure to operational losses (e.g., failed internal or external processes, people and systems);
- changes in our ability to recruit, retain and develop appropriate senior management and skilled personnel;
- the occurrence of force majeure, such as natural disasters, epidemics and pandemics, including the covid-19 pandemic, that impact our operations or impair the asset quality of our loan portfolio;
- the impact of changes in the composition of our balance sheet on future interest income / (charges); and
- potential losses associated with cyber-attacks.

The forward-looking statements contained in this report on Form 6-K speak only as of the date of this report. We do not undertake to update any forward-looking statement to reflect events or circumstances after that date or to reflect the occurrence of unanticipated events.

4. Financial information by segment: 2021 vs 2020

4.1 Description of segments

We base segment reporting on financial information presented to the chief operating decision maker, which excludes certain statutory results items that distort year-on-year comparisons and are not considered for management reporting. This financial information (underlying basis) is computed by adjusting reported results for the effects of certain gains and losses (e.g. capital gains, write-downs, impairment of goodwill, etc.). These gains and losses are items that management and investors ordinarily identify and consider separately to better understand the underlying trends in the business (see also [note 51.c](#) to the Santander financial statements).

Santander has aligned the information in this chapter with the underlying information used internally for management reporting and with that presented in the Group's other public documents.

Santander's executive committee has been selected to be its chief operating decision maker. The Group's operating segments reflect its organizational and managerial structures. The executive committee reviews internal reporting based on these segments to assess performance and allocate resources.

The segments are split by geographic area in which profits are earned and type of business. We prepare 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 are applied.

With the aim of increasing transparency and improving capital allocation to continue enhancing our profitability, on 4 April 2022, we announced that, starting and effective with the financial information for the first quarter of 2022, we will carry out the following modifications to our reporting.

a. Main changes in the composition of Santander's segments made in April 2022

The main changes, which have been applied to management information for all periods included in the consolidated financial statements, are the following:

1. Reallocation of certain financial costs from the Corporate Centre to the country units:
 - Further clarity in the MREL/TLAC regulation makes it possible to allocate the cost of eligible debt issuances to the country units.
 - Other financial costs, primarily associated with the cost of funding the excess capital held by the country units above the Group's CET1 ratio, have been reassigned from the Corporate Centre to the country units.
2. Downsizing of Other Europe.
 - The Corporate & Investment Banking branches of Banco Santander, S.A. in Europe and other business lines previously reported under 'Other Europe' have been now integrated into the Spain unit to reflect how the business will be managed and supervised.

The Group recast the corresponding information of earlier periods considering the changes included in this section.

Apart from these changes, we completed the usual annual adjustment of the perimeter of the Global Customer Relationship Model between Retail Banking and Santander Corporate & Investment Banking and between Retail Banking and Wealth Management & Insurance.

All these changes have no impact on the Group's reported consolidated financial figures.

b. Current composition of Group segments

Primary segments

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

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

North America: which 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, the specialized business unit Banco Santander International, Santander Investment Securities (SIS) and the New York branch.

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.

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

Secondary segments

At this secondary level, Santander is structured into Retail Banking, Santander Corporate & Investment Banking (SCIB), Wealth Management & Insurance (WM&I) and PagoNxt.

Retail Banking: this covers all customer banking businesses, including consumer finance, except those of corporate banking which are managed through Santander Corporate & Investment Banking, asset management, private banking and insurance, which are managed by Wealth Management & Insurance. The results of the hedging positions in each country are also included, conducted within the sphere of their respective assets and liabilities committees.

Santander Corporate & Investment Banking (SCIB): this business reflects revenue from global corporate banking, investment banking and markets worldwide including treasuries managed globally (always after the appropriate distribution with Retail Banking customers), as well as equity business.

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).

PagoNxt: this includes digital payment solutions, providing global technology solutions for our banks and new customers in the open market. It is structured in three businesses: Merchant Acquiring, International Trade and Consumer.

In addition to these operating units, both primary and secondary segments, the Group continues to maintain the area of **Corporate Centre**, that 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, adapting this management to the changes described above.

As the Group's holding entity, this area manages all capital and reserves and allocations of capital and liquidity with the rest of 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.

The businesses included in each of the primary segments in this report and the accounting principles under which their results are presented here may differ from the businesses included and accounting principles applied in the financial information separately prepared and disclosed by our subsidiaries (some of which are publicly listed) which in name or geographical description may seem to correspond to the business areas covered in this report. Accordingly, the results of operations and trends shown for our business areas in this document may differ materially from those of such subsidiaries.

The results of our business areas presented below are provided on the basis of underlying results only and generally including the impact of foreign exchange rate fluctuations. However, for a better understanding of the changes in the performance of our business areas, we also provide and discuss the year-on-year changes to our results excluding such exchange rate impacts.

The statements included in this section regarding Santander's competitiveness and that of its subsidiaries have been produced by the Group based on public information (corporate websites of competing entities and information published by national banking institutions).

4.2 Summary of the Group's main business areas' income statements

2021

Main items of the underlying income statement

EUR million

Primary segments	Net interest income	Net fee income	Total income	Net operating income	Profit before tax	Underlying profit attributable to the parent
Europe	10,574	4,344	15,934	7,615	4,034	2,750
Spain	4,166	2,789	7,748	3,696	863	627
United Kingdom	4,383	434	4,815	2,223	2,149	1,537
Portugal	722	441	1,313	750	685	462
Poland	1,020	518	1,617	955	351	140
Other	282	163	441	(9)	(15)	(16)
North America	8,072	1,644	10,853	5,886	4,531	2,960
US	5,298	782	7,277	4,080	3,546	2,252
Mexico	2,773	828	3,553	1,910	1,100	816
Other	0	34	23	(104)	(114)	(108)
South America	11,307	3,721	15,337	9,958	6,232	3,317
Brazil	7,867	2,728	10,876	7,641	4,610	2,320
Chile	1,982	394	2,455	1,513	1,156	636
Argentina	1,065	420	1,388	583	306	270
Other	393	179	618	221	160	91
Digital Consumer Bank	4,041	821	5,099	2,694	1,973	1,164
Corporate Centre	(624)	(28)	(819)	(1,165)	(1,510)	(1,535)
TOTAL GROUP	33,370	10,502	46,404	24,989	15,260	8,654
Secondary segments						
Retail Banking	30,596	7,045	38,869	21,766	12,632	7,389
Corporate & Investment Banking	2,921	1,744	5,619	3,240	3,071	2,113
Wealth Management & Insurance	476	1,247	2,240	1,326	1,294	941
PagoNxt	1	493	495	(178)	(227)	(253)
Corporate Centre	(624)	(28)	(819)	(1,165)	(1,510)	(1,535)
TOTAL GROUP	33,370	10,502	46,404	24,989	15,260	8,654

2020

Main items of the underlying income statement

EUR million

Primary segments	Net interest income	Net fee income	Total income	Net operating income	Profit before tax	Underlying profit attributable to the parent
Europe	9,518	4,000	14,280	6,006	1,692	1,138
Spain	4,083	2,542	7,208	2,968	367	255
United Kingdom	3,466	494	3,942	1,403	470	364
Portugal	765	388	1,274	684	461	323
Poland	1,011	452	1,498	869	344	144
Other	193	123	358	82	50	52
North America	8,394	1,684	10,958	6,280	2,231	1,419
US	5,580	889	7,296	4,216	1,186	685
Mexico	2,813	772	3,639	2,087	1,070	754
Other	1	24	23	(23)	(25)	(20)
South America	10,710	3,589	14,855	9,498	5,253	2,898
Brazil	7,618	2,824	10,859	7,317	4,037	2,108
Chile	1,786	335	2,262	1,362	784	431
Argentina	910	273	1,125	493	197	177
Other	397	158	609	325	236	182
Digital Consumer Bank	4,014	771	4,917	2,588	1,680	958
Corporate Centre	(643)	(29)	(410)	(739)	(1,181)	(1,332)
TOTAL GROUP	31,994	10,015	44,600	23,633	9,674	5,081

Secondary segments

Retail Banking	29,401	6,986	37,368	20,082	7,212	3,962
Corporate & Investment Banking	2,842	1,542	5,256	3,218	2,613	1,745
Wealth Management & Insurance	394	1,153	2,030	1,159	1,132	823
PagoNxt	(1)	362	356	(86)	(101)	(116)
Corporate Centre	(643)	(29)	(410)	(739)	(1,181)	(1,332)
TOTAL GROUP	31,994	10,015	44,600	23,633	9,674	5,081

4.3 Primary segments



Europe

Underlying attributable profit

EUR 2,750 Mn

Business performance

Loans and advances to customers were 5% higher year-on-year. In gross terms, excluding reverse repurchase agreements and the exchange rate impact, they rose 3%. We saw broad-based growth in all countries especially in mortgages in the UK, individuals in Spain, mortgages and SMEs in Portugal and individuals, SMEs and CIB in Poland.

Customer deposits increased by 6% compared to 2020. Excluding repurchase agreements and the FX impact, they were up 5%, as demand deposits offset the drop in time deposits.

Mutual funds grew 16% in constant euros, with broad-based growth across countries, with customer funds up 6% (excluding the exchange rate impact).

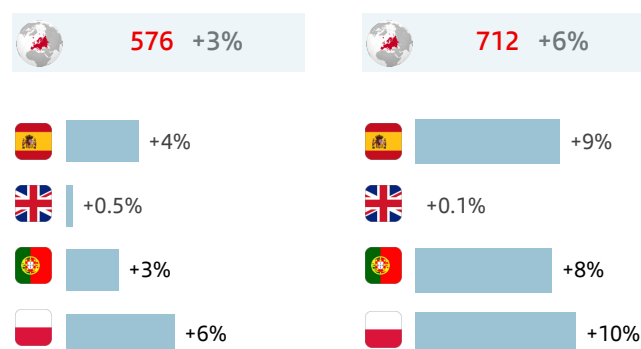
Results

Underlying attributable profit in 2021 was EUR 2,750 million (27% of the Group's total operating areas). Compared to 2020, underlying attributable profit was up 142% and 140% in constant euros, as follows:

- Total income was up 11%, with increased net interest income (+10%), benefitting from higher volumes, interest rate management and the positive TLTRO impact. Net fee income rose 9% spurred by greater commercial activity and business growth in WM&I and CIB.
- Despite inflation, increased activity and necessary investments in IT, significant restructuring efforts in all countries and cost control left administrative expenses and amortizations flat by year-end. As a result, net operating income rose 26%.
- Net loan-loss provisions dropped 32% compared to 2020, due to covid-19-related provisions recorded in 2020 that were partially released in 2021.
- NPL ratio improved 22 bps to 3.12% and cost of credit decreased 19 bps to 0.39%. Coverage ratio decreased to 49%.
- Other gains (losses) and provisions increased 32%, mainly due to Swiss franc mortgage-related charges.

Europe. Business performance

December 2021. EUR billion and YoY % change in constant euros



Gross loans and advances to customers excl. reverse repos

Customer deposits excl. repos + mutual funds

Europe. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	15,934	14,280	+12	+11
Expenses	-8,319	-8,274	+1	0
Net operating income	7,615	6,006	+27	+26
LLPs	-2,293	-3,344	-31	-32
PBT	4,034	1,692	+138	+138
Underlying attrib. profit	2,750	1,138	+142	+140

Detailed financial information in section [4.6 'Appendix'](#)



Spain

Underlying attributable profit
EUR 627 Mn

Business performance

Loans and advances to customers rose 4% versus 2020. In gross terms, excluding reverse repurchase agreements, growth was also 4%, driven by individuals and institutions.

Customer deposits increased 7% compared to 2020. Excluding repos, growth was also 7%. Mutual funds grew 16% driven by sustained net positive inflows in the last seven quarters. Customer funds rose 9%.

Results

Underlying attributable profit amounted to EUR 627 million (6% of the Group's total operating areas), 146% higher than 2020. By line:

- Total income increased 7% propelled by the positive performance in net fee income (+10%), driven by transactional fees, insurance, and mutual funds, and, to a lesser extent, net interest income (+2%), supported by TLTROs.
- Our cost reduction efforts continued to bear fruit (-4% year-on-year), improving the efficiency ratio by 6.5 pp to 52.3%. Net operating income increased 25%.
- Net loan-loss provisions were up 9%, and cost of credit increased 6 bps year-on-year to 0.92%. NPL ratio improved 44 bps to 4.72% and coverage ratio increased 4 pp to 51%.
- Other gains (losses) and provisions increased due to higher operational risks and contingencies.



United Kingdom

Underlying attributable profit
EUR 1,537 Mn

Business performance

In gross terms excluding repos and the FX impact, loans and advances to customers were 0.5% higher. Strong mortgage growth, with GBP 7.5 bn net mortgage lending (GBP 30.7 bn of gross new lending) in a buoyant housing market. This performance was not reflected in total lending balances due to the transfer of the CIB business to the London branch.

Customer deposits rose 5%. Excluding repurchase agreements and the exchange rate impact, customer deposits and total customer funds saw no material change. Mutual funds were 6% higher.

Results

Underlying attributable profit was EUR 1,537 million in 2021 (15% of the Group's total operating areas), more than four times that of 2020. In constant euros, growth was 308%, as follows:

- Total income was up 18%, driven by net interest income growth (+22%) from increased lending volumes and lower cost of funding.
- Administrative expenses and amortizations dropped 1%, due to efficiency savings from our transformation programme, offsetting ongoing investments in IT and the business, as well as costs related to greater activity. As a result, net operating income was up 53%.
- We recorded a net credit impairment write-back of EUR 245 million, due to the improved economic outlook and partial release of covid-19 provisions from 2020.
- NPL ratio increased 19 bps to 1.43% and coverage ratio decreased 19 pp. to 26%. Cost of risk decrease 36 bps to -0.09% (negative reflecting releases)
- The negative impact from other gains (losses) and provisions increased compared to 2020, owing to legal contingencies.

Spain. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	
Revenue	7,748	7,208	+7	
Expenses	-4,052	-4,240	-4	
Net operating income	3,696	2,968	+25	
LLPs	-2,320	-2,123	+9	
PBT	863	367	+135	
Underlying attrib. profit	627	255	+146	

Detailed financial information in section [4.6 'Appendix'](#)

United Kingdom. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	4,815	3,942	+22	+18
Expenses	-2,592	-2,539	+2	-1
Net operating income	2,223	1,403	+58	+53
LLPs	245	-677	—	—
PBT	2,149	470	+357	+342
Underlying attrib. profit	1,537	364	+322	+308

Detailed financial information in section [4.6 'Appendix'](#)



Portugal

Underlying attributable profit
EUR 462 Mn

Business performance

Loans and advances to customers rose 3%, as well as in gross terms and excluding reverse repurchase agreements.

We focused on ensuring the funds we capture are efficient in terms of costs and return on capital, recording strong growth in both mutual funds and insurance premiums.

Customer deposits increased 6% boosted by the jump in demand deposits. Mutual funds grew 33%. As a result, customer funds increased 8% versus 2020.

Results

Underlying attributable profit amounted to EUR 462 million (5% of the Group's total operating areas), 43% more year-on-year, backed by our efficiency (43%) and improved cost of credit.

- Total income was up 3%, underpinned by net fee income (+14%) that was boosted by transactional fees, insurance and mutual funds, and ALCO portfolio sales.
- We continued to implement our operating model transformation plan and improve the productivity of our network, leading to a 5% reduction in administrative expenses and amortizations. As a result, net operating income rose 10%.
- Credit quality improvement enabled loan-loss provisions to fall to EUR 38 million, driving the cost of credit to a low of 9 bps and coverage ratio increased 5 pp to 72%. NPL ratio improved to 3.4% (-45 bps).
- Other gains (losses) and provisions amounted to a loss of -EUR 26 million compared to -EUR 29 million in 2020.

Portugal. Underlying income statement

EUR million and % change

	2021	2020	/ 2020 %
Revenue	1,313	1,274	+3
Expenses	-563	-590	-5
Net operating income	750	684	+10
LLPs	-38	-193	-80
PBT	685	461	+49
Underlying attrib. profit	462	323	+43

Detailed financial information in section [4.6 'Appendix'](#)



Poland

Underlying attributable profit
EUR 140 Mn

Business performance

Loans and advances to customers rose 6%. In gross terms, excluding reverse repurchase agreements and exchange rate impact, growth was also 6%, driven by retail, where we hit record highs in mortgage sales, digital loans, bancassurance and SME lending. In CIB, we consolidated our market leadership as one of the country's preferred banks for executing capital market transactions.

Customer deposits increased 9% compared to 2020, +10% excluding repos and the exchange rate impact. Demand deposits spiked in wholesale banking, individuals and SMEs. Mutual fund growth remained positive, boosting growth in customer funds (+10% in constant euros).

Results

Underlying attributable profit amounted to EUR 140 million (1% of the Group's total operating areas). Compared to 2020, profit dropped 3% but remained flat in constant euros, as follows:

- Total income was 11% higher driven by transactional and WM&I fee income, and net interest income, as NII pressures eased following interest rate hikes in Q4.
- Administrative expenses and amortizations were up 8% affected by high inflation and costs related to the rebound in activity. Net operating income rose 13%.
- Loan-loss provisions plummeted, which enabled cost of credit to improve.
- NPL ratio improved 113 bps to 3.61% and cost of credit decreased 42 bps to 0.67%. The coverage ratio increased to 74%.
- The negative impact from other gains (losses) and provisions (including the charges related to Swiss franc mortgages which distort the year-on-year comparison) increased 113% to -EUR 404 million.

Poland. Underlying income statement

EUR million and % change

	2021	2020	/ 2020 %	% excl. FX
Revenue	1,617	1,498	+8	+11
Expenses	-663	-629	+5	+8
Net operating income	955	869	+10	+13
LLPs	-200	-330	-39	-38
PBT	351	344	+2	+5
Underlying attrib. profit	140	144	-3	0

Detailed financial information in section [4.6 'Appendix'](#)



North America

Underlying attributable profit

EUR 2,960 Mn

Business performance

Loans and advances to customers grew strongly year-on-year, up 14%. In gross terms, excluding reverse repurchase agreements and the exchange rate impact, they rose 3% boosted by overall growth in Mexico (except SMEs) and lending growth in auto in the US. Without the impact of the Bluestem portfolio disposal, growth was 4%.

Customer deposits grew significantly compared to 2020 (+19%). Excluding repurchase agreements and the exchange rate impact, growth was 7% driven by retail and corporate deposits in the US and demand deposits in Mexico.

Mutual funds were up 15% in constant euros owing to our strong performances in both countries, reflecting the high level of liquidity in the market and success with our customer attraction and loyalty strategy. As a result, customer funds increased 9% in constant euros.

Results

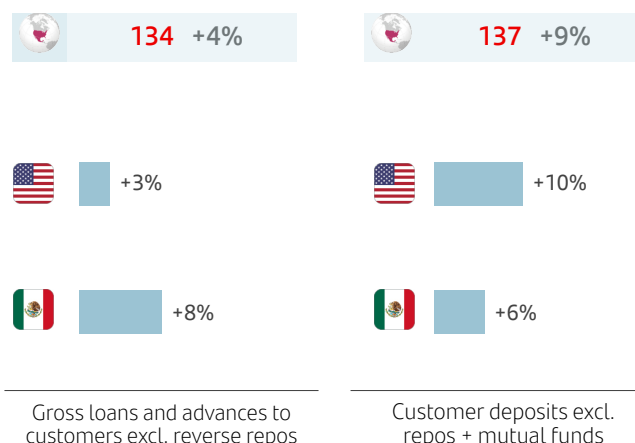
Underlying attributable profit in 2021 was EUR 2,960 million (29% of the Group's total operating areas).

Compared to 2020, underlying attributable profit more than doubled; +109% in euros (+110% in constant euros). The year-on-year comparison by line was distorted due to the impact of the Bluestem portfolio and Puerto Rico disposals. Without them and the exchange rate impact, growth was 112%, as follows:

- Total income was up 5%. Net interest income was 2% higher as price management and hedging in the US more than offset lower net interest income in Mexico due to the negative impact of lower interest rates and ALCO portfolio sales in 2020. Net fee income increased 6%;
- Administrative expenses and amortizations rose 10% primarily due to inflation and investments in digitalization. The efficiency ratio stood around 46%;
- As a result, net operating income increased 1%;
- Net loan-loss provisions plummeted 66% due to better market outlooks and a healthier operating environment, following heavy covid-19-related provisioning in 2020. Cost of credit improved notably to 0.93%, the NPL ratio stood at 2.42% and coverage was 135%;
- Other gains (losses) and provisions were more negative in 2021 mainly due to the early amortization of buildings and integration costs in the US.

North America. Business performance

December 2021. EUR billion and YoY % change in constant euros ^A



A. Excluding Bluestem portfolio impact.

North America. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	10,853	10,958	-1	+1
Expenses	-4,967	-4,677	+6	+8
Net operating income	5,886	6,280	-6	-5
LLPs	-1,210	-3,917	-69	-68
PBT	4,531	2,231	+103	+105
Underlying attrib. profit	2,960	1,419	+109	+110

Detailed financial information in section [4.6 'Appendix'](#)



United States

Underlying attributable profit
EUR 2,252 Mn

Business performance

Loans and advances to customers increased 14% compared to 2020. In gross terms and excluding reverse repurchase agreements and the impacts of both the exchange rate and the Bluestem portfolio disposal, they grew 3% year-on-year as lending growth in CIB and auto more than offset tepid corporate demand. Considering the Bluestem portfolio disposal impact, loans increased 2%.

Customer deposits soared 23% year-on-year. Excluding repurchase agreements and the exchange rate impact, customer deposits grew strongly (8% higher), boosted by retail deposits.

Mutual funds also increased 23% excluding the exchange rate impact.

Results

Underlying attributable profit in the year was EUR 2,252 million (22% of the Group's total operating areas), up 229% year-on-year in euros.

On a like-for-like basis, excluding the Puerto Rico and Bluestem portfolio disposals and the exchange rate impact, growth was 248%. By line, excluding divestiture impacts:

- Total income was up 10%. Though net interest income was impacted by loan volumes and interest rate pressure, it increased 5% due to focused deposit price management. Net fee income increased 6%. Other operating income improved 53%, primarily due to outstanding auto lease results;
- Administrative expenses and amortizations increased 10% due to increased activity and investments in strategic initiatives (such as digital transformation), as well as a USD 60 million donation to our community foundation in Q3 and Q4;
- Net loan-loss provisions plummeted 85% on the back of lower net charge-offs, better macroeconomic conditions and strong used vehicle prices;
- Cost of credit improved notably to 0.43%, the NPL ratio increased at 2.33% and the coverage ratio was 150%;
- The negative impact of other gains (losses) and provisions increased by 31%, mainly due to the early amortization of buildings and integration costs.

United States. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	7,277	7,296	0	+3
Expenses	-3,197	-3,079	+4	+8
Net operating income	4,080	4,216	-3	0
LLPs	-419	-2,937	-86	-85
PBT	3,546	1,186	+199	+210
Underlying attrib. profit	2,252	685	+229	+241

Detailed financial information in section [4.6 'Appendix](#)



Mexico

Underlying attributable profit
EUR 816 Mn

Business performance

Loans and advances to customers increased 15% year-on-year. In gross terms and excluding reverse repurchase agreements and the exchange rate impact, they climbed 8% year-on-year, driven by loans to individuals (mortgages +13%, consumption +17% and cards +3%) as well as corporates (companies +4% and CIB +14% offset a 15% decline in SMEs).

Customer deposits grew 9% year-on-year. Excluding repos and the impact of exchange rates, they rose by 5%, propelled by demand deposits (+8%).

Mutual funds were up 8% in constant euros, a sign of the success of our customer attraction and loyalty strategies, as well as efforts to reduce the cost of funding.

Results

Underlying attributable profit in 2021 was EUR 816 million (8% of the Group's total operating areas), 8% higher than 2020. Excluding the exchange rate impact, it increased 7%. By line:

- Total income fell 4%, impacted by lower gains on financial transactions (sales of ALCO portfolios in 2020) and net interest income (-3%), the latter a result of interest rate cuts and lower ALCO portfolio volumes. Net fee income increased by 6%, mainly due to transactional fees and insurance;
- Administrative expenses and amortizations increased 4%, well below inflation, mainly driven by technology costs and the increase in amortizations;
- As we move to a more normal operating environment, net loan-loss provisions were down 21%, following the high levels recorded in 2020 due to the pandemic;
- NPL ratio improved 8 bps to 2.73% and cost of credit decreased 59 bps to 2.44%. Coverage ratio decreased to 95%.
- Other gains (losses) and provisions improved 49% mainly due to the sale of foreclosed assets and lower contingencies charges.

Mexico. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	3,553	3,639	-2	-4
Expenses	-1,643	-1,552	+6	+4
Net operating income	1,910	2,087	-8	-10
LLPs	-791	-979	-19	-21
PBT	1,100	1,070	+3	+1
Underlying attrib. profit	816	754	+8	+7

Detailed financial information in section [4.6 'Appendix](#)



South America

Underlying attributable profit

EUR 3,317 Mn

Business performance

Loans and advances to customers climbed 9% year-on-year. Excluding reverse repos and the exchange rate impact, gross loans were 12% higher, with increases in all entities.

Customer deposits rose 8% in euros compared to 2020. Excluding repurchase agreements and the exchange rate impact, they rose 11% (increasing across all our markets) driven by demand and time deposits. As mutual funds were up 4% (excluding the FX impact), customer funds were 9% higher in constant euros.

Results

Underlying attributable profit in the year was EUR 3,317 million (33% of the Group's total operating areas), 14% higher compared to 2020, 24% excluding the exchange rate impact. By line:

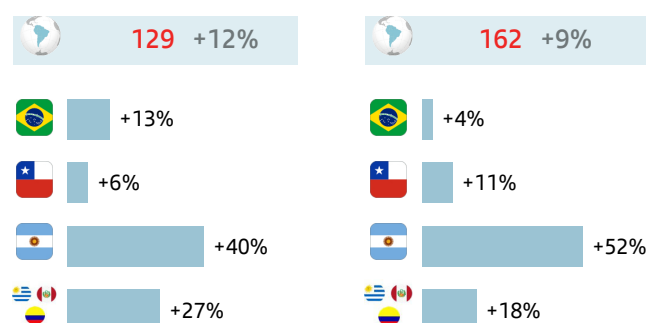
- Total income increased 12% underpinned by strong customer revenue, driven by larger volumes and customer acquisition.

Net interest income was 14% higher and net fee income increased by 13%, while gains on financial transactions remained stable.

- Administrative expenses and amortizations increased 8% at a slower pace than inflation.
- Net loan-loss provisions dropped by 10% driven by covid-19 related provisions recorded in 2020. The cost of credit improved 72 bps to 2.60% and the NPL ratio increased 11 bps to 4.50%. Coverage ratio stood at 98%
- Losses in other income and provisions increased in the year, owing mainly to Argentina and Brazil.

South America. Business performance

December 2021. EUR billion and YoY % change in constant euros



Gross loans and advances to customers excl. reverse repos

Customer deposits excl. repos + mutual funds

South America. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	15,337	14,855	+3	+12
Expenses	-5,380	-5,357	0	+8
Net operating income	9,958	9,498	+5	+13
LLPs	-3,251	-3,924	-17	-10
PBT	6,232	5,253	+19	+28
Underlying attrib. profit	3,317	2,898	+14	+24

Detailed financial information in section [4.6 'Appendix](#)



Brazil

Underlying attributable profit
EUR 2,320 Mn

Business performance

Loans and advances to customers increased 14% year-on-year. In gross terms, excluding reverse repos and the exchange rate impact, they rose 13%, underscored by individuals (+22%), consumer finance (+12%) and SMEs (+15%).

Customer deposits increased 6% in euros with respect to 2020. Excluding repos and the exchange rate impact, growth was 4% driven by the increase in demand deposits (+5%). As mutual funds were 3% higher excluding the exchange rate impact, customer funds rose 4% at constant exchange rates.

Results

Underlying attributable profit was EUR 2,320 million in 2021 (23% of the Group's total operating areas), 10% higher compared to 2020. Excluding the exchange rate impact, it was 21% higher. By line:

- Total income rose 10% boosted by 11% higher net interest income plus net fee income, benefitting from higher volumes and a larger customer base.
- Administrative expenses and amortizations had no material change through efficient cost management and higher productivity despite average inflation of 8%. The annual efficiency ratio improved to an all-time record of 29.7%, while net operating income was 14% higher.
- Net loan-loss provisions fell 1%, enabling cost of credit to improve 62 bps year-on-year to 3.73%. The NPL ratio was 4.88% and coverage stood at 111%.
- The negative impact of other gains (losses) and provisions rose due to higher tax provisions in 2021 and releases in 2020.

Brazil. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	10,876	10,859	0	+10
Expenses	-3,236	-3,541	-9	0
Net operating income	7,641	7,317	+4	+14
LLPs	-2,715	-3,018	-10	-1
PBT	4,610	4,037	+14	+25
Underlying attrib. profit	2,320	2,108	+10	+21

Detailed financial information in section [4.6 'Appendix](#)



Chile

Underlying attributable profit
EUR 636 Mn

Business performance

Loans and advances to customers decreased 4% year-on-year in euros. Excluding reverse repurchase agreements and the exchange rate impact, gross loans and advances to customers rose 6%. By segment, individuals grew 8% (boosted by mortgages), CIB by 17%, and corporates and institutions by 4%, which more than offset the fall in SMEs (-6%, affected by state-backed loans granted in 2020).

Customer deposits rose 4% year-on-year, up 15% excluding repurchase agreements and the exchange rate impact (on the back of demand deposits, +23%). Mutual funds fell 3% and customer funds rose 11% in constant euros.

Results

Underlying attributable profit was EUR 636 million in 2021 (6% of the Group's total operating areas), up 47% compared to 2020.

Excluding the exchange rate impact it was also 47% higher. By line:

- Total income rose 8%, spurred on by 10% higher net interest income, driven by inflation and margin management, and by the 17% increase in net fee income, mainly due to payment methods.
- Administrative expenses and amortizations rose 4% (below inflation) which resulted in 10% higher net operating income and an efficiency ratio of 38.4%.
- Net loan-loss provisions dropped 43% due to covid-19-related charges in 2020, placing the cost of credit at 0.85%. The NPL ratio improved to 4.43% and coverage was 63%.
- Other gains (losses) and provisions totalled -EUR 16 million (+EUR 16 million in 2020) due to contingencies in 2021.

Chile. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	2,455	2,262	+9	+8
Expenses	-942	-900	+5	+4
Net operating income	1,513	1,362	+11	+10
LLPs	-341	-594	-43	-43
PBT	1,156	784	+48	+47
Underlying attrib. profit	636	431	+47	+47

Detailed financial information in section [4.6 'Appendix](#)



Argentina

Underlying attributable profit
EUR 270 Mn

Business performance

Loans and advances to customers rose 25%. Excluding reverse repurchase agreements and the exchange rate impact, gross loans and advances to customers were 40% higher driven by lending to individuals, SMEs and corporates.

Customer deposits increased 28% compared to 2020 in euros. Excluding repurchase agreements and the exchange rate impact, deposits grew 44% and mutual funds +90%.

Results

Underlying attributable profit was EUR 270 million in the year (3% of the Group's total operating areas).

Compared to 2020, underlying attributable profit was 53% higher. Excluding the exchange rate impact, it rose 72%. In particular:

- Total income grew 39% underpinned by net interest income (+32%) and 74% higher net fee income, driven by transactional fees. Gains on financial transactions were 168% higher.
- Administrative expenses and amortizations increased 44%, affected by inflation and the salary agreement. The efficiency ratio stood at 58.0% and net operating income rose 33%.
- Net loan-loss provisions fell 30% due to covid-19-related provisioning in 2020. The NPL ratio stood at 3.61% and the coverage ratio decreased to 154%. Cost of credit decreased 292 bps to 3.01%.
- Other gains (losses) and provisions increased their loss due to charges relating to downsizing.

Argentina. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	1,388	1,125	+23	+39
Expenses	-805	-632	+27	+44
Net operating income	583	493	+18	+33
LLPs	-140	-226	-38	-30
PBT	306	197	+55	+75
Underlying attrib. profit	270	177	+53	+72

Detailed financial information in section [4.6 'Appendix](#)



Uruguay

Underlying attributable profit
EUR 110 Mn

Business performance

Loans and advances to customers increased 17% year-on-year in euros. Excluding reverse repurchase agreements and the exchange rate impact, gross loans and advances to customers rose 14%, due to lending to individuals, (mainly due to auto segment growth well above market rates).

Customer deposits were 18% higher in euros compared to 2020. Excluding the exchange rate impact and repurchase agreements, they increased 15% backed by demand deposits (+20%). Mutual funds were up 22% excluding the exchange rate impact.

Results

In 2021, underlying attributable profit was EUR 110 million (1% of the Group's total operating areas).

Compared to 2020, it fell 18% in euros. Excluding the exchange rate impact, it declined 12%. By line:

- Total income declined 3% mainly due to the 6% lower net interest income, due heavily to lower interest rates, but partly offset by 9% growth in net fee income.
- Administrative expenses and amortizations rose 11%, affected by the salary agreement under the collective labour agreement signed in 2021, and by higher costs from business growth. The efficiency ratio stood at 47.4%.
- Net loan-loss provisions decreased 43%, due to covid-19-related provisioning in 2020. The cost of credit improved 111 bps to 1.19%, the NPL ratio stood at 2.65% and coverage at 107%.

Uruguay. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	342	380	-10	-3
Expenses	-162	-157	+3	+11
Net operating income	180	223	-19	-13
LLPs	-32	-61	-47	-43
PBT	145	161	-10	-3
Underlying attrib. profit	110	134	-18	-12

Detailed financial information in section [4.6 'Appendix](#)

**Peru**Underlying attributable profit
EUR 62 Mn**Business performance**

Loans and advances to customers rose 23% year-on-year (+26% on a gross basis, excluding reverse repurchase agreements and the exchange rate impact).

Customer deposits surged 18% (+20% excluding the exchange rate impact and repurchase agreements), with growth in both demand and time deposits.

Results

Underlying attributable profit of EUR 62 million in 2021 was 18% higher year-on-year. Excluding the exchange rate impact, it soared 36%:

- Total income grew 32% mainly led by customer revenue and gains on financial transactions stemming from higher customer activity.
- Administrative expenses and amortizations were 35% higher, mainly driven by the launch of new businesses. Net operating income increased 31%.
- Net loan-loss provisions increased slightly, although the cost of credit remained low at 0.58%, the NPL ratio stood at 0.87% and the coverage ratio at 165%.

**Colombia**Underlying attributable profit
EUR 24 Mn**Business performance**

Loans and advances to customers rose 38% year-on-year in euros. In gross terms, excluding reverse repurchase agreements and the exchange rate impact growth was 51%.

Customer deposits rose 28% in euros and 40% excluding the exchange rate impact and repurchase agreements, driven by 71% growth in demand deposits.

Results

Underlying attributable profit of EUR 24 million in the year was 27% higher than in 2020. Excluding the exchange rate impact, underlying attributable profit rose 34%. By line:

- Total income grew 25% spurred by higher customer revenue.
- Administrative expenses and amortizations rose 30% and net operating income was 21% higher.
- Net loan-loss provisions fell 8% and the cost of credit declined year-on-year to 0.40%, the NPL ratio stood at 0.48% and the coverage ratio at 179%.

Other South America. Underlying income statement

EUR million and % change

	Net operating income				Underlying attributable profit			
	2021	2020	/ 2020		2021	2020	/ 2020	
			%	% excl. FX			%	% excl. FX
Peru	104	92	+14	+31	62	52	+18	+36
Colombia	42	36	+15	+21	24	19	+27	+34

DCB Digital Consumer Bank

Underlying attributable profit
EUR 1,164 Mn

Business performance

The stock of loans and advances to customers increased 1% year-on-year. In gross terms, excluding reverse repos and the exchange rate impact, it fell 1% to EUR 117 billion.

Customer deposits increased 8% in euros and 7% excluding repos and the exchange rate impact. Mutual funds grew significantly. Our recourse to wholesale funding markets remained strong and diversified, with funding costs, rates and spreads remaining near all-time lows.

Results

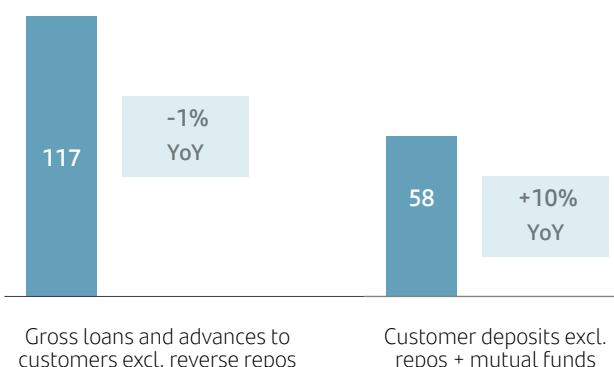
Underlying attributable profit in 2021 was EUR 1,164 million (11% of the Group's total operating areas).

Compared to 2020, underlying profit increased 21% in euros. In constant euros the increase was 20% as follows:

- Total income was up 3% driven by growth in net fee income (+6% due to increased new business volumes) and leasing. Net interest remained flat.
 - Administrative expenses and amortizations increased 3% due to perimeter effects and digital transformation investments. Net operating income increased 3% and the efficiency ratio stood at 47.2%.
- Without perimeter effects, costs were flat year-on-year and 4% lower than in 2019.
- Net loan-loss provisions dropped 45% driven by covid-19 provisioning in 2020. Positive credit quality performance, with a 38 bp reduction in the cost of credit of credit to 0.46% and an NPL ratio of 2.13% (-4 bps year-on-year). Coverage remained high (108%).
 - Negative impact from other gains (losses) and provisions due to charges related to Swiss franc mortgages.

Digital Consumer Bank. Activity

December 2021. EUR billion and % change in constant euros



Digital Consumer Bank. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	5,099	4,917	+4	+3
Expenses	-2,405	-2,329	+3	+3
Net operating income	2,694	2,588	+4	+3
LLPs	-527	-957	-45	-45
PBT	1,973	1,680	+17	+16
Underlying attrib. profit	1,164	958	+21	+20

Detailed financial information in section [4.6 'Appendix](#)

4.4 CORPORATE CENTRE



Corporate Centre

Underlying attributable profit

-EUR 1,535 Mn

Results

In 2021, underlying attributable loss of EUR 1,535 million was 15% higher than in 2020 (-EUR 1,332 million) because:

- Gains on financial transactions were lower (EUR 427 million less than in 2020) dampened by negative foreign currency hedging results in 2021 and positive results in 2020. Net interest income improved 3%.
- Administrative expenses and amortizations, however, increased by 5% compared to 2020, due to general inflation upturn in 2021. Excluding this impact, they would have remained stable.
- Net loan-loss provisions grew from EUR 31 million in 2020 to EUR 155 million in 2021.
- The net impact of other gains (losses) and provisions (which include provisions, intangible assets impairment, cost of the state guarantee on deferred tax assets, pensions, litigation, one-off provisions for stakes whose value was affected by the crisis, etc.) went from -EUR 412 million in 2020 to -EUR 190 million in 2021.

Corporate Centre

EUR million			
Underlying income statement	2021	2020	%
Net interest income	(624)	(643)	(3.0)
Net fee income	(28)	(29)	(5.4)
Gains (losses) ^A on financial transactions	(140)	287	—
Other operating income	(28)	(25)	12.2
Total income	(819)	(410)	99.7
Administrative expenses and amortizations	(346)	(329)	5.2
Net operating income	(1,165)	(739)	57.7
Net loan-loss provisions	(155)	(31)	399.1
Other gains (losses) and provisions	(190)	(412)	(53.8)
Profit before tax	(1,510)	(1,181)	27.8
Tax on profit	(24)	(151)	(84.2)
Profit from continuing operations	(1,534)	(1,332)	15.2
Net profit from discontinued operations	—	—	—
Consolidated profit	(1,534)	(1,332)	15.2
Non-controlling interests	(1)	0	489.2
Underlying profit attributable to the parent	(1,535)	(1,332)	15.3
Balance sheet			
Loans and advances to customers	6,787	5,044	34.6
Cash, central banks and credit institutions	88,918	61,173	45.4
Debt instruments	1,555	1,918	(18.9)
Other financial assets	2,203	1,645	33.9
Other asset accounts	116,007	112,807	2.8
Total assets	215,470	182,587	18.0
Customer deposits	1,042	825	26.3
Central banks and credit institutions	53,061	38,042	39.5
Marketable debt securities	74,302	57,240	29.8
Other financial liabilities	431	493	(12.5)
Other liabilities accounts	7,113	9,443	(24.7)
Total liabilities	135,950	106,044	28.2
Total equity	79,520	76,543	3.9
Memorandum items:			
Gross loans ^B and advances to customers	6,813	5,224	30.4
Customer funds	1,042	837	24.5
Customer deposits ^C	1,042	825	26.3
Mutual funds	—	12	(100.0)

Operating means

Number of employees	1,724	1,692	1.9

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

4.5 Secondary segments

Retail Banking

Underlying attributable profit

EUR 7,389 Mn

Results

Underlying attributable profit was EUR 7,389 million (73% of the Group's operating areas).

Compared to 2020, underlying attributable profit was up 86%. Excluding the exchange rate impact, it was 92% higher, as follows:

- Total income increased 7% on the back of net interest income (+7%) and net fee income (+4%). Gains on financial transactions dropped 25% affected by the high levels recorded in the second and the third quarter of 2020.
- Administrative expenses and amortizations increased slightly (+1%, well below inflation), benefiting from positive cost management and productivity improvement.
- Loan-loss provisions plummeted 37% mainly due to covid-19-related provisioning in 2020.
- Other gains (losses) and provisions increased its loss versus 2020, mainly due to charges for Swiss franc mortgages.

Santander Corporate & Investment Banking

Underlying attributable profit

EUR 2,113 mn

Results

Underlying attributable profit in 2021 increased 21% to EUR 2,113 million (21% of the Group's total operating areas). Excluding the exchange rate impact, growth was 27%, strongly backed by GDF and Markets. By line:

- Total income was 10% higher driven by net fee income (+16%) and gains on financial transactions (+22%).
- Administrative expenses and amortizations rose 19%, compared to 2020 due to investments in products and franchises under development.
- Sharp improvement in loan-loss provisions compared to 2020, due to significant increases last year stemming from the widespread macroeconomic downturn caused by the covid-19 pandemic. Better-than-expected economic conditions at the beginning of 2021 led us to release provisions and improved the credit outlook for the customer portfolio, which had an impact on the level of provisions recorded during the year.

Retail Banking. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	38,869	37,368	+4	+7
Expenses	-17,103	-17,285	-1	+1
Net operating income	21,766	20,082	+8	+12
LLPs	-7,081	-11,632	-39	-37
PBT	12,632	7,212	+75	+81
Underlying attrib. profit	7,389	3,962	+86	+92

Detailed financial information in section [4.6 'Appendix](#)

SCIB. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	5,619	5,256	+7	+10
Expenses	-2,379	-2,038	+17	+19
Net operating income	3,240	3,218	+1	+5
LLPs	-151	-470	-68	-68
PBT	3,071	2,613	+18	+23
Underlying attrib. profit	2,113	1,745	+21	+27

Detailed financial information in section [4.6 'Appendix](#)

Wealth Management & Insurance

Underlying attributable profit

EUR 941 Mn

Results

Underlying attributable profit was EUR 941 million in 2021, up 14% year-on-year. Excluding the exchange rate effect, it was 17% higher:

- Total income increased 12% mainly driven by the higher volume of assets under management, net fee income growth and greater insurance protection.
- Administrative expenses and amortizations increased 7%, due to investments and costs stemming from greater commercial activity.
- As a result, net operating income increased 17%.

The total contribution to the Group (including net profit and total fees generated net of tax) was EUR 2,355 million in 2021, 14% higher than in 2020 in constant euros.

PagoNxt

Underlying attributable profit

-EUR 253 Mn

Results

In 2021, underlying attributable loss increased year-on-year to -EUR 253 million (-EUR 116 million in 2020), driven by high investments in new, developing projects and platforms (mainly in Trade), and by the integration of Wirecard's assets into Merchant in January 2021.

However, total income increased 39% in 2021, with a strong jump in net fee income (+47% at constant exchange rates).

Wealth Management & Insurance. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	2,240	2,030	+10	+12
Expenses	-914	-872	+5	+7
Net operating income	1,326	1,159	+14	+17
LLPs	-38	-28	+36	+36
PBT	1,294	1,132	+14	+17
Underlying attrib. profit	941	823	+14	+17

Detailed financial information in section [4.6 'Appendix](#)

PagoNxt. Underlying income statement

EUR million and % change

	2021	2020	/ 2020	
			%	% excl. FX
Revenue	495	356	+39	+47
Expenses	-673	-443	+52	+57
Net operating income	-178	-86	+106	+96
LLPs	-10	-12	-17	-10
PBT	-227	-101	+124	+116
Underlying attrib. profit	-253	-116	+118	+114

Detailed financial information in section [4.6 'Appendix](#)

4.6 Appendix

Primary segments

EUR million

	Europe				Spain		
Underlying income statement	2021	2020	%	% excl. FX	2021	2020	%
Net interest income	10,574	9,518	11.1	10.1	4,166	4,083	2.0
Net fee income	4,344	4,000	8.6	8.6	2,789	2,542	9.7
Gains (losses) on financial transactions ^A	756	869	(13.1)	(12.5)	526	634	(17.0)
Other operating income	261	(107)	—	—	268	(51)	—
Total income	15,934	14,280	11.6	10.9	7,748	7,208	7.5
Administrative expenses and amortizations	(8,319)	(8,274)	0.5	(0.2)	(4,052)	(4,240)	(4.5)
Net operating income	7,615	6,006	26.8	26.3	3,696	2,968	24.5
Net loan-loss provisions	(2,293)	(3,344)	(31.4)	(31.7)	(2,320)	(2,123)	9.3
Other gains (losses) and provisions	(1,288)	(970)	32.8	32.4	(514)	(479)	7.3
Profit before tax	4,034	1,692	138.4	137.7	863	367	135.2
Tax on profit	(1,213)	(476)	154.7	154.8	(236)	(112)	110.6
Profit from continuing operations	2,820	1,216	132.0	131.1	627	255	146.0
Net profit from discontinued operations	—	—	—	—	—	—	—
Consolidated profit	2,820	1,216	132.0	131.1	627	255	146.0
Non-controlling interests	(71)	(78)	(9.0)	(6.4)	—	—	—
Underlying profit attributable to the parent	2,750	1,138	141.6	140.1	627	255	146.0
Balance sheet							
Loans and advances to customers	590,610	563,582	4.8	1.6	248,211	238,385	4.1
Cash, central banks and credit institutions	219,155	180,245	21.6	18.9	130,773	112,411	16.3
Debt instruments	67,068	81,271	(17.5)	(18.2)	30,043	39,079	(23.1)
Other financial assets	37,250	48,313	(22.9)	(23.0)	34,553	44,446	(22.3)
Other asset accounts	29,793	35,893	(17.0)	(18.5)	18,677	22,643	(17.5)
Total assets	943,875	909,304	3.8	1.2	462,256	456,964	1.2
Customer deposits	619,486	582,353	6.4	3.5	292,251	273,512	6.9
Central banks and credit institutions	156,258	133,973	16.6	14.6	83,229	82,973	0.3
Marketable debt securities	73,629	84,201	(12.6)	(16.1)	28,582	28,420	0.6
Other financial liabilities	38,706	54,634	(29.2)	(29.4)	33,994	49,932	(31.9)
Other liabilities accounts	10,929	11,788	(7.3)	(9.6)	5,198	4,331	20.0
Total liabilities	899,007	866,949	3.7	1.1	443,254	439,168	0.9
Total equity	44,868	42,355	5.9	3.4	19,002	17,796	6.8
Memorandum items:							
Gross loans and advances to customers ^B	575,983	543,336	6.0	2.9	245,386	235,328	4.3
Customer funds	711,799	655,954	8.5	6.1	370,927	341,234	8.7
Customer deposits ^C	603,739	562,977	7.2	4.5	290,633	271,730	7.0
Mutual funds	108,060	92,977	16.2	15.6	80,295	69,503	15.5
Ratios (%), operating means and customers							
Underlying RoTE	6.81	2.90	3.91		3.40	1.38	2.02
Efficiency ratio	52.2	57.9	(5.7)		52.3	58.8	(6.5)
NPL ratio	3.12	3.34	(0.22)		4.72	5.16	(0.44)
Total coverage ratio	49.4	50.3	(0.9)		51.4	47.5	3.9
Number of employees	60,941	69,032	(11.7)		26,015	29,011	(10.3)
Number of branches	3,242	4,494	(27.9)		1,951	2,943	(33.7)
Number of loyal customers (thousands)	10,334	10,021	3.1		2,772	2,643	4.9
Number of digital customers (thousands)	16,238	15,302	6.1		5,412	5,234	3.4

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

	United Kingdom				Portugal		
	2021	2020	%	% excl. FX	2021	2020	%
Underlying income statement							
Net interest income	4,383	3,466	26.5	22.3	722	765	(5.6)
Net fee income	434	494	(12.3)	(15.2)	441	388	13.7
Gains (losses) on financial transactions ^A	(8)	(20)	(59.4)	(60.8)	142	111	27.4
Other operating income	6	1	419.7	402.4	8	10	(21.8)
Total income	4,815	3,942	22.2	18.1	1,313	1,274	3.0
Administrative expenses and amortizations	(2,592)	(2,539)	2.1	(1.3)	(563)	(590)	(4.7)
Net operating income	2,223	1,403	58.5	53.2	750	684	9.6
Net loan-loss provisions	245	(677)	—	—	(38)	(193)	(80.5)
Other gains (losses) and provisions	(319)	(256)	24.6	20.5	(26)	(29)	(9.2)
Profit before tax	2,149	470	357.3	342.2	685	461	48.6
Tax on profit	(612)	(105)	480.8	461.5	(223)	(138)	61.2
Profit from continuing operations	1,537	364	321.6	307.6	463	323	43.2
Net profit from discontinued operations	—	—	—	—	—	—	—
Consolidated profit	1,537	364	321.6	307.6	463	323	43.2
Non-controlling interests	—	—	—	—	(1)	0	171.9
Underlying profit attributable to the parent	1,537	364	321.6	307.6	462	323	43.0
Balance sheet							
Loans and advances to customers	261,414	249,777	4.7	(2.1)	39,280	38,058	3.2
Cash, central banks and credit institutions	72,499	54,444	33.2	24.6	9,692	5,819	66.6
Debt instruments	7,832	11,527	(32.0)	(36.4)	8,489	11,569	(26.6)
Other financial assets	389	712	(45.4)	(49.0)	1,586	1,487	6.7
Other asset accounts	5,667	8,177	(30.7)	(35.2)	1,209	1,475	(18.0)
Total assets	347,801	324,637	7.1	0.2	60,257	58,408	3.2
Customer deposits	242,739	231,921	4.7	(2.1)	42,371	39,881	6.2
Central banks and credit institutions	44,119	20,614	114.0	100.2	9,430	9,990	(5.6)
Marketable debt securities	40,796	51,151	(20.2)	(25.4)	2,633	2,520	4.5
Other financial liabilities	2,558	2,316	10.5	3.3	236	249	(5.5)
Other liabilities accounts	2,442	4,508	(45.8)	(49.3)	1,344	1,643	(18.2)
Total liabilities	332,654	310,510	7.1	0.2	56,014	54,282	3.2
Total equity	15,147	14,127	7.2	0.3	4,244	4,125	2.9
Memorandum items:							
Gross loans and advances to customers ^B	247,775	230,674	7.4	0.5	40,262	39,054	3.1
Customer funds	237,780	222,268	7.0	0.1	46,711	43,133	8.3
Customer deposits ^C	228,790	214,329	6.7	(0.1)	42,371	39,881	6.2
Mutual funds	8,991	7,938	13.3	5.9	4,340	3,252	33.4
Ratios (%), operating means and customers							
Underlying RoTE	11.47	2.81	8.66		11.39	8.33	3.06
Efficiency ratio	53.8	64.4	(10.6)		42.9	46.3	(3.5)
NPL ratio	1.43	1.24	0.19		3.44	3.89	(0.45)
Total coverage ratio	25.8	44.7	(18.9)		71.7	66.5	5.2
Number of employees	18,684	22,028	(15.2)		5,069	6,336	(20.0)
Number of branches	450	564	(20.2)		393	477	(17.6)
Number of loyal customers (thousands)	4,455	4,450	0.1		860	812	6.0
Number of digital customers (thousands)	6,635	6,267	5.9		1,000	930	7.5

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	Poland				Other Europe			
	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	1,020	1,011	0.9	3.7	282	193	46.0	48.8
Net fee income	518	452	14.5	17.7	163	123	32.5	36.3
Gains (losses) on financial transactions ^A	77	90	(14.2)	(11.8)	19	54	(64.9)	(63.6)
Other operating income	2	(55)	—	—	(23)	(13)	78.3	81.2
Total income	1,617	1,498	7.9	10.9	441	358	23.4	26.5
Administrative expenses and amortizations	(663)	(629)	5.3	8.2	(450)	(275)	63.5	67.3
Net operating income	955	869	9.8	12.9	(9)	82	—	—
Net loan-loss provisions	(200)	(330)	(39.4)	(37.7)	19	(22)	—	—
Other gains (losses) and provisions	(404)	(195)	106.8	112.5	(25)	(11)	132.9	141.1
Profit before tax	351	344	1.9	4.7	(15)	50	—	—
Tax on profit	(141)	(122)	15.5	18.7	(1)	1	—	—
Profit from continuing operations	210	222	(5.6)	(3.0)	(16)	51	—	—
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	210	222	(5.6)	(3.0)	(16)	51	—	—
Non-controlling interests	(69)	(78)	(11.1)	(8.6)	—	1	—	—
Underlying profit attributable to the parent	140	144	(2.7)	0.0	(16)	52	—	—

Balance sheet

Loans and advances to customers	29,817	28,025	6.4	7.3	11,889	9,338	27.3	17.6
Cash, central banks and credit institutions	2,968	2,539	16.9	17.8	3,224	5,031	(35.9)	(40.5)
Debt instruments	15,082	14,006	7.7	8.6	5,620	5,092	10.4	10.4
Other financial assets	503	980	(48.7)	(48.3)	219	688	(68.2)	(70.4)
Other asset accounts	1,419	1,341	5.8	6.7	2,821	2,257	25.0	19.5
Total assets	49,788	46,890	6.2	7.1	23,773	22,406	6.1	0.2
Customer deposits	37,919	34,868	8.8	9.7	4,204	2,171	93.7	78.9
Central banks and credit institutions	3,332	2,631	26.7	27.7	16,148	17,765	(9.1)	(13.9)
Marketable debt securities	1,618	2,110	(23.3)	(22.7)	—	—	—	—
Other financial liabilities	692	993	(30.3)	(29.7)	1,226	1,144	7.1	2.3
Other liabilities accounts	1,529	1,232	24.1	25.1	417	74	462.0	446.6
Total liabilities	45,091	41,834	7.8	8.7	21,995	21,154	4.0	(1.7)
Total equity	4,697	5,056	(7.1)	(6.3)	1,778	1,252	42.1	32.6
Memorandum items:								
Gross loans and advances to customers ^B	30,657	29,055	5.5	6.4	11,903	9,225	29.0	19.1
Customer funds	42,325	38,889	8.8	9.7	14,055	10,431	34.7	32.5
Customer deposits ^C	37,919	34,865	8.8	9.7	4,026	2,171	85.4	71.3
Mutual funds	4,406	4,023	9.5	10.4	10,029	8,260	21.4	21.4

Ratios (%), operating means and customers

Underlying RoTE	4.38	4.50	(0.12)
Efficiency ratio	41.0	42.0	(1.0)
NPL ratio	3.61	4.74	(1.13)
Total coverage ratio	73.9	70.7	3.2
Number of employees	9,718	10,582	(8.2)
Number of branches	440	502	(12.4)
Number of loyal customers (thousands)	2,245	2,115	6.1
Number of digital customers (thousands)	2,998	2,756	8.8

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	North America				United States			
	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	8,072	8,394	(3.8)	(2.1)	5,298	5,580	(5.0)	(1.6)
Net fee income	1,644	1,684	(2.4)	(1.3)	782	889	(12.0)	(8.8)
Gains (losses) on financial transactions ^A	224	251	(10.6)	(9.9)	152	118	29.1	33.9
Other operating income	914	629	45.3	51.6	1,044	709	47.3	52.7
Total income	10,853	10,958	(1.0)	0.9	7,277	7,296	(0.3)	3.4
Administrative expenses and amortizations	(4,967)	(4,677)	6.2	8.1	(3,197)	(3,079)	3.8	7.6
Net operating income	5,886	6,280	(6.3)	(4.5)	4,080	4,216	(3.2)	0.3
Net loan-loss provisions	(1,210)	(3,917)	(69.1)	(68.4)	(419)	(2,937)	(85.7)	(85.2)
Other gains (losses) and provisions	(145)	(133)	9.6	11.8	(116)	(93)	24.0	28.6
Profit before tax	4,531	2,231	103.1	105.4	3,546	1,186	199.0	210.0
Tax on profit	(1,016)	(550)	84.6	86.8	(800)	(299)	167.5	177.3
Profit from continuing operations	3,515	1,680	109.2	111.5	2,746	887	209.7	221.0
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	3,515	1,680	109.2	111.5	2,746	887	209.7	221.0
Non-controlling interests	(556)	(262)	112.3	117.4	(494)	(201)	145.4	154.3
Underlying profit attributable to the parent	2,960	1,419	108.6	110.4	2,252	685	228.6	240.6
Balance sheet								
Loans and advances to customers	137,428	120,571	14.0	5.9	103,548	90,992	13.8	5.0
Cash, central banks and credit institutions	34,857	28,666	21.6	13.5	24,033	16,614	44.7	33.5
Debt instruments	38,500	38,402	0.3	(5.9)	16,341	14,084	16.0	7.1
Other financial assets	12,555	15,439	(18.7)	(23.5)	4,258	4,381	(2.8)	(10.3)
Other asset accounts	21,394	20,718	3.3	(4.2)	17,638	17,003	3.7	(4.3)
Total assets	244,734	223,797	9.4	1.9	165,819	143,074	15.9	7.0
Customer deposits	121,989	102,924	18.5	10.4	83,159	67,450	23.3	13.8
Central banks and credit institutions	35,152	38,070	(7.7)	(13.8)	21,926	21,035	4.2	(3.8)
Marketable debt securities	38,061	36,583	4.0	(3.5)	31,482	29,737	5.9	(2.3)
Other financial liabilities	14,652	16,182	(9.5)	(14.8)	4,038	4,329	(6.7)	(13.9)
Other liabilities accounts	6,194	6,029	2.7	(4.0)	4,140	3,369	22.9	13.4
Total liabilities	216,048	199,789	8.1	0.8	144,745	125,920	15.0	6.1
Total equity	28,686	24,009	19.5	11.2	21,074	17,154	22.8	13.4
Memorandum items:								
Gross loans and advances to customers ^B	134,090	120,665	11.1	3.2	99,731	90,459	10.2	1.8
Customer funds	137,206	117,548	16.7	8.7	91,865	76,972	19.3	10.2
Customer deposits ^C	111,004	96,315	15.3	7.2	77,775	66,385	17.2	8.1
Mutual funds	26,202	21,233	23.4	15.4	14,090	10,586	33.1	22.8
Ratios (%), operating means and customers								
Underlying RoTE	12.73	6.70	6.03		13.21	4.37	8.84	
Efficiency ratio	45.8	42.7	3.1		43.9	42.2	1.7	
NPL ratio	2.42	2.23	0.19		2.33	2.04	0.28	
Total coverage ratio	134.9	182.6	(47.6)		150.3	210.4	(60.1)	
Number of employees	43,595	38,706	12.6		15,674	16,125	(2.8)	
Number of branches	1,859	1,958	(5.1)		488	585	(16.6)	
Number of loyal customers (thousands)	4,273	3,942	8.4		378	347	9.0	
Number of digital customers (thousands)	6,774	6,127	10.6		1,036	1,011	2.5	

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

	Mexico				Other North America			
Underlying income statement	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	2,773	2,813	(1.4)	(3.0)	0	1	(26.9)	(26.9)
Net fee income	828	772	7.3	5.6	34	24	41.7	41.7
Gains (losses) on financial transactions ^A	72	134	(45.9)	(46.7)	0	(1)	(84.3)	(84.3)
Other operating income	(120)	(79)	51.0	48.6	(11)	(1)	—	—
Total income	3,553	3,639	(2.4)	(3.9)	23	23	0.4	0.4
Administrative expenses and amortizations	(1,643)	(1,552)	5.8	4.2	(127)	(46)	176.6	176.6
Net operating income	1,910	2,087	(8.5)	(9.9)	(104)	(23)	354.2	354.2
Net loan-loss provisions	(791)	(979)	(19.2)	(20.5)	0	0	(80.9)	(80.9)
Other gains (losses) and provisions	(19)	(37)	(48.6)	(49.4)	(10)	(2)	472.8	472.8
Profit before tax	1,100	1,070	2.8	1.2	(114)	(25)	354.3	354.3
Tax on profit	(223)	(256)	(12.9)	(14.3)	7	5	45.3	45.3
Profit from continuing operations	878	814	7.8	6.1	(108)	(21)	422.2	422.2
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	878	814	7.8	6.1	(108)	(21)	422.2	422.2
Non-controlling interests	(61)	(61)	0.7	(0.9)	—	—	—	—
Underlying profit attributable to the parent	816	754	8.3	6.6	(108)	(20)	434.3	434.3
Balance sheet								
Loans and advances to customers	33,860	29,565	14.5	8.5	20	15	34.4	34.4
Cash, central banks and credit institutions	10,593	11,854	(10.6)	(15.3)	231	197	17.0	17.0
Debt instruments	22,159	24,315	(8.9)	(13.7)	0	4	(100.0)	(100.0)
Other financial assets	8,297	10,982	(24.5)	(28.4)	0	76	(99.5)	(99.5)
Other asset accounts	3,474	3,523	(1.4)	(6.6)	282	193	46.2	46.2
Total assets	78,383	80,239	(2.3)	(7.5)	533	485	9.9	9.9
Customer deposits	38,820	35,457	9.5	3.7	11	17	(38.3)	(38.3)
Central banks and credit institutions	13,201	16,985	(22.3)	(26.4)	25	51	(49.7)	(49.7)
Marketable debt securities	6,579	6,847	(3.9)	(9.0)	—	—	—	—
Other financial liabilities	10,559	11,830	(10.7)	(15.4)	54	23	140.4	140.4
Other liabilities accounts	2,022	2,628	(23.1)	(27.1)	32	31	3.2	3.2
Total liabilities	71,180	73,747	(3.5)	(8.6)	123	122	0.8	0.8
Total equity	7,203	6,492	11.0	5.1	410	363	13.0	13.0
<i>Memorandum items:</i>								
Gross loans and advances to customers ^B	34,339	30,191	13.7	7.8	20	15	31.8	31.8
Customer funds	45,330	40,558	11.8	5.9	11	17	(38.3)	(38.3)
Customer deposits ^C	33,218	29,912	11.1	5.2	11	17	(38.3)	(38.3)
Mutual funds	12,112	10,646	13.8	7.8	—	—	—	—
Ratios (%), operating means and customers								
Underlying RoTE	13.63	14.23	(0.60)					
Efficiency ratio	46.2	42.7	3.6					
NPL ratio	2.73	2.81	(0.08)					
Total coverage ratio	95.0	120.8	(25.8)					
Number of employees	27,266	22,246	22.6					
Number of branches	1,371	1,373	(0.1)					
Number of loyal customers (thousands)	3,895	3,595	8.3					
Number of digital customers (thousands)	5,544	5,000	10.9					

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	South America				Brazil			
	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	11,307	10,710	5.6	14.0	7,867	7,618	3.3	13.2
Net fee income	3,721	3,589	3.7	12.7	2,728	2,824	(3.4)	5.9
Gains (losses) on financial transactions ^A	716	765	(6.5)	0.4	376	467	(19.6)	(11.9)
Other operating income	(407)	(210)	94.0	112.7	(95)	(51)	87.1	105.0
Total income	15,337	14,855	3.2	11.6	10,876	10,859	0.2	9.8
Administrative expenses and amortizations	(5,380)	(5,357)	0.4	8.4	(3,236)	(3,541)	(8.6)	0.1
Net operating income	9,958	9,498	4.8	13.4	7,641	7,317	4.4	14.4
Net loan-loss provisions	(3,251)	(3,924)	(17.2)	(10.5)	(2,715)	(3,018)	(10.0)	(1.4)
Other gains (losses) and provisions	(474)	(321)	48.0	63.9	(316)	(263)	20.4	31.9
Profit before tax	6,232	5,253	18.6	28.3	4,610	4,037	14.2	25.1
Tax on profit	(2,359)	(1,919)	23.0	33.7	(2,027)	(1,691)	19.9	31.3
Profit from continuing operations	3,873	3,335	16.1	25.1	2,583	2,346	10.1	20.6
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	3,873	3,335	16.1	25.1	2,583	2,346	10.1	20.6
Non-controlling interests	(556)	(436)	27.5	33.6	(263)	(238)	10.5	21.1
Underlying profit attributable to the parent	3,317	2,898	14.4	23.8	2,320	2,108	10.1	20.6
Balance sheet								
Loans and advances to customers	123,920	113,745	8.9	12.7	73,085	63,974	14.2	13.3
Cash, central banks and credit institutions	43,134	43,154	0.0	1.4	28,400	31,466	(9.7)	(10.5)
Debt instruments	51,451	49,303	4.4	5.9	37,078	37,655	(1.5)	(2.4)
Other financial assets	23,809	17,342	37.3	45.1	10,129	6,877	47.3	46.0
Other asset accounts	15,491	15,201	1.9	4.0	10,755	10,600	1.5	0.6
Total assets	257,805	238,746	8.0	11.0	159,446	150,573	5.9	5.0
Customer deposits	120,500	111,808	7.8	10.7	74,475	70,083	6.3	5.4
Central banks and credit institutions	44,314	42,050	5.4	8.3	27,670	26,355	5.0	4.1
Marketable debt securities	23,461	21,280	10.2	14.5	13,737	11,901	15.4	14.5
Other financial liabilities	40,490	35,456	14.2	17.3	25,503	23,536	8.4	7.4
Other liabilities accounts	8,610	8,334	3.3	5.0	5,283	6,157	(14.2)	(14.9)
Total liabilities	237,375	218,927	8.4	11.4	146,667	138,031	6.3	5.4
Total equity	20,430	19,819	3.1	5.7	12,779	12,541	1.9	1.0
Memorandum items:								
Gross loans and advances to customers ^B	128,916	118,784	8.5	12.3	76,569	67,424	13.6	12.6
Customer funds	162,212	153,241	5.9	8.5	105,095	100,351	4.7	3.8
Customer deposits ^C	110,875	103,319	7.3	10.5	64,890	61,627	5.3	4.4
Mutual funds	51,337	49,922	2.8	4.4	40,205	38,725	3.8	2.9
Ratios (%), operating means and customers								
Underlying RoTE	20.22	17.66	2.56		21.44	19.12	2.32	
Efficiency ratio	35.1	36.1	(1.0)		29.7	32.6	(2.9)	
NPL ratio	4.50	4.39	0.11		4.88	4.59	0.29	
Total coverage ratio	98.3	97.4	0.9		111.2	113.2	(2.0)	
Number of employees	74,970	65,587	14.3		52,871	43,258	22.2	
Number of branches	4,469	4,431	0.9		3,614	3,571	1.2	
Number of loyal customers (thousands)	10,630	8,614	23.4		8,037	6,382	25.9	
Number of digital customers (thousands)	23,727	20,315	16.8		18,351	15,556	18.0	

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	Chile				Argentina			
	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	1,982	1,786	11.0	10.4	1,065	910	17.1	32.0
Net fee income	394	335	17.8	17.2	420	273	53.9	73.5
Gains (losses) on financial transactions ^A	131	174	(24.7)	(25.1)	147	62	137.4	167.7
Other operating income	(52)	(32)	62.5	61.6	(245)	(119)	105.3	131.4
Total income	2,455	2,262	8.5	7.9	1,388	1,125	23.3	39.0
Administrative expenses and amortizations	(942)	(900)	4.7	4.1	(805)	(632)	27.4	43.6
Net operating income	1,513	1,362	11.1	10.5	583	493	18.1	33.2
Net loan-loss provisions	(341)	(594)	(42.6)	(43.0)	(140)	(226)	(37.9)	(30.0)
Other gains (losses) and provisions	(16)	16	—	—	(136)	(70)	93.6	118.3
Profit before tax	1,156	784	47.6	46.8	306	197	55.5	75.3
Tax on profit	(230)	(155)	48.0	47.2	(34)	(18)	83.9	107.3
Profit from continuing operations	927	628	47.5	46.7	272	178	52.5	72.0
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	927	628	47.5	46.7	272	178	52.5	72.0
Non-controlling interests	(291)	(197)	47.7	46.9	(2)	(1)	25.9	41.9
Underlying profit attributable to the parent	636	431	47.4	46.6	270	177	52.8	72.2

Balance sheet

Loans and advances to customers	37,849	39,381	(3.9)	6.3	5,173	4,151	24.6	40.5
Cash, central banks and credit institutions	6,773	5,836	16.0	28.4	5,243	3,048	72.0	93.9
Debt instruments	10,955	8,365	31.0	44.9	1,358	1,897	(28.4)	(19.3)
Other financial assets	13,469	10,221	31.8	45.8	92	59	55.1	74.9
Other asset accounts	2,942	3,076	(4.4)	5.8	966	832	16.1	30.9
Total assets	71,987	66,880	7.6	19.1	12,832	9,988	28.5	44.8
Customer deposits	29,525	28,362	4.1	15.2	9,170	7,179	27.7	44.0
Central banks and credit institutions	12,109	11,612	4.3	15.4	649	842	(23.0)	(13.2)
Marketable debt securities	9,264	9,247	0.2	10.8	204	20	911.8	—
Other financial liabilities	13,841	11,162	24.0	37.2	1,013	657	54.0	73.7
Other liabilities accounts	2,543	1,519	67.4	85.2	443	359	23.3	39.0
Total liabilities	67,283	61,903	8.7	20.2	11,479	9,058	26.7	42.9
Total equity	4,704	4,977	(5.5)	4.6	1,353	930	45.6	64.1
Memorandum items:								
Gross loans and advances to customers ^B	38,930	40,593	(4.1)	6.1	5,454	4,395	24.1	39.9
Customer funds	37,847	37,873	(0.1)	10.6	11,891	8,795	35.2	52.4
Customer deposits ^C	29,484	28,330	4.1	15.1	9,170	7,179	27.7	44.0
Mutual funds	8,363	9,543	(12.4)	(3.0)	2,721	1,616	68.4	89.9

Ratios (%), operating means and customers

Underlying RoTE	19.25	13.16	6.09	27.15	25.97	1.18
Efficiency ratio	38.4	39.8	(1.4)	58.0	56.2	1.8
NPL ratio	4.43	4.79	(0.36)	3.61	2.11	1.50
Total coverage ratio	63.3	61.4	1.9	153.8	275.1	(121.3)
Number of employees	10,574	10,835	(2.4)	8,620	9,159	(5.9)
Number of branches	326	346	(5.8)	411	408	0.7
Number of loyal customers (thousands)	832	764	8.9	1,593	1,356	17.5
Number of digital customers (thousands)	2,017	1,547	30.4	2,730	2,650	3.0

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	Other South America				Digital Consumer Bank			
	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	393	397	(1.1)	7.9	4,041	4,014	0.7	(0.2)
Net fee income	179	158	13.3	21.5	821	771	6.4	6.4
Gains (losses) on financial transactions ^A	62	62	(0.1)	9.7	8	16	(46.3)	(43.5)
Other operating income	(15)	(8)	96.2	117.1	228	116	96.4	92.1
Total income	618	609	1.5	10.3	5,099	4,917	3.7	2.9
Administrative expenses and amortizations	(397)	(284)	39.8	49.4	(2,405)	(2,329)	3.3	2.6
Net operating income	221	325	(31.9)	(24.9)	2,694	2,588	4.1	3.1
Net loan-loss provisions	(55)	(86)	(36.3)	(30.6)	(527)	(957)	(44.9)	(45.5)
Other gains (losses) and provisions	(7)	(3)	89.5	97.9	(194)	49	—	—
Profit before tax	160	236	(32.1)	(24.8)	1,973	1,680	17.5	16.3
Tax on profit	(69)	(54)	27.4	41.6	(464)	(420)	10.3	9.5
Profit from continuing operations	91	182	(49.9)	(44.5)	1,510	1,259	19.9	18.6
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	91	182	(49.9)	(44.5)	1,510	1,259	19.9	18.6
Non-controlling interests	—	—	—	—	(346)	(301)	15.0	15.0
Underlying profit attributable to the parent	91	182	(50.2)	(44.8)	1,164	958	21.4	19.7
Balance sheet								
Loans and advances to customers	7,813	6,239	25.2	27.6	113,936	113,257	0.6	(0.6)
Cash, central banks and credit institutions	2,718	2,803	(3.0)	(3.1)	21,804	12,059	80.8	79.1
Debt instruments	2,061	1,386	48.7	48.8	5,280	5,660	(6.7)	(7.1)
Other financial assets	119	185	(35.8)	(35.0)	47	30	57.3	56.4
Other asset accounts	828	692	19.6	20.3	6,937	6,149	12.8	11.0
Total assets	13,539	11,306	19.8	21.1	148,005	137,155	7.9	6.6
Customer deposits	7,331	6,184	18.5	18.1	55,327	51,399	7.6	6.7
Central banks and credit institutions	3,886	3,240	20.0	25.0	37,600	32,045	17.3	14.7
Marketable debt securities	255	112	127.2	131.6	36,710	35,965	2.1	1.3
Other financial liabilities	134	101	33.2	34.6	1,397	1,370	2.0	0.9
Other liabilities accounts	340	298	14.0	13.9	4,565	3,940	15.8	15.2
Total liabilities	11,946	9,935	20.2	21.6	135,598	124,720	8.7	7.4
Total equity	1,593	1,371	16.2	16.8	12,407	12,435	(0.2)	(1.7)
Memorandum items:								
Gross loans and advances to customers ^B	7,963	6,373	25.0	27.3	116,580	116,083	0.4	(0.8)
Customer funds	7,378	6,222	18.6	18.2	57,824	52,058	11.1	10.2
Customer deposits ^C	7,331	6,184	18.5	18.1	55,327	51,399	7.6	6.7
Mutual funds	48	38	25.3	22.4	2,497	658	279.4	279.4
Ratios (%), operating means and customers								
Underlying RoTE	12.41	9.99	2.41		12.41	9.99	2.41	
Efficiency ratio	47.2	47.4	(0.2)		47.2	47.4	(0.2)	
NPL ratio	2.13	2.17	(0.04)		2.13	2.17	(0.04)	
Total coverage ratio	107.8	113.3	(5.5)		107.8	113.3	(5.5)	
Number of employees	15,840	16,172	(2.1)		15,840	16,172	(2.1)	
Number of branches	309	353	(12.5)		309	353	(12.5)	
Number of total customers (thousands)	19,438	19,611	(0.9)		19,438	19,611	(0.9)	

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Secondary segments

EUR million

	Retail Banking				Corporate & Investment Banking			
Underlying income statement	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	30,596	29,401	4.1	6.7	2,921	2,842	2.8	6.0
Net fee income	7,045	6,986	0.8	4.2	1,744	1,542	13.1	16.0
Gains (losses) on financial transactions ^A	840	1,133	(25.9)	(24.8)	766	670	14.3	21.7
Other operating income	390	(153)	—	—	188	202	(6.6)	(7.2)
Total income	38,869	37,368	4.0	6.8	5,619	5,256	6.9	10.3
Administrative expenses and amortizations	(17,103)	(17,285)	(1.1)	0.9	(2,379)	(2,038)	16.7	18.9
Net operating income	21,766	20,082	8.4	11.9	3,240	3,218	0.7	4.8
Net loan-loss provisions	(7,081)	(11,632)	(39.1)	(37.2)	(151)	(470)	(67.8)	(67.6)
Other gains (losses) and provisions	(2,052)	(1,238)	65.8	69.6	(17)	(135)	(87.1)	(86.6)
Profit before tax	12,632	7,212	75.2	81.5	3,071	2,613	17.5	23.1
Tax on profit	(3,898)	(2,329)	67.4	76.1	(821)	(750)	9.5	15.1
Profit from continuing operations	8,734	4,884	78.8	84.0	2,250	1,863	20.8	26.3
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	8,734	4,884	78.8	84.0	2,250	1,863	20.8	26.3
Non-controlling interests	(1,345)	(921)	46.0	49.3	(137)	(119)	15.8	22.5
Underlying profit attributable to the parent	7,389	3,962	86.5	92.1	2,113	1,745	21.1	26.5

A. Includes exchange differences.

Secondary segments

EUR million

	Wealth Management & Insurance				PagoNxt			
Underlying income statement	2021	2020	%	% excl. FX	2021	2020	%	% excl. FX
Net interest income	476	394	20.8	23.8	1	(1)	—	—
Net fee income	1,247	1,153	8.1	9.9	493	362	36.3	43.9
Gains (losses) on financial transactions ^A	100	100	(0.2)	2.4	(1)	(2)	(44.4)	(43.6)
Other operating income	416	383	8.8	10.8	2	(3)	—	—
Total income	2,240	2,030	10.3	12.4	495	356	38.9	46.6
Administrative expenses and amortizations	(914)	(872)	4.9	6.6	(673)	(443)	52.0	57.0
Net operating income	1,326	1,159	14.4	16.8	(178)	(86)	106.4	95.6
Net loan-loss provisions	(38)	(28)	35.6	35.8	(10)	(12)	(16.5)	(9.5)
Other gains (losses) and provisions	6	1	656.3	649.1	(38)	(3)	—	—
Profit before tax	1,294	1,132	14.3	16.8	(227)	(101)	124.4	115.6
Tax on profit	(309)	(271)	13.8	15.8	(24)	(16)	51.4	71.7
Profit from continuing operations	985	860	14.5	17.1	(251)	(117)	114.4	110.4
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	985	860	14.5	17.1	(251)	(117)	114.4	110.4
Non-controlling interests	(44)	(38)	16.9	22.0	(2)	1	—	—
Underlying profit attributable to the parent	941	823	14.4	16.9	(253)	(116)	118.0	114.0

A. Includes exchange differences.

5. Financial information by segment: 2020 vs 2019^A

5.1 Summary of the Group's main business areas' income statements

2020

Main items of the underlying income statement

EUR million

Primary segments	Net interest income	Net fee income	Total income	Net operating income	Profit before tax	Underlying profit attributable to the parent
Europe	9,518	4,000	14,280	6,006	1,692	1,138
Spain	4,083	2,542	7,208	2,968	367	255
United Kingdom	3,466	494	3,942	1,403	470	364
Portugal	765	388	1,274	684	461	323
Poland	1,011	452	1,498	869	344	144
Other	193	123	358	82	50	52
North America	8,394	1,684	10,958	6,280	2,231	1,419
US	5,580	889	7,296	4,216	1,186	685
Mexico	2,813	772	3,639	2,087	1,070	754
Other	1	24	23	(23)	(25)	(20)
South America	10,710	3,589	14,855	9,498	5,253	2,898
Brazil	7,618	2,824	10,859	7,317	4,037	2,108
Chile	1,786	335	2,262	1,362	784	431
Argentina	910	273	1,125	493	197	177
Other	397	158	609	325	236	182
Digital Consumer Bank	4,014	771	4,917	2,588	1,680	958
Corporate Centre	(643)	(29)	(410)	(739)	(1,181)	(1,332)
TOTAL GROUP	31,994	10,015	44,600	23,633	9,674	5,081
Secondary segments						
Retail Banking	29,401	6,986	37,368	20,082	7,212	3,962
Corporate & Investment Banking	2,842	1,542	5,256	3,218	2,613	1,745
Wealth Management & Insurance	394	1,153	2,030	1,159	1,132	823
PagoNxt	(1)	362	356	(86)	(101)	(116)
Corporate Centre	(643)	(29)	(410)	(739)	(1,181)	(1,332)
TOTAL GROUP	31,994	10,015	44,600	23,633	9,674	5,081

A. Under this title we include information that updates 'Part 3. Supplemental information - 6. Supplement to the operating and financial review disclosure in the directors' report. Consolidated income statement. Variations 2020 compared to 2019 for the Group and by primary and secondary segments' in our 2021 Form 20-F which incorporated by reference (i) 'Part 1. Consolidated Directors' Report-Economic and Financial review. Section 3.2' in our 2020 Form 20-F; and (ii) 'Section 1. Certain financial information included in Banco Santander, S.A.'s 2020 Form 20-F retrospectively recast as a result of certain changes in the primary and secondary segments of Banco Santander, S.A. and its subsidiaries. Item 4. Financial information by segment. 2020 vs 2019' in our 6-K filed with the SEC on 14 April 2021.

2019

Main items of the underlying income statement

EUR million

Primary segments	Net interest income	Net fee income	Total income	Net operating income	Profit before tax	Underlying profit attributable to the parent
Europe	9,656	4,422	15,524	6,613	4,488	3,103
Spain	4,074	2,639	7,854	3,301	1,930	1,409
United Kingdom	3,470	851	4,340	1,615	1,205	896
Portugal	839	390	1,357	734	732	513
Poland	1,149	467	1,695	1,002	659	333
Other	124	75	277	(40)	(38)	(48)
North America	8,834	1,776	11,511	6,527	2,666	1,589
US	5,689	947	7,525	4,228	1,236	661
Mexico	3,145	829	3,987	2,316	1,448	942
Other	0	0	(1)	(17)	(18)	(13)
South America	13,271	4,787	18,379	11,706	7,168	3,878
Brazil	10,031	3,798	13,910	9,304	5,565	2,910
Chile	1,865	404	2,538	1,507	1,127	629
Argentina	940	446	1,316	553	217	143
Other	435	138	615	342	260	196
Digital Consumer Bank	3,983	843	4,905	2,566	2,076	1,224
Corporate Centre	(460)	(50)	(825)	(1,198)	(1,470)	(1,542)
TOTAL GROUP	35,283	11,779	49,494	26,214	14,929	8,252

Secondary segments

Retail Banking	32,589	8,663	42,567	23,287	12,531	7,252
Corporate & Investment Banking	2,655	1,520	5,154	2,873	2,627	1,662
Wealth Management & Insurance	479	1,190	2,126	1,187	1,197	867
PagoNxt	20	456	472	66	44	14
Corporate Centre	(460)	(50)	(825)	(1,198)	(1,470)	(1,542)
TOTAL GROUP	35,283	11,779	49,494	26,214	14,929	8,252

5.2 Primary segments



Europe

Underlying attributable profit

EUR 1,138 Mn

Business performance

Loans and advances to customers remained virtually unchanged year-on-year. In gross terms, excluding reverse repurchase agreements and the exchange rate impact, they rose 5%, with broad-based growth in all countries. Of note were the UK (mortgages), Spain (mainly corporates due to ICO-guaranteed loans) and Portugal (mortgages and corporates), as well as a positive performance in SCIB.

Customer deposits increased by 4% compared to 2019. Excluding repurchase agreements and the FX impact, they were up 7% with rises in all countries.

Mutual funds grew 4% (+5% excluding FX impact), predominantly driven by Portugal (+6%) and Other Europe (+56%), boosting customer funds by 4% (+6% excluding the exchange rate impact).

Results

Underlying attributable profit in 2020 was EUR 1,138 million (18% of the Group's total operating areas).

Compared to 2019, underlying attributable profit, was down 63% in euros and in constant euros, as follows

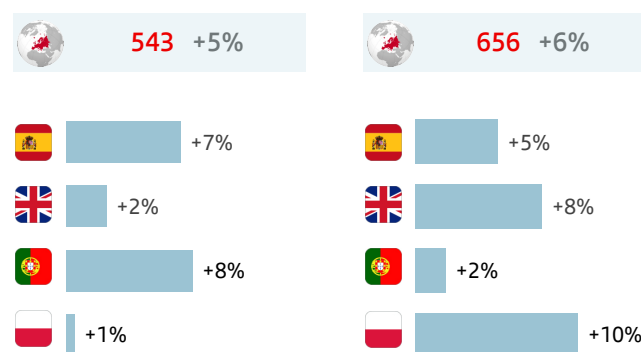
- Total income declined 7% dampened by the health crisis, low interest rates, lower income from real estate stakes in Spain and the higher contribution to the DGF.

Net interest income remained relatively stable benefiting from higher volumes, interest rate management and the positive TLTRO impact.

- Administrative expenses and amortizations decreased 7% stemming from optimizations in recent years and the efficiencies generated since the pandemic began.
- Net loan-loss provisions, which to some extent anticipate potential future impacts, increased sharply amid the covid-19 health crisis.
- NPL ratio improved 13 bps to 3.34% and cost of credit increased 34 bps to 0.58%. Coverage ratio increased 7 p.p. to 50%.
- Other gains (losses) and provisions increased their loss during the year, mainly in the UK and Poland for potential legal contingencies and other provisions.

Europe. Business performance

December 2020. EUR billion and YoY % change in constant euros



Gross loans and advances to customers excl. reverse repos

Customer deposits excl. repos + mutual funds

Europe. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	14,280	15,524	-8	-7
Expenses	-8,274	-8,911	-7	-7
Net operating income	6,006	6,613	-9	-8
LLPs	-3,344	-1,332	+151	+153
PBT	1,692	4,488	-62	-62
Underlying attrib. profit	1,138	3,103	-63	-63

Detailed financial information in section [5.5 'Appendix'](#)



Spain

Underlying attributable profit
EUR 255 Mn

Business performance

Loans and advances to customers rose 5%. In gross terms, excluding reverse repurchase agreements, they increased by EUR 14,886 million (+7%) strongly driven by the self-employed, SMEs and corporates. Mortgage completions and consumer lending remained below 2019 levels, in line with the economic slowdown.

Customer deposits increased 7% compared to 2019. Excluding repos, growth was 6% boosted by demand deposits (+10% year-on-year). Regarding mutual funds, assets under management increased 1% despite the initial impact of the pandemic, as net inflows were positive in the last seven months.

Results

Underlying attributable profit amounted to EUR 255 million (4% of the Group's total operating areas).

Compared to 2019, underlying attributable profit was 82% lower. By line:

- Total income declined 8% impacted primarily by lower net fee income from reduced transaction volumes and market performance, and lower income from real estate stakes. Conversely, net interest income had no material change after absorbing the impact of negative interest rates and smaller ALCO portfolio.
- Administrative expenses and amortizations fell 7% year-on-year through the development of our distribution model.
- Higher loan-loss provisions for potential future impacts of the uncertainty caused by the covid-19 crisis.
- NPL ratio improved 61 bps to 5.16% and cost of credit increased 47 bps to 0.86%. Coverage ratio increased 6 pp to 48%
- Other gains (losses) and provisions, where provisions related to foreclosed assets and increased operational risk are recorded, increased 2%.

Spain. Underlying income statement

EUR million and % change

			/ 2019
	2020	2019	%
Revenue	7,208	7,854	-8
Expenses	-4,240	-4,553	-7
Net operating income	2,968	3,301	-10
LLPs	-2,123	-904	+135
PBT	367	1,930	-81
Underlying attrib. profit	255	1,409	-82

Detailed financial information in section [5.5 'Appendix'](#)



United Kingdom

Underlying attributable profit
EUR 364 Mn

Business performance

Loans and advances to customers decreased 5% in euros compared to 2019. In gross terms, excluding reverse repurchase agreements and the exchange rate impact, they rose 2%. Growth was driven by new mortgage loans from the pent up demand and stamp duty relief, and flows in corporates almost exclusively via government schemes.

Customer deposits rose 2% in euros and were 8% higher excluding repurchase agreements and the exchange rate impact. Demand deposits increased 11%, while time deposits fell 16%. Mutual funds were up 2%.

Results

Underlying attributable profit was EUR 364 million in 2020 (6% of the Group's total operating areas).

Compared to 2019, underlying attributable profit was 59% lower in euros and also 59% lower in constant euros. By line:

- Total income declined 8%, particularly due to a 41% reduction in net fee income (lower customer activity and regulatory changes to overdrafts), asset repricing following the Bank of England base rate reduction, and, to a lesser extent, lower gains on financial transactions.
- Conversely, net interest income picked up strongly in the second half of the year resulting in a 1% increase, due to liability repricing actions, in particular the 11213 Current Account, and stronger volumes.
- Administrative expenses and amortizations declined 6% reflecting realized efficiency savings from our transformation programme and lower costs related to commercial activity. This was partially offset by covid-19 related costs.
- Net loan-loss provisions increased significantly due to covid-related charges for expected credit losses, however from very low levels.
- NPL ratio increased 21 bps to 1.24% and cost of credit increased 18 bps to 0.27%. Coverage ratio increased 11 pp. to 45%.
- The negative impact from other gains (losses) and provisions increased 39%, in part due to potential legal contingencies.

United Kingdom. Underlying income statement

EUR million and % change

			/ 2019	
	2020	2019	%	% excl. FX
Revenue	3,942	4,340	-9	-8
Expenses	-2,539	-2,725	-7	-6
Net operating income	1,403	1,615	-13	-12
LLPs	-677	-223	+204	+208
PBT	470	1,205	-61	-60
Underlying attrib. profit	364	896	-59	-59

Detailed financial information in section [5.5 'Appendix'](#)



Portugal

Underlying attributable profit
EUR 323 Mn

Business performance

Loans and advances to customers increased 7%. Excluding reverse repos, gross loans and advances to customers rose 8% year-on-year, backed by steady growth in corporate loans (underpinned by the state-backed lines of credit) and mortgages.

Customer funds (excluding repos) rose 2% mostly due to demand deposits (+17% year-on-year). In the fourth quarter, mutual funds picked up (+9% compared to September), leading to a 6% year-on-year increase.

Results

Underlying attributable profit was EUR 323 million in the year (5% of the Group's total operating areas).

Compared to 2019, underlying attributable profit dropped 37%. By line:

- Total income decreased 6%, weighed down by the impact of the pandemic in net interest income (lower interest rates) and net fee income (lower volumes and suspension of fees for digital payments and payment holidays in loans). Gains on financial transactions remained flat, insurance activity and the contribution to the SRF was higher.
- Administrative expenses and amortizations fell 5% driven by the ongoing transformation process, resulting in an efficiency ratio around 46%.
- Higher net loan-loss provisions for possible future impacts of the pandemic, raising the cost of credit to 0.51%. The NPL ratio fell to 3.89%. Coverage ratio increased 14 pp to 66%.
- Other gains (losses) and provisions remained insignificant. However, they increased in the year driven by foreclosed assets.

Portugal. Underlying income statement

EUR million and % change

	2020	2019	/ 2019 %
Revenue	1,274	1,357	-6
Expenses	-590	-623	-5
Net operating income	684	734	-7
LLPs	-193	8	—
PBT	461	732	-37
Underlying attrib. profit	323	513	-37

Detailed financial information in section [5.5 'Appendix'](#)



Poland

Underlying attributable profit
EUR 144 Mn

Business performance

Loans and advances to customers were down 7% in euros compared to December 2019. In gross terms and excluding reverse repurchase agreements and the exchange rate impact, loans increased modestly year-on-year in constant euros (+1%).

Customer deposits increased 4% year-on-year in euros. Excluding repurchase agreements and at constant exchange rates, deposits grew 12% year-on-year, boosted by SMEs (+36%) and corporates (+22%). CIB's deposit base showed an annual decrease of 33%. We continued to actively manage deposits to optimize the cost of funding.

Total customer funds, including mutual funds, were 10% higher (excluding the exchange rate impact).

Results

Underlying attributable profit in 2020 was EUR 144 million (2% of the Group's total operating areas).

Compared to 2019, underlying profit fell 57% in euros and 55% excluding the exchange rate impact. By line:

- Total income fell 9% due to lower net interest income -9%, impacted by interest rate cuts (-140 bps during the year) and a higher Deposit Guarantee Fund (BFG) contribution. Net fee income saw no material change.
- Administrative expenses and amortizations dropped 6% year-on-year driven by personnel expenses and general and administrative expenses.
- Net loan-loss provisions increased 57% year-on-year due to higher charges in the SME and CIB segments, and, to a lesser extent, higher provisions for individuals. All of them affected by covid-19.
- NPL ratio increased 43 bps to 4.74% and cost of credit increased 37 bps to 1.10%. Coverage ratio increased 4 p.p. to 71%
- Other gains (losses) and provisions increased 60% due to higher provisions for potential legal claims.

Poland. Underlying income statement

EUR million and % change

	2020	2019	/ 2019 %	% excl. FX
Revenue	1,498	1,695	-12	-9
Expenses	-629	-693	-9	-6
Net operating income	869	1,002	-13	-10
LLPs	-330	-217	+52	+57
PBT	344	659	-48	-46
Underlying attrib. profit	144	333	-57	-55

Detailed financial information in section [5.5 'Appendix'](#)



North America

Underlying attributable profit

EUR 1,419 Mn

Business performance

Loans and advances to customers decreased 10%. Gross loans and advances to customers excluding reverse repurchase agreements and the exchange rate impact rose 2% (+4% excluding the impact from Puerto Rico's sale) driven by the US, notably SC USA (+9%). Mexico remained stable, as corporate loans began to normalize following the uptick at the beginning of the pandemic.

Solid trend in customer deposits, increasing 4% year-on-year. Excluding repurchase agreements and the exchange rate impact, they were 16% higher reflecting growth in demand deposits in SBNA, corporate deposits in the New York branch and deposits in Mexico. This strong growth demonstrates the high level of liquidity in the system and the positive performance of our customer attraction and loyalty strategy.

Results

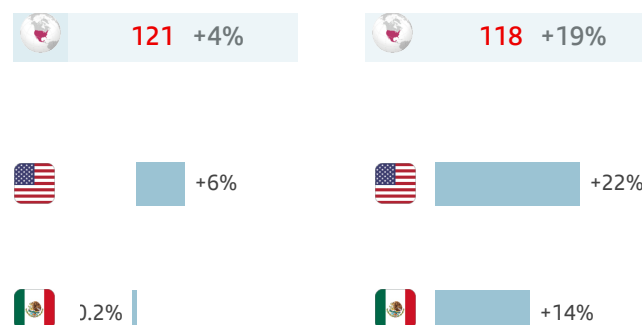
Underlying attributable profit in 2020 was EUR 1,419 million (22% of the Group's total operating areas).

Compared to 2019, underlying attributable profit decreased 11% in euros. Excluding the exchange rate impact, it dropped 3%. By line:

- Total income remained relatively stable, as well as net interest income, driven by volume growth. Net fee income was 1% higher despite the lower activity in consumer banking.
- Administrative expenses and amortizations were 1% lower, despite the increase in amortizations and technology investments, enabling the efficiency ratio to improve to 42.7% and net operating income to rise 2%.
- Net loan-loss provisions grew mainly due to covid-19 related provisions. The NPL ratio improved 3 bps to 2.23% and coverage was higher at 183% (+30 pp in the year). The cost of credit stood at 2.92% (+16 bps year-on-year).
- Other gains (losses) and provisions reduced its loss by 34%.
- Non-controlling interests were lower due to our increased equity stake in Mexico and SC USA.

North America. Business performance

December 2020. EUR billion and YoY % change in constant euros^A



Gross loans and advances to customers excl. reverse repos

A. Excluding Puerto Rico impact

Customer deposits excl. repos + mutual funds

North America. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	10,958	11,511	-5	0
Expenses	-4,677	-4,984	-6	-1
Net operating income	6,280	6,527	-4	+2
LLPs	-3,917	-3,656	+7	+12
PBT	2,231	2,666	-16	-10
Underlying attrib. profit	1,419	1,589	-11	-3

Detailed financial information in section [5.5 'Appendix'](#)



United States

Underlying attributable profit
EUR 685 Mn

Business performance

Loans and advances to customers at Santander US fell 8% in euros in 2020. Excluding the exchange rate impact and reverse repurchase agreements, gross loans and advances to customers grew 3% year-on-year, driven by lending growth in auto, CIB and originations through the Paycheck Protection Program (excluding the impact from the sale of the retail and commercial bank in Puerto Rico, growth was 6%).

Customer deposits rose 6% in euros year-on-year. Excluding repurchase agreements and the exchange rate impact, customer deposits were 16% higher, boosted by strong growth in demand deposits and corporate deposits.

Mutual funds increased 16% excluding the exchange rate impact. As a result, customer funds rose 6% (+16% excluding the exchange rate impact).

Results

Underlying attributable profit in the year was EUR 685 million (11% of the Group's total operating areas).

Underlying attributable profit was 4% higher in euros. Excluding the exchange rate impact, growth was 6%, underpinned largely by SC USA. By line:

- Net interest income was flat as lower rates offset increased volumes. Net fee income was lower, impacted by covid-19, although partially compensated by gradually improving leasing income. As a result, total income was down 1%.
- Administrative expenses and amortizations were down significantly, particularly at SBNA, due to disciplined cost control, as reflected in a 2% increase in net operating income.
- Net loan-loss provisions rose 7% given the crisis which drove the need for a reinforced coverage ratio. Asset quality ratios improved or were stable: cost of credit flat at 2.86%, NPL ratio down 16 bps to 2.04% and coverage increased to 210% (+49 pp).
- Other gains (losses) and provisions improved 52% due to lower provisions for legal claims.
- Positive impact from lower non-controlling interests following the SC USA share buyback programme.

United States. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	7,296	7,525	-3	-1
Expenses	-3,079	-3,297	-7	-5
Net operating income	4,216	4,228	0	+2
LLPs	-2,937	-2,792	+5	+7
PBT	1,186	1,236	-4	-2
Underlying attrib. profit	685	661	+4	+6

Detailed financial information in section [5.5 'Appendix'](#)



Mexico

Underlying attributable profit
EUR 754 Mn

Business performance

Loans and advances to customers decreased 16% in euros, compared to 2019. Gross loans and advances to customers, excluding reverse repurchase agreements and the exchange rate impact, remained stable year-on-year, as corporate loans began to normalize following the uptick at the beginning of the pandemic. Of note was the growth in mortgages.

Customer deposits saw no material change in euros. Excluding repurchase agreements and the exchange rate impact, they were up 16%. The focus on reducing the cost of deposits resulted in an 18% rise in demand deposits, notably from individuals (+24%) and 13% growth in time deposits. Mutual funds rose 10%, and customer funds 14%.

Results

Underlying attributable profit was EUR 754 million in the year (12% of the Group's total operating areas).

Compared to 2019, underlying attributable profit was 20% lower. Excluding the exchange rate impact, underlying attributable profit fell 10%. By line:

- Total income increased 3% spurred on by net fee income (+5%) mainly from transactional fees. Net interest income was up 1% underpinned by higher volumes, and gains on financial transactions increased 52% driven by volatility management.
- Administrative expenses and amortizations were up 5%, mainly driven by the increase in amortizations and technology investment.
- Net loan-loss provisions increased 28% due to covid-19 related charges and a one-off provision recorded for a corporate customer. Cost of credit was 3.03%, the NPL ratio reached 2.81% (+62 bps) and coverage stood at 121% (-7 pp).
- At Banco Santander's extraordinary general meeting on 23 July 2019, shareholders approved a capital increase to acquire shares Santander México from minority interests. Consequently, minority interests in the H1'19 were higher than in 2020, thus dampening results growth in 2019 more than in 2020.

Mexico. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	3,639	3,987	-9	+3
Expenses	-1,552	-1,671	-7	+5
Net operating income	2,087	2,316	-10	+2
LLPs	-979	-863	+13	+28
PBT	1,070	1,448	-26	-16
Underlying attrib. profit	754	942	-20	-10

Detailed financial information in section [5.5 'Appendix'](#)



South America

Underlying attributable profit

EUR 2,898 Mn

Business performance

Loans and advances to customers declined 9%. Excluding reverse repos and the exchange rate impact, gross loans were 15% higher, with double-digit rises in all country units except Chile, which grew 6%.

Customer deposits fell 3% in euros compared to 2019. Excluding repurchase agreements and exchange rate impact, they rose 30% and also increased at double digit rates across all country units except Chile (+8%), mainly due to the strong performance of demand deposits (+39%) and to a lesser extent, time deposits (+25%). Mutual funds dropped 2% dampened by the fall recorded in Brazil.

Results

Underlying attributable profit in the year was EUR 2,898 million (45% of the Group's total operating areas).

Compared to 2019, underlying attributable profit decreased 25% in euros. Excluding the exchange rate impact, it was down 4%. By line:

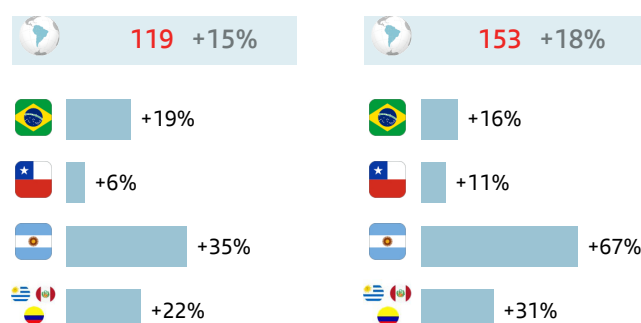
- Total income increased 5% underpinned by net interest income and gains on financial transactions, which broadly offset weak net fee income performance. Net interest income rose 5%, with growth across countries, notably Argentina.

Gains on financial transactions were 68% higher, with rises in all country units except Chile. Conversely, net fee income dropped 1% with falls recorded in all countries except Uruguay and Peru, mainly due to the sharp fall of transactional fee income in H1'20, together with regulatory impacts in Brazil and Argentina.

- Administrative expenses and amortizations increased 5%, largely due to higher costs in Argentina (inflation and peso depreciation). Of note was cost management in Brazil, which recorded only a slight increase (+1%) and Chile, which remained flat. The efficiency ratio stood at 36.1%.
- Net loan-loss provisions grew by 35% driven by covid-19 related provisions. In credit quality, the NPL ratio fell to 4.39%, coverage was 97% (+9 pp in the year) and the cost of credit was 3.32%.
- Other gains (losses) and provisions decreased its negative impact 42%, due to the lower charge for potential legal contingencies in Brazil.

South America. Business performance

December 2020. EUR billion and YoY % change in constant euros



Gross loans and advances to customers excl. reverse repos

Customer deposits excl. repos + mutual funds

South America. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	14,855	18,379	-19	+5
Expenses	-5,357	-6,673	-20	+5
Net operating income	9,498	11,706	-19	+5
LLPs	-3,924	-3,789	+4	+35
PBT	5,253	7,168	-27	-6
Underlying attrib. profit	2,898	3,878	-25	-4

Detailed financial information in section [5.5 'Appendix'](#)



Brazil

Underlying attributable profit
EUR 2,108 Mn

Business performance

Loans and advances to customers decreased 15% in euros year-on-year. In gross terms, excluding reverse repos and the exchange rate impact, they rose 19%. We saw positive performances across segments, particularly in SMEs, corporates and SCIB.

Customer deposits fell 6% in euros with respect to 2019. Excluding repos and the exchange rate impact, growth was 41% driven by the increase in demand deposits (+33%) and time deposits (+44%). On the other hand, mutual funds decreased.

Results

Underlying attributable profit was EUR 2,108 million in 2020 (33% of the Group's total operating areas).

Compared to 2019, underlying attributable profit declined 28% in euros. Excluding the exchange rate impact, it was 4% lower. By line:

- Total income rose 3% boosted by gains on financial transactions. Net interest income remained practically flat as larger volumes offset margin pressures from interest rate cuts. Net fee income fell 2% affected by reduced transactionality amid the pandemic.
- Administrative expenses and amortizations increased just 1% and declined in real terms, due to our continued work on efficiency improvement. This increase was lower than revenue growth, which enabled efficiency to improve by -50 bps to 32.6%.
- Net loan-loss provisions increased 31%, due to higher provisions related to the pandemic. Cost of credit was 4.35%, the NPL ratio was 4.59% (-73 bps) and coverage was high at 113%, after increasing 13 pp in the year.
- The negative impact of other gains (losses) and provisions reduced by 51%, due to lower provisions for legal claims.

Brazil. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	10,859	13,910	-22	+3
Expenses	-3,541	-4,606	-23	+1
Net operating income	7,317	9,304	-21	+4
LLPs	-3,018	-3,036	-1	+31
PBT	4,037	5,565	-27	-4
Underlying attrib. profit	2,108	2,910	-28	-4

Detailed financial information in section [5.5 'Appendix'](#)



Chile

Underlying attributable profit
EUR 431 Mn

Business performance

Loans and advances to customers increased 2% year-on-year in euros. Excluding reverse repurchase agreements and the exchange rate impact, gross loans and advances to customers rose 6%, underpinned by large corporates and the state-backed scheme for SMEs.

Customer deposits rose 4% year-on-year, up 8% excluding repurchase agreements and the exchange rate impact, reflecting the positive performance of demand deposits (+42%). Current accounts continued to rise strongly across all segments driven by openings through digital channels. Mutual funds rose 22% and customer funds were 11% higher.

Results

Underlying attributable profit was EUR 431 million in 2020 (7% of the Group's total operating areas).

Compared to 2019, underlying attributable profit fell 31% in euros. Excluding the exchange rate impact it was 21% lower. By line:

- Total income rose 2%, as the climb in net interest income (+10%) was partially offset by the fall in gains on financial transactions and net fee income, dampened by reduced transactionality and economic activity.
- Administrative expenses and amortizations remained broadly stable, as higher IT expenses were closely matched by lower costs related to commercial activity. As a result, the efficiency ratio improved to 39.8% and net operating income was 4% higher.
- Net loan-loss provisions were 54% higher due to covid-19 related charges, placing the cost of credit at 1.50%. The NPL ratio stood at 4.79% and coverage was 61%.
- Other gains (losses) and provisions stood at EUR 16 million (EUR 63 million in 2019).

Chile. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	2,262	2,538	-11	+2
Expenses	-900	-1,031	-13	0
Net operating income	1,362	1,507	-10	+4
LLPs	-594	-443	+34	+54
PBT	784	1,127	-30	-20
Underlying attrib. profit	431	629	-31	-21

Detailed financial information in section [5.5 'Appendix'](#)



Argentina

Underlying attributable profit
EUR 177 Mn

Business performance

Loans and advances to customers fell 13% year-on-year in euros. Excluding reverse repurchase agreements and the exchange rate impact, gross loans and advances to customers were 35% higher driven by SME loans and cards. Dollar balances declined in the currency of origin.

Customer deposits increased 3% compared to 2019 in euros. Excluding repurchase agreements and the exchange rate impact, deposits rose 57%, spurred on by local currency deposits (demand and time deposits), as foreign currency balances declined.

Santander maintained a high dollar liquidity ratio and the excess liquidity in pesos was placed in central bank notes.

Results

Underlying attributable profit was EUR 177 million in the year (3% of the Group's total operating areas).

Compared to 2019, underlying attributable profit was 24% higher in euros. Excluding the exchange rate impact, growth was 90%. Both year's results were affected by the high inflation adjustment.

As regards business activity, excluding the exchange rate impact:

- Total income grew 31%. Net interest income rose 48%, underpinned by liquidity management and the lower cost of funds. Net fee income fell 6%, dampened by regulatory impacts and lower economic activity. Gains on financial transactions rose 18%.
- Administrative expenses and amortizations increased 27%, at a slower pace than total income and inflation, improving the efficiency ratio by 176 bps to 56.2%. Net operating income rose 37%.
- Net loan-loss provisions were higher (+47%) due to covid-19 related provisions. The NPL ratio improved 127 bps to 2.11% and coverage was 275%, after increasing 151 pp in the year. Cost of credit rose 5.93%.
- Other gains (losses) and provisions recorded no material change.

Argentina. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	1,125	1,316	-14	+31
Expenses	-632	-762	-17	+27
Net operating income	493	553	-11	+37
LLPs	-226	-235	-4	+47
PBT	197	217	-9	+39
Underlying attrib. profit	177	143	+24	+90

Detailed financial information in section [5.5 'Appendix'](#)



Uruguay

Underlying attributable profit
EUR 134 Mn

Business performance

Loans and advances to customers dropped 9% year-on-year in euros. Excluding reverse repurchase agreements and the exchange rate impact, gross loans and advances to customers rose 12%.

Customer deposits were 4% higher in euros compared to 2019. Excluding the exchange rate impact and repurchase agreements, they increased 28%.

Results

In 2020, underlying attributable profit was EUR 134 million.

Compared to 2019, underlying attributable profit decreased 11% in euros and rose 8% excluding the exchange rate impact. By line:

- Total income grew 3% mainly driven by net fee income (+17%) and gains on financial transactions (+38%).
- Administrative expenses and amortizations rose 2%, at a slower pace than total income, improving the efficiency ratio to 41.4% (-62 bps year-on-year).
- Net loan-loss provisions increased 17%. The cost of credit stood at 2.30% and coverage remained high (104%).

Uruguay. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	380	447	-15	+3
Expenses	-157	-188	-16	+2
Net operating income	223	259	-14	+4
LLPs	-61	-63	-4	+17
PBT	161	189	-15	+3
Underlying attrib. profit	134	150	-11	+8

Detailed financial information in section [5.5 'Appendix'](#)

**Peru**Underlying attributable profit
EUR 52 Mn**Business performance**

Loans and advances to customers decreased 1% year-on-year in euros (+19% on a gross basis, excluding reverse repurchase agreements and the exchange rate impact), and customer deposits surged 16% (+39% excluding the exchange rate impact and repurchase agreements).

Results

Underlying attributable profit of EUR 52 million in 2020 was 12% higher year-on-year. Excluding the exchange rate impact, underlying attributable profit increased 20%. By line:

- Total income grew 31% mainly due to the positive performance of customer revenue and gains on financial transactions, reflecting greater customer and market activity.
- The efficiency ratio improved to 29.4% (-3.9 pp year-on-year).
- Net loan-loss provisions increased sharply due to covid-19 related charges.
- The NPL ratio was 0.80%, cost of credit was 0.67% and coverage was very high (149%).

**Colombia**Underlying attributable profit
EUR 19 Mn**Business performance**

Loans and advances to customers rose 28% year-on-year in euros. In gross terms, excluding reverse repurchase agreements and the exchange rate impact growth was 45%, notably in consumer finance, corporates and CIB.

Customer deposits rose 22% in euros and 39% excluding the exchange rate impact and repurchase agreements, driven by time deposits.

Results

Underlying attributable profit of EUR 19 million in the year was 25% higher than 2019 in euros.

Excluding the exchange rate impact, underlying attributable profit rose 43%, backed by total income (+27%) spurred by growth in net interest income (+58%), and gains on financial transactions (+24%). Administrative expenses and amortizations grew less than total income, enabling the efficiency ratio to improve 2.5 pp to 48.5%.

Other South America. Underlying income statement

EUR million and % change

	Net operating income				Underlying attributable profit			
	2020	2019	/ 2019		2020	2019	/ 2019	
			%	% excl. FX			%	% excl. FX
Peru	92	71	+30	+39	52	47	+12	+20
Colombia	36	31	+16	+33	19	15	+25	+43

DCB Digital Consumer Bank

Underlying attributable profit
EUR 958 Mn

Business performance

Loans and advances to customers fell 1% year-on year. In gross terms, excluding the exchange rate impact and reverse repos, it was in line with 2019.

Customer deposits were 3% higher in euros. Excluding the exchange rate impact the growth was 4%, due to the increase in consumer finance (+1%) and Openbank (+16%).

Results

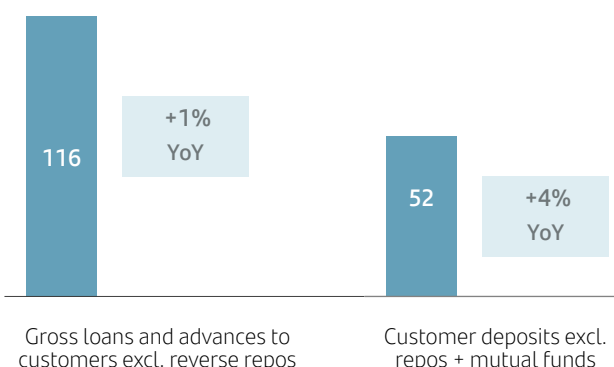
Underlying attributable profit in 2020 was EUR 958 million (15% of the Group's total operating areas).

Compared to 2019, underlying profit was down 20% in constant euros (-22% in euros), as follows:

- Total income increased 2% driven by net interest income (greater loans and revenue actions), while fees fell due to the reduction in new business. Income growth was partially offset by the European Court of Justice ruling regarding early repayment of loans and interest rate limitations.
- Administrative expenses and amortizations were 1% higher mainly due to investments in digital platforms offset by covid-19 mitigation actions and continued efficiency projects, resulting in a 32 bps efficiency improvement to 47.4% and in a 3% growth in net operating income.
- Net loan-loss provisions rose significantly affected mainly by covid-19 related provisions and positive one-offs recorded in 2019. Cost of credit stood at 0.83%, NPL ratio at 2.17% (+7 bps) and coverage rose to 113% (+5 pp).
- Other gains (losses) and provisions improved, in part due to greater releases and lower impairments of intangible assets (software) which offset regulatory impacts in Poland (CHF mortgages).
- As a result, net profit before minority interests was EUR 1,259 million in 2020, decreased 17% compared to 2019.

Digital Consumer Bank. Activity

December 2020. EUR billion and % change in constant euros



Digital Consumer Bank. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	4,917	4,905	0	+2
Expenses	-2,329	-2,339	0	+1
Net operating income	2,588	2,566	+1	+3
LLPs	-957	-508	+88	+92
PBT	1,680	2,076	-19	-18
Underlying attrib. profit	958	1,224	-22	-20

Detailed financial information in section [5.5 'Appendix'](#)

5.3 CORPORATE CENTRE



Corporate Centre

Underlying attributable profit

-EUR 1,332 Mn

Results

In 2020, underlying attributable loss of EUR 1,332 million was 14% lower than in 2019 and driven by:

- Greater negative impact of net interest income, from -EUR 460 million in 2019 to -EUR 643 million, impacted by the increase in the liquidity buffer.
- Growth of EUR 583 million in gains on financial transactions mainly due to foreign currency hedging, the negative counterpart of which is in the conversion of results to euros in certain countries.
- Administrative expenses and amortizations improved 12% on the back of streamlining and simplification measures.
- Lower net loan-loss provisions, down from EUR 36 million in 2019 to EUR 31 million in 2020.
- Other gains (losses) and provisions includes provisions, intangible assets, cost of the state guarantee on deferred tax assets, pensions, litigation, one-off provisions for stakes whose value was affected by the crisis, etc. The net impact went from -EUR 237 million in 2019 to -EUR 412 million in 2020.

Corporate Centre

EUR million			
Underlying income statement	2020	2019	%
Net interest income	(643)	(460)	39.8
Net fee income	(29)	(50)	(41.6)
Gains (losses) ^A on financial transactions	287	(297)	—
Other operating income	(25)	(18)	34.3
Total income	(410)	(825)	(50.3)
Administrative expenses and amortizations	(329)	(373)	(11.8)
Net operating income	(739)	(1,198)	(38.3)
Net loan-loss provisions	(31)	(36)	(13.8)
Other gains (losses) and provisions	(412)	(237)	74.0
Profit before tax	(1,181)	(1,470)	(19.6)
Tax on profit	(151)	(81)	86.8
Profit from continuing operations	(1,332)	(1,551)	(14.1)
Net profit from discontinued operations	—	—	—
Consolidated profit	(1,332)	(1,551)	(14.1)
Non-controlling interests	0	9	—
Underlying profit attributable to the parent	(1,332)	(1,542)	(13.6)
Balance sheet			
Loans and advances to customers	5,044	5,764	(12.5)
Cash, central banks and credit institutions	61,173	32,803	86.5
Debt instruments	1,918	840	128.4
Other financial assets	1,645	2,406	(31.6)
Other asset accounts	112,807	126,539	(10.9)
Total assets	182,587	168,352	8.5
Customer deposits	825	793	4.0
Central banks and credit institutions	38,042	11,699	225.2
Marketable debt securities	57,240	54,495	5.0
Other financial liabilities	493	636	(22.6)
Other liabilities accounts	9,443	9,810	(3.7)
Total liabilities	106,044	77,435	36.9
Total equity	76,543	90,917	(15.8)
Memorandum items:			
Gross loans ^B and advances to customers	5,224	5,859	(10.8)
Customer funds	837	804	4.1
Customer deposits ^C	825	793	4.0
Mutual funds	12	11	11.7
Operating means			
Number of employees	1,692	1,651	2.5

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

5.4 Secondary segments

Retail Banking

Underlying attributable profit

EUR 3,962 Mn

Results

Underlying attributable profit was EUR 3,962 million (62% of the Group's operating areas).

Compared to 2019, underlying attributable profit fell 45% in euros. Excluding the exchange rate impact, it was 39% lower, as follows:

- Total income fell 2% impacted by the fall in net fee income (-8%). Net interest income remained almost flat and gains on financial transactions were up 10%.
- Administrative expenses and amortizations decreased 2% benefiting from positive cost management in most countries.
- Loan-loss provisions soared 44% strongly affected by covid-19 related provisions.
- Other gains (losses) and provisions improved 13% primarily driven by Brazil and the US.

Santander Corporate & Investment Banking

Underlying attributable profit

EUR 1,745 mn

Results

Underlying attributable profit in 2020 was up 5% in euros. Excluding the exchange rate impact, growth was 21%, backed by double-digit hikes in our core businesses, particularly Global Markets and Global Debt Finance:

- Total income growth was spurred on by the strong increase in all revenue lines: net interest income (+19%), net fee income (+12%) and gains on financial transactions (+19%).
- Administrative expenses and amortizations fell 4%, which enabled efficiency to improve 5 pp and net operating income to grow 29%.
- Sound revenue performance and prudent cost management was enough to fully absorb net loan-loss provisions growth, derived from general macroeconomic deterioration, and significantly increase underlying attributable profit.

Retail Banking. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	37,368	42,567	-12	-2
Expenses	-17,285	-19,280	-10	-2
Net operating income	20,082	23,287	-14	-3
LLPs	-11,632	-9,132	+27	+44
PBT	7,212	12,531	-42	-35
Underlying attrib. profit	3,962	7,252	-45	-39

Detailed financial information in section [5.5 'Appendix'](#)

SCIB. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	5,256	5,154	+2	+14
Expenses	-2,038	-2,281	-11	-4
Net operating income	3,218	2,873	+12	+29
LLPs	-470	-155	+203	+212
PBT	2,613	2,627	-1	+16
Underlying attrib. profit	1,745	1,662	+5	+21

Detailed financial information in section [5.5 'Appendix'](#)

Wealth Management & Insurance

Underlying attributable profit

EUR 823 Mn

Results

Underlying attributable profit was EUR 823 million in 2020, down 5%. Excluding the exchange rate effect, it was 5% higher:

- Total income increased mainly driven by net fee income (+4%) due to the greater contribution from private banking and insurance.
- Administrative expenses and amortizations were 3% lower than in 2019, due to the optimization measures that absorbed the impact of investments.
- As a result, net operating income increased 8%.

The total contribution to the Group (including net profit and total fees generated net of taxes) was EUR 2,122 million.

PagoNxt

Underlying attributable profit

-EUR 116 Mn

Results

Underlying attributable profit was -EUR 116 million in 2020, compared to EUR 14 million in 2019. There are only two income statement lines with significant amounts; net fee income and administrative expenses and amortizations.

Net fee income, mostly generated by the acquiring business, mainly Getnet, amounted to EUR 362 million and were 1% lower, excluding the exchange rate impact.

Administrative expenses and amortizations amounted to EUR 443 million, with a 25% increase excluding the exchange rate impact, as a result of the effort made to make the necessary investments for the future development and efficiency of these businesses. We continued to expand our global payments technology platforms by adding new services and functionalities, reaching new customers.

Wealth Management & Insurance. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	2,030	2,126	-4	+3
Expenses	-872	-939	-7	-3
Net operating income	1,159	1,187	-2	+8
LLPs	-28	23	—	—
PBT	1,132	1,197	-5	+4
Underlying attrib. profit	823	867	-5	+5

Detailed financial information in section [5.5 'Appendix'](#)

PagoNxt. Underlying income statement

EUR million and % change

	2020	2019	/ 2019	
			%	% excl. FX
Revenue	356	472	-25	-6
Expenses	-443	-407	+9	+25
Net operating income	-86	66	—	—
LLPs	-12	-21	-43	-24
PBT	-101	44	—	—
Underlying attrib. profit	-116	14	—	—

Detailed financial information in section [5.5 'Appendix'](#)

5.5 Appendix

Primary segments

EUR million

	Europe				Spain		
Underlying income statement	2020	2019	%	% excl. FX	2020	2019	%
Net interest income	9,518	9,656	(1.4)	(0.6)	4,083	4,074	0.2
Net fee income	4,000	4,422	(9.6)	(9.0)	2,542	2,639	(3.7)
Gains (losses) on financial transactions ^A	869	1,046	(16.9)	(16.5)	634	744	(14.8)
Other operating income	(107)	400	—	—	(51)	397	—
Total income	14,280	15,524	(8.0)	(7.3)	7,208	7,854	(8.2)
Administrative expenses and amortizations	(8,274)	(8,911)	(7.2)	(6.5)	(4,240)	(4,553)	(6.9)
Net operating income	6,006	6,613	(9.2)	(8.4)	2,968	3,301	(10.1)
Net loan-loss provisions	(3,344)	(1,332)	151.0	152.9	(2,123)	(904)	134.7
Other gains (losses) and provisions	(970)	(793)	22.4	23.4	(479)	(467)	2.5
Profit before tax	1,692	4,488	(62.3)	(62.0)	367	1,930	(81.0)
Tax on profit	(476)	(1,217)	(60.9)	(60.6)	(112)	(520)	(78.4)
Profit from continuing operations	1,216	3,270	(62.8)	(62.5)	255	1,409	(81.9)
Net profit from discontinued operations	—	—	—	—	—	—	—
Consolidated profit	1,216	3,270	(62.8)	(62.5)	255	1,409	(81.9)
Non-controlling interests	(78)	(167)	(53.6)	(52.1)	0	0	—
Underlying profit attributable to the parent	1,138	3,103	(63.3)	(63.0)	255	1,409	(81.9)
Balance sheet							
Loans and advances to customers	563,582	563,101	0.1	3.1	238,385	226,242	5.4
Cash, central banks and credit institutions	180,245	140,528	28.3	30.3	112,411	93,007	20.9
Debt instruments	81,271	101,189	(19.7)	(18.2)	39,079	57,940	(32.6)
Other financial assets	48,313	53,918	(10.4)	(10.2)	44,446	50,214	(11.5)
Other asset accounts	35,893	36,586	(1.9)	(0.2)	22,643	23,556	(3.9)
Total assets	909,304	895,322	1.6	4.0	456,964	450,959	1.3
Customer deposits	582,353	559,721	4.0	6.8	273,512	256,809	6.5
Central banks and credit institutions	133,973	125,046	7.1	8.6	82,973	89,072	(6.8)
Marketable debt securities	84,201	94,882	(11.3)	(7.9)	28,420	26,873	5.8
Other financial liabilities	54,634	59,241	(7.8)	(7.4)	49,932	53,998	(7.5)
Other liabilities accounts	11,788	12,435	(5.2)	(2.9)	4,331	5,584	(22.4)
Total liabilities	866,949	851,324	1.8	4.3	439,168	432,337	1.6
Total equity	42,355	43,998	(3.7)	(0.9)	17,796	18,622	(4.4)
Memorandum items:							
Gross loans and advances to customers ^B	543,336	534,125	1.7	4.7	235,328	220,443	6.8
Customer funds	655,954	630,372	4.1	6.4	341,234	325,079	5.0
Customer deposits ^C	562,977	540,735	4.1	6.8	271,730	256,457	6.0
Mutual funds	92,977	89,637	3.7	4.6	69,503	68,621	1.3
Ratios (%), operating means and customers							
Underlying RoTE	2.90	7.85	(4.95)		1.38	8.10	(6.73)
Efficiency ratio	57.9	57.4	0.5		58.8	58.0	0.9
NPL ratio	3.34	3.47	(0.13)		5.16	5.78	(0.61)
Total coverage ratio	50.3	43.0	7.3		47.5	41.2	6.3
Number of employees	69,032	71,298	(3.2)		29,011	29,377	(1.2)
Number of branches	4,494	4,920	(8.7)		2,943	3,240	(9.2)
Number of loyal customers (thousands)	10,021	9,891	1.3		2,643	2,540	4.1
Number of digital customers (thousands)	15,302	13,834	10.6		5,234	4,721	10.9

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	United Kingdom				Portugal		
	2020	2019	%	% excl. FX	2020	2019	%
Net interest income	3,466	3,470	(0.1)	1.2	765	839	(8.8)
Net fee income	494	851	(41.9)	(41.1)	388	390	(0.6)
Gains (losses) on financial transactions ^A	(20)	15	—	—	111	111	0.2
Other operating income	1	4	(74.1)	(73.8)	10	17	(41.8)
Total income	3,942	4,340	(9.2)	(8.0)	1,274	1,357	(6.1)
Administrative expenses and amortizations	(2,539)	(2,725)	(6.8)	(5.6)	(590)	(623)	(5.3)
Net operating income	1,403	1,615	(13.1)	(12.0)	684	734	(6.9)
Net loan-loss provisions	(677)	(223)	204.1	208.2	(193)	8	—
Other gains (losses) and provisions	(256)	(188)	36.7	38.5	(29)	(9)	213.4
Profit before tax	470	1,205	(61.0)	(60.5)	461	732	(37.0)
Tax on profit	(105)	(309)	(65.9)	(65.5)	(138)	(218)	(36.7)
Profit from continuing operations	364	896	(59.3)	(58.8)	323	515	(37.2)
Net profit from discontinued operations	—	—	—	—	—	—	—
Consolidated profit	364	896	(59.3)	(58.8)	323	515	(37.2)
Non-controlling interests	—	0	(100.0)	(100.0)	—	(2)	(76.4)
Underlying profit attributable to the parent	364	896	(59.3)	(58.8)	323	513	(37.0)

Balance sheet

Loans and advances to customers	249,777	261,987	(4.7)	0.6	38,058	35,406	7.5
Cash, central banks and credit institutions	54,444	39,138	39.1	46.8	5,819	4,675	24.5
Debt instruments	11,527	20,187	(42.9)	(39.7)	11,569	12,580	(8.0)
Other financial assets	712	939	(24.2)	(20.0)	1,487	1,695	(12.3)
Other asset accounts	8,177	7,583	7.8	13.8	1,475	1,769	(16.6)
Total assets	324,637	329,835	(1.6)	3.9	58,408	56,125	4.1
Customer deposits	231,921	228,303	1.6	7.2	39,881	39,258	1.6
Central banks and credit institutions	20,614	16,659	23.7	30.6	9,990	8,016	24.6
Marketable debt securities	51,151	62,454	(18.1)	(13.5)	2,520	3,384	(25.5)
Other financial liabilities	2,316	2,508	(7.7)	(2.6)	249	276	(9.8)
Other liabilities accounts	4,508	4,307	4.7	10.5	1,643	1,516	8.4
Total liabilities	310,510	314,231	(1.2)	4.3	54,282	52,450	3.5
Total equity	14,127	15,603	(9.5)	(4.4)	4,125	3,675	12.2
Memorandum items:							
Gross loans and advances to customers ^B	230,674	237,569	(2.9)	2.5	39,054	36,321	7.5
Customer funds	222,268	217,886	2.0	7.7	43,133	42,324	1.9
Customer deposits ^C	214,329	209,669	2.2	7.9	39,881	39,258	1.6
Mutual funds	7,938	8,218	(3.4)	2.0	3,252	3,066	6.1

Ratios (%), operating means and customers

Underlying RoTE	2.81	6.36	(3.54)	8.33	12.51	(4.17)
Efficiency ratio	64.4	62.8	1.6	46.3	45.9	0.4
NPL ratio	1.24	1.04	0.21	3.89	4.83	(0.94)
Total coverage ratio	44.7	33.4	11.3	66.5	52.8	13.7
Number of employees	22,028	23,574	(6.6)	6,336	6,582	(3.7)
Number of branches	564	616	(8.4)	477	542	(12.0)
Number of loyal customers (thousands)	4,450	4,562	(2.5)	812	778	4.3
Number of digital customers (thousands)	6,267	5,824	7.6	930	775	20.0

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	Poland				Other Europe			
	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	1,011	1,149	(12.0)	(9.0)	193	124	55.6	57.1
Net fee income	452	467	(3.1)	0.2	123	75	63.3	66.3
Gains (losses) on financial transactions ^A	90	93	(3.3)	0.0	54	84	(35.1)	(33.8)
Other operating income	(55)	(13)	327.6	341.9	(13)	(6)	103.7	102.2
Total income	1,498	1,695	(11.6)	(8.7)	358	277	29.2	31.2
Administrative expenses and amortizations	(629)	(693)	(9.3)	(6.2)	(275)	(317)	(13.1)	(12.2)
Net operating income	869	1,002	(13.2)	(10.3)	82	(40)	—	—
Net loan-loss provisions	(330)	(217)	52.2	57.3	(22)	4	—	—
Other gains (losses) and provisions	(195)	(127)	54.4	59.5	(11)	(2)	379.0	379.0
Profit before tax	344	659	(47.7)	(46.0)	50	(38)	—	—
Tax on profit	(122)	(163)	(25.1)	(22.6)	1	(7)	—	—
Profit from continuing operations	222	495	(55.2)	(53.7)	51	(45)	—	—
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	222	495	(55.2)	(53.7)	51	(45)	—	—
Non-controlling interests	(78)	(162)	(52.0)	(50.4)	1	(3)	—	—
Underlying profit attributable to the parent	144	333	(56.7)	(55.3)	52	(48)	—	—

Balance sheet

Loans and advances to customers	28,025	30,034	(6.7)	(0.1)	9,338	9,433	(1.0)	7.5
Cash, central banks and credit institutions	2,539	3,398	(25.3)	(20.0)	5,031	310	—	—
Debt instruments	14,006	9,285	50.8	61.6	5,092	1,195	325.9	365.1
Other financial assets	980	630	55.7	66.7	688	440	56.4	68.5
Other asset accounts	1,341	1,341	0.0	7.1	2,257	2,337	(3.4)	1.9
Total assets	46,890	44,688	4.9	12.4	22,406	13,715	63.4	75.1
Customer deposits	34,868	33,485	4.1	11.5	2,171	1,866	16.3	27.1
Central banks and credit institutions	2,631	2,334	12.7	20.7	17,765	8,965	98.2	112.4
Marketable debt securities	2,110	2,171	(2.8)	4.1	0	—	—	—
Other financial liabilities	993	762	30.3	39.6	1,144	1,696	(32.5)	(31.3)
Other liabilities accounts	1,232	923	33.5	43.0	74	105	(29.5)	(24.3)
Total liabilities	41,834	39,674	5.4	12.9	21,154	12,632	67.5	78.7
Total equity	5,056	5,014	0.8	8.0	1,252	1,083	15.5	30.0
Memorandum items:								
Gross loans and advances to customers ^B	29,055	30,925	(6.0)	0.6	9,225	8,866	4.1	13.6
Customer funds	38,889	37,929	2.5	9.8	10,431	7,154	45.8	49.1
Customer deposits ^C	34,865	33,485	4.1	11.5	2,171	1,866	16.3	27.1
Mutual funds	4,023	4,444	(9.5)	(3.0)	8,260	5,288	56.2	56.2

Ratios (%), operating means and customers

Underlying RoTE	4.50	10.74	(6.24)
Efficiency ratio	42.0	40.9	1.1
NPL ratio	4.74	4.31	0.43
Total coverage ratio	70.7	66.8	3.9
Number of employees	10,582	11,049	(4.2)
Number of branches	502	515	(2.5)
Number of loyal customers (thousands)	2,115	2,010	5.2
Number of digital customers (thousands)	2,756	2,510	9.8

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	North America				United States			
	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	8,394	8,834	(5.0)	0.3	5,580	5,689	(1.9)	(0.1)
Net fee income	1,684	1,776	(5.2)	1.3	889	947	(6.1)	(4.3)
Gains (losses) on financial transactions ^A	251	229	9.5	16.6	118	131	(10.0)	(8.3)
Other operating income	629	672	(6.4)	(5.9)	709	759	(6.5)	(4.8)
Total income	10,958	11,511	(4.8)	0.4	7,296	7,525	(3.0)	(1.2)
Administrative expenses and amortizations	(4,677)	(4,984)	(6.2)	(1.1)	(3,079)	(3,297)	(6.6)	(4.8)
Net operating income	6,280	6,527	(3.8)	1.6	4,216	4,228	(0.3)	1.6
Net loan-loss provisions	(3,917)	(3,656)	7.1	11.8	(2,937)	(2,792)	5.2	7.2
Other gains (losses) and provisions	(133)	(205)	(35.2)	(33.8)	(93)	(200)	(53.2)	(52.3)
Profit before tax	2,231	2,666	(16.3)	(9.9)	1,186	1,236	(4.1)	(2.3)
Tax on profit	(550)	(652)	(15.5)	(9.7)	(299)	(345)	(13.4)	(11.8)
Profit from continuing operations	1,680	2,015	(16.6)	(10.0)	887	891	(0.5)	1.4
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	1,680	2,015	(16.6)	(10.0)	887	891	(0.5)	1.4
Non-controlling interests	(262)	(426)	(38.5)	(34.3)	(201)	(230)	(12.4)	(10.7)
Underlying profit attributable to the parent	1,419	1,589	(10.7)	(3.4)	685	661	3.7	5.6
Balance sheet								
Loans and advances to customers	120,571	133,727	(9.8)	(0.2)	90,992	98,707	(7.8)	0.7
Cash, central banks and credit institutions	28,666	22,904	25.2	39.9	16,614	12,829	29.5	41.5
Debt instruments	38,402	33,749	13.8	27.6	14,084	16,677	(15.5)	(7.8)
Other financial assets	15,439	10,821	42.7	60.7	4,381	4,320	1.4	10.8
Other asset accounts	20,718	22,772	(9.0)	0.2	17,003	18,882	(10.0)	(1.6)
Total assets	223,797	223,972	(0.1)	11.0	143,074	151,415	(5.5)	3.2
Customer deposits	102,924	98,915	4.1	15.8	67,450	63,371	6.4	16.3
Central banks and credit institutions	38,070	39,016	(2.4)	8.6	21,035	25,182	(16.5)	(8.8)
Marketable debt securities	36,583	44,097	(17.0)	(8.6)	29,737	37,132	(19.9)	(12.5)
Other financial liabilities	16,182	11,773	37.4	55.3	4,329	4,146	4.4	14.0
Other liabilities accounts	6,029	6,256	(3.6)	7.1	3,369	4,093	(17.7)	(10.1)
Total liabilities	199,789	200,057	(0.1)	11.0	125,920	133,925	(6.0)	2.7
Total equity	24,009	23,915	0.4	11.1	17,154	17,491	(1.9)	7.1
Memorandum items:								
Gross loans and advances to customers ^B	120,665	130,593	(7.6)	2.3	90,459	95,742	(5.5)	3.2
Customer funds	117,548	113,407	3.7	15.4	76,972	72,604	6.0	15.8
Customer deposits ^C	96,315	92,231	4.4	16.0	66,385	62,608	6.0	15.8
Mutual funds	21,233	21,175	0.3	12.6	10,586	9,996	5.9	15.7
Ratios (%), operating means and customers								
Underlying RoTE	6.70	8.10	(1.41)		4.37	4.41	(0.04)	
Efficiency ratio	42.7	43.3	(0.6)		42.2	43.8	(1.6)	
NPL ratio	2.23	2.20	0.03		2.04	2.20	(0.16)	
Total coverage ratio	182.6	153.0	29.6		210.4	161.8	48.5	
Number of employees	38,706	37,954	2.0		16,125	17,372	(7.2)	
Number of branches	1,958	2,043	(4.2)		585	621	(5.8)	
Number of loyal customers (thousands)	3,942	3,499	12.6		347	332	4.6	
Number of digital customers (thousands)	6,127	5,185	18.2		1,011	1,010	0.2	

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

	Mexico				Other North America			
Underlying income statement	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	2,813	3,145	(10.6)	1.1	1	0	—	—
Net fee income	772	829	(7.0)	5.2	24	0	—	—
Gains (losses) on financial transactions ^A	134	99	34.4	52.0	(1)	(1)	(52.6)	(52.6)
Other operating income	(79)	(87)	(8.6)	3.3	(1)	0	—	—
Total income	3,639	3,987	(8.7)	3.2	23	(1)	—	—
Administrative expenses and amortizations	(1,552)	(1,671)	(7.1)	5.0	(46)	(16)	178.9	178.9
Net operating income	2,087	2,316	(9.9)	1.9	(23)	(17)	32.0	32.0
Net loan-loss provisions	(979)	(863)	13.4	28.3	0	—	—	—
Other gains (losses) and provisions	(37)	(5)	637.1	733.4	(2)	0	—	—
Profit before tax	1,070	1,448	(26.1)	(16.4)	(25)	(18)	43.8	43.8
Tax on profit	(256)	(310)	(17.5)	(6.7)	5	4	13.1	13.1
Profit from continuing operations	814	1,137	(28.4)	(19.0)	(21)	(13)	52.9	52.9
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	814	1,137	(28.4)	(19.0)	(21)	(13)	52.9	52.9
Non-controlling interests	(61)	(196)	(68.9)	(64.9)	—	—	—	—
Underlying profit attributable to the parent	754	942	(20.0)	(9.5)	(20)	(13)	50.0	50.0
Balance sheet								
Loans and advances to customers	29,565	35,019	(15.6)	(2.8)	15	0	—	—
Cash, central banks and credit institutions	11,854	10,056	17.9	35.8	197	19	938.7	938.7
Debt instruments	24,315	17,069	42.5	64.1	4	3	6.9	6.9
Other financial assets	10,982	6,439	70.6	96.4	76	62	22.9	22.9
Other asset accounts	3,523	3,859	(8.7)	5.1	193	31	521.1	526.6
Total assets	80,239	72,441	10.8	27.6	485	116	318.1	319.0
Customer deposits	35,457	35,544	(0.2)	14.9	17	—	—	—
Central banks and credit institutions	16,985	13,824	22.9	41.5	51	17	191.3	186.6
Marketable debt securities	6,847	6,965	(1.7)	13.2	—	—	—	—
Other financial liabilities	11,830	7,617	55.3	78.9	23	10	124.7	124.7
Other liabilities accounts	2,628	2,144	22.5	41.1	31	19	64.6	69.6
Total liabilities	73,747	66,094	11.6	28.5	122	46	162.5	164.1
Total equity	6,492	6,347	2.3	17.8	363	69	422.1	422.1
<i>Memorandum items:</i>								
Gross loans and advances to customers ^B	30,191	34,850	(13.4)	(0.2)	15	0	—	—
Customer funds	40,558	40,803	(0.6)	14.5	17	0	—	—
Customer deposits ^C	29,912	29,624	1.0	16.3	17	0	—	—
Mutual funds	10,646	11,179	(4.8)	9.7	—	—	—	—
Ratios (%), operating means and customers								
Underlying RoTE	14.23	20.44	(6.21)					
Efficiency ratio	42.7	41.9	0.7					
NPL ratio	2.81	2.19	0.62					
Total coverage ratio	120.8	128.3	(7.4)					
Number of employees	22,246	20,494	8.5					
Number of branches	1,373	1,422	(3.4)					
Number of loyal customers (thousands)	3,595	3,168	13.5					
Number of digital customers (thousands)	5,000	4,170	19.9					

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	South America				Brazil			
	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	10,710	13,271	(19.3)	4.9	7,618	10,031	(24.1)	0.1
Net fee income	3,589	4,787	(25.0)	(1.4)	2,824	3,798	(25.6)	(2.0)
Gains (losses) on financial transactions ^A	765	564	35.8	68.4	467	167	180.6	270.0
Other operating income	(210)	(243)	(13.6)	24.6	(51)	(86)	(41.1)	(22.4)
Total income	14,855	18,379	(19.2)	5.1	10,859	13,910	(21.9)	2.9
Administrative expenses and amortizations	(5,357)	(6,673)	(19.7)	4.6	(3,541)	(4,606)	(23.1)	1.4
Net operating income	9,498	11,706	(18.9)	5.3	7,317	9,304	(21.4)	3.7
Net loan-loss provisions	(3,924)	(3,789)	3.5	35.1	(3,018)	(3,036)	(0.6)	31.1
Other gains (losses) and provisions	(321)	(748)	(57.2)	(41.7)	(263)	(704)	(62.7)	(50.8)
Profit before tax	5,253	7,168	(26.7)	(5.6)	4,037	5,565	(27.5)	(4.3)
Tax on profit	(1,919)	(2,626)	(26.9)	(4.7)	(1,691)	(2,283)	(25.9)	(2.3)
Profit from continuing operations	3,335	4,542	(26.6)	(6.0)	2,346	3,282	(28.5)	(5.8)
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	3,335	4,542	(26.6)	(6.0)	2,346	3,282	(28.5)	(5.8)
Non-controlling interests	(436)	(664)	(34.3)	(18.6)	(238)	(373)	(36.0)	(15.7)
Underlying profit attributable to the parent	2,898	3,878	(25.3)	(3.8)	2,108	2,910	(27.6)	(4.5)
Balance sheet								
Loans and advances to customers	113,745	125,122	(9.1)	14.6	63,974	75,618	(15.4)	19.4
Cash, central banks and credit institutions	43,154	51,379	(16.0)	12.3	31,466	37,470	(16.0)	18.5
Debt instruments	49,303	45,622	8.1	46.3	37,655	39,611	(4.9)	34.2
Other financial assets	17,342	14,864	16.7	37.5	6,877	6,790	1.3	42.9
Other asset accounts	15,201	16,931	(10.2)	18.3	10,600	12,545	(15.5)	19.3
Total assets	238,746	253,919	(6.0)	21.3	150,573	172,033	(12.5)	23.5
Customer deposits	111,808	114,817	(2.6)	26.0	70,083	74,745	(6.2)	32.3
Central banks and credit institutions	42,050	42,031	0.0	30.4	26,355	30,363	(13.2)	22.5
Marketable debt securities	21,280	29,840	(28.7)	(11.2)	11,901	18,952	(37.2)	(11.4)
Other financial liabilities	35,456	34,072	4.1	33.1	23,536	23,589	(0.2)	40.8
Other liabilities accounts	8,334	10,632	(21.6)	5.6	6,157	8,631	(28.7)	0.7
Total liabilities	218,927	231,392	(5.4)	22.0	138,031	156,280	(11.7)	24.7
Total equity	19,819	22,527	(12.0)	14.3	12,541	15,753	(20.4)	12.4
Memorandum items:								
Gross loans and advances to customers ^B	118,784	131,048	(9.4)	14.5	67,424	80,150	(15.9)	18.7
Customer funds	153,241	170,707	(10.2)	17.6	100,351	121,752	(17.6)	16.3
Customer deposits ^C	103,319	101,575	1.7	30.3	61,627	61,789	(0.3)	40.8
Mutual funds	49,922	69,131	(27.8)	(2.2)	38,725	59,964	(35.4)	(8.9)
Ratios (%), operating means and customers								
Underlying RoTE	17.66	20.28	(2.62)		19.12	20.96	(1.84)	
Efficiency ratio	36.1	36.3	(0.2)		32.6	33.1	(0.5)	
NPL ratio	4.39	4.86	(0.47)		4.59	5.32	(0.73)	
Total coverage ratio	97.4	88.4	9.0		113.2	99.8	13.4	
Number of employees	65,587	69,596	(5.8)		43,258	46,682	(7.3)	
Number of branches	4,431	4,572	(3.1)		3,571	3,656	(2.3)	
Number of loyal customers (thousands)	8,614	7,919	8.8		6,382	5,743	11.1	
Number of digital customers (thousands)	20,315	17,292	17.5		15,556	13,450	15.7	

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	Chile				Argentina			
	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	1,786	1,865	(4.2)	10.0	910	940	(3.2)	48.5
Net fee income	335	404	(17.2)	(5.0)	273	446	(38.8)	(6.1)
Gains (losses) on financial transactions ^A	174	266	(34.7)	(25.0)	62	80	(22.9)	18.2
Other operating income	(32)	2	—	—	(119)	(150)	(20.8)	21.5
Total income	2,262	2,538	(10.9)	2.4	1,125	1,316	(14.4)	31.2
Administrative expenses and amortizations	(900)	(1,031)	(12.7)	0.3	(632)	(762)	(17.0)	27.2
Net operating income	1,362	1,507	(9.6)	3.8	493	553	(10.9)	36.7
Net loan-loss provisions	(594)	(443)	34.1	54.0	(226)	(235)	(3.9)	47.3
Other gains (losses) and provisions	16	63	(75.2)	(71.5)	(70)	(101)	(30.5)	6.5
Profit before tax	784	1,127	(30.5)	(20.2)	197	217	(9.2)	39.2
Tax on profit	(155)	(209)	(25.9)	(14.9)	(18)	(72)	(74.4)	(60.7)
Profit from continuing operations	628	918	(31.5)	(21.4)	178	145	23.2	88.9
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	628	918	(31.5)	(21.4)	178	145	23.2	88.9
Non-controlling interests	(197)	(289)	(31.8)	(21.7)	(1)	(2)	(12.2)	34.7
Underlying profit attributable to the parent	431	629	(31.4)	(21.2)	177	143	23.6	89.5

Balance sheet

Loans and advances to customers	39,381	38,584	2.1	5.2	4,151	4,792	(13.4)	32.9
Cash, central banks and credit institutions	5,836	7,557	(22.8)	(20.4)	3,048	3,911	(22.1)	19.5
Debt instruments	8,365	5,062	65.2	70.3	1,897	429	342.5	578.7
Other financial assets	10,221	7,856	30.1	34.1	59	87	(31.8)	4.5
Other asset accounts	3,076	3,091	(0.5)	2.6	832	836	(0.5)	52.7
Total assets	66,880	62,151	7.6	10.9	9,988	10,054	(0.7)	52.4
Customer deposits	28,362	27,344	3.7	6.9	7,179	7,002	2.5	57.2
Central banks and credit institutions	11,612	8,225	41.2	45.6	842	1,033	(18.5)	25.1
Marketable debt securities	9,247	10,722	(13.8)	(11.1)	20	71	(71.5)	(56.3)
Other financial liabilities	11,162	9,662	15.5	19.1	657	747	(11.9)	35.1
Other liabilities accounts	1,519	1,294	17.4	21.1	359	392	(8.4)	40.5
Total liabilities	61,903	57,247	8.1	11.5	9,058	9,244	(2.0)	50.3
Total equity	4,977	4,904	1.5	4.6	930	810	14.8	76.0
Memorandum items:								
Gross loans and advances to customers ^B	40,593	39,640	2.4	5.6	4,395	4,993	(12.0)	35.0
Customer funds	37,873	35,095	7.9	11.3	8,795	8,099	8.6	66.6
Customer deposits ^C	28,330	27,060	4.7	7.9	7,179	7,002	2.5	57.2
Mutual funds	9,543	8,035	18.8	22.4	1,616	1,097	47.3	126.0

Ratios (%), operating means and customers

Underlying RoTE	13.16	18.05	(4.88)	25.97	22.15	3.82
Efficiency ratio	39.8	40.6	(0.8)	56.2	57.9	(1.8)
NPL ratio	4.79	4.64	0.15	2.11	3.39	(1.27)
Total coverage ratio	61.4	56.0	5.4	275.1	124.0	151.1
Number of employees	10,835	11,580	(6.4)	9,159	9,178	(0.2)
Number of branches	346	375	(7.7)	408	438	(6.8)
Number of loyal customers (thousands)	764	704	8.6	1,356	1,363	(0.5)
Number of digital customers (thousands)	1,547	1,247	24.0	2,650	2,196	20.7

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Primary segments

EUR million

Underlying income statement	Other South America				Digital Consumer Bank			
	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	397	435	(8.7)	7.8	4,014	3,983	0.8	2.5
Net fee income	158	138	13.8	34.1	771	843	(8.6)	(8.1)
Gains (losses) on financial transactions ^A	62	51	22.7	41.5	16	(10)	—	—
Other operating income	(8)	(8)	(7.9)	10.7	116	90	29.9	32.1
Total income	609	615	(1.1)	16.5	4,917	4,905	0.3	1.8
Administrative expenses and amortizations	(284)	(274)	3.6	20.9	(2,329)	(2,339)	(0.4)	0.8
Net operating income	325	342	(4.8)	12.9	2,588	2,566	0.9	2.7
Net loan-loss provisions	(86)	(75)	14.4	37.1	(957)	(508)	88.5	92.0
Other gains (losses) and provisions	(3)	(7)	(51.0)	(40.7)	49	18	166.6	150.1
Profit before tax	236	260	(9.2)	7.4	1,680	2,076	(19.1)	(17.7)
Tax on profit	(54)	(62)	(12.7)	2.0	(420)	(527)	(20.2)	(19.1)
Profit from continuing operations	182	197	(8.1)	9.2	1,259	1,549	(18.7)	(17.3)
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	182	197	(8.1)	9.2	1,259	1,549	(18.7)	(17.3)
Non-controlling interests	—	(1)	—	—	(301)	(326)	(7.6)	(7.3)
Underlying profit attributable to the parent	182	196	(7.4)	10.0	958	1,224	(21.7)	(20.0)
Balance sheet								
Loans and advances to customers	6,239	6,128	1.8	22.1	113,257	114,504	(1.1)	0.4
Cash, central banks and credit institutions	2,803	2,441	14.8	40.0	12,059	8,816	36.8	38.4
Debt instruments	1,386	520	166.6	219.8	5,660	3,197	77.1	82.4
Other financial assets	185	132	40.7	44.9	30	37	(19.6)	(18.5)
Other asset accounts	692	460	50.5	63.7	6,149	5,095	20.7	22.8
Total assets	11,306	9,680	16.8	39.7	137,155	131,649	4.2	5.7
Customer deposits	6,184	5,725	8.0	31.4	51,399	50,120	2.6	3.8
Central banks and credit institutions	3,240	2,410	34.4	55.5	32,045	25,175	27.3	30.7
Marketable debt securities	112	95	18.2	41.0	35,965	38,662	(7.0)	(6.0)
Other financial liabilities	101	74	35.0	59.1	1,370	1,652	(17.1)	(16.0)
Other liabilities accounts	298	316	(5.5)	12.2	3,940	4,022	(2.0)	(1.2)
Total liabilities	9,935	8,620	15.3	38.0	124,720	119,630	4.3	5.8
Total equity	1,371	1,060	29.3	52.7	12,435	12,019	3.5	5.4
Memorandum items:								
Gross loans and advances to customers ^B	6,373	6,265	1.7	22.0	116,083	117,133	(0.9)	0.6
Customer funds	6,222	5,761	8.0	31.4	52,058	50,570	2.9	4.2
Customer deposits ^C	6,184	5,725	8.0	31.4	51,399	50,120	2.6	3.8
Mutual funds	38	36	7.1	32.1	658	450	46.3	46.3
Ratios (%), operating means and customers								
Underlying RoTE					9.99	12.98	(2.98)	
Efficiency ratio					47.4	47.7	(0.32)	
NPL ratio					2.17	2.10	0.07	
Total coverage ratio					113.3	108.1	5.2	
Number of employees					16,172	15,920	1.6	
Number of branches					353	417	(15.3)	
Number of total customers (thousands)					19,611	21,121	(7.15)	

A. Includes exchange differences.

B. Excluding reverse repos.

C. Excluding repos.

Secondary segments

EUR million

	Retail Banking				Corporate & Investment Banking			
Underlying income statement	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	29,401	32,589	(9.8)	0.6	2,842	2,655	7.0	19.2
Net fee income	6,986	8,663	(19.4)	(8.0)	1,542	1,520	1.5	11.9
Gains (losses) on financial transactions ^A	1,133	1,024	10.6	9.7	670	689	(2.7)	19.4
Other operating income	(153)	291	—	—	202	289	(30.2)	(31.4)
Total income	37,368	42,567	(12.2)	(2.3)	5,256	5,154	2.0	13.8
Administrative expenses and amortizations	(17,285)	(19,280)	(10.3)	(1.7)	(2,038)	(2,281)	(10.6)	(4.1)
Net operating income	20,082	23,287	(13.8)	(2.7)	3,218	2,873	12.0	29.1
Net loan-loss provisions	(11,632)	(9,132)	27.4	43.9	(470)	(155)	202.6	212.1
Other gains (losses) and provisions	(1,238)	(1,624)	(23.8)	(12.9)	(135)	(91)	48.3	59.8
Profit before tax	7,212	12,531	(42.4)	(35.3)	2,613	2,627	(0.5)	15.8
Tax on profit	(2,329)	(3,915)	(40.5)	(31.1)	(750)	(793)	(5.4)	10.7
Profit from continuing operations	4,884	8,615	(43.3)	(37.1)	1,863	1,833	1.6	17.9
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	4,884	8,615	(43.3)	(37.1)	1,863	1,833	1.6	17.9
Non-controlling interests	(921)	(1,363)	(32.4)	(25.6)	(119)	(171)	(30.8)	(17.5)
Underlying profit attributable to the parent	3,962	7,252	(45.4)	(39.2)	1,745	1,662	5.0	21.5

A. Includes exchange differences.

Secondary segments

EUR million

	Wealth Management & Insurance				PagoNxt			
Underlying income statement	2020	2019	%	% excl. FX	2020	2019	%	% excl. FX
Net interest income	394	479	(17.7)	(11.7)	(1)	20	—	—
Net fee income	1,153	1,190	(3.1)	3.7	362	456	(20.5)	(1.4)
Gains (losses) on financial transactions ^A	100	117	(14.6)	(7.4)	(2)	(3)	(16.7)	(16.7)
Other operating income	383	339	12.7	26.6	(3)	0	456.2	—
Total income	2,030	2,126	(4.5)	3.1	356	472	(24.5)	(6.2)
Administrative expenses and amortizations	(872)	(939)	(7.2)	(2.7)	(443)	(407)	8.9	24.6
Net operating income	1,159	1,187	(2.3)	7.9	(86)	66	—	—
Net loan-loss provisions	(28)	23	—	—	(12)	(21)	(42.5)	(24.3)
Other gains (losses) and provisions	1	(12)	—	—	(3)	0	—	—
Profit before tax	1,132	1,197	(5.5)	4.2	(101)	44	—	—
Tax on profit	(271)	(280)	(3.2)	5.4	(16)	(33)	(52.0)	(8.0)
Profit from continuing operations	860	917	(6.2)	3.9	(117)	11	—	—
Net profit from discontinued operations	—	—	—	—	—	—	—	—
Consolidated profit	860	917	(6.2)	3.9	(117)	11	—	—
Non-controlling interests	(38)	(50)	(24.6)	(8.3)	1	3	(54.6)	(57.5)
Underlying profit attributable to the parent	823	867	(5.1)	4.5	(116)	14	—	—

A. Includes exchange differences.

6. 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 have neither been audited nor reviewed by our auditors.

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.

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 measures and which we refer to as underlying measures. These underlying measures allow, in our view, a better year-on-year comparability as they exclude items outside the ordinary course performance of business which are grouped in the non-IFRS line net capital gains and provisions and are further detailed at the end of section 3.2 "Results" of the Economic and Financial Review chapter in Part 1 of the 2021 Form 20-F.

In addition, the results by business areas in [4 'Financial information by segment: 2021 vs 2020'](#) and [5 'Financial information by segment: 2020 vs 2019'](#) 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 51.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 capital, to tangible capital, 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.

The 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)	$\frac{\text{Profit attributable to the parent}}{\text{Average stockholders' equity}^A \text{ (excl. minority interests)}}$	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	$\frac{\text{Underlying profit attributable to the parent}}{\text{Average stockholders' equity}^A \text{ (excl. minority interests)}}$	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)	$\frac{\text{Profit attributable to the parent}^B}{\text{Average stockholders' equity}^A \text{ (excl. minority interests)}}$	This is a very common indicator, used to evaluate the profitability of the company as a percentage of a its tangible equity. It's measured as the return that shareholders receive as a percentage of the funds invested in the bank less intangible assets.
Underlying RoTE	$\frac{\text{Underlying profit attributable to the parent}}{\text{Average stockholders' equity}^A \text{ (excl. minority interests) - intangible assets}}$	This indicator measures the profitability of the tangible equity of a company arising from ordinary activities, i.e. excluding results from operations outside the ordinary course of business.
RoA (Return on Assets)	$\frac{\text{Consolidated profit}}{\text{Average total assets}}$	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	$\frac{\text{Underlying consolidated profit}}{\text{Average total assets}}$	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 profit over a given period.
RoRWA (Return on Risk-Weighted Assets)	$\frac{\text{Consolidated profit}}{\text{Average risk-weighted assets}}$	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	$\frac{\text{Underlying consolidated profit}}{\text{Average risk weighted assets}}$	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)	$\frac{\text{Underlying consolidated profit}}{\text{Average economic capital}}$	This is the return on economic capital required internally (necessary to support all risks inherent in our activity).
Economic Value Added	$\text{Underlying consolidated profit} - (\text{average economic capital} \times \text{cost of capital})$	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)	$\frac{\text{Operating expenses}^C}{\text{Total income}}$	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 %)	2021	2020	2019
RoE	9.66%	-9.80%	6.62%
Profit attributable to the parent	8,124	-8,771	6,515
Average stockholders' equity (excluding minority interests)	84,133	89,459	98,457
Underlying RoE	10.29%	5.68%	8.38%
Profit attributable to the parent	8,124	-8,771	6,515
(-) Net capital gains and provisions	-530	-13,852	-1,737
Underlying profit attributable to the parent	8,654	5,081	8,252
Average stockholders' equity (excluding minority interests)	84,133	89,459	98,457
RoTE	11.96%	1.95%	11.44%
Profit attributable to the parent	8,124	-8,771	6,515
(-) Goodwill impairment	-6	-10,100	-1,491
Profit attributable to the parent (excluding goodwill impairment)	8,130	1,329	8,006
Average stockholders' equity (excluding minority interests)	84,133	89,459	98,457
(-) Average intangible assets	16,169	21,153	28,484
Average stockholders' equity (excl. minority interests) - intangible assets	67,964	68,306	69,973
Underlying RoTE	12.73%	7.44%	11.79%
Profit attributable to the parent	8,124	-8,771	6,515
(-) Net capital gains and provisions	-530	-13,852	-1,737
Underlying profit attributable to the parent	8,654	5,081	8,252
Average stockholders' equity (excl. minority interests) - intangible assets	67,964	68,306	69,973
RoA	0.62%	-0.50%	0.54%
Consolidated profit	9,653	-7,708	8,116
Average total assets	1,563,899	1,537,552	1,508,167
Underlying RoA	0.65%	0.40%	0.65%
Consolidated profit	9,653	-7,708	8,116
(-) Net capital gains and provisions	-530	-13,866	-1,710
Underlying consolidated profit	10,183	6,158	9,826
Average total assets	1,563,899	1,537,552	1,508,167
RoRWA	1.69%	-1.33%	1.33%
Consolidated profit	9,653	-7,708	8,116
Average risk-weighted assets	572,136	578,517	609,170
Underlying RoRWA	1.78%	1.06%	1.61%
Consolidated profit	9,653	-7,708	8,116
(-) Net capital gains and provisions	-530	-13,866	-1,710
Underlying consolidated profit	10,183	6,158	9,826
Average risk-weighted assets	572,136	578,517	609,170
RoRAC	14.97%	8.51%	12.91%
Consolidated profit	9,653	-7,708	8,116
(-) Net capital gains and provisions	-530	-13,866	-1,710
Underlying consolidated profit	10,183	6,158	9,826
Average economic capital	68,042	72,389	76,105
Economic value added	3,327	-2,529	3,509
Underlying consolidated profit	10,183	6,158	9,826
(-) Average economic capital x cost of capital	-6,856	-8,687	-6,317
Average economic capital	68,042	72,389	76,105
Cost of capital	10.08 %	12.00 %	8.30 %
Efficiency ratio	46.15%	47.01%	47.04%
Underlying operating expenses	21,415	20,967	23,280
Operating expenses	21,415	21,130	23,280
Net capital gains and provisions impact in operating expenses ^C	—	-163	—
Underlying total income	46,404	44,600	49,494
Total income	46,404	44,279	49,229
Net capital gains and provisions impact in total income ^C	—	321	265

A. Averages included in the RoE, RoTE, RoA and RoRWA denominators are calculated using 13 months (from December to December).

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. Following the adjustments in [note 51.c](#) to the consolidated financial statements.

Efficiency ratio (EUR million and %)

	2021			2020			2019		
	%	Total income	Operating expenses	%	Total income	Operating expenses	%	Total income	Operating expenses
Europe	52.2	15,934	8,319	57.9	14,280	8,274	57.4	15,524	8,911
Spain	52.3	7,748	4,052	58.8	7,208	4,240	58.0	7,854	4,553
United Kingdom	53.8	4,815	2,592	64.4	3,942	2,539	62.8	4,340	2,725
Portugal	42.9	1,313	563	46.3	1,274	590	45.9	1,357	623
Poland	41.0	1,617	663	42.0	1,498	629	40.9	1,695	693
North America	45.8	10,853	4,967	42.7	10,958	4,677	43.3	11,511	4,984
US	43.9	7,277	3,197	42.2	7,296	3,079	43.8	7,525	3,297
Mexico	46.2	3,553	1,643	42.7	3,639	1,552	41.9	3,987	1,671
South America	35.1	15,337	5,380	36.1	14,855	5,357	36.3	18,379	6,673
Brazil	29.7	10,876	3,236	32.6	10,859	3,541	33.1	13,910	4,606
Chile	38.4	2,455	942	39.8	2,262	900	40.6	2,538	1,031
Argentina	58.0	1,388	805	56.2	1,125	632	57.9	1,316	762
Digital Consumer Bank	47.2	5,099	2,405	47.4	4,917	2,329	47.7	4,905	2,339

Underlying RoTE (EUR million and %)

	2021			2020			2019		
	%	Underlying profit attributable to the parent	Average stockholders' equity (excl. minority interests) - intangible assets	%	Underlying profit attributable to the parent	Average stockholders' equity (excl. minority interests) - intangible assets	%	Underlying profit attributable to the parent	Average stockholders' equity (excl. minority interests) - intangible assets
Europe	6.81	2,750	40,347	2.90	1,138	39,192	7.85	3,103	39,535
Spain	3.40	627	18,453	1.38	255	18,333	8.10	1,409	17,390
United Kingdom	11.47	1,537	13,392	2.81	364	12,962	6.36	896	14,094
Portugal	11.39	462	4,054	8.33	323	3,873	12.51	513	4,100
Poland	4.38	140	3,200	4.50	144	3,202	10.74	333	3,103
North America	12.73	2,960	23,250	6.70	1,419	21,179	8.10	1,589	19,611
US	13.21	2,252	17,044	4.37	685	15,682	4.41	661	14,993
Mexico	13.63	816	5,991	14.23	754	5,297	20.44	942	4,607
South America	20.22	3,317	16,405	17.66	2,898	16,411	20.28	3,878	19,122
Brazil	21.44	2,320	10,818	19.12	2,108	11,025	20.96	2,910	13,885
Chile	19.25	636	3,303	13.16	431	3,277	18.05	629	3,485
Argentina	27.15	270	996	25.97	177	681	22.15	143	647
Digital Consumer Bank	12.41	1,164	9,380	9.99	958	9,592	12.98	1,224	9,430

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)	$\frac{\text{Credit impaired loans and advances to customers, customer guarantees and customer commitments granted}}{\text{Total Risk}^A}$	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	$\frac{\text{Total allowances to cover impairment losses on loans and advances to customers, customer guarantees and customer commitments granted}}{\text{Credit impaired loans and advances to customers, customer guarantees and customer commitments granted}}$	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 client defaults both present and future.
Cost of Credit	$\frac{\text{Allowances for loan-loss provisions over the last 12 months}}{\text{Average loans and advances to customers over the last 12 months}}$	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 %)	2021	2020	2019
NPL ratio	3.16%	3.21%	3.32%
Credit impaired loans and advances to customers, customer guarantees and customer commitments granted	33,234	31,767	33,799
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	31,288	30,318	31,826
POCI exposure (Purchased or Originated Credit Impaired) that is currently impaired	358	497	706
Customer guarantees and customer commitments granted classified in stage 3	1,578	941	1,250
Doubtful exposure of loans and advances to customers at fair value through profit or loss	10	11	17
Total risk	1,051,115	989,456	1,016,507
Impaired and non-impaired gross loans and advances to customers	995,646	939,795	964,450
Impaired and non-impaired customer guarantees and customer commitments granted	55,469	49,662	52,057

Credit risk (II) (EUR million and %)	2021	2020	2019
Total coverage ratio	71%	76%	68%
Total allowances to cover impairment losses on loans and advances to customers, customer guarantees and customer commitments granted	23,698	24,272	22,965
Total allowances to cover impairment losses on loans and advances to customers measured at amortised cost and designated at fair value through OCI	22,964	23,577	22,229
Total allowances to cover impairment losses on customer guarantees and customer commitments granted	734	695	736
Credit impaired loans and advances to customers, customer guarantees and customer commitments granted	33,234	31,767	33,799
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 POCL (Purchased or Originated Credit Impaired) that is currently impaired	31,288	30,318	31,826
POCL exposure (Purchased or Originated Credit Impaired) that is currently impaired	358	497	706
Customer guarantees and customer commitments granted classified in stage 3	1,578	941	1,250
Doubtful exposure of loans and advances to customers at fair value through profit or loss	10	11	17
Cost of credit	0.77%	1.28%	1.00%
Underlying allowances for loan-loss provisions over the last 12 months	7,436	12,173	9,321
Allowances for loan-loss provisions over the last 12 months	7,436	12,431	9,321
Net capital gains and provisions impact in allowances for loan-loss provisions	—	-258	—
Average loans and advances to customers over the last 12 months	968,931	952,358	935,488

NPL ratio (EUR million and %)

	2021			2020			2019		
	Credit impaired loans and advances to customers, customer guarantees and customer commitments granted			Credit impaired 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 risk		%	Total risk		%	Total risk	
Europe	3.12	19,822	636,123	3.34	20,272	606,997	3.47	21,054	605,969
Spain	4.72	13,403	283,953	5.16	14,053	272,154	5.78	15,037	260,251
United Kingdom	1.43	3,766	262,869	1.24	3,138	252,255	1.04	2,736	264,297
Portugal	3.44	1,442	41,941	3.89	1,584	40,693	4.83	1,834	37,978
Poland	3.61	1,210	33,497	4.74	1,496	31,578	4.31	1,447	33,566
North America	2.42	3,632	149,792	2.23	2,938	131,626	2.20	3,165	143,839
US	2.33	2,624	112,808	2.04	2,025	99,135	2.20	2,331	105,792
Mexico	2.73	1,009	36,984	2.81	913	32,476	2.19	834	38,047
South America	4.50	6,387	141,874	4.39	5,688	129,590	4.86	6,972	143,427
Brazil	4.88	4,182	85,702	4.59	3,429	74,712	5.32	4,727	88,892
Chile	4.43	1,838	41,479	4.79	2,051	42,826	4.64	1,947	42,000
Argentina	3.61	198	5,481	2.11	93	4,418	3.39	171	5,044
Digital Consumer Bank	2.13	2,490	117,049	2.17	2,525	116,381	2.10	2,470	117,397

Coverage ratio (EUR million and %)

	2021			2020			2019		
	%	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	%	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	49.4	9,800	19,822	50.3	10,199	20,272	43.0	9,048	21,054
Spain	51.4	6,887	13,403	47.5	6,675	14,053	41.2	6,193	15,037
United Kingdom	25.8	971	3,766	44.7	1,403	3,138	33.4	914	2,736
Portugal	71.7	1,033	1,442	66.5	1,053	1,584	52.8	969	1,834
Poland	73.9	895	1,210	70.7	1,058	1,496	66.8	967	1,447
North America	134.9	4,901	3,632	182.6	5,364	2,938	153.0	4,842	3,165
US	150.3	3,943	2,624	210.4	4,261	2,025	161.8	3,773	2,331
Mexico	95.0	958	1,009	120.8	1,103	913	128.3	1,069	834
South America	98.3	6,279	6,387	97.4	5,540	5,688	88.4	6,164	6,972
Brazil	111.2	4,651	4,182	113.2	3,880	3,429	99.8	4,717	4,727
Chile	63.3	1,164	1,838	61.4	1,260	2,051	56.0	1,090	1,947
Argentina	153.8	305	198	275.1	257	93	124.0	212	171
Digital Consumer Bank	107.8	2,684	2,490	113.3	2,862	2,525	108.1	2,670	2,470

Cost of credit (EUR million and %)

	2021			2020			2019		
	%	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	%	Underlying allowances for loan-loss provisions over the last 12 months	Average loans and advances to customers over the last 12 months
Europe	0.39	2,293	591,703	0.58	3,344	579,501	0.24	1,332	555,167
Spain	0.92	2,320	251,155	0.86	2,123	246,455	0.39	904	230,272
United Kingdom	-0.09	-245	258,636	0.27	677	255,038	0.09	223	249,565
Portugal	0.09	38	39,805	0.51	193	37,951	(0.02)	(8)	36,522
Poland	0.67	200	29,777	1.10	330	30,073	0.72	217	30,005
North America	0.93	1,210	130,635	2.92	3,917	134,187	2.76	3,656	132,458
US	0.43	419	97,917	2.86	2,937	102,662	2.85	2,792	97,830
Mexico	2.44	791	32,434	3.03	979	32,287	2.49	863	34,685
South America	2.60	3,251	125,089	3.32	3,924	118,138	2.92	3,789	129,813
Brazil	3.73	2,715	72,808	4.35	3,018	69,421	3.93	3,036	77,298
Chile	0.85	341	40,344	1.50	594	39,534	1.08	443	41,138
Argentina	3.01	140	4,667	5.93	226	3,813	5.09	235	4,622
Digital Consumer Bank	0.46	527	115,156	0.83	957	114,747	0.45	508	111,692

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)	$\frac{\text{Tangible book value}^A}{\text{Number of shares excluding treasury stock}}$	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 / tangible book value per share (X)	$\frac{\text{Share price}}{\text{TNAV per share}}$	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)	$\frac{\text{Net loans and advances to customers}}{\text{Customer deposits}}$	This is an indicator of the bank's liquidity. It measures the total (net) loans and advances to customers as a percentage of customer funds.
Loans and advances (excl. reverse repos)	Gross loans and advances to customers excluding reverse repos	In order to aid analysis of the commercial banking activity, reverse repos are excluded as they are highly volatile treasury products.
Deposits (excl. repos)	Customer deposits excluding 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 WM&I)	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 profits

A. Tangible book value = Stockholders' equity - intangible assets.

Others (EUR million and %)	2021	2020	2019
TNAV (tangible book value) per share^B	4.12	3.79	4.18
Tangible book value	70,346	65,568	72,384
Number of shares excl. treasury stock (million) ^B	17,063	17,312	17,332
Price / tangible book value per share (X)	0.71	0.67	0.86
Share price (euros) ^B	2.941	2.538	3.575
TNAV (tangible book value) per share ^B	4.12	3.79	4.18
Loan-to-deposit ratio	106%	108%	114%
Net loans and advances to customers	972,682	916,199	942,218
Customer deposits	918,344	849,310	824,365
PAT + After tax fees paid to SAN (in WM&I) (Constant EUR million)	2,355	2,061	—
Profit after tax	985	841	—
Net fee income net of tax	1,370	1,220	—

B. 2019 data adjusted for the capital increase in December 2020.

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 the income statement as well as the changes excluding the exchange rate effect, as it considers the latter facilitates analysis, since it enables businesses 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 2021 in [4 'Financial information by segment: 2021 vs 2020'](#) and the average exchange rate for 2020 in [5 'Financial information by segment: 2020 vs 2019'](#). 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 the balance sheet as well as the changes excluding the exchange rate effect for loans and advances to customers excluding reverse repos and customer funds (which comprise deposits and mutual funds) excluding repos. 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 excluding reverse repos and customer funds excluding repos, into our presentation currency, the euro, applying the closing exchange rate on the last working day of 2021 in [4 'Financial information by segment: 2021 vs 2020'](#) and the closing exchange rate on the last working day of 2020 in [5 'Financial information by segment: 2020 vs 2019'](#). 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		
	2021	2020	2019	2021	2020	2019
US dollar	1.182	1.140	1.119	1.133	1.227	1.123
Pound sterling	0.859	0.889	0.877	0.840	0.898	0.851
Brazilian real	6.372	5.814	4.410	6.319	6.373	4.516
Mexican peso	23.980	24.364	21.549	23.152	24.438	21.220
Chilean peso	897.123	902.072	785.558	964.502	871.819	845.673
Argentine peso	112.383	79.555	52.572	116.302	103.159	67.258
Polish zloty	4.564	4.441	4.297	4.597	4.559	4.257

7. Other segment information

7.1 Key risk metrics

The tables below show the results of the key metrics of customer credit risk:

MAIN CREDIT RISK METRICS^A

Data as of 31 December

	Credit risk with customers ^B (EUR million)			Credit impaired loans (EUR million)			NPL ratio (%)		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Europe	636,123	606,997	605,969	19,822	20,272	21,054	3.12	3.34	3.47
Spain	283,953	272,154	260,251	13,403	14,053	15,047	4.72	5.16	5.78
UK	262,869	252,255	264,297	3,766	3,138	2,736	1.43	1.24	1.04
Portugal	41,941	40,693	37,978	1,442	1,584	1,834	3.44	3.89	4.83
Poland	33,497	31,578	33,566	1,210	1,496	1,447	3.61	4.74	4.31
North America	149,792	131,626	143,839	3,632	2,938	3,165	2.42	2.23	2.20
US	112,808	99,135	105,792	2,624	2,025	2,331	2.33	2.04	2.20
Mexico	36,984	32,476	38,047	1,009	913	834	2.73	2.81	2.19
South America	141,874	129,590	143,428	6,387	5,688	6,972	4.50	4.39	4.86
Brazil	85,702	74,712	88,893	4,182	3,429	4,727	4.88	4.59	5.32
Chile	41,479	42,826	42,000	1,838	2,051	1,947	4.43	4.79	4.64
Argentina	5,481	4,418	5,044	198	93	171	3.61	2.11	3.39
Digital Consumer Bank	117,049	116,381	117,399	2,490	2,525	2,470	2.13	2.17	2.10
Corporate Centre	6,277	4,862	5,872	903	344	138	14.38	7.08	2.34
Total Group	1,051,115	989,456	1,016,507	33,234	31,767	33,799	3.16	3.21	3.32

	NPL coverage ratio (%)			Net ASR ^C provisions (EUR million)			Cost of credit (%/risk) ^D		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Europe	49.4	50.3	43.0	2,293	3,344	1,332	0.39	0.58	0.24
Spain	51.4	47.5	41.3	2,320	2,141	902	0.92	0.86	0.39
UK	25.8	44.7	33.4	(245)	677	223	(0.09)	0.27	0.09
Portugal	71.7	66.5	52.8	38	193	(8)	0.09	0.51	(0.02)
Poland	73.9	70.7	66.8	200	330	217	0.67	1.10	0.72
North America	134.9	182.5	153.0	1,210	3,917	3,656	0.93	2.92	2.76
US	150.3	210.4	161.8	419	2,937	2,792	0.43	2.86	2.85
Mexico	95.0	120.8	128.3	791	979	863	2.44	3.03	2.49
South America	98.3	97.4	88.4	3,251	3,924	3,789	2.60	3.32	2.92
Brazil	111.2	113.2	99.8	2,715	3,018	3,036	3.73	4.35	3.93
Chile	63.3	61.4	56.0	341	594	443	0.85	1.50	1.08
Argentina	153.8	275.1	124.0	140	226	235	3.01	5.93	5.09
Digital Consumer Bank	107.8	113.3	108.1	527	957	508	0.46	0.83	0.45
Corporate Centre	3.6	89.0	174.5	155	31	36	2.45	0.54	0.57
Total Group	71.3	76.4	67.9	7,436	12,173	9,321	0.77	1.28	1.00

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 1,383 million).

D. Cost of credit is the ratio of 12-month loan-loss provisions to average lending of the same period.

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 valued at fair value. The portfolio of financial instruments subject to IFRS 9 has three credit risk categories (or stages):

- **Stage 1:** Financial instruments with no significant increase in risk since initial recognition – the impairment provision reflects expected credit losses from defaults over the twelve months from the reporting date.
- **Stage 2:** Financial instruments with a significant credit risk increase since initial recognition but no materialized impairment event – the impairment provision reflects expected losses from defaults over the financial instrument's residual life.
- **Stage 3:** Financial instruments with true signs of impairment as a result of one or more events resulting in a loss – the impairment provision reflects expected losses for credit risk over the instrument's expected residual life.

The following table shows Grupo Santander's credit risk exposure by stages and geography:

EXPOSURE BY STAGE AND GEOGRAPHY^A

EUR million				
	Stage 1	Stage 2	Stage 3	Total
Europe	544,590	41,953	19,822	606,365
Spain	240,187	15,908	13,403	269,498
UK	225,847	18,079	3,766	247,692
Portugal	34,051	6,448	1,442	41,941
Poland	30,642	1,517	1,210	33,369
North America	124,066	13,811	3,632	141,509
US	90,180	12,154	2,624	104,958
Mexico	33,887	1,657	1,009	36,552
South America	126,144	8,269	6,387	140,800
Brazil	75,243	5,258	4,182	84,683
Chile	37,148	2,450	1,838	41,436
Argentina	5,039	244	198	5,481
Digital Consumer Bank	110,605	3,932	2,490	117,027
Corporate Centre	193	2,873	903	3,969
Total Group	905,598	70,838	33,234	1,009,670

A. Excluding EUR 23,799 million from reverse repos. In addition excluding from the total, EUR 17,646 million from balances not subject to impairment accounting.

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

Spain

General overview

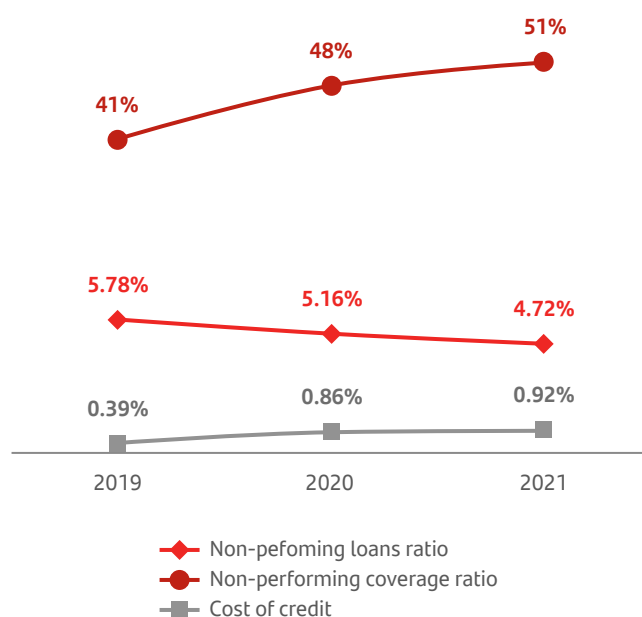
Santander España's credit risk totalled EUR 283,953 million (27% of the Group's total). It is appropriately diversified among products and customer segments.

Amid economic and credit recovery, as macroeconomic figures improved following covid-19 lockdowns in 2020, consumer loans (especially mortgages) grew significantly; but the corporate and SME lending remained below 2020 numbers, while we maintained positions with customers in liquidity support programmes (i.e. ICO lines of credit) without having to seek new financing. Total credit risk increased 4.3% from December 2020. The ICO loans in corporate and SME lending amounted to a significant EUR 27,294 million; around half of them were extended.

The credit portfolio's NPL ratio was 4.72%, 44 bps lower than in December 2020. This better overall portfolio performance was driven by customer support programmes; the regularization of several restructured positions; and portfolio sales.

The additional provisions raised to mitigate the potential impacts from the exceptional circumstances of the covid-19 pandemic, increased the NPL coverage ratio to 51% (+4 pp vs December 2020). The credit impaired portfolio declined mainly from loans with the highest expected losses.

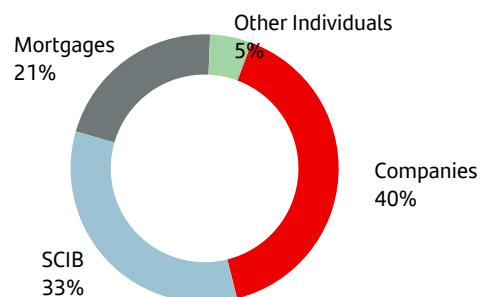
The cost of credit by the end of the year remained closely aligned with December 2020.



Santander España's portfolio is divided into these segments:

PORTFOLIO SEGMENTATION

Dec. 21 data



Corporate and SME financing

Credit risk with SME and corporates in commercial banking, which is Santander España's core lending segment (at 40% of total credit risk) declined 5.2% from December 2020 to EUR 114,937 million, mainly due to a drop in the SME portfolio. Most of the portfolio is customers with an assigned credit analyst to monitor their loans throughout the risk cycle.

The portfolio is highly diversified and not concentrated in any industry. Its NPL ratio stood at 7.48% in December 2021, up 6 bps from December 2020 due to lower volume; meanwhile, credit impaired stock remained flat. 2021 brought stable portfolio figures after significant growth in 2020 due to liquidity support programmes (ICO), which after the initial grace period are now being repaid.

Section 2

Consolidated financial statements for the three years ended 31 December 2021, recast as a result of certain changes in the Group's primary and secondary segments.

Auditor's report and consolidated financial statements



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Auditor's report



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Banco Santander, S.A.:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Banco Santander, S.A. and its subsidiaries (the "Company") as of December 31, 2021, 2020 and 2019, and the related consolidated income statements, statements of recognised income and expense, statements of changes in total equity and statements of cash flows for each of the three years in the period ended December 31, 2021, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting (not presented herein) appearing under Item 15 of the Company's 2021 Annual Report on Form 20-F. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial

reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Estimation of impairment of financial assets at amortised cost – loans and advances to customers

As described in Notes 2, 10 and 53 to the consolidated financial statements, the Company's financial assets at amortised cost – loans and advances to customers – were EUR 947,364 million and its estimation of impairment of financial assets at amortised cost – loans and advances to customers – was EUR 7,388 million, for the year ended December 31, 2021. The Company assesses impairment by estimating the expected credit losses based on the stage in which each financial asset is classified. Management's collective assessment of expected credit losses consider instruments with similar credit risk characteristics that are indicative of debtors'

capacity to pay. The methodology required to estimate the expected credit losses due to credit events is based on an unbiased and weighted consideration by the probability of occurrence of a series of scenarios. The estimation of expected credit losses requires expert judgment and the support of historical, current and future information, including considering updates and adjustments to the models. The probability of loss is measured considering past events, the present situation and future trends of macroeconomic scenarios.

The principal considerations for our determination that performing procedures relating to the estimation of the impairment of financial assets at amortised cost – loans and advances to customers is a critical audit matter are (i) the significant judgment by management in determining the collective assessment of the expected credit losses; (ii) a high degree of auditor judgment, subjectivity and effort in performing procedures relating to the models and assumptions used to determine the expected credit losses; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's expected credit loss estimation process, which included controls over the data, models and assumptions used in the estimation process, including updates and adjustments to the models. These procedures also included, among others, (i) evaluating, on a test basis, models with respect to the estimation and calculation criteria, the models utilized for the estimation of the expected loss parameters, the appropriateness of the methodology used for the generation of the macroeconomic scenarios, the completeness and accuracy of data provided by management, and the reasonableness of management's criteria for significant increase in credit risk and loan classification by stages; (ii) evaluating, on a test basis, the payment behavior presented since the concession of the government guarantees granted as a consequence of the covid-19 crisis; (iii) testing the mathematical accuracy of the impairment calculation for the credit portfolios; (iv) evaluating the reasonableness of the updates and adjustments to the models made by management, if applicable; and (v) evaluating individual credit files to determine the reasonableness of management's classification, discounted cash flows and, where appropriate, corresponding impairment. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the models used by management and evaluating the reasonableness of assumptions used in the impairment estimation for the credit portfolios.

Goodwill Impairment Assessment of Certain Cash Generating Units (CGUs)

As described in Notes 2 and 17 to the consolidated financial statements, the Company's consolidated goodwill balance was EUR 12,713 million at December 31, 2021, which includes the goodwill balance of the Santander Bank Polska and Santander UK CGUs of EUR 1,095 million and EUR 633 million, respectively. Management assesses goodwill for impairment at the end of each annual reporting period or whenever there is any indication of impairment. Potential impairment is identified by management by comparing the value in use of a CGU to its carrying value. Value in use is estimated by management using discounted cash flow projections. Management's cash flow projections for the aforementioned CGUs includes assumptions relating to earnings projections, discount rates

determined as the cost of capital taking into account the risk-free rate of return plus a risk premium and constant growth rates used in order to extrapolate earnings in perpetuity.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the aforementioned CGUs is a critical audit matter are (i) the significant judgment by management when developing the value in use of the CGUs; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to earnings projections, discount rates and constant growth rates; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the aforementioned CGUs. These procedures also included, among others, (i) testing management's process for developing the value in use estimate; (ii) evaluating the appropriateness of the discounted cash flow model; (iii) evaluating the reasonableness of the earnings projections, the discount rate and the constant growth rates assumptions used by management; and (iv) testing the mathematical accuracy of the discounted cash flow projections. Evaluating the reasonableness of management's key assumptions involved (i) performing a retrospective comparison of forecasted earnings to actual past performance and previous forecasts; and (ii) evaluating the consistency of the discount rate and constant growth rate. Professionals with specialized skill and knowledge were used to assist in the evaluation of the appropriateness of management's discounted cash flow model and reasonableness of the earnings projections, discount rate and constant growth rates assumptions.

Provisions for contingent liabilities

As described in Notes 2 and 25 to the consolidated financial statements, the Company's consolidated provisions for contingent liabilities balance as of December 31, 2021 were EUR 3,674 million. The Company records provisions for tax and legal proceedings in which management assesses the chances of loss to be probable. Management determines the amounts to be provided for as the best estimate of the expenditure required to settle the corresponding claim based, among other factors, on a case-by-case analysis of the facts and the legal opinion of internal and external counsel or by considering the historical average amount of the loss incurred in claims of the same nature.

The principal considerations for our determination that performing procedures relating to provisions for contingent liabilities is a critical audit matter are the significant judgment by management to assess the intrinsic uncertainty of the obligations for which management recognizes a provision for these proceedings based on estimates, which in turn led to a high degree of auditor judgement and effort in performing procedures and evaluating management's process for estimating the provision for contingent liabilities.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the assessment of provisions for contingent liabilities. These procedures also included, among others, obtaining and evaluating letters of audit

inquiry with internal and external legal counsel, evaluating the recognition and reasonableness of management's assessment in the identification of potentially omitted liabilities, evaluating management's assessment of possible contingencies relating to compliance with the tax obligations for all the years open to inspection and evaluating the sufficiency of the Company's contingency disclosures.

/s/ PricewaterhouseCoopers Auditores, S.L.

Madrid, Spain

March 1, 2022, except with respect to our opinion on the consolidated financial statements insofar as it relates to the effects of changes in segments discussed in Note 51, as to which the date is April 8, 2022

We have served as the Company's auditor since 2016

Consolidated financial statements



Grupo Santander

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021, 2020 AND 2019

EUR million

ASSETS	Note	2021	2020	2019
CASH, CASH BALANCES AT CENTRAL BANKS AND OTHER DEPOSITS ON DEMAND	20	210,689	153,839	101,067
FINANCIAL ASSETS HELD FOR TRADING		116,953	114,945	108,230
Derivatives	9 and 11	54,292	67,137	63,397
Equity instruments	8	15,077	9,615	12,437
Debt instruments	7	26,750	37,894	32,041
Loans and advances		20,834	299	355
Central banks	6	3,608	—	—
Credit institutions	6	10,397	3	—
Customers	10	6,829	296	355
NON-TRADING FINANCIAL ASSETS MANDATORILY AT FAIR VALUE THROUGH PROFIT OR LOSS		5,536	4,486	4,911
Equity instruments	8	4,042	3,234	3,350
Debt instruments	7	957	700	1,175
Loans and advances		537	552	386
Central banks	6	—	—	—
Credit institutions	6	—	—	—
Customers	10	537	552	386
FINANCIAL ASSETS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS		15,957	48,717	62,069
Debt instruments	7	2,516	2,979	3,186
Loans and advances		13,441	45,738	58,883
Central banks	6	—	9,481	6,473
Credit institutions	6	3,152	12,136	21,649
Customers	10	10,289	24,121	30,761
FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME		108,038	120,953	125,708
Equity instruments	8	2,453	2,783	2,863
Debt instruments	7	97,922	108,903	118,405
Loans and advances		7,663	9,267	4,440
Central banks	6	—	—	—
Credit institutions	6	—	—	—
Customers	10	7,663	9,267	4,440
FINANCIAL ASSETS AT AMORTIZED COST		1,037,898	958,378	995,482
Debt instruments	7	35,708	26,078	29,789
Loans and advances		1,002,190	932,300	965,693
Central banks	6	15,657	12,499	18,474
Credit institutions	6	39,169	37,838	40,943
Customers	10	947,364	881,963	906,276
HEDGING DERIVATIVES	36	4,761	8,325	7,216
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	36	410	1,980	1,702

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021, 2020 AND 2019

EUR million

ASSETS	Note	2021	2020	2019
INVESTMENTS	13	7,525	7,622	8,772
Joint venture entities		1,692	1,492	1,325
Associated entities		5,833	6,130	7,447
ASSETS UNDER INSURANCE OR REINSURANCE CONTRACTS	15	283	261	292
TANGIBLE ASSETS		33,321	32,735	35,235
Property, plant and equipment	16	32,342	31,772	34,262
For own-use		13,259	13,213	15,041
Leased out under an operating lease		19,083	18,559	19,221
Investment properties	16	979	963	973
<i>Of which leased out under an operating lease</i>		839	793	823
INTANGIBLE ASSETS		16,584	15,908	27,687
Goodwill	17	12,713	12,471	24,246
Other intangible assets	18	3,871	3,437	3,441
TAX ASSETS		25,196	24,586	29,585
Current tax assets		5,756	5,340	6,827
Deferred tax assets	27	19,440	19,246	22,758
OTHER ASSETS		8,595	11,070	10,138
Insurance contracts linked to pensions	14	149	174	192
Inventories		6	5	5
Other	19	8,440	10,891	9,941
NON-CURRENT ASSETS HELD FOR SALE	12	4,089	4,445	4,601
TOTAL ASSETS		1,595,835	1,508,250	1,522,695

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated balance sheet as of 31 December 2021.

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021, 2020 AND 2019

EUR million

LIABILITIES	Note	2021	2020	2019
FINANCIAL LIABILITIES HELD FOR TRADING		79,469	81,167	77,139
Derivatives	9 and 11	53,566	64,469	63,016
Short positions	9	12,236	16,698	14,123
Deposits		13,667	—	—
Central banks	20	1,038	—	—
Credit institutions	20	6,488	—	—
Customers	21	6,141	—	—
Marketable debt securities	22	—	—	—
Other financial liabilities	24	—	—	—
FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS		32,733	48,038	60,995
Deposits		27,279	43,598	57,111
Central banks	20	607	2,490	12,854
Credit institutions	20	1,064	6,765	9,340
Customers	21	25,608	34,343	34,917
Marketable debt securities	22	5,454	4,440	3,758
Other financial liabilities	24	—	—	126
<i>Memorandum items: subordinated liabilities</i>	23	—	—	—
FINANCIAL LIABILITIES AT AMORTIZED COST		1,349,169	1,248,188	1,230,745
Deposits		1,078,587	990,391	942,417
Central banks	20	139,757	112,804	62,468
Credit institutions	20	52,235	62,620	90,501
Customers	21	886,595	814,967	789,448
Marketable debt securities	22	240,709	230,829	258,219
Other financial liabilities	24	29,873	26,968	30,109
<i>Memorandum items: subordinated liabilities</i>	23	26,196	21,880	21,062
HEDGING DERIVATIVES	36	5,463	6,869	6,048
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	36	248	286	269
LIABILITIES UNDER INSURANCE OR REINSURANCE CONTRACTS	15	770	910	739
PROVISIONS	25	9,583	10,852	13,987
Pensions and other post-retirement obligations		3,185	3,976	6,358
Other long term employee benefits		1,242	1,751	1,382
Taxes and other legal contingencies		1,996	2,200	3,057
Contingent liabilities and commitments		733	700	739
Other provisions		2,427	2,225	2,451
TAX LIABILITIES		8,649	8,282	9,322
Current tax liabilities		2,187	2,349	2,800
Deferred tax liabilities	27	6,462	5,933	6,522
OTHER LIABILITIES	26	12,698	12,336	12,792
LIABILITIES ASSOCIATED WITH NON-CURRENT ASSETS HELD FOR SALE		—	—	—
TOTAL LIABILITIES		1,498,782	1,416,928	1,412,036

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021, 2020 AND 2019

EUR million

EQUITY	Note	2021	2020	2019
SHAREHOLDERS' EQUITY	30	119,649	114,620	124,239
CAPITAL	31	8,670	8,670	8,309
Called up paid capital		8,670	8,670	8,309
Unpaid capital which has been called up		—	—	—
SHARE PREMIUM	32	47,979	52,013	52,446
EQUITY INSTRUMENTS ISSUED OTHER THAN CAPITAL	34	658	627	598
Equity component of the compound financial instrument		—	—	—
Other equity instruments issued		658	627	598
OTHER EQUITY	34	152	163	146
ACCUMULATED RETAINED EARNINGS	33	60,273	65,583	61,028
REVALUATION RESERVES	33	—	—	—
OTHER RESERVES	33	(4,477)	(3,596)	(3,110)
Reserves or accumulated losses in joint venture investments		1,572	1,504	1,210
Others		(6,049)	(5,100)	(4,320)
(-) OWN SHARES	34	(894)	(69)	(31)
PROFIT OR LOSS ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT		8,124	(8,771)	6,515
(-) INTERIM DIVIDENDS	4	(836)	—	(1,662)
OTHER COMPREHENSIVE INCOME OR LOSS	29	(32,719)	(33,144)	(24,168)
Items that will not be reclassified to profit or loss		(4,241)	(5,328)	(4,288)
Items that may be reclassified to profit or loss		(28,478)	(27,816)	(19,880)
NON-CONTROLLING INTEREST	28	10,123	9,846	10,588
Other comprehensive income or loss		(2,104)	(1,800)	(982)
Other items		12,227	11,646	11,570
TOTAL EQUITY		97,053	91,322	110,659
TOTAL LIABILITIES AND EQUITY		1,595,835	1,508,250	1,522,695
MEMORANDUM ITEMS: OFF BALANCE SHEET AMOUNTS	35			
Loan commitments granted		262,737	241,230	241,179
Financial guarantees granted		10,758	12,377	13,650
Other commitments granted		75,733	64,538	68,895

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated balance sheet as of 31 December 2021.

CONSOLIDATED INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER 2021, 2020 AND 2019

EUR million

		(Debit) Credit		
	Note	2021	2020	2019
Interest income	38	46,463	45,741	56,785
<i>Financial assets at fair value through other comprehensive income</i>		2,582	2,840	3,571
<i>Financial assets at amortized cost</i>		40,471	40,365	48,552
<i>Other interest income</i>		3,410	2,536	4,662
Interest expense	39	(13,093)	(13,747)	(21,502)
Interest income/(charges)		33,370	31,994	35,283
Dividend income	40	513	391	533
Income from companies accounted for using the equity method	13	432	(96)	324
Commission income	41	13,812	13,024	15,349
Commission expense	42	(3,310)	(3,009)	(3,570)
Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net	43	628	1,107	1,136
<i>Financial assets at amortized cost</i>		89	(31)	308
<i>Other financial assets and liabilities</i>		539	1,138	828
Gain or losses on financial assets and liabilities held for trading, net	43	1,141	3,211	1,349
<i>Reclassification of financial assets at fair value through other comprehensive income</i>		—	—	—
<i>Reclassification of financial assets at amortized cost</i>		—	—	—
<i>Other gains (losses)</i>		1,141	3,211	1,349
Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss	43	132	82	292
<i>Reclassification of financial assets at fair value through other comprehensive income</i>		—	—	—
<i>Reclassification of financial assets at amortized cost</i>		—	—	—
<i>Other gains (losses)</i>		132	82	292
Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net	43	270	(171)	(286)
Gain or losses from hedge accounting, net	43	(46)	51	(28)
Exchange differences, net	44	(562)	(2,093)	(932)
Other operating income	45	2,255	1,920	1,797
Other operating expenses	45	(2,442)	(2,342)	(2,138)
Income from assets under insurance and reinsurance contracts	45	1,516	1,452	2,534
Expenses from liabilities under insurance and reinsurance contracts	45	(1,305)	(1,242)	(2,414)
Total income		46,404	44,279	49,229
Administrative expenses		(18,659)	(18,320)	(20,279)
<i>Staff costs</i>	46	(11,216)	(10,783)	(12,141)
<i>Other general administrative expenses</i>	47	(7,443)	(7,537)	(8,138)
Depreciation and amortisation cost	16 and 18	(2,756)	(2,810)	(3,001)
Provisions or reversal of provisions, net	25	(2,814)	(2,378)	(3,490)

CONSOLIDATED INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER 2021, 2020 AND 2019

EUR million

		(Debit) Credit		
	Note	2021	2020	2019
Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes		(7,407)	(12,382)	(9,352)
Financial assets at fair value through other comprehensive income		(19)	(19)	(12)
Financial assets at amortized cost	10	(7,388)	(12,363)	(9,340)
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		(231)	(10,416)	(1,623)
Tangible assets	16	(150)	(174)	(45)
Intangible assets	17 and 18	(71)	(10,242)	(1,564)
Others		(10)	—	(14)
Gain or losses on non-financial assets and investments, net	48	53	114	1,291
Negative goodwill recognized in results		—	8	—
Gains or losses on non-current assets held for sale not classified as discontinued operations	49	(43)	(171)	(232)
Operating profit/(loss) before tax		14,547	(2,076)	12,543
Tax expense or income from continuing operations	27	(4,894)	(5,632)	(4,427)
Profit/(loss) from continuing operations		9,653	(7,708)	8,116
Profit/(loss) after tax from discontinued operations	37	—	—	—
Profit/(loss) for the year		9,653	(7,708)	8,116
Profit/(loss) attributable to non-controlling interests	28	1,529	1,063	1,601
Profit/(loss) attributable to the parent		8,124	(8,771)	6,515
Earnings/(losses) per share				
Basic	4	0.438	(0.538)	0.347
Diluted	4	0.436	(0.538)	0.346

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated income statement for the year ended 31 December 2021.

**CONSOLIDATED STATEMENTS OF RECOGNISED INCOME AND EXPENSE
FOR THE YEARS ENDED 31 DECEMBER 2021, 2020 AND 2019**

EUR million

	Note	2021	2020	2019
CONSOLIDATED PROFIT/(LOSS) FOR THE YEAR		9,653	(7,708)	8,116
OTHER RECOGNISED INCOME AND EXPENSE		(220)	(9,794)	267
Items that will not be reclassified to profit or loss	29	754	(1,018)	(1,351)
Actuarial gains and losses on defined benefit pension plans		1,567	(25)	(1,677)
Non-current assets held for sale		—	—	—
Other recognised income and expense of investments in subsidiaries, joint ventures and associates		(1)	(4)	1
Changes in the fair value of equity instruments measured at fair value through other comprehensive income		(171)	(917)	(29)
Gains or losses resulting from the accounting for hedges of equity instruments measured at fair value through other comprehensive income, net	36	—	—	—
<i>Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedged item)</i>		117	4	44
<i>Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedging instrument)</i>		(117)	(4)	(44)
Changes in the fair value of financial liabilities at fair value through profit or loss attributable to changes in credit risk		(99)	31	(156)
Income tax relating to items that will not be reclassified		(542)	(103)	510
Items that may be reclassified to profit or loss	29	(974)	(8,776)	1,618
Hedges of net investments in foreign operations (effective portion)	36	(1,159)	2,340	(1,151)
<i>Revaluation gains (losses)</i>		(1,159)	2,340	(1,151)
<i>Amounts transferred to income statement</i>		—	—	—
<i>Other reclassifications</i>		—	—	—
Exchanges differences		3,082	(11,040)	1,232
<i>Revaluation gains (losses)</i>		3,082	(11,040)	1,232
<i>Amounts transferred to income statement</i>		—	—	—
<i>Other reclassifications</i>		—	—	—
Cash flow hedges (effective portion)	36	(938)	(53)	8
<i>Revaluation gains (losses)</i>		(1,739)	799	(1,104)
<i>Amounts transferred to income statement</i>		801	(852)	1,112
<i>Transferred to initial carrying amount of hedged items</i>		—	—	—
<i>Other reclassifications</i>		—	—	—
Hedging instruments (items not designated)	36	—	—	—
<i>Revaluation gains (losses)</i>		—	—	—
<i>Amounts transferred to income statement</i>		—	—	—
<i>Other reclassifications</i>		—	—	—
Debt instruments at fair value with changes in other comprehensive income		(3,250)	(100)	2,414
<i>Revaluation gains (losses)</i>	29	(3,063)	692	2,588
<i>Amounts transferred to income statement</i>		(545)	(1,165)	(792)
<i>Other reclassifications</i>		358	373	618
Non-current assets held for sale		—	—	—
<i>Revaluation gains (losses)</i>		—	—	—
<i>Amounts transferred to income statement</i>		—	—	—
<i>Other reclassifications</i>		—	—	—
Share of other recognised income and expense of investments		19	(151)	(15)
Income tax relating to items that may be reclassified to profit or loss		1,272	228	(870)
Total recognised income and expenses for the year		9,433	(17,502)	8,383
Attributable to non-controlling interests		1,255	245	1,911
Attributable to the parent		8,178	(17,747)	6,472

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated statement of recognised income and expense for the year ended 31 December 2021.

CONSOLIDATED STATEMENTS OF CHANGES IN TOTAL EQUITY FOR THE YEARS ENDED 31 DECEMBER 2021, 2020 AND 2019

EUR million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings
Balance at 31 December 2020	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	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	8,670	47,979	658	152	60,273

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated statement of changes in total equity for the year ended 31 December 2021.

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 CHANGES IN TOTAL EQUITY FOR THE YEARS ENDED 31 DECEMBER 2021, 2020 AND 2019

EUR million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings
Balance at 31 December 2019	8,309	52,446	598	146	61,028
Adjustments due to errors	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—
Opening balance at 1 January 2020	8,309	52,446	598	146	61,028
Total recognised income and expense	—	—	—	—	—
Other changes in equity	361	(433)	29	17	4,555
Issuance of ordinary shares	361	(72)	—	—	—
Issuance of preferred shares	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—
Capital reduction	—	—	—	—	—
Dividends	—	(361)	—	—	—
Purchase of equity instruments	—	—	—	—	—
Disposal of equity instruments	—	—	—	—	—
Transfer from equity to liabilities	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—
Transfers between equity items	—	—	—	—	4,555
Increases (decreases) due to business combinations	—	—	—	—	—
Share-based payment	—	—	—	(53)	—
Others increases or (-) decreases in equity	—	—	29	70	—
Balance at 31 December 2020	8,670	52,013	627	163	65,583

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated statement of changes in total equity for the year ended 31 December 2021.

						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
—	(3,110)	(31)	6,515	(1,662)	(24,168)	(982)	11,570	110,659
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	(3,110)	(31)	6,515	(1,662)	(24,168)	(982)	11,570	110,659
—	—	—	(8,771)	—	(8,976)	(818)	1,063	(17,502)
—	(486)	(38)	(6,515)	1,662	—	—	(987)	(1,835)
—	70	—	—	—	—	—	5	364
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	(465)	(826)
—	—	(758)	—	—	—	—	—	(758)
—	1	720	—	—	—	—	—	721
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	298	—	(6,515)	1,662	—	—	—	—
—	—	—	—	—	—	—	(54)	(54)
—	—	—	—	—	—	—	—	(53)
—	(855)	—	—	—	—	—	(473)	(1,229)
—	(3,596)	(69)	(8,771)	—	(33,144)	(1,800)	11,646	91,322

CONSOLIDATED STATEMENTS OF CHANGES IN TOTAL EQUITY FOR THE YEARS ENDED 31 DECEMBER 2021, 2020 AND 2019

EUR million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings
Balance at 31 December 2018	8,118	50,993	565	234	56,756
Adjustments due to errors	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—
Opening balance at 1 January 2019	8,118	50,993	565	234	56,756
Total recognised income and expense	—	—	—	—	—
Other changes in equity	191	1,453	33	(88)	4,272
Issuance of ordinary shares	191	1,453	—	—	—
Issuance of preferred shares	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—
Capital reduction	—	—	—	—	—
Dividends	—	—	—	—	(1,055)
Purchase of equity instruments	—	—	—	—	—
Disposal of equity instruments	—	—	—	—	—
Transfer from equity to liabilities	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—
Transfers between equity items	—	—	—	—	5,327
Increases (decreases) due to business combinations	—	—	—	—	—
Share-based payment	—	—	—	(88)	—
Others increases or (-) decreases in equity	—	—	33	—	—
Balance at 31 December 2019	8,309	52,446	598	146	61,028

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated statement of changes in total equity for the year ended 31 December 2021.

						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
—	(1,583)	(59)	7,810	(2,237)	(24,125)	(1,292)	12,181	107,361
—	—	—	—	—	—	—	—	—
—	(391)	—	—	—	—	—	—	(391)
—	(1,974)	(59)	7,810	(2,237)	(24,125)	(1,292)	12,181	106,970
—	—	—	6,515	—	(43)	310	1,601	8,383
—	(1,136)	28	(7,810)	575	—	—	(2,212)	(4,694)
—	28	—	—	—	—	—	1	1,673
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	(2)	(2)
—	—	—	—	(1,662)	—	—	(895)	(3,612)
—	—	(928)	—	—	—	—	—	(928)
—	(6)	956	—	—	—	—	—	950
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	246	—	(7,810)	2,237	—	—	—	—
—	—	—	—	—	—	—	110	110
—	—	—	—	—	—	—	—	(88)
—	(1,404)	—	—	—	—	—	(1,426)	(2,797)
—	(3,110)	(31)	6,515	(1,662)	(24,168)	(982)	11,570	110,659

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED 2021, 2020 AND 2019

EUR million

	Note	2021	2020	2019
A. CASH FLOWS FROM OPERATING ACTIVITIES		56,691	66,153	3,389
Profit or loss for the year		9,653	(7,708)	8,116
Adjustments made to obtain the cash flows from operating activities		21,363	37,836	23,990
Depreciation and amortisation cost		2,756	2,810	3,001
Other adjustments		18,607	35,026	20,989
Net increase/(decrease) in operating assets		27,258	51,385	64,593
Financial assets held-for-trading		2,064	12,390	15,450
Non-trading financial assets mandatorily at fair value through profit or loss		969	(275)	(6,098)
Financial assets at fair value through profit or loss		(32,746)	(10,314)	4,464
Financial assets at fair value through other comprehensive income		(9,152)	6,549	1,693
Financial assets at amortized cost		73,181	43,541	49,541
Other operating assets		(7,058)	(506)	(457)
Net increase/(decrease) in operating liabilities		56,945	90,356	38,469
Financial liabilities held-for-trading		(1,386)	7,880	6,968
Financial liabilities designated at fair value through profit or loss		(14,316)	(10,907)	(8,858)
Financial liabilities at amortized cost		79,114	96,561	47,622
Other operating liabilities		(6,467)	(3,178)	(7,263)
Income tax recovered/(paid)		(4,012)	(2,946)	(2,593)
B. CASH FLOWS FROM INVESTING ACTIVITIES		(3,715)	(7,220)	(7,229)
Payments		11,669	11,976	14,289
Tangible assets	16	10,015	7,386	12,766
Intangible assets	18	1,388	1,134	1,377
Investments	13	126	525	63
Subsidiaries and other business units		140	2,931	83
Non-current assets held for sale and associated liabilities		—	—	—
Other payments related to investing activities		—	—	—
Proceeds		7,954	4,756	7,060
Tangible assets	16	6,382	2,014	4,091
Intangible assets	18	—	—	—
Investments	13	672	182	686
Subsidiaries and other business units		6	1,775	218
Non-current assets held for sale and associated liabilities	12	894	785	2,065
Other proceeds related to investing activities		—	—	—
C. CASH FLOW FROM FINANCING ACTIVITIES		(1,322)	(1,909)	(10,122)
Payments		7,741	6,978	12,159
Dividends	4	1,313	—	3,773
Subordinated liabilities	23	2,684	3,780	5,123
Redemption of own equity instruments		—	—	—
Acquisition of own equity instruments		1,645	758	928
Other payments related to financing activities		2,099	2,440	2,335
Proceeds		6,419	5,069	2,037
Subordinated liabilities	23	5,340	4,095	1,090
Issuance of own equity instruments		—	—	—
Disposal of own equity instruments		854	721	947
Other proceeds related to financing activities		225	253	—

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED 2021, 2020 AND 2019

EUR million

	Note	2021	2020	2019
D. EFFECT OF FOREIGN EXCHANGE RATE DIFFERENCES		5,196	(4,252)	1,366
E. NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		56,850	52,772	(12,596)
F. CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		153,839	101,067	113,663
G. CASH AND CASH EQUIVALENTS AT END OF THE YEAR		210,689	153,839	101,067
COMPONENTS OF CASH AND CASH EQUIVALENTS AT END OF THE YEAR				
Cash		8,142	7,817	8,764
Cash equivalents at central banks		193,102	137,047	75,353
Other financial assets		9,445	8,975	16,950
Less, bank overdrafts refundable on demand		—	—	—
TOTAL CASH AND CASH EQUIVALENTS AT END OF THE YEAR		210,689	153,839	101,067
<i>In which, restricted cash</i>		—	—	—

The accompanying notes 1 to 54 and appendices are an integral part of the consolidated statement of cash flows for the year ended 31 December 2021.

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 2021

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 2021, Grupo Santander consisted of 721 subsidiaries of Banco Santander, S.A. In addition, other 172 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 2019 were approved by the shareholders at the group's annual general meeting on 3 April 2020. Grupo Santander consolidated financial statements for 2020 were approved by the shareholders at the group's annual general meeting on 26 March 2021. The Group's 2021 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.

During 2021 and 2020, the Bank of Spain published Circulars 6/2021 of 22 December, 2/2020 and 3/2020 of 11 June, 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 2021 were authorised by the Bank's directors (at the board meeting on 24 February 2022) 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 2021, 2020 and 2019 and the consolidated results of its operations and the consolidated cash flows in 2021, 2020 and 2019. These consolidated financial statements were prepared from the accounting records kept by the Bank and by the other Group entities, and include the adjustments and reclassifications required to unify the accounting policies and measurement bases applied by the Group. These consolidated annual accounts have been prepared on the basis of the accounting records held by the Bank 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 consolidated financial statements are also in compliance with IFRS as issued by the International Accounting Standards Board ('IFRS - IASB' and together with IFRS adopted by the European Union, 'IFRS').

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.

Adoption of new standards and interpretations issued

The following modifications came into force and were adopted by the European Union in 2021:

- Amendments to IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and Measurement, IFRS 7 Financial Instruments: Disclosures, IFRS 4 Insurance Contracts and IFRS 16 Leases, on Reference Interest Rates - Phase 2: The amendments allow for the temporary application of certain exceptions to the requirements of (i) assessment of derecognition of financial assets, financial liabilities and lease liabilities in the event of changes in the financial assets, financial liabilities and lease liabilities, and (ii) exemptions from hedge accounting requirements directly affected by the IBOR reform, requiring additional disclosures, (iii) exemptions for lease modifications that allow the liability to be measured using the reformed interest rate curves against the right-of-use. These new exemptions require additional disclosures. The amendments became effective as of 1 January 2021, with the possibility of early application and will cease to be applicable when the uncertainties about the hedged risks, cash flows of the financial instruments affected or the hedging relationship is terminated. In this regard, the Group chose to apply the amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 in the preparation of the financial statements for the year ending 31 December 2020.

The additional breakdowns required by the amendments to IFRS 7 relating to hedging relationships are included in note 36. A description of the Grupo Santander's management of the transition to alternative reference rates, as well as the changes in risk management strategy is included in note 53.

Following is a detail of the carrying amount at 31 December 2021 of financial assets, financial liabilities, derivatives and loan commitments that continue to be referenced to the indices subject to the IBOR Reform:

EUR million

Gross Carrying amount	Loans and advances	Debt securities acquired (Assets)	Deposits	Debt securities issued (Liabilities)	Derivatives (Assets)	Derivatives (Liabilities)	Loan Commitments
Referenced to EONIA	15	68	949	284	101	242	—
Referenced to LIBOR	45,713	4,325	9,358	8,408	11,806	17,551	24,533
of which USD	39,806	2,749	8,634	6,667	8,387	11,163	24,034
of which GBP	2,957	1,570	253	1,700	3,386	4,899	418
TOTAL	45,728	4,393	10,307	8,692	11,907	17,793	24,533

- Covid-19-Related Rent Concessions - Amendments to IFRS 16 Leases: As a result of the covid-19 pandemic, IFRS 16 is amended to allow the lessee to apply a practical alternative and not to consider rental concessions as a modification of the lease agreement when the following requirements are met: the revised consideration is the same or less than the consideration before the change, the affected payments are prior to 30 June 2021, and there are no substantial changes to the remaining lease terms. On 31 March 2021, the IASB published an additional amendment to extend the scope of the practical expedient to 30 June 2022. It is applicable from 1 April 2021.

- Amendment to IFRS 4 Insurance Contracts, which is aimed at extending the expiry date of the temporary exemption from applying IFRS 9 by two years (from 1 January 2021 to 1 January 2023) for entities whose activities are predominantly insurance-related. This achieves alignment with the effective date of IFRS 17 Insurance Contracts (1 January 2023). It is applicable from 1 January 2021.

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 2021:

- Amendment to IFRS 3 Business Combinations: to update the references to the Conceptual Framework for Financial Reporting and add an exception for the recognition of liabilities and contingent liabilities within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets and IFRIC 21 Levies. The amendments also confirm that an acquirer should not recognize contingent assets acquired in a business combination. It will apply from 1 January 2022.
- Amendment to IAS 16 Property, Plant and Equipment: prevents an entity from deducting from the cost of an item of property, plant and equipment any revenue from the sale of finished goods while the entity is preparing the item for its intended use. It is also clear that an entity is "testing whether the asset is functioning properly" when evaluating the technical and physical performance of the asset. The financial performance of the asset should not be taken into account for this evaluation.

Additionally, entities should disclose separately the amounts of income and expenses related to finished goods that are not the product of the entity's ordinary activities. It will apply from 1 January 2022.

- Amendment to IAS 37 Provisions, Contingent Liabilities and Contingent Assets: clarifies that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts. Before recognising a separate provision for an onerous contract, the entity recognises any impairment loss that has occurred on assets used in fulfilling the contract. It will apply from 1 January 2022.
- Amendment to IFRS Cycle (2018-2020): introduces minor amendments, to be applied from 1 January 2022, with early application permitted, to the following standards:
 - IFRS 9 Financial Instruments: clarifies which rates must be included in the 10% test for derecognition of financial liabilities.
 - IFRS 16 Leases: amendment to remove possible confusion regarding the treatment of leasing incentives in the application of IFRS 16 Leases.
 - IFRS 1, in relation to the first-time adoption of International Financial Reporting Standards, allows entities that have measured their assets and liabilities at the carrying amounts recorded in their parent's books to also measure any cumulative translation differences using the amounts reported by the parent. This amendment also applies to associates and joint ventures that have adopted the same exemption from IFRS 1.

- IFRS 17 Insurance Contracts: 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 period in which the service is provided, 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. It will apply from 1 January 2023.

In addition, during 2021, although it is still pending adoption by the European Union a transitional option relating to comparative information presented on financial assets in the initial application of IFRS 17, which is intended to help entities avoid temporary accounting mismatches between the financial assets and liabilities of insurance contracts, has been included during 2021 but is still pending adoption by the European Union. It will apply from 1 January 2023.

Grupo Santander is still analysing the possible effects of this new standard, however, it should be noted that no material impacts on the consolidated financial statements of Grupo Santander have been identified as a result of its application, except for certain balance sheet reclassifications arising from the different treatment that this new standard establishes for the components of an insurance contract.

Finally, at the date of approval of these consolidated annual accounts, the following standards which effectively come into force after 31 December 2021 had not yet been adopted by the European Union:

- 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.

They 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 2023.

- 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. It will be 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. It will be applicable from 1 January 2023.

- The amendments to IAS 12 Income Taxes require companies to 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, and
- 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. It will be applicable from 1 January 2023.

Grupo Santander is currently analysing the possible effects of these new standards and interpretations.

All accounting policies and measurement bases with a material effect on the consolidated financial statements for 2021 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 the Bank 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 53).
- 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 and the income tax expense (see note 27).

- The fair value of the identifiable assets acquired and the liabilities assumed in business combinations (see note 3).

To update the estimates described above, the Group's Management has taken into account the current situation as a result of covid-19, classified as a pandemic by the World Health Organization, which significantly is affecting the economic activity worldwide and, as a result, the Group's operations and financial results, and which generates uncertainty in the Group's estimates. Therefore, the Group's Management has made an assessment of the current situation according to the best information available to date, disclosing in the notes the main estimates made and the potential impacts of covid-19 on them for the period ended 31 December 2021 (see notes 17, 27 and 53).

Although these estimates have been made on the basis of the best information available at the end of the year 2021, 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 2020 and 2019

In July 2016, the IASB published IFRS 16, Leases, which was adopted by the Group in accordance with the standard on 1 January 2019. IFRS 16 establishes the principles for the recognition, measurement, presentation and breakdown of lease contracts, with the objective of ensuring reporting information that faithfully represents the lease transactions.

The adoption of IFRS 16 led to changes in the Group's accounting policies for the recognition, measurement, presentation and breakdown of lease contracts. As a result of its adoption, the impact of the first application recorded by Grupo Santander corresponds, mainly, to the recognition of right-of-use for an amount of EUR 6,693 million, financial liabilities for an amount of EUR 7,084 million and a negative impact on the Group's equity of EUR 391 million. The impact of the first application of IFRS 16 on the ordinary capital ratio (Common Equity Tier 1 - CET 1) was -20 bp.

Secondly, Grupo Santander chose to apply in advance for the financial statements for the year ended 31 December 2019 the amendment to IFRS 9, IAS 39 and IFRS 7 on Reference Interest Rates (IBOR Reform - Phase 1). Grupo Santander applies IAS 39 for hedge accounting, detailed below are the main assumptions or judgments made by Grupo Santander when applying the amendments to that standard.

- For cash flow hedges, the Group has assumed that the cash flows covered (which are based on the benchmark index) are not modified as a result of the aforementioned reform, and therefore continue to comply with the highly probable future transaction requirement.
- To determine the prospective effectiveness of hedges, the Group has assessed that the economic relationship between the hedged item and the hedging instrument continues to exist since the interest rate benchmark on which the hedged item and the hedging instrument are based is not changed as a result of the IBOR reform.

See information regarding Phase 2 of that Reform in section b of this note and in note 53.

Additionally, the segment information corresponding to the year ended 31 December 2020 and 2019 were restated for comparative purposes in accordance with the Group's new organizational structure, as required by IFRS 8 (see note 51).

In addition to the above, the information in note 4.b relating to the shares outstanding in 2019 has been restated due to the capital increase done in 2020 described in note 31.a in accordance with IAS 33 Earnings per Share.

Finally, based on the meeting held on 3 March 2020 by the International Financial Reporting Standards Committee (IFRIC), the Group has changed its accounting policy in relation to the presentation of exchange differences and the effects of hyperinflation of the operations generated in Argentina with retroactive effect (see note 2.a.iv).

In order to interpret the changes in the balances with respect to 31 December 2021, 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 51.b) and the impact of the appreciation/depreciation of the various currencies against the euro in 2021, based on the exchange rates at the end of 2021: Mexican peso (5.55%), US dollar (8.34%), Brazilian real (0.85%), Argentine peso (-11.30%), Sterling pound (6.91%), Chilean peso (-9.61%), and Polish zloty (-0.82%); as well as the evolution of the comparable average rates: Mexican peso (1.60%), US dollar (-3.52%), Brazilian real (-8.75%), Argentine peso (-8.21%), Sterling pound (3.43%), Chilean peso (0.55%) and Polish zloty (-2.70%).

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, better known as CRR, and the Capital Requirements Directive, CRD. In June 2019, these regulations were significantly amended. The applicable regulations are now CRR II and CRD V.

As the Directives need to be transposed into the legal systems of the different Member States in order to be applicable, in the case of Spain, Royal Legislative Decree 7/2021 and Royal Decree 970/2021 were published for this purpose in 2021.

In June 2019, CRR II introduced the minimum TLAC (Total Loss Absorbing Capacity) requirement, which only applies to global systemically important banks (G-SIBs). This requirement introduces two metrics: i) a minimum requirement for own funds and eligible liabilities as a percentage of the Total Risk Exposure Amount (TREA) set at 16% during the transition period and 18% from 1 January 2022 after the end of the transition period; and ii) a metric to set a minimum requirement for own funds and eligible liabilities as a percentage of the Total Risk Exposure Amount of 6% during the transition period and 6.75% from 1 January 2022 after the end of the transition period.

This year saw the implementation of the EBA Guidelines on the Definition of New Default, which were prepared in accordance with CRR II, on 1 January 2021. The changes to CRR II that are applicable from June 2021 include the introduction of a minimum leverage ratio of 3%, the new standardised EAD calculation for counterparty risk, known as SA-CCR, the long-term liquidity ratio (NSFR), the new limits for large exposures and the requirement to report under the standardised approach for market risk.

The CRD V introduces important modifications such as the regulation of Pillar 2G ('guidance', orientation of requirements by Pillar 2).

On 27 October 2021, the European Commission published the draft review of European banking legislation: CRR III and CRD VI.

The banking package consists of the following elements: 1) Implementation of the final Basel III reforms, 2) Contribution to sustainability and green transition and 3) Stronger supervision: ensuring sound management of EU banks and better protection of financial stability.

In general, the Commission proposes to start applying the new rules from 1.1.2025, but the amendments to the regulation that concern resolution issues could come into force in the first months of 2022.

With regard to the resolution rules, 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.

The directive that governs the resolution framework mentioned above is the Bank Recovery and Resolution Directive (BRRD). Like the CRR and the CRD, the BRRD was amended in June 2019, so BRRD II refers to all of these amendments. The transposition of this directive into the Spanish legal system took place in 2021 through a Royal Decree.

BRRDII has introduced important changes to the Minimum Requirement for Own Funds and Eligible Liabilities (MREL). For example, the TLAC requirement is now considered a Pillar 1 resolution requirement for G-SIBs. For large banks (defined as banks with total assets of more than EUR 100 billion) or banks deemed systemically important by the resolution authority, BRRDII sets a minimum subordination requirement of 13.5% of risk-weighted assets or 5% of the leverage ratio, whichever is higher. For all other institutions, the subordination requirement is set by the resolution authority on a case-by-case basis.

Finally, Deposit Guarantee Schemes (DGS) are regulated by Directive 2014/49 or DSGD, which has not undergone any significant changes since its publication in 2014. It aims to harmonise the deposit guarantee schemes of the Member States, thus ensuring stability and balance in the different countries. It creates an appropriate framework for depositors to have better access to DGSs than was the case before the publication of this Directive through clear coverage, shorter repayment periods, better information and robust funding requirements. This Directive is transposed into Spanish law by Law 11/2015, Royal Decree 1012/2015 and Royal Decree 1041/2021.

In 2020, the national governments took measures to address the economic and social impact of the virus population, in particular legislative moratoria that were aimed at containing NPLs and helping the population to meet liquidity needs. Throughout 2020, the EBA adopted a series of guidelines, including the Guidelines on legislative and non-legislative moratoria applied in the context of the Cov19 crisis on 2 April 2020 (EBA/GL/2020/08). These guidelines clarified the requirements for public and private moratoria to avoid classification of exposures affected by moratoria as forbore exposures.

Although these guidelines were initially going to apply to moratoria granted before 30 June 2020, the EBA decided on 2 December 2020 to reactivate the application of these guidelines (EBA/GL/2020/02) for moratoria requested before 31 March 2021 and for a period not exceeding 9 months.

Another measure adopted in 2020 to provide flexibility in meeting the requirements was the approval and entry into force of the CRR "Quick Fix" amending CRR II (urgent and extraordinary amendments to bring about a more flexible regulatory framework in response to COVID-19). The Quick Fix introduces a number of new features, including the extension of the transitional period granted before the pandemic for the entry into force of IFRS 9, due to the sudden and significant increase in expected credit loss provisions to be recognised. The implementation of certain provisions of CRR II has also been delayed, such as those relating to the leverage ratio buffer (postponed until 1 January 2023); the possibility of excluding exposures to central banks from the calculation of the leverage ratio, which should have been applied from June 2021 on, has been brought forward. Other provisions beneficial to institutions have also been brought forward. These include the support factors for SMEs and infrastructure, and the new treatment for software (applicable from the day following the publication date of the Delegated Regulation that implements it).

At 31 December 2021 Grupo Santander met the minimum capital requirements established by current legislation (see note 53d).

ii. Plan for the roll-out of advanced approaches and authorisation from the supervisory authorities

Grupo Santander continues adopting, over the next few years, the advanced internal ratings-based (AIRB) approach under Basel II for substantially all its banks. The commitment assumed before the supervisor still implies the adoption of advanced models within the ten key markets where Santander Group operates.

This objective of covering IRB models in the group should be seen in the context of the current supervisory focus on the robustness and adequacy of existing models, as well as the simplification strategy recently agreed with the ECB.

Grupo Santander has obtained authorisation from the supervisory authorities to use the AIRB approach for the calculation of regulatory capital requirements for credit risk for the Parent and the main subsidiaries in Spain, the United Kingdom and Portugal, as well as for certain portfolios in Germany, Mexico, Brazil, Chile, the Nordic countries (Norway, Sweden and Finland), France and the United States.

As regards the other risks explicitly addressed under Basel Pillar I, the Group is authorised to use its internal model for market risk for its treasury trading activities in Spain, Chile and Mexico.

For the purpose of calculating regulatory capital for operational risk, the Group uses the standardised approach provided for the CRR. In 2017 the European Central Bank authorised the use of the Alternative Standardised Approach to calculate the capital requirements at consolidated level in Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México, in addition to the approval obtained in 2016 in Brazil.

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.

Grupo Santander considers the aspects related to climate change in the preparation of the ratings of its wholesale clients if they are relevant. These ratings influence the subsequent assignment of credit parameters for the calculation of the expected loss' estimate.

With the reasonable and supportable information available at the date of approval of these consolidated annual accounts, the potential additional impacts of expected losses on the time horizons of the Group's portfolios, taking into account as well the mitigation measures, are not considered material.

Grupo Santander, together with the rest of the financial industry, is working on developing the appropriate methodologies to improve the measurement of these losses, when the necessary regulatory developments are more advanced and information is available to carry out a more precise measurement.

See additional information in note 53.a.

g) Events after the reporting period

No significant events occurred from 1 January 2022 to the date on which these consolidated financial statements were authorised for issue, other than those described in these consolidated annual accounts.

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.

At that moment, according with Group's accounting policies, exchange differences arising on the translation to the Group's presentation currency of financial statements denominated in functional currencies other than euro for subsidiaries located in countries with high inflation rates were recorded in the consolidated statement of changes in total 'Equity-Other reserves'.

However, on the basis of the meeting held on 3 March 2020 by the International Financial Reporting Standards Committee (IFRIC), in 2020 Grupo Santander changed its accounting policy with regard to the presentation of exchange differences and the effects of hyperinflation in the operations generated in Argentina, which resulted in a reclassification of EUR -2,136 million at 31 December 2019 for comparability purposes, from the heading "Other reserves" to "Accumulated other comprehensive income", from "Other reserves" to "Accumulated other comprehensive income", corresponding to the accumulated amount of exchange differences related to foreign operations in a hyperinflationary economy and the amount corresponding to the adjustment of the historical cost of the Argentine companies reflecting the changes in the purchasing power of the currency derived from inflation. This change in accounting policy and its consequent restatement between different equity items has no impact on the total equity of Grupo Santander.

In accordance with the provisions of the Argentine Federation of Professional Councils in Economic Sciences (Fcpce), which is the organization that issues the professional accounting standards in said country, the inflation indexes applied are the wholesale internal price index (WPI) until 30 November 2016 and the National Consumer Price Index published by the National Institute of Statistics and Censuses (Indec) from 1 December 2016 on. Inflation during 2021 was 50.9% for the year (36.1% at 31 December 2020). The exchange rate at 31 December 2021 has been of Argentine pesos 116.30 per euro (Argentine pesos 103.16 Argentine pesos per euro at 31 December 2020).

The net impact on Other Comprehensive Income in 2021 of the effects derived from the exchange differences arising on the translation to the Group's presentation currency of financial statements of the subsidiaries located in Argentina and the application of IAS 29 was a profit of EUR 177 million (loss of EUR 202 million in 2020).

At 31 December 2020, 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 $\pm 1\%$ 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 of a 1% appreciation of the euro against the corresponding currency is as follows:

EUR million

Currency	Effect on consolidated equity			Effect on consolidated profit		
	2021	2020	2019	2021	2020	2019
US dollar	(133.3)	(123.6)	(161.3)	(8.6)	(4.1)	(3.5)
Chilean peso	(11.4)	(20.4)	(21.8)	(2.4)	(4.4)	(2.3)
Pound sterling	(105.9)	(107.9)	(189.2)	(2.3)	(1.2)	(3.9)
Mexican peso	(23.1)	(21.7)	(22.6)	(0.9)	(2.0)	(3.3)
Brazilian real	(80.8)	(75.0)	(71.6)	(15.4)	(12.6)	(10.4)
Polish zloty	(27.5)	(26.7)	(38.3)	(1.1)	(2.2)	(1.2)
Argentine peso	(10.7)	(7.9)	(6.9)	(2.5)	(1.8)	(1.2)

Similarly, the estimated effect on the Group's consolidated equity and on consolidated profit of a 1% depreciation of the euro against the corresponding currency is as follows:

EUR million

Currency	Effect on consolidated equity			Effect on consolidated profit		
	2021	2020	2019	2021	2020	2019
US dollar	136.0	126.1	164.6	8.8	4.2	3.5
Chilean peso	11.6	20.8	22.2	2.4	4.5	2.4
Pound sterling	108.0	110.1	193.0	2.3	1.2	4.0
Mexican peso	23.6	22.1	23.1	0.9	2.0	3.4
Brazilian real	82.4	76.5	73.1	15.7	12.8	10.6
Polish zloty	28.0	27.2	39.0	1.1	2.2	1.2
Argentine peso	11.0	8.0	7.0	2.6	1.8	1.3

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 2021, 2020 and 2019.

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 2021 Grupo Santander controls a company in which it holds an ownership interest of less than 50% of the share capital, Luri 1, S.A., in liquidation, apart from the structured consolidated entities. The percentage ownership interest in the aforementioned company is 46% (see appendix I). Although Grupo Santander holds less than half the voting power, it manages and, as a result, exercises control over this entity. The company's corporate purpose for the entity is the acquisition of real estate and other general operations relating thereto, including rental, and the purchase and sale of properties; the company object of the latter entity is the provision of payment services. The impact of the consolidation of this company on the Group's consolidated financial statements is immaterial.

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, 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 an associate are eliminated to the extent of the Group's interest in the associate.

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 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

When 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 (also called structured entities since the voting or similar power is not a key factor in deciding who controls the entity), the Group determines, using internal criteria and procedures and taking into consideration the applicable legislation, when control (as defined above) exists and, therefore, whether these entities should be consolidated. 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 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.

vii. Acquisitions and sales

Note 3 provides information on the most significant acquisitions and sales in the last three years.

c) Definitions and classification of financial instruments

i. Definitions

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.

An equity instrument is a contract that evidences a residual interest in the assets of the issuing entity after deducting all of its liabilities.

A financial derivative is a financial instrument whose value changes in response to the change in an observable market variable (such as an interest rate, foreign exchange rate, financial instrument price, market index or credit rating), whose initial investment is very small compared with other financial instruments with a similar response to changes in market factors, and which is generally settled at a future date.

Hybrid financial instruments are contracts that simultaneously include a non-derivative host contract together with a derivative, known as an embedded derivative, that is not separately transferable and has the effect that some of the cash flows of the hybrid contract vary in a way similar to a stand-alone derivative.

Compound financial instruments are contracts that simultaneously create for their issuer a financial liability and an own equity instrument (such as convertible bonds, which entitle their holders to convert them into equity instruments of the issuer).

The preference shares contingently convertible into ordinary shares eligible as Additional Tier 1 capital (CCPSs) -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 (CPPS), 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. 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).

ii. 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 management 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 and volume of sales in previous years, as well as expectations of future 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 2%.
- The contractual clauses that may modify the cash flows of the financial asset, for which the structure of the cash flows before and after the activation of such clauses is analysed.
- 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 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.

iii. 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 instruments: 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.
- 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.

iv. 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.

Liabilities may only be included in this portfolio at the date of issue or origination.

- 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.

v. 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.

On 6 June 2019, the European Central Bank announced a new program of targeted longer-term refinancing operations (TLTRO III); additionally, the conditions of the initial program were successively modified in the months of March and April 2020, reducing the interest rate by 25 bps to -0.5% from June 2020 to June 2021 and providing that, for banks meeting a certain volume of eligible loans, the interest rate could be -1% for that period. These conditions were extended on December 10, 2020 for the period from June 2021 to June 2022, including the option to cancel or reduce the amount of financing before maturity in windows coinciding with the interest rate review and adjustment periods.

The accounting standards indicate that for the recording of amortized cost the entity 'shall use a shorter period when the fees, basis points paid or received, transaction costs, premiums or discounts relate to it, this being the case when the variable to which the fees, basis points paid or received, transaction costs, and discounts or premiums relate is adjusted to market rates prior to the expected maturity of the financial instrument. In this case, the appropriate amortization period is the period until the next adjustment date'.

In this case, the applicable interest rate of -1% from June 2020 to June 2021 and from June 2021 to June 2022 corresponds to a specific period after which the funding is adjusted to market rates (specifically, the average rate applied in the Eurosystem's main refinancing operations) and must therefore be accrued until the next adjustment date. The early repayment windows of this funding program are substantive terms, given that at that time of adjustment of the funding cost to market, the entity may opt for renewal or cancellation and obtain new funding at more favorable terms.

Grupo Santander has opted to accrue interest in accordance with the specific periods of adjustment to market rates, so that the interest corresponding to that period (-1%) will be recorded in the income statement from June 2020 to June 2022, assuming compliance with the threshold of eligible loans that gives rise to the extra rate.

Compliance with the qualifying loan thresholds is assessed at each reporting date and is based on the financial budgets approved by the Group's directors, as well as on the evolution of macroeconomic variables (GDP, unemployment rate, inflation, etc.). If, subsequent to the initial recording of the financial liability, there is a change in the expectations of meeting this threshold of eligible loans, the Group would adjust the carrying amount of the financial liability to the amount resulting from discounting the new estimated flows at the original Effective Interest Rate (EIR), recognizing this difference in profit or loss, without modifying the original EIR.

At the end of both periods, the Group has met the financing objective established in the program, although the data relating to the second reference period (October 2020 to December 2021), will not be sent until next May, after validation by the external auditor, as established in the program conditions.

- 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 that started to be recorded in 2019 as a result of the application of IFRS 16), and liabilities under financial guarantee contracts, unless they have been classified as non-performing.
- 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.

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 2021, 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 recognised in 'Gains/losses on financial assets and liabilities held for trading (net)' 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 following table summarises the fair values, at the end of each of the years indicated, of the financial assets and liabilities listed below, classified according to the different valuation methodologies used by the Group to determine their fair value:

EUR million									
	2021			2020			2019		
	Published price quotations in active markets (level 1)	Internal Models (level 2 and 3)	Total	Published price quotations in active markets (level 1)	Internal Models (level 2 and 3)	Total	Published price quotations in active markets (level 1)	Internal Models (level 2 and 3)	Total
Financial assets held for trading	39,678	77,275	116,953	46,379	68,566	114,945	44,581	63,649	108,230
Non-trading financial assets mandatorily at fair value through profit or loss	2,398	3,138	5,536	1,756	2,730	4,486	1,530	3,381	4,911
Financial assets designated at fair value through profit or loss	2,113	13,844	15,957	2,509	46,208	48,717	2,572	59,497	62,069
Financial assets at fair value through other comprehensive income	77,749	30,289	108,038	91,771	29,182	120,953	103,089	22,619	125,708
Hedging derivatives (assets)	—	4,761	4,761	—	8,325	8,325	—	7,216	7,216
Financial liabilities held for trading	10,379	69,090	79,469	9,863	71,304	81,167	9,781	67,358	77,139
Financial liabilities designated at fair value through profit or loss	3,620	29,113	32,733	2,118	45,920	48,038	1,484	59,511	60,995
Hedging derivatives (liabilities)	—	5,463	5,463	—	6,869	6,869	—	6,048	6,048
Liabilities under insurance or reinsurance contracts	—	770	770	—	910	910	—	739	739

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. 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.

Grupo Santander has developed a formal process for the systematic valuation and management of financial instruments, which has been implemented worldwide across all the Group's units. The governance scheme for this process distributes responsibilities between two independent divisions: Treasury (development, marketing and daily management of financial products and market data) and Risk (on a periodic basis, validation of pricing models and market data, computation of risk metrics, new transaction approval policies, management of market risk and implementation of fair value adjustment policies).

The approval of new products follows a sequence of steps (request, development, validation, integration in corporate systems and quality assurance) before the product is brought into production. This process ensures that pricing systems have been properly reviewed and are stable before they are used.

The following subsections set forth the most important products and families of derivatives, and the related valuation techniques and inputs, by asset class:

Fixed income and inflation

The fixed income asset class includes basic instruments such as interest rate forwards, interest rate swaps and cross currency swaps, which are valued using the net present value of the estimated future cash flows discounted taking into account basis swap and cross currency spreads determined on the basis of the payment frequency and currency of each leg of the derivative. Vanilla options, including caps, floors and swaptions, are priced using the Black-Scholes model, which is one of the benchmark industry models. More exotic derivatives are priced using more complex models which are generally accepted as standard across institutions.

These pricing models are fed with observable market data such as deposit interest rates, futures rates, cross currency swap and constant maturity swap rates, and basis spreads, on the basis of which different yield curves, depending on the payment frequency, and discounting curves are calculated for each currency. In the case of options, implied volatilities are also used as model inputs. These volatilities are observable in the market for cap and floor options and swaptions, and interpolation and extrapolation of volatilities from the quoted ranges are carried out using generally accepted industry models. The pricing of more exotic derivatives may require the use of non-observable data or parameters, such as correlation (among interest rates and cross-asset), mean reversion rates and prepayment rates, which are usually defined from historical data or through calibration.

Inflation-related assets include zero-coupon or year-on-year inflation-linked bonds and swaps, valued with the present value method using forward estimation and discounting. Derivatives on inflation indices are priced using standard or more complex bespoke models, as appropriate. Valuation inputs of these models consider inflation-linked swap spreads observable in the market and estimations of inflation seasonality, on the basis of which a forward inflation curve is calculated. Also, implied volatilities taken from zero-coupon and year-on-year inflation options are also inputs for the pricing of more complex derivatives.

Equity and foreign exchange

The most important products in these asset classes are forward and futures contracts; they also include vanilla, listed and OTC (Over-The-Counter) derivatives on single underlying assets and baskets of assets. Vanilla options are priced using the standard Black-Scholes model and more exotic derivatives involving forward returns, average performance, or digital, barrier or callable features are priced using generally accepted industry models or bespoke models, as appropriate. For derivatives on illiquid stocks, hedging takes into account the liquidity constraints in models.

The inputs of equity models consider yield curves, spot prices, dividends, asset funding costs (repo margin spreads), implied volatilities, correlation among equity stocks and indices, and cross-asset correlation. Implied volatilities are obtained from market quotes of European and American-style vanilla call and put options. Various interpolation and extrapolation techniques are used to obtain continuous volatility for illiquid stocks. Dividends are usually estimated for the mid and long term. Correlations are implied, when possible, from market quotes of correlation-dependent products. In all other cases, proxies are used for correlations between benchmark underlyings or correlations are obtained from historical data.

The inputs of foreign exchange models include the yield curve for each currency, the spot foreign exchange rate, the implied volatilities and the correlation among assets of this class. Volatilities are obtained from European call and put options which are quoted in markets as of-the-money, risk reversal or butterfly options. Illiquid currency pairs are usually handled by using the data of the liquid pairs from which the illiquid currency can be derived. For more exotic products, unobservable model parameters may be estimated by fitting to reference prices provided by other non-quoted market sources.

Credit

The most common instrument in this asset class is the credit default swap (CDS), which is used to hedge credit exposure to third parties. In addition, models for first-to-default (FTD), n-to-default (NTD) and single-tranche collateralised debt obligation (CDO) products are also available. These products are valued with standard industry models, which estimate the probability of default of a single issuer (for CDS) or the joint probability of default of more than one issuer for FTD, NTD and CDO.

Valuation inputs are the yield curve, the CDS spread curve and the recovery rate. For indices and important individual issuers, the CDS spread curve is obtained in the market. For less liquid issuers, this spread curve is estimated using proxies or other credit-dependent instruments. Recovery rates are usually set to standard values. For listed single-tranche CDO, the correlation of joint default of several issuers is implied from the market. For FTD, NTD and bespoke CDO, the correlation is estimated from proxies or historical data when no other option is available.

Valuation adjustment for counterparty risk or default risk

The Credit valuation adjustment (CVA) is a valuation adjustment to over the counter (OTC) derivatives as a result of the risk associated with the credit exposure assumed to each counterparty.

The CVA is calculated taking into account potential exposure to each counterparty in each future period. The CVA for a specific counterparty is equal to the sum of the CVA for all the periods. The following inputs are used to calculate the CVA:

- Expected exposure: including for each transaction the mark-to-market (MtM) value plus an add-on for the potential future exposure for each period. Mitigating factors such as collateral and netting agreements are taken into account, as well as a temporary impairment factor for derivatives with interim payments.
- Severity: percentage of final loss assumed in a counterparty credit event/default.
- Probability of default: for cases where there is no market information (the CDS quoted spread curve, etc.), proxies based on companies holding exchange-listed CDS, in the same industry and with the same external rating as the counterparty, are used.
- Discount factor curve.

The Debit Valuation Adjustment (DVA) is a valuation adjustment similar to the CVA but, in this case, it arises as a result of the Group's own risk assumed by its counterparties in OTC derivatives.

The CVA at 31 December 2021 amounted to EUR 237 million (resulting in a decrease of 41.9% compared to 31 December 2020) and DVA amounted to EUR 162 million (resulting in a decrease of 30.4% compared to 31 December 2020). These impacts are mainly due to the continuous improvement in credit markets, the creation of particular credit curves for certain counterparties and the introduction of methodological improvements in the calculation of exposures.

The CVA at 31 December 2020 amounted to EUR 408 million (resulting in an increase of 49.8% compared to 31 December 2019) and DVA amounted to EUR 233 million (resulting in an increase of 36.0% compared to 31 December 2019). These impacts were due to the fact that credit spread levels were at levels above 25% compared to 2019 due to the covid-19 pandemic.

The CVA at 31 December 2019 amounted to EUR 272 million (decrease of 22.5% compared to 31 December 2018) and DVA amounted EUR 171 million (decrease of 34.6% compared to 31 December 2018). The decrease was mainly due to improvements in the credit quality of counterparties, which led to reductions in credit spreads in percentages of around 40% in the most liquid maturities.

In addition, the Group amounts the funding fair value adjustment (FFVA) is calculated by applying future market funding spreads to the expected future funding exposure of any uncollateralised component of the OTC derivative portfolio. This includes the uncollateralised component of collateralised derivatives in addition to derivatives that are fully uncollateralised. The expected future funding exposure is calculated by a simulation methodology, where available. The FFVA impact is not material for the consolidated financial statements as of 31 December 2021, 2020 and 2019.

Grupo Santander has not carried out significant reclassifications of financial instruments between levels other than those disclosed in level 3 movement table during 2021 continuing the trend observed in 2020. The main variations over the last few years in the Level 3 volume have been due to purchases/sales of these instruments. There have been no significant variations in the market observability conditions, nor relevant changes in the criteria used for the classification of instruments within the fair value hierarchy.

In 2019, the Group reclassified between levels 2 and 3 financial instruments for a net amount of EUR 708 million (mainly due to reclassifications to level 2 of positions, both derivatives as debt instruments, with maturities for that there were already observable assessment inputs or on which new sources of information have been recurring prices, and at level 3 certain bonds in Brazil that, based on the criteria of observability of the Group, did not meet the requirements to be considered as observable inputs).

Valuation adjustments due to model risk

The valuation models described above do not involve a significant level of subjectivity, since they can be adjusted and recalibrated, where appropriate, through internal calculation of the fair value and subsequent comparison with the related actively traded price. However, valuation adjustments may be necessary when market quoted prices are not available for comparison purposes.

The sources of risk are associated with uncertain model parameters, illiquid underlying issuers, and poor quality market data or missing risk factors (sometimes the best available option is to use limited models with controllable risk). In these situations, the Group calculates and applies valuation adjustments in accordance with common industry practice. The main sources of model risk are described below:

- The currency markets are exposed to model risk resulting from forward skew modelling and the impact of stochastic interest rate and correlation modelling for multi-asset instruments. Risk may also arise from market data, due to the existence of specific illiquid foreign exchange pairs.
- The most important source of model risk for credit derivatives relates to the estimation of the correlation between the probabilities of default of different underlying issuers. For illiquid underlying issuers, the CDS spread may not be well defined.
- In the fixed income markets, the sources of model risk include bond index correlations, basis spread modelling, the risk of calibrating model parameters and the treatment of near-zero or negative interest rates. Other sources of risk arise from the estimation of market data, such as volatilities or yield curves, whether used for estimation or cash flow discounting purposes.
- In the stock markets, the sources of model risk include forward skew modelling, the impact of stochastic interest rates, correlation and multi-curve modelling. Other sources of risk arise from managing hedges of digital callable and barrier option payments. Also worthy of consideration as sources of risk are the estimation of market data such as dividends and correlation for quanto and composite basket options.
- For specific financial instruments relating to home mortgage loans secured by financial institutions in the UK (which are regulated and partially financed by the Government) and property asset derivatives, the main input is the Halifax House Price Index (HPI). In these cases, risk assumptions include estimations of the future growth and the volatility of the HPI, the mortality rate and the implied credit spreads.
- Inflation markets are exposed to model risk resulting from uncertainty around modelling the correlation structure among various Consumer Price Index (CPI) rates. Another source of risk may arise from the bid-offer spread of inflation-linked swaps.

Set forth below are the financial instruments at fair value whose measurement was based on internal models (levels 2 and 3) at 31 December 2021, 2020 and 2019:

EUR million

	Fair values calculated using internal models at 2021*		Valuation techniques	Main assumptions
	Level 2	Level 3		
ASSETS	121,640	7,667		
Financial assets held for trading	76,738	537		
Central banks**	3,608	—	Present value method	Yield curves, FX market prices
Credit institutions**	10,397	—	Present value method	Yield curves, FX market prices
Customers**	6,829	—	Present value method	Yield curves, FX market prices
Debt and equity instruments	2,312	24	Present value method	Yield curves, FX market prices
Derivatives	53,592	513		
<i>Swaps</i>	43,700	224	Present value method, Gaussian Copula	Yield curves, FX market prices, HPI, Basis, Liquidity
<i>Exchange rate options</i>	539	12	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
<i>Interest rate options</i>	2,112	182	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
<i>Interest rate futures</i>	409	—	Present value method	Yield curves, FX market prices
<i>Index and securities options</i>	439	41	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Liquidity
<i>Other</i>	6,393	54	Present value method, Advanced stochastic volatility models and other	Yield curves, Volatility surfaces, FX and EQ market prices, Dividends, Correlation, HPI, Credit, Others
Hedging derivatives	4,761	—		
<i>Swaps</i>	4,204	—	Present value method	Yield curves, FX market prices, Basis
<i>Interest rate options</i>	9	—	Black's Model	Yield curves, FX market prices, Volatility surfaces
<i>Other</i>	548	—	Present value method, Advanced stochastic volatility models and other	Yield curves, Volatility surfaces, FX market prices, Credit, Liquidity, Others
Non-trading financial assets mandatorily at fair value through profit or loss	1,273	1,865		
Equity instruments	415	1,231	Present value method	Market price, Interest rates curves, Dividends and Others
Debt instruments	589	366	Present value method	Yield curves
Loans and receivables	269	268	Present value method, swap asset model & CDS	Yield curves and Credit curves
Financial assets designated at fair value through profit or loss	13,426	418		
Credit institutions	3,152	—	Present value method	Yield curves, FX market prices
Customers***	10,270	18	Present value method	Yield curves, FX market prices, HPI
Debt instruments	4	400	Present value method	Yield curves, FX market prices
Financial assets at fair value through other comprehensive income	25,442	4,847		
Equity instruments	74	821	Present value method	Market price, Yield curves, Dividends and Others
Debt instruments	21,585	146	Present value method	Yield curves, FX market prices
Loans and receivables	3,783	3,880	Present value method	Yield curves, FX market prices and Credit curves

EUR million

	Fair values calculated using internal models at 2021*		Valuation techniques	Main assumptions
	Level 2	Level 3		
LIABILITIES	103,807	629		
Financial liabilities held for trading	68,930	160		
Central banks**	1,038	—	Present value method	Market price, Yield curves, Dividends and Others
Credit institutions**	6,488	—	Present value method	Yield curves, FX market prices
Customers	6,141	—	Present value method	Yield curves, FX market prices and Credit curves
Derivatives	53,234	160		
<i>Swaps</i>	42,438	44	Present value method, Gaussian Copula	Yield curves, FX market prices, Basis, Liquidity, HPI
<i>Exchange rate options</i>	658	7	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
<i>Index and securities options</i>	446	67	Black-Scholes Model	Yield curves, FX market prices
<i>Interest rate options</i>	2,720	26	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
<i>Futures on interest rate and variable income</i>	184	—	Present value method	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI
<i>Other</i>	6,788	16	Present value method, Advanced stochastic volatility models	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI, Credit, Others
Short positions	2,029	—	Present value method	Yield curves, FX & EQ market prices, Equity
Hedging derivatives	5,463	—		
<i>Swaps</i>	4,149	—	Present value method	Yield curves, FX & EQ market prices, Basis
<i>Other</i>	1,314	—	Present value method, Advanced stochastic volatility models and other	Yield curves, Volatility surfaces, FX market prices, Credit, Liquidity, Other
Financial liabilities designated at fair value through profit or loss	28,644	469	Present value method	Yield curves, FX market prices
Liabilities under insurance contracts	770	—	Present Value Method with actuarial techniques	Mortality tables and interest rate curves

* Level 2 internal models use data based on observable market parameters, while level 3 internal models use significant non-observable inputs in market data.

** Includes mainly short-term loans and reverse repurchase agreements with corporate customers (mainly brokerage and investment companies).

*** Includes, mainly, structured loans to corporate clients.

EUR million

	Fair values calculated using internal models at 2020*		Fair values calculated using internal models at 2019*		Valuation techniques
	Level 2	Level 3	Level 2	Level 3	
ASSETS	146,468	8,543	149,711	6,651	
Financial assets held for trading	67,826	740	63,051	598	
Credit institutions	3	—	—	—	Present Value method
Customers**	296	—	355	—	Present Value method
Debt and equity instruments	1,453	10	760	65	Present Value method
Derivatives	66,074	730	61,936	533	
<i>Swaps</i>	54,488	272	51,594	182	Present Value method, Gaussian Copula
<i>Exchange rate options</i>	696	22	469	8	Black-Scholes Model
<i>Interest rate options</i>	3,129	241	3,073	177	Black's Model, advanced multifactor interest rate models
<i>Interest rate futures</i>	1,069	—	190	—	Present Value method
<i>Index and securities options</i>	554	94	1,164	95	Black's Model, advanced multifactor interest rate models
<i>Other</i>	6,138	101	5,446	71	Present Value method, Advanced stochastic volatility models and other
Hedging derivatives	8,325	—	7,216	—	
<i>Swaps</i>	6,998	—	6,485	—	Present Value method
<i>Interest rate options</i>	25	—	25	—	Black's Model
<i>Other</i>	1,302	—	706	—	Present Value method, Advanced stochastic volatility models and other
Non-trading financial assets mandatorily at fair value through profit or loss	1,796	934	1,780	1,601	
<i>Equity instruments</i>	984	505	1,272	550	Present Value method
<i>Debt securities issued</i>	555	134	498	675	Present Value method
<i>Loans and receivables</i>	257	295	10	376	Present Value method, swap asset model & CDS
Financial assets designated at fair value through profit or loss	45,559	649	58,833	664	
Central banks	9,481	—	6,474	—	Present Value method
Credit institutions	11,973	163	21,598	50	Present Value method
Customers	24,102	19	30,729	32	Present Value method
Debt instruments	3	467	32	582	Present Value method
Equity instruments	—	—	—	—	Present Value method
Financial assets at fair value through other comprehensive income	22,962	6,220	18,831	3,788	
Equity instruments	75	1,223	98	407	Present Value method
Debt instruments	18,410	206	17,486	188	Present Value method
Loans and receivables	4,477	4,791	1,247	3,193	Present Value method

EUR million

	Fair values calculated using internal models at		Fair values calculated using internal models at		Valuation techniques
	2020*		2019*		
	Level 2	Level 3	Level 2	Level 3	
LIABILITIES	124,098	905	132,582	1,074	
Financial liabilities held for trading	71,009	295	67,068	290	
Derivatives	63,920	295	61,789	290	
Swaps	51,584	81	49,927	115	Present Value method, Gaussian Copula***
Interest rate options	4,226	49	4,291	34	Black's Model, advanced multifactor interest rate models
Exchange rate options	724	1	658	1	Black-Scholes Model
Index and securities options	456	97	1,309	88	Black-Scholes Model
Interest rate and equity futures	1,054	2	20	2	Present Value method
Other	5,876	65	5,584	50	Present Value method, Advanced stochastic volatility models and other
Short positions	7,089	—	5,279	—	Present Value method
Hedging derivatives	6,869	—	6,048	—	
Swaps	5,821	—	4,737	0	Present Value method
Interest rate options	13	—	10	—	Black's Model
Other	1,035	—	1,301	—	Present Value method, Advanced stochastic volatility models and other
Financial liabilities designated at fair value through profit or loss	45,310	610	58,727	784	Present Value method
Liabilities under insurance contracts	910	—	739	—	Present Value method with actuarial techniques

* Level 2 internal models use data based on observable market parameters, while level 3 internal models use significant non-observable inputs in market data.

** Includes mainly short-term loans and reverse repurchase agreements with corporate customers (mainly brokerage and investment companies).

Financial Instruments (level 3)

Set forth below are the Group's main financial instruments measured using unobservable market data as significant inputs of the internal models (level 3):

- HTC&S (Hold to collect and sale) syndicated loans classified in the fair value category with changes in other comprehensive income, where the cost of liquidity is not directly observable in the market, as well as the prepayment option in favour of the borrower.
- Illiquid equity in non-trading portfolios, classified at fair value through profit or loss and at fair value through equity.
- Instruments in Santander UK's portfolio (loans, debt instruments and derivatives) linked to the House Price Index (HPI). Even if the valuation techniques used for these instruments may be the same as those used to value similar products (present value in the case of loans and debt instruments, and the Black-Scholes model for derivatives), the main factors used in the valuation of these instruments are the HPI spot rate, the growth and volatility thereof, and the mortality rates, which are not always observable in the market and, accordingly, these instruments are considered illiquid.
- Callable interest rate derivatives (Bermudan-style options) where the main unobservable input is mean reversion of interest rates.
- Trading derivatives on interest rates, taking as an underlying asset titling and with the amortization rate (CPR, Conditional prepayment rate) as unobservable main entry.
- Derivatives from trading on inflation in Spain, where volatility is not observable in the market.
- Equity volatility derivatives, specifically indices and equities, where volatility is not observable in the long term.
- Derivatives on long-term interest rate and FX in some units (mainly South America) where for certain underlyings it is not possible to demonstrate observability to these terms.
- Debt instruments referenced to certain illiquid interest rates, for which there is no reasonable market observability.

The measurements obtained using the internal models might have been different if other methods or assumptions had been used with respect to interest rate risk, to credit risk, market risk and foreign currency risk spreads, or to their related correlations and volatilities. Nevertheless, the Bank's directors consider that the fair value of the financial assets and liabilities recognised in the consolidated balance sheet and the gains and losses arising from these financial instruments are reasonable.

The net amount recognised in profit and loss in 2021 arising from models whose significant inputs are unobservable market data (level 3) amounted to EUR 73 million profit (EUR 193 million profit in 2020 and EUR 85 million profit in 2019).

The table below shows the effect, at 31 December 2021 and 2020 on the fair value of the main financial instruments classified as level 3 of a reasonable change in the assumptions used in the valuation. This effect was determined by applying the probable valuation ranges of the main unobservable inputs detailed in the following table:

2021

Portfolio/Instrument					Impacts (EUR million)	
(Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Unfavourable scenario	Favourable scenario
Financial assets held for trading						
Derivatives						
Cap&Floor	Volatility option model	Volatility	10% - 90%	36.30 %	(0.50)	0.43
CCS	Discounted Cash Flows	Interest rate	(0.7)% - 0.7%	0.73 %	(0.11)	0.11
CCS	Forward estimation	Interest rate	4bps - (4)bps	(0.09)%	(0.03)	0.03
Convertibility curve - inputs: NDFs Offshore	Forward estimation	Price	0% - 2%	0.61 %	(0.65)	0.28
EQ Options	EQ option pricing model	Volatility	0% - 90%	61.20 %	(0.24)	0.52
EQ Options	Local volatility	Volatility	10% - 90%	40.00 %	(6.82)	6.82
FRAs	Asset Swap model	Interest rate	0% - 4%	1.78 %	(0.91)	0.73
FX Options	FX option pricing model	Volatility	0% - 50%	32.14 %	(0.28)	0.50
Inflation Derivatives	Asset Swap model	Inflation Swap Rate	(50)% - 50%	50.00 %	(0.56)	0.28
Inflation Derivatives	Volatility option model	Volatility	0% - 40%	13.29 %	(0.47)	0.24
IR Futures	Asset Swap model	Interest rate	0% - 15%	5.91 %	(1.09)	0.71
IR Options	IR option pricing model	Volatility	0% - 60%	36.28 %	(0.20)	0.31
IRS	Asset Swap model	Interest rate	(6)% - 12.80%	10.36 %	(0.07)	0.13
IRS	Discounted Cash Flows	Credit spread	103.10bps - 375.6bps	71.91 %	(7.21)	4.16
IRS	Discounted Cash Flows	Inflation Swap Rate	(0.8)% - 6.5%	1.81 %	(0.04)	0.01
IRS	Discounted Cash Flows	Swap Rate	7.7% - 8.2%	(2.87)%	(0.23)	0.10
IRS	Forward estimation	Interest rate	TIIE91 (8.98)bps - TIIE91 +11.12bps	n.a.	(0.27)	0.17
IRS	Forward estimation	Prepayment rate	6% - 12%	n.a.	—	—
IRS	Others	Others	0.05%	n.a.	(1.49)	—
IRS	Prepayment modelling	Prepayment rate	2.5% - 6.2%	0.44 %	(0.09)	0.05
Property derivatives	Option pricing model	Growth rate	0% - 5%	2.50 %	(2.62)	2.62
Swaptions	IR option pricing model	Volatility	0% - 40%	26.67 %	(0.13)	0.27
Debt securities						
Corporate debt	Price based	Market price	85% - 115%	15.00 %	—	—
Financial assets designated at fair value through profit or loss						
Loans and advances to customers						
Loans	Discounted Cash Flows	Credit spreads	0.1% - 1.4%	0.66 %	(0.26)	0.26
Mortgage portfolio	Black Scholes model	Growth rate	0% - 5%	2.50 %	(1.9)	1.90
Debt securities						
Corporate debt	Discounted Cash Flows	Credit spread	0% - 20%	9.88 %	(1.23)	1.20
Government debt	Discounted Cash Flows	Discount curve	0% - 10%	8.33 %	(4.14)	20.69
Other debt securities	Others	Inflation Swap Rate	0% - 10%	4.74 %	(5.47)	4.92

2021

Portfolio/Instrument					Impacts (EUR million)	
(Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Unfavourable scenario	Favourable scenario
Non-trading financial assets mandatorily at fair value through profit or loss						
Debt securities						
Corporate debt	Discounted Cash Flows	Margin of a reference portfolio	(1)bp - 1bp	0.01	(0.56)	0.60
Property securities	Probability weighting	Growth rate	0% - 5%	2.50 %	(1.19)	1.19
Equity instruments						
Equities	Price Based	Price	90% - 110%	10.00 %	(123.1)	123.10
Financial assets at fair value through other comprehensive income						
Loans and advances to customers						
Loans	Discounted Cash Flows	Credit spread	n.a.	n.a.	(19.84)	—
Loans	Discounted Cash Flows	Interest rate curve	(0.1)% - 0.1%	0.12 %	(0.07)	0.07
Loans	Discounted Cash Flows	Margin of a reference portfolio	(1)bp - 1bp	1.00 %	(13.12)	13.04
Loans	Forward estimation	Credit spread	77bps - 242bps	n.a.	—	—
Debt securities						
Government debt	Discounted Cash Flows	Interest rate	0.6% - 0.8%	0.09 %	(0.01)	0.01
Equity instruments						
Equities	Price Based	Price	90% - 110%	10.00 %	(82.13)	82.13
Financial liabilities held for trading						
Derivatives						
Cap&Floor	Volatility option model	Volatility	10% - 90%	36.30 %	(0.5)	0.43
Financial liabilities designated at fair value through profit or loss						
Loans and advances to customers						
Repos/Reverse repos	Asset Swap Repo Model	Long-term repo spread	n.a.	n.a.	(0.36)	—

2020

Portfolio/
Instrument

Portfolio/ Instrument						Impacts (EUR million)	
(Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Unfavourable scenario	Favourable scenario	
Financial assets held for trading							
Derivatives							
Cap&Floor	Volatility option model	Volatility	10% - 90%	31.55 %	(0.07)	0.05	
CCS	Discounted Cash Flows	Interest rate	(0.30)% - 0.66%	0.66 %	—	0.20	
Convertibility curve - NDFs Offshore	Forward estimation	Price	0% - 2%	0.61 %	(0.72)	0.31	
EQ Options	EQ option pricing model	Volatility	7.86% - 93.67%	48.37 %	(1.46)	1.81	
FRAs	Asset Swap model	Interest rate	0% - 5%	2.22 %	(0.78)	0.63	
FX Forward	Discounted Cash Flows	Swap Rate	(0.02)% - (0.30)%	0.11 %	—	—	
FX Options	FX option pricing model	Volatility	0% - 50%	32.14 %	(0.39)	0.70	
Inflation Derivatives	Asset Swap model	Inflation Swap Rate	(100)% - 50%	83.33 %	(0.63)	0.31	
Inflation Derivatives	Volatility option model	Volatility	0% - 50%	16.67 %	(0.47)	0.23	
IR Futures	Asset Swap model	Interest rate	0% - 15%	0.94 %	(0.94)	0.06	
IR Options	IR option pricing model	Volatility	0% - 100%	19.05 %	(0.27)	0.06	
IRS	Asset Swap model	Interest rate	(6)% - 12.50%	10 %	(0.08)	0.13	
IRS	Discounted Cash Flows	Swap Rate	5.90% - 6.31%	2.26 %	(0.01)	0.02	
IRS	Discounted Cash Flows	Credit spread	78.97 bps - 202.37 bps	9.82 bps	(2.81)	1.29	
IRS	Prepayment modelling	Prepayment rate	2.47% - 6.22%	0.06 %	(0.12)	0.05	
Property derivatives	Option pricing model	HPI Forward growth rate and HPI Spot rate	0% - 5%	2.50 %	(17.82)	17.82	
Swaptions	IR option pricing model	Volatility	0% - 50%	33.33 %	(0.16)	0.31	
Financial assets designated at fair value through profit or loss							
Loans and advances to customers							
Repos / Reverse repos	Asset Swap Repo Model	Long-term repo spread	n/a	n/a	(0.18)	0.23	
Mortgage portfolio	Black Scholes model	HPI Forward growth rate	0% - 5%	2.50 %	(2.23)	2.23	
Other loans	Present value method	Credit spreads	0.07% - 1.55%	0.74 %	(0.35)	0.35	
Debt securities							
Government debt	Discounted Cash Flows	Interest rate	0% - 10%	8.33 %	(0.78)	3.91	
Other debt securities	Price based	Market Price	90% - 110%	10 %	(0.15)	0.15	
Property securities	Probability weighting	HPI Forward growth rate and HPI Spot rate	0% - 5%	2.50 %	(7.24)	7.24	
Non-trading financial assets mandatorily at fair value through profit or loss							
Equity instruments							
Equities	Price Based	Price	90% - 110%	10 %	(50.47)	50.47	
Financial assets at fair value through other comprehensive income							
Loans and advances to customers							
Loans	Discounted Cash Flows	Credit spread	n/a	n/a	(6.72)	—	
Loans	Discounted Cash Flows	Interest rate curve	(0.15)% - 0.15%	0.15 %	(0.09)	0.09	
Other loans	Present value method	Credit spreads	0.15% - 0.53%	0.19 %	(0.04)	0.04	
Debt securities							
Government debt	Discounted Cash Flows	Interest rate	1.1% - 1.3%	0.10 %	—	—	
Equity instruments							
Equities	Price Based	Price	90% - 110%	10 %	(122.14)	122.14	
Financial liabilities held for trading							
Derivatives							
Cap&Floor	Volatility option model	Volatility	10% - 90%	34.61 %	(0.02)	0.01	
EQ Options	Option pricing model	HPI Forward growth rate and HPI Spot rate	0% - 5%	2.50 %	(6.35)	6.35	

Lastly, the changes in the financial instruments classified as Level 3 in 2021, 2020 and 2019 were as follows:

EUR million	01/01/2021	Changes						31/12/2021
	Fair value calculated using internal models (Level 3)	Purchases/ Issuances	Sales/ Settlements	Changes in fair value recognised in profit or loss	Changes in fair value recognised in equity	Level reclassifications	Other	Fair value calculated using internal models (level 3)
Financial assets held for trading	740	136	(124)	(181)	—	(15)	(19)	537
Debt instruments	7	20	(2)	(2)	—	—	(1)	22
Equity instruments	3	—	(1)	—	—	—	—	2
Trading derivatives	730	116	(121)	(179)	—	(15)	(18)	513
Swaps	272	5	(33)	(35)	—	33	(18)	224
Exchange rate options	22	14	(27)	3	—	—	—	12
Interest rate options	241	7	(39)	(27)	—	—	—	182
Index and securities options	94	18	(12)	(51)	—	(8)	—	41
Other	101	72	(10)	(69)	—	(40)	—	54
Financial assets at fair value through profit or loss	649	59	(120)	(11)	—	(163)	4	418
Credit entities	163	—	—	—	—	(163)	—	—
Loans and advances to customers	19	—	(2)	—	—	—	1	18
Debt instruments	467	59	(118)	(11)	—	—	3	400
Non-trading financial assets mandatorily at fair value through profit or loss	934	534	(251)	127	—	485	36	1,865
Customers	295	122	(149)	—	—	(3)	3	268
Debt instruments	134	206	(28)	28	—	17	9	366
Equity instruments	505	206	(74)	99	—	471	24	1,231
Financial assets at fair value through other comprehensive income	6,220	5,681	(6,588)	—	(228)	(241)	3	4,847
Loans and advances	4,791	5,597	(6,298)	—	(37)	(173)	—	3,880
Debt instruments	206	75	(25)	—	(43)	(68)	1	146
Equity instruments	1,223	9	(265)	—	(148)	—	2	821
TOTAL ASSETS	8,543	6,410	(7,083)	(65)	(228)	66	24	7,667
Financial liabilities held for trading	295	85	(42)	(138)	—	(21)	(19)	160
Trading derivatives	295	85	(42)	(138)	—	(21)	(19)	160
Swaps	81	4	(10)	(36)	—	3	2	44
Exchange rate options	1	2	—	4	—	—	—	7
Interest rate options	49	26	(19)	(8)	—	—	(22)	26
Index and securities options	97	23	(5)	(27)	—	(22)	1	67
Securities and interest rate futures	2	—	(2)	—	—	—	—	—
Others	65	30	(6)	(71)	—	(2)	—	16
Financial liabilities designated at fair value through profit or loss	610	143	—	—	—	(289)	5	469
TOTAL LIABILITIES	905	228	(42)	(138)	—	(310)	(14)	629

EUR million	01/01/2020	Changes						31/12/2020
	Fair value calculated using internal models (level 3)	Purchases /Issuances	Sales/ Settlements	Changes in fair value recognized in profit or loss	Changes in fair value recognized in equity	Level reclassifications	Other	Fair value calculated using internal models (level 3)
Financial assets held for trading	598	52	(98)	330	—	(45)	(97)	740
Debt instruments	65	7	(27)	1	—	—	(39)	7
Equity instruments	—	3	—	—	—	—	—	3
Trading derivatives	533	42	(71)	329	—	(45)	(58)	730
Swaps	182	—	(8)	116	—	(8)	(10)	272
Exchange rate options	8	—	—	15	—	—	(1)	22
Interest rate options	177	15	(12)	61	—	—	—	241
Index and securities options	95	25	(43)	85	—	(38)	(30)	94
Other	71	2	(8)	52	—	1	(17)	101
Financial assets at fair value through profit or loss	664	280	(45)	17	—	(91)	(176)	649
Credit entities	50	164	—	(1)	—	(50)	—	163
Loans and advances to customers	32	—	(15)	3	—	—	(1)	19
Debt instruments	582	116	(30)	15	—	(41)	(175)	467
Non-trading financial assets mandatorily at fair value through profit or loss	1,601	120	(292)	(36)	—	(119)	(340)	934
Loans and advances to customers	376	104	(136)	12	—	(30)	(31)	295
Debt instruments	675	—	(144)	(63)	—	2	(336)	134
Equity instruments	550	16	(12)	15	—	(91)	27	505
Financial assets at fair value through other comprehensive income	3,788	8,795	(7,616)	—	(390)	571	1,072	6,220
TOTAL ASSETS	6,651	9,247	(8,051)	311	(390)	316	459	8,543
Financial liabilities held for trading	290	40	(14)	130	—	(96)	(55)	295
Trading derivatives	290	40	(14)	130	—	(96)	(55)	295
Swaps	115	8	—	(7)	—	(26)	(9)	81
Exchange rate options	1	—	—	2	—	—	(2)	1
Interest rate options	34	11	(2)	6	—	—	—	49
Index and securities options	88	21	(8)	95	—	(70)	(29)	97
Securities and interest rate futures	2	—	—	—	—	—	—	2
Others	50	—	(4)	34	—	—	(15)	65
Financial liabilities designated at fair value through profit or loss	784	4	(3)	(12)	—	(32)	(131)	610
TOTAL LIABILITIES	1,074	44	(17)	118	—	(128)	(186)	905

EUR million	01/01/2019	Changes						31/12/2019
	Fair value calculated using internal models (level 3)	Purchases/ Issuances	Sales/ Settlements	Changes in fair value recognised in profit or loss	Changes in fair value recognised in equity	Level reclassifications	Other	Fair value calculated using internal models (level 3)
Financial assets held for trading	738	142	(80)	115	—	(317)	—	598
Debt instruments and equity instruments	153	34	(38)	4	—	(88)	—	65
Trading derivatives	585	108	(42)	111	—	(229)	—	533
Swaps	185	10	(14)	22	—	(20)	(1)	182
Exchange rate options	2	—	—	6	—	—	—	8
Interest rate options	149	—	(5)	33	—	—	—	177
Index and securities options	198	48	(18)	50	—	(182)	(1)	95
Other	51	50	(5)	—	—	(27)	2	71
Hedging derivatives (Assets)	21	—	—	—	—	(21)	—	—
Swaps	21	—	—	—	—	(21)	—	—
Financial assets designated at fair value through profit or loss	876	55	(16)	65	—	(261)	(55)	664
Credit entities	201	—	—	—	—	(151)	—	50
Loans and advances to customers	560	20	(9)	(1)	—	(496)	(42)	32
Debt instruments	115	35	(7)	66	—	386	(13)	582
Non-trading financial assets mandatorily at fair value through profit or loss	1,403	426	(325)	81	—	—	16	1,601
Loans and advances to customers	460	126	(252)	21	—	—	21	376
Debt instruments	481	199	(7)	(10)	—	—	12	675
Equity instruments	462	101	(66)	70	—	—	(17)	550
Financial assets at fair value through other comprehensive income	1,435	4,424	(1,698)	—	(190)	(252)	69	3,788
TOTAL ASSETS	4,473	5,047	(2,119)	261	(190)	(851)	30	6,651
Financial liabilities held for trading	289	136	(12)	45	—	(164)	(4)	290
Trading derivatives	289	136	(12)	45	—	(164)	(4)	290
Swaps	111	6	(5)	(17)	—	20	—	115
Exchange rate options	7	1	—	—	—	(7)	—	1
Interest rate options	26	—	—	8	—	—	—	34
Index and securities options	143	79	(7)	51	—	(177)	(1)	88
Securities and interest rate futures	—	3	—	—	—	—	(1)	2
Other	2	47	—	3	—	—	(2)	50
Hedging derivatives (Liabilities)	6	—	—	—	—	(6)	—	—
Swaps	6	—	—	—	—	(6)	—	—
Financial liabilities designated at fair value through profit or loss	147	298	(5)	31	—	313	—	784
TOTAL LIABILITIES	442	434	(17)	76	—	143	(4)	1,074

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.
- Unrealised gains on Financial assets classified as Non-current assets held for sale because they form part of a disposal group or a discontinued operation are recognised in 'Other comprehensive income under Items that may be reclassified to profit or loss - Non-current assets 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.

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 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 financial 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.

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.

- b. 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 forecast transactions occur, 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.
- c. 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.
- d. 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.

vi. Derivatives embedded in hybrid financial 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'.

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 a derecognition or 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. Also, 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. Finally, 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.

Following is the detail of financial assets and liabilities that were offset in the consolidated balance sheets as of 31 December 2021, 2020 and 2019:

31 December 2021			
EUR million			
Assets	Gross amount of financial assets	Gross amount of financial assets offset in the balance sheet	Net amount of financial assets presented in the balance sheet
Derivatives	101,485	(42,432)	59,053
Reverse repurchase agreements	72,023	(13,917)	58,106
Total	173,508	(56,349)	117,159

31 December 2020			
EUR million			
Assets	Gross amount of financial assets	Gross amount of financial assets offset in the balance sheet	Net amount of financial assets presented in the balance sheet
Derivatives	136,437	(60,975)	75,462
Reverse repurchase agreements	82,865	(16,078)	66,787
Total	219,302	(77,053)	142,249

31 December 2019			
EUR million			
Assets	Gross amount of financial assets	Gross amount of financial assets offset in the balance sheet	Net amount of financial assets presented in the balance sheet
Derivatives	126,389	(55,776)	70,613
Reverse repurchase agreements	89,465	(5,168)	84,297
Total	215,854	(60,944)	154,910

31 December 2021			
EUR million			
Liabilities	Gross amount of financial liabilities	Gross amount of financial liabilities offset in the balance sheet	Net amount of financial liabilities presented in the balance sheet
Derivatives	101,461	(42,432)	59,029
Reverse repurchase agreements	73,424	(13,916)	59,508
Total	174,885	(56,348)	118,537

31 December 2020			
EUR million			
Liabilities	Gross amount of financial liabilities	Gross amount of financial liabilities offset in the balance sheet	Net amount of financial liabilities presented in the balance sheet
Derivatives	132,313	(60,975)	71,338
Reverse repurchase agreements	77,925	(16,078)	61,847
Total	210,238	(77,053)	133,185

31 December 2019			
EUR million			
Liabilities	Gross amount of financial liabilities	Gross amount of financial liabilities offset in the balance sheet	Net amount of financial liabilities presented in the balance sheet
Derivatives	124,840	(55,776)	69,064
Reverse repurchase agreements	81,087	(5,168)	75,919
Total	205,927	(60,944)	144,983

At 31 December 2021, Grupo Santander has offset other items amounting to EUR 1,188 million (EUR 1,194 million and EUR 1,366 million at 31 December 2020 and 2019, respectively).

At 31 December 2021 the balance sheet shows the amounts EUR 106,430 million (EUR 130,653 million and EUR 141,201 million at 31 December 2020 and 2019) on derivatives and repos as assets and EUR 104,130 million (EUR 122,416 million and EUR 134,694 million at 31 December 2020 and 2019) on derivatives and repos as liabilities that are subject to netting and collateral arrangements.

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 and commitments and guarantees granted that are not measured at fair value.

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 and debt securities 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:

	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.
Quantitative criteria	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 53, 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 days past due for principal, interest or expenses contractually agreed.

This category also includes all loan balances for a client which overdue amount more than 90 days past due is greater than 20% of the loan receivable balance.

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 days past due 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 days past due.

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:

- Negative net equity or decrease because of losses of the client's net equity by at least 50% during the last financial year.
- Continued losses or significant decrease in revenue or, in general, in the client's recurring cash flows.
- Generalised delay in payments or insufficient cash flows to service debts.
- Significantly inadequate economic or financial structure or inability to obtain additional financing by the client.
- Existence of an internal or external credit rating showing that the client is in default.
- 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 with more than 90 days past due.

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 balance with more than 90 days past due.

- 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 asset impairment model in IFRS 9 applies to financial assets measured at amortised cost, debt instruments at fair value with changes in other comprehensive income, lease receivables and commitments and guarantees granted that are not measured at fair value.

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 and relevant 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 challenge of the exercise has focused on the uncertainty of the economic outlook caused by the covid-19 crisis, coupled with a complex environment for value creation.

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 days with respect to any significant credit obligation.

Grupo Santander will partially and voluntarily align during 2022 the accounting definition of Stage 3, as well as for 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 will be done taking into account the criteria of IFRS 9 as well as the accounting principles of unbiased presentation of financial information. The expected increase in the default rate is estimated at around 24 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. However, in order to achieve a complete and high-level implementation of the standard, and following the best practices of the industry, the Group does not apply these practical solutions in a generalised manner:

- 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. Additionally, there may be cases in the Group where its use has been rebutted as a result of studies that show a low correlation of the significant risk increase with this past due threshold. The volume rebutted does not exceed 0.1% of the Group's total exposure.
- Assets with low credit risk at the reporting date: the Group assesses the existence of significant risk increase in all its financial instruments.

This information is provided in more detail in note 53 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.

On the basis of the foregoing, the following types of guarantees are considered to be effective:

- Mortgage guarantees on properties, which are first charge, duly constituted and registered. Real estate includes:
 - Buildings and finished building elements.
 - Urban and developable land in order.
 - Other real estate, including buildings under construction, developments in progress or at a standstill, and other land, such as rural properties.
- Pledges on financial instruments such as cash deposits, debt securities of reputable issuers or equity instruments.
- Other types of security interests, including movable property received as security and second and subsequent mortgages on real estate, provided that they are proven to be effective under particularly restrictive criteria.
- Personal guarantees, including new holders, covering the entire amount and involving direct and joint liability to the entity, from persons or entities whose equity solvency ensures repayment of the transaction under the agreed terms.

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 a 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 be 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) Repurchase agreements and reverse repurchase agreements

Purchases (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 granted (received), based on the nature of the debtor (creditor), under 'Loans and advances with central banks', 'Loans and advances to credit institutions' or 'Loans and advances to customers' (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.

i) '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. In this connection, for the purpose of its consideration in the initial recognition of these assets, the Group obtains, at the foreclosure date, the fair value of the related asset through a request for appraisal by external appraisal 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 Ministry of Economy Order ECO/805/2003, of 27 March. The main appraisal companies and agencies with which the Group worked in Spain in 2021 are as follows: Gloval Valuation, S.A.U., Tinsa Tasaciones Inmobiliarias, S.A.U., Gesvalt Sociedad de Tasacion, S.A. and Sociedad de tasacion, 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.

'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.

At 31 December 2021 the fair value less costs to sell of non-current assets held for sale exceeded their carrying amount by EUR 567 million (EUR 560 million at 31 December 2020); however, in accordance with the accounting standards, this unrealised gain could not be recognised.

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.

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) land¹.

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.

1. The assets in a situation of 'stopped development' are included under 'land'

In the case of real estate assets foreclosed in Spain, which represent 91% 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 type², 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.

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 OM (Ministerial 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: = $100 - (\text{sales price} / \text{updated appraisal value})$.
- 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.

j) Assets under insurance or reinsurance contracts and Liabilities under insurance or reinsurance contracts

Insurance contracts involve the transfer of a certain quantifiable risk in exchange for a periodic or one-off premium. The effects on the Group's cash flows will arise from a deviation in the payments forecast and/or an insufficiency in the premium set.

The Group controls its insurance risk as follows:

- By applying a strict methodology in the launch of products and in the assignment of value thereto.
- By using deterministic and stochastic actuarial models for measuring commitments.
- By using reinsurance as a risk mitigation technique as part of the credit quality guidelines in line with the Group's general risk policy.
- By establishing an operating framework for credit risks.
- By actively managing asset and liability matching.
- By applying security measures in processes.

Reinsurance assets includes the amounts that the consolidated entities are entitled to receive for reinsurance contracts with third parties and, specifically, the reinsurer's share of the technical provisions recorded by the consolidated insurance entities.

At least once a year these assets are reviewed to ascertain whether they are impaired (i.e. there is objective evidence, as a result of an event that occurred after initial recognition of the reinsurance asset, that Grupo Santander may not receive all amounts due to it under the terms of the contract and the amount that will not be received can be reliably measured), and any impairment loss is recognised in the consolidated income statement and the assets are written down.

'Liabilities under insurance contracts' includes the technical provisions recorded by the consolidated entities to cover claims arising from insurance contracts in force at year-end.

Insurers' results relating to their insurance business are recognised, according to their nature, under the related consolidated income statement items.

In accordance with standard accounting practice in the insurance industry, the consolidated insurance entities credit to the income statement the amounts of the premiums written and charge to income the cost of the claims incurred on final settlement thereof. Insurance entities are therefore required to accrue at period-end the unearned revenues credited to their income statements and the accrued costs not charged to income.

At least at each reporting date the Group assesses whether the insurance contract liabilities recognised in the consolidated balance sheet are adequate. For this purpose, it calculates the difference between the following amounts:

- Current estimates of future cash flows under the insurance contracts of the consolidated entities. These estimates include all contractual cash flows and any related cash flows, such as claims handling costs.
- The carrying amount recognised in the consolidated balance sheet of its insurance contract liabilities (see note 15), less any related deferred acquisition costs or related intangible assets, such as the amount paid to acquire, in the event of purchase by the entity, the economic rights held by a broker deriving from policies in the entity's portfolio.

If the calculation results in a positive amount, this deficiency is charged to the consolidated income statement. When unrealised gains or losses on assets of the Group's insurance companies affect the measurement of liabilities under insurance contracts and/or the related deferred acquisition costs and/or the related intangible

assets, these gains or losses are recognised directly in equity. The corresponding adjustment in the liabilities under insurance contracts (or in the deferred acquisition costs or in intangible assets) is also recognised in equity.

The most significant items forming part of the technical provisions (see note 15) are detailed below:

- Non-life insurance provisions:
 - i) Provision for unearned premiums: relates to the portion of the premiums received at year-end that is allocable to the period from the reporting date to the end of the policy cover period.
 - ii) Provisions for unexpired risks: this supplements the provision for unearned premiums to the extent that the amount of the latter is not sufficient to reflect all the assessed risks and expenses to be covered by the insurance companies in the policy period not elapsed at the reporting date.
- Life insurance provisions: represent the value of the net obligations acquired vis-à-vis life insurance policyholders. These provisions include:
 - i) Provision for unearned premiums and unexpired risks: this relates to the portion of the premiums received at year-end that is allocable to the period from the reporting date to the end of the policy cover period.
 - ii) Mathematical provisions: these relate to the value of the insurance companies' obligations, net of the policyholders' obligations. These provisions are calculated on a policy-by-policy basis using an individual capitalisation system, taking as a basis for the calculation the premium accrued in the year, and in accordance with the technical bases of each type of insurance updated, where appropriate, by the local mortality tables.
- Provision for claims outstanding: this reflects the total obligations outstanding arising from claims incurred prior to the reporting date. This provision is calculated as the difference between the total estimated or certain cost of the claims not yet reported, settled or paid and all the amounts already paid in relation to such claims.
- Provision for bonuses and rebates: this provision includes the amount of the bonuses accruing to policyholders, insureds or beneficiaries and that of any premiums to be returned to policyholders or insureds, to the extent that such amounts have not been assigned at the reporting date. These amounts are calculated on the basis of the conditions of the related individual policies.
- Technical provisions for life insurance policies where the investment risk is borne by the policyholders: these provisions are calculated on the basis of the indices established as a reference to determine the economic value of the policyholders' rights.

k) 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 period tangible asset depreciation charge is recognised in the consolidated income statement and is calculated using the following depreciation rates (based on the average years of estimated useful life of the various assets):

	Average annual rate
Buildings for own use	2.7%
Furniture	8.5%
Fixtures	8.5%
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.

I) Accounting for leases

On 1 January 2019, Grupo Santander changed the accounting policy for leases when acting as a lessee (see note 1.d).

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 the liability and the 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. Given in certain situations this interest rate cannot be obtained, the discount rate used in this 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).

m) 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 estimated reliably and from which the consolidated entities consider it probable that future economic benefits will be generated 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:

- 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.
- 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.
- The remaining amount is recognised as goodwill, which is allocated to one or more cash-generating units (CGUs) (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.

n) 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.

o) 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.

p) Provisions and contingent assets and liabilities

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.

Santander UK plc is cooperating with an FCA civil regulatory investigation which commenced in July 2017 into its compliance with the Money Laundering Regulations 2007 and potential breaches of FCA principles and rules relating to anti-money laundering and financial crime systems and controls. The FCA's investigation focuses primarily on the period 2012 to 2017 and includes consideration of high risk customers including Money Service Businesses. It is not currently possible to make a reliable assessment of any liability resulting from the investigation including any financial penalty.

- 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.

q) Court proceedings and/or claims in process

At the end of 2021 certain court proceedings and claims were in process against the consolidated entities arising from the ordinary course of their operations (see note 25).

r) 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.

s) 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.

t) 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.

u) Financial guarantees

Financial guarantees are defined as contracts whereby an entity undertakes to make specific payments on behalf of a third party if the latter fails to do so, irrespective of the various legal forms they may have, such as guarantees, insurance policies or credit derivatives.

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.

If a specific provision is required for financial guarantees, the related unearned commissions recognised under 'Financial liabilities at amortised cost - Other financial liabilities in the consolidated balance sheet', are reclassified to the appropriate provision.

v) 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. Management fees are included in 'Fee and commission income' in the consolidated income statement.

The investment funds and pension funds managed by the consolidated entities are not presented on the face of the Group's consolidated balance sheet since the related assets are owned by third parties. The fees and commissions earned in the year for the services rendered by the Group entities to these funds (asset management and custody services) are recognised under Fee and 'Commission income' in the consolidated income statement.

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.

w) 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).

x) 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).

y) 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.

z) 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 317.4 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 the initial recognition (except in a business combination) of other assets and liabilities in a transaction that affects neither taxable profit nor accounting profit. 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.

aa) Residual maturity periods

The analysis of the maturities of the balances of certain items in the consolidated balance sheet.

ab) 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.

ac) 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.

ad) 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 and 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 2021 Grupo Santander received interest amounting to EUR 48,081 million (EUR 43,953 million and EUR 55,269 million in 2020 and 2019, respectively) and paid interest amounting to EUR 12,738 million (EUR 13,690 million and EUR 20,671 million in 2020 and 2019, 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. 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.

ii. Acquisition of Amherst Pierpont, a U.S. fixed-income broker dealer

On 15 July 2021, Santander Holdings USA, Inc. reached an agreement to acquire Amherst Pierpont Securities, 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 600 million (around EUR 530 million). Amherst Pierpont will become part of Santander Corporate & Investment Banking (Santander CIB) Global business line.

The transaction is expected to close upon receipt of relevant regulatory approvals.

iii Tender offer for shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México

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, representing (after the execution of the operation referred to in point vii. below) approximately 8.3% of the share capital of Santander México. 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 representing 5 shares of Santander Mexico) tendered and not withdrawn representing approximately 4.5% of the share capital of Santander México. After the transaction, Santander Group holds approximately 96.2% of Santander México share capital.

The shareholders who have tendered their shares in the offer have 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 has meant a disbursement of approximately EUR 335 million.

This transaction has entailed a decrease of reserves of EUR 41 million and a decrease of EUR 294 million of minority interests.

iv. Agreement for the acquisition of a significant stake in Ebury

On 28 April 2020, the investment in Ebury, a payments and currencies platform for SMEs, announced on 4 November 2019, was completed. The transaction involved a total outlay of GBP 357 million (EUR 409 million) of which GBP 70 million (approximately EUR 80 million) was for new shares. At 2019 year-end 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, the Group is entitled to receive 50.38% of the dividends distributed by the company. This interest is recognized under 'Investments in Joint Ventures and Associates - Associates' in the consolidated balance sheet.

v. Reorganization of the banking insurance business, asset management and pension plans in Spain

On 24 June 2019, Banco Santander, S.A., reached an agreement with the Allianz Group to terminate the agreement that Banco Popular Español, S.A.U. ('Banco Popular') held in Spain with the Allianz Group for the exclusive distribution of certain life insurance products, non-life insurance products, collective investment institutions (IIC), and pension plans through the Banco Popular network (the 'Agreement'). Under this Agreement, the Group held a 40% stake in the capital of Popular Spain Holding de Inversiones, S.L.U., classified as investments in joint ventures and associated entities for an overall amount of EUR 409 million on 31 December 2019.

The Agreement was executed on 15 January 2020 for the non-life business and on 31 January 2020 for the remaining businesses, once the regulatory authorisations were obtained in the first half of 2020. The execution of the Termination Agreement entailed the payment by Banco Santander of a total consideration of EUR 859 million (after deducting the dividends paid until the end of the operation) and the acquisition of the remaining 60% of the capital of Popular Spain Holding de Inversiones, S.L.U.

On 10 July, 51% of the life-risk insurance business held by Banco Santander and the 51% of the new General Insurance business from Banco Popular's network not transferred to Mapfre (in accordance with the agreement indicated below) was acquired by Aegon, valuing these businesses at a total of approximately EUR 557 million.

The total amount of the life-savings business, collective investment institutions and pension plans is EUR 711 million and has resulted in the recognition of EUR 271 million of goodwill.

In addition, under the agreement reached between Banco Santander and Mapfre on 21 January 2019, 50.01% of the car, commercial multi-risk, SME multi-risk and corporate liability insurance business in the whole network of Banco Santander in Spain was acquired by Mapfre on 25 June 2019 amounting to EUR 82 million.

vi. Agreement with Crédit Agricole S.A. on the depositary and custody business

On 17 April 2019, Banco Santander, S.A., announced that it had signed a memorandum of understanding with Crédit Agricole S.A. with the purpose of combining CACEIS and its subsidiaries (the 'CACEIS Group'), which is wholly-owned by Crédit Agricole S.A., with Santander Securities Services, S.A.U. and its subsidiaries (the 'S3 Group'), which is wholly-owned by Banco Santander, S.A.

The operation consisted of the contribution by the Santander Group to the CACEIS Group of 100% of the S3 Group in Spain and 50% of the S3 Group's business in Latin America in exchange for a 30.5% stake in the CACEIS Group Capital and voting rights. The remaining 69.5% remained the property of Crédit Agricole, SA. The S3 Group's Latin American business is under the joint control of the CACEIS Group and the Santander Group.

On 27 June 2019, the signing of the final contracts took place after having carried out the precise prior consultations with the representative bodies of Crédit Agricole, SA employees and the CACEIS Group. The closing of the operation took place on 20 December 2019 once the relevant regulatory authorizations were obtained.

The operation generated a net capital gain of EUR 693 million recorded for its gross amount under the heading of 'Non-classified assets as non-current assets for sale' of the consolidated profit and loss account, of which EUR 219 million correspond to the recognition at fair value of the investment of 49.99% retained by the Group in S3 Latin America. The 30.5% interest in the CACEIS Group was recorded under the heading of 'Investments - Associates' of the consolidated balance sheet for an amount of EUR 1,010 million.

vii . Offer to acquire shares of Banco Santander Mexico, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México.

On 12 April 2019, Banco Santander, S.A., announced its intention to make an offer to acquire all the shares of Banco Santander Mexico, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México ('Santander México') which are not owned by Grupo Santander, representing approximately 25% of the share capital of Santander México.

The shareholders who have accepted the offer have received 0.337 newly issued shares of Banco Santander, S.A., per share of Santander México and 1.685 American Depositary Shares (ADSs) of Banco Santander, S.A., per ADS of Santander México.

The offer was accepted by holders of shares representing 16.69% of the capital stock of Santander Mexico, so the Group's participation in Santander Mexico became 91.65% of its share capital. To meet the exchange, the Bank proceeded to issue, in execution of the agreement adopted by the extraordinary general meeting held on 23 July 2019, 381,540,640 shares, which represented approximately 2.35% of the Bank's share capital in the date of issue. This operation meant an increase of EUR 191 million in Capital, EUR 1,491 million in issue premium and a decrease of EUR 670 million in Reserves and EUR 1,012 million in minority interests.

c) Offshore entities

According to current Spanish regulation (Law 11/2021, of 9 July and Royal Decree 1080/1991, of 5 July), 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 three other subsidiaries incorporated in non-cooperative jurisdictions that are tax resident in the UK and subject to British tax law.

i. Offshore subsidiaries

A subsidiary resident in the Isle of Man was liquidated in 2021 so, at the reporting date, Grupo Santander has only one subsidiary resident in Jersey: Abbey National International Limited. In 2021, this subsidiary's contribution to Santander's consolidated profit was insubstantial.

ii. Offshore branches

Grupo Santander also has three offshore branches. One is found in the Cayman Islands, one is on the Isle of Man and another is in 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).

The entities mentioned in Sections I and II had 147 employees as of December 2021.

iii. Subsidiaries in non-cooperative jurisdictions that are tax resident in the United Kingdom

Grupo Santander also has three subsidiaries (one in liquidation) that were incorporated in offshore jurisdictions but are not deemed offshore entities. 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. It also has two small financial investments in entities located in the Cayman Islands. In 2021, Guaranteed Investment Products 1 PCC Limited, a protected cell company found in Guernsey managed from the UK, was liquidated.

Organization for Economic Cooperation and Development (OECD)

Grupo Santander is not in any of the non-cooperative jurisdictions the OECD released in November 2021. Furthermore, Jersey, the Isle of Man and the Cayman Islands satisfy OECD standards on transparency and exchange of information for tax purposes.

The European Union (EU)

As of October 2021, the EU's blacklist comprises 9 jurisdictions where Santander is not present. Additionally, the EU's grey list comprises 15 jurisdictions which have sufficiently committed to adapt legislation to international standards, subject to monitoring by the EU. Within these jurisdictions, Santander is only present in Uruguay and Hong Kong mainly through Banco Santander S.A. in Uruguay and a branch in Hong Kong.

The Group's presence in offshore territories at the end of 2021 is as follows:

Presence of the Group in non-cooperative jurisdictions	Spanish legislation		OECD		European Commission Blacklist	
	Sub.	Branch	Sub.	Branch	Sub.	Branch
Jersey	1	1				
Isle of Man		1				
Guernsey*						
Bermuda*						
Cayman Islands		1				
2021	1	3	—	—	—	—
2020	2	3	—	—	—	—

* Additionally, there are 2 entities constituted in Guernsey (1 in liquidation) and 1 in Bermuda, but resident for tax purposes in the United Kingdom.

Changes to Spain's tax law

On 10 July 2021, Law 11/2021 on measures to prevent and fight against tax fraud was published in the Official Estate Gazette. The law expands the meaning of tax havens, which it renames "non-cooperative jurisdictions". It also allows government to update the non-cooperative jurisdictions list. Nonetheless, until that list conforms to the new criteria, the former list set out in Royal Decree 1080/1991 of 5 July will remain in effect.

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 reducing the number of these entities.

PwC (PricewaterhouseCoopers) member firms audited the financial statements of Grupo Santander's offshore entities in 2021, 2020 and 2019.

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 net profit against the results for 2021, that the board of directors will propose for approval by the shareholders at the annual general meeting is as follows:

EUR million	
To dividends	1,701
Dividend paid prior to the meeting date*	836
Complementary dividend**	865
To voluntary reserves***	2,231
Net profit for the year	3,932

* Total amount paid as interim dividend, at the rate of EUR 4.85 fixed cents per eligible share (recorded in 'Shareholders' equity - Interim dividends').

** Fixed dividend of EUR 5.15 gross cents per eligible share, payable in cash as from 2 May 2022. The total amount has been estimated on the assumption that, after the implementation of the second buy-back programme announced on 24 February 2022, the number of the Bank's outstanding shares eligible for the dividend will be 16,804,353,202.

*** Estimated amount corresponding to a final dividend of EUR 865 million. To be increased or reduced by the same amount by which the final dividend is lower or higher, respectively, than that amount.

The transcribed proposal comprises the part of the 2021 shareholder remuneration policy that is implemented through cash dividends (the interim dividend paid in November 2021 of EUR 4.85 cents per share with dividend entitlement and the final dividend expected to be paid as of 2 May 2022, subject to approval by the general meeting of shareholders, of EUR 5.15 cents per share with dividend entitlement).

In addition, the 2021 remuneration policy also provided for shareholder remuneration through the implementation of share buyback programs, which are not reflected in the above-transcribed proposal for the appropriation of earnings. The first of these programs, amounting to approximately EUR 841 million, was completed between October and November 2021. Subject to obtaining the appropriate regulatory approvals, a second repurchase program for approximately EUR 865 million is planned to be launched. Capital reduction resolutions are also submitted to the general shareholders' meeting to redeem the treasury shares acquired in each of the two repurchase programs, also subject to the relevant regulatory authorizations.

Finally, and although it is not part of the remuneration charged to the 2021 financial year, it should be noted that in May 2021 Banco Santander paid a dividend of EUR 2.75 cents in cash per share corresponding to the 2020 financial year against share premium, for an amount of EUR 477 million, this being the maximum amount allowed in accordance with the limit established by the recommendation of the European Central Bank of 15 December 2020. This payment was made in execution of the premium distribution resolution approved at the General Shareholders' Meeting of Banco Santander held on 27 October 2020.

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 recognised in equity (see note 23) and the capital perpetual preference shares, 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:

	2021	2020	2019
Profit (Loss) attributable to the Parent (EUR million)	8,124	(8,771)	6,515
Remuneration of contingently convertible preference shares (CCP) (EUR million) (note 23)	(566)	(552)	(595)
	7,558	(9,323)	5,920
Of which:			
Profit (Loss) from discontinued operations (non controlling interest net) (EUR million)	—	—	—
Profit (Loss) from continuing operations (PPC net) (EUR million)	7,558	(9,323)	5,920
Weighted average number of shares outstanding	17,272,055,430	17,316,288,908	16,348,415,883
Impact factor correction*	Not applicable	Not applicable	710,800,691
Adjusted number of shares	17,272,055,430	17,316,288,908	17,059,216,574
Basic earnings (Loss) per share (euros)	0.438	(0.538)	0.347
Of which, from discounted operations (euros)	—	—	—
Basic earnings (Loss) per share from continuing operations (euros)	0.438	(0.538)	0.347

* Correction factor for the capital increase released on 3 December 2020 (see notes 1.d and 31.a).

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 (see note 23) and the capital perpetual preference shares, if applicable, 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 instruments).

Accordingly, diluted earnings/loss per share were determined as follows:

	2021	2020	2019
Profit (Loss) attributable to the Parent (EUR million)	8,124	(8,771)	6,515
Remuneration of contingently convertible preference shares (CCP) (EUR million) (Note 23)	(566)	(552)	(595)
Dilutive effect of changes in profit for the period arising from potential conversion of ordinary shares	—	—	—
	7,558	(9,323)	5,920
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 CCP) (EUR million)	7,558	(9,323)	5,920
Weighted average number of shares outstanding	17,272,055,430	17,316,288,908	16,348,415,883
Dilutive effect of options/ rights on shares	48,972,459	Not applicable	35,891,644
Impact factor correction*	Not applicable	Not applicable	712,361,197
Adjusted number of shares	17,321,027,889	17,316,288,908	17,096,668,724
Diluted earnings (Loss) per share (euros)	0.436	(0.538)	0.346
Of which, from discounted operations (euros)	—	—	—
Diluted earnings (Loss) per share from continuing operations (euros)	0.436	(0.538)	0.346

* Correction factor for the capital increase released on 3 December 2020 (see notes 1.d and 31.a).

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 2021 and 2020:

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 remuneration established by the Annual General Meeting was EUR 6 million in 2021 (same amount as in 2020), with two components: (a) an annual emolument and (b) attendance fees.

In regard to 2020, as a gesture of responsibility in view of the situation created by the health emergency the board of directors agreed on 5 May 2020 to reduce their allotments by 20% for the balance of 2020, with effect from 1 April 2020, and propose that amounts saved thereby be used to finance the initiatives of the Bank to fight against the covid-19 pandemic.

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 2021 amounted to EUR 4.8 million (4.1 million in 2020).

Annual emolument

In 2021, the board voted not to change the fees amount set out in the 2020 policy ahead of the aforementioned exceptional decision and, per the remuneration policy approved at the 2021 AGM. Additionally, the innovation and technology committee also began to be remunerated, and its members received EUR 25,000 and its Chair, an additional EUR 70,000. The annual amounts received individually by the directors in 2021 and 2020 based on the positions held by them on the board and their membership of the board committees were as follows:

Amount per director in euros	2021	2020	
		1 Jan to 31 Mar	1 Apr to 31 Dec
Members of the board of directors	90,000	22,500	49,500
Members of the executive committee	170,000	42,500	93,500
Members of the audit committee	40,000	10,000	22,000
Members of the appointments committee	25,000	6,250	13,750
Members of the remuneration committee	25,000	6,250	13,750
Members of the risk supervision, regulation and compliance committee	40,000	10,000	22,000
Members of the responsible banking, sustainability and culture committee	15,000	3,750	8,250
Members of the innovation and technology committee	25,000	—	—
Chairman of the audit committee	70,000	17,500	38,500
Chairman of the appointments committee	50,000	12,500	27,500
Chairman of the remuneration committee	50,000	12,500	27,500
Chairman of the risk supervision, regulation and compliance committee	70,000	17,500	38,500
Chairman of the responsible banking, sustainability and culture committee	50,000	12,500	27,500
Chairman of the innovation and technology committee	70,000	—	—
Lead director*	110,000	27,500	60,500
Non-executive vice chairmen	30,000	7,500	16,500

* Mr. Bruce Carnegie-Brown, in view of the positions held on the board and its committees, in particular as chairman of the appointments and remuneration committees and as coordinating director, and the time and dedication required to properly perform such positions, has been assigned a minimum total annual remuneration of EUR 700,000 since 2015, including the annual allowance for the items corresponding to him of those indicated above and attendance fees. However, in line with the decision taken by the board of directors to reduce his fees by 20% with effect from April 1, 2020 to 31 December, which is shared by Mr. Bruce Carnegie-Brown, the same reduction was applied to this amount. Accordingly, the amount assigned for 2020 was EUR 595,000.

Attendance fees

The directors receive fees for attending board and committee meetings, excluding executive committee meetings, since no attendance fees are received for this committee.

Like the annual allotment, the board voted not to change the fees amount set out in the 2020 policy ahead of the aforementioned exceptional decision and, per the remuneration policy approved at the 2021 AGM, added attendance fees for innovation and technology committee members (which they did not receive before).

The fees for 2021 and 2020 are as follows:

Attendance fees per director per meeting in euros	2021	2020	
		1 Jan to 31 Mar	1 Apr to 31 Dec
Board of directors	2,600	2,600	2,080
Audit committee and risk supervision, regulation and compliance committee	1,700	1,700	1,360
Other committees (excluding executive committee)	1,500	1,500	1,200

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 2023 and 2024) will be conditional on none of the malus clauses being triggered.
 - The accrual of the third, fourth, and fifth portion (payment in 2025, 2026 and 2027), is linked to objectives related to the period 2021–2023 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, which, accordingly, might not be paid, where the maximum amount is the amount determined at closing of 2021, when the total variable remuneration is approved.
- 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 Santander shares.

In the case of Sergio Rial, he has been considered as an executive director since his appointment as director became effective on 30 May 2020 by virtue of Article 529 *duodecies* of the Spanish Companies Act in light of his role as CEO and vice-chairman of Banco Santander Brasil, S.A. In 2021 he received as fixed pay for his role as Regional head for South America, the EUR 750,000 euros that had been approved at the 2021 AGM as part of the 2021 remuneration policy. He has not received any other remuneration for executive functions in Banco Santander, S.A.

The same policy and principles above apply to Sergio Rial's remuneration as CEO in Santander Brasil.

Comparative of Executive Remuneration (Chairman and CEO)

The board resolved to maintain the same gross annual salary for Ana Botín and José Antonio Álvarez for 2021 as in 2020. It also maintained the fixed pension contribution of 22% of gross annual salary it had declared in 2020 for 2021.

Comparing with the previous year, it should be mentioned that amid the covid-19 health crisis in 2020, Ana Botín and José Antonio Álvarez proposed to reduce their total 2020 compensation (salary and bonus) by 50%.

To achieve the 50% reduction compared to 2019, the board of directors decided to apply an additional adjustment to Ana Botín's and José Antonio Álvarez's variable compensation, reducing the variable compensation by 74% in the case of Ana Botín and 79% in the case of José Antonio Álvarez.

And in 2021, the good business performance (which enabled Banco Santander to reach a 12.73% underlying RoTE, above the end of 2019), the excellent execution of our strategy (with the highest underlying attributable profit of the last 12 years), and the efficient capital management, boosted the bonus pool and thus the variable remuneration of corporate centre employees, (including executive directors).

iii. Detail by director

The detail, by bank director, of the short-term (immediate) and deferred (not subject to long-term goals) remuneration for 2021 and 2020 is provided below:

EUR thousand

	2021								
	Bylaw-stipulated emoluments								
	Annual emolument								
	Board ^M	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	90	170	—	—	—	—	—	25	45
José Antonio Álvarez	90	170	—	—	—	—	—	25	45
Bruce Carnegie-Brown	276	170	—	75	75	—	—	25	80
Homaira Akbari	90	—	40	—	—	—	15	25	78
Javier Botín ^A	90	—	—	—	—	—	—	—	39
Álvaro Cardoso ^B	90	—	—	—	—	28	15	—	50
R.Martín Chávez ^C	90	—	—	25	25	40	—	95	99
Sol Daurella	90	—	—	25	25	—	15	—	84
Henrique de Castro ^D	90	—	40	—	25	—	—	25	87
Gina Díez ^E	90	—	—	1	—	—	—	—	39
Luis Isasi ^F	90	170	—	—	25	40	—	—	81
Ramiro Mato	90	170	40	—	—	40	65	—	94
Sergio Rial ^G	90	—	—	—	—	—	—	—	39
Belén Romana	90	170	40	—	—	93	15	25	100
Pamela Walkden ^H	90	—	110	—	—	27	—	—	76
Rodrigo Echenique ^I	—	—	—	—	—	—	—	—	—
Ignacio Benjumea ^J	—	—	—	—	—	—	—	—	—
Guillermo de la Dehesa ^K	—	—	—	—	—	—	—	—	—
Esther Giménez-Salinas ^L	—	—	—	—	—	—	—	—	—
Total 2021	1,536	1,020	270	126	175	268	125	245	1,035
Total 2020	1,303	915	208	133	138	252	135	—	1,066

A. All amounts received were reimbursed to Fundación Botín.

B. Director since 1 April 2018.

C. Director since 27 October 2020.

D. Director since 17 July 2019.

E. Director since 22 December 2020.

F. Director since 19 May 2020.

G. Executive director since 30 May 2020.

H. Director since 29 October 2019.

I. Stepped down as executive director on 30 April 2019. Non-executive director from 1 May 2019 to 22 December 2020.

J. Stepped down as director on 5 May 2020.

K. Stepped down as director on 3 April 2020.

L. Stepped down as director on 27 October 2020.

M. Also includes emoluments for other roles in the board.

2021

2020

Short-term and deferred (not subject to long-term goals) salaries of executive directors

	Variable - immediate payment			Deferred variable		Total	Pension contribution	Other remuneration	Total	Total
	Fixed	In cash	In shares	In cash	In shares					
Ana Botín	3,176	1,838	1,839	1,103	1,103	9,059	1,041	1,006	11,436	6,819
José Antonio Álvarez	2,541	1,241	1,240	744	745	6,511	783	1,536	9,160	6,019
Bruce Carnegie-Brown	—	—	—	—	—	—	—	—	700	595
Homaira Akbari	—	—	—	—	—	—	—	—	248	203
Javier Botín ^A	—	—	—	—	—	—	—	—	129	122
Álvaro Cardoso ^B	—	—	—	—	—	—	—	—	183	243
R.Martín Chávez ^C	—	—	—	—	—	—	—	—	374	37
Sol Daurella	—	—	—	—	—	—	—	—	239	214
Henrique de Castro ^D	—	—	—	—	—	—	—	—	267	217
Gina Díez ^E	—	—	—	—	—	—	—	—	130	4
Luis Isasi ^F	—	—	—	—	—	—	—	1,000	1,406	943
Ramiro Mato	—	—	—	—	—	—	—	—	499	431
Sergio Rial ^G	750	—	—	—	—	750	—	—	879	63
Belén Romana	—	—	—	—	—	—	—	—	533	418
Pamela Walkden ^H	—	—	—	—	—	—	—	—	303	214
Rodrigo Echenique ^I	—	—	—	—	—	—	—	—	—	1,956
Ignacio Benjumea ^J	—	—	—	—	—	—	—	—	—	276
Guillermo de la Dehesa ^K	—	—	—	—	—	—	—	—	—	107
Esther Giménez-Salinas ^L	—	—	—	—	—	—	—	—	—	192
Total 2021	6,467	3,079	3,079	1,847	1,848	16,320	1,824	3,542	26,486	—
Total 2020	5,717	514	515	308	309	7,363	2,019	5,537	—	19,073

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

	2021			2020
	Variable subject to Long-term objectives		Total	Total
	In cash	In shares	Total	Total
Ana Botín	1,158	1,158	2,316	420
José Antonio Álvarez	782	782	1,563	228
Total	1,940	1,940	3,880	648

1. Corresponds with the fair value of the maximum amount they are entitled to in a total of 3 years: 2025, 2026 and 2027, 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 2021 and the levels of achievement of similar plans in comparable entities, the expert concludes that the reasonable range for estimating the initial achievement ratio is around 60% - 80%. Accordingly, it has been considered that the fair value is 70% of the maximum (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 2021 and 2020 variable remuneration plans.

In addition to the EUR 750,000 Sergio Rial received as Regional head for South America, he was paid the following amounts as CEO of Santander Brasil (additionally, in the following table, it is also disclosed the variable subject to long-term objectives at 70% of fair value):

2021	BRL thousand	EUR thousand
Base salary	12,645	1,985
Other fixed benefits	47	7
Pensions	7,350	1,153
Variable remuneration immediately payable and deferred (not linked to long-term objectives)	26,600	4,018
Total	46,642	7,163

EUR thousand

	2021			2020
	Variable subject to Long-term objectives		Total	Total
	In cash	In shares	Total	Total
Sergio Rial	791	791	1,582	1,311

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 2021 and 2020 the Bank's directors did not receive any remuneration in respect of these representative duties.

On the other hand, in their personal capacity, in 2021 Álvaro Cardoso was paid BRL 2,130 thousand (EUR 334 thousand) as non-executive chairman of Banco Santander Brasil, S.A., Homaira Akbari was paid USD 190 thousand (EUR 161 thousand) as member of the board of Santander Consumer USA (SCUSA) and EUR 52 thousand as member of the Board of PagoNxt, and Henrique de Castro and R. Martín Chávez were each paid the same EUR 52 thousand as members of the board of PagoNxt. Likewise, Pamela Walkden was paid GBP 31 thousand (EUR 36 thousand) as member of Santander UK plc y Santander UK Group Holdings.

Likewise, Luis Isasi was paid EUR 1,000 thousand as non-executive chairman of the board of Santander Spain and for attending board and committee meetings (amounts paid by Banco Santander, S.A.).

c) Post-employment and other long-term benefits

In 2012, the contracts of Ms. Ana Botín and Mr. José Antonio Álvarez (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.

Upon revision in 2021, José Antonio Álvarez's contract precluded the right to early retirement if terminated. Furthermore, Ana Botín is not entitled to early retirement if she freely resigns; however, she will still be entitled to it if Banco Santander terminates her contract before 31 August 2022, at which time early retirement will no longer be available. As long as she retains that right, she is entitled to an annual allotment equal to her total fixed remuneration, plus 30% of the average of up to her last three variable pays.

The initial balance for each of them 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 senior executives, 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.
- 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 2021 and 2020 for retirement pensions and supplementary benefits (surviving spouse and child benefits, and permanent disability) were as follows:

EUR thousand	2021	2020
Ana Botín	1,041	1,155
José Antonio Álvarez	783	864
Total	1,825	2,019

Following is a detail of the balances relating to each of the executive directors under the welfare system as of 31 December 2021 and 2020:

EUR thousand	2021	2020
Ana Botín	48,075	49,444
José Antonio Álvarez	18,821	18,082
Total	66,896	67,526

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 executive directors:

Insured capital EUR thousand	2021	2020
Ana Botín	21,489	21,984
José Antonio Álvarez	18,028	18,703
Total	39,517	40,687

The insured capital has been modified in 2018 for Ms Ana Botín and Mr José Antonio Álvarez 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 2021 and 2020, the Group has disbursed a total amount of EUR 25.5 million and EUR 19.5 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 executives 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. For this reason, it is not possible to disaggregate or individualize the amount that correspond to the directors and executives.

As of 31 December 2021 and 2020, 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 2021 and 2020 due to their participation in the deferred variable remuneration systems, which instrumented a portion of their variable remuneration relating to 2021 and prior years, as well as on the deliveries, in shares or in cash, made to them in 2021 and 2020 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 executives 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 Santander Group'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.

Deferred amounts (whether or not contingent on multi-year targets) is earned if the beneficiary continues to work with the group¹⁴, and none of the circumstances triggering the malus clause arise before each payment, according to the section on malus and clawback clauses in the remuneration policy.

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.

In the case of Sergio Rial, who does not receive any remuneration for executive duties in Banco Santander, S.A., the same policy principles, deferrals, multi year targets linked to the payment of deferred amounts and malus and clawback principles described herein apply to his variable remuneration in the subsidiary where he is the CEO.

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 deferred multiyear objectives variable remuneration plan.

The variable remuneration of executive directors and certain executives (including senior management) corresponding to 2021 has been approved by the Board of Directors and implemented through the sixth 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 (three years for certain beneficiaries, not including executive directors), to be paid, where appropriate, in five portions, provided that the conditions of permanence in the group and non-concurrence of *malus* clauses are met, and subject to long term metrics, according to the following accrual scheme:

- The accrual of the first and second parts (instalments in 2023 and 2024) is conditional on none of the *malus* clauses being triggered.
- The accrual of the third, fourth and fifth parts (instalments in 2025, 2026 and 2027) is linked to the fulfilment of certain objectives related to the 2021-2023 period and the metrics and scales associated with those objectives, as well as to non-concurrence of *malus* clauses. These objectives are:
 - The growth of consolidated earnings per share in 2023 compared to 2020;
 - The relative performance of the Bank's total shareholder return (RTA) in the 2021-2023 period in relation to the weighted RTAs of a reference group of 9 credit institutions;
 - Compliance with the fully loaded ordinary level 1 capital objective for the year 2023.

The degree of compliance with the above objectives determines the percentage to be applied to the deferred amount in these three annuities, the maximum being the amount determined at the end of the year 2021 when the total variable remuneration is approved.

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 Santander shares.

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 of 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.

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 fifteen 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.

In the case of Mr. Sergio Rial, as explained above, he just received a fixed pay for executive duties in Banco Santander, S.A. (head for South America), and he is included as CEO of Santander Brasil in the deferred variable compensation plan linked to multiannual objectives and thus subject to the same conditions and principles of deferral, multiannual objectives, deferrals and malus and clawback herein in respect of the remuneration he receives in his role as CEO of this subsidiary.

iii) Shares assigned by deferred variable remuneration plans

The following table shows the number of Santander shares assigned to each executive director and pending delivery as of 1 January 2020, 31 December 2020 and 31 December 2021, as well as the gross shares that were delivered to them in 2020 and 2021, 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 each of the plans through which the variable remunerations of deferred conditional variable remuneration plans in 2015 and of the deferred conditional and linked to multi-year objectives in 2016, 2017, 2018, 2019, 2020 and 2021 were formalized.

Share-based variable remuneration

	Maximum number of shares to be delivered at January 1, 2020	Shares delivered in 2020 (immediate payment 2019 variable remuneration)	Shares delivered in 2020 (deferred payment 2018 variable remuneration)	Shares delivered in 2020 (deferred payment 2017 variable remuneration)	Shares delivered in 2020 (deferred payment 2016 variable remuneration)	Variable remuneration 2020 (Maximum number of shares to be delivered)
2015 variable remuneration						
Ms Ana Botín-Sanz de Sautuola y O'Shea	128,809	—	—	—	—	—
Mr José Antonio Álvarez Álvarez	85,620	—	—	—	—	—
	214,429					
2016 variable remuneration						
Ms Ana Botín-Sanz de Sautuola y O'Shea	216,308	—	—	—	(72,102)	—
Mr José Antonio Álvarez Álvarez	145,998	—	—	—	(48,667)	—
	362,306				(120,769)	
2017 variable remuneration						
Ms Ana Botín-Sanz de Sautuola y O'Shea	275,700	—	—	(68,925)	—	—
Mr José Antonio Álvarez Álvarez	184,377	—	—	(46,094)	—	—
	460,077			(115,019)		
2018 variable remuneration						
Ms Ana Botín-Sanz de Sautuola y O'Shea	516,519	—	(103,304)	—	—	—
Mr José Antonio Álvarez Álvarez	345,161	—	(69,032)	—	—	—
	861,680		(172,336)			
2019 variable remuneration						
Ms Ana Botín-Sanz de Sautuola y O'Shea	887,193	(354,877)	—	—	—	—
Mr José Antonio Álvarez Álvarez	592,915	(237,166)	—	—	—	—
	1,480,108	(592,043)				
2020 variable remuneration						
Ms Ana Botín-Sanz de Sautuola y O'Shea	—	—	—	—	—	310,615
Mr José Antonio Álvarez Álvarez	—	—	—	—	—	168,715
Mr Sergio Rial ²	—	—	—	—	—	355,263
						834,593
2021 variable remuneration¹						
Ms Ana Botín-Sanz de Sautuola y O'Shea	—	—	—	—	—	—
Mr José Antonio Álvarez Álvarez	—	—	—	—	—	—
Mr Sergio Rial ²	—	—	—	—	—	—

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.
2. Mr. Sergio Rial's share-based variable remuneration awarded in shares of Banco Santander (Brasil). He has the right to a maximum of 51,483 Santander shares and 269,148 options over Santander shares for his participation in the 2019 Digital Transformation Award. In addition, Mr. Rodrigo Echenique maintains the right to a maximum of 518,517 shares arising from his participation in the corresponding plans during his term as executive director.

Maximum number of shares to be delivered at December 31, 2020	Instruments matured but not consolidated at January 1, 2021	Shares delivered in 2021 (immediate payment 2020 variable remuneration)	Shares delivered in 2021 (deferred payment 2019 variable remuneration)	Shares delivered in 2021 (deferred payment 2018 variable remuneration)	Shares delivered in 2021 (deferred payment 2017 variable remuneration)	Shares delivered in 2021 (deferred payment 2016 variable remuneration)	Variable remuneration 2021 (Maximum number of shares to be delivered)	Maximum number of shares to be delivered at December 31, 2021
128,809	—	—	—	—	—	—	—	128,809
85,620	—	—	—	—	—	—	—	85,620
214,429								214,429
144,206	(34,177)	—	—	—	—	(72,102)	—	37,927
97,331	(23,067)	—	—	—	—	(48,667)	—	25,597
241,537	(57,244)					(120,769)		63,524
206,775	(112,692)	—	—	—	(68,925)	—	—	25,158
138,283	(75,364)	—	—	—	(46,094)	—	—	16,825
345,058	(188,057)				(115,019)			41,983
413,215		—	—	(103,304)	—	—	—	309,911
276,129		—	—	(69,032)	—	—	—	207,097
689,344				(172,336)				517,008
532,316	—	—	(106,463)	—	—	—	—	425,853
355,749	—	—	(71,150)	—	—	—	—	284,599
888,065			(177,613)					710,452
310,615	—	(124,246)	—	—	—	—	—	186,369
168,715	—	(67,486)	—	—	—	—	—	101,229
355,263	—	(142,105)	—	—	—	—	—	213,158
834,593		(333,837)						500,756
—	—	—	—	—	—	—	1,480,622	1,480,622
—	—	—	—	—	—	—	999,259	999,259
—	—	—	—	—	—	—	625,000	625,000
							3,104,881	3,104,881

In addition, the table below shows the cash delivered in 2021 and 2020, 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

	2021		2020	
	Cash paid (immediate payment 2020 variable remuneration)	Cash paid (deferred payments from 2019, 2018, 2017 and 2016 variable remuneration)	Cash paid (immediate payment 2019 variable remuneration)	Cash paid (deferred payments from 2018, 2017, 2016 and 2015 variable remuneration)
Ms. Ana Botín-Sanz de Sautuola y O'Shea	334	1,550	1,302	1,383
Mr. José Antonio Álvarez Álvarez	181	1,037	870	925
Total	515	2,586	2,172	2,308

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 who ceased in office prior to 1 January 2020 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 2021 and 2020 to former board members, upon achievement of the conditions for the receipt thereof (see note 46):

MAXIMUM NUMBER OF SHARES TO BE DELIVERED

	2021	2020
Deferred conditional variable remuneration plan (2015)	—	60,847
Deferred conditional variable remuneration plan and linked to objectives (2016)	60,251	65,502
Deferred conditional variable remuneration plan and linked to objectives (2017)	64,659	47,956
Deferred conditional variable remuneration plan and linked to objectives (2018)	164,462	—
Deferred conditional variable remuneration plan and linked to objectives (2019)	130,790	—

NUMBER OF SHARES DELIVERED

	2021	2020
Deferred conditional variable remuneration plan (2015)	92,557	60,847
Performance shares plan ILP (2015)	—	—
Deferred conditional variable remuneration plan and linked to objectives (2016)	60,254	32,751
Deferred conditional variable remuneration plan and linked to objectives (2017)	32,330	35,132
Deferred conditional variable remuneration plan and linked to objectives (2018)	54,821	—
Deferred conditional variable remuneration plan and linked to objectives (2019)	32,698	—

In addition, EUR 1,213 thousand and EUR 612 thousand relating to the deferred portion payable in cash of the aforementioned plans were paid each in 2021 and 2020.

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

	2021			2020		
	Loans and credits	Guarantees	Total	Loans and credits	Guarantees	Total
Mrs Ana Botín-Sanz de Sautuola y O'Shea	25	—	25	14	—	14
Mr José Antonio Álvarez Álvarez	4	—	4	5	—	5
Mr Bruce Carnegie-Brown	—	—	—	—	—	—
Mr Javier Botín-Sanz de Sautuola y O'Shea	16	—	16	2	—	2
Mrs Sol Daurella Comadrán	69	—	69	22	—	22
Mrs Belén Romana García	—	—	—	—	—	—
Mr Ramiro Mato García-Ansorena	—	—	—	—	—	—
Mrs Homaira Akbari	—	—	—	—	—	—
Mr Álvaro Cardoso de Souza	—	—	—	—	—	—
Mr Henrique de Castro	—	—	—	—	—	—
Mrs Pamela Ann Walkden	—	—	—	—	—	—
Mr Luis Isasi Fernández de Bobadilla	—	—	—	—	—	—
Mr Sergio Agapito Lires Rial	1	—	1	—	—	—
Mr R. Martín Chávez Márquez	—	—	—	—	—	—
Mrs Gina Lorenza Díez Barroso	—	—	—	6	—	6
	115	—	115	49	—	49

g) Senior managers

The table below includes the amounts relating to the short-term remuneration of the members of senior management at 31 December 2021 and those at 31 December 2020, excluding the remuneration of the executive directors, which is detailed above:

EUR thousand

EUR thousand									
Year	Number of persons	Short-term salaries and deferred remuneration						Other remuneration ¹	Total
		Fixed	Variable remuneration (bonus) - Immediate payment		Deferred variable remuneration		Pensions		
			In cash	In shares ²	In cash	In shares ³			
2021	15	19,183	8,402	8,402	3,648	3,648	5,542	5,055	53,880
2020	18	21,642	5,739	5,740	2,470	2,471	6,039	6,312	50,413

1. Includes other remuneration items such as life and medical insurance premiums and localization aids.

2. The amount of immediate payment in shares for 2021 is 2,706,819 shares (2,135,700 Santander shares in 2020).

3. The deferred amount in shares not linked to long-term objectives for 2021 is 1,175,191 shares (919,308 Santander shares in 2020).

At the annual general meeting on 26 March 2021, shareholders approved the 2021 Digital Transformation Incentive, a variable remuneration scheme that delivers Santander shares and share options if the group hits major milestones on its digital roadmap.

In 2021, no senior executives are included in this programme. However, in 2020, three senior executives were included within this plan (aimed at a group of up to 250 employees whose functions are deemed essential to Santander Group's growth and digital transformation) and, thus, can receive a total of EUR 1,700 thousand to be paid in thirds on the third, fourth and fifth anniversary of the authorisation date (2024, 2025 and 2026). This amount was implemented in 316,574 Santander shares and 944,445 options over Santander shares, using for these purposes the fair value of the options at the moment of their grant (EUR 0.90).

See note 46 to the 2021 Group's consolidated financial statements for further information on the Digital Transformation Incentive.

In 2021, the ratio of variable to fixed pay components was 125% of the total for senior managers, well within the maximum limit of 200% set by 2021 AGM.

Also, the detail of the breakdown of the remuneration linked to long-term objectives of the members of senior management at 31 December 2021 and 31 December 2020 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

Year	Number of people	Variable remuneration subject to long-term objectives		Total
		Cash payment	Share payment	
2021	15	3,830	3,830	7,660
2020	18	2,594	2,594	5,188

1. Relates to the fair value of the maximum annual amounts for years 2025, 2026 and 2027 of the sixth cycle of the deferred conditional variable remuneration plan (2024, 2025 and 2026 for the fifth cycle of the deferred variable compensation plan linked to annual objectives for the year 2020).

Senior executive vice presidents who retired in 2021 and, therefore, were not members of senior management at year-end, received in 2021 salaries and other remuneration amounting to EUR 5,294 thousand (EUR 5,984 thousand in 2020). Likewise, these same individuals have generated as senior managers the right to obtain variable remuneration linked to long-term objectives for a total amount of EUR 55 thousand (this right has been generated in 2020 for a total amount of EUR 133 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 2021 and 31 December 2020 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

	2021	2020
Deferred conditional variable remuneration plan (2015)	—	179,617
Deferred conditional variable remuneration plan (2017)	—	2,786
Deferred conditional variable remuneration plan (2018)	3,475	6,949
Deferred conditional variable remuneration plan and linked to objectives (2016)	150,445	417,818
Deferred conditional variable remuneration plan and linked to objectives (2017)	164,428	791,360
Deferred conditional variable remuneration plan and linked to objectives (2018)	803,056	1,512,992
Deferred conditional variable remuneration plan and linked to objectives (2019)	1,274,450	2,154,312
Deferred conditional variable remuneration plan and linked to objectives (2020)	1,829,720	—

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 2021 and

2020 to the senior management, in addition to the payment of the related cash amounts:

Number of shares delivered

	2021	2020
Deferred conditional variable remuneration plan (2015)	146,930	179,614
Deferred conditional variable remuneration plan (2017)	2,786	2,786
Deferred conditional variable remuneration plan (2018)	3,474	3,474
Deferred conditional variable remuneration plan and linked to objectives (2016)	131,938	170,185
Deferred conditional variable remuneration plan and linked to objectives (2017)	79,104	219,363
Deferred conditional variable remuneration plan and linked to objectives (2018)	267,686	342,884
Deferred conditional variable remuneration plan and linked to objectives (2019)	321,006	—
Deferred conditional variable remuneration plan and linked to objectives (2020)	1,742,419	—

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 senior executives were modified at the beginning of 2018 with the same objective and changes indicated in section c of this note for Ms Ana Botín and Mr José Antonio Álvarez. 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 January 1, 2018. 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 2021 in the pension system for those who were part of senior management during the year amounted to EUR 64.3 million (EUR 59.4 million at 31 December 2020).

The net charge to income corresponding to pension and supplementary benefits for widows, orphans and permanent invalidity amounted to EUR 5.5 million in 2021 (EUR 6.4 million in 31 December 2020).

In 2021 and 2020 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 2020 of this group amounts to EUR 100 million (EUR 135.1 million at 31 December 2020).

h) Post-employment benefits to former Directors and former senior executive vice presidents

The post-employment benefits and settlements paid in 2021 to former directors of the Bank, other than those detailed in note 5.c amounted to EUR 5.6 million and EUR 11.2 million in 2020, respectively. Also, the post-employment benefits and settlements paid in 2021 to former executive vice presidents amounted to EUR 51.6 million and EUR 10.26 million in 2020, respectively.

Contributions to insurance policies that hedge pensions and complementary widowhood, orphanhood and permanent disability benefits to previous members of the Bank's board of directors, amounted to EUR 0.17 million in 2021 (EUR 0.17 million in 2020). Likewise, contributions to insurance policies that hedge pensions and complementary widowhood, orphanhood and permanent disability benefits for previous senior managers amounted to EUR 4.4 million in 2021 (EUR 5.8 million in 2020).

During the 2021 financial year, no release or charge was 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 (in 2020, five million releases were recorded), and no provisions/releases has been recorded in respect of former senior managers in 2021 and 2020.

In addition, 'Provisions - Pension Fund and similar obligations' in the consolidated balance sheet as at 31 December 2021 included EUR 50 million in respect of the post-employment benefit obligations to former Directors of the Bank (EUR 52 million at 31 December 2020) and EUR 114 million corresponding to former senior managers (EUR 159 million at 31 December 2020).

i) Pre-retirement and retirement

The board of directors approved an amendment to the contracts of the executive directors whereby:

- Ms Ana Botín ceases to have the right to pre-retire if she leaves the Bank out of her own volition, keeping this right in case of termination by the Bank until 1 September 2022. After this date, she does not have the right to pre-retire. While she keeps this right she will be entitled to an annual allotment equal to the sum of her fixed remuneration and 30% of the average amount of her last variable remuneration, to a maximum of three. This allotment is subject to the *malus* and clawback provisions in place for a period of five years.
- Mr. José Antonio Álvarez ceases to have the right to pre-retire in case of termination of his contract.

j) Contract termination

The executive directors and senior managers 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, Ms. Ana Botín-Sanz de Sautuola y O'Shea 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

	2021	2020	2019
CENTRAL BANKS			
Classification			
Financial assets held for trading	3,608	—	—
Non-trading financial assets mandatorily at fair value through profit or loss	—	—	—
Financial assets designated at fair value through profit or loss	—	9,481	6,473
Financial assets designated at fair value through other comprehensive income	—	—	—
Financial assets at amortised cost	15,657	12,499	18,474
	19,265	21,980	24,947
Type			
Time deposits	13,275	11,757	17,533
Reverse repurchase agreements	5,990	10,223	7,414
Impaired assets	—	—	—
Valuation adjustments for impairment	—	—	—
	19,265	21,980	24,947
CREDIT INSTITUTIONS			
Classification			
Financial assets held for trading	10,397	3	—
Non-trading financial assets mandatorily at fair value through profit or loss	—	—	—
Financial assets designated at fair value through profit or loss	3,152	12,136	21,649
Financial assets designated at fair value through other comprehensive income	—	—	—
Financial assets at amortised cost	39,169	37,838	40,943
	52,718	49,977	62,592
Type			
Time deposits	10,684	7,338	9,699
Reverse repurchase agreements	18,853	20,862	31,180
Non- loans advances	23,188	21,784	21,726
Impaired assets	1	1	1
Valuation adjustments for impairment	(8)	(8)	(14)
	52,718	49,977	62,592
CURRENCY			
Euro	24,286	22,260	32,248
Pound sterling	3,228	4,127	3,659
US dollar	12,639	13,209	14,442
Brazilian real	24,011	26,437	30,919
Other currencies	7,819	5,924	6,271
TOTAL	71,983	71,957	87,539

The loans and advances to credit institutions classified under 'Financial assets at amortised' cost are mainly time accounts and deposits.

Note 50 contains a detail of the residual maturity periods of 'Financial assets at amortised cost'.

At 31 December 2021 the exposure by impairment stage of the assets accounted for amounts to EUR 54,833, EUR 0 and EUR 1 million (EUR 50,344, EUR 0 and EUR 1 million in 2020 and EUR 59,430, EUR 0 and EUR 1 million in 2019), and the loan loss provision by impairment stage amounts to EUR 8, EUR 0 and EUR 0 million (EUR 8, EUR 0 and EUR 0 million in 2020 and EUR 14, EUR 0 and EUR 0 million in 2019) in stage 1, stage 2 and stage 3, respectively.

7. Debt instruments

a) Detail

The detail, by classification, type and currency, of Debt instruments in the consolidated balance sheets is as follows:

EUR million	2021	2020	2019
Classification			
Financial assets held for trading	26,750	37,894	32,041
Non-trading financial assets mandatorily at fair value through profit or loss	957	700	1,175
Financial assets designated at fair value through profit or loss	2,516	2,979	3,186
Financial assets designated at fair value through other comprehensive income	97,922	108,903	118,405
Financial assets at amortised cost	35,708	26,078	29,789
	163,853	176,554	184,596
Type			
Spanish government debt securities	20,638	30,397	42,054
Foreign government debt securities	102,976	110,570	107,434
Issued by financial institutions	12,324	10,133	9,670
Other fixed-income securities	27,850	25,337	25,265
Impaired financial assets	280	401	647
Impairment losses	(215)	(284)	(474)
	163,853	176,554	184,596
Currency			
Euro	45,197	58,850	70,357
Pound sterling	6,304	7,372	15,713
US dollar	34,229	29,009	29,846
Brazilian real	35,907	35,139	38,316
Other currencies	42,431	46,468	30,838
Debt securities excluding impairment adjustments	164,068	176,838	185,070
Impairment losses	(215)	(284)	(474)
	163,853	176,554	184,596

In the last quarter of 2019, debt securities were transferred from the 'Financial asset at amortised cost' to the 'Financial asset at fair value through other comprehensive income'. The fair value of these assets at the date of the transfer being EUR 6,359 million.

As established in IFRS 9, the aforementioned transfer was made prospectively, recognising the difference between the previous amortised cost of the transferred financial assets and their fair value in 'Other comprehensive income'. In application of this standard, the effective interest rate and the measurement of expected credit losses were not adjusted as a result of the reclassification.

The context of adapting the Group's commercial strategy to the changes in business models, in order to favour a greater alignment of the sensitivity of the Bank's balance sheet masses to interest rates, has led to a change in the assets related to these liabilities from a business model whose objective is to collect the principal and interest flows to a business model whose objective is achieved through the collection of the principal and interest flows and the sale of these assets.

At 31 December 2021, 2020 and 2019 the exposure by impairment stage of the book assets under IFRS 9 amounted to EUR 133,437 million, EUR 134,792 million and EUR 147,575 million in stage 1; EUR 128 million, EUR 72 million and EUR 446 million in stage 2, and EUR 280 million, EUR 401 million and EUR 647 million in stage 3, respectively.

b) Breakdown

The breakdown, by origin of the issuer, of debt instruments at 31 December 2021, 2020 and 2019, net of impairment losses, is as follows:

EUR million												
	2021				2020				2019			
	Private fixed-income	Public fixed-income	Total	%	Private fixed-income	Public fixed-income	Total	%	Private fixed-income	Public fixed-income	Total	%
Spain	3,773	20,638	24,411	14.90%	1,588	30,397	31,985	18.12%	3,634	42,054	45,688	24.75%
United Kingdom	3,334	2,097	5,431	3.31%	3,099	2,795	5,894	3.34%	3,806	11,479	15,285	8.28%
Portugal	3,008	3,845	6,853	4.18%	3,095	6,462	9,557	5.41%	2,979	7,563	10,542	5.71%
Italy	1,215	1,531	2,746	1.68%	1,047	4,688	5,735	3.25%	1,384	3,620	5,004	2.71%
Ireland	4,759	52	4,811	2.94%	2,924	2	2,926	1.66%	2,387	2	2,389	1.29%
Poland	2,848	12,727	15,575	9.51%	3,126	11,400	14,526	8.23%	460	9,361	9,821	5.32%
Other European countries	8,922	3,422	12,344	7.53%	8,211	2,891	11,102	6.29%	7,186	1,784	8,970	4.86%
United States	5,634	21,465	27,099	16.54%	6,386	14,645	21,031	11.91%	5,915	15,609	21,524	11.66%
Brazil	5,446	29,251	34,697	21.18%	5,179	33,316	38,495	21.80%	5,808	35,036	40,844	22.13%
Mexico	517	14,572	15,089	9.21%	435	19,053	19,488	11.04%	708	13,234	13,942	7.55%
Chile	51	9,467	9,518	5.81%	41	8,082	8,123	4.60%	50	4,819	4,869	2.64%
Other American countries	655	2,128	2,783	1.70%	274	3,098	3,372	1.91%	605	1,095	1,700	0.92%
Rest of the world	77	2,419	2,496	1.52%	182	4,138	4,320	2.44%	186	3,832	4,018	2.18%
	40,239	123,614	163,853	100%	35,587	140,967	176,554	100%	35,108	149,488	184,596	100%

The detail, by issuer rating, of Debt instruments at 31 December 2021, 2020 and 2019 is as follows:

EUR million												
	2021				2020				2019			
	Private fixed-income	Public fixed-income	Total	%	Private fixed-income	Public fixed-income	Total	%	Private fixed-income	Public fixed-income	Total	%
AAA	15,956	1,773	17,729	10.82%	14,088	2,099	16,187	9.17%	14,737	1,085	15,822	8.57%
AA	2,005	26,355	28,360	17.31%	1,714	18,784	20,498	11.61%	5,133	28,325	33,458	18.13%
A	8,594	44,359	52,953	32.32%	6,228	53,655	59,883	33.92%	3,238	59,744	62,982	34.12%
BBB	5,234	20,304	25,538	15.59%	6,515	31,204	37,719	21.36%	4,889	24,766	29,655	16.06%
Below BBB	3,584	30,823	34,407	21.00%	3,431	35,164	38,595	21.86%	1,244	35,466	36,710	19.89%
Unrated	4,866	—	4,866	2.97%	3,611	61	3,672	2.08%	5,867	102	5,969	3.23%
	40,239	123,614	163,853	100%	35,587	140,967	176,554	100%	35,108	149,488	184,596	100%

During 2021, 2020 and 2019, the distribution of the exposure by rating level of the previous table has not been affected by ratings reviews of the sovereign issuers.

The detail, by type of financial instrument, of private fixed-income securities at 31 December 2021, 2020 and 2019, net of impairment losses, is as follows:

EUR million	2021	2020	2019
Securitised mortgage bonds	5,806	5,926	5,494
Other asset-backed bonds	6,304	5,479	6,388
Floating rate debt	8,081	7,829	10,348
Fixed rate debt	20,048	16,353	12,878
Total	40,239	35,587	35,108

c) Impairment losses

The changes in the impairment losses on debt instruments are summarised below:

EUR million	2021	2020	2019
Balance at beginning of year	284	474	635
Net impairment losses for the year*	28	79	(170)
Of which:			
Impairment losses charged to income	49	91	77
Impairment losses reversed with a credit to income	(21)	(12)	(247)
Exchange differences and other items	(97)	(269)	9
Balance at end of year	215	284	474
Of which:			
By geographical location of risk:			
European Union	25	21	14
Latin America	190	263	460

* Of the EUR 28 million corresponding to net provisions for the year ended 31 December 2021 (EUR 79 million and EUR -170 million at 31 December 2020 and 2019, respectively), EUR 31 million relates to financial assets at amortized cost (EUR 77 million and EUR -176 million at 31 December 2020 and 2019, respectively) and EUR -3 million relates to financial assets designated at fair value through other comprehensive income (EUR 2 million and EUR 6 million at 31 December 2020 and 2019, respectively).

At 31 December 2021, 2020 and 2019 the loan loss provision by impairment stage of the assets accounted for under IFRS9 amounted to EUR 26 million, EUR 25 million and EUR 22 million in stage 1, EUR 8 million, EUR 2 million and EUR 6 million in stage 2, and EUR 181 million, EUR 257 million and EUR 446 million in stage 3, respectively.

8. Equity instruments

a) Breakdown

The detail, by classification and type, of Equity instruments in the consolidated balance sheets is as follows:

EUR million	2021	2020	2019
Classification			
Financial assets held for trading	15,077	9,615	12,437
Non-trading financial assets mandatorily at fair value through profit or loss	4,042	3,234	3,350
Financial assets designated at fair value through other comprehensive income	2,453	2,783	2,863
	21,572	15,632	18,650
Type			
Shares of Spanish companies	3,896	3,364	3,711
Shares of foreign companies	15,184	10,437	12,682
Shares of investment funds	2,492	1,831	2,257
	21,572	15,632	18,650

Note 29 contains a detail of the 'Other comprehensive income', recognised in equity, on 'Financial assets designated at fair value through other comprehensive income'.

b) Changes

The changes in 'Financial assets at fair value through other comprehensive income' were as follows:

EUR million	2021	2020	2019
Balance at beginning of the year	2,783	2,863	2,671
Net additions (disposals)	(276)	833	177
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (EIGR)*	(171)	(917)	(29)
Changes in the RV hedged with micro-hedging transactions	117	4	44
Balance at end of year	2,453	2,783	2,863

* They do not include fair value movements for currency risk hedged with hedging instruments.

c) Notifications of acquisitions of investments

The notifications of the acquisitions and disposals of holdings in investees made by the Bank in 2021, in compliance with Article 155 of the Spanish Limited Liability Companies Law and Article 125 of Spanish Securities Market Law 24/1998, are listed in appendix IV.

9. Trading Derivatives (assets and liabilities) and short positions

a) Trading Derivatives

The detail, by type of inherent risk, of the fair value of the trading derivatives arranged by the Group is as follows (see note 11):

EUR million						
	2021		2020		2019	
	Debit balance	Credit balance	Debit balance	Credit balance	Debit balance	Credit balance
Interest rate risk	31,884	30,192	43,832	41,085	42,614	40,956
Currency risk	19,823	21,894	21,162	22,028	18,085	19,870
Price risk	1,498	891	1,931	944	2,329	1,772
Other risks	1,087	589	212	412	369	418
	54,292	53,566	67,137	64,469	63,397	63,016

b) Short positions

Following is a breakdown of the short positions (liabilities):

EUR million			
	2021	2020	2019
Borrowed securities			
Debt instruments	825	625	390
Of which:			
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	825	625	390
Equity instruments	389	289	393
Of which:			
Banco Santander, S.A.	318	289	308
Short sales			
Debt instruments	11,022	15,784	13,340
Of which:			
Banco Santander, S.A.	8,926	8,645	7,980
Banco Santander (Brasil) S.A.	1,952	7,085	5,194
	12,236	16,698	14,123

10. Loans and advances to customers

a) Detail

The detail, by classification, of Loans and advances to customers in the consolidated balance sheets is as follows:

EUR million			
	2021	2020	2019
Financial assets held for trading	6,829	296	355
Non-trading financial assets mandatorily at fair value through profit or loss	537	552	386
Financial assets designated at fair value through profit or loss	10,289	24,121	30,761
Financial assets at fair value through other comprehensive income	7,663	9,267	4,440
Financial assets at amortized cost	947,364	881,963	906,276
Of which:			
Impairment losses	(22,964)	(23,595)	(22,242)
	972,682	916,199	942,218
Loans and advances to customers disregarding impairment losses	995,646	939,794	964,460

Note 50 contains a detail of the residual maturity periods of 'Financial assets.

Note 53 shows the Group's total exposure, by geographical origin of the issuer.

There are no loans and advances to customers for material amounts without fixed maturity dates.

b) Breakdown

Following is a breakdown of the loans and advances granted to the Group's customers, which reflect the Group's exposure to credit risk in its main activity, without considering the balance of value adjustments for impairment, taking into account the type and situation of the transactions, the geographical area of their residence and the type of interest rate on the transactions:

EUR million

	2021	2020	2019
Loan type and status			
Commercial credit	49,603	37,459	37,753
Secured loans	542,404	503,014	513,929
Reverse repurchase agreements	33,264	35,702	45,703
Other term loans	269,526	269,143	267,154
Finance leases	38,503	36,251	35,788
Receivable on demand	10,304	7,903	7,714
Credit cards receivables	20,397	19,507	23,876
Impaired assets	31,645	30,815	32,543
	995,646	939,794	964,460
Geographical area			
Spain	216,741	215,330	204,810
European Union (excluding Spain)*	190,032	192,988	460,338
United States and Puerto Rico	102,491	93,405	100,152
Other OECD countries*	374,729	338,362	86,327
South America (non - OECD)	94,010	79,629	92,145
Rest of the world	17,643	20,080	20,688
	995,646	939,794	964,460
Interest rate formula			
Fixed rate	593,645	550,883	546,619
Floating rate	402,001	388,911	417,841
	995,646	939,794	964,460

* The amounts referring to the years 2021 and 2020 for the United Kingdom have been considered in the line Other OECD countries, instead of in the line European Union (excluding Spain) due to the leaving of the United Kingdom from the European Union.

At 31 December 2021, 2020 and 2019 the Group had granted loans amounting to EUR 14,131, 12,104 and 9,993 million to Spanish public sector agencies which had a rating at 31 December 2021 of A (ratings of A at 31 December 2020 and 31 December 2019), and EUR 10,263, 10,779, and 12,218 million to the public sector in other countries (at 31 December 2021, the breakdown of this amount by issuer rating was as follows: 1.2% AAA, 13.4% AA, 5.2% A, 69.9% BBB, 9.7% below BBB and 0.5% without rating).

Without considering the public administrations, the amount of the loans and advances at 31 December 2021, 2020 and 2019 amounts to EUR 971,252 million, EUR 916,911 million and EUR 942,249 million, of which, EUR 939,645 million, EUR 886,118 million and EUR 909,741 million are classified as performing, respectively.

Following is a detail, by activity, of the loans to customers at 31 December 2021, net of impairment losses:

EUR million

	Secured loans								
	Net exposure				Loan-to-value ratio***				
	Total	Without collateral	Of which property collateral	Of which other collateral	Less than or equal to 40%	More than 40% and less than or equal to 60%	More than 60% and less than or equal to 80%	More than 80% and less than or equal to 100%	More than 100%
Public sector	22,152	21,359	180	613	68	81	26	608	10
Other financial institutions (financial business activity)	70,348	27,770	2,612	39,966	2,532	1,868	1,585	35,871	722
Non-financial corporations and individual entrepreneurs (non-financial business activity) (broken down by purpose)	323,475	182,711	60,112	80,652	24,034	21,064	18,461	57,321	19,884
Of which:									
Construction and property development	18,936	2,349	9,778	6,809	5,357	4,821	1,695	3,555	1,159
Civil engineering construction	3,061	1,818	219	1,024	108	149	167	688	131
Large companies	174,191	116,018	19,655	38,518	7,789	5,111	5,365	31,122	8,786
SMEs and individual entrepreneurs	127,287	62,526	30,460	34,301	10,780	10,983	11,234	21,956	9,808
Households – other (broken down by purpose)	540,339	96,351	360,447	83,541	98,463	117,198	138,456	55,419	34,452
Of which:									
Residential	353,623	2,257	350,651	715	91,428	110,574	121,400	24,007	3,957
Consumer loans	167,760	91,829	1,403	74,528	2,927	3,938	13,083	26,721	29,262
Other purposes	18,956	2,265	8,393	8,298	4,108	2,686	3,973	4,691	1,233
Total*	956,314	328,191	423,351	204,772	125,097	140,211	158,528	149,219	55,068
Memorandum item									
Refinanced and restructured transactions**	27,781	11,975	11,222	4,584	3,856	2,237	4,678	2,442	2,593

* In addition, the Group has granted advances to customers amounting to EUR 16,368 million, bringing the total of loans and advances to EUR 972,682 million.

** Includes the net balance of the impairment of the accumulated value or accumulated losses in the fair value due to credit risk.

*** The ratio is the carrying amount of the transactions at 31 December 2021 provided by the latest available appraisal value of the collateral.

Note 53 contains information relating to the forborne loan portfolio.

Following is the movement of the gross exposure broken down by impairment stage of loans and advances to customers recognised under "Financial assets at amortised cost" and "Financial assets at fair value through other comprehensive income" during 2021, 2020 and 2019:

2021**EUR million**

	Stage 1	Stage 2	Stage 3	Total
Balance at the beginning of year	817,906	66,104	30,318	914,328
Movements				
Transfers				
To stage 2 from stage 1	(33,051)	33,051		—
To stage 3 from stage 1	(6,617)		6,617	—
To stage 3 from stage 2		(5,836)	5,836	—
To stage 1 from stage 2	17,796	(17,796)		—
To stage 2 from stage 3		1,865	(1,865)	—
To stage 1 from stage 3	271		(271)	—
Net changes on financial assets	62,629	(11,629)	(719)	50,281
Write-offs	—	—	(9,089)	(9,089)
Exchange differences and others	19,766	1,825	460	22,051
Balance at the end of the year	878,700	67,584	31,287	977,571

2020**EUR million**

	Stage 1	Stage 2	Stage 3	Total
Balance at the beginning of year	849,939	50,476	31,837	932,252
Movements				
Transfers				
To stage 2 from stage 1	(43,170)	43,170		—
To stage 3 from stage 1	(5,120)		5,120	—
To stage 3 from stage 2		(8,734)	8,734	—
To stage 1 from stage 2	13,459	(13,459)		—
To stage 2 from stage 3		1,831	(1,831)	—
To stage 1 from stage 3	578		(578)	—
Net changes on financial assets	53,555	(2,951)	(659)	49,945
Write-offs	—	—	(8,930)	(8,930)
Exchange differences and others	(51,335)	(4,229)	(3,375)	(58,939)
Balance at the end of the year	817,906	66,104	30,318	914,328

2019**EUR million**

	Stage 1	Stage 2	Stage 3	Total
Balance at the beginning of year	795,829	52,183	33,461	881,473
Movements				
Transfers				
To stage 2 from stage 1	(28,369)	28,369		—
To stage 3 from stage 1	(4,101)		4,101	—
To stage 3 from stage 2		(13,240)	13,240	—
To stage 1 from stage 2	12,436	(12,436)		—
To stage 2 from stage 3		2,439	(2,439)	—
To stage 1 from stage 3	488		(488)	—
Net changes on financial assets	61,581	(8,092)	(3,608)	49,881
Write-offs	—	—	(12,593)	(12,593)
Exchange differences and others	12,075	1,253	163	13,491
Balance at the end of the year	849,939	50,476	31,837	932,252

In addition, at 31 December 2021, the Group had EUR 420 million (EUR 497 million at 31 December 2020 and EUR 706 million at 31 December 2019) of exposure in assets purchased with impairment of which EUR 358 million still show signs of impairment, which correspond mainly to the business combinations carried out by the Group.

c) Impairment losses on loans and advances to customers at amortised cost and at fair value through other comprehensive income

The changes in the impairment losses on the assets making up the balances of financial assets at amortised cost and at fair value through other comprehensive income - Loans and advances - Customers:

EUR million	2021	2020	2019
Amount at beginning of the year	23,595	22,242	23,307
Impairment losses charged to income for the year	8,762	13,385	11,108
Of which:			
Impairment losses charged to profit or loss	18,240	20,909	19,192
Impairment losses reversed with a credit to profit or loss	(9,478)	(7,524)	(8,084)
Change of perimeter	—	(82)	—
Write-off of impaired balances against recorded impairment allowance	(9,089)	(8,930)	(12,593)
Exchange differences and other changes	(304)	(3,020)	420
Amount at end of the year	22,964	23,595	22,242
Which correspond to:			
Impaired assets	13,550	13,658	13,933
Other assets	9,414	9,937	8,309
Of which:			
Individually calculated	2,496	2,679	3,555
Collective calculated	20,468	20,916	18,687

In addition, provisions for debt securities amounting to EUR 28 million were recorded at 31 December 2021 (provisions amounting to EUR 79 million and releases amounting EUR 170 million as of 31 December 2020 and 2019, respectively), written-off assets recoveries have been recorded in the year amounting to EUR 1,383 million at 31 December 2021 (EUR 1,221 million and EUR 1,586 million at 31 December 2020 and 2019, respectively) and EUR 0 million were recorded in the account for losses on renegotiation or contractual modification at 31 December 2021 (EUR 139 million and EUR 0 million at 31 December 2020 and 2019, respectively). With this, the impairment recorded in Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes: 'Financial assets at fair value through other comprehensive income' and 'Financial assets at amortised cost'; amounts EUR 7,407 million at 31 December 2021 (EUR 12,382 million and EUR 9,352 million at 31 December 2020 and 2019, respectively).

Following is the movement of the loan loss provision broken down by impairment stage of loans and advances to customers during 2021, 2020 and 2019:

2021

EUR million	Stage 1	Stage 2	Stage 3	Total
Loss allowance at the beginning of the year	4,265	5,672	13,658	23,595
Transfers				
To stage 2 from stage 1	(578)	2,968		2,390
To stage 3 from stage 1	(237)		2,209	1,972
To stage 3 from stage 2		(1,086)	2,474	1,388
To stage 1 from stage 2	254	(1,025)		(771)
To stage 2 from stage 3		216	(760)	(544)
To stage 1 from stage 3	8		(67)	(59)
Net changes of the exposure and modifications in the credit risk	617	(1,557)	5,326	4,386
Write-offs	—	—	(9,089)	(9,089)
FX and other movements	(141)	38	(201)	(304)
Loss allowance at the end of the year	4,188	5,226	13,550	22,964

2020

EUR million	Stage 1	Stage 2	Stage 3	Total
Loss allowance at the beginning of the year	3,835	4,474	13,933	22,242
Transfers				
To stage 2 from stage 1	(1,040)	2,880		1,840
To stage 3 from stage 1	(255)		2,386	2,131
To stage 3 from stage 2		(971)	2,066	1,095
To stage 1 from stage 2	294	(976)		(682)
To stage 2 from stage 3		303	(727)	(424)
To stage 1 from stage 3	53		(138)	(85)
Net changes of the exposure and modifications in the credit risk	1,966	535	7,009	9,510
Write-offs	—	—	(8,930)	(8,930)
FX and other movements	(588)	(573)	(1,941)	(3,102)
Loss allowance at the end of the year	4,265	5,672	13,658	23,595

2019

EUR million

	Stage 1	Stage 2	Stage 3	Total
Loss allowance at the beginning of the year	3,658	4,743	14,906	23,307
Transfers				
To stage 2 from stage 1	(964)	3,235		2,271
To stage 3 from stage 1	(214)		1,296	1,082
To stage 3 from stage 2		(3,065)	5,612	2,547
To stage 1 from stage 2	301	(1,048)		(747)
To stage 2 from stage 3		381	(817)	(436)
To stage 1 from stage 3	29		(123)	(94)
Net changes of the exposure and modifications in the credit risk	1,119	(182)	5,548	6,485
Write-offs	—	—	(12,593)	(12,593)
FX and other movements	(94)	410	104	420
Loss allowance at the end of the year	3,835	4,474	13,933	22,242

d) Impaired assets and assets with unpaid past-due amounts

The detail of the changes in the balance of the financial assets classified as 'Financial assets Loans to customers' considered to be impaired due to credit risk is as follows:

EUR million

	2021	2020	2019
Balance at beginning of year	30,815	32,543	34,218
Net additions	9,390	10,577	10,755
Written-off assets	(9,089)	(8,930)	(12,593)
Changes in the scope of consolidation	—	(39)	—
Exchange differences and other	529	(3,336)	163
Balance at end of year	31,645	30,815	32,543

This amount, after deducting the related allowances, represents the Group's best estimate of the discounted value of the flows that are expected to be recovered from the impaired assets.

At 31 December 2021, the Group's written-off assets totalled EUR 40,585 million (EUR 39,087 million and EUR 46,209 million at 31 December 2020 and 2019, respectively).

Set forth below for each class of impaired asset are the gross amount, associated allowances and information relating to the collateral and/or other credit enhancements obtained at 31 December 2021:

EUR million

	Gross amount	Allowance recognised	Estimated collateral value*
Without associated real collateral	13,327	7,416	—
With real estate collateral	12,907	3,540	9,054
With other collateral	5,411	2,594	2,317
Total	31,645	13,550	11,371

* Including the estimated value of the collateral associated with each loan. Accordingly, any other cash flows that may be obtained, such as those arising from borrowers' personal guarantees, are not included.

When classifying assets in the previous table, the main factors considered by the Group to determine whether an asset has become impaired are the existence of amounts past due —assets impaired due to arrears— or other circumstances may be arise which will not result in all contractual cash flow being recovered, such as a deterioration of the borrower's financial situation, the worsening of its capacity to generate funds or difficulties experienced by it in accessing credit.

e) Transferred credits

'Loans and advances to customers' includes, inter alia, the securitised loans transferred to third parties on which the Group has retained the risks and rewards, albeit partially, and which therefore, in accordance with the applicable accounting standards, cannot be derecognised. This is mainly due to mortgage loans, loans to companies and consumer loans in which the group retains subordinate financing and/or grants some kind of credit enhancement to new holders.

Securitisation is used as a tool for the management of regulatory capital and as a means of diversifying the Group's liquidity sources.

The breakdown of securitized loans held on the balance sheet, according to the nature of the financial instrument in which they are originated, is shown below:

EUR million

	2021	2020	2019
Retained on the balance sheet	80,600	88,662	93,553
Of which			
Securitised mortgage assets	19,523	30,145	31,868
Of which: UK assets	5,295	9,034	13,002
Other securitised assets	61,077	58,517	61,685
Total*	80,600	88,662	93,553

* Note 22 details the liabilities associated with these securitisation transactions.

At 31 December 2021, Grupo Santander had loans that had been fully derecognised and for which it retained servicing amounting to EUR 14,141 million (EUR 13,999 million and EUR 16,786 million at 31 December 2020 and 2019, respectively).

11. Trading derivatives

The detail of the notional amounts and the market values of the trading derivatives held by the Group in 2021, 2020 and 2019 is as follows:

EUR million						
	2021		2020		2019	
	Notional amount	Market value	Notional amount	Market value	Notional amount	Market value
Trading derivatives						
Interest rate risk						
Forward rate agreements	147,603	(11)	515,889	—	218,252	(8)
Interest rate swaps	3,920,945	1,931	3,789,169	3,638	4,322,199	2,573
Options, futures and other derivatives	508,723	(228)	698,500	(891)	794,140	(907)
Credit risk						
Credit default swaps	13,571	436	12,378	(133)	23,701	(71)
Foreign currency risk						
Foreign currency purchases and sales	329,781	(664)	304,280	(45)	325,720	(441)
Foreign currency options	49,680	(114)	45,074	(7)	44,763	(182)
Currency swaps	430,644	(1,293)	394,178	(814)	379,176	(1,162)
Securities and commodities derivatives and other	69,850	669	70,861	920	61,966	579
Total	5,470,797	726	5,830,329	2,668	6,169,917	381

12. Non-current assets

The detail of Non-current assets held for sale in the consolidated balance sheets is as follows:

EUR million			
	2021	2020	2019
Tangible assets	4,089	4,445	4,588
Of which:			
Foreclosed assets	3,651	4,081	4,485
Of which property assets in Spain*	3,120	3,485	3,667
Other tangible assets held for sale	438	364	103
Other assets	—	—	13
Total	4,089	4,445	4,601

* During 2019, the sale of real estate assets to Cerberus from foreclosures materialized, generating losses of EUR 180 million.

At 31 December 2021, the allowances recognised for the total non-current assets held for sale represented 48% (48% at 31 December 2020 and 2019). The charges recorded in those years amounted to EUR 239 million, EUR 250 million and EUR 279 million, respectively, and the recoveries during these exercises are amounted to EUR 98 million, EUR 35 million and EUR 133 million, respectively.

13. Investments

a) Breakdown

The detail, by company, of Investments is as follows:

EUR million	2021	2020	2019
Associated entities	5,833	6,130	7,447
Merlin Properties, SOCIMI, S.A.	1,640	1,581	1,511
Metrovacesa, S.A.	1,087	1,157	1,226
Caceis (note 3)	975	1,077	1,010
Zurich Santander Insurance America, S.L. - Consolidated	826	955	1,009
CNP Santander	418	439	402
Ebury Partners Limited (note 3)	394	388	—
Popular Spain Holding de Inversiones, S.L.U. (former Allianz Popular, S.L.) (note 3)	—	—	409
Project Quasar Investment 2017 S.L.*	—	—	1,351
Other companies	493	533	529
Joint Ventures entities	1,692	1,492	1,325
Santander Vida Seguros y Reaseguros, S.A. (note 3)	378	381	170
Santander Caceis Latam Holding 1, S.L. - Consolidated (previously Santander Securites Services Latam Holding, S.L.)	334	326	349
U.C.I., S.A. - Consolidated	228	168	206
Fortune Auto Finance Co., Ltd	222	172	155
Hyundai Capital UK Limited	201	151	135
Banco RCI Brasil S.A.	92	88	116
Other companies	237	206	194
Total Associated entities and Joint ventures	7,525	7,622	8,772

* At 31 December 2021 and 2020, the Group did not hold significant influence over this company, despite holding a 49% interest in it, since it did not meet any of the requirements established in the Standard by which an entity is considered to exercise significant influence over another.

Of the entities included above, at 31 December 2021, the entities Merlin Properties, SOCIMI, S.A, Metrovacesa S.A. and Compañía Española de Viviendas en Alquiler, S.A. are the only listed companies.

Below is a breakdown of the Goodwill of the main investments in joint ventures and associates included in the balance of this heading:

EUR million	2021	2020	2019
Goodwill	1,723	1,862	2,043
<i>Of which:</i>			
Zurich Santander Insurance America, S.L. - Consolidated	526	526	526
Caceis	337	337	466

b) Changes

The changes in the investments were as follows:

EUR million	2021	2020	2019
Balance at beginning of year	7,622	8,772	7,588
Acquisitions (disposals) of companies and capital increases (reductions)	94	676	(123)
<i>Of which:</i>			
Ebury Partners Limited (note 3)	—	409	—
Santander Vida Seguros y Reaseguros, S.A. (note 3)	—	219	—
Changes in the consolidation method (note 3)	—	(1,359)	1,368
<i>Of which:</i>			
Project Quasar Investments 2017, S.L.	—	(956)	—
Popular Spain Holding de Inversiones, S.L.U. (former Allianz Popular, S.L.) (note 3)	—	(409)	—
Caceis	—	—	1,010
Santander CACEIS Latam Holding 1, S.L. - Consolidado (former Santander Securities Services Latam Holding, S.L.)	—	—	349
Effect of equity accounting	432	(96)	324
Dividends distributed and reimbursements of share premium	(662)	(186)	(407)
<i>Of which:</i>			
Zurich Santander Insurance America S.L. - Consolidated	(230)	(80)	(158)
Caceis	(144)	—	—
CNP Santander	(60)	—	(37)
Metrovacesa, S.A.	(60)	—	(25)
Santander Vida Seguros y Reaseguros, S.A. - Consolidado	(31)	(37)	(29)
Merlin Properties, SOCIMI, S.A.	(52)	(17)	(53)
Popular Spain Holding de Inversiones, S.L.U. (former Allianz Popular, S.L.) (note 3)	—	—	(52)
Other global result	(13)	(1)	5
Exchange differences and other changes	52	(184)	17
Balance at end of year	7,525	7,622	8,772

c) Impairment adjustments

During the years 2021, 2020 and 2019 there was no evidence of significant impairment in the Group's associated interests.

d) Other information

A summary of the financial information at the end of December 2021 of the main associates and joint ventures (obtained from the information available at the date of preparation of the consolidated financial statements) is shown below:

EUR million

	Associates						Joint ventures					
	Merlin Properties, SOCIMI, S.A.*	Metrovacesa, S.A.*	Caceis (note 3)	Zurich Santander Insurance América, S.L. - Consolidated	CNP Santander	Ebury Partners Limited (note 3)**	Santander Caceis Latam Holding, S.L. - Consolidated	U.C.I., S.A. - Consolidated	Hyundai Capital UK Limited	Fortune Auto Finance Co., LTD	Santander Vida Seguros y Reaseguros, S.A. - Consolidated (note 3)	Banco RCI Brasil S.A.
Current assets	416	2,452	51,995	704	155	688	151	368	1,837	670	112	5
Non current assets	13,062	475	70,137	12,785	2,174	93	385	10,963	2,501	2,511	1,666	1,694
Total assets	13,478	2,927	122,132	13,489	2,329	781	536	11,331	4,338	3,181	1,778	1,699
Current liabilities	180	485	7,708	259	19	768	124	55	1,619	34	193	50
Non current liabilities	6,602	262	110,259	12,441	1,878	28	9	10,856	2,317	2,702	932	1,408
Total liabilities	6,782	747	117,967	12,700	1,897	796	133	10,911	3,936	2,736	1,125	1,458
Attributable profit for the period	56	(164)	187	291	86	(69)	39	6	79	61	76	25
Other accumulated comprehensive income	(16)	—	24	(675)	2	1	(288)	(11)	5	25	1	(228)
Rest of equity	6,656	2,344	3,954	1,173	344	53	652	425	318	359	576	444
Total Equity	6,696	2,180	4,165	789	432	(15)	403	420	402	445	653	241
Total liabilities and equity	13,478	2,927	122,132	13,489	2,329	781	536	11,331	4,338	3,181	1,778	1,699
Ordinary activities income	417	150	2,196	3,841	785	124	115	239	845	278	763	165
Profit (loss) from continuing operations	56	(164)	187	291	86	(69)	39	6	79	61	76	25
Profit (loss) for the year from discontinuing operations	—	—	—	—	—	—	—	—	—	—	—	—

* Data as of 31 December 2020, latest accounts available.

** Data as of 30 April 2021, latest accounts available.

14. Insurance contracts linked to pensions

The detail of Insurance contracts linked to pensions in the consolidated balance sheets is as follows:

EUR million

	2021	2020	2019
Assets relating to insurance contracts covering post-employment benefit plan obligations:			
Banco Santander, S.A.	149	174	192
	149	174	192

15. Liabilities and assets under insurance contracts and reinsurance assets

The detail of Liabilities under insurance contracts and reinsurance assets in the consolidated balance sheets (see note 2.j) is as follows:

EUR million

	2021			2020			2019		
	Direct insurance and reinsurance assumed	Reinsurance ceded	Total (balance payable)	Direct insurance and reinsurance assumed	Reinsurance ceded	Total (balance payable)	Direct insurance and reinsurance assumed	Reinsurance ceded	Total (balance payable)
Technical provisions for:									
Unearned premiums and unexpired risks	56	(50)	6	51	(45)	6	59	(52)	7
Life insurance	209	(150)	59	189	(137)	52	206	(151)	55
<i>Unearned premiums and risks</i>	146	(130)	16	126	(122)	4	139	(132)	7
<i>Mathematical provisions</i>	63	(20)	43	63	(15)	48	67	(19)	48
Claims outstanding	451	(55)	396	561	(59)	502	399	(55)	344
Bonuses and rebates	20	(11)	9	23	(11)	12	22	(10)	12
Other technical provisions	34	(17)	17	86	(9)	77	53	(24)	29
	770	(283)	487	910	(261)	649	739	(292)	447

16. Tangible assets

a) Changes

The changes in Tangible assets in the consolidated balance sheets were as follows:

EUR million

	Tangible assets				Of which: For leasing			
	For own use	Leased out under an operating lease	Investment property	Total	For own use	Leased out under an operating lease	Investment property	Total
Cost								
Balances at 1 January 2019	25,428	25,087	2,378	52,893	6,693	—	—	6,693
Additions / disposals (net) due to change in the scope of consolidation	(5)	—	(15)	(20)	—	—	—	—
Additions / disposals (net)	1,863	3,148	(310)	4,701	(997)	—	—	(997)
Transfers, exchange differences and other items	(178)	(3,781)	(603)	(4,562)	(10)	—	—	(10)
Balance at 31 December 2019	27,108	24,454	1,450	53,012	5,686	—	—	5,686
Additions / disposals (net) due to change in the scope of consolidation	(16)	1,082	7	1,073	(37)	—	—	(37)
Additions / disposals (net)	827	512	(29)	1,310	(1,339)*	—	—	(1,339)
Transfers, exchange differences and other items	(3,023)	(1,844)	32	(4,835)	(362)	—	—	(362)
Balance at 31 December 2020	24,896	24,204	1,460	50,560	3,948	—	—	3,948
Additions / disposals (net) due to change in the scope of consolidation	66	(257)	—	(191)	1	—	—	1
Additions / disposals (net)	781	(1,076)	(64)	(359)	96 *	—	—	96
Transfers, exchange differences and other items	(214)	1,552	141	1,479	384	—	—	384
Balance at 31 December 2021	25,529	24,423	1,537	51,489	4,429	—	—	4,429
Accumulated depreciation								
Balances at 1 January 2019	(10,524)	(8,404)	(199)	(19,127)	—	—	—	—
Disposals due to change in the scope of consolidation	3	—	6	9	—	—	—	—
Disposals	356	2,149	32	2,537	37	—	—	37
Charge for the year	(2,021)	—	(14)	(2,035)	(807)	—	—	(807)
Transfers, exchange differences and other items	212	1,045	31	1,288	5	—	—	5
Balance at 31 December 2019	(11,974)	(5,210)	(144)	(17,328)	(765)	—	—	(765)
Disposals due to change in the scope of consolidation	(40)	—	—	(40)	(3)	—	—	(3)
Disposals	527	2,387	11	2,925	167	—	—	167
Charge for the year	(1,906)	—	(8)	(1,914)	(706)	—	—	(706)
Transfers, exchange differences and other items	1,850	(2,762)	8	(904)	90	—	—	90
Balance at 31 December 2020	(11,543)	(5,585)	(133)	(17,261)	(1,217)	—	—	(1,217)
Disposals due to change in the scope of consolidation	(1)	40	—	39	—	—	—	—
Disposals	733	3,390	3	4,126	44	—	—	44
Charge for the year	(1,733)	—	(10)	(1,743)	(612)	—	—	(612)
Transfers, exchange differences and other items	529	(3,083)	(9)	(2,563)	(4)	—	—	(4)
Balance at 31 December 2021	(12,015)	(5,238)	(149)	(17,402)	(1,789)	—	—	(1,789)

* Includes contract extensions on operating leases and repurchases.

EUR million

	Tangible assets				Of which: For leasing			
	For own use	Leased out under an operating lease	Investment property	Total	For own use	Leased out under an operating lease	Investment property	Total
Impairment losses								
Balances at 1 January 2019	(61)	(239)	(616)	(916)	—	—	—	—
Impairment charge for the year	(14)	(12)	(36)	(62)	—	—	—	—
Releases	8	6	3	17	—	—	—	—
Disposals due to change in the scope of consolidation	—	—	—	—	—	—	—	—
Exchange differences and other	(26)	222	316	512	—	—	—	—
Balances at 31 December 2019	(93)	(23)	(333)	(449)	—	—	—	—
Impairment charge for the year	(104)	(70)	(11)	(185)	(4)	—	—	(4)
Releases	4	2	5	11	1	—	—	1
Disposals due to change in the scope of consolidation	—	—	—	—	—	—	—	—
Disposals	20	—	3	23	—	—	—	—
Exchange differences and other	33	31	(28)	36	(6)	—	—	(6)
Balances at 31 December 2020	(140)	(60)	(364)	(564)	(9)	—	—	(9)
Impairment charge for the year	(144)	(17)	(8)	(169)	(13)	—	—	(13)
Releases	10	4	5	19	1	—	—	1
Disposals due to change in the scope of consolidation	—	—	—	—	—	—	—	—
Disposals	61	—	3	64	7	—	—	7
Exchange differences and other	(42)	(29)	(44)	(115)	(1)	—	—	(1)
Balances at 31 December 2021	(255)	(102)	(408)	(765)	(15)	—	—	(15)
Tangible assets, net								
Balances at 31 December 2019	15,041	19,221	973	35,235	4,921	—	—	4,921
Balances at 31 December 2020	13,213	18,559	963	32,735	2,722	—	—	2,722
Balances at 31 December 2021	13,259	19,083	979	33,321	2,625	—	—	2,625

b) Tangible assets - For own use

The detail, by class of asset, of 'Property, plant and equipment' which is owned by the Group in the consolidated balance sheets is as follows:

EUR million

	Tangible assets for own use				Of which: for leasing
	Cost	Accumulated depreciation	Impairment losses	Carrying amount	
Land and buildings	13,972	(2,889)	(93)	10,990	4,908
IT equipment and fixtures	5,995	(4,808)	—	1,187	2
Furniture and vehicles	6,952	(4,216)	—	2,736	11
Construction in progress and other items	189	(61)	—	128	—
Balances at 31 December 2019	27,108	(11,974)	(93)	15,041	4,921
Land and buildings	13,081	(3,215)	(133)	9,733	2,716
IT equipment and fixtures	5,562	(4,416)	—	1,146	1
Furniture and vehicles	6,085	(3,854)	—	2,231	5
Construction in progress and other items	168	(58)	(7)	103	—
Balances at 31 December 2020	24,896	(11,543)	(140)	13,213	2,722
Land and buildings	13,855	(3,675)	(240)	9,940	2,570
IT equipment and fixtures	5,543	(4,335)	—	1,208	42
Furniture and vehicles	5,982	(3,954)	—	2,028	12
Construction in progress and other items	149	(51)	(15)	83	—
Balances at 31 December 2021	25,529	(12,015)	(255)	13,259	2,625

The carrying amount at 31 December 2021 in the foregoing table includes the following approximate amounts EUR 6,753 million (EUR 6,299 million at 31 December 2020 and EUR 7,737 million at 31 December 2019) relating to property, plant and equipment owned by group entities and branches located abroad.

c) Tangible assets - Leased out under an operating lease

Grupo Santander has assets leased out under operating leases where the company is the lessor and do not meet the accounting requirements to be classified as finance leases. The net cost of these leases is recorded as an asset and depreciated on a straight-line basis over the contractual term of the lease to the expected residual value.

The expected residual value and, consequently, the monthly depreciation expense may change during the term of the lease. The Group estimates expected residual values using independent data sources and internal statistical models. It also assesses the estimate of the residual value of these leases and adjusts the depreciation rate in line with the change in the expected value of the asset at the end of the lease.

Grupo Santander periodically assesses its investment in operating leases for impairment in certain circumstances, such as a systemic and material decrease in the values of used vehicles. If assets leased out under operating leases are deemed to be impaired, impairment is measured as the amount by which the carrying amount of the assets exceeds the fair value as estimated by discounted cash flows.

Of the EUR 19,083 million that the Group had assigned to operating leases at 31 December 2021 (EUR 18,559 million and EUR 19,221 million at 31 December 2020 and 2019, respectively), EUR 12,977 million (EUR 13,455 million and EUR 14,799 million at 31 December 2020 and 2019, respectively) relate to vehicles of Santander Consumer USA Holdings Inc. The variable lease payments of various items of this entity are not representative.

In addition, the maturity analysis of the payments for assets leased out under operating leases from Santander Consumer USA Holdings Inc. is as follows:

EUR million

	2021
Maturity Analysis	
2022	3,030
2023	3,814
2024	5,644
2025	872

d) Tangible assets - Investment property

The fair value of investment property at 31 December 2021, 2020, 2019 amounted to EUR 1,088, 1,055 and 1,076 million, respectively. A comparison of the fair value of investment property at 31 December 2021, 2020 and 2019 with the net book value shows gross unrealised gains of EUR 109, 92 and 103 million, respectively, attributed completely to the group.

The rental income earned from investment property and the direct costs related both to investment properties that generated rental income in 2021, 2020 and 2019 and to investment properties that did not generate rental income in those years are not material in the context of the consolidated financial statements.

17. Intangible assets – Goodwill

The detail of goodwill, based on the cash-generating units giving rise thereto, is as follows:

EUR million	2021	2020	2019
Banco Santander (Brasil)	3,219	3,109	4,388
SAM Investment Holdings Limited	1,444	1,444	1,173
Santander Consumer Germany	1,304	1,314	1,236
Santander Bank Polska	1,095	1,104	2,427
Santander Portugal	1,040	1,040	1,040
Santander España	1,027	1,027	1,027
Santander Consumer USA	979	904	2,143
Santander Bank, National Association	643	594	1,828
Santander UK	633	592	7,147
Banco Santander - Chile	516	571	589
Grupo Financiero Santander (México)	435	399	460
Santander Consumer Nordics	224	216	496
Other companies	154	157	292
Total Goodwill	12,713	12,471	24,246

The changes in goodwill were as follows:

EUR million	2021	2020	2019
Balance at beginning of year	12,471	24,246	25,466
Additions (note 3)	81	429	41
Of which:			
SAM Investment Holdings Limited	—	271	—
Santander España	—	—	4
Impairment losses	(6)	(10,100)	(1,491)
Of which:			
Santander UK	—	(6,101)	(1,491)
Santander Bank Polska	—	(1,192)	—
Santander Bank, National Association	—	(1,177)	—
Santander Consumer USA	—	(1,153)	—
Santander Consumer Nordics	—	(277)	—
Disposals or changes in scope of consolidation	—	—	—
Exchange differences and other items	167	(2,104)	230
Balance at end of year	12,713	12,471	24,246

Grupo Santander has goodwill generated by cash-generating units located in non-euro currency countries (mainly Brazil, Poland, the United States, the United Kingdom, Chile, Mexico, Norway and Sweden) and, therefore, this gives rise to exchange differences on the translation to euros, at closing rates, of the amounts of goodwill denominated in foreign currencies. Accordingly, in 2021 there was an increase of EUR 167 million (a decrease of EUR 2,104 million in 2020 and an increase of EUR 230 million in 2019), due to exchange differences and other items which, pursuant to current standards, were recognised with a change to 'Other comprehensive income - Items that may be reclassified to profit or loss - Exchange differences in other comprehensive income in the consolidated statement of recognised income and expense' (see note 29.d).

At least once per year (or whenever there is any indication of impairment), Grupo Santander performs an analysis of the potential impairment of its recorded goodwill with respect to its recoverable amount. The first step that must be taken in order to perform this analysis is the identification of the cash-generating units, which are the Group's smallest identifiable groups of assets that generate cash inflows that are largely independent of the cash flows of other assets or groups of assets.

The amount to be recovered of each cash-generating unit is determined taking into consideration the carrying amount (including any fair value adjustment arising on the business combination) of all the assets and liabilities of all the independent legal entities composing the cash-generating unit, together with the related goodwill.

The amount to be recovered of the cash-generating unit is compared with its recoverable amount in order to determine whether there is any impairment.

Grupo Santander's directors assess the existence of any indication that might be considered to be evidence of impairment of the cash-generating unit by reviewing information including the following (i) certain macroeconomic variables that might affect its investments (population data, political situation, economic situation—including banking concentration level—, among others) and (ii) various microeconomic variables comparing the investments of the Group with the financial services industry of the country in which the cash-generating unit carries on most of its business activities (balance sheet composition, total funds under management, results, efficiency ratio, capital adequacy ratio, return on equity, among others).

Regardless of whether there is any indication of impairment, every year the Group calculates the recoverable amount of each cash-generating unit to which goodwill, has been allocated and, to this end, it uses price quotations, market references (multiples), internal estimates and valuations performed by internal and external experts.

Firstly, the Group determines the recoverable amount by calculating the fair value of each cash-generating unit on the basis of the quoted price of the cash-generating units, if available.

In addition, the Group performs estimates of the recoverable amounts of certain cash-generating units by calculating their value in use using discounted cash flow projections. The main assumptions used in this calculation are (i) earnings projections based on the financial budgets approved by the Group's directors which cover between three and five year periods (unless a longer time horizon can be justified), (ii) discount rates determined as the cost of capital taking into account the risk-free rate of return plus a risk premium in line with the market and the business in which the units operate and (iii) constant growth rates used in order to extrapolate earnings in perpetuity which do not exceed the long-term average growth rate for the market in which the cash-generating unit in question operates.

The cash flow projections used by Group management to obtain the values in use are based on the financial budgets approved by both local management of the related local units and the Group's directors. The Group's budgetary estimation process is common for all the cash-generating units. The local management teams prepare their budgets using the following key assumptions:

- a) Microeconomic variables of the cash-generating unit: management takes into consideration the current balance sheet structure, the product mix and the business decisions taken by local management in this regard.
- b) Macroeconomic variables: growth is estimated on the basis of the changing environment, taking into consideration expected GDP growth in the unit's geographical location and forecast trends in interest and exchange rates. These data, which are based on external information sources, are provided by the Group's economic research service.
- c) Past performance variables: in addition, management takes into consideration in the projection the difference (both positive and negative) between the cash-generating unit's past performance and budgets.

During 2021, the Group recognised impairment losses of EUR 6 million of immaterial goodwill which were recognised under 'Impairment or reversal of impairment of non-financial assets, net - Intangible assets'. Goodwill is deducted from CET1 for regulatory purposes and therefore an impairment of goodwill has no impact on the Group's capital ratios.

In 2020, considering the economic and business environment resulting from covid-19, market conditions and the existing economic uncertainty, an impairment test was performed for certain CGUs during the second quarter. As a result, the Group recognised goodwill impairment of EUR 10,100 million, mainly associated with Santander UK, Santander Bank Polska, Santander Bank, National Association, Santander Consumer USA and Santander Consumer Nordics.

In 2019, the Group recorded an impairment of goodwill associated with Santander UK amounting to EUR 1,491 million considering the following reasons: decrease in the profit generation capacity of the cash generating unit in contrast to the forecast made in previous years, the general competitive environment in the UK, the impact of the banking reform on retail businesses and the impact of the uncertainty generated by Brexit on the country's economic growth.

Following is a detail of the main assumptions taken into account in determining the recoverable amount, at 2021 year-end, of the most significant cash-generating units which were valued using the discounted cash flow method:

2021			
	Projected period	Discount rate*	Nominal perpetual growth rate
Santander UK	5 years	9.2%	2.3%
Santander Bank Polska	5 years	10.3%	3.5%
Santander Consumer USA	3 years	10.6%	1.5%
Santander Bank, National Association**	5 years	11.6%	3.0%
Santander Consumer Germany	5 years	8.3%	1.8%
SAM Investment Holdings, Limited	5 years	10.4%	2.5%
Santander Portugal	5 years	9.7%	1.8%
Santander Consumer Nordics	5 years	9.9%	2.0%

* Post-tax discount rate.

** Weighted information of the main assumptions of the segments to which goodwill has been allocated.

The discount and nominal perpetual growth rates taken into account in 2020 and 2019 are presented below for comparison purposes:

	Discount rate*		Nominal perpetual growth rate	
	2020	2019	2020	2019
Santander UK	9.5%	8.5%	2.3%	2.5%
Santander Bank Polska	10.0%	9.2%	3.5%	3.5%
Santander Consumer USA	10.7%	9.5%	1.5%	1.5%
Santander Bank, National Association**	11.6%	9.6%	2.5%	3.6%
Santander Consumer Germany	9.0%	8.2%	1.8%	2.5%
SAM Investment Holdings, Limited	10.1%	10.0%	2.5%	2.5%
Santander Portugal	9.8%	8.9%	1.8%	2.0%
Santander Consumer Nordics	10.1%	8.6%	2.0%	2.5%

* Post-tax discount rate.

** Weighted information of the main assumptions of the segments to which goodwill has been allocated.

Given the degree of uncertainty of the above key assumptions on which the recoverable amount of the cash-generating units is based, the Group performs a sensitivity analysis which consisted of adjusting +/- 50 basis points the discount rate, adjusting +/- 50 basis points the growth rate in perpetuity and reducing the cash flow projections by 5%. These changes in the key assumptions in isolation mean that the recoverable amount of all the cash-generating units continues to exceed their amount to be recovered and have been considered by the Group to be reasonably possible in a stable economic environment and in which non-recurring events unrelated to the business operations of the cash-generating units are not contemplated.

The recoverable amount of Banco Santander - Chile, Grupo Financiero Santander (México) and Banco Santander (Brasil) was calculated as the fair values of the aforementioned cash-generating units obtained from the quoted market prices of their shares at year-end. This value exceeded the amount to be recovered. A significant reduction in the quoted market prices of these cash generating unit could result in an indication of impairment which in turn may lead to a goodwill impairment charge in the future.

18. Intangible assets - Other intangible assets

The detail of Intangible assets - Other intangible assets in the consolidated balance sheets and of the changes therein in 2021, 2020, and 2019 is as follows:

EUR million

	Estimated useful life	31 December 2020	Net additions and disposals	Change in scope of consolidation	Amortization and impairment	Application of amortization and impairment	Exchange differences and other	31 December 2021
Cost		9,376	1,409	5	—	(293)	215	10,712
Brand names		37	—	—	—	(34)	1	4
IT developments	3 - 7 years	7,900	1,325	4	—	(212)	172	9,189
Other		1,439	84	1	—	(47)	42	1,519
Accumulated amortisation		(5,809)	—	(2)	(1,013)	232	(115)	(6,707)
Development		(5,307)	—	(1)	(922)	178	(97)	(6,149)
Other		(502)	—	(1)	(91)	54	(18)	(558)
Impairment losses		(130)	—	—	(65)	61	—	(134)
Of which addition		—	—	—	(65)	—	—	—
Liberation		—	—	—	—	—	—	—
		3,437	1,409	3	(1,078)	—	100	3,871

EUR million

	Estimated useful life	31 December 2019	Net additions and disposals	Change in scope of consolidation	Amortization and impairment	Application of amortization and impairment	Exchange differences and other	31 December 2020
Cost		9,263	1,451	(33)	—	(241)	(1,064)	9,376
Brand names		42	—	—		—	(5)	37
IT developments	3-7 years	7,945	1,123	(34)		(224)	(910)	7,900
Other		1,276	328	1		(17)	(149)	1,439
Accumulated amortisation		(5,686)	35	49	(896)	105	584	(5,809)
Development		(5,139)	—	49	(792)	88	487	(5,307)
Other		(547)	35	—	(104)	17	97	(502)
Impairment losses		(136)	—	—	(142)	136	12	(130)
Of which addition		—	—	—	(142)	—	—	—
Liberation		—	—	—	—	—	—	—
		3,441	1,486	16	(1,038)	—	(468)	3,437

EUR million

	Estimated useful life	31 December 2018	Net additions and disposals	Change in scope of consolidation	Amortization and impairment	Application of amortization and impairment	Exchange differences and other	31 December 2019
Cost		8,680	1,377	(41)	—	(887)	134	9,263
Brand names		36	2	2		—	2	42
IT developments	3-7 years	7,134	1,374	(19)		(639)	95	7,945
Other		1,510	1	(24)		(248)	37	1,276
Accumulated amortisation		(5,432)	—	8	(966)	806	(102)	(5,686)
<i>Development</i>		(4,743)	—	4	(874)	570	(96)	(5,139)
<i>Other</i>		(689)	—	4	(92)	236	(6)	(547)
Impairment losses		(154)	—	—	(73)	81	10	(136)
<i>Of which addition</i>		—	—	—	(75)	—	—	—
<i>Liberation</i>		—	—	—	2	—	—	—
		3,094	1,377	(33)	(1,039)	—	42	3,441

In 2021, 2020 and 2019, impairment losses of EUR 65 million, EUR 142 million and EUR 73 million, respectively, were recognised under Impairment or reversal of impairment on non-financial assets, net – intangible assets. This impairment losses are related mainly to the decline in or loss of the recoverable value of certain computer systems and applications as a result of the processes initiated by the Group to adapt to the various regulatory changes and to transform or integrate businesses.

19. Other assets

The detail of 'Other assets' is as follows:

EUR million

	2021	2020	2019
Transactions in transit	157	88	157
Net pension plan assets (note 25)	1,990	635	903
Prepayments and accrued income	2,610	2,806	3,129
Other (note 2.n)	3,683	7,362	5,752
	8,440	10,891	9,941

20. Deposits from central banks and credit institutions

The detail, by classification, counterparty, type and currency, of Deposits from central banks and 'Deposits from credit institutions' in the consolidated balance sheets is as follows:

EUR million			
	2021	2020	2019
CENTRAL BANKS			
Classification			
Financial liabilities held for trading	1,038	—	—
Financial liabilities designated at fair value through profit or loss	607	2,490	12,854
Financial liabilities at amortized cost	139,757	112,804	62,468
	141,402	115,294	75,322
Type			
Deposits on demand	10	10	5
Time deposits	134,439	108,090	67,424
Reverse repurchase agreements	6,953	7,194	7,893
	141,402	115,294	75,322
CREDIT INSTITUTIONS			
Classification			
Financial liabilities held for trading	6,488	—	—
Financial liabilities designated at fair value through profit or loss	1,064	6,765	9,340
Financial liabilities at amortized cost	52,235	62,620	90,501
	59,787	69,385	99,841
Type			
Deposits on demand	6,139	5,727	9,136
Time deposits	37,332	43,308	61,406
Reverse repurchase agreements	16,198	20,179	29,115
Subordinated deposits	118	171	184
	59,787	69,385	99,841
Currency			
Euro	107,908	104,499	79,008
Pound sterling	42,451	23,339	18,129
US dollar	24,012	26,581	53,403
Brazilian real	11,297	12,356	13,022
Other currencies	15,521	17,904	11,601
TOTAL	201,189	184,679	175,163

In 31 December 2021, the balance of the conditional long-term financing of the European Central Bank (TLTRO- Targeted Long-Term Refinancing Operation-) amounted to EUR 88,894 million, all corresponding to TLTRO III (EUR 77,732 million and EUR 46,201 million at 31 December 2020 and 2019, respectively).

In December 2021, the income recognized in the consolidated income statement corresponding to TLTRO III amounts to EUR 868 million (EUR 391 million at 31 December 2020).

Grupo Santander's deposits with central banks in 2021 amounted to EUR 193,102 million (EUR 137,047 million and EUR 75,353 million in 2020 and 2019), of which EUR 99,530 million with the European Central Bank (EUR 71,324 million and EUR 28,182 million in 2020 and 2019, respectively), at an average effective cost of -0.40%.

Note 50 contains a detail of the residual maturity periods of financial liabilities at amortised cost.

21. Customer deposits

The detail, by classification, geographical area and type, of Customer deposits is as follows:

EUR million			
	2021	2020	2019
Classification			
Financial liabilities held for trading	6,141	—	—
Financial liabilities designated at fair value through profit or loss	25,608	34,343	34,917
Financial liabilities at amortized cost	886,595	814,967	789,448
	918,344	849,310	824,365
Geographical area			
Spain	319,565	294,516	271,103
European Union (excluding Spain)*	112,361	106,013	334,542
United States and Puerto Rico	73,814	59,057	60,011
Other OECD countries*	321,607	306,243	71,235
South America	90,997	83,481	87,474
	918,344	849,310	824,365
Type			
Demand deposits-	717,728	642,897	588,533
<i>Current accounts</i>	482,649	418,752	373,146
<i>Savings accounts</i>	227,318	216,500	208,701
<i>Other demand deposits</i>	7,761	7,645	6,686
Time deposits-	164,259	171,939	196,921
<i>Fixed-term deposits and other term deposits</i>	162,172	170,127	194,163
<i>Home-purchase savings accounts</i>	38	43	44
<i>Discount deposits</i>	3	3	3
<i>Hybrid financial liabilities</i>	1,906	1,743	2,711
<i>Subordinated liabilities</i>	140	23	—
Repurchase agreements	36,357	34,474	38,911
	918,344	849,310	824,365

* The amounts referring to 2021 and 2020 exercises for the United Kingdom geographical area have been considered in the line Other OECD countries, instead of in the line European Union (excluding Spain) due to the leaving of the United Kingdom from the European Union.

Note 50 contains a detail of the residual maturity periods of financial liabilities at amortised cost.

22. Marketable debt securities

a) Breakdown

The detail, by classification and type, of Marketable debt securities is as follows:

EUR million			
	2021	2020	2019
Classification			
Financial liabilities held for trading	—	—	—
Financial liabilities designated at fair value through profit or loss	5,454	4,440	3,758
Financial liabilities at amortized cost	240,709	230,829	258,219
	246,163	235,269	261,977
Type			
Bonds and debentures outstanding	194,362	191,577	208,455
Subordinated	25,938	21,686	20,878
Notes and other securities	25,863	22,006	32,644
	246,163	235,269	261,977

The distribution of the book value of debt securities issued by contractual maturity at 31 December 2021 is shown below:

EUR million								
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Subordinated debt	—	—	49	130	656	6,167	18,936	25,938
Senior unsecured debt	—	3,033	3,734	10,621	38,731	26,715	28,600	111,434
Senior secured debt	—	1,673	5,271	12,364	33,562	13,340	16,718	82,928
Promissory notes and other securities	—	9,201	9,304	7,358	—	—	—	25,863
Debt securities issued	—	13,907	18,358	30,473	72,949	46,222	64,254	246,163

The distribution by contractual maturity of the notional amounts of these debt securities issued at 31 December 2021 is as follows:

EUR million								
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Subordinated debt	—	—	49	129	652	6,128	18,816	25,774
Senior unsecured debt	—	3,063	3,771	10,725	39,110	26,976	28,880	112,525
Senior secured debt	—	1,663	5,241	12,293	33,369	13,263	16,622	82,451
Promissory notes and other securities	—	9,341	9,447	7,471	—	—	—	26,259
Debt securities issued	—	14,067	18,508	30,618	73,131	46,367	64,318	247,009

b) Bonds and debentures outstanding

The detail, by currency of issue, of 'Bonds and debentures outstanding' is as follows:

Currency of issue	EUR million			2021	
	2021	2020	2019	Outstanding issue amount in foreign currency (Million)	Annual interest rate (%)
Euro	90,348	89,031	89,008	90,348	1.06%
US dollar	66,581	61,174	64,952	75,406	2.39%
Pound sterling	13,340	16,569	20,178	11,206	2.13%
Brazilian real	9,131	8,398	15,292	57,702	1.99%
Chilean peso	3,757	5,624	6,848	3,623,635	5.03%
Other currencies	11,205	10,781	12,177		
Balance at end of year	194,362	191,577	208,455		

The changes in 'Bonds and debentures outstanding' were as follows:

EUR million

	2021	2020	2019
Balance at beginning of year	191,577	208,455	195,498
Net inclusion of entities in the Group	—	785	—
Issues	59,937	54,905	64,184
Of which:			
Santander Consumer USA Holdings Inc.	15,771	12,246	15,631
Banco Santander (Brasil) S.A.	14,996	11,036	13,227
Banco Santander, S.A.	11,766	10,220	12,066
Santander UK Group Holdings plc	3,372	6,320	4,547
Santander Consumo 4, F.T.	1,531	—	—
SC Germany S.A. (New Compartment: Consumer 2021-1)	1,496	—	—
Santander Consumer Finance, S.A.	1,169	2,394	5,150
Banco Santander - Chile	1,158	766	1,644
Santander International Products, Plc.	914	1,588	848
Auto ABS French Lease Master Compartment 2016	900	300	300
Santander Factoring Sp. z o.o.	819	391	375
PSA Banque France	815	385	1,132
Santander Consumer Bank AS	779	773	1,572
PSA Bank Deutschland GmbH	600	—	1,104
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	541	1,770	577
PSA Financial Services, Spain, E.F.C., S.A.	—	605	—
Santander Holdings USA, Inc.	—	1,269	2,778
SC Germany S.A., Compartment Consumer 2020-1	—	1,800	—
SCF Rahoituspalvelut IX DAC	—	650	—
Santander Consumer Bank AG	—	500	750
SCF Rahoituspalvelut VIII DAC	—	—	799
Redemptions and repurchases	(61,846)	(62,699)	(52,462)
Of which:			
Banco Santander (Brasil) S.A.	(15,182)	(14,211)	(12,817)
Santander Consumer USA Holdings Inc.	(15,151)	(13,959)	(14,517)
Santander UK Group Holdings plc	(14,695)	(14,102)	(9,115)
Santander Consumer Finance, S.A.	(3,779)	(4,371)	(2,550)
Banco Santander, S.A.	(3,185)	(5,991)	(3,303)
Banco Santander - Chile	(1,030)	(1,974)	(848)
Santander Factoring Sp. z o.o.	(920)	(299)	(407)
Auto ABS French Lease Master Compartment 2016	(900)	—	—
Santander Holdings USA, Inc.	(778)	(1,201)	(1,990)
PSA Bank Deutschland GmbH	(580)	—	(902)
Santander Consumer Bank AS	(348)	(936)	(1,551)
Santander International Products, Plc.	(345)	(324)	(722)
PSA Banque France	(335)	(684)	—
Banco Santander Totta, S.A.	(9)	(784)	(739)
Exchange differences and other movements	4,694	(9,869)	1,235
Balance at year-end	194,362	191,577	208,455

c) Notes and other securities

These notes were issued basically by Santander Consumer Finance, S.A., Santander UK plc, Banco Santander (México), S.A. Institución de Banca Múltiple, Grupo Financiero Santander México, Banco Santander, S.A., Santander Consumer Bank AG, PSA Banque France, Banco Santander - Chile, Santander Bank Polska S.A. and Banco Santander S.A. - Uruguay.

d) Guarantees

Set forth below is information on the liabilities secured by assets:

EUR million	2021	2020	2019
Asset-backed securities	40,519	35,753	38,616
Of which, mortgage-backed securities	1,487	2,274	3,819
Other mortgage securities	41,779	49,425	50,269
Of which: mortgage-backed bonds	23,197	24,736	24,736
Territorial covered bond	630	869	1,270
	82,928	86,047	90,155

The main characteristics of the assets securing the aforementioned financial liabilities are as follows:

1. Asset-backed securities

- Mortgage-backed securities- these securities are secured by mortgage assets (see Note 10.e) with average maturities of more than ten years that must: be a first mortgage for acquisition of principal or second residence, be current in payments, have a loan-to-value ratio below 80% and have a liability insurance policy in force covering at least the appraisal value. The value of the financial liabilities broken down in the foregoing table is lower than the balance of the assets securing them —securitised assets retained on the balance sheet— mainly because the Group repurchases a portion of the bonds issued, and in such cases they are not recognised on the liability side of the consolidated balance sheet.
- Other asset - backed securities: includes asset-backed securities, notes issued by securitization funds collateralized mainly by mortgage loans that do not meet the above requirements and other loans (mainly personal loans with an average maturity of five years and loans to SMEs with average maturities of seven years) and private issues of Santander Consumer USA Holdings Inc collateralized by vehicles assigned under operating leases.

- Other mortgage securities include mainly: (i) mortgage-backed bonds with average maturities of more than ten years that are secured by a portfolio of mortgage loans and credits (included in secured loans —see note 10.b—) which must: not be classified as of procedural stage; have available appraisals performed by specialised entities; have a loan-to-value (LTV) ratio below 80% in the case of home loans and below 60% for loans for other assets and have sufficient liability insurance, (ii) other debt securities issued as part of the Group's liquidity strategy in the UK, mainly covered bonds in the UK secured by mortgage loans and other assets.

The fair value of the guarantees received by the Group (financial and non-financial assets) which the Group is authorised to sell or pledge even if the owner of the guarantee has not defaulted is scanty material taking into account the Consolidated financial statements as a whole.

e) Spanish mortgage-market issues

The members of the board of directors hereby state that the Group entities operating in the Spanish mortgage-market issues area have established and implemented specific policies and procedures to cover all activities carried on and guarantee strict compliance with mortgage-market regulations applicable to these activities as provided for in Royal Decree 716/2009, of 24 April implementing certain provisions of Mortgage Market Law 2/1981, of 25 March, and, by application thereof, in Bank of Spain Circulars 7/2010 and 5/2011, and other financial and mortgage system regulations. Also, financial management defines the Grupo Santander's funding strategy.

The risk policies applicable to mortgage market transactions envisage maximum loan-to-value (LTV) ratios, and specific policies are also in place adapted to each mortgage product, which occasionally require the application of stricter limits.

Grupo Santander's general policies in this respect require the repayment capacity of each potential customer (the effort ratio in loan approval) to be analysed using specific indicators that must be met. This analysis must determine whether each customer's income is sufficient to meet the repayments of the loan requested. In addition, the analysis of each customer must include a conclusion on the stability over time of the customer's income considered with respect to the life of the loan. The aforementioned indicator used to measure the repayment capacity (effort ratio) of each potential customer takes into account mainly the relationship between the potential debt and the income generated, considering on the one hand the monthly repayments of the loan requested and other transactions and, on the other, the monthly salary income and duly supported income.

Grupo Santander entities have specialised document comparison procedures and tools for verifying customer information and solvency (see note 53).

Grupo Santander entities' procedures envisage that each mortgage originated in the mortgage market must be individually valued by an appraisal company not related to the Group.

In accordance with Article 3 of Mortgage Market Law 41/2007, any appraisal company approved by the Bank of Spain may issue valid appraisal reports. However, as permitted by this same article, the Group entities perform several checks and select, from among these companies, a small group with which they enter into cooperation agreements with special conditions and automated control mechanisms. The Group's internal regulations specify, in detail, each of the internally approved companies, as well as the approval requirements and procedures and the controls established to uphold them. In this connection, the regulations establish the functions of an appraisal company committee on which the various areas of the Group related to these companies are represented. The aim of the committee is to regulate and adapt the internal regulations and the activities of the appraisal companies to the current market and business situation (see note 2.i).

Basically, the companies wishing to cooperate with the Group must have a significant level of activity in the mortgage market in the area in which they operate, they must pass a preliminary screening process based on criteria of independence, technical capacity and solvency -in order to ascertain the continuity of their business- and, lastly, they must pass a series of tests prior to obtaining definitive approval.

In order to comply in full with the legislation, any appraisal provided by the customer is reviewed, irrespective of which appraisal company issues it, to check that the requirements, procedures and methods used to prepare it are formally adapted to the valued asset pursuant to current legislation and that the values reported are customary in the market.

The information required by Bank of Spain circulars 7/2010 and 5/2011, by application of Royal Decree 716/2009, of 24 April is as follows:

EUR million	2021	2020	2019
Face value of the outstanding mortgage loans and credits that support the issuance of mortgage-backed and mortgage bonds pursuant to Royal Decree 716/2009 (excluding securitised bonds)	83,088	76,554	84,720
<i>Of which:</i>			
<i>Loans eligible to cover issues of mortgage-backed securities</i>	64,896	57,382	59,517
<i>Transfers of assets retained on balance sheet: mortgage-backed certificates and other securitised mortgage assets</i>	11,133	17,610	14,569

Mortgage-backed bonds

The mortgage-backed bonds ('*cédulas hipotecarias*') issued by the Group entities are securities the principal and interest of which are specifically secured by mortgages, there being no need for registration in the property register, by mortgage on all those that at any time are recorded in favour of the issuer and are not affected by the issuance of mortgage bonds and / or are subject to mortgage participations, and / or mortgage transfer certificates, and, if they exist, by substitution assets eligible to be hedged and for the economic flows generated by derivative financial instruments linked to each issue, and without prejudice to the issuer's unlimited liability.

The mortgage bonds include the credit right of its holder against the issuing entity, guaranteeing in the manner provided for in the previous paragraph, and involve the execution to claim from the issuer the payment after due date. The holders of these securities are recognised as preferred creditors, singularly privileged, with the preference, included in number 3º of article 1,923 of the Spanish Civil Code against any other creditor, in relation with the entire group of loans and mortgage loans registered in favour of the issuer, except those that act as coverage for mortgage bonds and / or are subject to mortgage participations and / or mortgage transfer certificates.

In the event of insolvency, the holders of mortgage-backed bonds, as long as they are not considered 'person especially related' to the issuing entity in accordance with Royal Legislative Decree 1/2020, of 5 May, approving the revised text of the Bankruptcy Law, will enjoy the special privilege established in Article 270.1.1 of the aforementioned Bankruptcy Law. Without prejudice to the foregoing, in accordance with Article 242.10 of the Bankruptcy Law, during the insolvency proceedings, the payments relating to the repayment of the principal and interest of the bonds issued and outstanding at the date of the insolvency filing will be settled up to the amount of the income received by the insolvent party from the mortgage loans and credits and, where appropriate, from the replacement assets backing the bonds and from the cash flows generated by the financial instruments associated with the issues (Article 14 of Law 2/1981 of 25 March 1981 regulating the mortgage market).

If, due to a timing mismatch, the income received by the insolvent party is insufficient to meet the payments described in the preceding paragraph, the insolvency managers must settle them by realising the replacement assets set aside to cover the issue and, if this is not sufficient, they must obtain financing to meet the mandated payments to the holders of the mortgage-backed bonds, and the finance provider must be subrogated to the position of the bond-holders.

In the event that it would be necessary to proceed in accordance with the terms of Article 212.1 and, in accordance with the requirements of Article 413 of the Insolvency Law, the payments to all holders of the mortgage-backed bonds issued would be made on a pro-rata basis, irrespective of the issue dates of the bonds. If the same credit or loan is subject to the payment of bonds and a mortgage bond issue, it will be paid first to the holders of the bonds.

The outstanding mortgage-backed bonds issued by Grupo Santander totalled EUR 23,197 million at 31 December 2021 (all of which were denominated in euros), of which EUR 22,747 million were issued by Banco Santander, S.A (with an outstanding face value of EUR 22,266 million), and EUR 450 million were issued by Santander Consumer Finance, S.A. The issues outstanding at 31 December 2021 and 2020 are detailed in the separate financial statements of each of these companies.

Mortgage-backed bond issuers have an early redemption option for the purpose of complying with the limits on the volume of outstanding mortgage-backed bonds stipulated by mortgage market regulations. In addition, the issuing entity may advance the mortgage-backed bonds, if this has been expressly established in the final conditions of the issue in question and under the conditions set out therein.

None of the mortgage-backed bonds issued by the Group entities had replacement assets assigned to them.

23. Subordinated liabilities

a) Breakdown

The detail, by currency of issue, of Subordinated liabilities, deposits and marketable debt securities, in the consolidated balance sheets is as follows:

Currency of issue	EUR million			2021	
	2021	2020	2019	Outstanding issue amount in foreign currency (million)	Annual interest rate (%)
Euro	13,857	13,570	12,542	13,857	3.52%
US dollar	8,236	5,991	6,506	9,328	4.92%
Pound sterling	1,535	565	655	1,289	4.36%
Brazilian real	879	—	—	5,555	9.65%
Other currencies	1,689	1,754	1,359		
Balance at end of year	26,196	21,880	21,062		

Note 50 contains a detail of the residual maturity periods of subordinated liabilities at each year-end.

b) Changes

The movement in the balance of subordinated liabilities in the last three years were as follows:

EUR million	2021	2020	2019
Balance at beginning of year	21,880	21,062	23,820
Net inclusion of entities in the Group (note 3)	—	—	—
Placements	5,340	4,075	1,090
Of which:			
Banco Santander, S.A.	4,469	3,722	1,056
Banco Santander (Brasil) S.A.	871	—	—
Banco Santander - Chile	—	353	—
PSA Bank Deutschland GmbH	—	—	23
Banca PSA Italia S.p.a.	—	—	11
Net redemptions and repurchases*	(1,500)	(2,838)	(4,009)
Of which:			
Banco Santander, S.A.	(1,500)	(1,671)	(3,782)
Santander UK plc	—	(740)	(16)
Santander UK Group Holdings plc	—	(316)	—
Santander Bank, National Association	—	(111)	(19)
Banco Santander (Brasil) S.A.	—	—	(124)
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	—	—	(69)
Exchange differences and other movements	476	(419)	161
Balance at end of year	26,196	21,880	21,062

* The balance relating to issuances, redemptions and repurchases (EUR 3,840 million), together with the interest paid in remuneration of these issuances including PPCC (EUR 1,184 million), is included in the cash flow from financing activities.

c) Other disclosures

This caption includes contingent convertible or redeemable preferred participations, as well as other subordinated financial instruments issued by consolidated companies, which do not qualify as equity (preferred shares).

Preferred shares do not have voting rights and are non-cumulative. They have been subscribed by third parties outside the Group, and except for the issues of Santander UK plc, the rest are redeemable by decision of the issuer, according to the terms of each issue.

Banco Santander's contingently convertible preferred participations are subordinated debentures and rank after common creditors and any other subordinated credit that by law and/or by their terms, to the extent permitted by Spanish law, ranks higher than the contingently convertible preferred participations. Their remuneration is conditioned to the obtainment of sufficient distributable profits, and to the limitations imposed by the regulations on shareholders' equity, and they have no voting rights. The other issues of Banco Santander, S.A. mentioned in this caption are also subordinated debentures and, for credit ranking purposes, they rank behind all the common creditors of the issuing entities and ahead of any other subordinated credit that ranks pari passu with the Bank's contingently convertible preferred participations.

The main issues of subordinated debt securities issued, broken down by company, are detailed below:

Issues by Banco Santander, S.A.

At 22 November 2021, Banco Santander, S.A. issued subordinated debentures for a term of eleven years, with a redemption option on the tenth anniversary of the issue date, in the amount of USD 1,000 million (EUR 1,007 million at the exchange rate on the day of issue). The issue bears interest at an annual rate of 3.225%, payable semi-annually, for the first ten years (then repricing at a margin of 160 points over the one-year U.S. government bond).

At 4 October 2021, Banco Santander, S.A. issued subordinated debentures for a term of eleven years, with a redemption option on the sixth anniversary of the issue date, amounting to GBP 850 million (EUR 887 million at the exchange rate on the day of issue). The issue bears interest at an annual rate of 2.25%, payable annually for the first six years (then repricing at a margin of 165 points over the 5-year UK government bond).

At 21 September 2021, Banco Santander, S.A. carried out a placement of preferential shares contingently convertible into newly issued ordinary shares of the Bank ('PPCC') for a nominal amount of EUR 1,000 million (issue placed on the market EUR 997 million). The issuance has been carried out at par and the remuneration of the PPCC, whose payment is subject to certain conditions and is also discretionary, has been set at 3.625% per year for the first eight years, being reviewed every five years applying a margin of 376 basis points over the 5-year Mid-Swap Rate.

At 11 September 2021, Banco Santander, S.A. proceeded to redeem early and voluntarily the entire issue made on 11 September 2014 of tier 1 contingently convertible preference shares (PPCC) with ISIN code XS110729154 which are traded in the Irish Stock Exchange Market 'Global Exchange Market', for a total nominal amount of EUR 1,500 million.

At 12 May 2021, Banco Santander placed the issue of preference shares contingently convertible into newly issued ordinary shares of the Bank, previously announced, for a total nominal amount of EUR 1,578 million, issued in a Series in Dollars of USD 1,000 million (EUR 828 million at the exchange rate on the day of issue) and a Series in Euros for an amount of EUR 750 million. The issuance is carried out at par and the remuneration of the PPCC, whose payment is subject to certain conditions and is also discretionary, has been set (i) for the Series in Dollars at 4.750% per annum for the first six years, being revised every five years applying a margin of 375.3 basis points over the 5-year UST rate and (ii) for the Series in Euros by 4.125% per annum for the first seven years, being revised every five years applying a margin of 431.1 basis points over the applicable 5-year euro mid-swap.

At 3 December 2020, Banco Santander, S.A. issued subordinated debentures with a ten-year term of USD 1,500 million (EUR 1,222 million at the date of issue). The issue bears interest at an annual rate of 2.749%, payable semiannually.

At 22 October 2020, it carried out a ten-year subordinated debenture issue for an amount of EUR 1,000 million. The issue bears interest at an annual rate of 1.625%, payable annually.

At 12 March 2020, it proceeded to redeem early and voluntarily the entire outstanding issue of Tier 1 Contingently Convertible Preferred Participations Series I/2014, for a total nominal amount of EUR 1,500 million.

At 14 January 2020, it carried out a placement of contingently convertible preferred participations into newly issued ordinary shares of the Bank (the 'PPCCs'), excluding the pre-emptive subscription rights of its shareholders and for a nominal amount of EUR 1,500 million (the 'Issue' and the 'PPCCs'). The Issue was made at par and the remuneration of the PPCCs, the payment of which is subject to certain conditions and is also discretionary, was set at 4.375% per annum for the first six years, revised every five years thereafter by applying a margin of 453.4 basis points over the 5-year Mid-Swap Rate (5-year Mid-Swap Rate).

At 19 May 2019, the voluntary early redemption of the preferred shares relating to the second issue made on 9 May 2014 (code ISIN XS1066553329) was communicated for an amount of USD 1,500 million (EUR 1,345 million) at the redemption date.

At 8 February 2019, Banco Santander, S.A. carried out an issue of PPCC for a nominal amount of USD 1,200 million (EUR 1,056 million). The remuneration of the issues whose payment is subject to certain conditions and is also discretionary was set at 7.50% per annum, for the first five years (revised thereafter by applying a margin of 498.9 points over the mid-swap rate).

At 19 March 2018, a 'PPCC' issue was carried out, for a nominal amount of EUR 1,500 million. The remuneration of the issue, the payment of which is subject to certain conditions and is also discretionary, was set at 4.75% per annum, payable quarterly, for the first seven years (revised thereafter by applying a margin of 410 basis points over the Mid-swap rate).

At 8 February 2018, a 10-year subordinated debenture issue of EUR 1,250 million was carried out. The issue accrues annual interest of 2.125% payable annually.

At 25 April and 29 September 2017, Banco Santander, S.A. carried out issues of 'PPCCs', for a nominal amount of EUR 750 million, and EUR 1,000 million respectively. The remuneration of the PPCCs, the payment of which is subject to certain conditions and is also discretionary, was set at 6.75% per annum for the first five years (revised thereafter by applying a margin of 680.3 basis points over the 5-year Mid-Swap Rate) for the issue disbursed in April, at 5.25% per annum for the first six years (revised thereafter by applying a margin of 499.9 basis points over the 5 years Mid-Swap Rate) for the issue disbursed in September.)

Issues by Banco Santander - Chile

In June 2020, Banco Santander - Chile issued subordinated debentures for a term of fifteen years, in the amount of UF 5 million (equivalent to USD 185 million). The issue bears annual interest at 3.5%.

In April 2020, Banco Santander - Chile issued two subordinated debentures, the first for a term of fourteen years, for an amount of UF 3 million (equivalent to USD 100 million), bearing annual interest at 3%, and the second for a term of nineteen years, for an amount of UF 3 million (equivalent to USD 100 million), bearing annual interest at 3.15%.

Issues Banco Santander (Brasil) S.A.

At the end of November 2021, Banco Santander (Brasil) S.A. carried out an issue of Subordinated Financial Bills (TIER II) in its local market for a 10-year term, with a repurchase option as of the fifth anniversary of the issue date, in the amount of BRL 5,500 million. The issue price was CDI +2% per annum, payable at maturity.

On 29 January 2014 Banco Santander (Brasil) S.A. issued Tier 1 perpetual subordinated notes for a nominal amount of USD 1,248 million and the Group acquired 89.6% of the issue. The notes are perpetual and would be converted into common shares of Banco Santander (Brasil) S.A. if the common equity Tier 1 ratio, calculated as established by the Central Bank of Brazil, were lower than 5.125%. This issue was fully redeemed in fiscal year 2019.

Issues by Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México

At 1 October 2018, a ten-year subordinated debenture issue was made by Banco Santander México, S.A. Institución de Banca Múltiple, Grupo Financiero Santander México for a nominal amount of USD 1,300 million and at an interest rate of 5.95%, with the group having acquired 75% of the issue.

Additionally, at 30 December 2016, a nominal amount of USD 500 million was made, with the Group having acquired 88.2% of the issue. The perpetual debentures are automatically converted into shares when the Regulatory Capital Ratio (CET1) is equal to or less than 5.125% at the conversion price.

Issues by Santander Bank Polska S.A.

At 20 April 2018, Santander Bank Polska S.A. carried out a ten-year subordinated debenture issue with a redemption option on the fifth anniversary of the issue date in the amount of PLN 1,000 million. The issue bears floating interest at Wibor (6M) + 160 basis points payable semi-annually.

The accrued interests from the subordinated liabilities during 2021 amounted to EUR 648 million (EUR 571 million and EUR 645 million during 2020 and 2019, respectively).

In addition, interests from the PPCC during 2021 amounted to EUR 566 million (EUR 552 million and EUR 595 million in 2020 and 2019, respectively).

24. Other financial liabilities

The detail of Other financial liabilities in the consolidated balance sheets is as follows:

EUR million			
	2021	2020	2019
Trade payables	1,475	1,177	1,279
Clearing houses	650	599	165
Tax collection accounts:			
Public Institutions	5,315	4,122	4,122
Factoring accounts payable	275	222	409
Unsettled financial transactions	3,779	5,080	3,693
Lease liabilities (note 2.1)	2,856	3,049	5,108
Other financial liabilities	15,523	12,719	15,459
	29,873	26,968	30,235

Note 50 contains a detail of the residual maturity periods of other financial liabilities at each year-end.

Lease liabilities

The cash outflow of leases in 2021 was EUR 715 million (EUR 789 and EUR 946 million in 2020 and 2019, respectively).

The analysis of the maturities of lease liabilities at December 2021, 2020 and 2019 is shown below:

EUR million			
	2021	2020	2019
Maturity Analysis - Discounted payments			
Within 1 year	690	594	766
Between 1 and 3 years	933	981	1,254
Between 3 and 5 years	534	637	875
Later than 5 years	699	837	2,213
Total discounted payments at the end of the year	2,856	3,049	5,108

During 2021, 2020 and 2019 there were no significant variable lease payments not included in the valuation of lease liabilities.

25. Provisions

a) Breakdown

The detail of Provisions in the consolidated balance sheets is as follows:

EUR million			
	2021	2020	2019
Provision for pensions and other obligations post-employments	3,185	3,976	6,358
Other long term employee benefits	1,242	1,751	1,382
Provisions for taxes and other legal contingencies	1,996	2,200	3,057
Provisions for contingent liabilities and commitments (note 2)	733	700	739
Other provisions	2,427	2,225	2,451
Provisions	9,583	10,852	13,987

b) Changes

The changes in 'Provisions' in the last three years were as follows:

	2021				Total
	Post employment plans	Long term employee benefits	Contingent liabilities and commitments	Other provisions	
Balances at beginning of year	3,976	1,751	700	4,425	10,852
Additions charged to income	100	101	29	2,748	2,978
Interest expense (note 39)	78	13	—	—	91
Staff costs (note 47)	67	6	—	—	73
Provisions or reversion of provisions	(45)	82	29	2,748	2,814
Addition	21	154	473	3,065	3,713
Release	(66)	(72)	(444)	(317)	(899)
Other additions arising from insurance contracts linked to pensions	(8)	—	—	—	(8)
Changes in value recognised in equity	(1,705)	—	—	—	(1,705)
Payments to pensioners and pre-retirees with a charge to internal provisions	(201)	(605)	—	—	(806)
Payments to external funds	(440)	—	—	—	(440)
Amounts used	—	—	—	(2,961)	(2,961)
Transfer, exchange differences and other changes	1,463	(5)	4	211	1,673
Balances at end of year	3,185	1,242	733	4,423	9,583

EUR million

	2020					2019				
	Post employment plans	Long term employee benefits	Contingent liabilities and commitments	Other provisions	Total	Post employment plans	Long term employee benefits	Contingent liabilities and commitments	Other provisions	Total
Balances at beginning of year	6,358	1,382	739	5,508	13,987	5,558	1,239	779	5,649	13,225
Incorporation of Group companies, net	(5)	—	(1)	(2)	(8)	—	(1)	—	—	(1)
Additions charged to income	(217)	782	50	1,934	2,549	173	729	(31)	2,836	3,707
Interest expense (note 39)	84	11	—	—	95	128	17	—	—	145
Staff costs (note 47)	69	7	—	—	76	65	7	—	—	72
Provisions or reversion of provisions	(370)	764	50	1,934	2,378	(20)	705	(31)	2,836	3,490
Addition	6	787	490	2,258	3,541	10	713	422	4,276	5,421
Release	(376)	(23)	(440)	(324)	(1,163)	(30)	(8)	(453)	(1,440)	(1,931)
Other additions arising from insurance contracts linked to pensions	2	—	—	—	2	4	—	—	—	4
Changes in value recognised in equity	547	—	—	—	547	1,520	—	—	—	1,520
Payments to pensioners and pre-retirees with a charge to internal provisions	(303)	(408)	—	—	(711)	(331)	(612)	—	—	(943)
Benefits paid due to settlements	(1,551)	—	—	—	(1,551)	—	—	—	—	—
Insurance premiums paid	(1)	—	—	—	(1)	(1)	—	—	—	(1)
Payments to external funds	(333)	—	—	—	(333)	(455)	—	—	—	(455)
Amounts used	—	—	—	(2,485)	(2,485)	—	—	—	(2,907)	(2,907)
Transfer, exchange differences and other changes	(521)	(5)	(88)	(530)	(1,144)	(110)	27	(9)	(70)	(162)
Balances at end of year	3,976	1,751	700	4,425	10,852	6,358	1,382	739	5,508	13,987

c) Provision for pensions and other obligations post - employments and Other long term employee benefits

The detail of Provisions for pensions and similar obligations is as follows:

EUR million			
	2021	2020	2019
Provisions for post-employment plans - Spanish entities	1,709	1,881	3,951
Provisions for other similar obligations - Spanish entities	1,188	1,695	1,321
Of which pre-retirements	1,176	1,676	1,303
Provisions for post-employment plans - United Kingdom	44	449	329
Provisions for post-employment plans - Other subsidiaries	1,432	1,646	2,078
Provisions for other similar obligations - Other subsidiaries	54	56	61
Provision for pensions and other obligations post -employments and Other long term employee benefits	4,427	5,727	7,740
Of which defined benefits	4,419	5,719	7,731

i. Spanish entities - Post-employment plans and other similar obligations

At 31 December 2021, 2020 and 2019, the Spanish entities had post-employment benefit obligations under defined contribution and defined benefit plans. In addition, in various years some of the consolidated entities offered certain of their employees the possibility of taking pre-retirement and, therefore, provisions are recognised each year for the obligations to employees taking pre-retirement -in terms of salaries and other employee benefit costs- from the date of their pre-retirement to the agreed end date.

In 2019, the provisions accounted for benefit plans and contribution commitments were EUR 688 million.

In December 2020, Banco Santander reached an agreement with the workers' representatives to implement an early retirement and incentivized dismissals plan, which was expected to benefit 3,572 employees during 2021, constituting a provision to cover these commitments amounting to EUR 688 million. In addition to this plan, in 2020, 443 employees took advantage of the offer of early retirement and incentivized dismissals, increasing the provision made to cover these commitments to EUR 84 million. In 2021, due to the increase in the number of employees covered by the plan, a provision of EUR 139 million has been recognised.

In December 2019 Banco Santander reached an agreement with the workers' representatives to offer during 2020 to part of its passive personnel, the possibility of receiving the pensionable rights derived from the collective bargaining agreement in the form of a single consideration or divided into a maximum of 5 equal annuities. The proposal was also extended to personnel with pensionable rights recognized under individual contracts or agreements. The number of beneficiaries who exercised the voluntary option of accepting the substitution of the life annuity for the payment of a lump sum in the form of a capital sum or in instalments of a maximum of 5 annuities amounted to 15,613 people. The effect of the reduction of the aforementioned commitments is shown in the tables below under the headings 'Benefits paid in settlement' in the amount of EUR 1,551 million and 'Effect of reduction/settlement' in the amount of EUR 362 million.

On 8 July 2021, Banco Santander reached an agreement with the employee representatives for the transformation of defined benefit pension commitments into defined contributions for certain retired personnel from Banco Popular and Banco Pastor. Through the aforementioned Collective Agreement, it was agreed to carry out an offer to replace the life annuities that the passive personnel included in the scope of application of said Collective Agreement had been receiving, for a capitalization fund in the Santander Employees pension plan. The number of beneficiaries who exercised the voluntary option to accept the substitution of the life annuity for a capitalization fund in the Santander Employees pension plan amounted to 1,468 people.

The effect of the reduction of the aforementioned commitments is shown in the tables below under the headings 'Benefits paid by settlement' amounting to EUR 166 million and 'Effect reduction / settlement' amounting to EUR 36 million.

The expenses incurred by the Spanish companies in 2021, 2020 and 2019 in respect of contributions to defined contribution plans amounted to EUR 91 million, EUR 89 million and EUR 89 million, respectively.

The amount of the defined benefit obligations was determined on the basis of the work performed by independent actuaries using the following actuarial techniques.

1. Valuation method: projected unit credit method, which sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately.
2. Actuarial assumptions used: unbiased and mutually compatible. Specifically, the most significant actuarial assumptions used in the calculations were as follows:

	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Annual discount rate	0.90%	0.60%	0.80%	0.90%	0.60%	0.80%
Mortality tables	PE2020 M/F Col. Orden 1	PE2020 M/F Col. Orden 1	PERM/F-2000	PE2020 M/F Col. Orden 1	PE2020 M/F Col. Orden 1	PERM/F-2000
Cumulative annual CPI growth	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Annual salary increase rate	1.25%*	1.25%*	1.25%*	N/A	N/A	N/A
Annual social security pension increase rate	1.00%	1.00%	1.00%	N/A	N/A	N/A
Annual benefit increase rate	N/A	N/A	N/A	0%	0%	0 %

* Corresponds to the group's defined-benefit obligations.

The discount rate used for the flows was determined by reference to high-quality corporate bonds (at least AA in euros) matching the durations of the commitments. From the bond portfolio considered, callable, puttable and sinkable bonds, which could distort the rates, are excluded.

Any changes in the main assumptions could affect the calculation of the obligations. At 31 December 2021, if the discount rate used had been decreased or increased by 50 basis points (bp), there would have been an increase or decrease in the present value of the post-employment obligations of 5.00% (-50 bp) to -5.06% (+50 bp), respectively, and an increase or decrease in the present value of the long-term obligations of 1.18% (-50 bp) to -1.18% (+50 bp), respectively.

These changes would be offset in part by increases or decreases in the fair value of the assets and insurance contracts linked to pensions.

3. The estimated retirement age of each employee is the first at which the employee is entitled to retire or the agreed-upon age, as appropriate.

The fair value of insurance contracts was determined as the present value of the related payment obligations, taking into account the following assumptions:

	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Expected rate of return on plan assets	0.90%	0.60%	0.80%	0.90%	0.60%	0.80%
Expected rate of return on reimbursement rights	0.90%	0.60%	0.80%	N/A	N/A	N/A

The funding status of the defined benefit obligations in 2021 and the two preceding years is as follows:

EUR million						
	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Present value of the obligations						
To current employees	29	60	59	—	—	—
Vested obligations to retired employees	2,797	3,318	5,393	—	—	—
To pre-retirees employees	—	—	—	1,186	1,688	1,317
Long-service bonuses and other benefits	—	—	—	12	18	18
Other	65	41	42	—	1	—
	2,891	3,419	5,494	1,198	1,707	1,335
Less - Fair value of plan assets	1,217	1,542	1,547	10	12	14
Provisions - Provisions for pensions	1,674	1,877	3,947	1,188	1,695	1,321
<i>Of which:</i>						
Internal provisions for pensions	1,560	1,707	3,759	1,188	1,695	1,321
Net pension assets	(30)	—	—	—	—	—
Insurance contracts linked to pensions (note 14)	149	174	192	—	—	—
Unrecognised net assets for pensions	(5)	(4)	(4)	—	—	—

The amounts recognised in the consolidated income statements in relation to the aforementioned defined benefit obligations are as follows:

EUR million						
	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Current service cost	5	10	12	1	1	1
Interest cost (net)	24	26	53	11	9	15
Expected return on insurance contracts linked to pensions	(1)	(1)	(2)	—	—	—
Provisions or reversion of provisions						
Actuarial (gains)/losses recognised in the year	—	—	—	(15)	(3)	7
Past service cost	13	2	3	—	—	1
Pre-retirement cost	—	—	1	139	772	687
Other*	(39)	(372)	(29)	(55)	(15)	(2)
	2	(335)	38	81	764	709

*Including reduction/settlement effect

In addition, in 2021 'Other comprehensive income – Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans' has decreased by EUR 37 million with respect to defined benefit obligations (increase of EUR 84 and EUR 278 million in 2020 and 2019, respectively).

The changes in the present value of the accrued defined benefit obligations were as follows:

EUR million

	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Present value of the obligations at beginning of year	3,419	5,494	5,427	1,707	1,335	1,204
Incorporation of Group companies, net	6	—	—	—	—	(1)
Current service cost	5	10	12	1	1	1
Interest cost	36	39	72	11	9	15
Pre-retirement cost	—	—	1	139	772	687
Effect of curtailment/settlement	(61)	(372)	(29)	(55)	(15)	(2)
Benefits paid	(248)	(359)	(400)	(589)	(392)	(599)
Benefits paid due to settlements	(166)	(1,551)	—	—	—	—
Past service cost	13	2	3	—	—	1
Actuarial (gains)/losses	(121)	163	407	(15)	(3)	7
Demographic actuarial (gains)/losses	9	91	15	(8)	(8)	(9)
Financial actuarial (gains)/losses	(130)	72	392	(7)	5	16
Exchange differences and other items	8	(7)	1	(1)	—	22
Present value of the obligations at end of year	2,891	3,419	5,494	1,198	1,707	1,335

The changes in the fair value of plan assets and of insurance contracts linked to pensions were as follows:

Plan Assets

EUR million

	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Fair value of plan assets at beginning of year	1,542	1,547	1,500	12	14	15
Incorporation of Group companies, net	6	—	—	—	—	—
Expected return on plan assets	12	13	19	—	—	—
Gains/(losses) on settlements	(22)	—	—	—	—	—
Benefits paid	(263)	(94)	(108)	(2)	(2)	(2)
Contributions/(surrenders)	15	5	8	—	—	—
Actuarial gains/(losses)	(76)	76	128	—	—	—
Exchange differences and other items	3	(5)	—	—	—	1
Fair value of plan assets at end of year	1,217	1,542	1,547	10	12	14

Insurance Contracts linked to pensions

EUR million

	Post-employment plans			Other similar obligations		
	2021	2020	2019	2021	2020	2019
Fair value of insurance contracts linked to pensions at beginning of year	174	192	210	—	—	—
Incorporation of Group companies, net	—	—	—	—	—	—
Expected return on insurance contracts linked to pensions	1	1	2	—	—	—
Benefits paid	(19)	(21)	(24)	—	—	—
Paid premiums	1	—	—	—	—	—
Actuarial gains/(losses)	(8)	2	4	—	—	—
Fair value of insurance contracts linked to pensions at end of year	149	174	192	—	—	—

In view of the conversion of the defined-benefit obligations to defined-contribution obligations, the Group has not made material current contributions in Spain in 2021 to fund its defined-benefit pension obligations.

The plan assets and the insurance contracts linked to pensions are instrumented mainly through insurance policies.

The following table shows the estimated benefits payable at 31 December 2021 for the next ten years:

EUR million	
2022	606
2023	466
2024	402
2025	333
2026	284
2027 to 2031	904

ii. United Kingdom

At the end of each of the last three years, the businesses in the United Kingdom had post-employment benefit obligations under defined contribution and defined benefit plans. The expenses incurred in respect of contributions to defined contribution plans amounted to EUR 89 million in 2021 (EUR 91 million in 2020 and EUR 93 million in 2019).

The amount of the defined benefit obligations was determined on the basis of the work performed by independent actuaries using the following actuarial techniques:

1. Valuation method: projected unit credit method, which sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately.
2. Actuarial assumptions used: unbiased and mutually compatible. Specifically, the most significant actuarial assumptions used in the calculations were as follows:

	2021	2020	2019
Annual discount rate	1.90%	1.28%	2.11%
Mortality tables	The S3 Middle tables weighted at 84% of the CMI_2020 projection with an initial addition of 0.15%, smoothing parameter 7 and improving 1.25%.	The S3 Middle tables weighted at 84% of the CMI_2018 projection with an initial addition of 0.15%, smoothing parameter 7 and improving 1.25%.	The S3 Middle tables weighted at 84% of the CMI_2018 projection with an initial addition of 0.15%, smoothing parameter 7 and improving 1.25%.
Cumulative annual CPI growth	3.37%	2.95%	3.01%
Annual salary increase rate	1.00%	1.00%	1.00%
Annual pension increase rate	3.21%	2.85%	2.91%

The discount rate used for the flows was determined by reference to high-quality corporate bonds (at least AA in pounds sterling) that coincide with the terms of the obligations.

Any changes in the main assumptions could affect the calculation of the obligations. At 31 December 2021, if the discount rate used had been decreased or increased by 50 basis points, there would have been an increase or decrease in the present value of the obligations of 9.74% (-50 bp) and -8.67% (+50 bp), respectively. If the inflation assumption had been increased or decreased by 50 basis points, there would have been an increase or decrease in the present value of the obligations of 6.19% (+50 bp) and -6.00% (-50 bp), respectively. These changes would be offset in part by increases or decreases in the fair value of the assets.

The funding status of the defined benefit obligations in 2021 and the two preceding years is as follows:

EUR million			
	2021	2020	2019
Present value of the obligations	15,392	15,472	14,297
Less-			
Fair value of plan assets	17,244	15,575	14,755
Provisions - Provisions for pensions	(1,852)	(103)	(458)
<i>Of which:</i>			
Internal provisions for pensions	44	449	329
Net assets for pensions	(1,896)	(552)	(787)

The amounts recognised in the consolidated income statements in relation to the aforementioned defined benefit obligations are as follows:

EUR million			
	2021	2020	2019
Current service cost	33	30	27
Interest cost (net)	(6)	(12)	(24)
Provisions or reversal of provisions, net			
Cost of services provided	6	—	—
Others	—	(1)	—
	33	17	3

In addition, in 2021 'Other comprehensive income – Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans' decreased by EUR 1,475 million with respect to defined benefit obligations (increase of EUR 568 million and decrease of EUR 601 million at 31 December 2020 and 2019, respectively).

The changes in the present value of the accrued defined benefit obligations were as follows:

EUR million	2021	2020	2019
Present value of the obligations at beginning of year	15,472	14,297	12,079
Current service cost	33	30	27
Interest cost	219	284	352
Benefits paid	(465)	(445)	(441)
Contributions made by employees	18	17	18
Past service cost	6	—	—
Actuarial (gains)/losses	(933)	2,060	1,594
Demographic actuarial (gains)/losses	(17)	34	48
Financial actuarial (gains)/losses	(916)	2,026	1,546
Exchange differences and other items	1,042	(771)	668
Present value of the obligations at end of year	15,392	15,472	14,297

The changes in the fair value of the plan assets were as follows:

EUR million	2021	2020	2019
Fair value of plan assets at beginning of year	15,575	14,755	12,887
Expected return on plan assets	225	296	376
Benefits paid	(463)	(443)	(441)
Contributions	285	274	244
Actuarial gains/(losses)	541	1,492	993
Exchange differences and other items	1,081	(799)	696
Fair value of plan assets at end of year	17,244	15,575	14,755

In 2022 the Group expects to make current contributions to fund these obligations for amounts similar to those made in 2021.

The main categories of plan assets as a percentage of total plan assets are as follows:

	2021	2020	2019
Equity instruments	10%	9%	12%
Debt instruments	51%	55%	46%
Properties	10%	10%	11%
Other	29%	26%	31%

The following table shows the estimated benefits payable at 31 December 2021 for the next ten years:

EUR million	
2022	462
2023	367
2024	393
2025	408
2026	433
2027 to 2031	2,481

iii. Other foreign subsidiaries

Certain of the consolidated foreign entities have acquired commitments to their employees similar to post-employment benefits.

At 31 December 2021, 2020 and 2019, these entities had defined-contribution and defined-benefit post-employment benefit obligations. The expenses incurred in respect of contributions to defined contribution plans amounted to EUR 106 million in 2021 (EUR 103 million at 31 December 2020 and EUR 110 million at 31 December 2019).

The actuarial assumptions used by these entities (discount rates, mortality tables and cumulative annual CPI growth) are consistent with the economic and social conditions prevailing in the countries in which they are located.

Specifically, the discount rate used for the flows was determined by reference to high-quality corporate bonds, except in the case of Brazil where there is no extensive corporate bond market and, accordingly the discount rate was determined by reference to the series B bonds issued by the Brazilian National Treasury Secretariat for a term coinciding with that of the obligations. In Brazil the discount rate used was between 8.39% and 8.44%, the CPI 3.00% and the mortality table the AT - 2000 Basic.

Any changes in the main assumptions could affect the calculation of the obligations. At 31 December 2021, if the discount rate used had been decreased or increased by 50 basis points, there would have been an increase or decrease in the present value of the obligations of 4.78% and -4.40%, respectively. These changes would be offset in part by increases or decreases in the fair value of the assets.

The funding status of the obligations similar to post-employment benefits and other long-term benefits in 2021 and the two preceding years is as follows:

EUR million

	2021	Of which business in Brazil	2020	2019
Present value of the obligations	8,018	5,111	8,434	10,717
Less-				
<i>Of which: with a charge to the participants</i>	106	106	112	176
Fair value of plan assets	7,167	5,288	7,182	8,826
Provisions - Provisions for pensions	745	(283)	1,140	1,715
<i>Of which:</i>				
<i>Internal provisions for pensions</i>	1,478	432	1,694	2,129
<i>Net assets for pensions</i>	(64)	(46)	(83)	(116)
<i>Unrecognised net assets for pensions</i>	(669)	(669)	(471)	(298)

The amounts recognised in the consolidated income statements in relation to these obligations are as follows:

EUR million

	2021	2020	2019
Current service cost	34	35	32
Interest cost (net)	62	72	101
Provisions or reversion of provisions			
(Actuarial gains)/losses recognised in the year	11	11	12
Past service cost	3	5	6
Pre-retirement cost	(24)	—	—
Other	(3)	(5)	(1)
	83	118	150

In addition, in 2021 'Other comprehensive income – Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans' decreased by EUR 193 million with respect to defined benefit obligations (decreased EUR 105 million and increased EUR 641 million in 2020 and 2019, respectively).

The changes in the present value of the accrued obligations were as follows:

EUR million

	2021	2020	2019
Present value of the obligations at beginning of year	8,434	10,717	9,116
Incorporation of Group companies, net	(5)	(84)	—
Current service cost	34	35	32
Interest cost	429	465	651
Pre-retirement cost	(24)	—	—
Effect of curtailment/settlement	(3)	(5)	(1)
Benefits paid	(538)	(544)	(666)
Contributions made by employees	3	3	5
Past service cost	3	5	6
Actuarial (gains)/losses	(486)	176	1,652
<i>Demographic actuarial (gains)/losses</i>	16	23	3
<i>Financial actuarial (gains)/losses</i>	(502)	153	1,649
Exchange differences and other items	171	(2,334)	(78)
Present value of the obligations at end of year	8,018	8,434	10,717

The changes in the fair value of the plan assets were as follows:

EUR million

	2021	2020	2019
Fair value of plan assets at beginning of year	7,182	8,826	7,743
Incorporation of Group companies, net	(6)	(86)	—
Expected return on plan assets	411	410	573
Benefits paid	(478)	(488)	(613)
Contributions	152	63	214
Actuarial gains/(losses)	(155)	536	1,021
Exchange differences and other items	61	(2,079)	(112)
Fair value of plan assets at end of year	7,167	7,182	8,826

In 2022 the Group expects to make contributions to fund these obligations for amounts similar to those made in 2021.

The main categories of plan assets as a percentage of total plan assets are as follows:

	2021	2020	2019
Equity instruments	12%	11%	8%
Debt instruments	83%	84%	84%
Properties	1%	1%	1%
Other	4%	4%	7%

The following table shows the estimated benefits payable at 31 December 2021 for the next ten years:

EUR million	
2022	538
2023	544
2024	550
2025	555
2026	560
2027 to 2031	2,870

d) Provisions for taxes and other legal contingencies and Other provisions

'Provisions - Provisions for taxes and other legal contingencies' and 'Provisions - Other provisions', which include, inter alia, provisions for restructuring costs and tax-related and non-tax-related proceedings, were estimated using prudent calculation procedures in keeping with the uncertainty inherent to the obligations covered. The definitive date of the outflow of resources embodying economic benefits for the Group depends on each obligation. In certain cases, these obligations have no fixed settlement period and, in other cases, depend on the legal proceedings in progress.

The detail, by geographical area, of Provisions for taxes and other legal contingencies and Other provisions is as follows:

EUR million		2021	2020	2019
Recognised by Spanish companies		1,595	1,647	1,381
Recognised by other EU companies		779	539	1,100
Recognised by other companies		2,049	2,239	3,027
Of which:				
Brazil		1,339	1,475	2,484
		4,423	4,425	5,508

Set forth below is the detail, by type of provision, of the balance at 31 December 2021, 2020 and 2019 of Provisions for taxes and other legal contingencies and Other provisions.

The types of provision were determined by grouping together items of a similar nature:

EUR million		2021	2020	2019
Provisions for taxes		564	600	759
Provisions for employment-related proceedings (Brazil)		328	437	776
Provisions for other legal proceedings		1,104	1,163	1,522
Provision for customer remediation		745	395	725
Regulatory framework-related provisions		36	69	67
Provision for restructuring		749	810	641
Other		897	951	1,018
		4,423	4,425	5,508

Relevant information is set forth below in relation to each type of provision shown in the preceding table:

The provisions for taxes include provisions for tax-related proceedings.

The provisions for employment-related proceedings (Brazil) relate to claims filed by trade unions, associations, the prosecutor's office and ex-employees claiming employment rights to which, in their view, they are entitled, particularly the payment of overtime and other employment rights, including litigation concerning retirement benefits. The number and nature of these proceedings, which are common for banks in Brazil, justify the classification of these provisions in a separate category or as a separate type from the rest. The Group calculates the provisions associated with these claims in accordance with past experience of payments made in relation to claims for similar items. When claims do not fall within these categories, a case-by-case assessment is performed and the amount of the provision is calculated in accordance with the status of each proceeding and the risk assessment carried out by the legal advisers.

The provisions for other legal proceedings include provisions for court, arbitration or administrative proceedings (other than those included in other categories or types of provisions disclosed separately) brought against Santander Group companies.

The provisions for customer remediation include mainly the estimated cost of payments to remedy errors relating to the sale of certain products in the UK, as well as the impact of Swiss franc (CHF) mortgage portfolios in Poland and the estimated amount related to the floor clauses of Banco Popular Español, S.A.U. To calculate the provision for customer remediation, the best estimate of the provision made by management is used, which is based on the estimated number of claims to be received and, of these, the number that will be accepted, as well as the estimated average payment per case.

The regulatory framework-related provisions include mainly the provisions relating to the FSCS (Financial Services Compensation Scheme), the Bank Levy in the UK and in Poland the provision related to the Banking Tax.

The provisions for restructuring include only the costs arising from restructuring processes carried out by the various Group companies.

Lastly, the 'Other' heading contains very atomized and individually insignificant provisions, such as the provisions to cover the operational risk.

Qualitative information on the main litigation is provided in note 25.e to the consolidated financial statements.

The group's general policy is to record provisions for tax and legal proceedings in which we assess the chances of loss to be probable and we do not record provisions when the chances of loss are possible or remote. We determine the amounts to be provided for as our best estimate of the expenditure required to settle the corresponding claim based, among other factors, on a case-by-case analysis of the facts and the legal opinion of internal and external counsel or by considering the historical average amount of the loss incurred in claims of the same nature. The definitive date of the outflow of resources embodying economic benefits for the Group depends on each obligation. In certain cases, the obligations do not have a fixed settlement term and, in others, they depend on legal proceedings in progress.

The main movements during the 2021 of the breakdown provisions are shown below:

With respect to provisions for labor and other legal proceedings, in Brazil, provisions of EUR 155 million and EUR 168 million were recorded, making payments of EUR 289 million and EUR 205 million, respectively.

With respect to provisions for customer compensation an amount of EUR 319 million was provided in Poland to cover the CHF mortgage portfolio in the year.

On the regulatory framework side, EUR 69 million was provisioned in the United Kingdom and a utilization of EUR 104 million was made in the year (Bank Levy). In addition, in Poland, EUR 131 million were recorded under the regulatory framework and paid during the year.

In addition, the restructuring provision includes provisions of EUR 598 million mainly in the UK and Portugal, as well as the payments made by the Group during the year.

e) Litigation and other matters

i. Tax-related litigation

At 31 December 2021 the main tax-related proceedings concerning the Group were as follows:

- Legal actions filed by Banco Santander (Brasil) S.A. and other Group entities to avoid the application of Law 9.718/98, which modifies the basis to calculate PIS and COFINS social contribution, extending it to all the entities income, and not only to the income from the provision of services. In relation of Banco Santander (Brasil) S.A. process, in May 2015 the Federal Supreme Court (FSC) admitted the extraordinary appeal filed by the Federal Union regarding PIS, and dismissed the extraordinary appeal lodged by the Brazilian Public Prosecutor's Office regarding COFINS contribution, confirming the decision of Federal Regional Court favourable to Banco Santander (Brasil) S.A. of August 2007. The appeals filed by the other entities before the Federal Supreme Court, both for PIS and COFINS, are still pending. These claims are fully provisioned.
- Banco Santander (Brasil) S.A. and other Group companies in Brazil have appealed against the assessments issued by the Brazilian tax authorities questioning the deduction of loan losses in their income tax returns (IRPJ and CSLL) in relation to different administrative processes of various years on the ground that the requirements under the applicable legislation were not met. The appeals are pending decision in CARF. No provision was recognised in connection with the amount considered to be a contingent liability.
- Banco Santander (Brasil) S.A. and other Group companies in Brazil are involved in administrative and legal proceedings against several municipalities that demand payment of the Service Tax on certain items of income from transactions not classified as provisions of services. There are several cases in different judicial instances. A provision was recognised in connection with the amount of the estimated loss.
- Banco Santander (Brasil) S.A. and other Group companies in Brazil are involved in administrative and legal proceedings against the tax authorities in connection with the taxation for social security purposes of certain items which are not considered to be employee remuneration. There are several cases in different judicial instances. A provision was recognised in connection with the amount of the estimated loss.
- In May 2003 the Brazilian tax authorities issued separate infringement notices against Santander Distribuidora de Títulos e Valores Mobiliários, Ltda. (DTVM, actually Santander Brasil Tecnologia S.A.) and Banco Santander (Brasil) S.A. in relation to the Provisional Tax on Financial Movements (CPMF) of the years 2000 to 2002. The administrative discussion ended unfavourably for both companies, and on July 3, 2015, filed a lawsuit requesting the cancellation of both tax assessments. The lawsuit was judged unfavourably in first instance. Therefore, both plaintiffs appealed to the court of second instance. On December 2020, the appeal was decided unfavourably. Against the judgment, the bank filed a motion for clarification which has not been accepted. Currently it is appealed to higher courts. There is a provision recognized for the estimated loss.
- In December 2010 the Brazilian tax authorities issued an infringement notice against Santander Seguros S.A. (Brazil), currently Zurich Santander Brasil Seguros e Previdência S.A., as the successor by merger to ABN AMRO Brasil dois Participações S.A., in relation to income tax (IRPJ and CSLL) for 2005, questioning the tax treatment applied to a sale of shares of Real Seguros, S.A. The administrative discussion ended unfavourably, and the CARF decision has been appealed at the Federal Justice. As the former parent of Santander Seguros S.A. (Brazil), Banco Santander (Brasil) S.A. is liable in the event of any adverse outcome of this proceeding. No provision was recognised in connection with this proceeding as it is considered to be a contingent liability.
- In November 2014 the Brazilian tax authorities issued an infringement notice against Banco Santander (Brasil) S.A. in relation to corporate income tax (IRPJ and CSLL) for 2009 questioning the tax-deductibility of the amortisation of the goodwill of Banco ABN AMRO Real S.A. performed prior to the absorption of this bank by Banco Santander (Brasil) S.A., but accepting the amortisation performed after the merger. Actually it is appealed before the Higher Chamber of CARF. No provision was recognised in connection with this proceeding as it was considered to be a contingent liability.

- Banco Santander (Brasil) S.A. has also appealed against infringement notices issued by the tax authorities questioning the tax deductibility of the amortisation of the goodwill arising on the acquisition of Banco Comercial e de Investimento Sudameris S.A from years 2007 to 2012. No provision was recognised in connection with this matter as it was considered to be a contingent liability.
- Banco Santander (Brasil) S.A. and other companies of the Group in Brazil are undergoing administrative and judicial procedures against Brazilian tax authorities for not admitting tax compensation with credits derived from other tax concepts, not having registered a provision for the amount considered to be a contingent liability.
- Banco Santander (Brasil) S.A. is involved in appeals in relation to infringement notices initiated by tax authorities regarding the offsetting of tax losses in the CSLL ('Social Contribution on Net Income') of year 2009. The appeal is pending decision in CARF. No provision was recognised in connection with this matter as it is considered to be a contingent liability.
- Brazilian tax authorities have issued infringement notices against Getnet Adquirência e Serviços para Meios de Pagamento S.A and Banco Santander (Brasil) S.A. as jointly liable in relation to corporate income tax (IRPJ and CSLL) for 2014 to 2018 questioning the tax-deductibility of the amortization of the goodwill from the acquisition of Getnet Tecnologia Proces S.A., considering that the company would not have complied with the legal requirements for such amortization. A defense against the tax assessment notices were submitted, and the appeal is pending decision in CARF. No provision was recognized as it is considered to be a contingent liability.

The total amount for the aforementioned Brazil lawsuits that are fully provisioned is EUR 848 million, and for lawsuits that qualify as contingent liabilities is EUR 3,690 million.

- Legal action brought by Sovereign Bancorp, Inc. (currently Santander Holdings USA, Inc.) claiming its right to take a foreign tax credit for taxes paid outside the United States in fiscal years 2003 to 2005 as well as the related issuance and financing costs. On 17 July 2018, the District Court finally ruled against Santander Holdings USA, Inc. On September 5, 2019 the Federal District Court in Massachusetts entered a judgement resolving the Company's tax liability for fiscal years 2003 to 2005, which had no effect on income. The Company has agreed to resolve the treatment of the same transactions for 2006 and 2007, consistent with the September 5, 2019 judgment. The Congressional Joint Committee on Taxation has completed its review of the proposed resolution of the 2006 and 2007 tax years, with no objection. The IRS finalized its administrative process to close-out the issue, which resulted in no impact on net income.
- Banco Santander appealed before European Courts the Decisions 2011/5/CE of 28 October 2009 (First Decision), and 2011/282/UE of 12 January 2011 (Second Decision) of the European Commission, ruling that the deduction of the financial goodwill regulated pursuant to Article 12.5 of the Corporate Income Tax Law constituted illegal State aid. On October 2021 the Court of Justice has definitively confirmed these Decisions. The dismissal of the appeal, that only affects these two decisions, has no effect on equity.

At the date of approval of these interim financial statements certain other less significant tax-related proceedings are also in progress.

ii. Non-tax-related proceedings

At 31 December 2021 the main non-tax-related proceedings concerning the Group were as follows:

- Payment Protection Insurance (PPI): In recent years Santander UK plc has processed customer claims associated with the sale of payment protection insurance (PPI), derived from the Financial Conduct Authority guidelines. As of 31 December 2021 there is no provision related to those claims as the deadline for presenting them has already expired. However, customers can still commence in-court litigation for the mis-sale of PPI and a provision for the best estimate of any obligation to pay compensation in respect of current and future claims is recognized for this purpose.

In addition, there is a legal dispute regarding allocation of liability for pre-2005 PPI policies underwritten by two entities (Axa France) that Axa Group acquired from Genworth Financial International Holdings, Inc. in September 2015. The dispute involves Santander Cards UK Limited (formerly known as GE Capital Bank Limited which was acquired by Banco Santander, S.A. from GE Capital group in 2008) which was the distributor of the policies in dispute and Santander Insurance Services UK Limited (the Santander Entities).

In July 2017, the Santander Entities notified Axa France that they did not accept liability for losses on PPI policies relating to the referred period. Santander UK plc entered in a Complaints Handling Agreement –that included a standstill agreement– agreeing to handle complaints on Axa France, whilst Axa France accepted paying redress assessed to be due to relevant policyholders on a without prejudice basis.

After the termination of the Complaints Handling Agreement, on 30 December 2020 Axa France provided written notice to the Santander Entities to terminate the standstill agreement. On 5 March 2021, the Santander Entities were served with a Claim Form and Brief Details of Claim by Axa France, claiming that the Santander Entities are liable to reimburse Axa France for pre-2005 PPI mis-selling losses, currently estimated at GBP 636 million (EUR 739 million). On 22 March 2021, the Santander Entities acknowledged service of the claim and notified the court of their intention to defend the claim in full and issued an application for Axa France's claim to be struck out/summarily dismissed, which is being heard by the Commercial Court on 22 and 23 February 2022. Decision is not expected until second quarter 2022.

In the event the claim is not dismissed, there are still ongoing factual issues to be resolved during the trial, which may have legal consequences including in relation to liability. These issues create uncertainties which mean that it is difficult to reliably predict the outcome or the timing of the resolution of the matter. The provision includes our best estimate of the Santander Entities' liability for this matter.

- Delforca: dispute arising from equity swaps entered into by Gaesco (now Delforca 2008, S.A.) on shares of Inmobiliaria Colonial, S.A. Banco Santander, S.A. is claiming to Delforca before the Court of Barcelona in charge of the bankruptcy proceedings, a total of EUR 66 million from the liquidation resulting from the early termination of financial transactions due to Delforca's non-payment of the equity swaps. In the same bankruptcy proceedings, Delforca and Mobiliaria Monesa have in turn claimed the Bank to repay EUR 57 million, which the Bank received for the enforcement of the agreed guarantee, as a result of the aforementioned liquidation. On 16 September 2021 the Commercial Court Number 10 of Barcelona has ordered Delforca to pay the Bank EUR 66 million plus EUR 11 million in interest and has dismissed the claims filed by Delforca. This decision has been appealed by Delforca, Mobiliaria Monesa and the bankruptcy administrator. The appeal which the Bank has already opposed to will be resolved by the Provincial Court of Barcelona.

Separately, Mobiliaria Monesa, S.A. (parent of Delforca) filed in 2009 a civil procedure with the Courts of Santander against the Bank claiming damages that have not been specified to date. The procedure is suspended.

- Former employees of Banco do Estado de São Paulo S.A., Santander Banespa, Cia. de Arrendamiento Mercantil: claim initiated in 1998 by the association of retired Banespa employees (AFABESP) requesting the payment of a half-yearly bonus contemplated in the by-laws of Banespa in the event that Banespa obtained a profit and that the distribution of this profit were approved by the Board of Directors. The bonus was not paid in 1994 and 1995 since Banespa had not made a profit during those years. Partial payments were made from 1996 to 2000, as approved by the Board of Directors. The relevant clause was eliminated in 2001. The Tribunal Regional do Trabalho (Regional Labour Court) and the High Employment Court (TST) ordered Santander Brazil, as successor to Banespa, to pay this half-yearly bonus for the period from 1996 to the present. On 20 March 2019, the Supreme Federal Court (STF) rejected the extraordinary appeal filed by Santander Brazil.

Santander Bank Brazil filed a rescissory action before the TST to nullify the decisions of the main proceedings and suspend the execution of the judgment, which was deemed inadmissible, therefore its execution was suspended. The rescissory action was dismissed and a motion for clarification was filed, due to the absence of an explicit argument to deny the rescissory action filed by Santander Brazil. After the decision of the motion for clarification, Santander Brazil filed an extraordinary appeal in the rescissory action in February 2021, which was denied in an interlocutory decision in June 2021 by the TST. As Santander Brazil understands there is a conflict between the TST decision and the doctrine set by the STF, Santander Brazil has appealed this decision. This appeal is pending.

In August 2021, a first instance court has ruled that the enforcement of the TST decision shall be carried out individually, at the jurisdiction pertaining to each person. AFABESP appealed this decision. In December 2021, the Regional Labor Court denied the appeal filed by AFABESP. This decision has not been appealed by AFABESP, and therefore it has become firm.

Santander Brazil external advisers have classified the risk as probable. The recorded provisions are considered sufficient to cover the risks associated with the legal claims that are being substantiated as of 31 December 2021.

- 'Planos Econômicos': like the rest of the banking system in Brasil, Santander Brazil has been the target of customer complaints and collective civil suits stemming mainly from legislative changes and its application to bank deposits ('economic plans'). At the end of 2017, an agreement between regulatory entities and the Brazilian Federation of Banks (Febraban) with the purpose of closing the lawsuits was reached and was approved by the Supremo Tribunal Federal. Discussions focused on specifying the amount to be paid to each affected client according to the balance in their notebook at the time of the Plan. Finally, the total value of the payments will depend on the number of adhesions there may be and the number of savers who have demonstrated the existence of the account and its balance on the date the indexes were changed. In November 2018, the STF ordered the suspension of all economic plan proceedings for two years from May 2018. On 29 May 2020, the STF approved the extension of the agreement for 5 additional years starting from 3 June 2020. Condition for this extension was to include in the agreement actions related to the "Collor I Plan". On 31 December 2021, the provision recorded for the economic plan proceedings amounts to EUR 277 million.
- Floor clauses: as a consequence of the acquisition of Banco Popular Español, S.A.U. the Group has been exposed to a material number of transactions with floor clauses. The so-called "floor clauses" are those under which the borrower accepts a minimum interest rate to be paid to the lender, regardless of the applicable reference interest rate. Banco Popular Español, S.A.U. included "floor clauses" in certain asset-side transactions with customers. In relation to this type of clauses, and after several rulings made by the Court of Justice of the European Union and the Spanish Supreme Court, and the extrajudicial process established by the Spanish Royal Decree-Law 1/2017, of 20 January, Banco Popular Español, S.A.U. made provisions that were updated in order to cover the effect of the potential return of the excess interest charged for the application of the floor clauses between the contract date of the corresponding mortgage loans and May 2013. At 31 December 2021, after having processed most of the customer requests, the potential residual loss associated with ongoing court proceedings is estimated at EUR 46 million, amount which is fully covered by provisions.
- Banco Popular's acquisition: considering the declaration setting out the resolution of Banco Popular Español, S.A.U., the redemption and conversion of its capital instruments and the subsequent transfer to Banco Santander, S.A. of the shares resulting from this conversion in exercise of the resolution instrument involving the sale of the institution's business, in application of the single resolution framework regulation, some investors have filed claims against the EU's Single Resolution Board decision, the FROB's resolution executed in accordance to the aforementioned decision, and claims have been filed and may be filed in the future against Banco Santander, S.A. or other Santander Group companies deriving from or related to the acquisition of Banco Popular Español, S.A.U..

At this stage, it is not possible to foresee the total number of claims that could be filed by the former holders of shares and capital instruments (arising from the acquisition by investors of such shares and capital instruments of Banco Popular prior to resolution, including in particular, without limitation, the shares acquired in the context of the capital increase with pre-emptive subscription rights carried out in 2016), and their economic implications (especially considering that the decision to resolve in application of the new regulation has no precedent, and that it may be possible that future claims do not specify a specific amount, put forward new legal interpretations or involve a large number of parties).

In this respect, on 2 September 2020, the Provincial Court of La Coruña has referred a preliminary ruling to the Court of Justice of the European Union ("CJEU") asking for the correct interpretation of Article 60(2) of Directive 2014/59/EU of the European Parliament and of the Council, dated 15 May 2014, which establishes a framework for the restructuring and resolution of credit institutions and investment firms. This article establishes that, in cases of redemption of capital instruments in a bank resolution, no liability shall remain in relation to the amount of the instrument that has been redeemed. On 2 December 2021, the CJEU Advocate General issued his opinion, considering that the Directive precludes former Banco Popular shareholders from bringing claims for compensation against Banco Santander. The judgement of the CJEU in this case is still pending and is likely to condition the outcome on the judicial proceedings that are currently ongoing.

Likewise, the Central Court of Instruction 4 is currently conducting preliminary proceedings 42/2017, in which, amongst other things, is being investigated the following: (i) the accuracy of the prospectus for the capital increase with subscription rights carried out by Banco Popular in 2016; and (ii) the alleged manipulation of the share price of Banco Popular until the resolution of the bank, in June 2017. During the course of the proceedings, on 30 April 2019, the Spanish National Court, ruled in favour of Banco Santander, S.A. declaring that Banco Santander, S.A. cannot inherit Banco Popular's potential criminal liability. This ruling was appealed before the Supreme Court, which rejected it. In this proceedings, Banco Santander, S.A. could potentially be subsidiarily liable for the civil consequences.

The estimated cost of any compensation to shareholders and bondholders of Banco Popular recognized in the 2017 accounts amounted to EUR 680 million, of which EUR 535 million were applied to the commercial loyalty program. At 31 December 2021, the provisions recorded are considered sufficient to cover the risks associated with the court claims that can be estimated to date. However, if additional amounts have to be paid for claims already raised with an undetermined economic interest or for new claims which cannot be reliably estimated because of their specific circumstances, this could have a significant adverse effect on the Santander Group's results and financial situation.

- German shares investigation: the Cologne Public Prosecution Office is conducting an investigation against the Bank, and other group entities based in UK - Santander UK plc, Santander Financial Services Plc and Cater Allen International Limited -, in relation to a particular type of tax dividend linked transactions known as cum-ex transactions.

The Group is cooperating with the German authorities. According to the state of the investigations, the result and the effects for the Group, which may potentially include the imposition of material financial penalties, cannot be anticipated. For this reason, the Bank has not recognized any provisions in relation to the potential imposition of financial penalties.

- Banco Santander, S.A. has been sued in a legal proceeding in which the plaintiff alleges that a contract was concluded whereby he would be entrusted with the functions of CEO of the Bank. In the complaint, the claimant mainly requests a declaratory ruling that affirms the validity and conclusion of such contract and its enforcement together with the payment of certain amounts. If the main request is not granted, the claimant sought a compensation for a total amount of approximately EUR 112 million or, an alternative relief for other minor amounts. Banco Santander, S.A. answered to the complaint stating that the conditions to which the appointment was subject to were not met and that the contract required by law was not concluded. On 17 May 2021, the plaintiff reduced his claims for compensation to EUR 61.9 million.

On 9 December 2021, the Court has rendered its decision ordering the Bank to compensate the plaintiff in the amount of EUR 67.8 million. On 13 January 2022, the Court has corrected and supplemented its judgment, reducing the total amount to EUR 51.4 million and establishing that part of this amount (EUR 18.6 million) would have to be paid in shares of Banco Santander and subject to the application of the same terms provided in the applicable Santander executives' remuneration program (on a deferred basis, and in accordance with the applicable plan in the offer). The Bank will file appeal against the judgment before the Provincial Court of Madrid. The provisions recorded are considered to be sufficient to cover the risks deriving from this claim.

- Universalpay Entidad de Pago, S.L. has filed a lawsuit against Banco Santander, S.A. for breach of the marketing alliance agreement (MAA) and claim payment (EUR 1,050 million). The claim is being processed in the Court of First Instance no. 81 of Madrid. The MAA was originally entered into by Banco Popular Español, S.A.U. and its purpose is the rendering of acquiring services (point of sale payment terminals) for businesses in the Spanish market. The lawsuit is mainly based on the potential breach of clause 6 of the MAA, which establishes certain obligations of exclusivity, non-competition and customer referral. The claim is at a very early stage, and there are factual issues pending resolution, which may have legal consequences and affect any potential liability. This uncertainty makes it impossible to reliably predict the resolution of the issue, the timing or the significance of the potential economic impact. The Bank has answered the complaint. The pretrial hearing could not take place on 16 December 2021 and has been rescheduled on 11 March 2022.
- CHF Polish Mortgage Loans: On 3 October 2019, the Court of Justice of the European Union (CJEU) rendered its decision in relation to a judicial proceeding against an unrelated bank in Poland considering that certain contractual clauses in CHF-indexed loan agreements were abusive. The CJEU has left to Polish courts the decision on whether the whole contract can be maintained once the abusive terms have been removed, which should in turn decide whether the effects of the annulment of the contract are prejudicial to the consumer. In case of maintenance of the contract, the court may only integrate the contract with subsidiary provisions of national law and decide, in accordance with those provisions, on the applicable rate.

On 2 September 2021, the Supreme Court was expected to take a position regarding the key issues in disputes concerning loans based on foreign currency, clarifying the discrepancies and unifying case law. The resolution was not adopted and instead, the Supreme Court referred questions to the CJEU on constitutional issues of the Polish judiciary system. No new date for consideration of the issue has been set and no comprehensive decision by the Supreme Court on CHF of the issue is expected in the near future. In the absence of a comprehensive position of the Supreme Court, it is difficult to expect a full unification of judicial decisions, and decisions of the Supreme Court and CJEU issued on particular issues may be important for shaping further case law on CHF matters.

As of 31 December 2021, Santander Bank Polska S.A. and Santander Consumer Bank S.A. maintain a portfolio of mortgages denominated in or indexed to CHF for an approximate amount of 9,265 million zlotys (EUR 2,083 million). During the year, provisions recorded amounted to 1,453 million zlotys (EUR 319 million), leaving the provision fund as of 31 December 2021 at 2,056 million zlotys (EUR 447 million). This provision represents the best estimate at 31 December 2021 given the difficulty to predict the financial impact, as it is for national courts to decide the relevant issues and the process of analyzing and deciding on the KNF proposal described below has not yet been completed. Santander Bank Polska and Santander Consumer Bank Poland will continue to monitor and assess appropriateness of those provisions.

In December 2020, the Chairman of the Polish Financial Supervision Authority (KNF) presented a proposal for voluntary settlements between banks and borrowers under which CHF loans would be retrospectively settled as PLN loans bearing an interest rate based on WIBOR plus margin. This proposal is currently under analysis within Santander Bank Polska S.A. and Santander Consumer Bank S.A., depending on the results of this analysis, Santander Bank Polska and Santander Consumer Bank Poland will decide whether to adhere to this proposal and will proceed to include additional scenarios in the models for calculating provisions and reflect the estimated impact on their level.

While the above referred events could lead to significant changes in the level of expected provisions, in the opinion of Santander Bank Polska S.A. and Santander Consumer Bank S.A., it is not possible to reliably estimate the value of their impact on their financial position at 31 December 2021.

- Banco Santander Mexico. Dispute regarding a testamentary trust constituted in 1994 by Mr. Roberto Garza Sada in Banca Serfin (currently Santander Mexico) in favor of his four sons in which he affected shares of Alfa, S.A.B. de C.V. (respectively, "Alfa" and the "Trust"). During 1999, Mr. Roberto Garza Sada instructed Santander México in its capacity as trustee to transfer 36,700,000 shares from the Trust's assets to his sons and daughters and himself. These instructions were ratified in 2004 by Mr. Roberto Garza Sada before a Notary Public.

Mr. Roberto Garza Sada, passed away on 14 August 2010 and subsequently, in 2012, his daughters filed a complaint against Santander Mexico alleging it had been negligent in its trustee role. The lawsuit was dismissed at first instance in April 2017 and on appeal in 2018. In May 2018, the plaintiffs filed an appeal (*recurso de amparo*) before the First Collegiate Court of the Fourth Circuit based in Nuevo León, which ruled in favor of the plaintiffs on 7 May 2021, annulling the 2018 appeal judgment and condemning Santander Mexico to the petitions claimed, consisting of the recovery of the amount of 36,700,000 Alfa shares, together with dividends, interest and damages.

On 7 June 2021, Santander México filed an appeal for constitutional review against the decision of the Collegiate Court before the Supreme Court of Justice of the Nation, considering that this court was not empowered to resolve substantive issues that had not been raised by the parties, lack of procedural standing, and the absence of a decision imposing the plaintiffs to pay costs. This appeal was rejected by the President of the Supreme Court of Justice of the Nation on 1 October 2021 on the grounds that the matter, although it refers to constitutional matters, is not of exceptional interest.

On 6 October 2021, Santander México filed an appeal against this decision before the Supreme Court itself, which was rejected *in limine* by the President of the Court by order dated 11 October 2021, considering that against the dismissal of the appeal for constitutional review, there is no possible appeal pursuant to the Constitutional Reform of March 2021. Against this decision, on 8 December 2021, a new appeal was filed for this matter to be reviewed by the First Chamber of the Supreme Court of Justice of the Nation, considering that the failure to accept the appeal constitutes a retroactive application of the law, and that this violates the transitory fifth article of the reform of the "Ley de Amparo" published on 7 June 2021.

In compliance with the aforementioned ruling of 7th May 2021, the Seventh Civil Chamber of the Superior Court of Justice of Nuevo León has issued a judgement imposing Santander Mexico to pay the benefits claimed by the plaintiffs. As a result of this judgement, Santander Mexico has filed a new appeal (*recurso de amparo*) and will request that it be resolved by the Supreme Court of Justice of the Nation.

Santander México estimates that the actions taken should prevail and reverse the decision against it. However, given the procedural stage of the case, Santander México has classified this risk as possible. The impact of a potential unfavorable resolution for Santander México will be determined in a subsequent proceeding and will also depend on the additional actions that Santander México may take in its defense, so it is not possible to determine it at this time.

- URO Property Holdings, SOCIMI SA: In December 2021, BNP Paribas Trust Corporation UK Limited ("BNP") informed Uro Property Holdings SOCIMI, SA ("Uro") – subsidiary from Banco Santander, S.A., that it is considering taking legal action against Uro. On 16 February 2022, BNP commenced legal proceedings against Uro in the Commercial Court in London. On 31 December 2021, Uro lost its status as a SOCIMI (Sociedad Anónima Cotizada de Inversión Inmobiliaria). The potential litigation concerns certain terms of a financing granted to Uro which was supported by a bond issue in 2015. BNP, acting as trustee on behalf of the bondholders, claims that based on those terms, and in relation to the loss of SOCIMI status, Uro would be obliged to pay an additional premium above the nominal value of the financing repayment. Uro denies being liable to pay that additional premium and intends to defend the claim. It is estimated that the maximum loss associated with this possible contingency, amounts to approximately EUR 250 million. There is no date for trial hearing yet.

Banco Santander and the other Group companies are subject to claims and, therefore, are party to certain legal proceedings incidental to the normal course of their business including those in connection with lending activities, relationships with employees and other commercial or tax matters additional to those referred to here.

With the information available to it, the Group considers that, at 31 December 2021, it had reliably estimated the obligations associated with each proceeding and had recognized, where necessary, sufficient provisions to cover reasonably any liabilities that may arise as a result of these tax and legal risks. Disputes in which provisions have been registered but are not disclosed is justified on the basis that it would be prejudicial to the proper defense of the Group. Subject to the qualifications made, it also believes that any liability arising from such claims and proceedings will not have, overall, a material adverse effect on the Group's business, financial position, or results of operations.

26. Other liabilities

The detail of Other liabilities in the consolidated balance sheets is as follows:

EUR million	2021	2020	2019
Transactions in transit	545	498	663
Accrued expenses and deferred income	7,084	6,309	6,909
Other	5,069	5,529	5,220
	12,698	12,336	12,792

27. Tax matters

a) Consolidated Tax Group

Pursuant to current legislation, the Consolidated Tax Group includes Banco Santander, S.A. (as the parent) and the Spanish subsidiaries that meet the requirements provided for in Spanish legislation regulating the taxation of the consolidated profits of corporate groups (as the controlled entities).

The other Group companies file income tax return in accordance with the tax regulations applicable to them.

b) Years open for review by the tax authorities

In June and November 2021 acts with agreement, conformity and non-conformity relating to the corporate income tax financial years 2012 to 2015 were formalised. The adjustments signed in conformity and with agreement had not impact on results and, in relation to the concepts signed in disconformity both in this year and in previous years (corporate income tax 2003 to 2011), Banco Santander, S.A., as the Parent of the Consolidated Tax Group, considers, in accordance with the advice of its external lawyers, that the adjustments made should not have a significant impact on the consolidated financial statements, as there are sound arguments as proof in the appeals filed against them pending at the National Appellate Court (tax years 2003 to 2011) and at different administrative instances (tax years 2012-2015). Consequently, no provision has been recorded for this concept. It should also be noted that, in those cases where it has been considered appropriate, the mechanisms available to avoid international double taxation have been used. At the date of approval of these accounts, the Corporate Income Tax and other taxes audit for periods 2017 to 2019 are ongoing, and subsequent years up to and including 2021, are subject to review.

Likewise, relating the Consolidated Tax Group of which Banco Popular Español, S.A.U. was the parent, during 2019, a certificate of disconformity was drawn up for 2017 corporate income tax, with no impact on profit, and the final assessment was appealed. In relation to this Consolidated Tax Group, the years 2016 and 2017 inclusive are subject to review. On 1 January 2018 those entities that were part of the aforementioned Consolidated Tax Group were integrated in the Consolidate Tax Group which parent company is Banco Santander.

The other entities have the corresponding years open for review, pursuant to their respective tax regulations.

Because of the possible different interpretations which can be made of the tax regulations, the outcome of the tax audits of the rest of years subject to review might give rise to contingent tax liabilities which cannot be objectively quantified. However, the Group's tax advisers consider that it is unlikely that such tax liabilities will materialize, and that in any event the tax charge arising therefrom would not materially affect the Group's consolidated financial statements.

c) Reconciliation

The reconciliation of the income tax expense calculated at the tax rate applicable in Spain (30%) to the income tax expense recognised and the detail of the effective tax rate are as follows:

EUR million	2021	2020	2019
Consolidated profit (loss) before tax:			
From continuing operations	14,547	(2,076)	12,543
From discontinued operations	—	—	—
	14,547	(2,076)	12,543
Income tax at tax rate applicable in Spain (30%)	4,364	(623)	3,763
By the effect of application of the various tax rates applicable in each country*	210	362	243
Of which:			
Brazil	634	560	502
United Kingdom	(158)	(43)	(80)
United States	(179)	(71)	(71)
Chile	(34)	(24)	(35)
Effect of profit or loss of associates and joint ventures	(130)	29	(97)
Effect of reassessment of deferred taxes	9	2,500	(612)
Permanent differences and other **	441	3,364	1,130
Current income tax	4,894	5,632	4,427
Effective tax rate	33.64%	—	35.29%
Of which:			
Continuing operations	4,894	5,632	4,427
Discontinued operations (note 37)	—	—	—
Of which:			
Current taxes	3,799	4,214	3,962
Deferred taxes	1,095	1,418	465
Income tax (receipts)/payments	4,012	2,946	2,593

* Calculated by applying the difference between the tax rate applicable in Spain and the tax rate applicable in each jurisdiction to the profit or loss contributed to the Group by the entities which operate in each jurisdiction.

** In 2020 and 2019 it includes mainly the impairment of goodwill.

d) Tax recognised in equity

In addition to the income tax recognised in the consolidated income statement, the Group recognised the following amounts in consolidated equity in 2021, 2020 and 2019:

EUR million	2021	2020	2019
Other comprehensive income			
Items not reclassified to profit or loss	(510)	(82)	500
Actuarial gains or (-) losses on defined benefit pension plans	(530)	(165)	499
Changes in the fair value of equity instruments measured at fair value through other comprehensive income	(13)	92	(42)
Financial liabilities at fair value with changes in results attributable to changes in credit risk	33	(9)	43
Items that may be reclassified to profit or loss	1,136	208	(832)
Cash flow hedges	278	5	(17)
Changes in the fair value of debt instruments through other comprehensive income	857	195	(811)
Other recognised income and expense of investments in subsidiaries, joint ventures and associates	1	8	(4)
Total	626	126	(332)

e) Deferred taxes

'Tax assets' in the consolidated balance sheets includes debit balances with the Public Treasury relating to deferred tax assets. 'Tax liabilities' includes the liability for the Group's various deferred tax liabilities.

On 26 June 2013, the Basel III legal framework was included in European law through Directive 2013/36 (CRD IV) and Regulation 575/2013 on prudential requirements for credit institutions and investment firms (CRR), directly applicable in every member State as from 1 January 2014, albeit with a gradual timetable with respect to the application of, and compliance with, various requirements.

This legislation establishes that deferred tax assets, the use of which relies on future profits being obtained, must be deducted from regulatory capital.

In this regard, pursuant to Basel III, in recent years several countries have amended their tax regimes with respect to certain deferred tax assets so that they may continue to be considered regulatory capital since their use does not rely on the future profits of the entities that generate them (referred to hereinafter as 'monetizable tax assets'). Italy had a very similar regime to that described above, which was introduced by Decree-Law no. 225, of 29 December 2010, and amended by Law no. 10, of 26 February 2011. In addition, in 2013 in Brazil, by means of Provisional Measure no. 608, of 28 February 2013, that became Ordinary Law 12838/2013, and, in Spain, through Royal Decree Law 14/2013, of 29 November confirmed by Law 27/2014, of 27 November, tax regimes were established whereby certain deferred tax assets (arising from provisions to allowances for loan losses in Brazil and provisions to allowances for loan losses, provisions to allowances for foreclosed assets and provisions for pension and pre-retirement obligations in Spain) may be converted into tax receivables in specific circumstances. As a result, their use does not rely on the entities obtaining future profits and, accordingly, they are exempt from deduction from regulatory capital.

In 2015 Spain completed its regulations on monetizable tax assets with the introduction of a financial contribution which involves the payment of 1.5% per annum, in order to maintain the right to monetise which applies to the portion of the deferred tax assets that qualify under the legal requirements as monetizable assets generated prior to 2016.

In a similar manner, Italy, by decree of 3 May 2016 has introduced a fee of 1.5% annually to maintain the monetizable of part of the deferred tax assets.

The detail of deferred tax assets, by classification as monetizable or non-monetizable assets, and of deferred tax liabilities at 31 December 2021, 2020 and 2019 is as follows:

EUR million

	2021		2020		2019	
	Monetizable*	Other	Monetizable*	Other	Monetizable*	Other
Tax assets	10,473	8,967	10,721	8,525	11,233	11,525
Tax losses and tax credits	—	1,249	—	1,093	—	3,428
Temporary differences	10,473	7,718	10,721	7,432	11,233	8,097
Of which:						
Non-deductible provisions	—	2,256	—	2,139	—	2,751
Valuation of financial instruments	—	600	—	483	—	400
Loan losses	6,888	988	7,134	1,007	7,645	1,086
Pensions	3,585	669	3,587	875	3,587	1,009
Valuation of tangible and intangible assets	—	1,509	—	1,373	—	1,317
Tax liabilities	—	6,462	—	5,933	—	6,522
Temporary differences	—	6,462	—	5,933	—	6,522
Of which:						
Valuation of financial instruments	—	1,419	—	1,791	—	2,073
Valuation of tangible and intangible assets	—	3,081	—	2,311	—	1,962
Investments in Group companies	—	337	—	440	—	831

* Banco Popular Español, S.A.U. considered that part of its monetizable assets were converted into credit against the Tax Administration in 2017 Income Tax return, as the circumstances of the aforementioned regulations were met at the end of that year (EUR 995 million). The Spanish tax authorities have expressly confirmed the nature of these assets as monetizable, but they consider that conditions for conversion are not met at the end of 2017, without prejudice to the conversion in future years. Likewise, Grupo Santander, due to losses incurred in 2020, converted EUR 642 million of monetizable tax assets into credit against the Tax Administration in its Corporate Income Tax return. This tax return is subject to review by the Tax Authorities.

Grupo Santander only recognises deferred tax assets for temporary differences or tax loss and tax credit carryforwards where it is considered probable that the consolidated entities that generated them will have sufficient future taxable profits against which they can be utilised.

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.

These analyses take into consideration all evidence, both positive and negative, of the recoverability of such deferred tax assets, among which we can find, (i) the results generated by the different entities in previous years, (ii) the projections of results of each entity or fiscal group, (iii) the estimation of the reversal of the different temporary differences according to their nature and (iv) the period and limits established under the applicable legislation of each country for the recovery of the different deferred tax assets, thus concluding on the ability of each entity or fiscal group to recover the deferred tax assets registered.

The projections of results used in this analysis are based on the financial budgets approved by both the local directions of the corresponding units and by the Group's administrators. The Group's budget estimation process is common for all units. The Group's management prepares its financial budgets based on the following key assumptions:

- Microeconomic variables of the entities that make up the fiscal group in each location: the existing balance structure, the mix of products offered and the commercial strategy at each moment defined by local directions are taken into account, based on the competition, regulatory and market environment.
- Macroeconomic variables: estimated growths are based on the evolution of the economic environment considering the expected evolution in the gross domestic product of each location, and the forecasts of interest rates, inflation and exchange rates fluctuations. These data is provided by the Group's Studies Service, based on external sources of information.

Additionally, the Group performs retrospective contrasts (backtesting) on the variables projected in the past. The differential behaviour of these variables with respect to the real market data is considered in the projections estimated in each fiscal year. Thus, and in relation to Spain, the deviations identified by the Directors in recent past years are due to non-recurring events outside the operation of the business, such as the impacts due to the first application of new regulations, the costs assumed for the acceleration of the restructuring plans and the changing effect of the current macroeconomic environment.

During 2020, taking into account the uncertainties about the economic impacts derived from the covid-19 health crisis, the Group reassessed the ability to generate future taxable income in relation to the recoverability of deferred tax assets recorded in the main Group companies. Management considered that the recovery period of these assets would not be affected and that it was not necessary to make adjustments to the deferred tax assets recognised in the Group on the basis of the results of the analyses performed, except in Spain, where the changes in the key assumptions on which the projected results of its tax group are based, arising from the impact of covid-19, resulted in the recognition of an impairment of EUR 2,500 million of deferred tax assets under 'Income Tax' in the income statement.

Finally, and given the degree of uncertainty of these assumption on the referred variables, the Group conducts a sensitivity analysis of the most significant assumptions considered in the deferred tax assets' recoverability analysis, considering any reasonable change in the key assumptions on which the projections of results of each entity or fiscal group and the estimation of the reversal of the different temporary differences are based.

In relation to Spain, the sensitivity analysis has consisted of adjusting 50 basis points for growth (gross domestic product) and adjusting 50 basis points for inflation. Following the sensitivity analysis performed, the Group estimate that the maximum recovery period of the deferred tax assets recognized as of 31 December 2021 would be 15 years.

Relevant information is set forth below for the main countries which have recognised deferred tax assets:

Spain

The deferred tax assets recognised at the Consolidated Tax Group total EUR 9,954 million, of which EUR 7,420 million were for monetizable temporary differences with the right to conversion into a credit against the Public Finance, EUR 1,902 million for other temporary differences and EUR 632 million for tax losses and credits.

The Group estimates that the recognised deferred tax assets for temporary differences will be recovered in a maximum period of 15 years. This period would also apply to the recovery of the recognised tax loss and tax credit carryforwards.

Brazil

The deferred tax assets recognised in Brazil total EUR 5,204 million, of which EUR 2,909 million were for monetizable temporary differences, EUR 1,984 million for other temporary differences and EUR 311 million for tax losses and credits.

Grupo Santander estimates that the recognised deferred tax assets for temporary differences, tax losses and credits will be recovered in approximately 10 years.

United States

The deferred tax assets recognised in the United States total EUR 1,503 million, of which EUR 1,215 million were for temporary differences and EUR 288 million for tax losses and credits. The Group estimates that the recognised deferred tax assets for temporary differences, tax losses and credits will be recovered in a period of 15 years.

The changes in Tax assets - Deferred and Tax liabilities - Deferred in the last three years were as follows:

EUR million

	Balances at 31 December 2020	(Charge)/ Credit to income	Foreign currency balance translation differences and other items	(Charge)/Credit to asset and liability valuation adjustments	Acquisition for the year (net)	Balances at 31 December 2021
Deferred tax assets	19,246	(209)	193	209	1	19,440
Tax losses and tax credits	1,093	129	28	—	—	1,250
Temporary differences	18,153	(338)	165	209	1	18,190
<i>Of which monetizable</i>	10,721	(273)	25	—	—	10,473
Deferred tax liabilities	(5,933)	(886)	(170)	528	(1)	(6,462)
Temporary differences	(5,933)	(886)	(170)	528	(1)	(6,462)
	13,313	(1,095)	23	737	0	12,978

EUR million

	Balance at 31 December 2019	(Charge)/ Credit to income	Foreign currency balance translation differences and other items	(Charge)/Credit to asset and liability valuation adjustments	Acquisition for the year (net)	Balance at 31 December 2020
Deferred tax assets	22,758	(1,016)	(2,465)	38	(69)	19,246
Tax losses and tax credits	3,427	(2,065)	(266)	—	(3)	1,093
Temporary differences	19,331	1,049	(2,199)	38	(66)	18,153
<i>Of which monetizable</i>	11,233	613	(1,125)	—	—	10,721
Deferred tax liabilities	(6,522)	(402)	851	156	(16)	(5,933)
Temporary differences	(6,522)	(402)	851	156	(16)	(5,933)
	16,236	(1,418)	(1,614)	194	(85)	13,313

EUR million

	Balances at 31 December 2018	(Charge)/ Credit to income	Foreign currency balance translation differences and other items	(Charge)/Credit to asset and liability valuation adjustments	Acquisition for the year (net)	Balance at 31 December 2019
Deferred tax assets	23,258	215	(610)	(92)	(13)	22,758
Tax losses and tax credits	4,276	(301)	(548)	—	—	3,427
Temporary differences	18,982	516	(62)	(92)	(13)	19,331
<i>Of which monetizable</i>	10,866	427	(60)	—	—	11,233
Deferred tax liabilities	(5,568)	(680)	92	(366)	0	(6,522)
Temporary differences	(5,568)	(680)	92	(366)	—	(6,522)
	17,690	(465)	(518)	(458)	(13)	16,236

Also, the Group did not recognise deferred tax assets relating to tax losses and deductions and other incentives amounting to approximately EUR 9,800 million, the use of which EUR 375 million is subject, among other requirements, to time limits.

f) Tax reforms

The following significant tax reforms were approved in 2021 and previous years:

In Spain, Royal Decree-Law 3-2016 was approved in December 2016, which meant the reduction of the limits for the integration of deferred monetizable tax assets and for the set-off of negative tax bases and deductions in order to avoid double taxation as well as the compulsory impairment reversion for deductible participations in previous years in five years, and the non deductibility of the losses generated from the transmission of participations. In 2020 the General State Budget Law for 2021 established, among other tax measures, the non deductibility in Corporation Tax of management fees on participations whose dividends or capital gains are exempt, determining the amount of these expenses as a 5% of the dividends or capital gains. Likewise in 2021 the General State Budget Law for 2022 was approved. This law establishes a minimum effective tax rate of 15% (18% for financial entities) on Corporation Tax base.

In the United Kingdom, in March 2021 it was announced that the main Corporation Tax rate will increase from 1 April 2023 to 25% from 19%. This increase was enacted in Finance Act 2021.

In Brazil, the Constitutional Amendment 103/19 was adopted on 12 November 2019, modifying the social security system, including, among other measures, an increase in the CSLL tax rate for banks from 15% to 20%, effective 1 March 2020. This increase lifted the aggregate tax rate -sum of CSLL and the corporate income tax (Imposto de Renda Pessoa Jurídica; IRPJ)- for banks from 40% to 45%. In addition, in 2021, the provisional measure (Medida Provisoria) 1,034/2021, temporarily increases, from 1 July 2021 to 31 December 2021, the rate of a Social Contribution on the Net Income (CSLL) of the banks to 25% from 20%, and for other financial institutions to 20% from 15%, being the joint taxation for banks 50% (25% IR and 25% CSLL), and 45% for other financial institutions. In the IOF (Tax on financial operations) on credit operations, as of 1 January 2021 the rate of 0,38% (0% for part of 2020) is reinstated, and for settled transactions from 20 September to 31 December 2021, a temporary increase in the IOF rates applicable for credit transactions was approved (annual rate 1.5%% to 2.04%% for legal persons and 3% to 4.8% for natural persons).

In Argentina, Law n.º 27630 (BOE of 16 June 2021) amended, with retroactive effect to 1 January 2021, the rate applicable to the Corporate Income Tax, establishing a progressive rate scale which for Banco Santander Río S.A. represents an increase from 30% to 35%. In addition, the 7% withholding on dividend distribution is maintained (however, the distribution of pre-2018 reserves is not subject to withholding tax). In addition, during the first quarter of the year, there was an increase in the tax on gross income to financial institutions in both, the City of Buenos Aires (from 7% to 8%) and the Province of Buenos Aires (from 7% to 9%). Additionally, the adjustment for tax inflation that was to be applied on a transitional basis in 1/3 of 2019, has been lowered to 1/6 in 2019, with the rest being deferred over the next five years

On 27 November 2019 entered into force the Protocol amending the Convention between the United States of America and the kingdom of Spain for the Avoidance of Double Taxation (DTT). The revision of the Convention introduces substantial reductions in the withholding rates that apply to different types of income, highlighting the reduction of the withholding rate on dividends to 5% for shareholdings of more than 10%, the elimination of withholding for shareholdings greater than 80% and elimination of withholding at source on interests and royalties. Build Back Better Act, approved in the House of Representatives on November 19, 2021, includes significant tax increases and measures impacting large corporations and other high-income taxpayers, such as the introduction of a 15% Minimum Tax on Financial Statement Pre-Tax Book Income, changes to the Base Erosion Anti-Abuse Tax and a new excise tax on Share Buy-Backs. Build Back Better Act is pending to be passed by the Senate

In Chile, Law n.º 21,210 on modernization of Chilean tax law was enacted in 2020. It includes several modifications to different tax laws in force in Chile. Among the aspects included, it is worth highlighting the substitute tax that on a temporary basis until 30 April 2022 allows taxing at 30% (instead of the generally applicable 35%) with a credit of the first category tax paid, the tax profits generated up to the 31 December 2016, reducing the fiscal cost of its distribution and other measures about asset depreciation and indirect taxes.

On 22 December 2021, the European Commission has proposed a Directive ensuring a minimum effective tax rate for the global activities of large multinational groups. The proposal follows closely the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting and sets out how the principles of the 15% effective tax rate – agreed by 137 countries – will be applied in practice within the European Union (EU). It includes a common set of rules (GloBe Rules) on how to calculate this effective tax rate, so that it is properly and consistently applied across the EU.

g) Other information

In compliance with the disclosure requirement established in the listing rules instrument 2005 published by the UK Financial Conduct Authority, it is hereby stated that shareholders of the Bank resident in the United Kingdom will be entitled to a tax credit for taxes paid abroad in respect of withholdings that the Bank has to pay on the dividends to be paid to such shareholders if the total income of the dividend exceeds the amount of exempt dividends of GBP 2,000 for the year 2021/22. The shareholders of the Bank resident in the United Kingdom who hold their ownership interest in the Bank through Santander Nominee Service will be informed directly of the amount thus withheld and of any other data they may require to complete their tax returns in the United Kingdom. The other shareholders of the Bank resident in the United Kingdom should contact their bank or securities broker.

Banco Santander, S.A., is part of the Large Business Forum and has adhered since 2010 to the Code of Good Tax Practices in Spain. Also Santander UK is a member of the HMRC's Code of Practice on Taxation in the United Kingdom, actively participating in both cases in the cooperative compliance programs being developed by these Tax Administrations.

28. Non-controlling interests

Non-controlling interests include the net amount of the equity of subsidiaries attributable to equity instruments that do not belong, directly or indirectly, to the Bank, including the portion attributed to them of profit for the year.

a) Breakdown

The detail, by Group company, of 'Equity - Non-controlling interests' is as follows:

EUR million	2021	2020	2019
Santander Bank Polska S.A.	1,559	1,676	1,597
Grupo PSA	1,543	1,622	1,569
Santander Consumer USA Holdings Inc.	1,255	986	1,565
Banco Santander - Chile	1,042	1,218	1,101
Banco Santander (Brasil) S.A.	1,023	1,014	1,167
Banco Santander México, S.A. Institución de Banca Múltiple, Grupo Financiero Santander México	202	461	333
Other companies*	1,970	1,806	1,655
	8,594	8,783	8,987
Profit/(Loss) for the year attributable to non-controlling interests	1,529	1,063	1,601
Of which:			
Santander Consumer USA Holdings Inc.	494	201	230
Grupo PSA	311	255	266
Banco Santander - Chile	292	198	283
Banco Santander (Brasil) S.A.	251	233	373
Santander Bank Polska S.A.	75	81	162
Banco Santander México, S.A. Institución de Banca Múltiple, Grupo Financiero Santander México	62	61	195
Other companies	44	34	92
TOTAL	10,123	9,846	10,588

* Includes a Santander UK plc issuance of perpetual convertible equity instruments, at the option of Santander UK plc, into preference shares of Santander UK itself for a nominal amount of GBP 2,200 million (the Group having acquired GBP 1,050 million). Carrying amount of EUR 1,363 million in 2021 (EUR 1,275 million and EUR 1,346 million in 2020 and 2019, respectively).

b) Changes

The changes in Non-controlling interests are summarised as follows:

EUR million	2021	2020	2019
Balance at the end of the previous year	9,846	10,588	10,889
Balance at beginning of year	9,846	10,588	10,889
Other comprehensive income*	(304)	(818)	310
Other	581	76	(611)
Profit attributable to non-controlling interests	1,529	1,063	1,601
Modification of participation rates**	(390)	(632)	(1,623)
Change of perimeter	(5)	(54)	110
Dividends paid to minority shareholders	(648)	(465)	(895)
Changes in capital and other concepts*	95	164	196
Balance at end of year	10,123	9,846	10,588

* Mainly due to exchange differences.

** Includes the effect of the Public Offers for the acquisition of shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México in 2021 and 2019 (see note 3.c).

The foregoing changes are shown in the consolidated statement of changes in total equity.

c) Other information

The financial information on the subsidiaries with significant non-controlling interests at 31 December 2021 is summarised below:

EUR million*

	Santander Bank Polska S.A.	Banco Santander (Brasil) S.A.	Banco Santander (Chile), S.A.	Grupo Financiero Santander México, S.A.B. de C.V.	Santander Consumer USA
Total assets	49,788	159,447	71,987	78,383	43,966
Total liabilities	45,071	146,662	67,282	71,162	35,064
Net assets	4,717	12,785	4,705	7,221	8,902
Total income	1,646	10,884	2,457	3,579	4,725
Total profit	230	2,589	928	896	2,510

* Information prepared in accordance with the segment reporting criteria described in note 51 and, therefore, it may not coincide with the information published separately by each entity.

29. Other comprehensive income

The balances of 'Other comprehensive income' include the amounts, net of the related tax effect, of the adjustments to assets and liabilities recognised in equity through the consolidated statement of recognised income and expense. The amounts arising from subsidiaries are presented, on a line by line basis, in the appropriate items according to their nature.

Respect to items that may be reclassified to profit or loss, the consolidated statement of recognised income and expense includes changes in other comprehensive income as follows:

- Revaluation gains (losses): includes the amount of the income, net of the expenses incurred in the year, recognised directly in equity. The amounts recognised in equity in the year remain under this item, even if in the same year they are transferred to the income statement or to the initial carrying amount of the assets or liabilities or are reclassified to another line item.
- Amounts transferred to income statement: includes the amount of the revaluation gains and losses previously recognised in equity, even in the same year, which are recognised in the income statement.
- Amounts transferred to initial carrying amount of hedged items: includes the amount of the revaluation gains and losses previously recognised in equity, even in the same year, which are recognised in the initial carrying amount of assets or liabilities as a result of cash flow hedges.
- Other reclassifications: includes the amount of the transfers made in the year between the various valuation adjustment items.

a) Breakdown of Other comprehensive income - Items that will not be reclassified in results and Items that can be classified in results

EUR million

	2021	2020	2019
Other comprehensive income	(32,719)	(33,144)	(24,168)
Items that will not be reclassified to profit or loss	(4,241)	(5,328)	(4,288)
Actuarial gains and losses on defined benefit pension plans	(3,986)	(5,002)	(4,764)
Non-current assets held for sale	—	—	—
Share in other income and expenses recognised in investments, joint ventures and associates	(8)	(2)	1
Other valuation adjustments	—	—	—
Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income	(157)	(308)	514
Inefficiency of fair value hedges of equity instruments measured at fair value with changes in other comprehensive income	—	—	—
Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income (hedged item)	275	159	44
Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income (hedging instrument)	(275)	(159)	(44)
Changes in the fair value of financial liabilities measured at fair value through profit or loss attributable to changes in credit risk	(90)	(16)	(39)
Items that may be reclassified to profit or loss	(28,478)	(27,816)	(19,880)
Hedges of net investments in foreign operations (Effective portion)	(4,283)	(3,124)	(5,464)
Exchange differences	(23,887)	(26,911)	(16,701)
Hedging derivatives. Cash flow hedges (Effective portion)	(276)	295	300
Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income	436	2,411	2,321
Hedging instruments (items not designated)	—	—	—
Non-current assets classified as held for sale	—	—	—
Share in other income and expenses recognised in investments, joint ventures and associates	(468)	(487)	(336)

b) Other comprehensive income- Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans

'Other comprehensive income —Items not reclassified to profit or loss— Actuarial gains or (-) losses on defined benefit pension plans' include the actuarial gains and losses and the return on plan assets, less the administrative expenses and taxes inherent to the plan, and any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

Its variation (decrease of EUR 1,567 million in the year) is shown in the consolidated statement of recognised income.

The release against equity in 2021 amounts to EUR 1,705 million - see note 25.b -, with the following breakdown:

- Reduction of EUR 37 million in the accumulates actuarial losses relating to the Group's entities in Spain, mainly due to the evolution experienced by the discount rate -increase from 0.60% to 0.90%.
- Reduction of EUR 1,475 million in the cumulative actuarial losses relating to the Group's businesses in the UK, mainly due to the evolution experienced by the discount rate- increase from 1.28% to 1.90%.
- Reduction of EUR 91 million in accumulated actuarial losses corresponding to the Group's business in Brazil, mainly due to the increase in the discount rate -from 6.82% to 8.39% in pension benefits and 7.14% to 8.44% in medical benefits-.
- Reduction of EUR 102 million in the accumulated actuarial losses corresponding to the Group's businesses in other geographical areas.

The other modification in accumulated actuarial profit or losses is an increase of EUR 138 million as a result of the evolution of exchange rates, mainly in United Kingdom (appreciation of the pound sterling).

c) Other comprehensive income - Items that will not be reclassified in results - Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income

Since the entry into force of IFRS 9, no impairment analysis is performed of equity instruments recognised under 'Other comprehensive income'. IFRS 9 eliminates the need to carry out the impairment estimate on this class of equity instruments and the reclassification to profit and loss on the disposal of these assets, being recognised at fair value with changes in equity.

The following is a breakdown of the composition of the balance as of 31 December 2021, 2020 and 2019 under '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 global result' depending on the geographical origin of the issuer:

EUR million

	2021			Fair Value
	Capital gains by valuation	Capital losses by valuation	Net gains/losses by valuation	
Equity instruments				
Domestic				
Spain	25	(663)	(638)	759
International				
Rest of Europe	39	(58)	(19)	170
United States	13	(4)	9	31
Latin America and rest	496	(5)	491	1,493
	573	(730)	(157)	2,453
Of which:				
Publicly listed	500	(44)	456	1,521
Non publicly listed	73	(686)	(613)	932

EUR million

	2020			Fair Value
	Capital gains by valuation	Capital losses by valuation	Net gains/losses by valuation	
Equity instruments				
Domestic				
Spain	28	(849)	(821)	1,032
International				
Rest of Europe	65	(76)	(11)	314
United States	7	(4)	3	25
Latin America and rest	525	(4)	521	1,412
	625	(933)	(308)	2,783
Of which:				
Publicly listed	525	(31)	494	1,424
Non publicly listed	100	(902)	(802)	1,359

EUR million

	2019			Fair Value
	Capital gains by valuation	Capital losses by valuation	Net gains/losses by valuation	
Equity instruments				
Domestic				
Spain	21	(445)	(424)	184
International				
Rest of Europe	68	(72)	(4)	379
United States	15	(3)	12	44
Latin America and rest	934	(4)	930	2,256
	1,038	(524)	514	2,863
Of which:				
Publicly listed	936	(14)	922	2,283
Non publicly listed	102	(510)	(408)	580

d) Other comprehensive income - Items that may be reclassified to profit or loss - Hedge of net investments in foreign operations (effective portion) and exchange differences

The change in 2021 reflects the positive effect of the generalized appreciation of some currencies, especially the pound sterling and the US dollar, whereas the change in 2020 reflected the negative effect of the generalized depreciation of the main currencies, especially the Brazilian real, the pound sterling and the US dollar. The change in 2019 showed the positive effect of the appreciation of the pound sterling and the US dollar and the negative effect of the depreciation of the Brazilian real.

Of the change in the balance in these years, a profit of EUR 167 million, a loss of EUR 2,104 million and a profit of EUR 230 million in 2021, 2020 and 2019, respectively relate to the measurement of goodwill.

The detail, by country is as follows:

EUR million

	2021	2020	2019
Net balance at end of year*	(28,170)	(30,035)	(22,165)
Of which:			
Brazilian real	(17,440)	(17,417)	(13,579)
Pound sterling	(3,415)	(4,205)	(3,135)
Mexican peso	(3,088)	(3,091)	(2,439)
Argentine peso*	(2,109)	(2,288)	(2,094)
Chilean peso	(2,039)	(1,776)	(1,560)
US dollar	1,536	387	1,654
Polish zloty	(809)	(788)	(501)
Other	(806)	(857)	(511)

* Grupo Santander changed its accounting policy in relation to the presentation of exchange differences and the effects of hyperinflation of the operations generated in Argentina, reclassifying at 1 January 2019 an amount of EUR -1,984 million from the heading 'Other reserves' to 'Accumulated other comprehensive income' (see note 2.a and 33.b).

The breakdown of translation differences by currency is as follows:

EUR million

Currency	Balance at the beginning of the year	Balance at the end of the year	Movement	Of which:		
				From goodwill	From results*	From net assets
Brazilian real	(16,032)	(15,913)	119	30	19	70
Pound sterling	(4,602)	(3,504)	1,098	41	38	1,019
Mexican peso	(2,393)	(2,012)	381	26	29	326
Argentine peso	(2,287)	(2,109)	178	—	—	178
Chilean peso	(1,450)	(1,852)	(402)	(55)	(43)	(304)
US dollar	1,253	2,775	1,522	125	102	1,295
Polish zloty	(638)	(678)	(40)	(9)	(1)	(30)
Other	(762)	(594)	168	9	11	148
Total Group	(26,911)	(23,887)	3,024	167	155	2,702

* Profit and loss items are translated into euros at the average exchange rate for the year as described in note 2 a) ii.

EUR million

Currency	Balance at the beginning of the year	Balance at the end of the year	Movement	Of which:		
				From goodwill	From results*	From net assets
Brazilian real	(10,704)	(16,032)	(5,328)	(1,280)	(190)	(3,858)
Pound sterling	(3,329)	(4,602)	(1,273)	(455)	(4)	(814)
Mexican peso	(1,547)	(2,393)	(846)	(59)	(2)	(785)
Argentine peso	(2,094)	(2,287)	(193)	—	—	(193)
Chilean peso	(1,181)	(1,450)	(269)	(18)	15	(266)
US dollar	2,833	1,253	(1,580)	(143)	(58)	(1,379)
Polish zloty	(249)	(638)	(389)	(133)	(5)	(251)
Other	(430)	(762)	(332)	(16)	(10)	(306)
Total Group	(16,701)	(26,911)	(10,210)	(2,104)	(254)	(7,852)

* Profit and loss items are translated into euros at the average exchange rate for the year as described in note 2 a) ii.

e) Other comprehensive income -Items that may be reclassified to profit or loss - Hedging derivatives - Cash flow hedges (Effective portion)

Other comprehensive income – Items that may be reclassified to profit or loss - Cash flow hedges includes the gains or losses attributable to hedging instruments that qualify as effective hedges. These amounts will remain under this heading until they are recognised in the consolidated income statement in the periods in which the hedged items affect it (see note 11).

f) Other comprehensive income - Items that may be reclassified to profit or loss – Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income

Includes the net amount of unrealised changes in the fair value of assets classified as Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income (see note 7).

The breakdown, by type of instrument and geographical origin of the issuer, of 'Other comprehensive income – Items that may be reclassified to profit or loss - Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income' at 31 December 2021, 2020 and 2019 is as follows:

EUR million

	31 December 2021			
	Revaluation gains	Revaluation losses	Net revaluation gains/(losses)	Fair value
Debt instruments				
Government debt securities and debt Instruments issued by central banks				
Spain	271	—	271	12,917
Rest of Europe	544	(118)	426	20,397
Latin America and rest of the world	334	(438)	(104)	49,847
Private-sector debt securities	80	(237)	(157)	22,424
	1,229	(793)	436	105,585

EUR million

	31 December 2020			
	Revaluation gains	Revaluation losses	Net revaluation gains/(losses)	Fair value
Debt instruments				
Government debt securities and debt Instruments issued by central banks				
Spain	693	—	693	19,314
Rest of Europe	915	(69)	846	23,116
Latin America and rest of the world	785	(73)	712	51,026
Private-sector debt securities	181	(21)	160	24,714
	2,574	(163)	2,411	118,170

EUR million

	31 December 2019			
	Revaluation gains	Revaluation losses	Net revaluation gains/(losses)	Fair value
Debt instruments				
Government debt securities and debt Instruments issued by central banks				
Spain	947	(2)	945	32,413
Rest of Europe	664	(38)	626	19,052
Latin America and rest of the world	839	(121)	718	51,284
Private-sector debt securities	81	(49)	32	20,096
	2,531	(210)	2,321	122,845

Since the entry into force of IFRS 9, the Group estimates the expected losses on debt instruments measured at fair value with changes in other comprehensive income. These losses are recorded with a charge to the consolidated income statement for the period.

At the end of the years 2021, 2020 and 2019, the Group recorded under 'Impairment or reversal of impairment on financial assets not measured at fair value through profit or loss', net due to modification of the consolidated income statement, in the line of financial assets at fair value with changes in other comprehensive income a provision of EUR 19 million, EUR 19 million and EUR 12 million in 2021, 2020 and 2019, respectively.

g) 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
The changes in other comprehensive income - Entities accounted for using the equity method were as follows:

EUR million

	2021	2020	2019
Balance at beginning of year	(489)	(335)	(320)
Revaluation gains/(losses)	7	(170)	(22)
Net amounts transferred to profit or loss	6	16	7
Balance at end of year	(476)	(489)	(335)
Of which:			
Zurich Santander Insurance América, S.L.	(332)	(298)	(171)

30. Shareholders' equity

The changes in Shareholders' equity are presented in the consolidated statement of changes in total equity. Significant information on certain items of Shareholders' equity and the changes during the year are set forth below.

31. Issued capital

a) Changes

At 31 December 2018, Banco Santander's share capital consisted of 16,236,573,942 shares with a total par value of EUR 8,118 million.

On 10 September 2019, a capital increase of EUR 191 million was carried out with the issuance of 381,540,640 shares (2.35% of the Bank's share capital), to meet the takeover bid for 16.69% of the share capital of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México. (see Note 3.a).

Therefore, Banco Santander's new capital consisted of EUR 8,309 million at 31 December 2019, represented by 16,618,114,582 shares of EUR 0.50 of nominal value each one and all of them from a unique class and series.

On 3 December 2020, a capital increase of EUR 361 million was made, with a charge to the share premium, through the issue of 722,526,720 shares (4.35% of the share capital).

Therefore, Banco Santander's share capital at 31 December 2020 consisted of EUR 8,670 million, represented by 17,340,641,302 shares of EUR 0.50 of nominal value each and all of them of a unique class and series.

Equally, Banco Santander's share capital at 31 December 2021 consisted of EUR 8,670 million, represented by 17,340,641,302 shares of EUR 0.50 of nominal value each and all of them of a unique class and series. Includes 259,930,273 shares corresponding to the first share repurchase program for which it has been agreed (together with the shares that are finally to be acquired under the second share repurchase program) to submit their redemption to the general shareholders meeting subject to the pertinent regulatory authorizations (see notes 4 and 34).

Banco Santander's shares are listed on the Spanish Stock Market Interconnection System and on the New York, London, Mexico and Warsaw Stock Exchanges, and all of them have the same features and rights. Santander shares are listed on the London Stock Exchange under Crest Depository Interest (CDI), each CDI representing one Bank's share. They are also listed on the New York Stock Exchange under American Depositary Receipts (BDR), each BDR representing one share. During 2019 and 2018 the number of markets where the Bank is listed was reduced; the Bank's shares was delisted from Buenos Aires, Milan, Lisboa and São Paulo's markets.

At 31 December 2021, no shareholder held more than 3% of Banco Santander's total share capital (which is the threshold generally provided under Spanish regulations for a significant holding in a listed company to be disclosed). Even though at 31 December 2021, certain custodians appeared in our shareholder registry as holding more than 3% of our share capital, we understand that those shares were held in custody on behalf of other investors, none of whom exceeded that threshold individually. These custodians were State Street Bank (13.35%), Chase Nominees Limited (9.15%), The Bank of New York Mellon Corporation (5.21%), Citibank New York (3.74%) and EC Nominees Limited (3.34%).

On 24 October 2019, BlackRock Inc. reported to the CNMV its significant holding of voting rights in Banco Santander (5.426%). It also specified that it was holding shares on behalf of a number of funds or other investment entities, none of which exceeded 3% individually. No changes have been communicated since then. There may be some overlap in the holdings declared by the above mentioned custodians and asset manager.

At 31 December 2021, neither Banco Santander's shareholder registry nor the CNMV's registry showed any shareholder residing in a non-cooperative jurisdiction with a shareholding equal to, or greater than, 1% of our share capital (which is the other threshold applicable under Spanish regulations).

b) Other considerations

Under Spanish law, only shareholders at the general meeting have the authority to increase share capital. However, they may delegate the authority to approve or execute capital increases to the board of directors. Banco Santander's Bylaws are fully aligned with Spanish law and do not establish any different conditions for share capital increases.

At 31 December 2021 the shares of the following companies were listed on official stock markets: Banco Santander Río S.A.; Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México; Banco Santander - Chile; Banco Santander (Brasil) S.A., Santander Bank Polska S.A. (former Bank Zachodni WBK S.A.) and Santander Consumer USA Holdings Inc. and Getnet Adquirência e Serviços para Meios de Pagamento S.A.

At 31 December 2021 the number of Banco Santander shares owned by third parties and managed by Group management companies (mainly portfolio, collective investment undertaking and pension fund managers) or jointly managed was 45 million shares, which represented 0.26% of Banco Santander's share capital (39 and 40 million shares, representing 0.22% and 0.24% of the share capital in 2020 and 2019, respectively). In addition, the number of Banco Santander shares owned by third parties and received as security was 231 million shares (equal to 1.33% of the Bank's share capital).

At 31 December 2021 the capital increases in progress at Group companies and the additional capital authorised by their shareholders at the respective general meetings were not material at Group level (see appendix V).

32. Share premium

Share premium includes the amount paid up by the Bank's shareholders in capital issues in excess of the par value.

The Corporate Enterprises Act expressly permits the use of the share premium account balance to increase capital at the entities at which it is recognised and does not establish any specific restrictions as to its use.

The change in the balance of share premium corresponds to the capital increases detailed in note 31.a).

The increased produced in 2019 was a consequence of the increase of EUR 1,491 million to cope with the capital increase for the acquisition of Banco Santander México, S.A, Institución de Banca Múltiple, Grupo Financiero Santander México shares on 10 September 2019.

The decrease in 2020 was due to the reduction of EUR 361 million to cover the capital increase on 3 December (see note 31).

The decreased produced in 2021 for an amount of EUR 4,034 million has been the consequence of applying the result obtained by Banco Santander during the financial year 2020, consisting of losses of EUR 3,557 million, as reflected in the consolidated statements of changes in total equity, and the charge of the dividend for the fiscal year 2020 for an amount of EUR 477 million (see note 4.a and consolidated statements of changes in total equity).

Also, in 2020 and 2019 an amount of EUR 72 million and EUR 38 million, respectively, were transferred from the Share premium account to the Legal reserve (see note 33.b.i).

33. Accumulated retained earnings

a) Definitions

The balance of 'Equity - Accumulated gains and Other reserves' includes the net amount of the accumulated results (profits or losses) recognised in previous years through the consolidated income statement which in the profit distribution were allocated in equity, the expenses of own equity instrument issues, the differences between the amount for which the treasury shares are sold and their acquisition price, as well as the net amount of the results accumulated in previous years, generated by the result of non-current assets held for sale, recognised through the consolidated income statement.

b) Breakdown

The detail of Accumulated retained earnings and Reserves of entities accounted for using the equity method is as follows:

EUR million	2021	2020	2019
Restricted reserves	2,543	2,460	2,595
Legal reserve	1,734	1,734	1,662
Own shares	755	672	879
Revaluation reserve Royal Decree-Law 7/1996	43	43	43
Reserve for retired capital	11	11	11
Unrestricted reserves	4,243	10,422	10,664
Voluntary reserves*	6,123	6,128	4,603
Consolidation reserves attributable to the Bank	(1,880)	4,294	6,061
Reserves of subsidiaries	47,438	47,601	43,449
Reserves of entities accounted for using the equity method	1,572	1,504	1,210
	55,796	61,987	57,918

* In accordance with the commercial regulations in force in Spain.

i. Legal reserve

Under the Consolidated Spanish Corporate Enterprises Act, 10% of net profit for each year must be transferred to the legal reserve. These transfers must be made until the balance of this reserve reaches 20% of the share capital. The legal reserve can be used to increase capital provided that the remaining reserve balance does not fall below 10% of the increased share capital amount.

In 2020 and 2019, Banco Santander transferred EUR 72 million and EUR 38 million, respectively, from the Share premium account to the Legal reserve.

Consequently, once again, after the capital increases described in note 31 had been carried out, the balance of the legal reserve reached 20% of the share capital, and at 31 December 2021 the Legal reserve was of the stipulated level.

ii. Reserve for treasury shares

According to the Consolidated Text of the Corporate Enterprises Act, an unavailable reserve equivalent to the amount for which Banco Santander's shares owned by subsidiaries are recorded. This reservation shall be freely available when the circumstances which have obliged its constitution disappear. In addition, this reserve covers the outstanding balance of loans granted by the Group with Banco Santander's share guarantee and the amount equivalent to the credits granted by the Group companies to third parties for the acquisition of own shares.

iii. Revaluation reserve Royal Decree Law 7/1996, of 7 June

The balance of Revaluation reserve Royal Decree-Law 7/1996 can be used, free of tax, to increase share capital. From 1 January 2007, the balance of this account can be taken to unrestricted reserves, provided that the monetary surplus has been realised. The surplus will be deemed to have been realised in respect of the portion on which depreciation has been taken for accounting purposes or when the revalued assets have been transferred or derecognised.

If the balance of this reserve were used in a manner other than that provided for in Royal Decree law 7/1996, of 7 June, it would be subject to taxation.

iv. Reserves of subsidiaries

The detail, by company, of Reserves of subsidiaries, based on the companies' contribution to the Group (considering the effect of consolidation adjustments) is as follows:

EUR million	2021	2020	2019
Banco Santander (Brasil) S.A. (Consolidated Group)	14,325	14,067	12,400
Santander UK Group	8,558	8,447	8,079
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	4,913	4,230	3,810
Santander Consumer Finance Group	4,753	4,186	4,012
Banco Santander - Chile	3,502	3,404	3,116
Banco Santander Totta, S.A. (Consolidated Group)	3,194	2,960	2,823
Group Santander Holdings USA	2,940	4,793	4,528
Banco Santander Río S.A.	2,318	2,161	1,895
Santander Bank Polska S.A.	1,990	1,748	1,738
Santander Investment, S.A.	1,307	1,335	146
Santander Seguros y Reaseguros, Compañía Aseguradora, S.A.	869	695	823
Banco Santander International SA (former Banco Santander (Suisse) SA)	277	247	348
Other companies and consolidation adjustments	(1,508)	(672)	(269)
	47,438	47,601	43,449
<i>Of which, restricted</i>	3,392	3,155	3,193

34. Other equity instruments and own shares

a) Equity instruments issued not capital and other equity instruments

Other equity instruments includes the equity component of compound financial instruments, the increase in equity due to personnel remuneration, and other items not recognised in other "Shareholders' equity" items.

On 8 September 2017, Banco Santander, S.A. issued contingent redeemable perpetual bonds (the fidelity bonds) amounting to EUR 981 million nominal value -EUR 686 million fair value. On 31 December 2021 amounted to EUR 658 million.

Additionally, at 31 December 2021 the Group had other equity instruments amounting to EUR 152 million.

b) Own shares

'Shareholders' equity - Own shares' includes the amount of own equity instruments held by all the Group entities.

Transactions involving own equity instruments, including their issuance and cancellation, are recognised directly in equity, and no profit or loss may be recognised on these transactions. The costs of any transaction involving own equity instruments are deducted directly from equity, net of any related tax effect.

At December 31, 2020, the number of treasury shares held by the Group was 28,439,022 (0.164% of the issued share capital).

During 2021, 524,312,848 shares of the Bank were acquired at an average price of EUR 3.14 per share, of which 259,930,273 shares (1.499% of the issued share capital) relate to the First Share Buyback Program at a weighted average price of EUR 3.235 per share (note 4); and 275,159,930 shares were transferred at an average price of EUR 3.10 per share - of which 55,750,000 shares correspond to two extraordinary donations made by Banco Santander to the Banco Santander Foundation.

As of December 31, 2021, the Group holds 277,591,940 shares of the Bank's issued share capital (1.60%).

The effect on equity, net of tax, arising from the purchase and sale of Bank shares is of EUR 23 million profit in 2021 (EUR 1 million profit and EUR 6 million loss in 2020 and 2019, respectively).

35. Memorandum items

Memorandum items relates to balances representing rights, obligations and other legal situations that in the future may have an impact on net assets, as well as any other balances needed to reflect all transactions performed by the consolidated entities although they may not impinge on their net assets.

a) Guarantees and contingent commitments granted

Contingent liabilities includes all transactions under which an entity guarantees the obligations of a third party and which result from financial guarantees granted by the entity or from other types of contract. The detail is as follows:

	2021	2020	2019
Loans commitment granted	262,737	241,230	241,179
<i>Of which doubtful</i>	615	274	352
Financial guarantees granted	10,758	12,377	13,650
<i>Of which doubtful</i>	188	124	154
Financial guarantees	10,715	12,358	13,619
Credit derivatives sold	43	19	31
Other commitments granted	75,733	64,538	68,895
<i>Of which doubtful</i>	781	548	747
Technical guarantees	40,158	33,526	33,890
Other	35,575	31,012	35,005

The breakdown as at 31 December 2021 of the exposures and the provision fund (see note 25) out of balance sheet by impairment stage is EUR 337,113 million and EUR 372 million (EUR 310,435 million and EUR 377 million in 2020 and EUR 316,116 million and EUR 417 million in 2019) in stage 1, EUR 10,531 million and EUR 200 million (EUR 6,764 million and EUR 182 million in 2020 and EUR 6,355 million and EUR 145 million in 2019) in stage 2 and EUR 1,584 million and EUR 161 million (EUR 946 million and EUR 141 million in 2020 and EUR 1,253 million and EUR 177 million in 2019) in stage 3, respectively.

Income from guarantee instruments is recognised under 'Fee and commission income' in the consolidated income statements and is calculated by applying the rate established in the related contract to the nominal amount of the guarantee.

i. Loan commitments granted

Loan commitments granted: firm commitments of granting of credit under predefined terms and conditions, except for those that comply with the definition of derivatives as these can be settled in cash or through the delivery of issuance of another financial instrument. They include stand-by credit lines and long-term deposits.

ii. Financial guarantees granted

Financial guarantees includes, inter alia, financial guarantee contracts such as financial bank guarantees, credit derivatives sold, and risks arising from derivatives arranged for the account of third parties.

iii. Other commitments granted

Other contingent liabilities include all commitments that could give rise to the recognition of financial assets not included in the above items, such as technical guarantees and guarantees for the import and export of goods and services.

b) Memorandum items**i. Off-balance-sheet funds under management**

The detail of off-balance-sheet funds managed by the Group and by joint ventures is as follows:

EUR million	2021	2020	2019
Investment funds	145,987	131,965	142,988
Pension funds	16,078	15,577	11,843
Assets under management	24,862	20,712	22,079
	186,927	168,254	176,910

ii. Non-managed marketed funds

At 31 December 2021 there are non-managed marketed funds totalling EUR 48,385 million (EUR 38,563 million and EUR 49,490 million at 31 December 2020 and 2019, respectively).

c) Third-party securities held in custody

At 31 December 2021 the Group held in custody debt securities and equity instruments totalling EUR 236,153 million (EUR 209,269 million and EUR 229,381 million at 31 December 2020 and 2019, respectively) entrusted to it by third parties.

36. Hedging derivatives

Grupo Santander, within its financial risk management strategy, and in order to reduce asymmetries in the accounting treatment of its operations, enters into hedging derivatives on interest, exchange rate, credit risk or variation of stock prices, depending on the nature of the risk covered.

Based on its objective, Grupo Santander classifies its hedges in the following categories:

- Cash flow hedges: cover the exposure to the variation of the cash flows associated with an asset, liability or a highly probable forecast transaction. This covers the variable-rate issues in foreign currencies, fixed-rate issues in non-local currency, variable-rate interbank financing and variable-rate assets (bonds, commercial loans, mortgages, etc.).

- Fair value hedges: cover the exposure to the variation in the fair value of assets or liabilities, attributable to an identified and hedged risk. This covers the interest risk of assets or liabilities (bonds, loans, bills, issues, deposits, etc.) with coupons or fixed interest rates, interests in entities, issues in foreign currencies and deposits or other fixed rate liabilities.
- Hedging of net investments abroad: cover the exchange rate risk of the investments in subsidiaries domiciled in a country with a different currency from the functional one of the Group.

Due to the replacement of the current rates by the alternative rates defined in the note 1 of this report, in the section 'Amendments to IFRS 9, IAS 9 and IFRS 7 on reference interest rates (IBOR Reform Phase I and II)', the nominal amount of hedging instruments corresponding to the hedging relationships directly affected by the uncertainties related to the IBOR reforms is shown below. The percentage of the nominal amount of derivatives affected with a maturity date after the transition date of the reform represents 4.85% of the total hedging derivatives:

EUR million

	USD LIBOR
Total hedging instruments affected	
Fair value hedges	14,223
Interest rate risk	14,223
Cash flow hedges	12,034
Interest rate risk	12,034
	26,257
Post-transition date agreement	
Fair value hedges	11,241
Interest rate risk	11,241
Cash flow hedges	7,830
Interest rate risk	7,830
	19,071

As for the hedged items directly affected by the uncertainties related to the IBOR reforms, their nominal amount is shown below, which represents 2.02% of the total notional amount hedged:

EUR million

	USD LIBOR
Total hedge items directly affected	
Fair value hedges	190
Interest rate risk	190
Cash flow hedges	11,926
Interest rate risk	11,926
	12,116
Post-transition date agreement	
Fair value hedges	190
Interest rate risk	190
Cash flow hedges	7,732
Interest rate risk	7,732
	7,922

The following tables contains the detail of the hedging derivatives according to the type of hedging, the hedge risk and the main products used as of 31 December 2021, 2020 and 2019:

Million euros

	2021				Balance sheet line items
	Carrying amount			Changes in fair value used for calculating hedge ineffectiveness	
	Nominal value	Assets	Liabilities		
Fair value hedges	206,957	2,528	2,656	1,079	
Interest rate risk	176,176	2,227	1,778	591	Hedging derivatives
Of which:					
Interest rate swap	66,904	1,668	920	(377)	
Call money swap	97,321	1	734	714	
Exchange rate risk	21,238	7	423	287	Hedging derivatives
Fx forward	13,909	7	423	22	
Future interest rate	7,329	—	—	265	
Interest rate and exchange rate risk	9,326	294	452	200	Hedging derivatives
Of which:					
Interest rate swap	1,650	12	9	(7)	
Currency swap	7,397	281	443	192	
Inflation risk	44	—	1	—	Hedging derivatives
Credit risk	173	—	2	1	Hedging derivatives
Cash flow hedges	160,397	2,034	2,157	(1,703)	
Interest rate risk	99,648	156	420	(526)	Hedging derivatives
Of which:					
Future interest rate	7,652	—	—	(155)	
Interest rate swap	69,471	70	155	(212)	
Call money swap	16,846	20	182	(409)	
Exchange rate risk	27,343	396	657	(112)	Hedging derivatives
Of which:					
FX forward	8,381	280	42	26	
Currency swap	15,004	100	606	(133)	
Interest rate and exchange rate risk	21,609	1,425	400	(815)	Hedging derivatives
Of which:					
Interest rate swap	3,604	95	2	(112)	
Currency swap	17,005	1,330	393	(702)	
Inflation risk	11,741	52	679	(247)	Hedging derivatives
Of which:					
Currency swap	10,503	51	678	(232)	
Equity risk	56	5	1	(3)	Hedging derivatives
Hedges of net investments in foreign operations	25,594	199	650	—	
Exchange rate risk	25,594	199	650	—	Hedging derivatives
FX forward	25,594	199	650	—	
	392,948	4,761	5,463	(624)	

EUR million

	2020				Balance sheet line items
	Carrying amount			Changes in fair value used for calculating hedge ineffectiveness	
	Nominal value	Assets	Liabilities		
Fair value hedges	199,260	4,199	4,671	(451)	
Interest rate risk	181,582	3,528	3,850	(456)	Hedging derivatives
Of which:					
Interest rate swap	94,713	2,985	2,747	(27)	
Call money swap	69,740	184	886	(486)	
Exchange rate risk	9,037	293	47	11	Hedging derivatives
Of which:					
FX forward	8,422	210	47	11	
Interest rate and exchange rate risk	8,434	378	771	(11)	Hedging derivatives
Of which:					
Currency swap	7,704	370	757	(4)	
Credit risk	207	—	3	5	Hedging derivatives
Cash flow hedges	139,156	3,436	1,739	232	
Interest rate risk	74,731	478	522	75	Hedging derivatives
Of which:					
Future interest rate	7,492	—	322	(208)	
Interest rate swap	46,547	237	108	135	
Call money swap	12,123	204	7	145	
Exchange rate risk	23,483	555	802	(401)	Hedging derivatives
Of which:					
FX forward	9,151	265	195	(155)	
Currency swap	13,425	283	600	(103)	
Interest rate and exchange rate risk	27,021	2,362	275	679	Hedging derivatives
Of which:					
Currency swap	19,682	2,100	264	550	
Inflation risk	13,907	36	140	(129)	Hedging derivatives
Of which:					
Interest rate swap	5,218	262	—	129	
Currency swap	10,206	26	136	(132)	
Equity risk	14	5	—	8	Hedging derivatives
Hedges of net investments in foreign operations	22,210	690	459	3	
Exchange rate risk	22,210	690	459	3	Hedging derivatives
FX forward	22,210	690	459	—	
	360,626	8,325	6,869	(216)	

EUR million

	2019				Balance sheet line items
	Carrying amount			Changes in fair value used for calculating hedge ineffectiveness	
	Nominal value	Assets	Liabilities		
Fair value hedges	202,548	3,570	3,649	(1,522)	
Interest rate risk	183,586	3,032	3,160	(1,346)	Hedging derivatives
Of which:					
Future interest rate	12,325	—	32	(476)	
Interest rate swap	117,439	2,651	2,297	(429)	
Call money swap	44,791	91	472	(295)	
Exchange rate risk	10,006	73	55	(60)	Hedging derivatives
Of which:					
Fx forward	9,722	49	54	(60)	
Interest rate and exchange rate risk	8,698	465	428	(116)	Hedging derivatives
Of which:					
Currency swap	7,552	449	423	(67)	
Inflation risk	0	—	0	5	Hedging derivatives
Credit risk	258	—	6	(5)	Hedging derivatives
Cash flow hedges	135,439	3,398	1,618	(1,540)	
Interest rate risk	55,810	277	261	(267)	Hedging derivatives
Of which:					
Futures	21,655	33	147	(93)	
Interest rate swap	21,492	99	97	(105)	
Call money swap	6,164	30	12	8	
Exchange rate risk	31,803	463	660	(405)	Hedging derivatives
Of which:					
FX forward	10,595	237	216	(145)	
Currency swap	11,030	214	433	(365)	
Futures	9,290	—	—	113	
Interest rate and exchange rate risk	38,938	2,625	640	(826)	Hedging derivatives
Of which:					
Interest rate swap	7,347	133	5	201	
Currency swap	27,044	2,492	622	(1,020)	
Inflation risk	8,830	33	53	(44)	Hedging derivatives
Of which:					
FX forward	2,230	5	4	4	
Currency swap	6,511	28	42	(44)	
Equity risk	58	—	4	2	Hedging derivatives
Hedges of net investments in foreign operations	24,477	248	781	0	
Exchange rate risk	24,477	248	781	0	Hedging derivatives
FX forward	24,477	248	781	—	
	362,464	7,216	6,048	(3,062)	

Considering the main entities or groups within the Group by the weight of their hedging, the main types of hedging that are being carried out in Santander UK Group Holdings plc group and Banco Santander, S.A.

Santander UK Group Holdings plc group enters into fair value and cash flow hedging derivatives depending on the exposure of the underlying. Only designated risks are hedged and therefore other risks, such as credit risk, are managed but not hedged.

Within fair value hedges, Santander UK Group Holdings plc group has portfolios of assets and liabilities at fixed rate that are exposed to changes in fair value due to changes in market interest rates. These positions are managed by contracting mainly interest rate swaps. Effectiveness is assessed by comparing the changes in the fair value of these portfolios generated by the hedged risk with the changes in the fair value of the derivatives contracted.

Santander UK Group Holdings plc group also has access to international markets to obtain financing by issuing fixed-rate debt in its functional currency and other currencies. As such, they are exposed to changes in interest rates and exchange rates, mainly in EUR and USD. This risk is mitigated with cross currency swaps e interest rate swaps in which they pay a fixed rate and receive a variable rate. Effectiveness is evaluated using linear regression techniques to compare changes in the fair value of the debt at interest and exchange rates with changes in the fair value of interest rate swaps o loss cross currency swaps.

Within the cash flow hedges, Santander UK Group Holdings plc group has portfolios of assets and liabilities at variable rates, normally at SONIA or LIBOR. To mitigate this market rate variability risk, it contracts interest rate swaps.

As Santander UK Group Holdings plc group obtains financing in the international markets, it assumes a significant exposure to currency risk mainly USD and EUR. In addition, it also holds debt securities for liquidity purposes which assume exposure mainly in JPY. To manage this exchange rate risk, spot, forward y cross currency swap are contracted to match the cash flow profile and the maturity of the estimated interest and principal repayments of the hedged item.

Effectiveness is assessed by comparing changes in the fair value of the derivatives with changes in the fair value of the hedged item attributable to the hedged risk by applying a hypothetical derivative method using linear regression techniques.

In addition, within the hedges that cover equity risk, Santander UK Group Holdings plc group offers employees the opportunity to purchase shares of the Bank at a discount under the sharesave scheme, exposing the Bank to share price risk. As such, options are purchased allowing them to purchase shares at a pre-set price.

Banco Santander, S.A. covers the risks of its balance sheet in a variety of ways. On the one hand, documented as fair value hedges, it covers the interest rate, foreign currency and credit risk of fixed-income portfolios at a fixed rate (REPOs are included in this category). Resulting, in an exposure to changes in their fair value due to variations in market conditions based on the various risks hedged, which has an impact on Banco Santander's income statement. To mitigate these risks, Banco Santander contracts derivatives, mainly interest rate swaps, cross currency swaps, cap&floors, forex forward y credit default swaps.

On the other hand, the interest and exchange rate risk of loans granted to corporate clients at a fixed rate is generally covered. These hedges, are carried out through interest rate swaps, cross currency swaps and exchange rate derivatives (forex swaps and forex forward).

In addition, Banco Santander, S.A. manages the interest and exchange risk of debt issues in its various categories (issuing covered bonds, perpetual, subordinated and senior bond) and in different currencies, denominated at fixed rates, and therefore subject to changes in their fair value. These issues are covered through interest rate swaps, cross currency swaps or a mix of both by applying differentiated fair value hedging strategies for interest rate risk and cash flow hedging strategies to hedge foreign exchange risk.

The methodology used by Banco Santander, S.A. to measure the effectiveness of fair value hedges is based on comparing the market values of the hedged items (based on the objective risk of the hedge) and of the hedging instruments in order to analyse whether the changes in the market value of the hedged items are offset by the market value of the hedging instruments, thereby mitigating the hedged risk and minimizing volatility in the income statement. Prospectively, the same analysis is performed, measuring the theoretical market values in the event of parallel variations in the market curves of a positive basis point.

There is a macro hedge of structured loans in which the interest rate risk of fixed-rate loans (mortgage, personal or with other guarantees) granted to legal entities in commercial or corporate banking and wealth clients in the medium-long term is hedged. This hedge is instrumented as a macro hedge of fair value, the main hedging instruments being interest rate swap and cap&floors. In case of total or partial cancellation or early repayment, the customer is obliged to pay/receive the cost/income of the cancellation of the interest rate risk hedge managed by the Bank.

Regarding cash flow hedges, the objective is to hedge the cash flow exposure to changes in interest rates and exchange rates.

For retrospective purposes, the hypothetical derivative methodology is used to measure effectiveness. By means of this methodology, the hedged risk is modelled as a derivative instrument -not real-, created exclusively for the purpose of measuring the effectiveness of the hedge, and which must comply with the fact that its main characteristics coincide with the critical terms of the hedged item throughout the period for which the hedging relationship is designated. This hypothetical derivative does not incorporate characteristics that are exclusive to the hedging instrument. Additionally, it is worth mentioning that any risk component not associated with the hedged objective risk and effectively documented at the beginning of the hedge is excluded for the purpose of calculating the effectiveness. The market value of the hypothetical derivative that replicates the hedged item is compared with the market value of the hedging instrument, verifying that the hedged risk is effectively mitigated and that the impact on the income statement due to potential ineffectiveness is residual.

Prospectively, the variations in the market values of the hedging instrument and the hedged item (represented by the hypothetical derivative) are measured in the event of parallel shifts of a positive basis point in the affected market curves.

There is another macro-hedge, this time of cash flows, the purpose of which is to actively manage the risk-free interest rate risk (excluding credit risk) of a portion of the floating rate assets of Banco Santander, S.A., through the arrangement of interest rate derivatives whereby the bank exchanges floating rate interest flows for others at a fixed rate agreed at the time the transactions are arranged. The items affected by the Macro-hedging have been designated as those in which their cash flows are exposed to interest rate risk, specifically the floating rate mortgages of the Banco Santander, S.A. network referenced to Euribor 12 Months or Euribor Mortgage, with annual renewal of rates, classified as sound risk and which do not have a contractual floor (or, if not, this floor is not activated). The hedged position affecting the Macro Cash Flow Hedge at the present time is EUR 7,000 million.

Regarding net foreign investments hedges, basically, they are allocated in Banco Santander, S.A. and Santander Consumer Finance Group. Grupo Santander assumes as a priority risk management objective to minimize -to the limit determined by the Group's Financial Management- the impact on the calculation of the capital ratio of its permanent investments included within the Group's consolidation perimeter, and whose shares or equity interests are legally denominated in a currency other than that of the Group's parent company. For this purpose, financial instruments (generally derivatives) are contracted to hedge the impact on the capital ratio of changes in forward exchange rates. Grupo Santander mainly hedges the risk for the following currencies: BRL, CLP, MXN, CAD, COP, CNY, GBP, CHF, NOK, USD, and PLN. The instruments used to hedge the risk of these investments are forex swaps, forex forward and spot currency purchases/sales.

For this type of hedges, ineffectiveness scenarios are considered to be of low probability, given that the hedging instrument is designated considering the position determined and the spot rate at which the position is located.

The following table sets out the maturity profile of the hedging instruments used in Grupo Santander non-dynamic hedging strategies:

EUR million

	31 December 2021					Total
	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	
Fair value hedges	5,546	11,786	45,119	114,828	29,678	206,957
Interest rate risk	4,324	9,978	33,873	103,216	24,785	176,176
Of which:						
Interest rate swap	267	2,138	4,189	42,398	17,912	66,904
Call money swap	3,716	7,527	25,588	56,120	4,370	97,321
Exchange rate risk	598	1,712	11,013	5,550	2,365	21,238
Fx forward	598	1,712	11,013	586	—	13,909
Future interest rate	—	—	—	4,964	2,365	7,329
Interest rate and exchange rate risk	624	77	199	5,898	2,528	9,326
Of which:						
Interest rate swap	—	—	—	1,232	418	1,650
Currency swap	624	72	198	4,437	2,066	7,397
Inflation risk	—	—	—	44	—	44
Credit risk	—	19	34	120	—	173
Cash flow hedges	17,674	3,208	20,459	102,833	16,223	160,397
Interest rate risk	13,047	1,061	9,875	68,867	6,798	99,648
Of which:						
Future interest rate	7,097	—	244	311	—	7,652
Interest rate swap	2,336	310	7,759	58,930	136	69,471
Call money swap	1,202	751	858	7,920	6,115	16,846
Exchange rate risk	3,438	1,348	3,195	15,506	3,856	27,343
Of which:						
FX forward	2,406	1,309	1,947	2,719	—	8,381
Currency swap	1,032	39	1,248	9,885	2,800	15,004
Interest rate and exchange rate risk	860	336	5,924	11,165	3,324	21,609
Of which:						
Interest rate swap	—	—	—	2,505	1,099	3,604
Currency swap	860	336	5,924	7,660	2,225	17,005
Inflation risk	329	463	1,463	7,246	2,240	11,741
Of which:						
Currency swap	82	339	597	7,245	2,240	10,503
Equity risk	—	—	2	49	5	56
Hedges of net investments in foreign operations:	4,097	5,346	13,235	2,916	—	25,594
Exchange rate risk	4,097	5,346	13,235	2,916	—	25,594
FX forward	4,097	5,346	13,235	2,916	—	25,594
	27,317	20,340	78,813	220,577	45,901	392,948

EUR million

	31 December 2020					
	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges	7,132	14,221	44,897	95,343	37,667	199,260
Interest rate risk	5,616	9,667	39,921	90,913	35,465	181,582
Of which:						
Interest rate swap	3,943	4,804	24,807	33,333	27,826	94,713
Call money swap	1,021	4,662	11,241	49,624	3,192	69,740
Exchange rate risk	1,516	4,264	3,257	—	—	9,037
Of which:						
Fx forward	901	4,264	3,257	—	—	8,422
Interest rate and exchange rate risk	—	282	1,711	4,239	2,202	8,434
Of which:						
Currency swap	—	282	1,711	3,607	2,104	7,704
Credit risk	—	8	8	191	—	207
Cash flow hedges	10,489	11,629	44,127	61,186	11,725	139,156
Interest rate risk	6,019	6,707	33,070	26,959	1,976	74,731
Of which:						
Future interest rate	5,213	—	—	2,279	—	7,492
Interest rate swap	806	4,626	29,511	11,219	385	46,547
Call money swap	—	1,502	1,550	7,890	1,181	12,123
Exchange rate risk	1,746	2,336	4,616	13,071	1,714	23,483
Of which:						
FX forward	1,532	2,243	3,040	2,336	—	9,151
Currency swap	214	93	1,576	9,828	1,714	13,425
Interest rate and exchange rate risk	1,691	972	5,634	15,687	3,037	27,021
Of which:						
Interest rate swap	816	—	981	2,402	1,019	5,218
Currency swap	875	972	4,653	11,164	2,018	19,682
Inflation risk	1,033	1,614	807	5,456	4,997	13,907
Of which:						
Currency swap	33	181	229	4,766	4,997	10,206
Equity risk	—	—	—	13	1	14
Hedges of net investments in foreign operations:	2,435	5,086	12,831	1,858	—	22,210
Exchange rate risk	2,435	5,086	12,831	1,858	—	22,210
FX forward	2,435	5,086	12,831	1,858	—	22,210
	20,056	30,936	101,855	158,387	49,392	360,626

EUR million

	31 December 2019					
	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges	5,816	14,591	43,236	90,707	48,198	202,548
Interest rate risk	5,468	9,055	37,627	86,119	45,317	183,586
Of which:						
Future interest rate	16	—	606	6,066	5,637	12,325
Interest rate swap	734	3,532	24,382	62,474	26,317	117,439
Call money swap	4,674	5,318	12,085	14,653	8,061	44,791
Exchange rate risk	333	4,090	5,172	411	—	10,006
Of which:						
Fx forward	329	4,090	5,082	221	—	9,722
Interest rate and exchange rate risk	15	1,432	437	3,933	2,881	8,698
Credit risk	—	14	—	244	0	258
Cash flow hedges	16,506	5,912	38,678	62,119	12,224	135,439
Interest rate risk	13,023	2,179	13,011	26,332	1,265	55,810
Of which:						
Futures	12,304	385	3,196	5,770	—	21,655
Interest rate swap	460	864	7,441	12,585	142	21,492
Call money swap	—	398	1,253	3,925	588	6,164
Exchange rate risk	2,300	2,572	14,324	11,753	854	31,803
Of which:						
Future interest rate	—	—	9,290	—	—	9,290
FX forward	2,173	1,746	3,404	3,272	—	10,595
Currency swap	127	826	1,630	7,593	854	11,030
Interest rate and exchange rate risk	1,086	308	9,221	20,782	7,541	38,938
Of which:						
Interest rate swap	—	—	1,917	2,880	2,550	7,347
Currency swap	1,086	308	5,553	15,106	4,991	27,044
Inflation risk	97	853	2,114	3,204	2,562	8,830
Of which:						
FX forward	—	117	1,205	908	—	2,230
Currency swap	97	736	909	2,207	2,562	6,511
Equity risk	—	—	8	48	2	58
Hedges of net investments in foreign operations	2,735	4,191	14,192	3,359	—	24,477
Exchange rate risk	2,735	4,191	14,192	3,359	—	24,477
FX forward	2,735	4,191	14,192	3,359	—	24,477
	25,057	24,694	96,106	156,185	60,422	362,464

Additionally, for Santander UK Group Holdings plc and Banco Santander, S.A., both the maturity profile, the average interest and exchange rate of hedging instruments by maturity buckets are shown:

Santander UK Group Holdings plc group

31 December 2021						
EUR million						
	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges						
Interest rate risk						
Interest rate instruments						
Nominal	3,716	7,408	25,525	53,427	5,942	96,018
Average fixed interest rate (%) GBP	0.590	0.420	0.090	0.910	3.130	
Average fixed interest rate (%) EUR	0.510	1.740	1.080	0.810	2.610	
Average fixed interest rate (%) USD	1.910	0.960	1.440	2.760	4.050	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	—	—	127	683	165	975
Average GBP/EUR exchange rate	—	—	1.205	1.159	1.171	
Average fixed interest rate (%) EUR	—	—	3.290	2.030	2.620	
Cash flow hedges						
Interest rate risk						
Interest rate instruments						
Nominal	1,203	572	1,036	8,967	6,115	17,893
Average fixed interest rate (%) GBP	1.970	0.440	0.080	1.290	0.970	
Foreign exchange risk						
Exchange and interest rate instruments						
Nominal	3,218	1,114	2,448	10,897	3,584	21,261
Average GBP/JPY exchange rate	—	142.905	148.856	—	—	
Average GBP/EUR exchange rate	1.165	—	1.185	1.159	1.174	
Average GBP/USD exchange rate	1.344	1.342	1.332	1.339	1.388	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	739	—	1,000	8,112	2,860	12,711
Average GBP/EUR exchange rate	1.277	—	1.386	1.202	1.200	
Average GBP/USD exchange rate	—	—	—	1.609	1.381	
Average fixed interest rate (%) GBP	2.260	—	1.170	2.720	3.410	

31 December 2020

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges						
Interest rate risk						
Interest rate instruments						
Nominal	2,704	8,481	30,946	53,170	9,050	104,351
Average fixed interest rate (%) GBP	0.690	0.650	0.820	0.730	3.720	
Average fixed interest rate (%) EUR	1.180	0.230	3.020	0.980	2.340	
Average fixed interest rate (%) USD	1.870	1.720	2.890	2.490	4.160	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	—	—	147	776	260	1,183
Average GBP/EUR exchange rate	—	—	1.141	1.170	1.167	
Average fixed interest rate (%) EUR	—	—	4.640	1.780	3.560	
Cash flow hedges						
Interest rate risk						
Interest rate instruments						
Nominal	—	999	2,815	8,869	1,180	13,863
Average fixed interest rate (%) GBP	—	0.460	0.570	1.450	1.330	
Foreign exchange risk						
Exchange and interest rate instruments						
Nominal	1,602	2,244	4,317	8,328	1,246	17,737
Average GBP/JPY exchange rate	—	137.977	135.607	132.271	—	
Average GBP/EUR exchange rate	—	—	—	1.163	1.179	
Average GBP/USD exchange rate	1.293	1.316	1.323	1.304	—	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	1,630	—	3,858	11,816	2,792	20,096
Average GBP/EUR exchange rate	—	—	1.354	1.253	1.197	
Average GBP/USD exchange rate	1.465	—	—	1.609	1.381	
Average fixed interest rate (%) GBP	2.010	—	3.180	2.480	3.390	

31 December 2019

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges						
Interest rate risk						
Interest rate instruments						
Nominal	5,118	6,822	32,210	51,307	15,397	110,854
Average fixed interest rate (%) GBP	0.770	0.900	0.880	1.330	3.000	
Average fixed interest rate (%) EUR	(0.410)	0.290	2.210	1.360	2.360	
Average fixed interest rate (%) USD	—	1.540	1.990	2.690	4.560	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	—	887	—	394	738	2,019
Average GBP/EUR exchange rate	—	—	—	1.178	1.160	
Average GBP/USD exchange rate	—	1.511	—	—	—	
Average fixed interest rate (%) EUR	—	—	—	3.520	2.120	
Average fixed interest rate (%) USD	—	2.380	—	—	—	
Cash flow hedges						
Interest rate risk						
Interest rate instruments						
Nominal	—	398	1,253	5,490	588	7,729
Average fixed interest rate (%) GBP	—	0.760	0.820	1.460	0.400	
Foreign exchange risk						
Exchange and interest rate instruments						
Nominal	1,395	2,491	4,417	7,019	—	15,322
Average GBP/JPY exchange rate	—	145.928	143.086	140.815	—	
Average GBP/EUR exchange rate	—	1.144	1.117	1.153	—	
Average GBP/USD exchange rate	1.286	1.252	1.293	1.299	—	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	954	—	7,626	15,089	7,291	30,960
Average GBP/EUR exchange rate	1.274	—	1.169	1.311	1.209	
Average GBP/USD exchange rate	—	—	1.536	1.581	1.450	
Average fixed interest rate (%) GBP	2.490	—	2.160	2.870	2.960	

Banco Santander, S.A.

31 December 2021						
EUR million						
	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges						
Interest rate risk						
Interest rate instruments						
Nominal	14	1,822	3,038	21,507	10,031	36,412
Average fixed interest rate (%) GBP	—	—	—	2.139	1.750	
Average fixed interest rate (%) EUR	3.859	0.989	(0.031)	1.212	1.532	
Average fixed interest rate (%) CHF	—	—	—	0.828	0.403	
Average fixed interest rate (%) JPY	—	—	—	0.465	—	
Average fixed interest rate (%) USD	4.746	1.449	3.459	2.737	3.374	
Average fixed interest rate (%) RON	—	—	—	4.211	3.200	
Foreign exchange risk						
Exchange and interest rate instruments						
Nominal	503	1,634	10,350	586	—	13,073
Average GBP/EUR exchange rate	—	0.882	0.865	0.876	—	
Average USD/EUR exchange rate	1.187	1.172	1.180	—	—	
Average CNY/EUR exchange rate	7.859	7.717	7.412	—	—	
Average PEN/USD exchange rate	—	4.003	—	—	—	
Average JPY/EUR exchange rate	132.688	130.741	—	—	—	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	116	1,109	53	3,255	1,279	5,812
Average fixed interest rate (%) AUD/EUR	—	—	—	4.000	4.661	
Average fixed interest rate (%) CZK/EUR	—	—	—	0.860	—	
Average fixed interest rate (%) RON/EUR	—	—	—	4.849	—	
Average fixed interest rate (%) HKD/EUR	—	—	—	2.580	—	
Average fixed interest rate (%) JPY/EUR	—	—	—	0.730	1.144	
Average fixed interest rate (%) NOK/EUR	—	—	—	—	3.605	
Average fixed interest rate (%) CHF/EUR	—	—	—	0.760	1.243	
Average fixed interest rate (%) USD/COP	—	5.140	9.470	6.789	7.153	
Average fixed interest rate (%) COP/USD	—	—	—	(0.140)	—	
Average fixed interest rate (%) USD/CLP	—	—	—	3.450	—	
Average AUD/EUR exchange rate	—	—	—	1.499	1.529	
Average CZK/EUR exchange rate	—	—	—	25.506	—	
Average EUR/GBP exchange rate	—	1.176	—	—	—	
Average EUR/USD exchange rate	—	—	—	0.891	—	
Average HKD/EUR exchange rate	—	—	—	8.782	—	
Average JPY/EUR exchange rate	—	—	—	132.966	126.605	
Average MXN/EUR exchange rate	—	—	14.696	—	—	
Average NOK/EUR exchange rate	—	—	—	—	9.606	
Average RON/EUR exchange rate	—	—	—	4.815	4.927	
Average CHF/EUR exchange rate	—	—	—	1.092	1.105	
Average USD/CLP exchange rate	—	—	—	0.001	—	
Average NZD/EUR exchange rate	—	—	—	—	1.666	
Average USD/MXN exchange rate	—	—	—	0.050	—	
Credit risk						
Credit risk instruments						
Nominal	—	19	34	120	—	173

31 December 2021

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Cash flow hedges						
Interest rate and foreign exchange rate risk						
Interest rate and foreign exchange rate instruments						
Nominal	—	9	1,169	1,848	408	3,434
Average fixed interest rate (%) EUR/PEN	—	—	3.441	—	—	
Average fixed interest rate (%) EUR/AUD	—	1.632	—	—	—	
Average fixed interest rate (%) AUD/EUR	—	—	—	0.305	—	
Average EUR/GBP exchange rate	—	—	1.102	1.113	—	
Average EUR/USD exchange rate	—	—	—	0.882	—	
Average AUD/EUR exchange rate	—	—	—	1.604	1.562	
Average RON/EUR exchange rate	—	—	—	4.885	—	
Average JPY/EUR exchange rate	—	—	—	120.568	—	
Average CHF/EUR exchange rate	—	—	—	—	1.102	
Average NOK/EUR exchange rate	—	—	—	—	10.242	
Average CZK/EUR exchange rate	—	—	—	26.131	—	
Average EUR/PEN exchange rate	—	—	0.208	—	—	
Average EUR/AUD exchange rate	—	0.624	—	—	—	
Interest rate risk						
Bond Forward instruments						
Nominal	4,279	—	5,191	38,314	—	47,784
Average fixed interest rate (%) EUR	—	—	(0.465)	(0.258)	—	
Average fixed interest rate (%) USD	—	—	1.765	—	—	
Average fixed interest rate (%) AUD	—	—	—	1.650	—	
Hedges of net investments in foreign operations						
Exchange rate risk						
Exchange and interest rate instruments						
Nominal	3,778	4,848	11,815	2,916	—	23,357
Average BRL/EUR exchange rate	6.663	6.758	6.841	—	—	
Average CLP/EUR exchange rate	943.354	929.690	949.615	—	—	
Average COP/EUR exchange rate	—	—	4,538.997	—	—	
Average GBP/EUR exchange rate	0.854	0.857	0.855	0.875	—	
Average MXN/EUR exchange rate	25.541	25.335	25.192	—	—	
Average PLN/EUR exchange rate	4.592	4.582	4.634	—	—	
Average USD/EUR exchange rate	—	—	1.167	1.233	—	

31 December 2020

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges						
Interest rate risk						
Interest rate instruments						
Nominal	2,073	409	2,165	17,430	14,294	36,371
Average fixed interest rate (%) GBP	—	—	—	1.375	4.072	
Average fixed interest rate (%) EUR	0.647	0.551	0.388	0.820	1.927	
Average fixed interest rate (%) CHF	—	—	—	0.800	0.403	
Average fixed interest rate (%) JPY	—	—	—	0.465	—	
Average fixed interest rate (%) USD	0.698	0.570	2.031	3.004	3.562	
Average fixed interest rate (%) RON	—	—	—	3.610	—	
Foreign exchange risk						
Exchange and interest rate instruments						
Nominal	833	4,149	3,008	—	—	7,990
Average GBP/EUR exchange rate	—	0.901	0.916	—	—	
Average USD/EUR exchange rate	1.165	1.171	1.178	—	—	
Average COP/USD exchange rate	3,628.140	3,603.595	—	—	—	
Average CNY/EUR exchange rate	8.108	8.102	7.997	—	—	
Average SAR/EUR exchange rate	4.484	4.514	—	—	—	
Average PEN/USD exchange rate	—	3.609	—	—	—	
Average AUD/EUR exchange rate	—	1.609	—	—	—	
Average JPY/EUR exchange rate	—	124.612	—	—	—	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	—	282	818	2,621	1,083	4,804
Average fixed interest rate (%) AUD/EUR	—	—	—	4.000	4.660	
Average fixed interest rate (%) CZK/EUR	—	—	—	0.860	—	
Average fixed interest rate (%) EUR/COP	—	—	4.380	—	—	
Average fixed interest rate (%) RON/EUR	—	—	—	4.849	—	
Average fixed interest rate (%) HKD/EUR	—	—	—	2.580	—	
Average fixed interest rate (%) JPY/EUR	—	—	2.195	0.568	1.281	
Average fixed interest rate (%) NOK/EUR	—	—	—	—	3.605	
Average fixed interest rate (%) CHF/EUR	—	—	—	—	1.243	
Average fixed interest rate (%) USD/COP	—	—	8.030	6.659	7.231	
Average fixed interest rate (%) COP/USD	—	—	6.000	—	—	
Average fixed interest rate (%) USD/CLP	—	—	0.930	—	—	
Average AUD/EUR exchange rate	—	—	—	1.499	1.508	
Average COP/USD exchange rate	—	—	3,437.200	—	—	
Average CZK/EUR exchange rate	—	—	—	25.539	—	
Average EUR/GBP exchange rate	—	1.113	—	—	—	
Average EUR/USD exchange rate	—	—	—	0.891	—	
Average HKD/EUR exchange rate	—	—	—	8.782	—	
Average JPY/EUR exchange rate	—	—	113.370	133.840	125.883	
Average MXN/EUR exchange rate	—	—	—	14.696	—	
Average NOK/EUR exchange rate	—	—	—	—	9.606	
Average RON/EUR exchange rate	—	—	—	4.727	—	
Average CHF/EUR exchange rate	—	—	—	1.092	1.105	
Average USD/CLP exchange rate	—	—	0.001	—	—	
Average USD/MXN exchange rate	—	—	0.050	—	—	

31 December 2020

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Credit risk						
Credit risk instruments						
Nominal	—	8	8	191	—	207
Cash flow hedges						
Interest rate and foreign exchange rate risk						
Interest rate and foreign exchange rate instruments						
Nominal	—	—	1,247	3,242	208	4,697
Average EUR/GBP exchange rate	—	—	1.080	1.102	—	
Average EUR/USD exchange rate	—	—	—	0.882	—	
Average AUD/EUR exchange rate	—	—	—	1.625	—	
Average RON/EUR exchange rate	—	—	—	4.810	—	
Average JPY/EUR exchange rate	—	—	—	120.568	—	
Average CHF/EUR exchange rate	—	—	—	—	1.102	
Interest rate risk						
Bond Forward instruments						
Nominal	3,164	5,000	23,000	4,279	—	35,443
Average fixed interest rate (%) EUR	—	(0.258)	(0.250)	(0.236)	—	
Hedges of net investments in foreign operations						
Exchange rate risk						
Exchange and interest rate instruments						
Nominal	2,229	4,554	11,570	1,858	—	20,211
Average BRL/EUR exchange rate	5.270	5.308	6.332	—	—	
Average CLP/EUR exchange rate	869.633	861.546	864.339	932.215	—	
Average COP/EUR exchange rate	—	—	4.471	—	—	
Average GBP/EUR exchange rate	0.909	0.916	0.907	—	—	
Average MXN/EUR exchange rate	23.121	25.456	26.788	—	—	
Average PLN/EUR exchange rate	4.427	4.420	4.516	—	—	

31 December 2019

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Fair value hedges						
Interest rate risk						
Interest rate instruments						
Nominal	8	106	1,406	16,707	10,219	28,446
Average fixed interest rate (%) GBP	—	—	—	1.430	6.820	
Average fixed interest rate (%) EUR	5.300	2.410	3.200	0.790	2.580	
Average fixed interest rate (%) CHF	—	—	—	0.800	0.400	
Average fixed interest rate (%) JPY	—	—	—	0.460	—	
Average fixed interest rate (%) USD	—	—	2.050	3.120	3.930	
Foreign exchange risk						
Exchange and interest rate instruments						
Nominal	211	3,903	4,777	—	—	8,891
Average GBP/EUR exchange rate	—	0.860	0.870	—	—	
Average USD/EUR exchange rate	—	1.120	1.120	—	—	
Average USD/CLP exchange rate	747.720	747.900	746.700	—	—	
Average CNY/EUR exchange rate	—	7.910	8.010	—	—	
Average SAR/EUR exchange rate	4.160	0.042	—	—	—	
Interest rate and foreign exchange rate risk						
Exchange and interest rate instruments						
Nominal	14	289	346	2,599	949	4,197
Average fixed interest rate (%) AUD/EUR	—	—	—	4.000	4.660	
Average fixed interest rate (%) CZK/EUR	—	—	—	0.860	—	
Average fixed interest rate (%) EUR/COP	—	—	6.160	—	—	
Average fixed interest rate (%) RON/EUR	—	—	—	4.850	—	
Average fixed interest rate (%) HKD/EUR	—	—	2.520	2.580	—	
Average fixed interest rate (%) JPY/EUR	—	—	0.540	0.660	1.280	
Average fixed interest rate (%) NOK/EUR	—	—	—	—	3.610	
Average fixed interest rate (%) CHF/EUR	—	—	—	—	1.240	
Average fixed interest rate (%) USD/COP	7.540	—	5.670	7.620	7.220	
Average AUD/EUR exchange rate	—	—	—	1.499	1.508	
Average CZK/EUR exchange rate	—	—	—	25.407	26.030	
Average EUR/GBP exchange rate	—	1.171	—	—	—	
Average HKD/EUR exchange rate	—	—	8.719	8.782	—	
Average JPY/EUR exchange rate	—	—	130.470	132.461	125.883	
Average MXN/EUR exchange rate	—	—	—	14.696	—	
Average NOK/EUR exchange rate	—	—	—	—	9.606	
Average RON/EUR exchange rate	—	—	—	4.727	—	
Average CHF/EUR exchange rate	—	—	—	1.092	1.105	
Average USD/MXN exchange rate	—	—	—	0.052	—	

31 December 2019

EUR million

	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
Credit Risk						
<i>Credit risk instruments</i>						
Nominal	—	13	—	244	—	257
Cash flow hedges						
<i>Interest rate and foreign exchange rate risk</i>						
<i>Interest rate and foreign exchange rate instruments</i>						
Nominal	—	—	353	4,410	207	4,970
<i>Interest rate risk</i>						
<i>Bond Forward instruments</i>						
Nominal	11,626	—	1,792	5,443	—	18,861
Hedges of net investments in foreign operations						
<i>Exchange rate risk</i>						
<i>Exchange and interest rate instruments</i>						
Nominal	2,592	3,838	13,595	3,359	—	23,384
Average BRL/EUR exchange rate	4.590	4.740	4.740	4.880	—	
Average CLP/EUR exchange rate	822.130	822.320	811.640	824.360	—	
Average COP/EUR exchange rate	—	—	3,828.610	—	—	
Average GBP/EUR exchange rate	0.890	0.910	0.940	—	—	
Average MAD/EUR exchange rate	—	10.770	10.870	—	—	
Average MXN/EUR exchange rate	23.490	23.100	23.270	—	—	
Average PLN/EUR exchange rate	4.370	4.380	4.390	—	—	

Other geographies

Consumer Group entities mainly have loans portfolios at fixed interest rates and are therefore, exposed to changes in fair value due to movements in market interest rates. The entities manage this risk by contracting interest rate swaps in which they pay a fixed rate and receive a variable rate. Interest rate risk is the only one hedged and, therefore, other risks, such as credit risk, are managed but not hedged by the entities. The interest rate risk component is determined as the change in fair value of fixed rate loans arising solely from changes in a reference rate. This strategy is designated as a fair value hedge and its effectiveness is assessed by comparing changes in the fair value of loans attributable to changes in reference interest rates with changes in the fair value of interest rate swaps.

In addition, in order to access international markets with the aim of obtaining sources of financing, some Consumer Group's entities issue fixed rate debt in their own currency and in other currencies that differ from their functional currency. Therefore, they are exposed to changes in both interest rates and exchange rates, which they mitigate with derivatives (interest rate swaps, fx forward and cross currency swaps) in which they receive a fixed interest rate and pay a variable interest rate, implemented with a fair value hedge.

The cash flow hedges of the Santander Group's entities hedge the foreign currency risk of loans and financing.

Finally, it has hedges of net investments abroad to hedge the foreign exchange risk of the shareholding in NOK and CNY currencies.

Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México has mainly long-term loan portfolios at fixed interest rates, portfolios of short-term deposits in local currency, portfolios of Mexican Government bonds and corporate bonds in currencies other than the local currency and are therefore exposed to changes in fair value due to movements in market interest rates, as well as these latter portfolios also to variations in exchange rates. The entity manages this risk by contracting derivatives (interest rate swaps or cross currency swaps) in which they pay a fixed rate and receive a variable rate. Only the interest rate and exchange rate risk is hedged, if applicable, and therefore other risks, such as credit risk, are managed but not hedged by the entity.

The interest rate risk component is determined as the change in the fair value of fixed rate loans arising solely from changes in a reference rate. This strategy is designated as a fair value hedge and its effectiveness is assessed by comparing changes in the fair value of loans attributable to changes in benchmark interest rates with changes in the fair value of interest rate swaps.

Regarding cash flow hedges, Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México has a portfolio of unsecured bonds issued at a variable rate in its local currency, which it manages with an Interest Rate Swap in which it receives a variable rate and pays a fixed rate. On the other hand, it also has different items in currencies other than the local currency: unsecured fixed rate bonds, commercial bank loans at variable rates, fixed rate issues, Mexican and Brazilian government bonds at fixed rates. In all these portfolios, the Bank is exposed to exchange rate variations, which it mitigates by contracting cross currency swaps or fx forward.

Banco Santander (Brasil) S.A. has, on the one hand, fixed-rate government bond portfolios and, therefore, they are exposed to changes in fair value due to movements in market interest rates. The entity manages this risk by contracting derivatives (interest rate swaps or futures) in which they pay a fixed rate and receive a variable rate. The interest rate risk is the only one hedged and consequently other risks, such as credit risk, are managed but not hedged by the entity. This strategy is designated as a fair value hedge and its effectiveness is evaluated by comparing by linear regression the changes in the fair value of the bonds with the changes in the fair value of the derivatives.

On the other hand, as part of the fair value hedge strategy, it has corporate loans in different currencies than the local one and is therefore exposed to changes in fair value due to exchange rates. This risk is mitigated by contracting cross currency swaps. Its effectiveness is evaluated by comparing changes in the fair value of loans attributable to changes subject of hedge with changes in the fair value of derivatives.

Finally, it also holds a portfolio of long-term corporate bonds with inflation-indexed rates, thus exposed to changes in market value due to changes in market inflation rates. In order to achieve its mitigation, they contract futures in which they pay the indexed inflation and receive variable interest rates. Its effectiveness is assessed by comparing through lineal regression the changes in the fair value of the bonds to the changes in fair value of the derivatives.

In the hedge of cash flows, Banco Santander (Brasil) S.A. has portfolios of loans and government bonds in different currency than the entity's functional currency and, therefore, it is subject to the risk of changes in currency rates. This exposure will be mitigated by hiring cross currency swaps and futures. Its effectiveness is assessed by comparing changes in fair value of loans and bonds, caused by the hedge risk, to changes in fair value of such derivatives.

Finally, they have a portfolio of variable rate government bonds, so they are exposed to changes in the value due to changes in interest rates. In order to mitigate these changes, a future is hired in which a variable rate is paid and a fixed rate is received. Its effectiveness is assessed by comparing changes in the fair value loans and bonds to changes in the fair value of the futures.

Regarding the hedged items, the products that are being hedged are mainly: borrowed deposits, financial deposits, loans, government bonds as assets and financial bonds as liabilities. The following table shows the detail of the type of hedging, the risk that is hedged and which products are being hedged at 31 December 2021, 2020 and 2019:

EUR million								
31 December 2021								
	Carrying amount of hedged items		Accumulated amount of fair value adjustments on the hedged item		Balance sheet line item	Change in fair value of hedged item for ineffectiveness assessment	Cash flow reserves or conversion reserves	
	Assets	Liabilities	Assets	Liabilities			Continuing hedges	Discontinued hedges
Fair value hedges	193,949	51,395	462	453	Loans and advances / Deposits and Debt securities / Debt securities issued	(1,061)	—	—
Interest rate risk	125,479	47,347	727	366		(543)	—	—
Exchange rate risk	64,531	—	(282)	—		(343)	—	—
Interest and Exchange rate risk	3,714	4,048	15	87		(173)	—	—
Inflation risk	46	—	—	—		—	—	—
Credit risk	179	—	2	—		(2)	—	—
Cash flow hedges					Deposits and loans and advances / Debt securities / Variable income portfolio / Rest of other assets and liabilities	1,538	(414)	(150)
Interest rate risk						400	(540)	(54)
Exchange rate risk						440	81	8
Interest and Exchange rate risk						69	330	—
Inflation risk						628	(289)	(104)
Equity risk						1	4	0
Net foreign investments hedges	3,282	—	—	—	Equity instruments	—	0	3
Exchange rate risk	3,282	—	—	—		—	—	3
	197,231	51,395	462	453		477	(414)	(147)
EUR million								
31 December 2020								
	Carrying amount of hedged items		Accumulated amount of fair value adjustments on the hedged item		Balance sheet line item	Change in fair value of hedged item for ineffectiveness assessment	Cash flow reserves or conversion reserves	
	Assets	Liabilities	Assets	Liabilities			Continuing hedges	Discontinued hedges
Fair value hedges	141,608	52,055	3,369	2,914	Loans and advances / Deposits and Debt securities / Debt securities issued	553	—	—
Interest rate risk	128,279	48,137	3,183	2,727		469	—	—
Exchange rate risk	8,718	—	40	—		(13)	—	—
Interest and Exchange rate risk	4,391	3,918	143	187		100	—	—
Credit risk	220	—	3	—		(3)	—	—
Cash flow hedges					Deposits and loans and advances / Debt securities / Variable income portfolio / Rest of other assets and liabilities	532	420	(43)
Interest rate risk						314	(87)	(11)
Exchange rate risk						204	(68)	—
Interest and Exchange rate risk						(87)	680	—
Inflation risk						105	(111)	(32)
Equity risk						(4)	6	—
Net foreign investments hedges	22,150	—	—	—	Equity instruments	—	(11)	14
Exchange rate risk	22,150	—	—	—		—	(11)	14
	163,758	52,055	3,369	2,914		1,085	409	(29)

EUR million
31 December 2019

	Carrying amount of hedged items		Accumulated amount of fair value adjustments on the hedged item		Balance sheet line item	Change in fair value of hedged item for ineffectiveness assessment	Cash flow reserves or conversion reserves	
	Assets	Liabilities	Assets	Liabilities			Continuing hedges	Discontinued hedges
Fair value hedges	134,958	60,487	2,768	2,298	Loans and advances / Deposits and Debt securities / Debt securities issued	1,583	—	—
Interest rate risk	122,560	55,538	2,764	2,099		1,370	—	—
Exchange rate risk	8,613	—	19	—		58	—	—
Interest and Exchange rate risk	3,532	4,949	(21)	199		154	—	—
Inflation risk	—	—	—	—		(4)	—	—
Credit risk	253	—	6	—		5	—	—
Cash flow hedges					Deposits and loans and advances / Debt securities / Variable income portfolio / Rest of other assets and liabilities	(204)	522	(79)
Interest rate risk						(128)	4	(74)
Exchange rate risk						(32)	130	(4)
Interest and Exchange rate risk						(169)	510	—
Inflation risk						20	(22)	—
Equity risk						7	(2)	(1)
Other risks						98	(98)	—
Net foreign investments hedges	1,070	—	—	—	Equity instruments	—	—	—
Exchange rate risk	1,070	—	—	—		—	—	—
	136,028	60,487	2,768	2,298		1,379	522	(79)

The cumulative amount of adjustments of the fair value hedging instruments that remain in the balance for hedges items that are no longer adjusted by profit and loss of coverage as at 31 December 2021 is EUR 460 million (EUR 729 million in 2020 and EUR 340 million in 2019).

The net impact of the hedges are shown in the following table:

EUR million					
31 December 2021					
	Earnings/ (losses) recognised in another cumulative overall result	Ineffective coverage recognised in the income statement	Line of the income statement that includes the ineffectiveness of cash flows	Reclassified amount of reserves to the income statement due to:	
				Cover transaction affecting the income statement	Line of the income statement that includes reclassified items
Fair value hedges		18	Gains or losses financial assets/liabilities		
Interest rate risk		46			
Exchange rate risk		(55)			
Interest rate and exchange rate risk		27			
Cash flow hedges	(941)	(63)	Gains or losses financial assets/liabilities	(801)	Interest margin/Gains or losses financial assets/liabilities
Interest rate risk	(494)	(33)		269	
Exchange rate risk	155	2		(262)	
Interest rate and exchange rate risk	(350)	(35)		(350)	
Inflation risk	(249)	3		(458)	
Equity risk	(3)	—		—	
	(941)	(45)		(801)	

EUR million					
31 December 2020					
	Earnings/ (losses) recognised in another cumulative overall result	Ineffective coverage recognised in the income statement	Line of the income statement that includes the ineffectiveness of cash flows	Reclassified amount of reserves to the income statement due to:	
				Cover transaction affecting the income statement	Line of the income statement that includes reclassified items
Fair value hedges		104	Gains or losses financial assets/liabilities		
Interest rate risk		9			
Exchange rate risk		1			
Interest rate and exchange rate risk		92			
Credit risk		2			
Cash flow hedges	(67)	(53)	Gains or losses financial assets/liabilities	851	Interest margin/Gains or losses financial assets/liabilities
Interest rate risk	69	7		118	
Exchange rate risk	(194)	9		(132)	
Interest rate and exchange rate risk	170	(62)		844	
Inflation risk	(121)	(7)		21	
Equity risk	9	—		—	
Net foreign investments hedges	3	—	Gains or losses financial assets/liabilities	—	
Exchange rate risk	3	—		—	
	(64)	51		851	

EUR million

31 December 2019

	Earnings/ (losses) recognised in another cumulative overall result	Ineffective coverage recognised in the income statement	Line of the income statement that includes the ineffectiveness of cash flows	Reclassified amount of reserves to the income statement due to:	
				Cover transaction affecting the income statement	Line of the income statement that includes reclassified items
Fair value hedges		58	Gains or losses financial assets/liabilities		
Interest rate risk		5			
Risk of Exchange rate		(3)			
Risk of interest rate and exchange rate		56			
Inflation risks		—			
Cash flow hedges	8	(86)	Gains or losses financial assets/liabilities	(1,112)	Interest margin/Gains or losses financial assets/liabilities
Interest rate risk	(263)	1		8	
Exchange rate risk	145	(34)		(364)	
Interest rate and exchange rate risk	168	(53)		(769)	
Inflation risk	(44)	—		13	
Equity risk	2	—		—	
Net foreign investments hedges	—	—	Gains or losses financial assets/liabilities	—	
Exchange rate risk	—	—		—	
	8	(28)		(1,112)	

The following table shows the movement in the impact of equity for the year:

EUR million	2021	2020	2019
Balance at beginning of year	295	300	277
Cash flow hedges			
Interest rate risk	(494)	67	(264)
Amounts transferred to income statements	(269)	(118)	(8)
Gain or loss in value CFE - recognized in equity	(225)	185	(256)
Exchange rate risk	155	(194)	146
Amounts transferred to income statements	262	132	364
Gain or loss in value CFE - recognized in equity	(107)	(326)	(218)
Interest rate and exchange rate risk	(350)	170	168
Amounts transferred to income statements	350	(844)	769
Gain or loss in value CFE - recognized in equity	(700)	1,014	(601)
Inflation risk	(249)	(121)	(44)
Amounts transferred to income statements	458	(21)	(13)
Gain or loss in value CFE - recognized in equity	(707)	(100)	(31)
Equity risk	(3)	9	2
Amounts transferred to income statements	—	—	—
Gain or loss in value CFE - recognized in equity	(3)	9	2
Net foreign investments hedges			
Exchange rate risk	—	3	—
Amounts transferred to income statements	—	—	—
Gain or loss in value CFE - recognized in equity	—	3	—
Non-controlling interest	92	56	32
Taxes	278	5	(17)
Balance at end of year	(276)	295	300

37. Discontinued operations

No operations were discontinued in 2021, 2020 or 2019.

38. Interest income

Interest and similar income in the consolidated income statement comprises the interest accruing in the year on all financial assets with an implicit or explicit return, calculated by applying the effective interest method, irrespective of measurement at fair value; and the rectifications of income as a result of hedge accounting. Interest is recognised gross, without deducting any tax withheld at source.

The detail of the main interest and similar income items earned in 2021, 2020 and 2019 is as follows:

EUR million	2021	2020	2019
Loans and advances, central banks	476	431	1,314
Loans and advances, credit institutions	916	894	1,785
Debt instruments	5,724	5,022	6,378
Loans and advances, customers	38,649	38,788	46,180
Other interest	698	606	1,128
	46,463	45,741	56,785

Most of the interest and similar income was generated by the Group's financial assets that are measured either at amortised cost or at fair value through Other comprehensive income.

39. Interest expense

Interest expense and similar charges in the consolidated income statement includes the interest accruing in the year on all financial liabilities with an implicit or explicit return, including remuneration in kind, calculated by applying the effective interest method, irrespective of measurement at fair value; the rectifications of cost as a result of hedge accounting; and the interest cost attributable to provisions recorded for pensions.

The detail of the main items of interest expense and similar charges accrued in 2021, 2020 and 2019 is as follows:

EUR million	2021	2020	2019
Central banks deposits	338	366	468
Credit institution deposits	1,140	1,652	2,576
Customer deposits	5,452	5,599	10,137
Debt securities issued and subordinated liabilities	4,838	5,119	6,679
Marketable debt securities	4,190	4,548	6,034
Subordinated liabilities (note 23)	648	571	645
Provisions for pensions (note 25)	91	95	145
Lease Liabilities	125	186	273
Other interest expense	1,109	730	1,224
	13,093	13,747	21,502

Most of the interest expense and similar charges was generated by the Group's financial liabilities that are measured at amortised cost.

40. Dividend income

Dividend income includes the dividends and payments on equity instruments out of profits generated by investees after the acquisition of the equity interest.

The detail of Income from dividends as follows:

EUR million	2021	2020	2019
Dividend income classified as:			
Financial assets held for trading	369	272	388
Non-trading financial assets mandatorily at fair value through profit or loss	32	31	34
Financial assets at fair value through other comprehensive income	112	88	111
	513	391	533

41. Commission income

Commission income comprises the amount of all fees and commissions accruing in favour of the Group in the year, except those that form an integral part of the effective interest rate on financial instruments.

The detail of fee and commission income is as follows:

EUR million	2021	2020	2019
Coming from collection and payment services			
Bills	214	265	328
Demand accounts	1,408	1,284	1,382
Cards	3,138	2,986	3,858
Orders	503	484	478
Cheques and other	139	110	155
	5,402	5,129	6,201
Coming from non-banking financial products			
Investment funds	992	888	943
Pension funds	161	170	180
Insurance	2,467	2,289	2,631
	3,620	3,347	3,754
Coming from Securities services			
Securities underwriting and placement	431	394	364
Securities trading	319	316	281
Administration and custody	402	336	485
Asset management	369	316	293
	1,521	1,362	1,423
Other			
Foreign exchange	522	500	612
Financial guarantees	415	409	521
Commitment fees	442	366	293
Other fees and commissions	1,890	1,911	2,545
	3,269	3,186	3,971
	13,812	13,024	15,349

42. Commission expense

Commission expense shows the amount of all fees and commissions paid or payable by the Group in the year, except those that form an integral part of the effective interest rate on financial instruments.

The detail of commission expense is as follows:

EUR million	2021	2020	2019
Commissions assigned to third parties	1,993	1,856	2,350
Cards	1,355	1,249	1,616
By collection and return of effects	16	12	12
Other fees assigned	622	595	722
Other commissions paid	1,317	1,153	1,220
Brokerage fees on lending and deposit transactions	60	26	27
Sales of insurance and pension funds	341	248	232
Other fees and commissions	916	879	961
	3,310	3,009	3,570

43. Gains or losses on financial assets and liabilities

The following information is presented below regarding the gains or losses recorded for financial assets or liabilities:

a) Breakdown

The detail, by origin, of Gains/losses on financial assets and liabilities:

EUR million	2021	2020	2019
Gains or losses on financial assets and liabilities not measured at fair value through profit or loss, net	628	1,107	1,136
Financial assets at amortized cost	89	(31)	308
Other financial assets and liabilities	539	1,138	828
<i>Of which debt instruments</i>	<i>567</i>	<i>1,179</i>	<i>804</i>
Gains or losses on financial assets and liabilities held for trading, net*	1,141	3,211	1,349
Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss	132	82	292
Gains or losses on financial assets and liabilities measured at fair value through profit or loss, net*	270	(171)	(286)
Gains or losses from hedge accounting, net	(46)	51	(28)
	2,125	4,280	2,463

* Includes the net result obtained by transactions with debt securities, equity instruments, derivatives and short positions included in this portfolio when the Group jointly manages its risk in these instruments.

As explained in note 44, the above breakdown should be analysed in conjunction with the 'Exchange differences, net':

EUR million

	2021	2020	2019
Exchange differences, net	(562)	(2,093)	(932)

b) Financial assets and liabilities at fair value through profit or loss

The detail of the amount of the asset balances is as follows:

EUR million

	2021	2020	2019
Loans and receivables:	34,812	46,589	59,624
Central banks	3,608	9,481	6,473
Credit institutions	13,549	12,139	21,649
Customers	17,655	24,969	31,502
Debt instruments	30,223	41,573	36,402
Equity instruments	19,119	12,849	15,787
Derivatives	54,292	67,137	63,397
	138,446	168,148	175,210

Grupo Santander mitigates and reduces this exposure as follows:

- With respect to derivatives, the Group has entered into framework agreements with a large number of credit institutions and customers for the netting-off of asset positions and the provision of collateral for non-payment.

At 31 December 2021 the exposure to credit risk of the derivatives presented in the balance sheet is not significant because they are subject to netting and collateral agreements (see note 2.f).

- Loans and advances to credit institutions and Loans and advances includes reverse repos amounting to EUR 26,060 million at 31 December 2021.

Also, mortgage-backed assets totalled EUR 1,299 million.

- Debt instruments include EUR 24,117 million of Spanish and foreign government securities.

At 31 December 2021 the amount of the change in the year in the fair value of financial assets at fair value through profit or loss attributable to variations in their credit risk (spread) was not material.

The detail of the amount of the liability balances is as follows:

EUR million

	2021	2020	2019
Deposits	40,946	43,598	57,111
Central banks	1,645	2,490	12,854
Credit institutions	7,552	6,765	9,340
Customer	31,749	34,343	34,917
Marketable debt securities	5,454	4,440	3,758
Short positions	12,236	16,698	14,123
Derivatives	53,566	64,469	63,016
Other financial liabilities	—	—	126
	112,202	129,205	138,134

At 31 December 2021, the amount of the change in the fair value of financial liabilities at fair value through profit or loss attributable to changes in their credit risk during the year is not material.

In relation to liabilities designated at fair value through profit or loss where it has been determined at initial recognition that the credit risk is recorded in accumulated 'Other comprehensive income' (see 'Statement of recognised income and expense') the amount that the Group would be contractually obliged to pay on maturity of these liabilities at 31 December 2021 is EUR 81 million lower than their carrying amount (EUR 119 million at 31 December 2020 and EUR 26 million at 31 December 2019).

Within Deposits, there are repurchase agreements amounting to EUR 14,057 million at 31 December 2021.

44. Exchange differences, net

Exchange differences shows basically the gains or losses on currency dealings, the differences that arise on translations of monetary items in foreign currencies to the functional currency.

Grupo Santander manages the currencies to which it is exposed together with the arrangement of derivative instruments and, accordingly, the changes in this line item should be analysed together with those recognised under 'Gains/losses on financial assets and liabilities' (see note 43).

45. Other operating income and expenses

Other operating income and Other operating expenses in the consolidated income statements include:

EUR million	2021	2020	2019
Insurance activity	211	210	120
Income from insurance and reinsurance contracts issued	1,516	1,452	2,534
Of which:			
Insurance and reinsurance premium income	1,381	1,349	2,404
Reinsurance income (note 15)	135	103	130
Expenses of insurance and reinsurance contracts	(1,305)	(1,242)	(2,414)
Of which:			
Claims paid, other insurance-related expenses and net provisions for insurance contract liabilities	(1,097)	(1,063)	(2,183)
Reinsurance premiums paid	(208)	(179)	(231)
Other operating income	2,255	1,920	1,797
Non-financial services	291	362	379
Other operating income	1,964	1,558	1,418
Other operating expense	(2,442)	(2,342)	(2,138)
Non-financial services	(283)	(350)	(351)
Other operating expense:	(2,159)	(1,992)	(1,787)
Of which, credit institutions deposit guarantee fund and single resolution fund	(1,016)	(1,005)	(911)
	24	(212)	(221)

Most of Banco Santander's insurance activity is carried on in life insurance.

The amount of the Group recognises in relation to income from sub-leases of rights of use is not material.

46. Staff costs

a) Breakdown

The detail of Staff costs is as follows:

EUR million	2021	2020	2019
Wages and salaries	8,466	8,070	8,987
Social Security costs	1,323	1,277	1,426
Additions to provisions for defined benefit pension plans (note 25)	73	76	72
Contributions to defined contribution pension funds	286	283	292
Other Staff costs	1,068	1,077	1,364
	11,216	10,783	12,141

b) Headcount

The average number of employees in the Group and Banco Santander, S.A., by professional category, was as follows:

Average number of employees	2021	2020	2019
Banco Santander, S.A.	24,512	27,503	30,009
Executive directors and Senior management	19	21	20
Other line personnel	23,343	26,527	29,147
Branches abroad	1,150	955	842
Rest of Spain	10,348	8,878	8,269
Santander UK plc	15,463	16,790	17,961
Santander Brasil	46,269	44,554	47,253
Other companies*	95,913	96,166	97,622
	192,505	193,891	201,114

* Does not include staff affected by discontinued operations.

The number of employees, at the end of 2021, 2020 and 2019, was 197,070, 191,189 and 196,419, respectively.

The functional breakdown (final employment), by gender, at 31 December 2021 is as follows:

FUNCTIONAL BREAKDOWN BY GENDER

	Senior executives		Other executives		Other personnel	
	Men	Women	Men	Women	Men	Women
Europe	1,039	390	6,865	3,926	29,934	37,773
North America	223	60	1,181	583	18,299	23,226
South America	318	115	2,955	1,934	29,137	39,112
	1,580	565	11,001	6,443	77,370	100,111

The same information, expressed in percentage terms at 31 December 2021 is as follows:

Functional breakdown by gender

	Senior executives		Other executives		Other personnel	
	Men	Women	Men	Women	Men	Women
Europe	73%	27%	64%	36%	44%	56%
North America	79%	21%	67%	33%	44%	56%
South America	73%	27%	60%	40%	43%	57%
	74%	26%	63%	37%	44%	56%

The labour relations between employees and the various Group companies are governed by the related collective agreements or similar regulations.

The number of employees in the Group with disabilities, distributed by professional categories, at 31 December 2021, is as follows:

Number of employees*

	2021
Senior management	10
Management	115
Collaborators	3,578
	3,703

* An employee with disabilities is considered to be a person who is recognised by the State or the company in each jurisdiction where the Group operates and that entitles them to receive direct monetary assistance, or other types of aid such as, for example, reduction of their taxes. In the case of Spain, employees with disabilities have been considered to be those with a degree of disabilities greater than or equal to 33%.

The number of Group employees with disabilities at 2020 and 2019, was 3,577 and 3,584, respectively.

Likewise, the average number of employees of Banco Santander, S.A. with disabilities, equal to or greater than 33%, during 2021 was 288 (319 and 318 employees during 2020 and 2019). At the end of fiscal year 2021, there were 307 employees (317 and 295 employees at 31 December, 2020 and 2019, respectively).

c) Share-based payments

The main share-based payments granted by the Group in force at 31 December, 2021, 2020 and 2019 are described below.

i. Bank

The variable remuneration policy for the Bank's executive directors and certain executive personnel of the Bank and of other Group companies includes Bank share-based payments, the implementation of which requires, in conformity with the law and the Bank's Bylaws, specific resolutions to be adopted by the general meeting.

Were it necessary or advisable for legal, regulatory or other similar reasons, the delivery mechanisms described below may be adapted in specific cases without altering the maximum number of shares linked to the plan or the essential conditions to which the delivery thereof is subject.

These adaptations may involve replacing the delivery of shares with the delivery of cash amounts of an equal value.

The plans that include share-based payments are as follows:

(i) Deferred and Conditional Variable Remuneration Plan; (ii) Deferred Multiyear Objectives Variable Remuneration Plan; (iii) Digital Transformation Award. The characteristics of the plans are set forth below:

Deferred variable remuneration systems

(i) Deferred and conditional variable remuneration plan (2015, 2016, 2017, 2018, 2019, 2020 and 2021)	Description and plan beneficiaries	Conditions	Calculation Base
	The purpose of these cycles is to defer a portion of the variable remuneration of the beneficiaries over a period of three years for the sixth cycles, and over three or five years for the fifth, seventh, eighth, ninth, tenth and eleventh cycles, for it to be paid, where appropriate, in cash and in Santander shares; the other portion of the variable remuneration is also to be paid in cash and Santander shares, upon commencement of the cycles, in accordance with the rules set forth below. Beneficiaries: - Executive directors and certain executives (including senior management) and employees who assume risk, who perform control functions or receive an overall remuneration which puts them on the same remuneration level as senior executives and employees who assume risks (fifth cycle) - In the case of the sixth, seventh, eighth, ninth, tenth and eleventh cycle, the beneficiaries are Material Risk Takers (Identified staff) that are not beneficiaries of the Deferred Multiyear Objectives Variable Remuneration Plan.	For the fifth and sixth cycles (2015 to 2016), the accrual of deferred compensation is conditioned, in addition to the requirement that the beneficiary remains in the Group's employ, with the exceptions included in the plan regulations upon none of the following circumstances existing during the period prior to each of the deliveries, pursuant to the provisions set forth in each case in the plan regulations: - Poor financial performance of the Group. - breach by the beneficiary of internal regulations, including, in particular, those relating to risks. - material restatement of the Group's consolidated financial statements, except when it is required pursuant to a change in accounting standards. - Significant changes in the Group's economic capital or risk profile In the case of the seventh, eighth, ninth, tenth and eleventh cycles (2017 to 2021), the accrual of deferred compensation is conditioned, in addition to the permanence of the beneficiary in the Group, with the exceptions contained in the plan's regulations, to no assumptions in which there is a poor performance of the entity as a whole or of a specific division or area of the entity or of the exposures generated by the personnel, and at least the following factors must be considered: - significant failures in risk management committed by the entity, or by a business unit or risk control unit. - 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. - Regulatory sanctions or judicial sentences for 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. - Irregular behaviours, whether individual or collective, considering in particular the negative effects derived from the marketing of inappropriate products and the responsibilities of the persons or bodies that made those decisions.	Fifth cycles (2015): - Executive directors and members of the Identified Staff with total variable remuneration higher than 2.6 million euros: 40% paid immediately and 60% deferred over 3 years (fourth cycle) or 5 years (fifth cycle). - Division managers, country heads, other executives of the Group with a similar profile and members of the Identified Staff with total variable remuneration between 1.7 million euros (1.8 million in fourth cycle) and 2.6 million euros: 50% paid immediately and 50% deferred over 3 years (fourth cycle) or 5 years (fifth cycle) - Other beneficiaries: 60% paid immediately and 40% deferred over 3 years. Sixth cycle (2016): 60% of bonus will be paid immediately and 40% deferred over a three years period. Seventh, eighth, ninth, tenth and eleventh cycle (2017, 2018, 2019, 2020 and 2021): - Beneficiaries of these plans with target total variable remuneration higher or equal to 2.7 million euros: 40% paid immediately and 60% deferred over 5 years - Beneficiaries of these plans with target total variable remuneration between 1.7 million euros and 2.7 million euros: 50% paid immediately and 50% paid over 5 years - Other beneficiaries of these plans: 60% paid immediately and 40% deferred over 3 years.

Deferred
variable
remuneration
systems

(ii)Deferred Multiyear Objectives Variable Remuneration Plan (2016, 2017, 2018, 2019, 2020 and 2021)	Description and plan beneficiaries	Conditions	Calculation Base
	The aim is simplifying the remuneration structure, improving the ex ante risk adjustment and increasing the impact of the long-term objectives on the Group's most relevant roles. The purpose of these cycles is to defer a portion of the variable remuneration of the beneficiaries over a period of three or five years, for it to be paid, where appropriate, in cash and in Santander shares; the other portion of the variable remuneration is also to be paid in cash and Santander shares, upon commencement of the cycles, in accordance with the rules set forth below. The accrual of the last third of the deferral (in the case of 3 years deferral) of the last three fifths (in the case of 5 years deferral) is also subject to long-term objectives. Beneficiaries Executive directors, senior managers and certain executives of the Group's first lines of responsibility.	In 2016 the accrual is conditioned, in addition to the permanence of the beneficiary in the Group, with the exceptions contained in the plan's regulations that none of the following circumstances during the period prior to each of the deliveries in the terms set forth in each case in the plan's regulations: - Poor performance of the Group. - breach by the beneficiary of the internal regulations, including in particular that relating to risks. - material restatement of the Group's consolidated financial statements, except when appropriate under a change in accounting regulations. - Significant changes in the Group's economic capital or risk profile. In 2017, 2018, 2019, 2020 and 2021 the accrual is conditioned, in addition to the beneficiary permanence in the Group, with the exceptions contained in the plan's regulations, to the non-occurrence of instances of poor financial performance from the entity as a whole or of a specific division or area thereof or of the exposures generated by the personnel, at least the following factors must be considered: - Significant failures in risk management committed by the entity, or by a business unit or risk control unit. - 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. - Regulatory sanctions or court rulings for 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. - Irregular behaviours, whether individual or collective, considering in particular negative effects derived from the marketing of inappropriate products and responsibilities of persons or bodies that made those decisions. Paid half in cash and half in shares. The maximum number of shares to be delivered is calculated by taking into account the weighted average daily volume of weighted average prices for the fifteen trading sessions prior to the previous Friday (excluding) on the date on which the board decides the bonus for the Executive directors of the Bank.	First cycle (2016): - Executive directors and members of the Identified Staff with total variable remuneration higher than or equal to 2.7 million euros: 40% paid immediately and 60% deferred over a 5 years period. - Senior managers, country heads of countries representing at least 1% of the Group's capital and other members of the identified staff whose total variable remuneration is between 1.7 million and 2.7 million euros: 50% paid immediately and 50% deferred over a 5 years period. - Other beneficiaries: 60% paid immediately and 40% deferred over a 3 years period. The second, third, fourth, fifth and sixth cycles (2017, 2018, 2019, 2020 and 2021 respectively) are under the aforementioned deferral rules, except that the variable remuneration considered is the target for each executive and not the actual award. In 2016 the metrics for the deferred portion subject to long-term objectives (last third or last three fifths, respectively, for the cases of three years and five years deferrals) are: - Earnings per share (EPS) growth in 2018 over 2015. - Relative Total Shareholder Return (TSR) in the 2016-2018 period measured against a group of credit institutions. - Compliance with the fully-loaded common equity tier 1 ("CET1") ratio target for financial year 2018. - Compliance with Santander Group's underlying return on risk-weighted assets ("RoRWA") growth target for financial year 2018 compared to financial year 2015. In the second, third, fourth fifth and sixth cycle (2017, 2018, 2019, 2020 and 2021) the metrics for the deferred portion subject to long-term objectives (last third or last three fifths, respectively, for the cases of three years and five years deferrals) are: - EPS growth in 2019, 2020, 2021, 2022 and 2023 (over 2016, 2017, 2018, 2019 and 2020, for each respective cycle) - Relative Total Shareholder Return (TSR) measured against a group of 17 credit institutions (second and third cycles) in the periods 2017-2019 and 2018-2019, respectively, and against a group of 9 entities (fourth, fifth and sixth cycle) for the 2019-2021, 2020-2022 and 2010-2023 period. - Compliance with the fully-loaded common equity tier 1 ("CET1") ratio target for financial years 2019, 2020, 2021, 2022 and 2023, respectively.

Deferred variable remuneration systems

Description and plan beneficiaries	Conditions	Calculation Base
(iii) Digital Transformation Award (2019, 2020 and 2021) The 2019, 2020 and 2021 Digital Transformation Incentive (the "Digital Incentive") is a variable remuneration system that includes the delivery of Santander shares and share options. The aim of the Digital Incentive is to attract and retain the critical skill sets to support and accelerate the digital transformation of the Group. By means of this program, the Group offers a remuneration element which is competitive with the remuneration systems offered by other market operators who also compete for digital talent. The number of beneficiaries is limited to a maximum of 250 employees and the total amount of the incentive is limited to 30 million euros.	The funding of this incentive is subject to meeting important milestones that are aligned with the Group's digital roadmap and have been approved by the board of directors, taking into account the digitalization strategy of the Group, with the aim of becoming the best open, responsible global financial services platform. Performance of incentive shall be measured based on achievement of the following milestones: 1. Launch of a Global Trade Services (GTS) platform. 2. Launch of a Global Merchant Services (GMS) platform. 3. Migration of our fully digital bank, OpenBank, to a "next generation" platform and launch in 3 markets. 4. Extension of SuperDigital in Brazil to at least one other country. 5. Launch of our international payments app based on blockchain Pago FX to non-Santander customers. The milestones for the 2020 Digital Transformation Award were: (i) rolling out the global merchant services (GMS) platform in 3 new geographies, enhancing the platform functionality and achieving volume targets for transactions and participating merchants; (ii) doing the commercial rollout of the global trade services (GTS) platform in 8 new geographies, enhancing platform functionality, and achieving volume targets for on-boarded clients and monthly active users; (iii) launching OpenBank in a new market and migrating the retail banking infrastructure to "new-mode" bank; (iv) launch the global platform SuperDigital in at least 4 countries, driving target active user growth; (v) deploying machine learning across pre-defined markets for 4 priority use cases, rolling out Conversion Rate Optimization (Digital marketing) for at least 40 sales programs, delivering profit targets, and driving reduction of agent handled calls in contact centers; (vi) successfully implementing initiatives related to on-board and identity services, common API (application programming interface) layer, payment hubs, mobile app for SMEs and virtual assistant services; and (vii) launching the PagoFX global platform in at least 4 countries. The milestones for 2021 are: (i) in relation to Pago Nxt Consumer payment platform: implementation of Superdigital platform in seven countries, acquisition of over 1.5 million active customer base and accelerating growth through B2B (business to business) and B2B2C (business to business to customer) partnerships, acquiring more than 50% of the new customers through these channels, which are more cost-effective; (ii) in relation to Digital Consumer Bank: launching online API for checkout lending in the European Union and completion of controllable items for Openbank launch in USA; (iii) in relation to One Santander strategy: implementation in Europe of One Common Mobile Experience and, specifically, implementation of Europe ONE app for individual customers in at least three of the four countries by December 2021; and be among the three-top rated entities in terms of Mobile NetPromoter Score (Mobile NPS) in at least two of the four countries by December 2021; (iv) In relation to cloud adoption: host 75% of migratable virtual machines on cloud technology (either public cloud or OHE) by December 2021. For these purposes, mainframes, physical servers and servers with non-x86 operating systems will be considered non-migratable.	The Digital Incentive is structured 50% in Santander shares and 50% in options over Santander shares, taking into account the fair value of the option at the moment in which they are granted. For Material Risk Takers subject to five years deferrals, the Digital Incentive (shares and options over shares) shall be delivered in thirds, on the third, fourth and fifth anniversary from their granting. For Material Risk Takers subject to three years deferrals and employees not subject to deferrals, delivery shall be done on the third anniversary from their granting. Any delivery of shares, either directly or via exercise of options over shares, will be subject generally to the Group's general <i>malus & clawback</i> provisions as described in the Group's remuneration policy and to the continuity of the beneficiary within the Santander Group. In this regard, the board may define specific rules for non-Identified Staff. Vested share options can be exercised until maturity, with all options lapsing after ten years (for granting the 2019 incentive) and eight years (for granting the 2020 and 2021 incentive). The total achievement for 2021 Digital Incentive was 77.5% (85% en 2020 and 83% en 2019).

ii. Santander UK plc

The long-term incentive plans on shares of the Bank granted by management of Santander UK plc to its employees are as follows:

	Number of shares (in thousand)	Exercise price in pounds sterling*	Year granted	Employee group	Number of persons**	Date of commencement of exercise period	Date of expiry of exercise period
Plans outstanding at 01/01/2019	26,838						
Options granted (sharesave)	9,594	2.83	2019	Employees	5,606	01/11/19	01/11/22
						01/11/19	01/11/24
Options exercised	(7,978)	2.83					
Options cancelled (net) or not exercised	(5,081)	3.42					
Plans outstanding at 31/12/2019	23,373						
Options granted (sharesave)	11,642	1.65	2020	Employees	5,012	01/11/20	01/11/23
						01/11/20	01/11/25
Options exercised	(860)	2.75					
Options cancelled (net) or not exercised	(12,993)	2.96					
Plans outstanding at 31/12/2020	21,162						
Options granted (sharesave)	9,414	2.43	2021	Employees	4,142	11/01/21	11/01/24
						11/01/21	11/01/26
Options exercised	(48)	1.86					
Options cancelled (net) or not exercised	(4,592)	2.95					
Plans outstanding at 31/12/2021	25,936						

* At 31 December, 2021, 2020 and 2019, the euro/pound sterling exchange rate was EUR 1.1904 GBP 1, EUR 1.1168 GBP 1; EUR 1.1754 GBP 1, respectively.

** Number of accounts/contracts. A single employee may have more than one account/contract.

In 2008 the Group launched a voluntary savings scheme for Santander UK employees (Sharesave Scheme) whereby employees who join the scheme see deducted between GBP 5 and GBP 500 from their net monthly pay over a period of three or five years. At the end of the chosen period, the employee may choose between collecting the amount contributed, the interest accrued and a bonus (tax-exempt in the United Kingdom) or exercising options on shares of the Bank in an amount equal to the sum of such three amounts at a fixed price. The exercise price will be the result of reducing by up to 20% the average purchase and sale prices of the Bank shares in the three trading sessions prior to the approval of the scheme by the UK tax authorities (HMRC). This approval must be received within 21 to 41 days following the publication of the Group's results for the first half of the year. This scheme was approved by the Board of Directors, at the proposal of the appointments and remuneration committee, and, since it involved the delivery of Bank shares, its application was authorized by the Annual General Meeting held on June 21, 2008. Also, the scheme was authorized by the UK tax authorities (HMRC) and commenced in September 2008. In subsequent years, at the Annual General Meetings held on June 19, 2009, June 11, 2010, June 17, 2011, March 30, 2012, March 22, 2013, March 28, 2014, March 27, 2015, March 18, 2016, April 7, 2017, March 23, 2018, April 12, 2019, April 3, 2020 and March 26, 2021, respectively, the shareholders approved the application of schemes previously approved by the board and with similar features to the scheme approved in 2008.

iii. Fair value

The fair value of the performance share plans was calculated as follows:

a) Deferred variable compensation plan linked to multi-year objectives 2019, 2020 and 2021:

The Group calculates at the grant date the fair value of the plan based on the valuation report of an independent expert, Willis Towers Watson. According to the design of the plan for 2019, 2020 and 2021 and the levels of achievement of similar plans in comparable entities, the expert concludes that the reasonable range for estimating the initial achievement ratio is around 60%-80%. It has been considered that the fair value is 70% of the maximum.

b) Santander UK sharesave plans:

The fair value of each option at the date of grant is estimated using an analytical model that also reflects the correlation between EUR and GBP. This model uses assumptions on the share price, the EUR/GBP FX rate, the EUR/GBP risk-free interest rate, dividend yields, the expected volatilities of both the underlying shares and EUR/GBP for the expected lives of options granted. The weighted average grant-date fair value of options granted during the year was GBP 0.20 (GBP 0.21 and GBP 0.49 reported in 2020 and 2019, respectively).

47. Other general administrative expenses

a) Breakdown

The detail of Other general administrative expenses is as follows:

EUR million	2021	2020	2019
Technology and systems	2,182	2,119	2,161
Property, fixtures and supplies (note 2.k)	789	827	975
Technical reports	689	672	677
Taxes other than income tax	558	537	522
Advertising	510	523	685
Communications	401	473	518
Surveillance and cash courier services	306	325	416
Insurance premiums	109	88	86
Per diems and travel expenses	69	73	226
Other administrative expenses	1,830	1,900	1,872
	7,443	7,537	8,138

The payments associated with short-term leases (leases less than or equal to 12 months) and leases of low-value assets, that the Group recognises as an expense in the income statement is not material.

b) Technical reports and other

Technical reports includes the fees paid by the various Group companies (detailed in the accompanying appendices) for the services provided by their respective auditors, the detail being as follows:

EUR million	2021	2020	2019
Audit fees	103.7	99.4	102.4
Audit-related fees	6.0	6	7.8
Tax fees	0.7	0.8	0.7
All other fees	2.4	1.2	2.3
Total	112.8	107.4	113.2

The 'Audit fees' heading includes mainly, audit fees for the Banco Santander, S.A. individual and consolidated financial statements, of the companies forming part of the Group, the integrated audits prepared for the annual report filling in the Form 20-F required by the U.S. Securities and Exchange Commission (SEC) for those entities currently required to do so, the internal control audit (SOx) for those required entities, the limited review of the financial statements and the regulatory reports required by the auditor corresponding to the different locations of Grupo Santander.

The main concepts included in 'Audit-related fees' correspond to aspects such as the issuance of Comfort letters, or other reviews required by different regulations in relation to aspects such as, for example, Securitization.

The services commissioned from the Group's auditors meet the independence requirements stipulated by the Audit Law, the US SEC rules and the Public Company Accounting Oversight Board (PCAOB), applicable to the Group, and they did not involve in any case the performance of any work that is incompatible with the audit function.

Lastly, the Group commissioned services from audit firms other than PwC amounting to EUR 263.8 million in 2021 (EUR 172.4 million and EUR 227.6 million in 2020 and 2019, respectively).

The Audit fees and Audit-related fees caption includes the fees corresponding to the audit for the year, regardless of the date on which the audit was completed. In the event of subsequent adjustments, which are not significant in any case, and for purposes of comparison, they are presented in this note in the year to which the audit relates. The rest of the services are presented according to their approval by the Audit Committee.

c) Number of branches

The number of offices at 31 December 2021, 2020 and 2019 is as follows:

Number of branches	Group		
	2021	2020	2019
Spain	1,998	2,989	3,286
Group	7,881	8,247	8,666
	9,879	11,236	11,952

48. Gains or losses on non financial assets, net

The detail of Gains/ (losses) on disposal of assets not classified as non-current assets held for sale is as follows:

EUR million	2021	2020	2019
Gains			
Tangible and intangible assets	87	89	131
Investments	2	60	1,219
Of which:			
Custody Business (note 3)	—	—	989
Prisma	—	—	194
	89	149	1,350
Losses			
Tangible and intangible assets	(36)	(34)	(55)
Investments	—	(1)	(4)
	(36)	(35)	(59)
	53	114	1,291

49. Gains or losses on non-current assets held for sale not classified as discontinued operations

The detail of Gains/(losses) on non-current assets held for sale not classified as discontinued operations is as follows:

EUR million	2021	2020	2019
Net balance			
Tangible assets	(52)	(171)	(232)
Impairment	(141)	(215)	(146)
Gain (loss) on sale	89	44	(86)
Other gains and other losses	9	—	—
	(43)	(171)	(232)

50. Other disclosures

a) Residual maturity periods

The detail, by maturity, of the balances of certain items in the consolidated balance sheet at 31 December 2021, 2020 and 2019 is presented below:

	31 December 2021							
	EUR million							
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Assets								
Cash, cash balances at Central Banks and other deposits on demand	210,689	—	—	—	—	—	—	210,689
Financial assets at fair value through other comprehensive income	—	10,378	9,507	10,447	20,001	17,745	37,507	105,585
Debt instruments	—	10,352	9,246	9,609	19,133	16,494	33,088	97,922
Loans and advances	—	26	261	838	868	1,251	4,419	7,663
Customers	—	26	261	838	868	1,251	4,419	7,663
Financial assets at amortized cost	35,520	89,819	72,018	121,272	154,345	130,456	434,468	1,037,898
Debt instruments	—	2,229	1,983	4,171	2,205	15,388	9,732	35,708
Loans and advances	35,520	87,590	70,035	117,101	152,140	115,068	424,736	1,002,190
Central banks	—	14,544	—	—	—	—	1,113	15,657
Credits institutions	11,849	11,042	9,760	4,542	93	150	1,733	39,169
Customers	23,671	62,004	60,275	112,559	152,047	114,918	421,890	947,364
	246,209	100,197	81,525	131,719	174,346	148,201	471,975	1,354,172
Liabilities								
Financial liabilities at amortized cost	718,435	98,928	70,085	99,223	194,879	98,210	69,409	1,349,169
Deposits	711,377	81,269	45,687	64,096	117,585	52,658	5,915	1,078,587
Central banks	92	4,657	1,204	2,130	91,651	40,013	10	139,757
Credit institutions	12,854	3,493	12,715	12,507	4,712	1,981	3,973	52,235
Customer deposits	698,431	73,119	31,768	49,459	21,222	10,664	1,932	886,595
Marketable debt securities* **	—	13,599	17,951	29,798	71,333	45,198	62,830	240,709
Other financial liabilities	7,058	4,060	6,447	5,329	5,961	354	664	29,873
	718,435	98,928	70,085	99,223	194,879	98,210	69,409	1,349,169
Difference (assets less liabilities)	(472,226)	1,269	11,440	32,496	(20,533)	49,991	402,566	5,003

* Includes promissory notes, certificates of deposit and other short-term debt issues.

** See breakdown by type of debt (subordinated debt, senior unsecured debt, senior secured debt, notes and other securities) (see note 22).

Grupo Santander has accounted as "On demand", those financial liabilities assumed, in which the counterparty may require the payments.

In addition, when Grupo Santander is committed to have amounts available in different maturity periods, these amounts have been accounted for in the first year, in which they may be required.

Additionally, for issued financial guarantee contracts, the Group has recorded the maximum amount of the financial guarantee issued, in the first year in which the guarantee could be executed.

31 December 2020

	EUR million							
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Assets								
Cash, cash balances at Central Banks and other deposits on demand	153,839	—	—	—	—	—	—	153,839
Financial assets at fair value through other comprehensive income	—	6,664	4,420	7,738	19,923	21,302	58,123	118,170
Debt instruments	—	6,664	4,244	7,019	18,365	19,969	52,642	108,903
Loans and advances	—	—	176	719	1,558	1,333	5,481	9,267
Customers	—	—	176	719	1,558	1,333	5,481	9,267
Financial assets at amortized cost	51,513	57,047	60,288	109,561	150,399	120,376	409,194	958,378
Debt instruments	—	2,857	1,327	5,760	3,059	5,257	7,818	26,078
Loans and advances	51,513	54,190	58,961	103,801	147,340	115,119	401,376	932,300
Central banks	—	10,762	—	—	673	—	1,064	12,499
Credits institutions	21,337	4,405	4,545	3,910	3,207	34	400	37,838
Customers	30,176	39,023	54,416	99,891	143,460	115,085	399,912	881,963
	205,352	63,711	64,708	117,299	170,322	141,678	467,317	1,230,387
Liabilities								
Financial liabilities at amortized cost	640,613	84,875	90,394	93,296	175,238	80,041	83,731	1,248,188
Deposits	632,305	64,630	67,707	61,142	109,856	32,464	22,287	990,391
Central banks	150	5,204	5,295	3,216	83,112	15,827	—	112,804
Credit institutions	14,370	7,158	15,227	9,940	5,618	5,934	4,373	62,620
Customer deposits	617,785	52,268	47,185	47,986	21,126	10,703	17,914	814,967
Marketable debt securities*	—	14,981	18,276	30,994	59,526	47,143	59,909	230,829
Other financial liabilities	8,308	5,264	4,411	1,160	5,856	434	1,535	26,968
	640,613	84,875	90,394	93,296	175,238	80,041	83,731	1,248,188
Difference (assets less liabilities)	(435,261)	(21,164)	(25,686)	24,003	(4,916)	61,637	383,586	(17,801)

* Includes promissory notes, certificates of deposit and other short-term debt issues.

31 December 2019

	EUR million							
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Assets								
Cash, cash balances at Central Banks and other deposits on demand	101,067	—	—	—	—	—	—	101,067
Financial assets at fair value through other comprehensive income	—	6,933	2,704	7,689	19,101	17,989	68,429	122,845
Debt instruments	—	6,879	2,699	7,554	17,489	17,063	66,721	118,405
Loans and advances	—	54	5	135	1,612	926	1,708	4,440
Customers	—	54	5	135	1,612	926	1,708	4,440
Financial assets at amortized cost	51,702	73,890	76,229	116,511	150,365	103,584	423,201	995,482
Debt instruments	—	1,563	1,847	3,073	2,549	3,642	17,115	29,789
Loans and advances	51,702	72,327	74,382	113,438	147,816	99,942	406,086	965,693
Central banks	—	17,086	—	—	—	—	1,388	18,474
Credit institutions	17,665	6,223	4,602	7,435	3,963	428	627	40,943
Customers	34,037	49,018	69,780	106,003	143,853	99,514	404,071	906,276
	152,769	80,823	78,933	124,200	169,466	121,573	491,630	1,219,394
Liabilities								
Financial liabilities at amortized cost	619,003	99,203	88,546	159,120	134,799	61,282	68,792	1,230,745
Deposits	607,051	76,101	61,627	111,190	64,781	14,224	7,443	942,417
Central banks	99	462	64	33,229	28,424	190	—	62,468
Credit institutions	23,526	14,494	18,922	14,245	9,327	5,668	4,319	90,501
Customer deposits	583,426	61,145	42,641	63,716	27,030	8,366	3,124	789,448
Marketable debt securities*	—	16,008	22,569	47,808	65,545	46,577	59,712	258,219
Other financial liabilities	11,952	7,094	4,350	122	4,473	481	1,637	30,109
	619,003	99,203	88,546	159,120	134,799	61,282	68,792	1,230,745
Difference (assets less liabilities)	(466,234)	(18,380)	(9,613)	(34,920)	34,667	60,291	422,838	(11,351)

* Includes promissory notes, certificates of deposit and other short-term debt issues.

The detail of the undiscounted contractual maturities of the existing financial liabilities at amortised cost at 31 December 2021, 2020 and 2019 is as follows:

31 December 2021								
EUR million								
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Financial liabilities at amortized cost								
Deposits	705,129	75,102	45,552	62,896	116,343	52,031	5,884	1,062,937
Central banks	83	4,657	1,205	2,131	91,327	39,579	10	138,992
Credit institutions	12,683	3,491	12,693	11,867	4,504	1,945	3,950	51,133
Customer	692,363	66,954	31,654	48,898	20,512	10,507	1,924	872,812
Marketable debt securities	—	14,067	18,508	30,618	73,131	46,367	64,318	247,009
Other financial liabilities	7,059	4,060	6,447	5,329	5,961	354	663	29,873
	712,188	93,229	70,507	98,843	195,435	98,752	70,865	1,339,819

31 December 2020								
EUR million								
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Financial liabilities at amortized cost								
Deposits	629,043	62,872	67,567	60,465	108,326	32,260	22,228	982,761
Central banks	150	5,204	5,293	3,217	82,803	15,827	—	112,494
Credit institutions	14,334	7,158	15,209	9,606	5,031	5,903	4,333	61,574
Customer	614,559	50,510	47,065	47,642	20,492	10,530	17,895	808,693
Marketable debt securities	—	15,298	19,009	31,103	58,645	46,118	56,730	226,903
Other financial liabilities	8,308	5,264	4,411	1,160	5,856	434	1,535	26,968
	637,351	83,434	90,987	92,728	172,827	78,812	80,493	1,236,632

31 December 2019								
EUR million								
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Financial liabilities at amortized cost								
Deposits	603,126	75,899	61,107	109,747	63,013	14,027	7,228	934,147
Central banks	99	454	41	32,805	28,255	190	—	61,844
Credit institutions	23,348	14,491	18,810	14,134	8,519	5,478	4,113	88,893
Customer	579,679	60,954	42,256	62,808	26,239	8,359	3,115	783,410
Marketable debt securities	—	16,252	22,912	48,030	64,650	45,830	58,215	255,889
Other financial liabilities	11,952	7,094	4,350	122	4,473	481	1,637	30,109
	615,078	99,245	88,369	157,899	132,136	60,338	67,080	1,220,145

Below is a breakdown of contractual maturities for the rest of financial assets and liabilities as of 31 December 2021, 2020 and 2019 :

	31 December 2021						
	EUR million						
	Within 1 months	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
FINANCIAL ASSETS							
Financial assets held for trading	13,120	8,767	20,627	20,047	15,105	39,287	116,953
Derivatives	1,456	3,487	7,426	12,285	11,980	17,658	54,292
Equity instruments	—	—	—	—	—	15,077	15,077
Debt instruments	922	2,056	8,585	5,766	2,869	6,552	26,750
Loans and advances	10,742	3,224	4,616	1,996	256	—	20,834
Central banks	3,608	—	—	—	—	—	3,608
Credits institutions	4,827	780	3,982	808	—	—	10,397
Customers	2,307	2,444	634	1,188	256	—	6,829
Financial assets designated at fair value through profit or loss	844	1,607	2,928	3,686	2,334	4,558	15,957
Debt instruments	2	62	142	699	700	911	2,516
Loans and advances	842	1,545	2,786	2,987	1,634	3,647	13,441
Credit institutions	455	683	1,476	205	10	323	3,152
Customers	387	862	1,310	2,782	1,624	3,324	10,289
Non-trading financial assets mandatorily at fair value through profit or loss	116	—	49	127	67	5,177	5,536
Equity instruments	—	—	—	—	—	4,042	4,042
Debt instruments	4	—	40	4	6	903	957
Loans and advances	112	—	9	123	61	232	537
Customers	112	—	9	123	61	232	537
Financial assets at fair value through other comprehensive income	—	—	—	—	—	2,453	2,453
Equity instruments	—	—	—	—	—	2,453	2,453
Hedging derivatives	239	129	857	748	1,270	1,518	4,761
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	227	202	(11)	(304)	19	277	410
TOTAL FINANCIAL ASSETS	14,546	10,705	24,450	24,304	18,795	53,270	146,070

31 December 2021

EUR million

	Within 1 months	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
FINANCIAL LIABILITIES							
Financial liabilities held for trading	22,746	3,396	9,234	15,709	12,750	15,634	79,469
Derivatives	1,742	2,743	7,583	14,868	11,912	14,718	53,566
Shorts positions	8,337	222	1,290	728	743	916	12,236
Deposits	12,667	431	361	113	95	—	13,667
Central banks	994	44	—	—	—	—	1,038
Credits institutions	5,534	385	361	113	95	—	6,488
Customers	6,139	2	—	—	—	—	6,141
Financial liabilities designated at fair value through profit or loss	2,756	4,244	1,685	4,669	1,225	18,154	32,733
Deposits	2,743	4,131	1,246	2,801	764	15,594	27,279
Central banks	569	—	38	—	—	—	607
Credits institutions	128	109	487	30	178	132	1,064
Customers	2,046	4,022	721	2,771	586	15,462	25,608
Marketable debt securities*	13	113	439	1,868	461	2,560	5,454
Hedging derivatives	360	253	930	1,667	824	1,429	5,463
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	40	5	16	58	49	80	248
TOTAL FINANCIAL LIABILITIES	25,902	7,898	11,865	22,103	14,848	35,297	117,913

* Includes promissory notes, certificates of deposit and other short-term debt issues (see note 22).

31 December 2021

EUR million

	Within 1 months	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Memorandum items							
Loans commitment granted	116,823	6,706	27,587	51,999	49,781	9,841	262,737
Financial guarantees granted	2,414	1,203	4,251	1,749	687	454	10,758
Other commitments granted	46,614	5,745	12,008	7,297	1,539	2,530	75,733
MEMORANDUM ITEMS	165,851	13,654	43,846	61,045	52,007	12,825	349,228

In the Group's experience, no outflows of cash or other financial assets take place prior to the contractual maturity date that might affect the information broken down above.

31 December 2020

EUR million

	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
FINANCIAL ASSETS							
Financial assets held for trading	5,760	6,734	27,753	22,473	18,014	34,211	114,945
Derivatives	4,288	5,268	10,044	15,526	13,681	18,330	67,137
Equity instruments	—	—	—	—	—	9,615	9,615
Debt instruments	1,472	1,466	17,709	6,947	4,310	5,990	37,894
Loans and advances	—	—	—	—	23	276	299
Credits institutions	—	—	—	—	3	—	3
Customers	—	—	—	—	20	276	296
Financial assets designated at fair value through profit or loss	12,500	14,834	7,205	3,680	3,933	6,565	48,717
Debt instruments	181	78	162	407	719	1,432	2,979
Loans and advances	12,319	14,756	7,043	3,273	3,214	5,133	45,738
Central banks	343	9,138	—	—	—	—	9,481
Credit institutions	6,935	1,514	2,728	590	12	357	12,136
Customers	5,041	4,104	4,315	2,683	3,202	4,776	24,121
Non-trading financial assets mandatorily at fair value through profit or loss	275	—	—	—	69	4,142	4,486
Equity instruments	—	—	—	—	—	3,234	3,234
Debt instruments	85	—	—	—	—	615	700
Loans and advances	190	—	—	—	69	293	552
Central banks	—	—	—	—	—	—	—
Credits institutions	—	—	—	—	—	—	—
Customers	190	—	—	—	69	293	552
Financial assets at fair value through other comprehensive income	—	—	—	—	—	2,783	2,783
Equity instruments	—	—	—	—	—	2,783	2,783
Hedging derivatives	1,534	469	1,293	1,107	1,083	2,839	8,325
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	173	8	132	205	381	1,081	1,980
TOTAL FINANCIAL ASSETS	20,242	22,045	36,383	27,465	23,480	51,621	181,236

31 December 2020

EUR million

	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
FINANCIAL LIABILITIES							
Financial liabilities held for trading	16,754	3,727	6,286	17,635	16,036	20,729	81,167
Derivatives	1,132	3,206	5,800	17,566	16,036	20,729	64,469
Shorts positions	15,622	521	486	69	—	—	16,698
Deposits	—	—	—	—	—	—	—
Central banks	—	—	—	—	—	—	—
Credits institutions	—	—	—	—	—	—	—
Customers	—	—	—	—	—	—	—
Marketable debt securities	—	—	—	—	—	—	—
Other financial liabilities	—	—	—	—	—	—	—
Financial liabilities designated at fair value through profit or loss	13,468	1,732	2,228	2,893	1,121	26,596	48,038
Deposits	13,459	1,709	1,954	2,497	518	23,461	43,598
Central banks	841	866	783	—	—	—	2,490
Credits institutions	3,673	112	935	1,493	171	381	6,765
Customers	8,945	731	236	1,004	347	23,080	34,343
Marketable debt securities	9	23	274	396	603	3,135	4,440
Other financial liabilities	—	—	—	—	—	—	—
Hedging derivatives	2,619	200	588	748	641	2,073	6,869
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	3	6	40	74	64	99	286
TOTAL FINANCIAL LIABILITIES	32,844	5,665	9,142	21,350	17,862	49,497	136,360

31 December 2020

EUR million

	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Memorandum items							
Loans commitment granted	104,725	9,496	28,207	47,876	40,458	10,468	241,230
Financial guarantees granted	1,809	852	3,732	4,134	1,169	681	12,377
Other commitments granted	39,205	4,529	10,497	5,101	3,207	1,999	64,538
MEMORANDUM ITEMS	145,739	14,877	42,436	57,111	44,834	13,148	318,145

31 December 2019

EUR million

	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
FINANCIAL ASSETS							
Financial assets held for trading	4,864	3,522	19,740	21,603	18,083	40,418	108,230
Derivatives	3,329	2,233	6,552	15,855	14,925	20,503	63,397
Equity instruments	—	—	—	—	—	12,437	12,437
Debt instruments	1,531	1,289	13,188	5,748	3,141	7,144	32,041
Loans and advances	4	—	—	—	17	334	355
Credits institutions	—	—	—	—	—	—	—
Customers	4	—	—	—	17	334	355
Financial assets designated at fair value through profit or loss	24,110	13,167	7,602	5,175	3,878	8,137	62,069
Debt instruments	457	10	81	652	381	1,605	3,186
Loans and advances	23,653	13,157	7,521	4,523	3,497	6,532	58,883
Central banks	1,744	4,729	—	—	—	—	6,473
Credit institutions	13,186	4,946	1,534	1,015	9	959	21,649
Customers	8,723	3,482	5,987	3,508	3,488	5,573	30,761
Non-trading financial assets mandatorily at fair value through profit or loss	272	0	4	11	117	4,507	4,911
Equity instruments	—	—	—	—	—	3,350	3,350
Debt instruments	—	—	—	11	117	1,047	1,175
Loans and advances	272	—	4	—	—	110	386
Central banks	—	—	—	—	—	—	—
Credits institutions	—	—	—	—	—	—	—
Customers	272	—	4	—	—	110	386
Financial assets at fair value through other comprehensive income	—	—	—	—	—	2,863	2,863
Equity instruments	—	—	—	—	—	2,863	2,863
Hedging derivatives	807	86	601	1,646	904	3,172	7,216
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	267	1	24	112	265	1,033	1,702
TOTAL FINANCIAL ASSETS	30,320	16,776	27,971	28,547	23,247	60,130	186,991

31 December 2019

EUR million

	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
FINANCIAL LIABILITIES							
Financial liabilities held for trading	10,851	3,427	7,130	17,244	16,905	21,582	77,139
Derivatives	2,672	1,973	6,591	16,965	16,023	18,792	63,016
Shorts positions	8,179	1,454	539	279	882	2,790	14,123
Deposits	—	—	—	—	—	—	—
Central banks	—	—	—	—	—	—	—
Credits institutions	—	—	—	—	—	—	—
Customers	—	—	—	—	—	—	—
Marketable debt securities	—	—	—	—	—	—	—
Other financial liabilities	—	—	—	—	—	—	—
Financial liabilities designated at fair value through profit or loss	21,929	2,259	5,307	3,565	1,450	26,485	60,995
Deposits	21,904	2,225	4,909	2,429	780	24,864	57,111
Central banks	8,831	1,228	2,795	—	—	—	12,854
Credits institutions	4,133	521	1,857	2,132	11	686	9,340
Customers	8,940	476	257	297	769	24,178	34,917
Marketable debt securities	14	34	398	1,021	670	1,621	3,758
Other financial liabilities	11	—	—	115	—	—	126
Hedging derivatives	1,997	337	848	678	528	1,660	6,048
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	3	6	26	53	59	122	269
TOTAL FINANCIAL LIABILITIES	34,780	6,029	13,311	21,540	18,942	49,849	144,451

31 December 2019

EUR million

	Within 1 month	1 to 3 months	3 to 12 months	1 to 3 years	3 to 5 years	More than 5 years	Total
Memorandum items							
Loans commitment granted	98,630	16,529	30,370	37,097	48,072	10,481	241,179
Financial guarantees granted	2,176	1,791	5,626	1,933	1,364	760	13,650
Other commitments granted	44,950	3,052	9,957	4,606	4,132	2,198	68,895
MEMORANDUM ITEMS	145,756	21,372	45,953	43,636	53,568	13,439	323,724

b) Equivalent euro value of assets and liabilities

The detail of the main foreign currency balances in the consolidated balance sheet, based on the nature of the related items, is as follows:

Equivalent value in EUR million

	2021		2020		2019	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Cash, cash balances at central banks and other deposits on demand	105,457	—	76,882	—	65,205	—
Financial assets/liabilities held for trading	65,345	49,314	66,448	50,494	60,526	45,262
Non-trading financial assets mandatorily at fair value through profit or loss	2,460	—	2,248	—	2,611	—
Other financial assets/liabilities at fair value through profit or loss	1,230	9,103	24,015	18,347	25,938	29,593
Financial assets at fair value through other comprehensive income	78,086	—	79,688	—	76,402	—
Financial assets at amortized cost	680,774	—	610,152	—	656,564	—
Investments	1,666	—	1,671	—	1,355	—
Tangible assets	22,350	—	21,617	—	24,662	—
Intangible assets	10,066	—	9,609	—	21,942	—
Financial liabilities at amortized cost	—	796,395	—	726,516	—	752,188
Liabilities under insurance contracts	—	10	—	13	—	13
Other	22,631	20,420	26,433	22,801	25,410	23,428
	990,065	875,242	918,763	818,171	960,615	850,484

c) Fair value of financial assets and liabilities not measured at fair value

The financial assets owned by the Group are measured at fair value in the accompanying consolidated balance sheet, except for cash, cash balances at central banks and other deposits on demand, loans and advances at amortised cost.

Similarly, the Group's financial liabilities -except for financial liabilities held for trading, those measured at fair value and derivatives other than those having as their underlying equity instruments whose market value cannot be estimated reliably- are measured at amortised cost in the accompanying consolidated balance sheet.

Following is a comparison of the carrying amounts of the Group's financial instruments measured at other than fair value and their respective fair values at year-end:

i) Financial assets measured at other than fair value

EUR million

	2021					2020					2019				
	Carrying amount	Fair value	Level 1	Level 2	Level 3	Carrying amount	Fair value	Level 1	Level 2	Level 3	Carrying amount	Fair value	Level 1	Level 2	Level 3
Assets															
Loans and advances	1,002,190	1,006,711	—	69,840	936,871	932,300	940,258	—	65,755	874,503	965,693	975,523	—	82,045	893,478
Debt instruments	35,708	35,378	13,558	12,158	9,662	26,078	26,532	6,753	11,899	7,880	29,789	30,031	10,907	9,971	9,153
	1,037,898	1,042,089	13,558	81,998	946,533	958,378	966,790	6,753	77,654	882,383	995,482	1,005,554	10,907	92,016	902,631

ii) Financial liabilities measured at other than fair value

EUR million

Liabilities*	2021					2020					2019				
	Carrying amount	Fair value	Level 1	Level 2	Level 3	Carrying amount	Fair value	Level 1	Level 2	Level 3	Carrying amount	Fair value	Level 1	Level 2	Level 3
Deposits	1,078,587	1,076,876	—	286,613	790,263	990,391	990,807	—	263,517	727,290	942,417	942,397	—	245,143	697,254
Debt instruments	240,709	246,697	109,346	115,034	22,317	230,829	241,174	91,771	125,031	24,372	258,219	266,784	84,793	149,516	32,475
	1,319,296	1,323,573	109,346	401,647	812,580	1,221,220	1,231,981	91,771	388,548	751,662	1,200,636	1,209,181	84,793	394,659	729,729

* At 31 December 2021, Grupo Santander had other financial liabilities that amounted to EUR 29,873 million, EUR 26,968 million in 2020 and EUR 30,109 million in 2019.

The main valuation methods and inputs used in the estimates at 31 December 2021 of the fair values of the financial assets and liabilities in the foregoing table were as follows:

- Financial assets at amortised cost: the fair value was estimated using the present value method. The estimates were made considering factors such as the expected maturity of the portfolio, market interest rates, spreads on newly approved transactions or market spreads -when available-.
- Financial liabilities at amortised cost:
 - i) Deposits: the fair value of short term deposits was taken to be their carrying amount. Factors such as the expected maturity of the transactions and the Group's current cost of funding in similar transactions are considered for the estimation of long term deposits fair value. It had been used also current rates offered for deposits of similar remaining maturities.
 - ii) Marketable debt securities and subordinated liabilities: the fair value was calculated based on market prices for these instruments -when available- or by the present value method using market interest rates and spreads, as well as using any significant input which is not observable with market data if applicable.
 - iii) The fair value of cash, cash balances at central banks and other deposits on demand was taken to be their carrying amount since they are mainly short-term balances.

51. Primary and secondary segments reporting

Grupo Santander bases segment reporting on financial information presented to the chief operating decision maker, which excludes certain statutory results items that distort year-on-year comparisons and are not considered for management reporting. This financial information (underlying basis) is computed by adjusting reported results for the effects of certain gains and losses (e.g. capital gains, write-downs, impairment of goodwill, etc.). These gains and losses are items that management and investors ordinarily identify and consider separately to better understand the underlying trends in the business.

Grupo Santander has aligned the information in this note with the underlying information used internally for management reporting and with that presented in Grupo Santander's other public documents.

Grupo Santander's executive committee has been selected to be its chief operating decision maker. Grupo Santander's operating segments reflect its organizational and managerial structures. The executive committee reviews internal reporting based on these segments to assess performance and allocate resources.

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

On 4 April 2022, Grupo Santander announced that, starting and effective with the financial information for the first quarter of 2022, it will carry out changes in the reportable segments to reflect the new reporting structure.

These changes aim to align the segment information with segments and units' management and have no impact in the consolidated figures at the Group level.

The main changes, which have been applied to management information for all periods included in the consolidated financial statements, relate to the allocation of certain financial costs of the Corporate Centre as follows:

- Further clarity in the minimum requirement for own funds and eligible liabilities (MREL) and total loss absorbing capacity (TLAC) regulation makes it possible to allocate the cost of eligible debt issuances to the corresponding units from the Corporate Centre.
- Other financial costs, primarily associated with the cost of funding the excess capital held by the units above the Group's CET1 ratio have been reassigned from the Corporate Centre to the corresponding units.

Grupo Santander recast the corresponding information of earlier periods considering the changes described above. As stated, Group consolidated figures remain unchanged.

In addition, Grupo Santander carried out the annual adjustment of the perimeter of the Global Customer Relationship Model between Retail Banking and Santander Corporate & Investment Banking and between Retail Banking and Wealth Management & Insurance.

a) Primary segments

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

- Europe: which comprises all business activity carried out in the region, except that included in Digital Consumer Bank. Detailed financial information is provided on Spain, the UK, Portugal and Poland.
- North America: which 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, the specialized business unit Banco Santander International, Santander Investment Securities (SIS) and the New York branch.
- South America: includes all the financial activities carried out by Grupo Santander through its banks and subsidiary banks in the region. Detailed information is provided on Brazil, Chile, Argentina, Uruguay, Peru and Colombia.
- Digital Consumer Bank: includes Santander Consumer Finance, which incorporates the entire consumer finance business in Europe, Openbank and ODS.

In addition to these operating units, which report by geographic area and businesses, Grupo Santander continues to maintain the area of Corporate Centre, that includes the centralized activities relating to equity stakes in financial companies, financial management of the structural exchange rate position, assumed within the sphere of Grupo Santander's assets and liabilities committee, as well as management of liquidity and of shareholders' equity via issuances.

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

With regard to the balance sheet, due to the required segregation of the various business units (included in a single consolidated balance sheet), the amounts lent and borrowed between the units are shown as increases in the assets and liabilities of each business. These amounts relating to intra-Group liquidity are eliminated and are shown in the Intra-Group eliminations column in the table below in order to reconcile the amounts contributed by each business unit to the consolidated Grupo Santander's balance sheet.

There are no customers located in any of the areas that generate income exceeding 10% of Total income.

The condensed balance sheets and income statements of the various primary segments are as follows:

EUR million

Balance sheet (condensed)	2021						Total
	Europe	North America	South America	Digital Consumer Bank	Corporate Centre	Intra-Group eliminations	
Total assets	943,875	244,734	257,805	148,005	215,467	(214,051)	1,595,835
Loans and advances to customers	590,610	137,428	123,920	113,937	6,787	—	972,682
Cash, balances at central banks and credit institutions and other deposits on demand	219,154	34,857	43,134	21,804	88,918	(125,195)	282,672
Debt instruments	67,068	38,500	51,451	5,280	1,554	—	163,853
Other financial assets	37,250	12,555	23,809	47	2,203	—	75,864
Other asset accounts	29,793	21,394	15,491	6,937	116,005	(88,856)	100,764
Total liabilities	899,007	216,048	237,375	135,599	135,950	(125,197)	1,498,782
Customer deposits	619,486	121,989	120,500	55,327	1,042	—	918,344
Central banks and credit institutions	156,257	35,152	44,314	37,600	53,063	(125,197)	201,189
Marketable debt securities	73,629	38,061	23,461	36,710	74,302	—	246,163
Other financial liabilities***	38,706	14,652	40,490	1,397	430	—	95,675
Other liabilities accounts****	10,929	6,194	8,610	4,565	7,113	—	37,411
Total equity	44,868	28,686	20,430	12,406	79,517	(88,854)	97,053
Other customer funds under management	114,698	13,949	57,428	852	—	—	186,927
Investment funds	82,641	12,112	51,234	—	—	—	145,987
Pension funds	15,994	84	—	—	—	—	16,078
Assets under management	16,063	1,753	6,194	852	—	—	24,862
Other non-managed marketed customer funds	41,483	15,843	6,296	3,350	—	—	66,972

* Including Trading derivatives and Equity instruments.

** Including Hedging derivatives, Changes in the fair value of hedged items in portfolio hedges of interest risk, Investments in joint ventures and associated entities, Assets under insurance or reinsurance contracts, tangible assets, intangible assets, tax assets, other assets and non-current assets held for sale.

*** Including Trading derivatives, Short positions and Other financial liabilities.

**** Including Hedging derivatives, Changes in the fair value of hedged items in portfolio hedges of interest risk, Liabilities under insurance or reinsurance contracts, provisions, tax liabilities, other liabilities and liabilities associated with non-current assets held for sale.

EUR million

Balance sheet (condensed)	2020						Total
	Europe	North America	South America	Digital Consumer Bank	Corporate Centre	Intra-Group eliminations	
Total assets	909,304	223,797	238,746	137,155	182,587	(183,339)	1,508,250
Loans and advances to customers	563,581	120,571	113,745	113,258	5,044	—	916,199
Cash, balances at central banks and credit institutions and other deposits on demand	180,245	28,666	43,154	12,058	61,174	(99,501)	225,796
Debt instruments	81,271	38,403	49,304	5,659	1,917	—	176,554
Other financial assets*	48,313	15,439	17,342	30	1,645	—	82,769
Other asset accounts**	35,894	20,718	15,201	6,150	112,807	(83,838)	106,932
Total liabilities	866,949	199,789	218,927	124,720	106,044	(99,501)	1,416,928
Customer deposits	582,353	102,924	111,808	51,399	826	—	849,310
Central banks and credit institutions	133,973	38,071	42,049	32,046	38,041	(99,501)	184,679
Marketable debt securities	84,201	36,583	21,280	35,965	57,240	—	235,269
Other financial liabilities***	54,634	16,182	35,456	1,370	493	—	108,135
Other liabilities accounts****	11,788	6,029	8,334	3,940	9,444	—	39,535
Total equity	42,355	24,008	19,819	12,435	76,543	(83,838)	91,322
Other customer funds under management	99,301	12,501	55,965	475	12	—	168,254
Investment funds	71,239	10,864	49,850	—	12	—	131,965
Pension funds	15,487	90	—	—	—	—	15,577
Assets under management	12,575	1,547	6,115	475	—	—	20,712
Other non-managed marketed customer funds	34,313	11,915	6,187	1,134	—	—	53,549

* Including Trading derivatives and Equity instruments.

** Including Hedging derivatives, Changes in the fair value of hedged items in portfolio hedges of interest risk, Investments in joint ventures and associated entities, Assets under insurance or reinsurance contracts, tangible assets, intangible assets, tax assets, other assets and non-current assets held for sale.

*** Including Trading derivatives, Short positions and Other financial liabilities.

**** Including Hedging derivatives, Changes in the fair value of hedged items in portfolio hedges of interest risk, Liabilities under insurance or reinsurance contracts, provisions, tax liabilities, other liabilities and liabilities associated with non-current assets held for sale.

EUR million

Balance sheet (condensed)	2019						Total
	Europe	North America	South America	Digital Consumer Bank	Corporate Centre	Intra-Group eliminations	
Total assets	895,322	223,972	253,919	131,627	168,352	(150,497)	1,522,695
Loans and advances to customers	563,101	133,727	125,122	114,504	5,764	—	942,218
Cash, balances at central banks and credit institutions and other deposits on demand	140,528	22,904	51,379	8,794	32,804	(67,803)	188,606
Debt instruments	101,189	33,749	45,622	3,196	840	—	184,596
Other financial assets*	53,918	10,822	14,864	37	2,406	—	82,047
Other asset accounts**	36,586	22,770	16,932	5,096	126,538	(82,694)	125,228
Total liabilities	851,324	200,057	231,392	119,630	77,435	(67,802)	1,412,036
Customer deposits	559,720	98,915	114,817	50,120	793	—	824,365
Central banks and credit institutions	125,046	39,016	42,030	25,175	11,698	(67,802)	175,163
Marketable debt securities	94,882	44,097	29,840	38,661	54,497	—	261,977
Other financial liabilities***	59,241	11,773	34,072	1,652	636	—	107,374
Other liabilities accounts****	12,435	6,256	10,633	4,022	9,811	—	43,157
Total equity	43,998	23,915	22,527	11,997	90,917	(82,695)	110,659
Other customer funds under management	86,558	14,319	76,023	—	11	—	176,911
Investment funds	62,203	11,703	69,071	—	11	—	142,988
Pension funds	11,746	98	—	—	—	—	11,844
Assets under management	12,609	2,518	6,952	—	—	—	22,079
Other non-managed marketed customer funds	32,706	15,872	60	850	—	—	49,488

* Including 'Trading derivatives' and 'Equity instruments'.

** Including 'Hedging derivatives', 'Changes in the fair value of hedged items in portfolio hedges of interest risk', 'Investments in joint ventures and associated entities', 'Assets under insurance or reinsurance contracts', 'Tangible assets', 'Intangible assets', 'Tax assets', other assets and non-current assets held for sale.

*** Including Trading derivatives, Short positions and Other financial liabilities.

**** Including Hedging derivatives, Changes in the fair value of hedged items in portfolio hedges of interest risk, Liabilities under insurance or reinsurance contracts, provisions, tax liabilities, other liabilities and liabilities associated with non-current assets held for sale.

The condensed income statements for the primary segments are as follows:

EUR million

Underlying income statement (condensed)	2021					Total
	Europe	North America	South America	Digital Consumer Bank	Corporate centre	
Net interest income	10,574	8,072	11,307	4,041	(624)	33,370
Net fee income	4,344	1,644	3,721	821	(28)	10,502
Gains (losses) on financial transactions*	756	224	716	8	(141)	1,563
Other operating income**	260	914	(407)	229	(27)	969
Total income	15,934	10,854	15,337	5,099	(820)	46,404
Administrative expenses, depreciation and amortisation	(8,318)	(4,967)	(5,379)	(2,405)	(346)	(21,415)
Net operating income***	7,616	5,887	9,958	2,694	(1,166)	24,989
Net loan-loss provisions****	(2,293)	(1,210)	(3,251)	(527)	(155)	(7,436)
Other gains (losses) and provisions*****	(1,290)	(145)	(474)	(194)	(190)	(2,293)
Operating profit/(loss) before tax	4,033	4,532	6,233	1,973	(1,511)	15,260
Tax on profit	(1,212)	(1,016)	(2,360)	(464)	(24)	(5,076)
Profit from continuing operations	2,821	3,516	3,873	1,509	(1,535)	10,184
Net profit from discontinued operations	—	—	—	—	—	—
Consolidated profit	2,821	3,516	3,873	1,509	(1,535)	10,184
Non-controlling interests	71	556	556	345	2	1,530
Attributable profit to the parent	2,750	2,960	3,317	1,164	(1,537)	8,654

* Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.

** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.

*** 'Net Operating Income' is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.

**** 'Net loan-loss provisions' refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 29 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.

***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release EUR 29 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognised in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

	2020					
Underlying income statement (condensed)	Europe	North America	South America	Digital Consumer Bank	Corporate Centre	Total
Net interest income	9,518	8,394	10,710	4,014	(642)	31,994
Net fee income	4,000	1,684	3,589	771	(29)	10,015
Gains (losses) on financial transactions*	868	251	765	16	287	2,187
Other operating income**	(106)	628	(209)	116	(25)	404
Total income	14,280	10,957	14,855	4,917	(409)	44,600
Administrative expenses, depreciation and amortisation	(8,275)	(4,677)	(5,357)	(2,329)	(329)	(20,967)
Net operating income***	6,005	6,280	9,498	2,588	(738)	23,633
Net loan-loss provisions****	(3,345)	(3,917)	(3,924)	(957)	(31)	(12,174)
Other gains (losses) and provisions*****	(970)	(132)	(320)	49	(412)	(1,785)
Operating profit/(loss) before tax	1,690	2,231	5,254	1,680	(1,181)	9,674
Tax on profit	(476)	(550)	(1,918)	(421)	(151)	(3,516)
Profit from continuing operations	1,214	1,681	3,336	1,259	(1,332)	6,158
Net profit from discontinued operations	—	—	—	—	—	—
Consolidated profit	1,214	1,681	3,336	1,259	(1,332)	6,158
Non-controlling interests	78	261	437	301	—	1,077
Attributable profit to the parent	1,136	1,420	2,899	958	(1,332)	5,081

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** 'Net Operating Income' is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** 'Loan loss provisions' refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 50 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 50 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognised in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

	2019					
Underlying income statement (condensed)	Europe	North America	South America	Digital Consumer Bank	Corporate Centre	Total
Net interest income	9,656	8,834	13,270	3,982	(459)	35,283
Net fee income	4,423	1,776	4,787	843	(50)	11,779
Gains (losses) on financial transactions*	1,045	229	564	(10)	(297)	1,531
Other operating income**	399	673	(242)	90	(19)	901
Total income	15,523	11,512	18,379	4,905	(825)	49,494
Administrative expenses, depreciation and amortisation	(8,912)	(4,983)	(6,673)	(2,339)	(373)	(23,280)
Net operating income***	6,611	6,529	11,706	2,566	(1,198)	26,214
Net loan-loss provisions****	(1,333)	(3,656)	(3,789)	(508)	(35)	(9,321)
Other gains (losses) and provisions*****	(792)	(203)	(749)	18	(238)	(1,964)
Operating profit/(loss) before tax	4,486	2,670	7,168	2,076	(1,471)	14,929
Tax on profit	(1,218)	(652)	(2,626)	(527)	(80)	(5,103)
Profit from continuing operations	3,268	2,018	4,542	1,549	(1,551)	9,826
Net profit from discontinued operations	—	—	—	—	—	—
Consolidated profit	3,268	2,018	4,542	1,549	(1,551)	9,826
Non-controlling interests	167	426	664	326	(9)	1,574
Attributable profit to the parent	3,101	1,592	3,878	1,223	(1,542)	8,252

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** 'Net Operating Income' is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** 'Net loan-loss provisions' refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 31 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 31 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognised in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

b) Secondary segments

At this secondary level, Grupo Santander is structured into Retail Banking, Santander Corporate & Investment Banking (SCIB), Wealth Management & Insurance (WM&I) and PagoNxt.

- Retail Banking: this covers all customer banking businesses, including consumer finance, except those of corporate banking which are managed through Santander Corporate & Investment Banking, asset management, private banking and insurance, which are managed by WM&I. The results of the hedging positions in each country are also included, conducted within the sphere of their respective assets and liabilities committees.
- Santander Corporate & Investment Banking (SCIB): this business reflects revenue from global corporate banking, investment banking and markets worldwide including treasuries managed globally (always after the appropriate distribution with Retail Banking customers), as well as equity business.
- 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 (Santander Private Banking) and the insurance business (Santander Insurance).
- PagoNxt: this includes digital payment solutions, providing global technology solutions for Grupo Santander's banks and new customers in the open market. It is structured in three businesses: Merchant Solutions, International Trade and Consumer.

Although WM&I and PagoNxt do not meet the quantitative thresholds defined in IFRS 8, these segments are considered reportable by Grupo Santander and are disclosed separately because Grupo Santander's management believes that information about these segments are useful to users of the financial statements.

There are no customers located in a place different from the location of the Group's assets that generate revenues in excess of 10% of ordinary revenues.

The condensed income statements are as follows:

EUR million

Underlying income statement (condensed)	2021					Total
	Retail Banking	Santander Corporate & Investment Banking	Wealth Management & Insurance	PagoNxt	Corporate centre	
Net interest income	30,595	2,921	477	1	(624)	33,370
Net fee income	7,045	1,744	1,248	493	(28)	10,502
Gains (losses) on financial transactions*	839	766	100	(1)	(141)	1,563
Other operating income**	390	188	416	2	(27)	969
Total income	38,869	5,619	2,241	495	(820)	46,404
Administrative expenses, depreciation and amortisation	(17,102)	(2,380)	(914)	(673)	(346)	(21,415)
Net operating income***	21,767	3,239	1,327	(178)	(1,166)	24,989
Net loan-loss provisions****	(7,082)	(151)	(38)	(10)	(155)	(7,436)
Other gains (losses) and provisions*****	(2,053)	(17)	6	(39)	(190)	(2,293)
Operating profit/(loss) before tax	12,632	3,071	1,295	(227)	(1,511)	15,260
Tax on profit	(3,898)	(821)	(309)	(24)	(24)	(5,076)
Profit/(loss) from continuing operations	8,734	2,250	986	(251)	(1,535)	10,184
Net profit/(loss) from discontinued operations	—	—	—	—	—	—
Consolidated profit/(loss)	8,734	2,250	986	(251)	(1,535)	10,184
Non-controlling interests	1,345	137	44	2	2	1,530
Attributable profit/(loss) to the parent	7,389	2,113	942	(253)	(1,537)	8,654

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks included in the line provisions or reversal of provisions, net of the statutory income statement.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

2020

Underlying income statement (condensed)	Retail Banking	Santander Corporate & Investment Banking (SCIB)	Wealth Management & Insurance	PagoNxt	Corporate Centre	Total
Net interest income	29,401	2,842	394	(1)	(642)	31,994
Net fee income	6,986	1,542	1,154	362	(29)	10,015
Gains (losses) on financial transactions*	1,132	670	99	(1)	287	2,187
Other operating income**	(153)	202	383	(3)	(25)	404
Total income	37,366	5,256	2,030	357	(409)	44,600
Administrative expenses, depreciation and amortisation	(17,285)	(2,038)	(872)	(443)	(329)	(20,967)
Net operating income***	20,081	3,218	1,158	(86)	(738)	23,633
Net loan-loss provisions****	(11,633)	(470)	(28)	(12)	(31)	(12,174)
Other gains (losses) and provisions*****	(1,238)	(134)	1	(2)	(412)	(1,785)
Operating profit/(loss) before tax	7,210	2,614	1,131	(100)	(1,181)	9,674
Tax on profit	(2,328)	(750)	(272)	(15)	(151)	(3,516)
Profit/(loss) from continuing operations	4,882	1,864	859	(115)	(1,332)	6,158
Net profit/(loss) from discontinued operations	—	—	—	—	—	—
Consolidated profit/(loss)	4,882	1,864	859	(115)	(1,332)	6,158
Non-controlling interests	921	118	37	1	—	1,077
Attributable profit/(loss) to the parent	3,961	1,746	822	(116)	(1,332)	5,081

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 50 million mainly corresponding to the results by commitments and contingent risks included in the line provisions or reversal of provisions, net of the statutory income statement.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 50 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

	2019					
Underlying income statement (condensed)	Retail Banking	Santander Corporate & Investment Banking (SCIB)	Wealth Management & Insurance	PagoNxt	Corporate Centre	Total
Net interest income	32,588	2,655	479	20	(459)	35,283
Net fee income	8,663	1,520	1,190	456	(50)	11,779
Gains (losses) on financial transactions*	1,025	689	117	(3)	(297)	1,531
Other operating income**	291	289	340	—	(19)	901
Total income	42,567	5,153	2,126	473	(825)	49,494
Administrative expenses, depreciation and amortisation	(19,280)	(2,281)	(939)	(407)	(373)	(23,280)
Net operating income***	23,287	2,872	1,187	66	(1,198)	26,214
Net loan-loss provisions****	(9,132)	(156)	23	(21)	(35)	(9,321)
Other gains (losses) and provisions*****	(1,624)	(90)	(12)	—	(238)	(1,964)
Operating profit/(loss) before tax	12,531	2,626	1,198	45	(1,471)	14,929
Tax on profit	(3,916)	(794)	(280)	(33)	(80)	(5,103)
Profit/(loss) from continuing operations	8,615	1,832	918	12	(1,551)	9,826
Net profit/(loss) from discontinued operations	—	—	—	—	—	—
Consolidated profit/(loss)	8,615	1,832	918	12	(1,551)	9,826
Non-controlling interests	1,364	171	50	(2)	(9)	1,574
Attributable profit/(loss) to the parent	7,251	1,661	868	14	(1,542)	8,252

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 31 million mainly corresponding to the results by commitments and contingent risks included in the line provisions or reversal of provisions, net of the statutory income statement.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 31 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

c) Reconciliations of reportable segment results

The tables below reconcile the underlying basis results to the statutory results for each of the periods presented as required by IFRS 8. For the purposes of these reconciliations, all material reconciling items are separately identified and described.

Grupo Santander assets and liabilities for management reporting purposes do not differ from the statutory reported figures and therefore are not reconciled.

EUR million

	2021		
	Underlying results	Adjustments	Statutory results
Reconciliation of underlying results to statutory results			
Net interest income	33,370	—	33,370
Net fee income	10,502	—	10,502
Gains (losses) on financial transactions*	1,563	—	1,563
Other operating income**	969	—	969
Total income	46,404	—	46,404
Administrative expenses, depreciation and amortisation	(21,415)	—	(21,415)
Net operating income***	24,989	—	24,989
Net loan-loss provisions****	(7,436)	—	(7,436)
Other gains (losses) and provisions*****	(2,293)	(713)	(3,006)
Operating profit/(loss) before tax	15,260	(713)	14,547
Tax on profit	(5,076)	182	(4,894)
Adjusted profit for the year from continuing operations	10,184	(531)	9,653
Profit from discontinued operations (net)	—	—	—
Consolidated profit/(loss)	10,184	(531)	9,653
Non-controlling interests	(1,530)	1	(1,529)
Attributable profit/(loss) to the parent	8,654	(530)	8,124

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except for an addition of EUR 29 million mainly corresponding to results from commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

Explanation of adjustments:

- Restructuring costs for net impact of EUR -530 million, mainly in the United Kingdom and Portugal.

EUR million

2020

Reconciliation of underlying results to statutory results	Underlying results	Adjustments	Statutory results
Net interest income	31,994	—	31,994
Net fee income	10,015	—	10,015
Gains (losses) on financial transactions*	2,187	—	2,187
Other operating income**	404	(321)	83
Total income	44,600	(321)	44,279
Administrative expenses, depreciation and amortisation	(20,967)	(163)	(21,130)
Net operating income***	23,633	(484)	23,149
Net loan-loss provisions****	(12,174)	(258)	(12,432)
Other gains (losses) and provisions*****	(1,785)	(11,008)	(12,793)
Operating profit/(loss) before tax	9,674	(11,750)	(2,076)
Tax on profit	(3,516)	(2,116)	(5,632)
Adjusted profit for the year from continuing operations	6,158	(13,866)	(7,708)
Profit from discontinued operations (net)	—	—	—
Consolidated profit/(loss)	6,158	(13,866)	(7,708)
Non-controlling interests	1,077	(14)	1,063
Attributable profit/(loss) to the parent	5,081	(13,852)	(8,771)

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method; Other operating income; Other operating expenses; Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes an addition of EUR 50 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except for an addition of EUR 50 million mainly corresponding to results from commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations

Explanation of adjustments:

- Adjustment to the valuation of goodwill arising from the Group's acquisitions in the amount of EUR -10,100 million, which is included in the line 'Other gains (losses) and provisions'.
- Adjustment to the valuation of the deferred tax assets of the consolidated tax group in Spain in the amount of EUR -2,500 million, which is included in the 'Tax on profit' line.
- Restructuring costs with a net impact of EUR -1,114 million, which are included for their gross amount mainly in the line 'Other gains (losses) and provisions'.
- Other charges of EUR -138 million (related to sales of non-performing loans in Spain, cancellation of pension commitment costs and other expenses), which are recorded gross in 'Other gains (losses) and provisions', 'Net loan-loss provision' and 'Administrative expenses and depreciation and amortization'.

EUR million

2019

Reconciliation of underlying results to statutory results	Underlying results	Adjustments	Statutory results
Net interest income	35,283	—	35,283
Net fee income	11,779	—	11,779
Gains (losses) on financial transactions*	1,531	—	1,531
Other operating income**	901	(265)	636
Total income	49,494	(265)	49,229
Administrative expenses, depreciation and amortisation	(23,280)	—	(23,280)
Net operating income***	26,214	(265)	25,949
Net loan-loss provisions****	(9,321)	—	(9,321)
Other gains (losses) and provisions*****	(1,964)	(2,121)	(4,085)
Operating profit/(loss) before tax	14,929	(2,386)	12,543
Tax on profit	(5,103)	676	(4,427)
Adjusted profit for the year from continuing operations	9,826	(1,710)	8,116
Profit from discontinued operations (net)	—	—	—
Consolidated profit/(loss)	9,826	(1,710)	8,116
Non-controlling interests	1,574	27	1,601
Attributable profit/(loss) to the parent	8,252	(1,737)	6,515

- * Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net; Gain or losses on financial assets and liabilities held for trading, net; Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net; Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net; Gain or losses from hedge accounting, net and Exchange differences, net.
- ** Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
- *** Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
- **** Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 31 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
- ***** Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 31 million mainly corresponding to results from commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

Explanation of adjustments:

- Impairment of the goodwill assigned to Santander UK and provisions for PPI in the UK, with a net impact of EUR -1,491 million and EUR -183 million, respectively, reflected in the line 'Other gains (losses) and provisions'.
- Restructuring costs with a net impact of EUR -864 million, which are included in the line 'Other gains (losses) and provisions'.
- Losses related to real estate assets and holdings in Spain with a net impact of EUR -405 million, which are included in the 'Other operating income' and 'Other gains (losses) and provisions' lines.
- Provisions related to intangible assets and others, amounting to EUR -174 million, which are included for their gross amount in the line 'Other gains (losses) and provisions'.
- Capital gains on the sale of holdings in Prisma and on the integration of the custody business, with a net impact of EUR 136 million and EUR 693 million respectively, which are reflected at their gross amount in the line 'Other gains (losses) and provisions'.
- Positive impact due to changes in tax regulations in Brazil for a net amount of EUR 551 million, which is included in the line 'Tax on profit'.

52. Related parties

The parties related to the Group are deemed to include, in addition to its subsidiaries, associates and joint ventures, the Bank's key management personnel (the members of its board of directors and the executive vice presidents, together with their close family members) and the entities over which the key management personnel may exercise significant influence or control.

Following below is the balance sheet balances and amounts of the Group's income statement corresponding to operations with the parties related to it, distinguishing between associates and joint ventures, members of the Bank's board of directors, the Bank's executive vice presidents, and other related parties. Related-party transactions were made on terms equivalent to those that prevail in arm's-length transactions or, when this was not the case, the related compensation in kind was recognized.

EUR million

	2021			
	Associates and joint ventures	Members of the board of directors	Executive vicepresident	Other related parties
Assets	9,386	—	14	384
Cash, cash balances at central banks and other deposits on demand	131	—	—	—
Loans and advances: credit institutions	437	—	—	—
Loans and advances: customers	8,148	—	14	384
Debt instruments	496	—	—	—
Others	174	—	—	—
Liabilities	3,405	8	11	197
Financial liabilities: credit institutions	867	—	—	—
Financial liabilities: customers	2,464	8	11	197
Marketable debt securities	—	—	—	—
Others	74	—	—	—
Income statement	1,265	—	—	1
Interest income	90	—	—	1
Interest expense	(13)	—	—	—
Gains/losses on financial assets and liabilities and others	(32)	—	—	—
Commission income	1,268	—	—	—
Commission expense	(48)	—	—	—
Other	3,965	2	2	76
Financial guarantees granted and Others	11	1	1	17
Loan commitments and Other commitments granted	314	1	1	13
Derivative financial instruments	3,640	—	—	46

EUR million

	2020			
	Associates and joint ventures	Members of the board of directors	Executive vicepresident	Other related parties
Assets	8,473	—	24	95
Cash, cash balances at central banks and other deposits on demand	151	—	—	—
Loans and advances: credit institutions	562	—	—	—
Loans and advances: customers	6,934	—	24	95
Debt instruments	423	—	—	—
Others	403	—	—	—
Liabilities	3,593	4	16	159
Financial liabilities: credit institutions	944	—	—	—
Financial liabilities: customers	2,557	4	16	159
Marketable debt securities	12	—	—	—
Others	80	—	—	—
Income statement	1,269	—	—	3
Interest income	106	—	—	2
Interest expense	(8)	—	—	—
Gains/losses on financial assets and liabilities and others	49	—	—	—
Commission income	1,154	—	—	1
Commission expense	(32)	—	—	—
Other	4,097	1	1	52
Financial guarantees granted and Others	14	—	—	3
Loan commitments and Other commitments granted	253	1	1	13
Derivative financial instruments	3,830	—	—	36

EUR million

	2019			
	Associates and joint ventures	Members of the board of directors	Executive vicepresident	Other related parties
Assets	9,659	—	26	104
Cash, cash balances at central banks and other deposits on demand	740	—	—	—
Loans and advances: credit institutions	961	—	—	—
Loans and advances: customers	6,950	—	26	104
Debt instruments	848	—	—	—
Others	160	—	—	—
Liabilities	2,689	41	12	57
Financial liabilities: credit institutions	563	—	—	—
Financial liabilities: customers	2,064	41	12	57
Marketable debt securities	—	—	—	—
Others	62	—	—	—
Income statement	1,386	—	—	2
Interest income	111	—	—	1
Interest expense	(15)	—	—	—
Gains/losses on financial assets and liabilities and others	47	—	—	—
Commission income	1,269	—	—	1
Commission expense	(26)	—	—	—
Other	4,219	7	3	49
Financial guarantees granted and Others	17	5	2	38
Loan commitments and Other commitments granted	197	1	1	6
Derivative financial instruments	4,005	1	—	5

The remaining required information is detailed in notes 5, 14 and 46.c.

53. Risk management

a) Risk principles and culture

Grupo Santander's risk principles below are compulsory. They comply with regulatory requirements and are inspired by best market practices:

- 1. All employees are risk managers** who must understand the risks associated with their functions and not assume risks with an impact that exceeds the Group's risk appetite or is unknown.
- 2. Involvement of senior managers**, with consistent risk management and control through their conduct, actions and communications, as well as oversight of the risk culture and make sure Grupo Santander maintain the risk profile within the defined risk appetite.
- 3. Independent risk management and control functions**, according to the three lines of defence model of Grupo Santander.
- 4. A forward-looking, comprehensive approach to risk management and control** for all businesses and risk types.
- 5. Complete and timely information** to identify, assess, manage and disclose risks to the appropriate level.

Grupo Santander's holistic control structure stands on these principles and includes strategic tools and processes set out in the risk appetite statement, such as annual planning and budget planning, scenario analysis, the risk reporting structure and risk identification and assessment.

1. Risk factors

Grupo Santander's risks categorization ensures effective risk management, control and reporting. The risk framework distinguishes these risk types:

- **Credit risk** relates to financial loss arising from the default or credit quality deterioration of a customer or counterparty, to which Santander has directly provided credit or assumed a contractual obligation.
- **Market risk** results from changes in interest rates, exchange rates, equities, commodities and other market factors, and from their effect on profit or capital. It includes the structural risk relates to market movements or balance sheets behaviour will change the value or profit generation of assets or liabilities in the banking book.
- **Liquidity risk** occurs if liquid financial resources are insufficient or too costly to obtain in order to meet liabilities when they fall due.
- **Capital risk** is the risk that arises from the possibility of having an inadequate quantity or quality of capital to meet internal business objectives, regulatory requirements or market expectations in the area of structural risk.

Grupo Santander also takes into account, on an ongoing basis in its management of the risk function, operational, regulatory compliance, model, reputational and strategic risks.

Besides, environmental and climate-related risk drivers are considered as factors that could impact the existing risks in the medium-to-long-term. These elements include, on the one hand, those derived from the physical effects of climate change, generated by one-off events as well as by chronic changes in the environment and, on the other hand, those derived from the process of transition to a development model with lower emissions, including legislative, technological or behaviour of economic agents changes.

The analysis of climate change scenarios has continued to advance during 2021 in the Group to try to cover the different casuistry related to the risks of transition to a low-carbon economy and/or the effects derived from the physical risk of possible climatic events in certain geographies where the Group operates.

Grupo Santander continues to make progress in the credit granting process following the EBA guidelines as well as in the development of a more restrictive financing policy, taking special account of the most sensitive sectors/activities, which includes ceasing to provide financial services to medium term to electricity generation customers with more than 10% of revenues dependent on coal and eliminate exposure to coal mining production in the world.

Grupo Santander has scheduled a series of actions to continue integrating climatic and environmental factors in the credit admission process, through i) their incorporation in the assessment processes of local credit committees, ii) their inclusion in the assignment of corporate ratings in the wholesale market (with a future expansion to retail banking) and in the process of setting prices through the entities' own ratings and the specific pricing that already exists for specific products with discount rates based on the fulfillment of various conditions , and iii) the inclusion of energy certificates in the valuation of collaterals.

Additionally, Grupo Santander has increased focus on the impact of climate risk in relation to market, structural and liquidity risk, which arise from the possibility that changes in climate may adversely affect the value of a financial instrument, a portfolio or the Group as a whole. This risk may have an impact both on financial instruments value or portfolios and on Santander's liquidity. Grupo Santander measures this risk through stress scenarios for both market and liquidity risk, which arises from the possibility that climate change may adversely affect the value of a financial instrument, a portfolio or the Group as a whole

2. Risk governance

Grupo Santander's robust risk and compliance governance structure allows us to conduct effective oversight in line with our risk appetite. It stands on three lines of defence, a structure of committees and strong Group-subsidiary relations, guided by our risk culture, Risk Pro.

2.1 Lines of defence

Grupo Santander model of three lines of defence effectively manages and controls risks:

- **First line:** formed by businesses and functions that take or originate exposure to risk, it recognizes, measures, controls, monitors and reports on risks according to internal risk management regulation. Risk origination must be consistent with the approved risk appetite and related limits.
- **Second line:** formed by the Risk and Compliance and Conduct functions, it independently oversees and challenges the first line's risk management. Its duties include ensuring that risks are

managed according to the risk appetite defined by senior management and strengthening our risk culture throughout Grupo Santander.

- **Third line:** the Internal Audit function, which is independent to ensure the board of directors and senior managers with high-quality and efficient internal controls, governance and risk management systems, helping to safeguard our value, solvency and reputation.

The Risk, Compliance & Conduct and Internal Audit functions are separate and independent. Each has direct access to the board of directors and its committees.

2.2 Risk committee structure

The **board of directors** is ultimately responsible for risk and compliance management and control. It revises and approves the bank's risk frameworks and appetite, while promoting a strong risk culture across the Group. The board relies on its risk supervision, regulation and compliance committee for risk control and on the group's executive committee for risk approval.

The **Group chief risk officer (Group CRO)**, who decides risk strategy and promotes proper risk culture, is in charge of overseeing all risks and challenging and advising business lines on risk management.

The **Group chief compliance officer (Group CCO)**, who decides compliance and conduct strategy, is in charge of controlling the risks within their purview and must provide the Group CRO with a complete overview on the situation of risks being monitored.

Both the Group CRO and the Group CCO have direct access and report to the risk supervision, regulation and compliance committee and the board of directors.

The executive risk, risk control and compliance and conduct committees are executive committees and have been delegated powers by the board.

Furthermore, risk functions have forums and regular meetings to manage and control the risks within their purview. Executive committees also delegate some duties to subordinate forums.

Their responsibilities include:

- Reporting to the Group CRO, the Group CCO, the risk control committee and the compliance and conduct committee on risk management according to risk appetite;
- monitoring and ensuring proper management of each risk factor; and
- overseeing measures to comply with supervisors and auditors' expectations.

Besides, Grupo Santander, in order to establish an adequate control environment for the management of each risk factors, the Risk and Compliance and Conduct functions have effective internal regulation to create the right environment to manage and control all risks.

Grupo Santander can also dictate new governance measures for special situations. During the Brexit crisis transition process, it set up separate steering committees and working groups with Santander UK. Also, to cope with the covid-19 crisis, it created special situation forums, in which close coordination with subsidiaries, local contingency plan activation and scenario analysis enhanced allocated resources and governance.

2.3 The Group's relationship with subsidiaries

In all subsidiaries, the risk and compliance management and control model is consistent with the frameworks approved by Grupo Santander's board of directors, which they adhere to through their own boards and can only adapt according to local law and regulation. In its duty to carry out aggregate risk oversight, Grupo Santander validates and challenges subsidiaries' internal regulation and transactions, which results in a common risk management model across the Group.

In 2021, Grupo Santander continued to strengthen the regional subsidiary relations model, based on regions, to find synergies for common operations and platforms building on the global and regional scale; to streamline processes; and to tighten control mechanisms so Grupo Santander's business can grow, allocate capital more efficiently and offer the best service to customers.

In this sense, each local CRO interact regularly with their regional head of risk, the Group CRO and the Group CCO in periodic regional or country control meetings. Local and global Risk and Compliance functions also hold follow-up meetings to address special matters. The Group CRO and the Group CCO and regional heads of risk are involved in appointing, setting of objectives, reviewing and compensating their local counterparts to ensure proper risk management.

Grupo Santander enhances its relations with subsidiaries and its advanced risk management model through:

- Close collaboration between countries in the same region to carry out common initiatives efficiently;
- structural change, subsidiary benchmarks and a strategic vision for the function to implement advanced risk management infrastructures and practices;
- the exchange of best practices to strengthen processes and drive innovation in order to achieve a quantitative impact;
- identification of talent in risk and compliance teams, promoting international mobility through a global risk talent programme and tightening succession plans.

3. Management processes and tools

Grupo Santander has these effective risk management processes and tools:

3.1 Risk appetite and structure of limits

Risk appetite is the volume and type of risks Grupo Santander deem prudent for the business strategy, even in unforeseen circumstances. It considers adverse scenarios that could have a negative impact on capital, liquidity and profitability.

The board sets the Group's risk appetite statement (RAS) every year. Grupo Santander subsidiaries' boards also set their own risk appetites annually. Each of those risk appetites translates into risk management limits and policies based on risk type, portfolio and segment.

3.1.1. Business model and risk appetite fundamentals

Grupo Santander's risk appetite is consistent with the risk culture and business model built on customer focus, scale and diversification. At the core of Grupo Santander's risk appetite are:

- A medium-low and predictable target risk profile that is centred on retail and commercial banking, internationally diversified operations and strong market share;
- Stable, recurrent earnings and shareholder remuneration, sustained by a sound base of capital, liquidity and sources of funding;
- Independent subsidiaries that manage their own capital and liquidity, with risk profiles that do not compromise Grupo Santander's solvency;
- An independent risk function with involvement by senior management to embed a strong risk culture and drive a sustainable return on capital;
- A global and holistic vision through a meticulous control and monitoring of risks, businesses and markets;
- A focus on products Grupo Santander know well;
- A conduct model that protects Grupo Santander's customers; and
- A remuneration policy that aligns employees and executives' interests with risk appetite and long-term results.

3.1.2. Corporate risk appetite principles

The principles that inform Grupo Santander's risk appetite are:

- **The board and senior management's responsibility** for risk appetite;
- **An enterprise-wide view of risk, back-testing and challenge of risk profile** based on quantitative metrics and qualitative indicators;
- **A forward-looking view** based on plausible assumptions and adverse/stress scenarios to reflect the desired risk profile in the short and medium term;
- **Strategic and business plans embedded in daily management** by policies and limits;
- **Common standards** that align each subsidiary's appetite with the Group's; and
- **Regular reviews, best practice and regulatory requirements**, with mechanisms in place to keep the risk profile stable and mitigate non-compliance.

3.1.3. Structure of limits, monitoring and control

Risk appetite is expressed in qualitative terms and limits, structured on these five core elements.

- Earnings volatility**
The maximum loss Grupo Santander can tolerate in an acute -but- plausible stress scenario.
- Solvency**
 - Minimum capital position Grupo Santander can tolerate in a stress scenario.
 - Maximum leverage Grupo Santander can tolerate in a stress scenario.
- Liquidity**
 - Minimum structural liquidity position.
 - Minimum liquidity horizon Grupo Santander can tolerate in peak stress scenario.
 - Minimum liquidity coverage position.
- Concentration**
 - Concentration in single names, industries and portfolios.
 - Concentration in non-investment grade counterparties.
 - Concentration in large exposures.
- Non-financial risks**
 - Maximum operational risk losses.
 - Maximum risk profile.
 - Non-financial risk indicators:
 - Financial crime compliance (FCC)
 - Cyber and security risk
 - Model risk
 - Reputational risk

b) Credit risk

1. Introduction to the credit risk treatment

Credit risk refers to a potential financial loss from the default or credit quality deterioration of a customer or other third party with whom Grupo Santander has a contractual obligation. It is our most important risk, both in terms of exposure and capital consumption. It also includes counterparty risk, country risk and sovereign risk.

Credit risk management

Grupo Santander identifies, analyses, controls and decides on credit risk based on holistic view of the credit risk cycle, which includes the transaction, the customer and the portfolio.

Credit risk identification is key to managing and controlling Grupo Santander's portfolios effectively. Grupo Santander classify external and internal risks in each business and adopt corrective and mitigating measures when needed through these processes:

1.1. Planning

Grupo Santander's planning helps to set business targets and define specific action plans within our risk appetite framework.

Strategic commercial plans (SCP) are a management and control tool the business and risk areas prepare for Grupo Santander's credit portfolios. They determine commercial strategies, risk policies, resources and infrastructure, ensuring a holistic view of the portfolios. They provide managers with an updated view of credit portfolio quality to measure credit risk, run internal controls over the defined strategy coupled with regular monitoring, detect significant deviations in risk and potential impacts, and take corrective actions when necessary. They also align with Grupo Santander's risk appetite and its subsidiaries' capital targets, and are approved and monitored by senior managers at each subsidiary before being reviewed and validated by Grupo Santander.

1.2. Risk assessment and credit rating

To analyse customers' ability to meet contractual obligations, Grupo Santander uses valuation and parameter estimation models in each of the segments. Grupo Santander's credit quality valuation models are based on credit rating drivers, which Grupo Santander monitors to calibrate and adjust the decisions and ratings they assign. Depending on each segment, drivers can be:

- **Rating:** from mathematical algorithms that have a quantitative model based on balance sheet ratios or macroeconomic variables, and a qualitative module supplemented by the credit analyst's expert judgement. It is used for SCIB, corporate, institutional and SME segments (with individualised treatment).
- **Scoring:** an automatic system to evaluate credit applications that assigns an individual score to customers for subsequent decision-making, generally in the retail and smaller SME segments.

Grupo Santander's parameter estimation models follow econometric models built on Grupo Santander's portfolios' historical defaults and losses. Grupo Santander uses them to calculate economic and regulatory capital as well as IFRS 9 provisions for each portfolio.

Grupo Santander regularly monitoring and evaluate models' appropriateness, predictive capacity, performance, granularity, compliance with policies and other related factors. Grupo Santander reviews ratings with the latest available financial and economic information. Grupo Santander has also increased the reviews for customers who are under closer observation or have automatic warnings in the risk management systems.

1.3. Credit risk mitigation techniques

We approve risks generally on the basis of borrowers' ability to pay in fulfilment of financial obligations, notwithstanding any additional collateral or personal guarantees we can require from them. To determine this, we analyse funds or net cash flows from their businesses or income with no guarantors or the assets pledged as collateral. We always consider guarantors and collateral when deciding to approve a loan as a secondary means of recourse if the first channel fails.

In general, a guarantee is as a reinforcement measure added to a credit transaction to mitigate a loss due to a failure to meet a payment obligation.

Grupo Santander has credit risk mitigation techniques for various types of customer and products. Some are for specific transactions (e.g., property) while others apply to a series of transactions (e.g., derivatives netting and collateral). Grupo Santander can be grouped into personal guarantees, guarantees in the form of credit derivatives or collateral.

1.4. Definition of limits, pre-classifications and pre-approvals

Grupo Santander uses SCPs to manage credit portfolios, defining limits for each of them and for new originations, in line with the Group's credit risk appetite and its target risk profile. Transposing the risk appetite to portfolio management strengthens controls over our credit portfolios.

Grupo Santander's limits, pre-classifications and pre-approvals processes determine the risk we can assume with each customer. Limits are approved by the executive risk committee (or delegated committees) and should reflect a transaction's expected risk-return

Grupo Santander applies various limits models to each segment:

- **Large corporate groups:** are subject to a pre-classification model based on a system for measuring and monitoring economic capital. Pre-classification models express the level of risk Grupo Santander is willing to assume in transactions with customers/ groups in terms of capital at risk, nominal cap and maximum tenors. To manage limits with financial entities, Grupo Santander uses Credit Equivalent Risk (CER), which includes actual and expected risks with customers according to risk appetite and credit policies.
- **Corporates and institutions:** that meet certain requirements (strong relationships, rating, etc.): Grupo Santander uses simpler pre-classification model with an internal limit. It establishes a reference point in a customer's level of risk based on repayment capacity, overall indebtedness and a pool of banks.

Transactions with large corporates, corporates and institutions above certain limits or with special characteristics could require approval from a senior credit analyst or a committee.

- **For individual customers and SMEs** with low turnover, Grupo Santander manages large volumes of credit transactions with automatic decision models to classify customers and transactions.

1.5. Scenario analysis

Grupo Santander's scenario analyses determine the potential risks in its credit portfolios and provide a better understanding of our portfolios' performance under various macroeconomic conditions.

They allow us to anticipate management strategies that will avoid future deviations from defined plans and targets. They simulate the impact of alternative scenarios in portfolios' credit parameters (PD, LGD) and expected credit losses. We compare findings with portfolios' credit profile indicators to find the right measures for managers to take. Credit risk management of portfolios and SCPs incorporate scenario analyses.

1.6. Monitoring

Regularly monitoring business performance and comparing it to pre-defined plans is key to our management of risk.

Grupo Santander's holistic monitoring of customers helps detect impacts on risk performance and credit quality early.

Grupo Santander assigns customers a classification with a pre-defined course of action and ad hoc measures to correct any deviations.

Monitoring, which considers transaction forecasts and characteristics, in addition to changes in classification, is performed by local and global risk teams and is based on customer segmentation:

- For SCIB, monitoring is initially a function of business managers and risk analysts which provide an up-to-date view of customers' credit quality to predict a potential customer's deterioration.
- For commercial banking, institutions and SMEs assigned a credit analyst, Grupo Santander tracks customers requiring closer monitoring and review their ratings based on relevant indicators.
- Monitoring of individual customers, businesses and smaller SMEs follows a system of automatic alerts to detect shifts in portfolios' performance.

Monitoring uses the Santander Customer Assessment Note (SCAN) tool. Grupo Santander fully rolled it out in our subsidiaries in 2019. It helps set individual monitoring levels and frequencies, policies, and actions for customers based on credit quality and particular circumstances.

In addition to monitoring customer credit quality, Grupo Santander defines control procedures to analyse portfolios and performance, as well as any deviations from planning or approved alert levels.

1.7. Recovery and collections management

The Collections & Recoveries area carries out recoveries, which are important to risk management. It defines a global, enterprise-wide management strategy with guidelines and general lines of action for Grupo Santander's subsidiaries based on the economic environment, business model and other local recovery conditions. Recovery management follows regulatory requirements set out in the EBA Guidelines on the management of non-performing and forborne exposures. In addition, Grupo Santander applies specific policies on recovery management that include the principles of the different strategies.

The Collections & Recoveries areas directly manage customers. As sustained value creation is based on effective and efficient collections, digital channels that develop new customer relations are gaining importance. Grupo Santander's diverse customer base requires segmentation to manage recoveries appropriately. The highly technological and digital processes Grupo Santander follows help us attend to large groups of customers with similar profiles and products. Grupo Santander's personalized management, however, focuses on customer profiles that require a special manager and approach.

Grupo Santander splits recovery management into four phases: arrears, credit impaired loans, write-offs and foreclosed assets. Grupo Santander may use mechanisms to rapidly reduce assets like sales of foreclosed assets or credit impaired loans pool sales. Grupo Santander constantly seeks alternatives to legal action in order to collect debt.

Grupo Santander includes debt instruments as written-off loans (even if they are not past-due) if an individual analysis of the solvency of a transaction and the borrower leads us to believe recovery is remote due to a notorious and unrecoverable impairment. Though this may lead to full or partial cancellation and de-recognition of the gross carrying amount of debt, it does not mean we interrupt negotiations and legal proceedings to recover debt. In countries with high exposure to real estate risk, we have efficient sales management instruments that help maximize recovery and optimize balance sheet stocks.

2. Main aggregates and variations

Following are the main aggregates relating to credit risk from our activities with customers:

MAIN CREDIT RISK PERFORMANCE METRICS FROM ACTIVITY WITH CUSTOMERS*

December data

	Credit risk with customers ** (EUR million)			Credit impaired loans (EUR million)			NPL ratio (%)		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Europe	636,123	606,997	605,969	19,822	20,272	21,054	3.12	3.34	3.47
Spain	283,953	272,154	260,251	13,403	14,053	15,047	4.72	5.16	5.78
UK	262,869	252,255	264,297	3,766	3,138	2,736	1.43	1.24	1.04
Portugal	41,941	40,693	37,978	1,442	1,584	1,834	3.44	3.89	4.83
Poland	33,497	31,578	33,566	1,210	1,496	1,447	3.61	4.74	4.31
North America	149,792	131,626	143,839	3,632	2,938	3,165	2.42	2.23	2.20
US	112,808	99,135	105,792	2,624	2,025	2,331	2.33	2.04	2.20
Mexico	36,984	32,476	38,047	1,009	913	834	2.73	2.81	2.19
South America	141,874	129,590	143,428	6,387	5,688	6,972	4.50	4.39	4.86
Brazil	85,702	74,712	88,893	4,182	3,429	4,727	4.88	4.59	5.32
Chile	41,479	42,826	42,000	1,838	2,051	1,947	4.43	4.79	4.64
Argentina	5,481	4,418	5,044	198	93	171	3.61	2.11	3.39
Digital Consumer Bank	117,049	116,381	117,399	2,490	2,525	2,470	2.13	2.17	2.10
Corporate Centre	6,277	4,862	5,872	903	344	138	14.38	7.08	2.34
Total Group	1,051,115	989,456	1,016,507	33,234	31,767	33,799	3.16	3.21	3.32

* Management perimeter according to the reported segments. The Corporate & Investment Banking branches of Banco Santander, S.A. in Europe and other business lines previously reported under 'Other Europe' have been included into the Spain unit.

** Includes gross lending to customers, guarantees and documentary credits.

Key figures by geographic region are described below at 31 December 2021:

- **Europe:** the NPL ratio fell 22 bps to 3.12% from 2020 due to a significant reduction in credit impaired loans in Spain and Poland, offsetting the increase observed in the UK.
- **North America:** the NPL ratio increased 19 bps to 2.42% from 2020, mainly due to increases at SC USA. NPL stock rose 24% year-on-year.
- **South America:** the NPL ratio rose 11 bps to 4.50%. comparing to 2020, due to the increase observed in Argentina (+150 bps) and Brazil (+29 bps), offsetting the decrease in Chile (-36 bps).
- **Digital Consumer Bank:** The NPL ratio decreased 4 bp to 2.13% comparing to 2020, despite the decrease in automobile financing.

Information on the estimation of impairment losses

Estimation of expected credit losses:

The covid-19 health crisis, since its beginning in 2020, was unexpected, unpredictable and severe, but it is estimated to be of a temporary nature. Grupo Santander's priority in these circumstances has been to look after the health of its employees, customers and shareholders, but also to help reduce the economic impact of the pandemic. This includes trying to offer the best solutions to help customers.

Conceptually, the phases in managing the effects of covid-19 have been:

- Identification of customers or groups affected or potentially affected by the pandemic.
- Early relief of temporary financial difficulties caused by covid-19 through measures promoted by governments, central banks, and financial institutions.
- Monitoring the evolution of customers, to ensure that they continue to be provided with the best solution for their situation, and also to guarantee that their potential impairment is correctly reflected in the risk management and accounting. This point is particularly relevant at the expiry of any moratorium or liquidity support measures to which customers may have availed themselves.
- Monitoring is accompanied by recovery management activities when necessary.

These conceptual phases do not occur sequentially but overlap in time. Additionally, the continuous interaction and coordination between the different subsidiaries proved to be a fundamental asset in the management of this crisis. The experience obtained in the fight against the health crisis and its financial consequences in our different geographies, and the different speeds at which it has been developing in each of them, allow us to share the best practices identified and to implement in an agile and efficient manner those strategies and concrete actions that have been most successful, always adapted to the local reality of each market.

Estimation of expected loss

In the context described above on the measures taken in relation to covid-19, many regulators and supervisors highlighted the uncertainties surrounding the economic impacts of the health crisis. This is also evident in the frequent updates of macroeconomic forecasts, with different perspectives and views on the depth and duration of the crisis. Thus, the general recommendation (including IASB, ESMA, EBA and ECB) was not to mechanistically apply the usual techniques for calculating expected losses under IFRS 9, in order to avoid that this variability of economic conditions would translate into volatility in results, with its potential pro-cyclical effects on the economy.

Thus, Grupo Santander has analysed losses under IFRS 9 on the basis of three types of elements:

1. Continuous monitoring of customers

Monitoring the credit quality of customers could have been more complex in the current circumstances. For such monitoring, and in addition to the application of internal customer monitoring policies, all available information should be used. The availability of information and its relevance is different in the various portfolios of the different countries in which Grupo Santander operates, but it may include, but is not limited to the following:

- The payment of interest in the case of principal-only shortfalls.
- The payment of other operations of the same client in the institution (not subject to moratorium).
- Information on payment of loans in other entities (through credit bureaus).
- Customer financial information: average balances in current accounts, availability/use of limits, etc.
- Available behavioural elements (variables that feed the behavioural scores, etc.).
- Information gathered from customer contacts (surveys, calls, questionnaires, etc.). This may include: customers who have taken up furlough programs, direct government aid, etc.

2. Forward-looking vision

As it was reflected by the IASB, macroeconomic uncertainty makes the usual application of IFRS 9 expected loss calculation models difficult but did not exempt the incorporation of the prospective feature of the standard. To this end, the European Central Bank recommended the use of a stable, long-term view (long-run) of the macroeconomic forecasts, which takes into account in the assessment the multiple support measures explained above.

During 2021, this uncertainty has been reduced as vaccination progressed, hospitalisation rates gradually declined, allowing, in some cases, for the reduction of restriction measures. In parallel, support measures expired while maintaining the good performance of the portfolios.

This implies that once the economic scenarios have been stabilising and converging to their potential growth, these new economic scenarios have been gradually updated in the models by returning to the standard forward-looking calculation.

3. Additional elements

Additional elements will be required when necessary because they have not been captured under the two previous elements. This has included, among others, the analysis of sectors most affected by the pandemic if their impacts are not sufficiently captured by the macroeconomic scenarios. Also collective analysis techniques, when the potential impairment in a group of clients cannot be identified individually.

With the elements indicated above, Grupo Santander has evaluated in each of the geographical areas the evolution of the credit quality of its customers, for the purposes of their classification in Grupo Santander financial statements.

In terms of classification, in 2021 Grupo Santander has maintained the criteria and thresholds for classification applied prior to the start of the pandemic, eliminating regulatory criteria of the effect of moratorium classification as they have expired, as well as the collective analyses associated with these groups of loans.

Regarding moratorium measures, a rigorous identification and periodic monitoring of the credit quality of the clients and their payment behaviour have been carried out and, through a specific individual or collective evaluation, the timely detection of the Significant Increase in Credit Risk (SICR).

As part of governance processes, Grupo Santander issued guideline documents to all subsidiaries to ensure consistent standards and governance in managing the new treatment and particular impacts on pandemic-related provisions. The guidelines included instructions on how to calculate the macroeconomic impact of the crisis using overlay and potential collective assessments that considered impairment caused by covid-19. Those documents also include a monitoring guide to ensure the appropriateness of special insolvency fund adjustments for covid-19-related situations and anticipate any other necessary adjustment.

Regarding moratoria measures, a rigorous identification and regular monitoring of customer credit quality and payment behavior have been performed and through specific individual or collective assessment, the timely detection of SICR have been assured.

Details of the exposure by stage can be found in notes 6, 7, 10, as well as in this note of these consolidated annual accounts.

Grupo Santander estimates the impairment losses by calculating the expected loss at 12 months or for the entire life of the transaction, based on the stage in which each financial asset is classified in accordance with IFRS 9.

Then, considering the most relevant units of the Group (United Kingdom, Spain, United States, Brazil, also Chile, Mexico, Portugal, Poland, Argentina and Santander Consumer Finance), which represent approximately 96% of the total Group's provisions. The

table below shows the impairment losses associated with each stage as of 31 December 2021, 2020 and 2019. In addition, depending on the transactions credit quality, the exposure is divided into three categories according to Standard & Poor's rating scale:

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2021			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	565,443	13,798	—	579,241
From BB- to CCC	237,525	56,170	—	293,695
Default	—	—	30,711	30,711
Total exposure **	802,968	69,968	30,711	903,647
Impairment losses***	4,149	5,103	12,873	22,125

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2020			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	489,518	9,124	—	498,642
From BB- to CCC	276,516	55,838	—	332,354
Default	—	—	30,436	30,436
Total exposure **	766,034	64,962	30,436	861,432
Impairment losses***	4,458	5,461	13,503	23,422

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2019			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	552,763	5,532	—	558,295
From BB- to CCC	306,880	47,365	—	354,245
Default	—	—	31,363	31,363
Total exposure **	859,643	52,897	31,363	943,903
Impairment losses***	3,980	4,311	13,276	21,567

* Detail of credit quality ratings calculated for Group management purposes.

** Total exposure includes loan balances (drawn amounts) and off balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

***Includes provisions for undrawn authorized lines (loan commitments)

The remaining units that form the totality of the Group exposure, contributed EUR 102,631 million in stage 1; EUR 1,870 million in stage 2, and EUR 2,522 million in stage 3 (in 2020 EUR 98,121 million in stage 1; EUR 3,613 million in stage 2, and EUR 1,322 million in stage 3. In 2019, EUR 38,174 million in stage 1; EUR 1,422 million in stage 2, and EUR 1,056 million in stage 3), and impairment losses of EUR 408 million in stage 1; EUR 322 million for stage 2, and EUR 841 million in stage 3 (in 2020, EUR 180 million, EUR 393 million and EUR 277 million and in 2019, EUR 264 million, EUR 306 million and EUR 91 million in stage 1, stage 2 and stage 3, respectively).

The remaining exposure, including all financial instruments not included before, amounts to EUR 349,228 million (EUR 478,093 million in 2020 and EUR 507,479 million in 2019), and it includes all undrawn authorized lines (loan commitments).

As of 31 December 2021, the Group had EUR 420 million net of provisions (EUR 497 million and EUR 706 million at 31 December 2020 and 2019, respectively) of purchased credit-impaired assets, which relate mainly to the business combinations carried out by the Group.

Regarding the evolution of credit risk provisions, the Group, in collaboration with the main geographical areas, monitors them by carrying out sensitivity analyses considering changes in macroeconomic scenarios and main variables that have an impact on the financial assets distribution in the different stages and calculating credit risk provisions.

Additionally, based on consistent macroeconomic scenarios, the Group also performs stress tests and sensitivity analysis in a regular basis, such as ICAAP, strategic plans, budgets and recovery and resolution plans. In this sense, a prospective view of the sensitivity of each of the Group's loan portfolio is created in relation to the possible deviation from the base scenario, considering both the macroeconomic developments in different scenarios and the three year evolution of the business. These tests include potentially adverse and favourable scenarios.

The transactions classification into the different IFRS 9 stages is carried out in accordance with the regulation through the risk management policies of our subsidiaries, which are consistent with the risk management policies defined by the Group. In order to determine the classification in stage 2, the Group assesses whether there has been a significant increase in credit risk (SICR) since the initial recognition of the transactions, considering a series of common principles throughout the Group that guarantee that all financial instruments are subject to this assessment, which considers the particularities of each portfolio and type of product on the basis of various quantitative and qualitative indicators. Furthermore, transactions are subject to the expert judgement of the analysts, who set the thresholds under an effective integration in management. All is implemented according to the approved governance.

The criteria thresholds used by the Group are based on a series of principles, and develop a set of techniques. The principles are as follows:

- Universality: all financial instruments subject to a credit rating must be assessed for their possible SICR.
- Proportionality: the definition of the SICR must take into account the particularities of each portfolio.
- Materiality: its implementation must be also consistent with the relevance of each portfolio so as not to incur in unnecessary costs or efforts.
- Holistic vision: the approach selected must be a combination of the most relevant credit risk aspects (e.g. quantitative and qualitative).
- Application of IFRS 9: the approach must take into consideration IFRS 9 characteristics, focusing on a comparison with credit risk at initial recognition, as well as considering forward-looking information.
- Risk management integration: the criteria must be consistent with those metrics considered in the day-to-day risk management.
- Documentation: Appropriate documentation must be prepared.

The techniques are summarised below:

- Stability of stage 2: in the absence of significant changes in the portfolios credit quality, the volume of assets in stage 2 should maintain a certain stability as a whole.
- Economic reasonableness: at transaction level, stage 2 is expected to be a transitional rating for exposures that could eventually move to a deteriorating credit status at some point or stage 3, as well as for exposures that have suffered credit deterioration and whose credit quality is improving.
- Predictive power: it is expected that the SICR definition avoids, as far as possible, direct migrations from stage 1 to stage 3 without having been previously classified in stage 2.
- Time in stage 2: it is expected that the exposures do not remain categorized as stage 2 for an excessive time.

The application of the aforementioned techniques, conclude in the setting of one or several thresholds for each portfolio in each geography. Likewise, these thresholds are subject to a regular review by means of calibration tests, which may entail updating the thresholds types or their values.

Covid-19 credit risk evolution and customer support programmes

In the context of the general response of Santander to the covid-19 pandemic, and specifically with the purpose to help the customers from the credit perspective and foster their economic resilience during the crisis, Grupo Santander implemented several actions in addition to those listed above, the following:

- The severity of the pandemic's effects was significantly different depending on the economic sector. Consequently, Santander launched a process to identify those that could be more affected in order to focus credit risk management on them.
- Due to the covid-19 crisis, great focus was placed on collections & recoveries readiness across Grupo Santander to deal with the impact expected on its portfolios once the support measures granted have expired.

Since the start of the pandemic in 2020, at the end of December 2021, Grupo Santander granted a total of EUR 93,112 million in payment moratoria, equivalent to 9.68% of the loan portfolio.

From the total moratoria, 99.8% had expired at 31 December 2021, from which 74.6% were classified in stage 1, 18.7% in stage 2 and 6.7% in stage 3. At December 2020, 79.1% of total moratoria has expired, from which 82.4% classified in stage 1, 14.5% in stage 2 and 3.1% in stage 3.

At the end of December 2021, total lending under government liquidity programmes amounted to EUR 39,879 million. By geography, Spain represent 68% of total exposure granted to these types of programmes, with an average coverage of ICO guarantees of 77%. UK constitutes the 13% of total exposure with an average coverage of 98%.

Quantification of additional provisions for covid-19

In relation to the measures in the insolvency funds, the Group set up additional provisions during 2020 based on a collective analysis of vulnerable sectors, and segments affected by the crisis derived from the covid-19 pandemic, as well as an estimate of the additional impairment of the loan and advance portfolio caused by the economic effects of the pandemic, realistically reflecting the structural deterioration of the economy at the date of construction of the estimate. This estimate was made on the basis of the information available at that date, which was affected by the high degree of uncertainty at the time of the estimate, and was aligned with the projections generated by the ECB. This macroeconomic scenario included a balance between short- and long-term forecasts, without being a 'through the cycle' scenario. The convergence of these scenarios with pre-crisis paths was expected to occur in the first quarter of 2022 for most macroeconomic indicators (except for house prices, which were expected to converge in the first quarter of 2023).

Grupo Santander has continuously and regularly monitored the following aspects during 2021 and 2020: (1) the evolution of the pandemic and the macroeconomic outlook, (2) forecasts from institutions and central banks, and (3) the evolution of portfolios in each of the countries where Grupo Santander is present.

Based on that monitoring, the Group updates and evaluates the adequacy of the macroeconomic scenarios in accordance with the established governance, when reliable and supportable information is available. At the end of 2021, we updated the most recent scenarios to calculate IFRS 9 provisions by recalibrating and revising the forward-looking information and risk model parameters. Following that process, during 2021 the model update included the macroeconomic scenarios. Out of the EUR 3,105 million at the end of December 2020, EUR 1,235 million overlay remain in additional provisions, motivated by several countries' government relief measures, in particular income support measures in the US, payment holiday extensions for longer periods in Portugal, and from continued volatility in the UK.

3.Detail of the main geographical areas

Following is the risk information related to the most relevant geographies in exposure and credit risk allowances.

This information includes sensitivity analysis, consisting on simulations of +/-100 bp in the main macroeconomic variables. A set of specific and complete scenarios is used in each geography, where different shocks that affect both the reference variable as well as the rest of the parameters is simulated. These shocks may be originated by productivity, tax, wages or exchange and interest rates factors. Sensitivity is measured as the average variation on expected loss corresponding to the aforementioned scenarios. Following a conservative approach, the negative movements take into account one additional standard deviation in order to reflect the potential higher variability of losses.

3.1. United Kingdom

Credit risk with customers in the UK grew 4.2% (-2.5% in local currency) year-on-year to EUR 262,869 million. The UK accounts for 25% of Santander's loan portfolio.

Since the pandemic began, Santander granted 368,000 moratoriums and EUR 5,280 million in government-backed loans to help our customers.

The NPL ratio in 2021, 1.43%, increased as compared to 2020 (+19 bps) due to the increase in SME segment, as well as the decrease of the portfolio in the wholesale segment. The profile of the different segments remains stable.

Mortgage portfolio

Because of its size, we closely monitor Santander UK's mortgage portfolio for the entity itself and Grupo Santander.

As of December 2021, it amounted to EUR 209,949 million, growing by +4.3% in local currency. It comprises residential mortgages granted to new and existing customers which are first lien mortgages. There are no second or more liens on mortgaged properties.

2021 was a year of strong mortgage activity, mainly due to the higher demand after the covid-19 restrictions were lifted and the reduction of the stamp duty rates up until September. As a consequence, Santander UK achieved all-time high mortgage lending origination levels in June.

In accordance with Santander's risk management principles, properties are appraised independently before we approve a new mortgage.

In line with market practice and legislation, property values used as collateral for granted mortgages are updated quarterly by an independent agency's automatic appraisal system.

Information on the estimation of impairment losses

The detail of Santander's UK exposure and impairment losses associated with each of the stages at 31 December, 2021, 2020 and 2019, is shown below.

In addition, the exposure is divided in three tranches of the Standard & Poor's rating scale, according to their current credit quality:

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

2021				
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	210,418	9,088	—	219,506
From BB- to CCC	13,063	11,601	—	24,664
Default	—	—	3,508	3,508
Total exposure **	223,481	20,689	3,508	247,678
Impairment losses***	135	372	460	967

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

2020				
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	184,065	2,227	—	186,292
From BB- to CCC	34,965	16,814	—	51,779
Default	—	—	3,229	3,229
Total exposure **	219,030	19,041	3,229	241,300
Impairment losses***	223	557	668	1,448

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

2019				
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	238,985	2,032	—	241,017
From BB- to CCC	40,281	12,543	—	52,824
Default	—	—	2,821	2,821
Total exposure **	279,266	14,575	2,821	296,662
Impairment losses***	117	470	588	1,175

* Detail of credit quality ratings calculated for Group management purposes.

** Total exposure includes loan balances (drawn amounts) and off balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

***Includes provisions for undrawn authorized lines (loan commitments)

The Government support measures taken in the United Kingdom in 2020 as response to the covid-19 pandemic have gradually expired and at the end of December 2021, Santander UK had granted, since the start of the pandemic, a total amount of EUR 40,949 million moratoriums, equivalent to 16.53% of the loan portfolio.

100% of the moratoriums granted had expired at 31 December 2021, from which 81.7% were in stage 1, 15.2% in stage 2 and 3.1% in stage 3 (at the end of 2020, of the total moratoriums, 93.5% had expired, of which 83.6% were in stage 1, 14.7% in stage 2 and 1.7% in stage 3).

For the estimation of expected losses, prospective information is taken into account. Specifically, Santander UK considers five macroeconomic scenarios, which are updated periodically. The evolution forecasted in 2021 for the next five years of the main macroeconomic indicators used by Santander UK to estimate expected losses is presented below:

Variables	2022 - 2026				
	Pessimistic scenario 3	Pessimistic scenario 2	Pessimistic scenario 1	Base scenario	Optimistic scenario 1
Interest rate	-0.1%	2.0%	0.8%	0.7%	1.1%
Unemployment rate	8.4%	6.4%	5.1%	4.4%	4.0%
Housing price change	-5.0%	-3.0%	-1.5%	2.2%	1.5%
GDP growth	—	1.0%	1.3%	2.2%	2.6%

Each of the macroeconomic scenarios is associated with a given weight. In terms of allocation, Santander UK associates the highest weighting to the base scenario, while it associates the lowest weightings to the most extreme or severe scenarios. In addition, at 31 December 2021, the weights used by Santander UK reflect the future prospects of the British economy in relation to its current political and economic position so that higher weights are assigned for negative scenarios:

	2021	2020	2019
Pessimistic scenario 3	5%	10%	—
Pessimistic scenario 2	20%	25%	15%
Pessimistic scenario 1	25%	15%	30%
Base scenario	45%	45%	40%
Optimistic scenario 1	5%	5%	10%
Optimistic scenario 2	—	—	5%

The sensitivity analysis of the main portfolios expected loss to variations of +/- 100 bp for the macroeconomic variables used in the construction of the scenarios, as of December 2021, is as follows:

	Change in Provision	
	Mortgages	Corporates
GDP Growth		
-100 bp	19.1%	5.7%
100 bp	-6.7%	-1.0%
Housing price change		
-100 bp	4.0%	3.1%
100 bp	-3.7%	-0.6%
Unemployment rate		
-100 bp	-9.6%	-0.4%
100 bp	21.0%	0.4%

With regards to the determination of classification in stage 2, the quantitative criteria applied by Santander UK are based on identifying whether any increase in PD for the expected life of the transaction is greater than both an absolute and a relative threshold (the PD used in that assessment are adjusted to the transaction's remaining term and also annualised in order to facilitate that the thresholds defined cover the whole range of the transactions maturity dates). The relative threshold established is common to all portfolios and a transaction is considered to exceed this threshold when the PD for the entire life of the transaction increases by 100% with respect to the PD at the time of initial recognition. The absolute threshold, on

the other hand, is different for each portfolio depending on the characteristics of the transactions, ranging between 360 bp and 30 bp.

In addition, for each portfolio, a series of specific qualitative criteria is defined to indicate that the exposure has experienced a significant increase in credit risk, regardless of the evolution of its PD since the time of initial recognition. Santander UK, among other criteria, considers that an operation presents a significant increase in credit risk when it presents irregular positions for more than 30 days. These criteria depend on the risk management practices of each portfolio.

3.2. Spain

Portfolio overview

Santander España's credit risk totalled EUR 283,953 million (27% of Grupo Santander's total). It is appropriately diversified among products and customer segments.

Amid economic and credit recovery, as macroeconomic figures improved after the end of the covid-19 lockdowns in 2020, consumer loans (especially mortgages) grew significantly, as the corporate and SME lending remained below 2020 numbers, as we maintained positions with customers in liquidity support programmes (i.e. ICO lines of credit) without having to seek new financing.

Total credit risk increased 4.3% from December 2020. The ICO loans in Corporate and SME lending amounted to a significant EUR 27,294 (around half of them were extended according to the current regulation).

The credit portfolio's NPL ratio was 4.72%, 44 bp lower than in December 2020. This better overall portfolio performance was driven by customer support programmes; the regularization of several restructured positions; and portfolio sales.

The additional provisions raised to mitigate the potential impacts from the exceptional circumstances of the covid-19 pandemic, increased the NPL coverage ratio to 51% (+4 bp vs. December 2020). On the other hand, the non-performing portfolio declined mainly from loans with the highest expected losses.

The cost of credit by the end of the year remained closely aligned with December 2020.

Information on the estimation of impairment losses

The detail of Santander Spain exposure and impairment losses associated with each of the stages at 31 December, 2021, 2020 and 2019, is shown below. In addition, the exposure is divided in three tranches of the Standard & Poor's rating scale, according to their current credit quality:

EXPOSURE AND IMPAIRMENT LOSSES PER STAGE

EUR million

Credit quality *	2021			Total
	Stage 1	Stage 2	Stage 3	
From AAA to BB	153,120	908	—	154,028
From BB- to CCC	33,233	14,740	—	47,973
Default	—	—	12,761	12,761
Total exposure **	186,353	15,648	12,761	214,762
Impairment losses***	422	580	5,005	6,007

EXPOSURE AND IMPAIRMENT LOSSES PER STAGE

EUR million

Credit quality *	2020			Total
	Stage 1	Stage 2	Stage 3	
From AAA to BB	146,992	1,517	—	148,509
From BB- to CCC	40,630	11,541	—	52,171
Default	—	—	13,762	13,762
Total exposure **	187,622	13,058	13,762	214,442
Impairment losses***	479	732	5,277	6,488

EXPOSURE AND IMPAIRMENT LOSSES PER STAGE

EUR million

Credit quality *	2019			Total
	Stage 1	Stage 2	Stage 3	
From AAA to BB	139,673	1,315	—	140,988
From BB- to CCC	42,603	9,115	—	51,718
Default	—	—	14,587	14,587
Total exposure **	182,276	10,430	14,587	207,293
Impairment losses***	296	503	5,195	5,994

* Detail of credit quality ratings calculated for Group management purposes.

** Total exposure includes loan balances (drawn amounts) and off balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

***Includes provisions for undrawn authorized lines (loan commitments).

Note: In addition, there are EUR 64,852 million of exposure and EUR 227 million of impairment losses in 2021, EUR 50,813 million of exposure and EUR 180 million of impairment losses in 2020 and EUR 46,584 million of exposure and EUR 106 million of impairment losses in 2019, related to the aforementioned segments change.

The real estate unit in Spain (UAI) was consolidated within Santander Spain in 2019, (this process was completed in 2020). Consequently, unlike in 2019, in 2021 and 2020 the perimeter is aligned.

The remaining legal entities to reach the entire portfolio in Spain contribute another EUR 5,693 million, EUR 445 million and EUR 237 million of exposure in 2019 in stage 1, stage 2 and stage 3 respectively, and impairment losses in the amount of EUR 55 million, EUR 41 million and EUR 8 million in stage 1, stage 2 and stage 3, respectively.

The Government support measures taken in Spain in 2020 as response to the covid-19 pandemic have gradually expired and at the end of December 2021 Santander Spain had granted, since the start of the pandemic in 2020, a total amount of EUR 9,819 million moratoriums, equivalent to 4.87% of the loan portfolio.

Of the total moratoriums, 99.6% had expired at 31 December 2021, from which 75.6% was in stage 1, 14.9% in stage 2 and 9.5% in stage 3. At the end of 2020, of the total moratoria, 26.4% had expired, of which 77.2% were in stage 1, 15% in stage 2 and 7.8% in stage 3.

For the estimation of the expected losses, the prospective information is taken into account. Specifically, Santander Spain considers three macroeconomic scenarios, which are updated periodically. The projected evolution for a period of five years of the main macroeconomic indicators used by Santander Spain for estimating expected losses as of 2021, is presented below:

Variables	2022-2026		
	Pessimistic scenario	Base scenario	Optimistic scenario
Interest rate	0.6%	-0.2%	-0.2%
Unemployment rate	18.3%	13.0%	11.2%
Housing price change	1.6%	2.6%	3.2%
GDP growth	1.1%	2.9%	3.7%

Each macroeconomic scenarios is associated with a given weight. As for its allocation, Santander Spain associates the Base scenario with the highest weight, while associating the lower weights to the most extreme scenarios:

	2021	2020	2019
Pessimistic scenario	30%	30%	30%
Base scenario	40%	40%	40%
Optimistic scenario 1	30%	30%	30%

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios is as follows:

	Change in Provision		
	Mortgages	Corporates	Others
GDP Growth			
-100 bp	11.9%	5.4%	4.9%
100 bp	-4.9%	-2.9%	-2.7%
Housing price change			
-100 bp	4.1%	3.2%	3.3%
100 bp	-2.5%	-1.7%	-1.4%

With regards to the stage 2 classification determination, the quantitative criteria applied in Santander Spain are based on identifying whether an increase in the PD for the expected lifetime of the transaction when compared to the one at its origination is greater than an absolute threshold. The threshold established is different for each portfolio based on the transactions characteristics, considering that a transaction is above this threshold when the PD for the life of the transaction increases by a certain quantity over the initial recognized PD. The values of these thresholds depend on their calibration, carried out periodically as indicated in the preceding paragraphs, which currently ranges from 25% to 1%, depending on the type of product and estimated sensitivity.

In the case of non-retail portfolios, Santander Spain uses the transaction's rating as a reference for its PD, taking into account its rating at the time of origination and its current rating, setting absolute thresholds for the different rating bands that depend on each portfolio characteristics. A SICR implies changes in the rating value between 0.1 and 4, depending on the portfolio and the estimated sensitivity (from lower to higher credit quality, the rating range goes from 1 to 9.3).

In addition, for each portfolio, a series of specific qualitative criteria are defined indicating that the exposure experienced a significant increase in credit risk, regardless of the evolution of its PD since the time of initial recognition. Santander Spain, among other criteria, considers that an operation presents a significant increase in credit risk when positions have been past due for more than 30 days. These criteria depend on the risk management practices of each portfolio.

Residential mortgage portfolio

Residential mortgages in Spain, including Santander Consumer Finance business, amounted to EUR 62,324 million in 2021 (EUR 59,605 million and EUR 62,236 million in 2020 and 2019, respectively), 99.33% of which have a mortgage guarantee (99.35% and 99.51% in 2020 and 2019, respectively).

EUR Million	2021	
	Gross amount	Of which: impaired
Home purchase loans to families	62,324	1,860
Without mortgage guarantee	419	115
With mortgage guarantee	61,905	1,745

EUR Million	2020	
	Gross amount	Of which: impaired
Home purchase loans to families	59,605	1,850
Without mortgage guarantee	387	75
With mortgage guarantee	59,218	1,775

EUR Million	2019	
	Gross amount	Of which: impaired
Home purchase loans to families	62,236	2,649
Without mortgage guarantee	306	14
With mortgage guarantee	61,930	2,635

The mortgage portfolio for the acquisition of homes in Spain is characterised by its medium-low risk profile, which limits expectations of any potential additional impairment:

- Principal is repaid on all mortgages from the start.
- Early repayment is common so the average life of the transaction is well below that of the contract.
- High quality of collateral, concentrated almost exclusively in financing for first homes.
- The average affordability rate stood at 27% (27% and 26% in 2020 and 2019, respectively).
- The 89.41% of the portfolio has a LTV below 80% calculated as total risk/latest available house appraisal.

Breakdown of the credit with mortgage guarantee to households for house acquisition, according to the percentage that the total risk represents on the amount of the latest available valuation (loan to value):

EUR Million	2021					Total
	Loan to value ratio					
	Less than or equal to 40%	More than 40% and less than 60%	More than 60% and less than 80%	More than 80% and less than or equal to 100%	More than 100%	
Gross amount	16,479	19,391	19,479	4,376	2,180	61,905
Of which impaired	187	240	349	313	656	1,745

Businesses portfolio

Credit risk with SME and corporates in commercial banking, which is Santander España's core lending segment (at 40% of total credit risk) declined 5.2% from December 2020 to EUR 114,937 million, mainly due to a drop in the SME portfolio. Most of the portfolio relates to customers with an assigned credit analyst to monitor their loans throughout the risk cycle.

The portfolio is broadly diversified and not concentrated by sector of activity. 2021 was a year of stability in the portfolio figures after the significant growth in 2020 due to the liquidity support programmes (ICO), which after the initial grace period have begun to be amortised.

The portfolio's NPL ratio stood at 7.48% in December 2021. Even though total risk decreased, the NPL ratio increased by 6 bp compared to December 2020, due to lower portfolio volume, while the stock of credit impaired loans slightly reduced.

Real estate activity

The Real Estate Unit in Spain (UAI) was consolidated within Santander Spain in 2019 (this process was completed in 2020). The part of the portfolio resulting from the past financial crisis and the new business that is identified as viable should be differentiated. In both cases, Santander has specialized teams that are in charge of their management and risk areas that cover the entire life cycle of these operations.

In recent years the Group's strategy has been geared towards reducing these assets. The changes in gross property development loans to customers were as follows:

EUR million	2021	2020	2019
Balance at beginning of year	2,871	2,939	4,812
Foreclosed assets	(1)	(6)	(29)
Reductions	(230)	(24)	(1,685)
Written-off assets	(15)	(38)	(159)
Balance at end of year	2,625	2,871	2,939

The NPL ratio of this portfolio ended the year at 5.07% (compared with 6.13% and 9.73% at December 2020 and 2019, respectively) due to the decrease of non-performing assets in the troubled loan portfolio and, in particular, to the sharp reduction in lending in this segment. The table below shows the distribution of the portfolio. The coverage ratio of the real estate doubtful exposure in Spain stands at 30.08% (32.95% and 35.31% in 2020 and 2019, respectively).

EUR Million	2021		
	Gross amount	Excess of gross exposure over maximum recoverable amount of effective collateral	Specific allowance
Financing for construction and property development (including land) (business in Spain)	2,625	380	53
Of which impaired	133	22	40
Memorandum items written-off assets	650	—	—

Memorandum items: Data from the public consolidated balance sheet

EUR Million	2021
	Carrying amount
Total loans and advances to customers excluding the Public sector (business in Spain) (Book value)	239,328
Total consolidated assets (Total business) (Book value)	1,595,835
Impairment losses and credit risk allowances. Coverage for unimpaired assets (business in Spain)	1,472

At year-end, the distribution of this portfolio was as follows:

		2021
EUR Million	Loans: gross amount	
1. Without mortgage guarantee		180
2. With mortgage guarantee		2,445
2.1 Completed buildings		1,412
2.1.1 Residential		876
2.1.2 Other		536
2.2 Buildings and other constructions under construction		969
2.2.1 Residential		907
2.2.2 Other		62
2.3 Land		64
2.3.1 Developed consolidated land		46
2.3.2 Other land		18
Total		2,625

Policies and strategies in place for the management of these risks

The policies in force for the management of this portfolio are periodically reviewed and approved on a regular basis by Santander's senior management.

As has already been disclosed in this section, the Group's anticipatory management of these risks enabled it to significantly reduce its exposure, and it has a granular, geographically diversified portfolio in which the financing of second residences accounts for a very small proportion of the total.

Mortgage lending on non-urban land represents a low percentage of mortgage exposure to land, while the remainder relates to land already classified as urban or approved for development.

The significant reduction of exposure in the case of residential financing projects in which the construction work has already been completed was based on various actions. As well as the specialised marketing channels already in existence, campaigns were carried out with the support of specific teams of managers for this function who, in the case of the Santander network, were directly supervised by the recoveries business area. These campaigns, which involved the direct management of the projects with property developers and purchasers, reducing sale prices and adapting the lending conditions to the buyers' needs, enabled loans already in force to be subrogated. These subrogations enable the Group to diversify its risk in a business segment that displays a clearly lower non-performing loans ratio.

In the case of construction-phase projects that are experiencing difficulties of any kind, the policy adopted is to ensure completion of the construction work so as to obtain completed buildings that can be sold in the market. To achieve this aim, the projects are analysed on a case-by-case basis in order to adopt the most effective series of measures for each case (structured payments to suppliers to ensure completion of the work, specific schedules for drawing down amounts, etc.).

For the new post-crisis real estate business production, the admission processes are managed by specialized teams that work in direct coordination with the commercial teams, with clearly defined policies and criteria:

- Property developers with a robust solvency profile and a proven track record in the market.

- Medium-high level projects, conducting to contracted demand and significant cities.
- Strict criteria regarding the specific parameters of the transactions: exclusive financing for the construction cost, high percentages of accredited sales, principal residence financing, etc.
- Support of financing of government-subsidised housing, with accredited sales percentages.
- Restricted financing of land purchases dealt with exceptional nature.

In addition to the permanent control performed by its risk monitoring teams, the Group has a specialist technical unit that monitors and controls this portfolio with regard to the stage of completion of construction work, planning compliance and sales control, and validates and controls progress billing payments. The Group has created a set of specific tools for this function. All mortgage distributions, amounts drawn down of any kind, changes made to the grace periods, etc. are authorised on a centralised basis.

Foreclosed properties

At 31 December 2021, the net balance of these assets amounted to EUR 3,591 million gross amount: of EUR 7,364 million; recognised allowance: of EUR 3,773 million, of which EUR 2,729 million related to impairment after the foreclosure date. At 31 December 2020, the net balance of these assets amounted to EUR 3,962 million (gross amount: EUR 7,937 million; recognised allowance: EUR 3,975 million, of which EUR 2,834 million related to impairment after the foreclosure date). At 31 December, 2019, the net balance of these assets amounted to EUR 4,190 million (gross amount: EUR 8,226 million; recognised allowance: EUR 4,036 million, of which EUR 2,812 million related to impairment after the foreclosure date).

The following table shows the detail of the assets foreclosed by the businesses in Spain at the end of 2021:

EUR Million	2021			
	Gross carrying amount	Valuation adjustments	Of which impairment losses on assets since time of foreclosure	Net Carrying amount
Property assets arising from financing provided to construction and property development companies	6,313	3,376	2,455	2,937
<i>Of which:</i>				
Completed buildings	1,900	799	627	1,101
Residential	470	181	143	289
Other	1,430	618	484	812
Buildings under construction	112	57	42	55
Residential	56	26	17	30
Other	56	31	25	25
Land	4,301	2,520	1,786	1,781
Developed land	1,506	805	496	701
Other land	2,795	1,715	1,290	1,080
Property assets from home purchase mortgage loans to households	838	310	211	528
Other foreclosed property assets	213	87	63	126
Total property assets	7,364	3,773	2,729	3,591

In addition, the Group has shareholdings in entities holding foreclosed assets amounting to EUR 701 million (mainly Project Quasar Investment 2017, S.L. with EUR 655 million), and equity instruments foreclosed or received in payment of debts amounting to EUR 16 million.

In recent years, the Group has considered foreclosure to be a more efficient method for resolving cases of default than legal proceedings. The Group initially recognises foreclosed assets at the lower of the carrying amount of the debt (net of provisions) and the fair value of the foreclosed asset (less estimated costs to sell). Subsequent to initial recognition, the assets are measured at the lower of fair value (less costs to sell) and the amount initially recognised.

The fair value of this type of assets is determined by the Group's directors based on evidence obtained from qualified valuers or evidence of recent transactions.

The management of real estate assets on the balance sheet is carried out through companies specializing in the sale of real estate that is complemented by the structure of the commercial network. The sale is realised with at prices in accordance with the market situation and the offer of wholesale buyers.

The gross movement in foreclosed properties were as follows (EUR billion):

	EUR Billion		
	2021	2020	2019
Gross additions	0.4	0.5	0.7
Disposals	(1.1)	(0.9)	(2.7)
Difference	(0.7)	(0.4)	(2.0)

3.3. United States

Santander US's credit risk increased to EUR 112,808 million by the end of December 2021. It makes up 11% of Grupo Santander's total credit risk and includes these business units:

Santander Bank, National Association (SBNA)

At 78% of total credit risk, retail and commercial banking is Santander Bank, National Association's main business. 24% of the portfolio is with individuals, and approximately 76% with corporates. The bank's primary goals include expanding the SCIB business — 22% of total credit risk — by enhancing customer experience and growing core customers and deposits through digital, branch and commercial transformation initiatives; leveraging its deposit base to support its commercial real estate business; and strengthening its auto finance partnerships. Its 15.1% hike in lending spanned all segments. Excluding the FX effect, the increase was lower, standing at 9.2%.

The NPL ratio increased to 0.85% (+4 bp in the year) as of December 2021 the cost of credit fell to -0.06% due to the release of provisions based on better-than-expected market performance, customer behaviour (support programmes and fiscal stimulus) and greater workout recoveries.

Information on the estimation of impairment losses

The detail of Santander Bank, National Association exposure and impairment losses associated with each of the stages at 31 December, 2021, 2020 and 2019, is shown below. In addition, the exposure is divided in three tranches of the Standard & Poor's rating scale, according to their current credit quality:

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2021			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	38,191	1,157	—	39,348
From BB- to CCC	12,212	3,117	—	15,329
Default	—	—	477	477
Total exposure **	50,403	4,274	477	55,154
Impairment losses***	263	314	45	622

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2020			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	18,105	1,778	—	19,883
From BB- to CCC	24,380	2,977	—	27,357
Default	—	—	403	403
Total exposure **	42,485	4,755	403	47,643
Impairment losses***	344	316	42	702

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2019			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	27,078	763	—	27,841
From BB- to CCC	32,273	3,964	—	36,237
Default	—	—	419	419
Total exposure **	59,351	4,727	419	64,497
Impairment losses***	265	208	71	544

* Detail of credit quality ratings calculated for Group management purposes.

** Total exposure includes loan balances (drawn amounts) and off-balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

***Includes provisions for undrawn authorized lines (loan commitments).

The Government support measures taken in the United States in 2020 as response to the covid-19 pandemic have gradually expired and at the end of December 2021 SBNA had granted, since the start of the pandemic in 2020, a total amount of EUR 3,723 million moratoriums, equivalent to 7.32% of the loan portfolio.

Of the total moratoriums granted, 99.9% expired at 31 December, 2021, from which 67.9% were in stage 1, 26.2% in stage 2 and 5.9% in stage 3 (at the end of 2020, of the total moratoriums, 90% had expired, of which 62.1% were in stage 1, 35.3% in stage 2 and 2.6% in stage 3).

Total loans granted under government liquidity programmes in SBNA amounted to EUR 221 million at 31 December 2021.

For the estimation of expected losses, prospective information is taken into account. Specifically, Santander Bank, National Association considers four macroeconomic scenarios, which are updated periodically. The evolution projected in 2021 for a period of five years of the main macroeconomic indicators used Santander Bank, National Association to estimate expected losses is presented below:

Variables	2022 - 2026			
	Pessimistic scenario 2	Pessimistic scenario 1	Base scenario	Optimistic scenario
Interest rate (annual averaged)	0.2%	1.2%	1.3%	1.7%
Unemployment rate	6.6%	4.6%	3.8%	3.3%
House price change	1.2%	1.7%	2.3%	2.8%
GDP growth	2.3%	2.8%	2.7%	3.3%

Each of the macroeconomic scenarios is associated with a given weight. As for its allocation, Santander Bank, National Association associates the highest weighting to the Base scenario, while associates the lowest weightings to the most extreme scenarios:

	2021	2020	2019
Pessimistic scenario 2	18%	18%	18%
Pessimistic scenario 1	20%	20%	20%
Base scenario	33%	33%	33%
Optimistic scenario	30%	30%	30%

In the case of SBNA, no additional 'long-run' scenario was generated for the calculation of the post model adjustment. The additional provisions for covid-19 were calculated using the internal model.

The sensitivity analysis of the main portfolios expected loss to variations of +/- 100 bp for the macroeconomic variables used in the construction of the scenarios as of 2021 is as follows:

	Change in Provision	
	Mortgages	Corporates
GDP Growth		
-100 bp	2.0%	7.4%
100 bp	-1.4%	-4.6%
Housing price change		
-100 bp	3.7%	12.4%
100 bp	-2.0%	-6.3%
Unemployment rate		
-100 bp	-5.5%	-15.1%
100 bp	6.6%	22.8%

In relation to the Stage 2 classification determination, the quantitative criteria applied at SBNA for retail portfolios uses the FICO (Fair Isaac Corporation) score at the time of origination and its current value, establishing different absolute threshold for each portfolio according to their characteristics. A SICR implies changes in that score ranging from 120 bp to 20 bp. In the case of some portfolios, the behaviour score complements this criterion.

In the case of wholesale portfolios, SBNA uses the transaction's rating as a reference for its PD, taking into account its rating at the time of origination and its current rating, setting absolute thresholds for the different rating bands that depend on each portfolio characteristics. A SICR implies changes in the rating value between 2 and 0.1, depending on the portfolio and the estimated sensitivity

(from lower to higher credit quality, the rating range goes from 1 to 9.3).

Additionally, for each portfolio, a series of specific qualitative criteria are defined, which indicate that the exposure has experienced a significant increase in credit risk, regardless of the evolution of its PD since the initial recognition. Santander Bank, National Association, among other criteria, considers that a transaction presents a significant increase in credit risk when it has arrears positions for more than 30 days. These criteria depend on the risk management practices of each portfolio.

Santander Consumer USA Inc.

Santander Consumer USA Inc. (SC USA) presents higher risk indicators than other Santander US units due to the nature of its business, which focuses on auto finance via loans and leasing.

The focus continues to be on managing the relationship between profitability and risk, via management of prices adjusted to the credit quality of the customer/transaction, while improving the dealers' experience.

In 2021, loan originations grew more than 4% year-on-year, returning to the pre-pandemic prime and non-prime mix on the back of the commercial relationship we have with Stellantis Group. The production mix resumed the segmentation between prime and non-prime prior to the pandemic.

Auto originations continued to increase, driven mainly by hikes in used car prices and demand.

As of December, the NPL ratio rose to 6.27% (+101 bp in the year) and the cost of credit stood at 1.54% (-654 bp YoY). Annual net credit losses fell year on year due to customer support programmes (triggered by the health crisis), federal fiscal stimulus packages and greater recovery driven by a surge in used car prices. Due to the increase in defaults, the non-performing coverage ratio fell to 176% (-54 bp in the year).

Furthermore, leases carried out exclusively under the Stellantis Group agreement (primarily with highly creditworthy customers) dropped 5% to EUR 13,600 million, providing stable and recurring earnings. Risk management and residual value mitigation measures remain a priority.

Information on the estimation of impairment losses

The detail of Santander Consumer USA Holding Inc. exposure and impairment losses associated with each of the stages at 31 December 2021, 2020 and 2019, is shown below. In addition, the

exposure is divided in three tranches of the Standard & Poor's rating scale, according to their current credit quality:

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2021			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	1,218	39	—	1,257
From BB- to CCC	18,876	7,861	—	26,737
Default	—	—	1,658	1,658
Total exposure **	20,094	7,900	1,658	29,652
Impairment losses***	524	1,741	572	2,837

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2020			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	1,689	12	—	1,701
From BB- to CCC	21,491	4,831	—	26,322
Default	—	—	1,019	1,019
Total exposure **	23,180	4,843	1,019	29,042
Impairment losses***	911	1,820	726	3,457

EXPOSURE AND IMPAIRMENT LOSSES BY STAGE

EUR million

	2019			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	1,029	14	—	1,043
From BB- to CCC	20,083	6,277	—	26,360
Default	—	—	1,600	1,600
Total exposure **	21,112	6,291	1,600	29,003
Impairment losses***	859	1,503	731	3,093

* Detail of credit quality ratings calculated for Group management purposes.

** Total exposure includes loan balances (drawn amounts) and off-balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

***Includes provisions for undrawn authorized lines (loan commitments).

Since the start of the pandemic in 2020, SC USA has granted a total amount of EUR 5,370 million moratoriums, equivalent to 18.11% of the loan portfolio, at the end of 31 December 2021.

100% of the moratoriums granted had expired at 31 December, 2021, which 2.8% were in stage 1, 68.7% in stage 2 and 28.5% in stage 3 (at the end of 2020, of the total moratoriums, 89.8% had expired, of which 78.5% were in stage 1, 14.6% in stage 2 and 6.9% in stage 3).

Given the nature of its business focused on auto financing for individuals, no loans were granted by liquidity programs in SC USA.

SC USA reassessed the suitability of macroeconomic scenarios and adjusted them in light of new information. At the end of 2021, we updated the most recent scenarios to calculate IFRS 9 provisions by recalibrating and revising the forward-looking information and risk model parameters. After this process, there are additional provisions amounting to EUR 849 million mainly due to the volatility of used car prices and the end of public aid. The car price index during 2021 presents an unusually high value, as a result of the exceptional covid-19 context.

In relation to the methodology used to calculate impairment losses, Santander Consumer USA Inc. uses a method for calculating expected losses based on the use of risk parameters: EAD (exposure at default), PD (probability of default) and LGD (loss given default). The expected loss is calculated by adding the estimated monthly expected losses for the entire life of the operation, unless the operation is classified in Stage 1, which will correspond to the sum of the estimated monthly expected losses during the following 12 months.

In general, there is an inverse relationship between the transactions credit quality and the impairment losses projections so that transactions with better credit quality require a lower expected loss. Transactions credit quality, which is reflected in the internal rating associated to each transaction or client, is shown in the probability of default of the transactions.

For the expected losses estimation, prospective information should be taken into account. Specifically, Santander Consumer USA Holdings Inc. considers four macroeconomic scenarios, periodically updated over a 5-year time horizon.

The evolution forecasted in 2021 for a period of five years of the main macroeconomic indicators used by in Santander Consumer USA Holdings Inc in the estimation of expected losses is shown below:

Variables	2022 - 2026			
	Pessimistic scenario 2	Pessimistic scenario 1	Base scenario	Optimistic scenario
Interest rate (annual averaged)	0.2%	1.2%	1.3%	1.7%
Unemployment rate	6.6%	4.6%	3.8%	3.3%
House price change	1.2%	1.7%	2.3%	2.8%
GDP growth	2.3%	2.8%	2.7%	3.3%
Manheim ^A index	-2.3%	-1.9%	-1.9%	-1.8%

A. US used vehicle price car index.

Each of the macroeconomic scenarios is associated with a given weight. Santander Consumer USA Inc. associates the highest weighting to the Base scenario, whereas it associates the lowest weightings to the most extreme or acid scenarios:

	2021	2020	2019
Pessimistic scenario 2	18%	18%	18%
Pessimistic scenario 1	20%	20%	20%
Base scenario	33%	33%	33%
Optimistic scenario	30%	30%	30%

In the case of SC USA, no additional 'long-run' scenario was generated for the calculation of the post model adjustment. The additional provisions for covid-19 were calculated using the internal model.

The sensitivity analysis of the main portfolios expected loss to variations of +/- 100 bp for the macroeconomic variables used in the construction of the scenarios at the end of 2021 is as follows:

	Change in provision
	SC Auto
Manheim index	
-100 bp	1.1%
100 bp	-0.7%
Unemployment Rate	
-100 bp	-4.0%
100 bp	4.6%
House Price Change	
-100 bp	2.6%
100 bp	-1.5%
GDP growth	
-100 bp	1.8%
100 bp	-1.2%

In relation to the stage 2 classification determination, the quantitative criteria applied at SC USA uses the FICO (Fair Isaac Corporation) score at the time of origination and its current value, establishing different absolute threshold for each portfolio according to their characteristics. A SICR implies changes in that score ranging from 100 bp to 60 bp.

Additionally, for each portfolio, a series of specific qualitative criteria are defined, which indicate that the exposure has had a significant increase in credit risk, regardless of the evolution of its PD since the initial recognition. Santander Consumer USA Holdings Inc. among other criteria, considers that a transaction presents a significant increase in credit risk when it has irregular positions for more than 30 days. These criteria depend on the risk management practices of each portfolio.

3.4. Banco Santander (Brasil) S.A.

Positive economic recovery due to the reopening of the service sector, in line with the advances in the vaccination campaigns and the lift of restrictions, although international supply problems have continued to hamper industry growth.

Santander Brasil's credit risk amounted to EUR 85,702 million. It increased by 15% from 2020. Minus the exchange rate effect, it grew by 13%. As of December 2021, Santander Brasil accounts for 8% of Grupo Santander's loan book.

The SME portfolio (Varejo PJ) grew significantly due to the contribution of the different billing clusters that make the portfolio and its different products. State-backed guarantees to combat the effects of the pandemic ended in December 2020, although a new window opened in July 2021.

Net loan-loss provisions stood at EUR 2,715 million (-10% compared to 2020), a decrease driven by additional provision made in 2020 related to covid-19. In local currency, provisions declined by 35%. Cost of credit decreased to 3.73% from 4.35% at the end of 2020, driven by the aforementioned provisions evolution.

Information on the estimation of impairment losses

The detail of Banco Santander (Brasil) S.A. exposure and impairment losses associated with each of the stages at 31 December, 2021, 2020 and 2019, is shown below. In addition, the exposure is divided in three tranches of the Standard & Poor's rating scale, according to their current credit quality:

EXPOSURE AND IMPAIRMENT LOSSES

EUR million	2021			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	46,558	575	—	47,133
From BB- to CCC	28,582	4,785	—	33,367
Default	—	—	4,182	4,182
Total exposure **	75,140	5,360	4,182	84,682
Impairment losses***	1,232	909	2,510	4,651

EXPOSURE AND IMPAIRMENT LOSSES

EUR million	2020			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	38,686	210	—	38,896
From BB- to CCC	26,166	5,942	—	32,108
Default	—	—	3,428	3,428
Total exposure **	64,852	6,152	3,428	74,432
Impairment losses***	971	777	2,132	3,880

EXPOSURE AND IMPAIRMENT LOSSES

EUR million	2019			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
From AAA to BB	45,765	308	—	46,073
From BB- to CCC	32,698	5,393	—	38,091
Default	—	—	4,727	4,727
Total exposure **	78,463	5,701	4,727	88,891
Impairment losses***	1,054	732	2,931	4,717

* Detail of credit quality ratings calculated for Group management purposes.

** Total exposure includes loan balances (drawn amounts) and off-balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

***Includes provisions for undrawn authorized lines (loan commitments).

The Government support measures taken in Brazil in 2020 as response to the covid-19 pandemic have gradually expired and at the end of December 2021, Santander Brazil had granted, since the start of the pandemic, ###3,835 million moratoriums, equivalent to 5.35% of the loan portfolio.

Of the total moratoriums granted, 99.7% expired at 31 December 2021, from which 70.8% were in stage 1, 17.4% in stage 2 and 11.8% in stage 3. At the end of 2020, of the total moratoriums 92.4% had expired, of which 75.6% were in stage 1, 17.6% in stage 2 and 6.8% of in stage 3.

Total loans granted by liquidity programmes in Brazil amounted to EUR 1,563 million as of 31 December 2021.

For the expected losses estimation, prospective information is taken into account. Particularly, Santander Brazil considers three macroeconomic scenarios, periodically updated. The evolution for a period of five years of the main macroeconomic indicators used to estimate the expected losses in Santander Brazil is as follows:

2022-2026

Variables	Pessimistic scenario	Base scenario	Optimistic scenario
Interest rate (annual averaged)	13.3%	6.7%	4.8%
Unemployment rate	13.3%	12.1%	8.8%
House price change	2.6%	8.7%	13.2%
GDP growth	-1.0%	2.1%	4.5%
Burden income	38.9%	34.9%	29.2%

Each macroeconomic scenario is associated with a given weight. Regarding its assignation, Brazil links the highest weight to the base scenario whilst links the lowest weights to the most extreme scenarios:

	2021	2020	2019
Pessimistic scenario	10%	10%	10%
Base scenario	80%	80%	80%
Optimistic scenario	10%	10%	10%

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios is at the end of 2021 as follows:

	Change in provision		
	Consumer	Corporate	Other
GDP growth			
-100 bp	0.4%	1.3%	1.9%
100 bp	-0.1%	-0.6%	-0.9%
Burden income			
-100 bp	-0.3%	-0.5%	-1.3%
100 bp	0.7%	2.0%	2.9%
Interest rate (SELIC)			
-100 bp	-0.1%	-0.5%	-0.8%
100 bp	0.6%	2.9%	3.6%

Regarding the stage 2 classification determination, Santander Brazil uses the transaction's rating as a reference for its PD, taking into account its rating at the time of origination and its current rating, setting different thresholds that depend on each portfolio characteristics. SICR is determined by observing the rating's evolution, considering that a significant increase in credit risk has occurred when the rating reduction reaches values between 3.2 and 1, depending on the rating's value at the time of origination.

In addition, for every portfolio, a set of specific qualitative criteria are defined to indicate that the exposure to credit risk has significantly risen, regardless of the evolution of its PD since the initial recognition. Santander Brazil, among other criteria, considers that an operations involves a significant increase in credit risk when it presents irregular positions for more than 30 days, but in Real State, Consigned and Financial portfolios, where, due to their particular attributes, they use a 60 days threshold. Such criteria depend upon each portfolio's risk management practices.

4. Other credit risk aspects

4.1. Credit risk by activity in the financial markets

This section covers credit risk generated in treasury activities with customers, mainly with credit institutions. Transactions are undertaken through money market financial products with different financial institutions and through counterparty risk products, which serve the Group's customer needs.

According to regulation (EU) n.º 575/2013, counterparty credit risk, which includes derivative instruments, transactions with a repurchase obligation, stock and commodities lending, transactions with deferred repayment and financing of guarantees, arises from the likelihood that a counterparty will default before the final settlement of the transaction's cash flows.

There are two methodologies for measuring this exposure: (i) mark-to-market (MtM) methodology (replacement value of derivatives) plus potential future exposure (add-on); and the Montecarlo simulation to calculate exposures for some countries and products. We also calculate capital at risk and unexpected loss, which is the difference between the economic capital, net of guarantees and recoveries, and expected loss.

After market close, the exposures are recalculated by adjusting transactions to their new time frame, adapting potential future exposure and applying mitigation measures (netting, collateral, etc.) to control exposures directly against the limits approved by senior management. Grupo Santander runs risk control with an integrated system in real time that enables us to know the exposure limit with any counterparty, product and maturity and in any of Santander's subsidiaries at any time.

4.2. Concentration risk

Concentration risk control is a vital part of our management. The Group continuously monitors the degree of concentration of its credit risk portfolios using various criteria: geographic areas and countries, economic sectors and groups of customers.

The board, via the risk appetite framework, determines the maximum levels of concentration.

In line with these maximum levels and limits, the executive risk committee establishes the risk policies and reviews the appropriate exposure levels for the effective management of the degree of concentration in Santander's credit risk portfolios.

Grupo Santander must adhere to the regulation on large risks contained in the CRR, according to which the exposure contracted by an entity with a customer or group of associated customers will be considered a large exposure when its value is equal to or greater than 10% of eligible capital.

In addition, in order to limit large exposures, no entity may assume exposures exceeding 25% of its eligible capital with a single customer or group of associated customers, having factored in the credit risk mitigation effect contained in the regulation.

At the end of December, after applying risk mitigation techniques, no group reaches the above-mentioned thresholds.

Regulatory credit exposure with the 20 largest groups within the scope of large risks represented 5% of the outstanding credit risk with customers (lending to customers plus off-balance sheet risks) as of December 2021.

The detail, by activity and geographical area of the Group's risk concentration at 31 December 2021 is as follows:

EUR million

	2021				
	Total	Spain	Other EU countries	America	Rest of the world
Central banks and Credit institutions	327,984	93,520	59,499	81,647	93,318
Public sector	149,623	35,258	26,276	82,194	5,895
Of which:					
Central government	124,807	23,188	24,525	71,639	5,455
Other central government	24,816	12,070	1,751	10,555	440
Other financial institutions (financial business activity)	120,294	14,228	40,344	35,818	29,904
Non-financial companies and individual entrepreneurs (non-financial business activity) (broken down by purpose)	415,297	121,795	86,183	141,139	66,180
Of which:					
Construction and property development	21,523	3,607	3,392	7,309	7,215
Civil engineering construction	5,857	2,397	2,442	847	171
Large companies	248,955	58,030	49,343	94,496	47,086
SMEs and individual entrepreneurs	138,962	57,761	31,006	38,487	11,708
Households – other (broken down by purpose)	543,804	88,763	95,458	122,809	236,774
Of which:					
Residential	353,752	63,487	35,978	40,265	214,022
Consumer loans	169,897	18,078	56,879	75,837	19,103
Other purposes	20,155	7,198	2,601	6,707	3,649
Total	1,557,002	353,564	307,760	463,607	432,071

* For the purposes of this table, the definition of risk includes the following items in the public balance sheet: 'Loans and advances to credit institutions', 'Loans and advances to Central Banks', 'Loans and advances to Customers', 'Debt Instruments', 'Equity Instruments', 'Trading Derivatives', 'Hedging derivatives', 'Investments and financial guarantees given'.

4.3. Sovereign risk and exposure to other public sector entities

Sovereign risk occurs in transactions with a central bank. It includes the regulatory cash reserve, issuer risk with the Treasury (public debt portfolio) and risk from transactions with government institutions whose funding only come from the state's budgetary revenue and not commercial operations.

The historic criteria of Grupo Santander can differ from regular EBA stress test standards. Though the EBA does include national, regional and local government institutions, it does not include deposits with central banks, exposures with insurance companies, indirect exposures via guarantees and other instruments.

Grupo Santander's local sovereign exposure, in currencies other than the official currency of the country of issuance, is not significant (EUR 10,013 million, 2.6% of total sovereign risk) according to our management criteria. Furthermore, exposure to non-local sovereign issuers involving cross-border risk¹ is even less significant (EUR 7,011 million, 1.8% of total sovereign risk).

Sovereign exposure in Latin America is mostly in local currency, and is recognised in the local accounts and concentrated in short-term maturities.

Over the past few years, total exposure to sovereign risk has remained in line with regulatory requirements and our strategy to manage this portfolio.

The shifts observed in the different countries exposure is due to our liquidity management strategy and the hedging of interest and exchange rates risks. Santander's exposure spreads among countries with varied macroeconomic outlooks and dissimilar scenarios in terms of growth, interest and exchange rates.

Our investment strategy for sovereign risk considers country's credit quality to set the maximum exposure limits*:

	2021	2020	2019
AAA	15%	18%	20%
AA	32%	25%	24%
A	26%	25%	18%
BBB	11%	14%	15%
Less than BBB	16%	18%	23%

*Internal ratings are applied.

¹ Countries that are not considered low risk by Banco de España.

The exposure in the table below is disclosed following the latest amendments of the regulatory reporting framework carried out by the EBA, which entered into force in 2021:

	2021				2020	
	Portfolio					
Country	Financial assets designated at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Non-trading financial assets mandatorily at fair value through profit or loss	Total net direct exposure	Total net direct exposure
Spain	2,574	2,805	14,178	—	19,557	24,245
Portugal	(20)	2,287	4,277	—	6,544	8,730
Italy	(73)	634	323	—	884	4,015
Greece	—	—	—	—	—	—
Ireland	—	—	9	—	9	—
Rest Eurozone	(233)	1,231	2,631	—	3,629	4,054
UK	(538)	676	228	—	366	(97)
Poland	(15)	10,819	489	—	11,293	10,947
Rest of Europe	—	77	1,291	—	1,368	1,070
US	1,050	13,803	7,616	—	22,469	15,548
Brazil	8,733	16,432	3,394	—	28,559	27,717
Mexico	2,150	10,253	1,106	—	13,509	21,029
Chile	56	1,134	4,881	—	6,071	6,955
Rest of America	94	651	680	—	1,425	958
Rest of the World	2	1,524	1,811	—	3,337	4,752
TOTAL	13,780	62,326	42,914	—	119,020	129,923

5. Forborne loan portfolio

Grupo Santander's internal forbearance policy acts as a reference for our subsidiaries locally. It shares the principles of regulations and supervisory expectations. It includes the requirements of the EBA guidelines on management of non performing and forborne exposures.

It defines forbearance as the modification of the payment conditions of a transaction to allow a customer experiencing financial difficulties (current or foreseeable) to fulfil their payment obligations. If forbearance is not allowed, there would be reasonable certainty that the customer would not be able to meet their financial obligations.

In addition, this policy also sets down rigorous criteria for evaluating, classifying and monitoring forbearances to ensure the strictest possible care and diligence in recovering due amounts. Thus, it dictates that we must adapt payment obligations to customers' current circumstances. Our forbearance policy also defines classification criteria to ensure we recognize risks appropriately. They must remain classified as non-performing or in watch-list for a prudential period for reasonable certainty of repayment.

Forbearances may never be used to delay the immediate recognition of losses or hinder the appropriate recognition of risk of default.

Total volume of forborne portfolio, at the end of December 2021, stood at EUR 36,042 million. After years of decreases due to the positive macroeconomic situation of the group's main geographies, the forborne stock remained practically flat in 2020. The portfolio increased by 24% in 2021, as a result of greater volume of forbearance carried out to attend to the needs of customers facing financial difficulties. In terms of credit quality, 43% of the loans is classified as doubtful, with a coverage ratio of 41%.

The following terms are used with the meanings specified below:

- Refinancing transaction: transaction that is granted or used, for reasons relating to current or foreseeable financial difficulties of the borrower, to repay one or more of the transactions granted to it, or through which the payments on such transactions are brought fully or partially up to date, in order to enable the borrowers of the cancelled or refinanced transactions to repay their debt (principal and interest) because they are unable, or might foreseeably become unable, to comply with the conditions thereof in due time and form.
- Restructured transaction: transaction with respect to which, for economic or legal reasons relating to current or foreseeable financial difficulties of the borrower, the financial terms and conditions are modified in order to facilitate the payment of the debt (principal and interest) because the borrower is unable, or might foreseeably become unable, to comply with the aforementioned terms and conditions in due time and form, even if such modification is envisaged in the agreement.

Current refinancing and restructuring balances

Amounts in EUR million, except number of transactions that are in units

	2021						
	Without real guarantee			Total With real guarantee			Impairment of accumulated value or accumulated losses in fair value due to credit risk
	Number of transactions	Gross amount	Number of transactions	Gross amount	Maximum amount of the actual collateral that can be considered		
					Real estate guarantee	Rest of real guarantees	
Credit entities	—	—	—	—	—	—	—
Public sector	32	18	15	7	2	—	4
Other financial institutions and: individual shareholder	1,002	93	720	200	102	79	30
Non-financial institutions and individual shareholder	248,375	11,548	47,865	8,915	5,517	1,206	4,367
Of which financing for constructions and property development	8,576	113	1,321	550	390	40	176
Other warehouses	3,650,507	4,491	451,930	10,771	6,063	3,615	3,860
Total	3,899,916	16,150	500,530	19,893	11,684	4,900	8,261
Financing classified as non-current assets and disposable groups of items that have been classified as held for sale	—	—	—	—	—	—	—

Current refinancing and restructuring balances

Amounts in EUR million, except number of transactions that are in units

	2021						
	Of which, non-performing/Doubtful						
	Without real guarantee		With real guarantee				Impairment of accumulated value or accumulated losses in fair value due to credit risk
	Number of transactions	Gross amount	Number of transactions	Gross amount	Maximum amount of the actual collateral that can be considered		
					Real estate guarantee	Rest of real guarantees	
Credit entities	—	—	—	—	—	—	—
Public sector	7	1	14	5	2	—	4
Other financial institutions and: individual shareholder	421	51	528	67	54	7	27
Non-financial institutions and individual shareholder	116,009	4,377	32,263	5,261	3,308	424	3,891
Of which financing for constructions and property development	4,638	63	849	301	172	34	148
Other warehouses	1,839,629	1,879	162,177	3,898	2,641	434	2,382
Total	1,956,066	6,308	194,982	9,231	6,005	865	6,304
Financing classified as non-current assets and disposable groups of items that have been classified as held for sale	—	—	—	—	—	—	—

In 2021, the amortised cost of financial assets whose contractual cash flows were modified during the year when the corresponding loss adjustment was valued at an amount equal to the expected credit losses over the life of the asset amounted to EUR 2,480 million, without these modifications having a material impact on the income statement. Also, during 2021, the total of financial assets that have been modified since the initial recognition, and whose correction for expected loss has gone from being valued during the entire life of the asset to the following twelve months, amounts to EUR 1,868 million.

The transactions presented in the foregoing tables were classified at 31 December 2021 by nature, as follows:

- Non-performing: Operations that rest on an inadequate payment scheme will be classified within the non-performing category, regardless they include contract clauses that delay the repayment of the operation throughout regular payments or present amounts written off the balance sheet for being considered irrecoverable.
- Performing: Operations not classifiable as non-performing will be classified within this category. Operations will also be classified as normal if they have been reclassified from the non-performing category for complying with the specific criteria detailed below:
 - a. A period of a year must have passed from the refinancing or restructuring date.
 - b. The owner must have paid for the accrued amounts of the capital and interests, thus reducing the rearranged capital amount, from the date when the restructuring of refinancing operation was formalised.

- c. The owner must not have any other operation with amounts past due by more than 90 days on the date of the reclassification to the normal risk category.

Attending to the credit attention 57% of the forborne loan transactions are classified as other than non-performing. Particularly noteworthy are the level of existing guarantees (46% of transactions are secured by collateral) and the coverage provided by specific allowances (representing 23% of the total forborne loan portfolio and 41% of the non-performing portfolio).

c) Market, structural and liquidity risk

1. Activities subject to market risk and types of market risk

Activities exposed to market risk encompass transactions where risk is assumed as a consequence of potential changes in interest rates, inflation rates, exchange rates, stock prices, credit spreads, commodity prices, volatility and other market factors; the liquidity risk from our products and markets, and the balance-sheet liquidity risk. Therefore, they include trading risks and structural risks.

- Interest rate risk arises from movements in interest rates that reduce the value of a financial instrument, a portfolio or the Grupo Santander. It can affect loans, deposits, debt securities, most assets and liabilities held for trading, and derivatives.
- Inflation rate risk arises from movements in inflation that can reduce the value of a financial instrument, a portfolio or the entire group. It can affect loans, debt securities and derivatives (e.g. inflation swaps and futures) whose profitability is linked to inflation.
- Exchange rate risk is the possibility of loss because the currency of a long or open position will depreciate against the base currency. It can affect debt in subsidiaries whose local currency is not the euro, as well as loans denominated in a foreign currency.
- Equity risk is the possibility of loss from open positions in securities if their market price or expected future dividends fall. It affects shares, stock market indices, convertible bonds and derivatives with shares as the underlying asset (put, call, equity swaps, etc.).
- Credit spread risk is the possibility of loss from open positions in fixed-income securities or credit derivatives if their yield curve, or the recovery rate of their issuer or type change. A spread is the yield difference between financial instruments against a benchmark (e.g. the internal rate of return (IRR) of government bonds and interbank interest rates).
- Commodity price risk is the possibility of loss from movements in commodity prices. Grupo Santander's commodity exposure is minor and stems mainly from commodity derivatives.
- Volatility risk is the possibility of loss caused by movements in interest rates, exchange rates, the stock market, credit spreads and other risk factors affecting portfolio value. It is inherent to all financial instruments whose value considers volatility (especially options contracts).

Derivative contracts (such as options, futures, forwards and swaps) can mitigate market risks partially or fully.

Additionally, other more complex hedging market risks are considered, such as correlation risk, market liquidity risk, prepayment or cancellation risk, and underwriting risk.

Balance sheet liquidity risk (unlike market liquidity risk) is the possibility of loss caused by forced disposal of assets or cash flow imbalance if the bank meets its payment obligations late or at excessive cost. It can cause losses by forced asset sales or impacts on margins due to the mismatch between expected cash inflows and outflows.

Pension and actuarial risks (explained at the end of this section) also depend on market variables.

Grupo Santander aim to comply with the *Basel Committee's Fundamental Review of the Trading Book (FRTB)* and the EBA's Guidelines on the management of interest rate risk arising from non-trading book activities. The purpose of several projects Grupo Santander runs is to provide risk control managers and teams with the best market risk management tools under the right governance framework for the models Grupo Santander uses for metric reporting; and to comply with regulation on the risks mentioned above.

2. Trading market risk management

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

The standard methodology for risk management and control in trading, measures the maximum expected loss with a specific level of confidence and time frame. The standard for historical simulation is a confidence level of 99% over one day. We apply statistical

adjustments efficiently to incorporate recent developments affecting our levels of risk. Our time frame is two years or at least 520 days from the reference date of the VaR calculation.

The balance sheet items in the Group's consolidated position that are subject to market risk are shown below, distinguishing those positions for which the main risk metric is VaR from those for which risk monitoring is carried out using other metrics:

EUR million

	Balance sheet amount	Main market risk metric		Main risk factor for 'Other' balance
		VaR	Other	
Assets subject to market risk				
Cash, cash balances at central banks and other deposits on demand	210,689		210,689	Interest rate
Financial assets held for trading	116,953	116,953		
Non-trading financial assets mandatorily at fair value through profit or loss	5,536	4,042	1,494	Interest rate, spread
Financial assets designated at fair value through profit or loss	15,957	5,489	10,468	Interest rate, spread
Financial assets designated at fair value through other comprehensive income	108,038	2,453	105,585	Interest rate, spread
Financial assets at amortized cost	1,037,898		1,037,898	Interest rate, spread
Hedging derivatives	4,761		4,761	Interest rate, exchange rate
Changes in the fair value of hedged items in portfolio hedges of interest risk	410		410	Interest rate
Other assets	95,593			
Total assets	1,595,835			
Liabilities subject to market risk				
Financial liabilities held for trading	79,469	79,469		
Financial liabilities designated at fair value through profit or loss	32,733	390	32,343	Interest rate, spread
Financial liabilities at amortized cost	1,349,169		1,349,169	Interest rate, spread
Hedging derivatives	5,463		5,463	Interest rate, exchange rate
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	248		248	Interest rate
Other liabilities	31,700			
Total liabilities	1,498,782			
Equity	97,053			

The following table displays the latest and average VaR values at 99% by risk factor over the last three years. It also shows the

minimum and maximum VaR values in 2021 and 97.5% ES at the end of December 2021:

VaR STATISTICS AND EXPECTED SHORTFALL BY RISK FACTOR^A

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

	2021					2020		2019	
	VaR (99%)			(97.5%)		VaR		VaR	
	Min	Average	Max	Latest	Latest	Average	Latest	Average	Latest
Total Trading	6.8	10.5	15.9	12.3	11.9	12.5	8.3	12.1	10.3
Diversification effect	(6.3)	(12.9)	(26.6)	(13.4)	(15.0)	(13.0)	(11.8)	(8.1)	(9.8)
Interest rate	6.0	9.6	15.3	9.1	9.4	9.2	5.4	10.0	9.2
Equities	2.2	3.5	7.7	5.1	5.1	4.4	3.1	2.9	4.8
Exchange rate	1.9	4.2	8.0	5.7	5.6	5.9	6.0	3.9	2.6
Credit spread	2.6	4.8	8.0	5.1	6.0	5.5	4.5	3.4	3.5
Commodities	0.4	1.3	3.5	0.7	0.8	0.5	1.1	0.0	0.0
Total Europe	6.1	9.3	16.1	9.9	9.7	10.5	8.0	6.3	10.1
Diversification effect	(5.2)	(9.3)	(16.9)	(12.6)	(13.1)	(10.7)	(8.9)	(6.9)	(8.4)
Interest rate	5.3	7.7	11.7	7.1	6.7	7.9	6.5	6.0	8.2
Equities	1.8	3.3	8.3	5.8	5.2	4.3	3.0	1.9	4.9
Exchange rate	1.6	2.8	5.0	4.5	4.9	3.5	2.9	1.9	1.9
Credit spread	2.6	4.8	8.0	5.1	6.0	5.5	4.5	3.4	3.5
Commodities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total North America	1.6	2.5	7.4	2.7	2.8	6.6	2.9	3.5	3.8
Diversification effect	0.2	(0.7)	(2.9)	(0.6)	(0.5)	(2.2)	(1.0)	(1.3)	(2.1)
Interest rate	1.3	2.5	7.0	2.7	2.7	3.4	3.3	2.6	3.4
Equities	0.0	0.1	1.5	0.0	0.0	0.3	0.1	0.2	0.1
Exchange rate	0.1	0.6	1.8	0.6	0.6	5.1	0.5	2.0	2.4
Total South America	3.3	5.9	10.5	6.3	6.4	5.6	4.5	9.5	6.0
Diversification effect	(1.2)	(4.9)	(16.0)	(5.1)	(3.8)	(3.8)	(5.4)	(2.9)	(3.7)
Interest rate	3.0	5.5	12.2	5.8	6.3	5.2	4.1	7.8	5.9
Equities	0.4	1.2	3.2	1.1	1.0	1.0	0.5	2.0	1.7
Exchange rate	0.7	2.8	7.6	3.8	2.1	2.7	4.2	2.6	2.1
Commodities	0.4	1.3	3.5	0.7	0.8	0.5	1.1	0.0	0.0

A. In South and North America, VaR levels of credit spreads and commodities are not shown separately due to their low or null materiality.

At the end of December, VaR had increased by EUR 4 million higher than at the end of 2020; however, average VaR fell by EUR 2.0 million. Average VaR fell for most risk factors owing to low market volatility throughout the year. By region, average VaR decreased in Europe and especially in North America with lower exchange rate volatility.

By risk factor, VaR has followed a generally stable trend in recent years. For many factors, temporary VaR increases generally owe more to short-term price volatility than to significant changes in positions.

Backtesting

Actual losses can differ from predicted losses because of the VaR's limitations. Grupo Santander measures the accuracy of the VaR calculation model to make sure it is reliable. The most important tests Grupo Santander runs involve backtesting:

- Backtesting of hypothetical P/L and of the entire trading book showed no exceptions to 99% VaR and VaE in 2021.
- The exceptions observed in the past year are consistent with the assumptions of the VaR calculation model.

IBOR Reform

Regulatory and supervisory context

In 2013, IOSCO published the Principles for Financial Benchmarks (IOSCO Principles) that establish standards for the development of benchmarks. Subsequently, the FSB established the Official Sector Steering Group (OSSG) for the application of the IOSCO Principles to the IBOR (Interbank Offered Rates) indices. Since then, the central banks and regulators of various jurisdictions have organized working groups to recommend alternative indices to indices such as the EONIA (Euro Overnight Index Average) and the LIBORs (London Interbank Offered Rates).

On 13 September 2018, the European Central Bank's working group recommended that the euro short-term interest rate (€STR) replace the EONIA. From 2 October 2019, the date on which the €STR was made available, the EONIA changed its methodology to be calculated as €STR plus a spread of 8.5 basis points. This change in the EONIA methodology was intended to facilitate the transition of the EONIA market to €STR before its definitive cessation on 3 January 2022.

On 5 March 2021, the Financial Conduct Authority (FCA) announced the final dates for the cessation of LIBORs:

- On 31 December 2021, the publication of USD LIBOR (1 week and 2 months term), CHF LIBOR (all terms), GBP LIBOR (overnight term, 1 week, 2 months and 12 months), JPY LIBOR (overnight term, 1 week, 2 months, and 12 months) and EUR LIBOR (all terms).
- On 31 December 2021, the calculation methodology of some LIBORs was reformed to publish temporary synthetic LIBORs that became non-representative: GBP LIBOR (1-month, 3-month and 6-month terms) and JPY LIBOR (1-month term, 3 months and 6 months).
- On 30 June 2023, the publication of the USD LIBOR will cease (overnight terms, 1 month, 3 months, 6 months and 12 months).

In October 2020, the International Swaps and Derivatives Association (ISDA) launched the fallbacks Protocol and Supplement for IBORs (effective 25 January 2021), and provided market participants with of new derivatives fallbacks of LIBORs (among others IBOR, such as EURIBOR) for current derivative contracts and for new contracts. Additionally, on 19 August 2021, ISDA launched a new protocol that allowed entities to incorporate a fallback to the EONIA as the rate applicable to collateral in ISDA collateral agreements (known as CSAs). Banco Santander SA and various Santander Group entities have adhered to these protocols.

On December 2020, the Council of the European Union endorsed the modification of the EU Benchmark Regulation (BMR), giving the European Commission the power to establish a legislative solution that proposes a replacement rate to indices the cessation of which could cause a significant disturbance to the functioning of financial markets in the EU. In this context, on 14 and 21 October 2021, the European Commission published the Implementing Regulations regarding the designation of a substitute reference index for CHF LIBOR and EONIA.

Given the relevance of the IBOR indices, the volume of contracts and exposures is very high in the banking sector. Santander Group has a significant number of contracts linked to these interest rates. The most relevant are EURIBOR, EONIA, and LIBOR. These benchmarks are widely used, including derivative products, corporate loans, retail, discount products, deposits, repos, securities lending, collateral agreements, and floating rate notes, among others.

LIBOR and EONIA Reform

The main risks to which Santander is exposed arising from the transition of the EONIA and LIBORs are: (i) legal risks arising from potential changes in the documentation required for new or existing operations; (ii) financial and accounting risks derived from market risk models and from the valuation, coverage, cancellation and recognition of the financial instruments associated with the reference indices; (iii) business risk that revenues from LIBOR-linked products decline; (iv) pricing risks arising from how changes to benchmark indices could impact pricing mechanisms on some instruments; (v) operational risks arising from the potential requirement to adapt IT systems, trade reporting infrastructure and operational processes; (vi) conduct risks arising from the potential impact of communications with customers during the transition period and (vii) litigation risks regarding our existing products and services, which could adversely impact our profitability.

In order to monitor the risks and address the challenges of the transition, Santander launched the IBOR Transition Programme in 2019. The global program ensures that all affected business units and subsidiaries have a consistent understanding of the risks associated with the transition and can take appropriate steps to mitigate them.

This transition program incorporates the recommendations, guidelines and milestones defined by the regulators and working groups of the different jurisdictions. The structure of the program focuses on the following areas: Technology and Operations, Legal, Customer Relations, Risk Management and Models, Conduct and Communication, and Accounting and Finance.

During 2021, the IBOR Transition Program has focused on making all the contractual, commercial, operational and technological changes necessary to undertake the transition of the LIBOR and EONIA rates that have been discontinued in 2021. In 2022, the program will continue to attend to the next steps of the transition related to the management of the contract history and the milestone of the cessation of the LIBOR dollar of June 2023.

In addition, Grupo Santander continues to participate, throughout 2022, in the initiatives developed by the public and private sectors related to the reform of the interest rate reference indices.

Additionally, see information included in notes 1.b and 36.

3. Structural balance sheet risks

3.1. Main aggregates and variations

Consistent with previous years, the market risk profile of Grupo Santander's balance sheet remained moderate in 2021 in terms of asset, shareholders' equity and NII volumes. Each subsidiary's finance division manages interest rate risk from commercial banking and is responsible for handling structural risk from interest rate fluctuations.

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

The NII and EVE sensitivities below are based on scenarios of parallel interest rate movements from -100 to +100 basis points.

Structural VaR

With such a homogeneous metric as VaR, we can fully monitor market risk in the banking book. We differentiate fixed income based on interest rates and credit spreads in ALCO portfolios, FX rates and shares.

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

STRUCTURAL VaR

EUR million. Structural VaR 99% with a temporary horizon of one day.

	2021			2020		2019	
	Min	Average	Max	Latest	Average	Latest	Average
Structural VaR	895.8	993.7	1,090.7	1,011.9	911.1	903.2	511.4
Diversification effect	(158.8)	(327.3)	(431.4)	(240.2)	(349.8)	(263.4)	(304.2)
VaR Interest Rate*	224.2	400.7	540.5	287.8	465.1	345.5	345.6
VaR Exchange Rate	521.3	600.6	655.2	655.2	499.9	502.6	308.1
VaR Equities	309.1	319.7	326.4	309.1	295.9	318.5	161.9

* Includes credit spread VaR on ALCO portfolios.

Structural interest rate risk

• Europe

In general, the NII and EVE of Grupo Santander's main balance sheets (i.e. Santander España and Santander UK) show positive sensitivity to rising interest rates. Across our footprint, exposure was moderate in relation to annual budget and capital levels in 2021.

At the end of December 2021, under the scenarios previously described, the most significant NII sensitivity risk concentration in euros amounted to EUR 703 million; in pounds sterling, EUR 541 million; in Polish złoty EUR 65 million; and in the US dollar, EUR 54 million.

The most significant EVE risk concentration amounted to EUR 3,684 million; in the yield curve of the euro; of the pound sterling, EUR 1,056 million; of the US dollar, EUR 221 million; and of the Polish złoty EUR 56 million, all relating to the interest rate cut risks.

• North America

In general, the NII and EVE of Grupo Santander's North American balance sheets tend to show positive sensitivity to rising interest rates. Exposure was moderate in relation to annual budget and capital levels in 2021.

At the end of December, the most significant risk to NII was mainly in the US and amounted to EUR 152 million.

• South America

The EVE and NII of our Grupo Santander's South American balance sheets are positioned for interest rate cuts.

Exposure in all countries was moderate in relation to the annual budget and capital levels in 2020.

In 2021, exposure was moderate in relation to annual budget and capital levels. At the end of December, the most significant risks to NII were mainly in Chile (EUR 86 million) and Brazil (EUR 83 million).

The most significant risks to EVE were recorded in Brazil (EUR 271 million) and Chile (EUR 258 million).

Structural foreign currency rate risk/results hedging

Grupo Santander's structural FX risk stems mainly from the income and hedging of foreign currency transactions for permanent financial investments. In the dynamic management of this risk, Grupo Santander aims to limit the impact of FX rate movements on the core capital ratio. In 2021, the hedged of the different currencies that have an impact on our core capital ratio was close to 100%.

In December 2021, the permanent exposures (with potential impact on shareholders' equity) were, from largest to smallest, in US dollars, British pounds sterling, Brazilian *reais*, Mexican pesos, Chilean *pesos* and Polish *złoty*.

Grupo Santander uses 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

Grupo 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.

By the end of December 2021, the equities and shareholdings in the banking book were diversified among Spain, China, Morocco, Poland and other countries. Most of them invest in the financial and insurance sectors. Grupo Santander has minor equity exposure to property and other sectors.

Structural equity positions are exposed to market risk. VaR is calculated for these positions with a set of market prices and proxies. At the end of December 2021, VaR at a 99% confidence level over a one day horizon was EUR 325 million (EUR 319 million and EUR 170 million at the end of 2020 and 2019, respectively).

3.2. Methodologies

Structural interest rate risk

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

Grupo Santander measures the potential impact of interest rate movements on EVE and NII. Because changing rates may generate impacts, Grupo Santander must manage and control many subtypes of interest rate risk, such as repricing risk, curve risk, basis risk and option risk (e.g. behavioural or automatic). Interest rate risk in the balance sheet and market conditions and outlooks could necessitate certain financial measures to achieve Grupo Santander's desired risk profile (such as selling positions or setting interest rates on products we market). The metrics Grupo Santander uses to monitor IRRBB include NII and EVE sensitivity to interest rate movements.

- Net interest income sensitivity

Net interest income (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 Grupo Santander). Because NII sensitivity is the difference in income between a selected scenario and the base scenario, its values can be as many as considered scenarios. It enables us to see short-term risks and supplement economic value of equity (EVE) sensitivity.

- Economic value of equity sensitivity

Economic value of equity (EVE) is the difference between the current value of all assets minus the current value of all liabilities in the banking book. It does not include shareholders' equity and non-interest-bearing instruments. Because EVE sensitivity is the difference in EVE between a selected scenario and the base scenario, it can have as many values as considered scenarios. It enables us to see long-term risks and supplement NII sensitivity.

Structural exchange-rate risk/hedging of results

Every day, Grupo Santander measures FX positions, VaR and P/L.

Structural equity risk

Grupo Santander measures equity positions, VaR and P/L.

4. Liquidity risk

Structural **liquidity management** aims to fund the Group's recurring activity optimising maturities and costs, while avoiding taking on undesired liquidity risks.

Santander's liquidity management is based on the following principles:

- Decentralised liquidity model.
- Medium- and long-term (M/LT) funding needs must be covered by medium- and long-term instruments.
- High contribution from customer deposits due to the retail nature of the balance sheet.
- Diversification of wholesale funding sources by instruments/ investors, markets/currencies and maturities.
- Limited recourse to short-term funding.
- Availability of sufficient liquidity reserves, including standing facilities/discount windows at central banks to be used in adverse situations.
- Compliance with regulatory liquidity requirements both at Group and subsidiary level, as a new factor conditioning management.

The effective application of these principles by all institutions comprising the Group required the development of a unique **management framework** built upon three fundamental pillars:

- A **solid organisational and governance model** that ensures the involvement of the subsidiaries' senior management in decision-taking and its integration into the Group's global strategy. The decision-making process for all structural risks, including liquidity and funding risk, is carried out by local Asset and Liability Committees (ALCOs) in coordination with the global ALCO, which is the body empowered by the Bank's board in accordance with the corporate Asset and Liability Management (ALM) framework.

This governance model has been reinforced as it has been included within Santander's Risk Appetite Framework. This framework meets demands from regulators and market players emanating from the financial crisis to strengthen banks' risk management and control systems.

- In-depth **balance sheet analysis and measurement of liquidity risk**, supporting decision-taking and its control. The objective is to ensure the Group maintains adequate liquidity levels necessary to cover its short- and long-term needs with stable funding sources, optimising the impact of their costs on the income statement. Grupo Santander's liquidity risk management processes are contained within a conservative risk appetite framework established in each geographic area in accordance with its commercial strategy. This risk appetite establishes the limits within which the subsidiaries can operate in order to achieve their strategic objectives.

- **Management adapted** in practice to the **liquidity needs of each business**. Every year, based on business needs, a liquidity plan is developed which seeks to achieve:
 - a solid balance sheet structure, with a diversified presence in the wholesale markets;
 - the use of liquidity buffers and limited encumbrance of assets;
 - compliance with both regulatory metrics and other metrics included in each entity's risk appetite statement.

Over the course of the year, all dimensions of the plan are monitored.

Grupo Santander continues to develop the **ILAAP** (Internal Liquidity Adequacy Assessment Process), an internal self-assessment of liquidity adequacy which must be integrated into the Group's other risk management and strategic processes. It focuses on both quantitative and qualitative matters and is used as an input to the SREP (Supervisory Review and Evaluation Process). The ILAAP evaluates the liquidity position both in ordinary and stressed scenarios.

i. Liquidity risk measurement

Grupo Santander measures liquidity risk with tools and metrics that account for the appropriate risk factors.

a) Liquidity buffer

The liquidity buffer is the total liquid assets a bank has to cope with cash outflows during periods of stress. The assets are free of encumbrances and can be used immediately to generate liquidity without losses or excessive discounts. The liquidity buffer is a tool for calculating most liquidity metrics. It is also a metric with defined limits for each subsidiary.

b) Liquidity Coverage Ratio (LCR)

The liquidity coverage ratio (LCR) is a regulatory metric. Its purpose is to promote the short-term resilience of a bank's liquidity profile and make sure it has enough high-quality liquid assets to withstand a considerable idiosyncratic or market stress scenario over 30 calendar days.

c) Wholesale liquidity metric

The wholesale liquidity metric measures the number of days Grupo Santander 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. Grupo Santander also uses it as an internal short-term liquidity metric to reduce risk from dependence on wholesale funding.

d) Net Stable Funding Ratio (NSFR)

The net stable funding ratio (NSFR) is a regulatory metric we use to measure long-term liquidity risk. It is the ratio of available stable funding to required stable funding. It requires banks to keep a robust balance sheet, with off-balance-sheet assets and operations financed by stable liabilities.

e) Asset Encumbrance metrics

Grupo Santander calculates two metrics to measure asset encumbrance risk. On the one hand, the asset encumbrance ratio gives the proportion of encumbered assets to total assets; on the other, 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).

f) Other additional liquidity indicators

In addition to traditional tools to measure short and long-term liquidity and funding risk, Grupo Santander has a set of additional liquidity indicators to complement those and to measure other non-covered liquidity risk factors. These include concentration metrics, such as the main and the five largest funding counterparties, or the distribution of funding by maturity.

In addition, we calculate a number of metrics on the institution's ability to generate liquidity through collateralized financing, such as overcollateralization, eligibility ratios assets without charges and deadlines for their placement.

g) Liquidity scenario analysis

As liquidity stress tests, four standard scenarios have been defined:

- An idiosyncratic scenario of events detrimental only to Santander;
- a local market scenario of events highly detrimental to a base country's financial system or real economy;
- a global market scenario of events highly detrimental to the global financial system; and
- combined scenario consisting of a combination of more severe idiosyncratic and market events (local and global) occurring simultaneously and interactively.

Grupo Santander uses these stress test outcomes as tools to determine risk appetite and support business decision-making.

h) Liquidity early warning indicators

The system of early warning indicators (EWI) 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.

i) Intraday liquidity metrics

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

ii. Liquidity coverage ratio and net stable financing ratio

As regards the liquidity coverage ratio (LCR), the regulatory requirement for this ratio, set at 100%, has been at its maximum level since 2018.

Below is a breakdown of the composition of the Group's liquid assets under the criteria set out in the supervisory prudential reporting (Commission Implementing Regulation (EU) 2017/2114 of 9 November 2017) for the determination of high quality liquid assets for the calculation of the LCR ratio (HQLA):

EUR million

	2021	2020
	Amount weighted applicable	Amount weighted applicable
High-quality liquid assets-HQLAs		
<i>Cash and reserves available at central banks</i>	206,507	149,893
<i>Marketable assets Level 1</i>	81,925	104,270
<i>Marketable assets Level 2A</i>	3,422	5,272
<i>Marketable assets Level 2B</i>	5,446	4,200
Total high-quality liquid assets	297,300	263,635

In relation to the net stable funding ratio (NSFR), its definition was approved by the Basel Committee in October 2014. The transposition of this requirement to the European regulation took place in June 2019 with the publication in the Official Gazette of the European Union of Regulation (EU) 2019/876 of the European Parliament and of the Council of May 20, 2019. The Regulation establishes that entities must have a net stable financing ratio, as defined in the Regulation, higher 100% from June 2021. For this reason, the figures for 2019 and 2020 for this ratio are calculated using the Basel methodology, while those for 2021 already include the requirement as transposed into European regulations.

The liquidity coverage ratio, broken down by component, and the net stable funding ratio for the Group at year-end 2021 and 2020 are presented below:

EUR million

	2021	2020
High-quality liquid assets-HQLAs (numerator)	297,300	263,635
Total net cash outflows (denominator)	181,953	157,368
<i>Cash outflows</i>	233,294	204,813
<i>Cash inflows</i>	51,341	47,445
LCR ratio (%)	163%	168%
NSFR ratio (%)	126%	120%

As regards the funding structure, given the predominantly commercial nature of the Group's balance sheet, the loan portfolio is mainly financed by customer deposits. Note 22) 'Debt securities' shows the composition of these liabilities on the basis of their nature and classification, the movements and maturity profile of the debt securities issued by the Group, reflecting the strategy of diversification by products, markets, issuers and maturities followed by the Group in its approach to the wholesale markets.

iii. Asset encumbrance

In accordance with the guidelines established by the European Banking Authority (EBA) in 2014 on committed and uncommitted assets, the concept of assets committed in financing transactions (asset encumbrance) includes both on-balance sheet assets provided as collateral in transactions to obtain liquidity and off-balance sheet assets that have been received and reused for similar purposes, as well as other assets associated with liabilities for reasons other than financing.

The residual maturities of the liabilities associated with the assets and guarantees received and committed are presented below, as of 31 of December of 2021 (EUR thousand million):

Residual maturities of the liabilities	Unmatured	<=1 month	>1 month <=3 months	>3 months <=12 months	>1 year <=2 years	>2 years <=3 years	3 years <=5 years	5 years <=10 years	>10 years	Total
Committed assets	39.5	32.7	8.2	29.6	106.8	37.1	80.1	20.7	10.4	365.1
Guarantees received committed	24.2	15.3	12.8	25.8	1.9	0.4	0.4	—	—	80.8

The reported Group information as required by the EBA at 2021 year-end is as follows:

ON-BALANCE-SHEET ENCUMBERED ASSETS

EUR billion

	Carrying amount of encumbered assets	Fair value of encumbered assets	Fair value of non-encumbered assets	Carrying amount of non-encumbered assets
Loans and advances	262.8		984.4	
Equity instruments	8.4	8.4	13.1	13.1
Debt securities	61.0	61.1	102.9	102.8
Other assets	32.9		130.3	
Total assets	365.1		1,230.7	

ENCUMBRANCE OF COLLATERAL RECEIVED

EUR billion

	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
Collateral received	80.8	31.5
Loans and advances	1.2	—
Equity instruments	5.4	7.0
Debt securities	74.2	24.5
Other collateral received	—	—
Own debt securities issued other than own covered bonds or ABSs	—	0.6

ENCUMBERED ASSETS AND COLLATERAL RECEIVED AND MATCHING LIABILITIES

EUR billion

	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
Total sources of encumbrance (carrying amount)	325.2	445.9

On-balance-sheet encumbered assets amounted to EUR 365,100 million, of which 72% are loans (mortgage loans, corporate loans, etc.). Guarantees received committed amounted to EUR 80,800 million, relating mostly to debt securities received as security in asset purchase transactions and re-used.

Taken together, these two categories represent a total of EUR 445,900 million of encumbered assets, which give rise to EUR 325,200 million matching liabilities.

As of December 2021, total asset encumbrance in funding operations represented 26.1% of the Group's extended balance sheet under EBA criteria (total assets plus guarantees received: EUR 1,708,000 million as of December 2021). This percentage has decreased from 26.6% that presented the Group as of December 2020, mainly as a result of the increase in the balance sheet.

d) Capital risk

In the second line of defence, capital risk management can independently challenge business and first-line activities by:

- Supervising capital planning and adequacy exercises through a review of the main components affecting the capital ratios.
- Identifying key metrics to calculate the Group's regulatory capital, setting tolerance levels and analysing significant variations, as well as single transactions with impact on capital.
- Reviewing and challenging the execution of capital actions proposed in line with capital planning and risk appetite.

Grupo Santander commands a sound solvency position, above the levels required by regulators and by the European Central bank.

Regulatory capital

At 1 January 2022, at a consolidated level, the Group must maintain a minimum capital ratio of 8.85% of CET1 (4.50% being the requirement for Pillar I, 0.84% being the requirement for Pillar 2R (requirement), 2.50% being the requirement for capital conservation buffer, 1.00% being the requirement for G-SIB and 0.01% being the requirement for anti-cyclical capital buffer).

Grupo Santander must also maintain a minimum capital ratio of 10.64% of tier 1 and a minimum total ratio of 13.01%.

In 2021, the solvency target set was achieved. Santander's CET1 ratio stood at 12.51%¹ at the close of the year, demonstrating its organic capacity to generate capital. The key regulatory capital figures are indicated below:

RECONCILIATION OF ACCOUNTING CAPITAL WITH REGULATORY CAPITAL

EUR million	2021	2020	2019
Subscribed capital	8,670	8,670	8,309
Share premium account	47,979	52,013	52,446
Reserves	56,606	62,777	56,526
Treasury shares	(894)	(69)	(31)
Attributable profit	8,124	(8,771)	6,515
Approved dividend***	(836)	—	(1,662)
Shareholders' equity on public balance sheet	119,649	114,620	122,103
Valuation adjustments	(32,719)	(33,144)	(22,032)
Non-controlling interests	10,123	9,846	10,588
Total Equity on public balance sheet	97,053	91,322	110,659
Goodwill and intangible assets	(16,132)	(15,711)	(28,478)
Eligible preference shares and participating securities	10,050	9,102	9,039
Accrued dividend***	(895)	(478)	(1,761)
Other adjustments*	(7,624)	(5,734)	(9,923)
Tier 1**	82,452	78,501	79,536

*Fundamentally for non-computable non-controlling interests and deductions and reasonable filters in compliance with CRR

** Figures calculated by applying the transitional provisions of IFRS 9.

*** Assumes 20% of ordinary profit, see note 4.a for proposed distribution of results.

The following table shows the capital coefficients and a detail of the eligible internal resources of the Group:

	2021	2020	2019
Capital coefficients			
Level 1 ordinary eligible capital (EUR million)	72,402	69,399	70,497
Level 1 additional eligible capital (EUR million)	10,050	9,102	9,039
Level 2 eligible capital (EUR million)	14,865	12,514	11,531
Risk-weighted assets (EUR million)	578,930	562,580	605,244
Level 1 ordinary capital coefficient (CET 1)	12.51%	12.34%	11.65%
Level 1 additional capital coefficient (AT1)	1.73%	1.61%	1.49%
Level 1 capital coefficient (TIER1)	14.24%	13.95%	13.14%
Level 2 capital coefficient (TIER 2)	2.57%	2.23%	1.91%
Total capital coefficient	16.81%	16.18%	15.05%

1. Figures calculated by applying the transitional provisions of IFRS 9

ELIGIBLE CAPITAL

EUR million	2021	2020	2019
Eligible capital			
Common Equity Tier I	72,402	69,399	70,497
Capital	8,670	8,670	8,309
(-) Treasury shares and own shares financed	(966)	(126)	(63)
Share Premium	47,979	52,013	52,446
Reserves	58,157	64,766	57,368
Other retained earnings	(34,784)	(34,937)	(22,933)
Minority interests	6,736	6,669	6,441
Profit net of dividends	6,394	(9,249)	3,092
Deductions	(19,784)	(18,407)	(34,163)
Goodwill and intangible assets	(16,064)	(15,711)	(28,478)
Others	(3,720)	(2,696)	(5,685)
Additional Tier I	10,050	9,102	9,039
Eligible instruments AT1	10,102	8,854	9,209
T1-excesses-subsidiaries	(52)	248	(170)
Residual value of dividends	—	—	—
Others	—	—	—
Tier II	14,865	12,514	11,531
Eligible instruments T2	15,424	13,351	12,360
Gen. funds and surplus loans loss prov. IRB	75	—	—
T2-excesses - subsidiaries	(634)	(837)	(829)
Others	—	—	—
Total eligible capital	97,317	91,015	91,067

Note: Banco Santander, S.A. and its affiliates had not taken part in any State aid programmes.

Leverage ratio

Basel III established the leverage ratio as a non-risk sensitive measure aimed at limiting excessive balance sheet growth relative to available capital.

The Group performs the calculation in accordance with Regulation (EU) 2019/876 of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio.

This ratio is calculated as tier 1 capital divided by leverage exposure. Exposure is calculated as the sum of the following items:

- Accounting assets, excluding derivatives and items treated as deductions from tier 1 capital (for example, the balance of loans is included, but not that of goodwill) further excluding the exposures referred to in Article 429a(1) of the regulation.
- Off-balance-sheet items (mainly guarantees, unused credit limits granted and documentary credits) weighted using credit conversion factors.
- Inclusion of net value of derivatives (gains and losses are netted with the same counterparty, minus collaterals if they comply with certain criteria) plus a charge for the future potential exposure.
- A charge for the potential risk of security funding transactions.
- Lastly, it includes a charge for the risk of credit derivative swaps (CDS).

With the publication of Regulation (EU) 2019/876 of 20 May, 2019, amending Regulation (EU) n.º 575/2013 as regards the leverage ratio, the final calibration of the ratio is set at 3% for all entities and, for systemic entities G-SIB, an additional surcharge is also established which will be 50% of the cushion ratio applicable to the EISM. In addition, modifications are included in its calculation, including the exclusion of certain exposures from the total exposure measure: public loans, transfer loans and officially guaranteed export credits.

Banks implemented this final definition of the leverage ratio in June 2021, however, the new calibration of the ratio (the additional surcharge for G-SIBs) will take effect from January 2023.

EUR million

	2021	2020	2019
Leverage			
Level 1 Capital	82,452	78,501	79,536
Exposure	1,536,516	1,471,480	1,544,614
Leverage Ratio	5.37%	5.33%	5.15%

Global systemically important banks

Grupo Santander is one of 30 banks designated as global systemically important banks (G-SIBs).

The designation as a systemically important entity is based on the measurement set by regulators (the FSB and BCBS), based on 5 criteria (size, cross-jurisdictional activity, interconnectedness with other financial institutions, substitutability and complexity).

This definition means it has to fulfil certain additional requirements, which consist mainly of a capital buffer -1%, in TLAC requirements (total loss absorbing capacity), that we have to publish relevant information more frequently than other banks, greater regulatory requirements for internal control bodies, special supervision and drawing up of special reports to be submitted to supervisors.

The fact that Grupo Santander has to comply with these requirements makes it a more solid bank than its domestic rivals.

54. Additional disclosures

This note includes relevant information about additional disclosure requirements.

54.1 Parent company financial statements

Following are the summarised balance sheets of Banco Santander, S.A. as of December 31, 2021, 2020 and 2019:

CONDENSED BALANCE SHEETS (Parent company only)	31 December 2021	31 December 2020	31 December 2019
	(Millions of Euros)		
Assets			
Cash and due from banks	138,388	112,114	85,922
<i>Of which:</i>			
<i>To bank subsidiaries</i>	15,459	14,519	13,875
<i>Trading account assets</i>	77,988	81,433	86,583
Investment securities	29,949	29,477	44,020
<i>Of which:</i>			
<i>To bank subsidiaries</i>	12,137	13,603	9,504
<i>To non-bank subsidiaries</i>	2,087	3,399	3,450
Net loans and leases	301,342	295,739	276,330
<i>Of which:</i>			
<i>To non-bank subsidiaries</i>	31,296	27,555	28,690
Investment in affiliated companies	88,549	84,890	87,330
<i>Of which:</i>			
<i>To bank subsidiaries</i>	67,735	60,186	59,364
<i>To non-bank subsidiaries</i>	20,814	24,703	27,966
Premises and equipment, net	6,515	6,680	7,131
Other assets	15,219	19,036	22,600
Total assets	657,950	629,369	609,916
Liabilities			
Deposits	394,160	383,135	345,975
<i>Of which:</i>			
<i>To bank subsidiaries</i>	18,114	17,045	14,705
<i>To non-bank subsidiaries</i>	18,594	19,949	15,518
Short-term debt	19,181	14,513	20,547
Long-term debt	99,650	83,981	83,906
Total debt	118,831	98,494	104,453
<i>Of which:</i>			
<i>To bank subsidiaries</i>	221	617	—
<i>To non-bank subsidiaries</i>	649	661	1,667
Other liabilities	78,386	82,803	89,265
Total liabilities	591,377	564,432	539,693
Stockholders' equity			
Capital stock	8,670	8,670	8,309
Retained earnings and other reserves	57,903	56,267	61,914
Total stockholders' equity	66,573	64,937	70,223
Total liabilities and Stockholders' Equity	657,950	629,369	609,916

In the financial statements of the Parent Company, investments in subsidiaries, jointly controlled entities and associates are recorded at cost.

Following are the condensed statements of income of Banco Santander, S.A. for the years ended December 31, 2021, 2020 and 2019.

CONDENSED STATEMENTS OF INCOME (Parent company only)	Year ended		
	31 December 2021	31 December 2020	31 December 2019
	(Millions of Euros)		
Interest income	11,893	12,169	13,968
Interest from earning assets	6,821	6,853	8,009
Dividends from affiliated companies	5,072	5,316	5,959
Of which:			
From bank subsidiaries	4,075	1,810	3,019
From non-bank subsidiaries	997	3,506	2,940
Interest expense	(2,785)	(3,160)	(4,108)
Interest income / (charges)	9,108	9,009	9,860
Provision for credit losses	(2,287)	(2,558)	(1,246)
Interest income / (charges) after provision for credit losses	6,821	6,451	8,614
Non-interest income	4,092	5,322	4,132
Non-interest expense	(7,049)	(14,020)	(9,168)
Income before income taxes	3,864	(2,247)	3,578
Income tax benefit (expense)	68	(1,310)	(48)
Net income	3,932	(3,557)	3,530

Following are the condensed statements of comprehensive income of Banco Santander, S.A. for the years ended December 31, 2021, 2020 and 2019:

CONDENSED STATEMENTS OF COMPREHENSIVE INCOME (Parent company only)	Year ended		
	31 December 2021	31 December 2020	31 December 2019
	(Millions of Euros)		
NET INCOME	3,932	(3,557)	3,530
OTHER COMPREHENSIVE INCOME	(662)	(1,221)	119
Items that may be reclassified subsequently to profit or loss	(265)	(363)	421
Hedging instruments (items not designated)	—	—	—
Revaluation gains (losses)	—	—	—
Amounts transferred to income statement	—	—	—
Other reclassifications	—	—	—
Debt instruments at fair value with changes in other comprehensive income	(524)	(316)	723
Revaluation gains (losses)	(243)	244	697
Amounts transferred to income statement	(281)	(560)	(592)
Other reclassifications	—	—	618
Cash flow hedges:	146	(206)	(117)
Revaluation gains/(losses)	153	(239)	(205)
Amounts transferred to income statement	(7)	33	88
Amounts transferred to initial carrying amount of hedged items	—	—	—
Other reclassifications	—	—	—
Hedges of net investments in foreign operations:	—	—	—
Exchange differences	—	—	—
Non-current assets held for sale	—	—	—
Income tax	113	159	(185)
Items that will not be reclassified to profit or loss	(397)	(858)	(302)
Actuarial gains/(losses) on pension plans	29	(77)	(327)
Other recognised income and expense of investments in subsidiaries, joint ventures and associates	—	—	—
Changes in the fair value of equity instruments measured at fair value through other comprehensive income	(347)	(796)	(135)
Gains or losses resulting from the accounting for hedges of equity instruments measured at fair value through other comprehensive income, net	—	—	—
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedged item)	117	4	44
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedging instrument)	(117)	(4)	(44)
Changes in the fair value of financial liabilities at fair value through profit or loss attributable to changes in credit risk	(93)	4	2
Income tax relating to items that will not be reclassified	14	11	158
TOTAL COMPREHENSIVE INCOME	3,270	(4,778)	3,649

Following are the condensed cash flow statements of Banco Santander, S.A. for the years ended December 31, 2021, 2020 and 2019.

CONDENSED CASH FLOW STATEMENTS (Parent company only)	Year ended		
	31 December 2021	31 December 2020	31 December 2019
	(Millions of Euros)		
1. Cash flows from operating activities			
Consolidated profit	3,932	(3,557)	3,530
Adjustments to profit	2,052	12,938	2,206
Net increase/decrease in operating assets	(9,622)	7,513	(13,370)
Net increase/decrease in operating liabilities	24,024	21,199	45
Reimbursements/payments of income tax	(352)	(251)	743
Total net cash flows from operating activities (1)	20,034	37,842	(6,846)
2. Cash flows from investing activities			
Investments (-)	(2,266)	(8,001)	(7,094)
Divestments (+)	6,349	4,738	1,952
Total net cash flows from investment activities (2)	4,083	(3,263)	(5,142)
3. Cash flows from financing activities			
Issuance of own equity instruments	—	—	—
Disposal of own equity instruments	605	615	829
Acquisition of own equity instruments	(1,446)	(615)	(829)
Issuance of debt securities	4,440	3,722	1,056
Redemption of debt securities	(2,248)	(2,348)	(4,578)
Dividends paid	(1,313)	—	(3,773)
Issuance/Redemption of equity instruments	—	—	—
Other collections/payments related to financing activities	(315)	(287)	(382)
Total net cash flows from financing activities (3)	(277)	1,087	(7,677)
4. Effect of exchange rate changes on cash and cash equivalents (4)	336	(576)	205
5. Net increase/decrease in cash and cash equivalents (1+2+3+4)	24,175	35,090	(19,460)
Cash and cash equivalents at beginning of period	67,561	32,471	51,931
Cash and cash equivalents at end of period	91,736	67,561	32,471

54.2 Preference Shares and Preferred Securities

The following table shows the balance of the preference shares and preferred securities as of 31 December 2021, 2020 and 2019:

	2021	2020	2019
	(Millions of Euros)		
Preference shares	209	196	321
Preferred securities	8,601	7,425	7,709
Total	8,810	7,621	8,030

Both Preference Shares and Preferred Securities are recorded under the "Financial liabilities at amortized cost - Subordinated Liabilities" caption in the consolidated balance sheet as of December 31, 2021, 2020 and 2019.

Preference Shares include the financial instruments issued by the consolidated companies which, although equity for legal purposes,

do not meet the requirements for classification as equity in the financial statements. These shares do not carry any voting rights and are non-cumulative.

Preference shares include non-cumulative preferred non-voting shares issued by Santander UK plc.

Preferred securities include non-cumulative preferred non-voting securities issued by Banco Santander, S.A.

For the purposes of payment priority, preferred securities are junior to all general creditors and to subordinated deposits. The payment of dividends on these securities, which have no voting rights, is conditional upon the obtainment of sufficient distributable profit and upon the limits imposed by Spanish banking regulations on equity.

Preference shares and preferred securities are perpetual securities and there is no obligation that requires the Group to redeem them. All securities have been fully subscribed by third parties outside the Group. In the consolidated balance sheets, these securities are shown net of any temporary transactions relating to liquidity guarantees.

For further information, see note 23.c.

Santander Finance Preferred, S.A. (Unipersonal)- issuer of registered securities guaranteed by Banco Santander, S.A. until November 2017, merged in that date with Banco Santander, S.A.

Outstanding at 31 December 2021				
Preference Shares Issuer/Date of issue	Currency	Amount in currency (million)	Interest rate	Redemption Option (A)
Santander UK plc, October 1995	Pounds Sterling	80.3	10.375%	No option
Santander UK plc, February 1996	Pounds Sterling	80.3	10.375%	No option

Outstanding at 31 December 2021				
Preferred Securities Issuer/Date of issue	Currency	Amount in currency (million)	Interest rate	Maturity date
Banco Santander, S.A., April 2017	Euro	750.0	6.750% (B)	Perpetuity
Banco Santander, S.A., September 2017	Euro	1,000.0	5.250% (C)	Perpetuity
Banco Santander, S.A., March 2018	Euro	1,500.0	4.750% (D)	Perpetuity
Banco Santander, S.A., February 2019	US Dollar	1,200.0	7.500% (E)	Perpetuity
Banco Santander, S.A., January 2020	Euro	1,500.0	4.375% (F)	Perpetuity
Banco Santander, S.A., May 2021	US Dollar	1,000.0	4.750% (G)	Perpetuity
Banco Santander, S.A., May 2021	Euro	750.0	4.125% (H)	Perpetuity
Banco Santander, S.A., September 2021	Euro	1,000.0	3.625% (I)	Perpetuity
Santander Finance Preferred, S.A. (Unipersonal), September 2004	Euro	144.0	€CMS 10 + 0.05% subject to a maximum distribution of 8% per annum	Perpetuity

A. From these dates the issuer can redeem the shares, subject to prior authorization by the national supervisor.

B. Payment is subject to certain conditions and to the discretion of the Bank. The 6.75% interest rate is set for the first five years. After that, it will be reviewed by applying a margin of 680.3 basis points on the 5-year Mid-Swap Rate.

C. Payment is subject to certain conditions and to the discretion of the Bank. The 5.25% interest rate is set for the first six years. After that, it will be reviewed by applying a margin of 499.9 basis points on the 5-year Mid-Swap Rate.

D. Payment is subject to certain conditions and to the discretion of the Bank. The 4.75% interest rate is set for the first seven years. After that, it will be reviewed by applying a margin of 409.7 basis points on the Mid-Swap Rate.

E. Payment is subject to certain conditions and to the discretion of the Bank. The 7.50% interest rate is set for the first five years. After that, it will be reviewed every 5 years by applying a margin of 498.9 basis point on the Mid-Swap Rate.

F. Payment is subject to certain conditions and to the discretion of the Bank. The 4.375% interest rate is set for the first six years. After that, it will be reviewed every 5 years by applying a margin of 453.4 basis point on the 5-year Mid-Swap Rate.

G. Payment is subject to certain conditions and to the discretion of Banco Santander. The 4.750% interest rate is set for the first six years, revised every 5 years thereafter by applying a margin of 375.3 basis points over the 5-year UST rate.

H. Payment is subject to certain conditions and to the discretion of Banco Santander. The 4.125% interest rate is set for the first seven years, revised every 5 years thereafter by applying a margin of 431.1 basis points over the applicable 5-year Euro mid-swap.

I. Payment is subject to certain conditions and to the discretion of Banco Santander. The 3.625% interest rate is set for the first eight years, revised every 5 years thereafter by applying a margin of 376 basis points over the 5-year Mid-Swap Rate.

Appendix



Appendix I

Subsidiaries of Banco Santander, S.A. ¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
2 & 3 Triton Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate
A & L CF (Guernsey) Limited (f)	Guernsey	0.00%	100.00%	100.00%	100.00%	Leasing
A & L CF June (2) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
A & L CF June (3) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
A & L CF March (5) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
A & L CF September (4) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
A3T Luxco 1 S.A.	Luxembourg	0.00%	100.00%	100.00%	—	Holding company
A3T Luxco 2 S.A.	Luxembourg	100.00%	0.00%	100.00%	—	Holding company
Abbey Business Services (India) Private Limited	India	0.00%	100.00%	100.00%	100.00%	Holding company
Abbey Covered Bonds (Holdings) Limited	United Kingdom	—	(a)	—	—	Securitization
Abbey Covered Bonds (LM) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Abbey Covered Bonds LLP	United Kingdom	—	(a)	—	—	Securitization
Abbey National Beta Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Abbey National Business Office Equipment Leasing Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Abbey National International Limited	Jersey	0.00%	100.00%	100.00%	100.00%	Financial services
Abbey National Nominees Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Abbey National PLP (UK) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Abbey National Property Investments	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Abbey National Treasury Services Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Abbey National Treasury Services Overseas Holdings	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company
Abbey National UK Investments	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Abbey Stockbrokers (Nominees) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Abbey Stockbrokers Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securities company
Abent 3T, S.A.P.I de C.V.	Mexico	0.00%	100.00%	100.00%	—	Electricity production
Ablasa Participaciones, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Aduro S.A.	Uruguay	0.00%	100.00%	100.00%	100.00%	Payments and collection services
Aevis Europa, S.L.	Spain	96.34%	0.00%	96.34%	96.34%	Cards
AFB SAM Holdings, S.L.	Spain	1.00%	99.00%	100.00%	100.00%	Holding company
Afisa S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Fund management company
Aljardi SGPS, Lda.	Portugal	0.00%	100.00%	100.00%	100.00%	Holding company

Subsidiaries of Banco Santander, S.A. ¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Allane Leasing GmbH	Austria	0.00%	46.95%	100.00%	100.00%	Renting
Allane Location Longue Durée S.a.r.l.	France	0.00%	46.95%	100.00%	100.00%	Renting
Allane Mobility Consulting AG	Switzerland	0.00%	46.95%	100.00%	100.00%	Consulting services
Allane Mobility Consulting B.V.	Netherlands	0.00%	46.95%	100.00%	100.00%	Consulting services
Allane Mobility Consulting GmbH	Germany	0.00%	46.95%	100.00%	100.00%	Consulting services
Allane Mobility Consulting Österreich GmbH	Austria	0.00%	46.95%	100.00%	100.00%	Consulting services
Allane Mobility Consulting S.a.r.l.	France	0.00%	46.95%	100.00%	100.00%	Consulting services
Allane Schweiz AG	Switzerland	0.00%	46.95%	100.00%	100.00%	Renting
Allane SE	Germany	0.00%	46.95%	92.07%	92.07%	Leasing
Allane Services GmbH & co. KG	Germany	0.00%	46.95%	100.00%	100.00%	Services
Allane Services Verwaltungs GmbH	Germany	0.00%	46.95%	100.00%	100.00%	Management of portfolios
Alliance & Leicester Cash Solutions Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Alliance & Leicester Commercial Bank Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Alliance & Leicester Investments (Derivatives) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Alliance & Leicester Investments (No.2) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Alliance & Leicester Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Alliance & Leicester Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Alliance & Leicester Personal Finance Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Altamira Santander Real Estate, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Real estate
Alternative Leasing, FIL (Compartimento B)	Spain	100.00%	0.00%	100.00%	99.99%	Investment fund
Amazonia Trade Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Holding company
AN (123) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company
Andaluza de Inversiones, S.A.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
ANITCO Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Apê11 Tecnologia e Negócios Imobiliários S.A.	Brazil	0.00%	80.92%	90.00%	—	Real estate
Aquanima Brasil Ltda.	Brazil	0.00%	100.00%	100.00%	100.00%	E-commerce
Aquanima Chile S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Services
Aquanima México S. de R.L. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	E-commerce
Aquanima S.A.	Argentina	0.00%	100.00%	100.00%	100.00%	Services
Artarien S.A.	Uruguay	0.00%	100.00%	100.00%	—	Insurance auxiliary services
Asto Digital Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company

Subsidiaries of Banco Santander, S.A. ¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Athena Corporation Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Financial services
Atlantes Azor No. 2	Portugal	—	(a)	—	—	Securitization
Atlantes Mortgage No. 2	Portugal	—	(a)	—	—	Securitization
Atlantes Mortgage No. 3	Portugal	—	(a)	—	—	Securitization
Atlantes Mortgage No. 4	Portugal	—	(a)	—	—	Securitization
Atlantes Mortgage No. 5	Portugal	—	(a)	—	—	Securitization
Atlantes Mortgage No. 7	Portugal	—	(a)	—	—	Securitization
Atual - Fundo de Invest Multimercado Crédito Privado Investimento no Exterior	Brazil	0.00%	89.91%	100.00%	100.00%	Investment fund
Atual Serviços de Recuperação de Créditos e Meios Digitais S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Financial services
Auto ABS Belgium Loans 2019, SA/NV	Belgium	—	(a)	—	—	Securitization
Auto ABS DFP Master Compartment France 2013	France	—	(a)	—	—	Securitization
Auto ABS French Leases 2018	France	—	(a)	—	—	Securitization
Auto ABS French Leases 2021	France	—	(a)	—	—	Securitization
Auto ABS French Leases Master Compartment 2016	France	—	(a)	—	—	Securitization
Auto ABS French Loans Master	France	—	(a)	—	—	Securitization
Auto ABS French LT Leases Master	France	—	(a)	—	—	Securitization
Auto ABS Italian Balloon 2019-1 S.R.L.	Italy	—	(a)	—	—	Securitization
Auto ABS Italian Loans 2018-1 S.R.L.	Italy	—	(a)	—	—	Securitization
Auto ABS Italian Rainbow Loans 2020-1 S.R.L.	Italy	—	(a)	—	—	Securitization
Auto ABS Spanish Loans 2018-1, Fondo de Titulización	Spain	—	(a)	—	—	Securitization
Auto ABS Spanish Loans 2020-1, Fondo de Titulización	Spain	—	(a)	—	—	Securitization
Auto ABS UK Loans 2017 Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Auto ABS UK Loans 2017 Plc	United Kingdom	—	(a)	—	—	Securitization
Auto ABS UK Loans 2019 Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Auto ABS UK Loans 2019 Plc	United Kingdom	—	(a)	—	—	Securitization
Auto ABS UK Loans Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Auto ABS UK Loans PLC	United Kingdom	—	(a)	—	—	Securitization
Autodescuento, S.L.	Spain	0.00%	93.89%	93.89%	93.89%	Vehicles purchase by Internet
Autohaus24 GmbH	Germany	0.00%	46.95%	100.00%	100.00%	Renting
Auttar HUT Processamento de Dados Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	IT services
Aviación Antares, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting
Aviación Británica, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting
Aviación Centaurus, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting
Aviación Comillas, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Renting
Aviación Intercontinental, A.I.E.	Spain	99.97%	0.03%	100.00%	100.00%	Renting
Aviación Laredo, S.L.	Spain	99.00%	1.00%	100.00%	100.00%	Air transport
Aviación Oyambre, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Renting
Aviación Santillana, S.L.	Spain	99.00%	1.00%	100.00%	100.00%	Renting
Aviación Suances, S.L.	Spain	99.00%	1.00%	100.00%	100.00%	Air transport
Aviación Tritón, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Aymoré Crédito, Financiamento e Investimento S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Finance company
Azor Mortgages PLC (b)	Ireland	—	(a)	—	—	Securitization
Banca PSA Italia S.p.A.	Italy	0.00%	50.00%	50.00%	50.00%	Banking
Banco Bandepe S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Banking
Banco de Albacete, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking
Banco Hyundai Capital Brasil S.A.	Brazil	0.00%	44.96%	50.00%	50.00%	Banking
Banco Madesant - Sociedade Unipessoal, S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Banking
Banco PSA Finance Brasil S.A.	Brazil	0.00%	44.96%	50.00%	50.00%	Banking
Banco Santander - Chile	Chile	0.00%	67.12%	67.18%	67.18%	Banking
Banco Santander (Brasil) S.A.	Brazil	0.04%	89.88%	90.50%	90.58%	Banking
Banco Santander (México), S.A., Institución de Banca Múltiple, Grupo Financiero Santander México como Fiduciaria del Fideicomiso 100740	Mexico	0.00%	96.24%	100.00%	100.00%	Finance company
Banco Santander (México), S.A., Institución de Banca Múltiple, Grupo Financiero Santander México como Fiduciaria del Fideicomiso 2002114	Mexico	0.00%	96.47%	100.00%	100.00%	Holding company
Banco Santander (México), S.A., Institución de Banca Múltiple, Grupo Financiero Santander México como Fiduciaria del Fideicomiso GFSSLPT	Mexico	0.00%	96.64%	100.00%	100.00%	Finance company
Banco Santander de Negocios Colombia S.A.	Colombia	94.90%	5.10%	100.00%	100.00%	Banking
Banco Santander International	United States	0.00%	100.00%	100.00%	100.00%	Banking
Banco Santander International SA	Switzerland	0.00%	100.00%	100.00%	100.00%	Banking
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	Mexico	21.19%	75.04%	96.24%	91.80%	Banking
Banco Santander Perú S.A.	Peru	100.00%	0.00%	100.00%	100.00%	Banking
Banco Santander Río S.A.	Argentina	0.00%	99.31%	99.26%	99.26%	Banking
Banco Santander S.A.	Uruguay	97.75%	2.25%	100.00%	100.00%	Banking
Banco Santander Totta, S.A.	Portugal	0.00%	99.86%	99.96%	99.96%	Banking
Bansa Santander S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Real estate
BEN Benefícios e Serviços Instituição de Pagamento S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Payment services
Bilkreditt 6 Designated Activity Company (b)	Ireland	—	(a)	—	—	Securitization
Bilkreditt 7 Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Bond Company Merger Sub LLC	United States	0.00%	100.00%	100.00%	—	Inactive
Bond First Merger Sub Inc.	United States	0.00%	100.00%	100.00%	—	Inactive
Bond Fourth Merger Sub LLC	United States	0.00%	100.00%	100.00%	—	Inactive
Bond Second Merger Sub LLC	United States	0.00%	100.00%	100.00%	—	Inactive
Bond Third Merger Sub LLC	United States	0.00%	100.00%	100.00%	—	Inactive
BRS Investments S.A.	Argentina	5.10%	94.90%	100.00%	100.00%	Finance company
Cántabra de Inversiones, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Cántabro Catalana de Inversiones, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Canyon Multifamily Impact Fund IV LLC	United States	0.00%	98.00%	98.00%	98.00%	Real estate
Capital Street Delaware LP	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Capital Street Holdings, LLC	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Capital Street REIT Holdings, LLC	United States	0.00%	100.00%	100.00%	100.00%	Holding company

Subsidiaries of Banco Santander, S.A. ¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Capital Street S.A.	Luxembourg	0.00%	100.00%	100.00%	100.00%	Finance company
Carfax (Guernsey) Limited (b) (f)	Guernsey	0.00%	100.00%	100.00%	100.00%	Insurance brokerage
Casa de Bolsa Santander, S.A. de C.V., Grupo Financiero Santander México	Mexico	0.00%	99.97%	99.97%	99.97%	Securities company
Cater Allen Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Cater Allen International Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Cater Allen Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Banking
Cater Allen Lloyd's Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company
Cater Allen Syndicate Management Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
CCAP Auto Lease Ltd.	United States	0.00%	80.22%	100.00%	100.00%	Leasing
Centro de Capacitación Santander, A.C.	Mexico	0.00%	96.24%	100.00%	100.00%	Non-profit institute
Certidesa, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Aircraft rental
Chrysler Capital Auto Funding I LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Chrysler Capital Auto Funding II LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Chrysler Capital Auto Receivables LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Chrysler Capital Master Auto Receivables Funding 2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Chrysler Capital Master Auto Receivables Funding 4 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Chrysler Capital Master Auto Receivables Funding LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Cobranza Amigable, S.A.P.I. de C.V.	Mexico	0.00%	85.00%	100.00%	100.00%	Collection services
Community Development and Affordable Housing Fund LLC	United States	0.00%	96.00%	96.00%	96.00%	Asset management
Compagnie Generale de Credit Aux Particuliers - Credipar S.A.	France	0.00%	50.00%	100.00%	100.00%	Banking
Compagnie Pour la Location de Vehicules - CLV	France	0.00%	50.00%	100.00%	100.00%	Banking
Compartment German Auto Loans 2021-1	Luxembourg	—	(a)	—	—	Securitization
Comunidad Laboral Trabajando Argentina S.A. (b)	Argentina	0.00%	100.00%	100.00%	100.00%	Services
Consulteam Consultores de Gestão, Unipessoal, Lda.	Portugal	100.00%	0.00%	100.00%	100.00%	Real estate
Consumer Lending Receivables LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Crawfall S.A. (b)	Uruguay	100.00%	0.00%	100.00%	100.00%	Services
Darep Designated Activity Company	Ireland	100.00%	0.00%	100.00%	100.00%	Reinsurances
Decarome, S.A.P.I. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Finance company
Deva Capital Advisory Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Advisory services
Deva Capital Holding Company, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Deva Capital Investment Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
Deva Capital Management Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Advisory services
Deva Capital Servicer Company, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Holding company

Subsidiaries of Banco Santander, S.A. ¹

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		Direct	Indirect	Year 2021	Year 2020	
Digital Procurement Holdings N.V.	Netherlands	0.00%	100.00%	100.00%	100.00%	Holding company
Diners Club Spain, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	75.00%	Cards
Dirección Estratega, S.C.	Mexico	0.00%	100.00%	100.00%	100.00%	Services
Drive Auto Receivables Trust 2017-3	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2018-1	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2018-2	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2018-3	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2018-4	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2018-5	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2019-1	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2019-2	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2019-3	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2019-4	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2020-1	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2020-2	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2021-1	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2021-2	United States	—	(a)	—	—	Securitization
Drive Auto Receivables Trust 2021-3	United States	—	(a)	—	—	Securitization
Ductor S.à r.l.	Luxembourg	100.00 %	0.00 %	100.00 %	—	Holding company
EDT FTPYME Pastor 3 Fondo de Titulización de Activos	Spain	—	(a)	—	—	Securitization
Elcano Renovables, S.L	Spain	0.00 %	70.00 %	70.00 %	—	Holding company
Electrolyser, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	Services
Entidad de Desarrollo a la Pequeña y Micro Empresa Santander Consumo Perú S.A.	Peru	100.00%	0.00%	100.00%	100.00%	Finance company
Erestone S.A.S.	France	0.00%	90.00%	90.00%	90.00%	Inactive
Esfera Fidelidade S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Services
Evidence Previdência S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Insurance
Eyemobile Tecnologia S.A.	Brazil	0.00%	53.95%	60.00%	—	IT services
F1rst Tecnologia e Inovação Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	IT services
Finaceira El Corte Inglés, Portugal, S.F.C., S.A.	Portugal	0.00%	51.00%	100.00%	100.00%	Finance company
Financiera El Corte Inglés, E.F.C., S.A.	Spain	0.00%	51.00%	51.00%	51.00%	Finance company
Finsantusa, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
First National Motor Business Limited (b)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
First National Motor Contracts Limited (b)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
First National Motor Facilities Limited (b)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
First National Motor Finance Limited (b)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Advisory services
First National Motor Leasing Limited (b)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
First National Motor plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
First National Tricity Finance Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Fondation Holding Auto ABS Belgium Loans	Belgium	—	(a)	—	—	Securitization
Fondo de Titulización de Activos Santander Consumer Spain Auto 2014-1	Spain	—	(a)	—	—	Securitization
Fondo de Titulización PYMES Santander 13	Spain	—	(a)	—	—	Securitization
Fondo de Titulización PYMES Santander 14	Spain	—	(a)	—	—	Securitization

Subsidiaries of Banco Santander, S.A. ¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Fondo de Titulización PYMES Santander 15	Spain	—	(a)	—	—	Securitization
Fondo de Titulización Santander Consumer Spain Auto 2016-1	Spain	—	(a)	—	—	Securitization
Fondo de Titulización Santander Consumer Spain Auto 2016-2	Spain	—	(a)	—	—	Securitization
Fondo de Titulización Santander Financiación 1	Spain	—	(a)	—	—	Securitization
Fondo de Titulización, RMBS Santander 7	Spain	—	(a)	—	—	Securitization
Fondos Santander, S.A. Administradora de Fondos de Inversión (en liquidación) (b)	Uruguay	0.00%	100.00%	100.00%	100.00%	Fund management company
Fortensky Trading, Ltd.	Ireland	0.00%	100.00%	100.00%	100.00%	Finance company
Fosse (Master Issuer) Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Fosse Funding (No.1) Limited	United Kingdom	0.00%	100.00 %	100.00 %	100.00 %	Securitization
Fosse Master Issuer PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Fosse PECO Limited	United Kingdom	—	(a)	—	—	Inactive
Fosse Trustee (UK) Limited	United Kingdom	0.00%	100.00 %	100.00 %	100.00 %	Securitization
FTPME Banesto 2, Fondo de Titulización de Activos	Spain	—	(a)	—	—	Securitization
Fundo de Investimento em Direitos Creditórios Atacado- Não Padronizado	Brazil	—	(a)	—	—	Investment fund
Fundo de Investimentos em Direitos Creditórios Multisegmentos NPL Ipanema VI – Não padronizado	Brazil	—	(a)	—	—	Investment fund
Gamma, Sociedade Financeira de Titularização de Créditos, S.A.	Portugal	0.00%	99.86 %	100.00 %	100.00 %	Securitization
GC FTPME Pastor 4 Fondo de Titulización de Activos	Spain	—	(a)	—	—	Securitization
Gentium Payments Processing FZ-LLC	United Arab Emirates	0.00%	100.00%	100.00%	—	Financial services
Gesban México Servicios Administrativos Globales, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Services
Gesban Santander Servicios Profesionales Contables Limitada	Chile	0.00%	100.00%	100.00%	100.00%	Accounting services
Gesban Servicios Administrativos Globales, S.L.	Spain	99.99%	0.01%	100.00%	100.00%	Services
Gesban UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Payments and collection services
Gestión de Instalaciones Fotovoltaicas, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Renewable energies
Gestión de Inversiones JILT, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Services
Gestora de Procesos S.A. en liquidación (b)	Peru	0.00%	100.00%	100.00%	100.00%	Holding company
Getnet Adquirência e Serviços para Meios de Pagamento S.A.	Brazil	0.04%	89.88%	89.91%	100.00%	Payment services
Getnet Europe, Entidad de Pago, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Payment services
Getnet Sociedade de Credito Direto S.A.	Brazil	0.00%	89.91%	100.00%	—	Finance company
Gira, Gestão Integrada de Recebíveis do Agronegócio S.A.	Brazil	0.00%	71.93%	80.00%	—	Consulting services
Golden Bar (Securitisation) S.R.L.	Italy	—	(a)	—	—	Securitization
Golden Bar Stand Alone 2016-1	Italy	—	(a)	—	—	Securitization

Subsidiaries of Banco Santander, S.A. ¹

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		Direct	Indirect	Year 2021	Year 2020	
Golden Bar Stand Alone 2018-1	Italy	—	(a)	—	—	Securitization
Golden Bar Stand Alone 2019-1	Italy	—	(a)	—	—	Securitization
Golden Bar Stand Alone 2020-1	Italy	—	(a)	—	—	Securitization
Golden Bar Stand Alone 2020-2	Italy	—	(a)	—	—	Securitization
Golden Bar Stand Alone 2021-1	Italy	—	(a)	—	—	Securitization
Grupo Empresarial Santander, S.L.	Spain	99.62%	0.38%	100.00%	100.00%	Holding company
Grupo Financiero Santander México, S.A. de C.V.	Mexico	100.00%	0.00%	100.00%	100.00%	Holding company
Guaranty Car, S.A. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Automotive
Hipototta No. 13	Portugal	—	(a)	—	—	Securitization
Hipototta No. 4 FTC	Portugal	—	(a)	—	—	Securitization
Hipototta No. 4 plc	Ireland	—	(a)	—	—	Securitization
Hipototta No. 5 FTC	Portugal	—	(a)	—	—	Securitization
Hipototta No. 5 plc	Ireland	—	(a)	—	—	Securitization
Holbah II Limited	Bahamas	0.00%	100.00%	100.00%	100.00%	Holding company
Holbah Santander, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
Holmes Funding Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Holmes Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Holmes Master Issuer plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Holmes Trustees Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Hyundai Capital Bank Europe GmbH	Germany	0.00%	51.00%	51.00%	51.00%	Banking
Ibérica de Compras Corporativas, S.L.	Spain	97.17%	2.83%	100.00%	100.00%	E-commerce
Independence Community Bank Corp.	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Insurance Funding Solutions Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Interfinance Holanda B.V.	Netherlands	100.00%	0.00%	100.00%	100.00%	Holding company
Inversiones Capital Global, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Inversiones Marítimas del Mediterráneo, S.A.	Spain	0.00%	100.00%	100.00%	100.00%	Inactive
Isar Valley S.A.	Luxembourg	—	(a)	—	—	Securitization
Isla de los Buques, S.A.	Spain	99.98%	0.02%	100.00%	100.00%	Finance company
Klare Corredora de Seguros S.A.	Chile	0.00%	33.63%	50.10%	50.10%	Insurance brokerage
Landcompany 2020, S.L.	Spain	17.66%	82.34%	100.00%	100.00%	Real estate management
Langton Funding (No.1) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Langton Mortgages Trustee (UK) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Langton PECOH Limited	United Kingdom	—	(a)	—	—	Inactive
Langton Securities (2008-1) plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization

Subsidiaries of Banco Santander, S.A.¹

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		Direct	Indirect	Year 2021	Year 2020	
Langton Securities (2010-1) PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Langton Securities (2010-2) PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Langton Securities Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Laparanza, S.A.	Spain	61.59%	0.00%	61.59%	61.59%	Agricultural holding
Liderança Serviços Especializados em Cobranças Ltda.	Brazil	0.00%	89.91%	100.00%	—	Collection services
Liquetine, S.L.	Spain	0.00%	70.00%	100.00%	—	Renewable energies
Liquidity Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Factoring
Luri 1, S.A., en liquidación (b) (e)	Spain	46.00%	0.00%	46.00%	46.00%	Real estate
Luri 6, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Real estate investment
MAC No. 1 Limited	United Kingdom	—	(a)	—	—	Mortgage credit company
Master Red Europa, S.L.	Spain	96.34%	0.00%	96.34%	96.34%	Cards
Mata Alta, S.L.	Spain	0.00%	61.59%	100.00%	100.00%	Real estate
Max Merger Sub, Inc.	United States	0.00%	100.00%	100.00%	—	Inactive
Mercadotecnia, Ideas y Tecnología, S.A. de C.V.	Mexico	0.00%	70.00%	70.00%	—	Payment methods
Merciver, S.L.	Spain	99.90%	0.10%	100.00%	100.00%	Financial advisory
Mercury Trade Finance Solutions S.A.S.	Colombia	0.00%	50.10%	100.00%	—	IT services
Mercury Trade Finance Solutions, S.A. de C.V.	Mexico	0.00%	50.10%	100.00%	100.00%	IT services
Mercury Trade Finance Solutions, S.L.	Spain	0.00%	50.10%	50.10%	50.10%	IT services
Mercury Trade Finance Solutions, S.p.A.	Chile	0.00%	50.10%	100.00%	100.00%	IT services
Merlion Aviation One Designated Activity Company	Ireland	—	(a)	—	—	Renting
Mortgage Engine Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Financial services
Motor 2016-1 Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Motor 2016-1 PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Motor 2017-1 Holdings Limited	United Kingdom	—	(a)	—	—	Securitization
Motor 2017-1 PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization
Motor Securities 2018-1 Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Mouro Capital I LP	United Kingdom	0.00%	100.00%	100.00%	100.00%	Investment fund
Multiplica SpA	Chile	0.00%	100.00%	100.00%	100.00%	Payment services
Naviera Mirambel, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Finance company
Naviera Trans Gas, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting
Naviera Trans Iron, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Leasing
Naviera Trans Ore, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting
Naviera Transcantábrica, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Leasing
Naviera Transchem, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Leasing
NeoAuto S.A.C.	Peru	0.00%	55.00%	55.00%	55.00%	Vehicles purchase by Internet
Newcomar, S.L., en liquidación (b)	Spain	40.00%	40.00%	80.00%	80.00%	Real estate

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Novimovest – Fundo de Investimento Imobiliário	Portugal	0.00%	78.63%	78.74%	78.74%	Investment fund
NW Services CO.	United States	0.00%	100.00%	100.00%	100.00%	E-commerce
Open Bank Argentina S.A.	Argentina	0.00%	99.66%	100.00%	100.00%	Banking
Open Bank, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking
Open Digital Market, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Services
Open Digital Services Argentina S.A.U.	Argentina	0.00 %	100.00 %	100.00 %	—	IT services
Open Digital Services, S.L.	Spain	99.97%	0.03%	100.00%	100.00%	Services
Open Mx Servicios Administrativos, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	—	Financial services
Operadora de Carteras Gamma, S.A.P.I. de C.V.	Mexico	100.00%	0.00%	100.00%	100.00%	Holding company
Optimal Investment Services SA	Switzerland	100.00%	0.00%	100.00%	100.00%	Fund management company
Optimal Multiadvisors Ireland Plc / Optimal Strategic US Equity Ireland Euro Fund (g)	Ireland	0.00%	0.00%	0.00%	54.10%	Fund management company
Optimal Multiadvisors Ireland Plc / Optimal Strategic US Equity Ireland US Dollar Fund (g)	Ireland	0.00%	0.00%	0.00%	51.93%	Fund management company
PagoFX Europe S.A.	Belgium	0.00%	100.00%	100.00%	100.00%	Payment services
PagoFX UK Ltd	United Kingdom	0.00%	100.00%	100.00%	100.00%	Payment services
PagoNxt Ltd	United Kingdom	100.00%	0.00%	100.00%	—	Holding company
PagoNxt Merchant Soluções Tecnológicas Brasil Ltda.	Brazil	0.00%	100.00%	100.00%	100.00%	IT services
PagoNxt Merchant Solutions, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
PagoNxt One Trade UK Ltd	United Kingdom	0.00%	100.00%	100.00%	—	Financial services
PagoNxt OneTrade España, E.D.E., S.L.	Spain	0.00%	100.00%	100.00%	—	Financial services
PagoNxt Solutions, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Payment services
PagoNxt Trade Services, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Services
PagoNxt Trade, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	IT services
PagoNxt, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Parasant SA	Switzerland	100.00%	0.00%	100.00%	100.00%	Holding company
Paytec Logística e Armazém Ltda.	Brazil	0.00%	89.91%	100.00%	—	Logistics services
Paytec Tecnologia em Pagamentos Ltda.	Brazil	0.00%	89.91%	100.00%	—	Commerce
PBD Germany Auto 2018 UG (Haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
PBD Germany Auto Lease Master 2019	Luxembourg	—	(a)	—	—	Securitization
PBD Germany Auto Lease Master S.A, Compartment 2021-1	Luxembourg	—	(a)	—	—	Securitization
PBD Germany Auto Loan 2021 UG (Haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
PBE Companies, LLC	United States	0.00%	100.00%	100.00%	100.00%	Real estate
PECOH Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Pereda Gestión, S.A.	Spain	99.99%	0.01%	100.00%	100.00%	Holding company
Phoenix C1 Aviation Designated Activity Company	Ireland	—	(a)	—	—	Renting

Subsidiaries of Banco Santander, S.A.¹

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		Direct	Indirect	Year 2021	Year 2020	
Phoenix S.A.	Uruguay	0.00%	100.00%	100.00%	—	Payment methods
PI Distribuidora de Títulos e Valores Mobiliários S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Securities company
Pingham International, S.A. (b)	Uruguay	0.00%	100.00%	100.00%	100.00%	Inactive
Pony S.A.	Luxembourg	—	(a)	—	—	Securitization
Portal Universia Argentina S.A.	Argentina	0.00%	75.75%	75.75%	75.75%	Internet
Portal Universia Portugal, Prestação de Serviços de Informática, S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Internet
Prime 16 – Fundo de Investimentos Imobiliário	Brazil	0.00%	89.91%	100.00%	100.00%	Investment fund
PSA Bank Deutschland GmbH	Germany	0.00%	50.00%	50.00%	50.00%	Banking
PSA Banque France	France	0.00%	50.00%	50.00%	50.00%	Banking
PSA Consumer Finance Polska Sp. z o.o.	Poland	0.00%	40.22%	100.00%	100.00%	Finance company
PSA Finance Belux S.A.	Belgium	0.00%	50.00%	100.00%	50.00%	Finance company
PSA Finance Polska Sp. z o.o.	Poland	0.00%	40.22%	50.00%	50.00%	Finance company
PSA Finance UK Limited	United Kingdom	0.00%	50.00%	100.00%	50.00%	Finance company
PSA Financial Services Nederland B.V.	Netherlands	0.00%	50.00%	100.00%	50.00%	Finance company
PSA Financial Services Spain, E.F.C., S.A.	Spain	0.00%	50.00%	50.00%	50.00%	Finance company
PSA Renting Italia S.p.A.	Italy	0.00%	50.00%	100.00%	100.00%	Renting
PSRT 2019-A	United States	—	(a)	—	—	Securitization
Punta Lima Wind Farm, LLC	United States	0.00%	100.00%	100.00%	100.00%	Renewable energies
Punta Lima, LLC	United States	0.00%	100.00%	100.00%	100.00%	Leasing
Retail Company 2021, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	—	Real estate
Retop S.A.	Uruguay	100.00%	0.00%	100.00%	100.00%	Finance company
Return Capital S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Collection services
Riobank International (Uruguay) SAIFE (g)	Uruguay	0.00%	100.00%	100.00%	100.00%	Inactive
Roc Aviation One Designated Activity Company	Ireland	—	(a)	—	—	Renting
Roc Shipping One Designated Activity Company	Ireland	—	(a)	—	—	Renting
Rojo Entretenimento S.A.	Brazil	0.00%	85.06%	94.60%	94.60%	Services
SAM Asset Management, S.A. de C.V., Sociedad Operadora de Fondos de Inversión	Mexico	0.00%	100.00%	100.00%	100.00%	Fund management company
SAM Investment Holdings, S.L.	Spain	92.37%	7.63%	100.00%	100.00%	Management of funds
SANB Promotora de Vendas e Cobrança S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Finance company
Sancap Investimentos e Participações S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Holding company
Santander (CF Trustee Property Nominee) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Santander (CF Trustee) Limited	United Kingdom	—	(a)	—	—	Inactive
Santander (UK) Group Pension Schemes Trustees Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Santander Ahorro Inmobiliario 1, S.A.	Spain	98.53%	0.00%	98.53%	98.53%	Real estate rental
Santander Ahorro Inmobiliario 2, S.A.	Spain	99.91%	0.00%	99.91%	99.91%	Real estate rental

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Santander Asesorías Financieras Limitada	Chile	0.00%	67.44%	100.00%	100.00%	Securities company
Santander Asset Finance (December) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Asset Finance plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Asset Management - S.G.O.I.C., S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Fund management company
Santander Asset Management Chile S.A.	Chile	0.01%	99.94%	100.00%	100.00%	Securities investment
Santander Asset Management Luxembourg, S.A.	Luxembourg	0.00%	100.00%	100.00%	100.00%	Fund management company
Santander Asset Management S.A. Administradora General de Fondos	Chile	0.00%	100.00%	100.00%	100.00%	Fund management company
Santander Asset Management UK Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company
Santander Asset Management UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Management of funds and portfolios
Santander Asset Management, LLC (b)	Puerto Rico	0.00%	100.00%	100.00%	100.00%	Management
Santander Asset Management, S.A., S.G.I.I.C.	Spain	0.00%	100.00%	100.00%	100.00%	Fund management company
Santander Back-Offices Globales Mayoristas, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Services
Santander Banca de Inversión Colombia, S.A.S.	Colombia	100.00%	0.00%	100.00%	100.00%	Advisory services
Santander Bank & Trust Ltd.	Bahamas	0.00%	100.00%	100.00%	100.00%	Banking
Santander Bank Polska S.A.	Poland	67.41%	0.00%	67.41%	67.41%	Banking
Santander Bank, National Association	United States	0.00%	100.00%	100.00%	100.00%	Banking
Santander Brasil Administradora de Consórcio Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	Services
Santander Brasil Gestão de Recursos Ltda.	Brazil	0.08%	99.92%	100.00%	100.00%	Securities investment
Santander Capital Desarrollo, SGEIC, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Management company of investment entities
Santander Capital Structuring, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Investment companies
Santander Capitalização S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Insurance
Santander Cards Ireland Limited	Ireland	0.00%	100.00%	100.00%	100.00%	Cards
Santander Cards Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Cards
Santander Cards UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Chile Holding S.A.	Chile	22.11%	77.73%	99.84%	99.84%	Holding company
Santander Consulting (Beijing) Co., Ltd.	China	0.00%	100.00%	100.00%	100.00%	Advisory services
Santander Consumer (UK) plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2013-B2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2013-B3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2018-L1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2018-L3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Santander Consumer Auto Receivables Funding 2018-L5 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2019-B1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2019-L2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2019-L3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2020-B1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2020-L1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2020-L2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Auto Receivables Funding 2021-B1 LLC	United States	0.00%	80.22%	100.00%	—	Inactive
Santander Consumer Auto Receivables Funding 2021-B2 LLC	United States	0.00%	80.22%	100.00%	—	Inactive
Santander Consumer Auto Receivables Funding 2021-L1 LLC	United States	0.00%	80.22%	100.00%	—	Inactive
Santander Consumer Auto Receivables Grantor Trust 2021-D	United States	0.00%	80.22%	100.00%	—	Inactive
Santander Consumer Auto Receivables Trust 2021-D	United States	0.00%	80.22%	100.00%	—	Inactive
Santander Consumer Bank AG	Germany	0.00%	100.00%	100.00%	100.00%	Banking
Santander Consumer Bank AS	Norway	0.00%	100.00%	100.00%	100.00%	Banking
Santander Consumer Bank GmbH	Austria	0.00%	100.00%	100.00%	100.00%	Banking
Santander Consumer Bank S.A.	Poland	0.00%	80.44%	100.00%	100.00%	Banking
Santander Consumer Bank S.p.A.	Italy	0.00%	100.00%	100.00%	100.00%	Banking
Santander Consumer Banque S.A.	France	0.00%	100.00%	100.00%	100.00%	Banking
Santander Consumer Credit Services Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Consumer Finance Global Services, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	IT
Santander Consumer Finance Inc.	Canada	96.42%	0.00%	96.42%	96.42%	Holding company
Santander Consumer Finance Limitada	Chile	49.00%	34.23%	100.00%	100.00%	Finance company
Santander Consumer Finance Oy	Finland	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Consumer Finance Schweiz AG	Switzerland	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Consumer Finance, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking
Santander Consumer Financial Solutions Sp. z o.o.	Poland	0.00%	80.44%	100.00%	100.00%	Leasing
Santander Consumer Finanse Sp. z o.o. w likwidacji (b)	Poland	0.00%	80.44%	100.00%	100.00%	Services
Santander Consumer Holding Austria GmbH	Austria	0.00%	100.00%	100.00%	100.00%	Holding company
Santander Consumer Holding GmbH	Germany	0.00%	100.00%	100.00%	100.00%	Holding company
Santander Consumer Inc.	Canada	0.00%	96.42%	100.00%	100.00%	Finance company
Santander Consumer International Puerto Rico LLC	Puerto Rico	0.00%	80.22%	100.00%	100.00%	Services
Santander Consumer Leasing GmbH	Germany	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Consumer Mobility Services, S.A.	Spain	0.00%	100.00%	100.00%	100.00%	Renting
Santander Consumer Multirent Sp. z o.o.	Poland	0.00%	80.44%	100.00%	100.00%	Leasing
Santander Consumer Operations Services GmbH	Germany	0.00%	100.00%	100.00%	100.00%	Services

Subsidiaries of Banco Santander, S.A.¹

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		Direct	Indirect	Year 2021	Year 2020	
Santander Consumer Receivables 10 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Receivables 11 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Receivables 3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Receivables 7 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Receivables Funding LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumer Renting, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Consumer S.A.	Argentina	0.00%	99.31%	100.00%	100.00%	Finance company
Santander Consumer S.A. Compañía de Financiamiento	Colombia	79.02%	20.98%	100.00%	—	Finance company
Santander Consumer Services GmbH	Austria	0.00%	100.00%	100.00%	100.00%	Services
Santander Consumer Services, S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Consumer Spain Auto 2019-1, Fondo de Titulización	Spain	—	(a)	—	—	Securitization
Santander Consumer Spain Auto 2020-1, Fondo de Titulización	Spain	—	(a)	—	—	Securitization
Santander Consumer Spain Auto 2021-1, Fondo de Titulización	Spain	—	(a)	—	—	Securitization
Santander Consumer Technology Services GmbH	Germany	0.00%	100.00%	100.00%	100.00%	IT services
Santander Consumer USA Holdings Inc.	United States	0.00%	80.22%	80.22%	80.24%	Holding company
Santander Consumer USA Inc.	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Consumo 4, F.T.	Spain	—	(a)	—	—	Securitization
Santander Consumo, S.A. de C.V., S.O.F.O.M., E.R., Grupo Financiero Santander México	Mexico	0.00%	96.24%	100.00%	100.00%	Cards
Santander Corredora de Seguros Limitada	Chile	0.00%	67.20%	100.00%	100.00%	Insurance brokerage
Santander Corredores de Bolsa Limitada	Chile	0.00%	83.23%	100.00%	100.00%	Securities company
Santander Corretora de Câmbio e Valores Mobiliários S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Securities company
Santander Corretora de Seguros, Investimentos e Serviços S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Holding company
Santander Customer Voice, S.A.	Spain	99.50%	0.50%	100.00%	100.00%	Services
Santander de Titulización, S.G.F.T., S.A.	Spain	81.00%	19.00%	100.00%	100.00%	Fund management company
Santander Digital Assets, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	IT services
Santander Drive Auto Receivables LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Drive Auto Receivables Trust 2017-3	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2018-1	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2018-2	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2018-3	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2018-4	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2018-5	United States	—	(a)	—	—	Securitization

Subsidiaries of Banco Santander, S.A.¹

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		Direct	Indirect	Year 2021	Year 2020	
Santander Drive Auto Receivables Trust 2019-1	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2019-2	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2019-3	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2020-1	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2020-2	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2020-3	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2020-4	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2021-1	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2021-2	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2021-3	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2021-4	United States	—	(a)	—	—	Securitization
Santander Drive Auto Receivables Trust 2022-1	United States	—	(a)	—	—	Inactive
Santander Drive Auto Receivables Trust 2022-2	United States	—	(a)	—	—	Inactive
Santander Drive Auto Receivables Trust 2022-3	United States	—	(a)	—	—	Inactive
Santander Drive Auto Receivables Trust 2022-4	United States	—	(a)	—	—	Inactive
Santander Equity Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Santander España Servicios Legales y de Cumplimiento, S.L.	Spain	99.97%	0.03%	100.00%	100.00%	Services
Santander Estates Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate
Santander European Hospitality Opportunities	Luxembourg	100.00%	0.00%	100.00%	—	Investment fund
Santander F24 S.A.	Poland	0.00%	67.41%	100.00%	100.00%	Finance company
Santander Facility Management España, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Real estate
Santander Factoring S.A.	Chile	0.00%	99.84%	100.00%	100.00%	Factoring
Santander Factoring Sp. z o.o.	Poland	0.00%	67.41%	100.00%	100.00%	Financial services
Santander Factoring y Confirming, S.A., E.F.C.	Spain	100.00%	0.00%	100.00%	100.00%	Factoring
Santander Finance 2012-1 LLC	United States	0.00%	100.00%	100.00%	100.00%	Financial services
Santander Financial Exchanges Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Inactive
Santander Financial Services plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Banking
Santander Financial Services, Inc.	Puerto Rico	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Financiamientos S.A.	Peru	100.00%	0.00%	100.00%	—	Finance company
Santander Financing S.A.S.	Colombia	100.00%	0.00%	100.00%	100.00%	Financial advisory
Santander Finanse Sp. z o.o.	Poland	0.00%	67.41%	100.00%	100.00%	Financial services
Santander Fintech Holdings, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Santander Fintech Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Finance company
Santander Fundo de Investimento Santillana Multimercado Crédito Privado Investimento No Exterior	Brazil	—	(a)	—	—	Investment fund
Santander Fundo de Investimento SBAC Referenciado di Crédito Privado	Brazil	0.00%	89.91%	100.00%	100.00%	Investment fund
Santander Gestión de Recaudación y Cobranzas Ltda.	Chile	0.00%	99.84%	100.00%	100.00%	Financial services
Santander Global Cards & Digital Solutions Brasil S.A.	Brazil	0.00%	100.00%	100.00%	100.00%	IT consulting
Santander Global Consumer Finance Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Global Facilities, S.A. de C.V.	Mexico	100.00%	0.00%	100.00%	100.00%	Real estate management
Santander Global Facilities, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Real estate
Santander Global Services S.A. (b)	Uruguay	0.00%	100.00%	100.00%	100.00%	Services
Santander Global Sport, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Sports activity
Santander Global Technology and Operations Brasil Ltda.	Brazil	0.00%	100.00%	100.00%	100.00%	IT services
Santander Global Technology and Operations Chile Limitada	Chile	0.00%	100.00%	100.00%	100.00%	IT services
Santander Global Technology and Operations, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	IT services
Santander Green Investment, S.L.	Spain	99.97%	0.03%	100.00%	—	Holding company
Santander Guarantee Company	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Hipotecario 1 Fondo de Titulización de Activos	Spain	—	(a)	—	—	Securitization
Santander Hipotecario 2 Fondo de Titulización de Activos	Spain	—	(a)	—	—	Securitization
Santander Hipotecario 3 Fondo de Titulización de Activos	Spain	—	(a)	—	—	Securitization
Santander Holding Imobiliária S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Real estate
Santander Holding Internacional, S.A.	Spain	99.95%	0.05%	100.00%	100.00%	Holding company
Santander Holdings USA, Inc.	United States	100.00%	0.00%	100.00%	100.00%	Holding company
Santander Inclusión Financiera, S.A. de C.V., S.O.F.O.M., E.R., Grupo Financiero Santander México	Mexico	0.00%	96.24%	100.00%	100.00%	Finance company
Santander Insurance Agency, U.S., LLC	United States	0.00%	100.00%	100.00%	100.00%	Insurance
Santander Insurance Services UK Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Asset management
Santander Intermediación Correduría de Seguros, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Insurance brokerage
Santander International Products, Plc. (d)	Ireland	99.99%	0.01%	100.00%	100.00%	Finance company
Santander Inversiones S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Holding company
Santander Investment Bank Limited	Bahamas	0.00%	100.00%	100.00%	100.00%	Banking
Santander Investment Chile Limitada	Chile	0.00%	100.00%	100.00%	100.00%	Finance company
Santander Investment Securities Inc.	United States	0.00%	100.00%	100.00%	100.00%	Securities company
Santander Investment, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking
Santander Investments GP 1 S.à.r.l.	Luxembourg	0.00%	100.00%	100.00%	100.00%	Management of funds
Santander Inwestycje Sp. z o.o.	Poland	0.00%	67.41%	100.00%	100.00%	Securities company

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Santander ISA Managers Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Management of funds and portfolios
Santander Lease, S.A., E.F.C.	Spain	100.00%	0.00%	100.00%	100.00%	Leasing
Santander Leasing Poland Securitization 01 Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Santander Leasing S.A.	Poland	0.00%	67.41%	100.00%	100.00%	Leasing
Santander Leasing S.A. Arrendamento Mercantil	Brazil	0.00%	89.91%	100.00%	100.00%	Leasing
Santander Leasing, LLC	United States	0.00%	100.00%	100.00%	100.00%	Leasing
Santander Lending Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Mortgage credit company
Santander Mediación Operador de Banca-Seguros Vinculado, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Insurance intermediary
Santander Merchant Platform Operations, S.A. de C.V.	Mexico	0.00%	98.16%	100.00%	100.00%	Financial services
Santander Merchant Platform Services, S.A. de C.V.	Mexico	0.00%	98.16%	100.00%	100.00%	Financial services
Santander Merchant Platform Solutions México, S.A. de C.V.	Mexico	0.00%	98.16%	100.00%	100.00%	Holding company
Santander Merchant Platform Solutions S.A.	Argentina	0.00%	99.66%	100.00%	100.00%	Payment methods
Santander Merchant Platform Solutions Uruguay S.A.	Uruguay	0.00%	100.00%	100.00%	100.00%	Payment methods
Santander Merchant S.A.	Argentina	5.10%	94.90%	100.00%	100.00%	Finance company
Santander Mortgage Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Financial services
Santander Paraty Qif PLC	Ireland	0.00%	89.91%	100.00%	100.00%	Investment companies
Santander Pensiones, S.A., E.G.F.P.	Spain	0.00%	100.00%	100.00%	100.00%	Pension fund management company
Santander Pensões - Sociedade Gestora de Fundos de Pensões, S.A.	Portugal	100.00%	0.00%	100.00%	100.00%	Pension fund management company
Santander Prime Auto Issuance Notes 2018-A Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Santander Prime Auto Issuance Notes 2018-B Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Santander Prime Auto Issuance Notes 2018-C Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Santander Prime Auto Issuance Notes 2018-D Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Santander Prime Auto Issuance Notes 2018-E Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Santander Private Banking Gestión, S.A., S.G.I.I.C.	Spain	100.00%	0.00%	100.00%	100.00%	Fund management company
Santander Private Banking s.p.a. in Liquidazione (b)	Italy	100.00%	0.00%	100.00%	100.00%	Finance company
Santander Private Banking UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company
Santander Private Real Estate Advisory & Management, S.A.	Spain	99.99%	0.01%	100.00%	100.00%	Real estate
Santander Private Real Estate Advisory, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Real estate
Santander Real Estate, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Inactive
Santander Retail Auto Lease Funding LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company
Santander Retail Auto Lease Trust 2019-A	United States	—	(a)	—	—	Securitization

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Santander Retail Auto Lease Trust 2019-B	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2019-C	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2020-A	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2020-B	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2021-A	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2021-B	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2021-C	United States	—	(a)	—	—	Securitization
Santander Retail Auto Lease Trust 2022-A	United States	—	(a)	—	—	Inactive
Santander Retail Auto Lease Trust 2022-B	United States	—	(a)	—	—	Inactive
Santander Retail Auto Lease Trust 2022-C	United States	—	(a)	—	—	Inactive
Santander Revolving Auto Loan Trust 2019-A	United States	—	(a)	—	—	Securitization
Santander Revolving Auto Loan Trust 2021-A	United States	—	(a)	—	—	Inactive
Santander Río Asset Management Gerente de Fondos Comunes de Inversión S.A.	Argentina	0.00%	100.00%	100.00%	100.00%	Fund management company
Santander Río Trust S.A.	Argentina	0.00%	99.97%	100.00%	100.00%	Services
Santander Río Valores S.A.	Argentina	5.10%	94.25%	100.00%	100.00%	Securities company
Santander RMBS 6, Fondo de Titulización	Spain	—	(a)	—	—	Securitization
Santander S.A. Sociedad Securitizadora	Chile	0.00%	67.24%	100.00%	100.00%	Fund management company
Santander Secretariat Services Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company
Santander Securities LLC	United States	0.00%	100.00%	100.00%	100.00%	Securities company
Santander Seguros y Reaseguros, Compañía Aseguradora, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Insurance
Santander Servicios Corporativos, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	Services
Santander Servicios Especializados, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	Services
Santander Technology USA, LLC	United States	0.00%	100.00%	100.00%	100.00%	IT services
Santander Tecnología Argentina S.A.	Argentina	0.00%	99.35%	100.00%	100.00%	IT services
Santander Tecnología México, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	IT services
Santander Tecnología y Operaciones España, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	IT services
Santander Totta Seguros, Companhia de Seguros de Vida, S.A.	Portugal	0.00%	99.91%	100.00%	100.00%	Insurance
Santander Totta, SGPS, S.A.	Portugal	99.91 %	0.00 %	99.91 %	99.91 %	Holding company
Santander Towarzystwo Funduszy Inwestycyjnych S.A.	Poland	50.00 %	33.70 %	100.00 %	100.00 %	Fund management company
Santander Trade Services Limited	Hong Kong	0.00 %	100.00 %	100.00 %	100.00 %	Inactive

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Santander UK Group Holdings plc	United Kingdom	77.67 %	22.33 %	100.00 %	100.00 %	Finance company
Santander UK Investments	United Kingdom	100.00 %	0.00 %	100.00 %	100.00 %	Finance company
Santander UK Operations Limited	United Kingdom	0.00 %	100.00 %	100.00 %	100.00 %	Services
Santander UK plc	United Kingdom	0.00 %	100.00 %	100.00 %	100.00 %	Banking
Santander UK Technology Limited	United Kingdom	0.00 %	100.00 %	100.00 %	100.00 %	IT services
Santander Wealth Management International SA	Switzerland	0.00 %	100.00 %	100.00 %	100.00 %	Asset management
Santusa Holding, S.L.	Spain	69.76 %	30.24 %	100.00 %	100.00 %	Holding company
SC Austria Finance 2020-1 Designated Activity Company	Ireland	—	(a)	—	—	Securitization
SC Germany Auto 2014-2 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Auto 2016-2 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Auto 2018-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Auto 2019-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Consumer 2014-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Consumer 2018-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Mobility 2019-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany S.A.	Luxembourg	—	(a)	—	—	Securitization
SC Germany S.A., Compartment Consumer 2020-1	Luxembourg	—	(a)	—	—	Securitization
SC Germany S.A., Compartment Consumer 2021-1	Luxembourg	—	(a)	—	—	Securitization
SC Germany S.A., Compartment Mobility 2020-1	Luxembourg	—	(a)	—	—	Securitization
SC Germany Vehicles 2013-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Germany Vehicles 2015-1 UG (haftungsbeschränkt)	Germany	—	(a)	—	—	Securitization
SC Poland Consumer 15-1 Sp. z o.o. (b)	Poland	—	(a)	—	—	Securitization
SC Poland Consumer 16-1 Sp. z o.o.	Poland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto I Limited (b)	Ireland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto II Limited (b)	Ireland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto IX Limited	Ireland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto KIMI VI Limited (b)	Ireland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto VII Limited	Ireland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto VIII Limited	Ireland	—	(a)	—	—	Securitization
SCF Ajoneuvohallinto X Limited	Ireland	—	(a)	—	—	Securitization
SCF Eastside Locks GP Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate management
SCF Rahoituspalvelut I Designated Activity Company (b)	Ireland	—	(a)	—	—	Securitization
SCF Rahoituspalvelut II Designated Activity Company (b)	Ireland	—	(a)	—	—	Securitization
SCF Rahoituspalvelut IX DAC	Ireland	—	(a)	—	—	Securitization
SCF Rahoituspalvelut KIMI VI Designated Activity Company (b)	Ireland	—	(a)	—	—	Securitization
SCF Rahoituspalvelut VII Designated Activity Company	Ireland	—	(a)	—	—	Securitization

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
SCF Rahoituspalvelut VIII Designated Activity Company	Ireland	—	(a)	—	—	Securitization
SCF Rahoituspalvelut X DAC	Ireland	—	(a)	—	—	Securitization
SCM Poland Auto 2019-1 DAC	Ireland	—	(a)	—	—	Securitization
SDMX Superdigital, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Payment platform
Secur Finance 2013-I Designated Activity Company (b)	Ireland	—	(a)	—	—	Securitization
Secur Finance 2021-1, DAC	Ireland	—	(a)	—	—	Securitization
Services and Promotions Delaware Corp.	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Services and Promotions Miami LLC	United States	0.00%	100.00%	100.00%	100.00%	Real estate
Servicio de Alarmas Controladas por Ordenador, S.A.	Spain	99.99%	0.01%	100.00%	100.00%	Security
Servicios de Cobranza, Recuperación y Seguimiento, S.A. de C.V.	Mexico	0.00%	85.00%	85.00%	85.00%	Finance company
Sheppards Moneybrokers Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Shiloh III Wind Project, LLC	United States	0.00%	100.00%	100.00%	100.00%	Renewable energies
Silk Finance No. 5	Portugal	—	(a)	—	—	Securitization
SMPS Merchant Platform Solutions México, S.A de C.V	Mexico	0.00%	98.16%	100.00%	100.00%	Payments and collection services
Sociedad Integral de Valoraciones Automatizadas, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Appraisals
Sociedad Operadora de Tarjetas de Pago Santander Getnet Chile S.A.	Chile	0.00%	67.12%	100.00%	100.00%	Payments and collection services
Socur S.A.	Uruguay	100.00%	0.00%	100.00%	100.00%	Finance company
Solarlaser Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Solution 4Fleet Consultoria Empresarial S.A.	Brazil	0.00%	71.93%	80.00%	—	Vehicle rental
Sovereign Community Development Company	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Sovereign Delaware Investment Corporation	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Sovereign Lease Holdings, LLC	United States	0.00%	100.00%	100.00%	100.00%	Financial services
Sovereign REIT Holdings, Inc.	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Sovereign Spirit Limited (f)	Bermudas	0.00%	100.00%	100.00%	100.00%	Leasing
SSA Swiss Advisors AG	Switzerland	0.00%	100.00%	100.00%	—	Asset management
Sterrebeeck B.V.	Netherlands	100.00%	0.00%	100.00%	100.00%	Holding company
Suleyado 2003, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Securities investment
Summer Empreendimentos Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	Real estate management
Super Pagamentos e Administração de Meios Eletrônicos S.A.	Brazil	0.00%	100.00%	100.00%	100.00%	Payment services
Superdigital Argentina S.A.U.	Argentina	0.00%	100.00%	100.00%	100.00%	IT services
Superdigital Colombia S.A.S.	Colombia	0.00%	100.00%	100.00%	99.97%	IT services
Superdigital Holding Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
Superdigital Perú S.A.C.	Peru	0.00%	100.00%	100.00%	100.00%	Financial services
Suzuki Servicios Financieros, S.L.	Spain	0.00%	51.00%	51.00%	51.00%	Intermediation

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		Direct	Indirect	Year 2021	Year 2020	
Svensk Autofinans WH 1 Designated Activity Company	Ireland	—	(a)	—	—	Securitization
Swesant SA	Switzerland	0.00%	100.00%	100.00%	100.00%	Holding company
SX Negócios Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	Telemarketing
Tabasco Energia España, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Taxagest Sociedade Gestora de Participações Sociais, S.A.	Portugal	0.00%	99.87%	100.00%	100.00%	Holding company
Teatinos Siglo XXI Inversiones S.A.	Chile	50.00%	50.00%	100.00%	100.00%	Holding company
Tekutina Private Limited	India	0.00%	100.00%	100.00%	—	Financial services
The Alliance & Leicester Corporation Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate
The Best Specialty Coffee, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Restaurant services
Time Retail Finance Limited (b)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Services
TIMFin S.p.A.	Italy	0.00%	51.00%	51.00%	51.00%	Finance company
Tonopah Solar I, LLC	United States	0.00%	100.00%	100.00%	100.00%	Holding company
Tornquist Asesores de Seguros S.A. (b)	Argentina	0.00%	99.99%	99.99%	99.99%	Inactive
Toro Corretora de Títulos e Valores Mobiliários Ltda.	Brazil	0.00%	53.95%	60.00%	—	Securities investment
Toro Investimentos S.A.	Brazil	0.00%	53.95%	100.00%	—	Consulting services
Totta (Ireland), PLC	Ireland	0.00%	99.86%	100.00%	100.00%	Finance company
Totta Urbe - Empresa de Administração e Construções, S.A.	Portugal	0.00%	99.86%	100.00%	100.00%	Real estate
Trabajando.com Mexico, S.A. de C.V. en liquidación (b)	Mexico	0.00%	100.00%	100.00%	100.00%	Services
Trade Maps 3 Hong Kong Limited	Hong-Kong	—	(a)	—	—	Securitization
Trade Maps 3 Ireland Limited (b)	Ireland	—	(a)	—	—	Securitization
Trans Rotor Limited (b)	United Kingdom	100.00%	0.00%	100.00%	100.00%	Renting
Transolver Finance EFC, S.A.	Spain	0.00%	51.00%	51.00%	51.00%	Leasing
Tresmares Growth Fund Santander, SCR, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company
Tresmares Santander Direct Lending, SICC, S.A.	Spain	99.60%	0.00%	99.60%	99.60%	Management of funds
Tuttle and Son Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive
Universia Brasil S.A.	Brazil	0.00%	100.00%	100.00%	100.00%	Internet
Universia Chile S.A.	Chile	0.00%	86.84%	86.84%	86.84%	Internet
Universia Colombia S.A.S.	Colombia	0.00%	100.00%	100.00%	100.00%	Internet
Universia España Red de Universidades, S.A.	Spain	0.00%	89.45%	89.45%	89.45%	Internet
Universia Holding, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company

Subsidiaries of Banco Santander, S.A.¹

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity
		Direct	Indirect	Year 2021	Year 2020	
Universia México, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Internet
Universia Perú, S.A.	Peru	0.00%	99.76%	99.76%	100.00%	Internet
Universia Uruguay, S.A.	Uruguay	0.00%	100.00%	100.00%	100.00%	Internet
Uro Property Holdings, SOCIMI, S.A.	Spain	99.99%	0.00%	99.99%	99.99%	Real estate investment
Verbená FCVS - Fundo de Investimentos em Direitos Creditórios	Brazil	—	(a)	—	—	Investment fund
Wallcesa, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Financial services
Wave Holdco, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company
Waypoint Insurance Group, Inc.	United States	0.00%	100.00%	100.00%	100.00%	Holding company
WIM Servicios Corporativos, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Advisory services
WTW Shipping Designated Activity Company	Ireland	100.00%	0.00%	100.00%	100.00%	Leasing
Yera Servicer Company 2021, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	—	Real estate management

(a) Companies over which effective control is maintained.

(b) Company in liquidation as at 31 December 2021.

(c) Pursuant to Article 3 of Royal Decree 1159/2010, of 17 September, approving the rules for the preparation of consolidated annual accounts, in order to determine the voting rights, voting rights held directly by the parent company have been added to those held by companies controlled by the parent company or by other persons acting in their own name but on behalf of a Group company. For these purposes, the number of votes corresponding to the parent company, in relation to the companies indirectly dependent on it, is that corresponding to the dependent company that directly participates in the share capital of the latter.

(d) Company resident for tax purposes in Spain.

(e) See note 2.b.i.

(f) Company resident for tax purposes in the United Kingdom.

(g) Companies in liquidation. Pending registration.

(1) Companies issuing preference shares are listed in Annex III, together with other relevant information.

Appendix II

Societies of which Grupo Santander owns more than 5% (d), entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity	Type of company
		Direct	Indirect	Year 2021	Year 2020		
Abra 1 Limited (f)	Caymand Island	—	(e)	—	—	Leasing	Joint venture
Achmea Tussenholding, B.V.	Netherlands	8.89%	0.00%	8.89%	8.89%	Holding company	-
Administrador Financiero de Transantiago S.A.	Chile	0.00%	13.42%	20.00%	20.00%	Payment and collection services	Associated
Aegon Santander Portugal Não Vida - Companhia de Seguros, S.A.	Portugal	0.00%	48.95%	49.00%	49.00%	Insurance	Joint venture
Aegon Santander Portugal Vida - Companhia de Seguros Vida, S.A.	Portugal	0.00%	48.95%	49.00%	49.00%	Insurance	Joint venture
Aeroplan - Sociedade Construtora de Aeroportos, Lda. (b)	Portugal	0.00%	19.97%	20.00%	20.00%	Inactive	-
Aguas de Fuensanta, S.A. (b) (f)	Spain	36.78%	0.00%	36.78%	36.78%	Food	-
Alcúter 2, S.L. (f)	Spain	37.23%	0.00%	37.23%	37.23%	Technical services	-
Alma UK Holdings Ltd	United Kingdom	30.00%	0.00%	30.00%	—	Holding company	Joint venture
Altamira Asset Management, S.A. (consolidado)	Spain	0.00%	15.00%	15.00%	15.00%	Real estate	-
Apolo Fundo de Investimento em Direitos Creditórios	Brazil	0.00%	29.97%	33.33%	33.33%	Investment fund	Joint venture
Arena Communications Network, S.L. (consolidado)	Spain	20.00%	0.00%	20.00%	20.00%	Advertising	Associated
Attijariwafa Bank Société Anonyme (consolidado)	Morocco	0.00%	5.10%	5.10%	5.11%	Banking	-
Autopistas del Sol S.A.	Argentina	0.00%	14.17%	14.17%	14.17%	Motorway concession	-
Banco RCI Brasil S.A.	Brazil	0.00%	35.87%	39.89%	39.89%	Banking	Joint venture
Banco S3 Caceis México, S.A., Institución de Banca Múltiple	Mexico	0.00%	50.00%	50.00%	50.00%	Banking	Joint venture
Bank of Beijing Consumer Finance Company	China	0.00%	20.00%	20.00%	20.00%	Finance company	Associated
Bank of Shanghai Co., Ltd. (consolidado)	China	6.54%	0.00%	6.54%	6.54%	Banking	-
CACEIS (consolidado)	France	0.00%	30.50%	30.50%	30.50%	Custody services	Associated
Câmara Interbancária de Pagamentos - CIP	Brazil	0.00%	16.07%	17.87%	17.65%	Payment and collection services	-
Cantabria Capital, SGEIC, S.A.	Spain	50.00%	0.00%	50.00%	50.00%	Venture capital	Associated
Car10 Tecnologia e Informação S.A.	Brazil	0.00%	41.96%	46.67%	—	Internet	Joint venture
CCPT - ComprarCasa, Rede Serviços Imobiliários, S.A.	Portugal	0.00%	49.98%	49.98%	49.98%	Real estate services	Joint venture
Centro de Compensación Automatizado S.A.	Chile	0.00%	22.37%	33.33%	33.33%	Payment and collection services	Associated
Centro para el Desarrollo, Investigación y Aplicación de Nuevas Tecnologías, S.A.	Spain	0.00%	49.00%	49.00%	49.00%	Technology	Associated
CNP Santander Insurance Europe Designated Activity Company	Ireland	49.00%	0.00%	49.00%	49.00%	Insurance brokerage	Associated
CNP Santander Insurance Life Designated Activity Company	Ireland	49.00%	0.00%	49.00%	49.00%	Insurance brokerage	Associated
CNP Santander Insurance Services Ireland Limited	Ireland	49.00%	0.00%	49.00%	49.00%	Services	Associated
Comder Contraparte Central S.A	Chile	0.00%	8.37%	12.47%	12.47%	Financial services	Associated

Societies of which Grupo Santander owns more than 5% (d) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity	Type of company
		Direct	Indirect	Year 2021	Year 2020		
Companhia Promotora UCI	Brazil	0.00%	25.00%	25.00%	25.00%	Financial services	Joint venture
Compañía Española de Financiación de Desarrollo, Cofides, S.A., SME	Spain	20.18%	0.00%	20.18%	20.18%	Finance company	-
Compañía Española de Seguros de Crédito a la Exportación, S.A., Compañía de Seguros y Reaseguros (consolidado)	Spain	23.33%	0.55%	23.88%	23.88%	Credit insurance	-
Compañía Española de Viviendas en Alquiler, S.A.	Spain	24.07%	0.00%	24.07%	24.07%	Real estate	Associated
Compañía para los Desarrollos Inmobiliarios de la Ciudad de Hispalis, S.L., en liquidación (b)	Spain	21.98%	0.00%	21.98%	21.98%	Real estate development	-
Connecting Visions Ecosystems, S.L.	Spain	19.90%	0.00%	19.90%	19.90%	Consulting services	Joint venture
Corkfoc Cortiças, S.A.	Portugal	0.00%	27.55%	27.58%	27.58%	Cork industry	-
Corridor Texas Holdings LLC (consolidado)	United States	0.00%	33.40%	33.40%	36.30%	Holding company	-
Desarrollo Eólico las Majas VI, S.L.	Spain	45.00%	0.00%	45.00%	—	Renewable energies	Joint venture
Ebury Partners Limited (consolidado) (a)	United Kingdom	0.00%	44.06%	51.28%	50.41%	Payment services	Associated
Energías Renovables de Ormonde 25, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Energías Renovables de Ormonde 26, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Energías Renovables de Ormonde 27, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Energías Renovables de Ormonde 30, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Energías Renovables de Titania, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Energías Renovables Gladiateur 45, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Energías Renovables Prometeo, S.L.	Spain	0.00%	55.00%	55.00%	—	Renewable energies	Joint venture
Euro Automatic Cash Entidad de Pago, S.L.	Spain	50.00%	0.00%	50.00%	50.00%	Payment services	Associated
European Hospitality Opportunities S.à r.l.	Luxembourg	0.00%	49.00%	49.00%	—	Holding company	Joint venture
Evolve SPV S.r.l.	Italy	—	(e)	—	—	Securitizations	Joint venture
FAFER- Empreendimentos Urbanísticos e de Construção, S.A. (b)	Portugal	0.00%	36.57%	36.62%	36.62%	Real estate	-
Federal Reserve Bank of Boston	United States	0.00%	20.09%	20.09%	25.73%	Banking	-
Fondo de Titulización de Activos UCI 11	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización de Activos UCI 14	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización de Activos UCI 15	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización de Activos UCI 16	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización de Activos UCI 17	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización Hipotecaria UCI 12	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización, RMBS Prado III	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización, RMBS Prado IV	Spain	—	(e)	—	—	Securitizations	Joint venture

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Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity	Type of company
		Direct	Indirect	Year 2021	Year 2020		
Fondo de Titulización, RMBS Prado IX	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización, RMBS Prado V	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización, RMBS Prado VI	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización, RMBS Prado VII	Spain	—	(e)	—	—	Securitizations	Joint venture
Fondo de Titulización, RMBS Prado VIII	Spain	—	(e)	—	—	Securitizations	Joint venture
Fortune Auto Finance Co., Ltd	China	0.00%	50.00%	50.00%	50.00%	Finance company	Joint venture
Fremman limited	United Kingdom	33.00%	0.00%	4.99%	4.99%	Finance company	Associated
Gestora de Inteligência de Crédito S.A.	Brazil	0.00%	17.98%	20.00%	20.00%	Collection	Joint venture
Gire S.A.	Argentina	0.00%	57.93%	58.33%	58.33%	Payment and collection services	Associated
HCUK Auto Funding 2017-2 Ltd	United Kingdom	—	(e)	—	—	Securitizations	Joint venture
Healthy Neighborhoods Equity Fund I LP	United States	0.00%	22.37%	22.37%	22.37%	Real estate	-
Hyundai Capital UK Limited	United Kingdom	0.00%	50.01%	50.01%	50.01%	Finance company	Joint venture
Hyundai Corretora de Seguros Ltda.	Brazil	0.00%	44.96%	50.00%	50.00%	Insurance brokerage	Joint venture
Imperial Holding S.C.A. (b)	Luxembourg	0.00%	36.36%	36.36%	36.36%	Securities investment	-
Imperial Management S.à r.l. (b)	Luxembourg	0.00%	40.20%	40.20%	40.20%	Holding company	-
Indice Iberoamericano de Investigación y Conocimiento, A.I.E.	Spain	0.00%	51.00%	51.00%	51.00%	Information system	Joint venture
Inmoalemania Gestión de Activos Inmobiliarios, S.A.	Spain	0.00%	20.00%	20.00%	20.00%	Holding company	-
Innohub S.A.P.I. de C.V.	Mexico	0.00%	20.00%	20.00%	20.00%	IT services	Associated
Invertur Aguilas I, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Real estate	Joint venture
Invertur Aguilas II, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Real estate	Joint venture
Inversiones Ibersuizas, S.A.	Spain	25.42%	0.00%	25.42%	25.42%	Venture capital	-
Inversiones ZS América Dos Ltda.	Chile	0.00%	49.00%	49.00%	49.00%	Real estate and securities investment	Associated
Inversiones ZS América SpA	Chile	0.00%	49.00%	49.00%	49.00%	Real estate and securities investment	Associated
J.C. Flowers I L.P.	United States	0.00%	11.10%	0.00%	0.00%	Holding company	-
JCF AIV P L.P.	Canada	0.00%	7.67%	4.99%	4.99%	Holding company	-
LB Oprent, S.A.	Spain	40.00%	0.00%	40.00%	38.33%	Industrial machinery rent	Associated
Loop Gestão de Pátios S.A.	Brazil	0.00%	32.10%	35.70%	35.70%	Business services	Joint venture
Mapfre Santander Portugal - Companhia de Seguros, S.A.	Portugal	0.00%	49.94%	49.99%	49.99%	Insurance	Associated
Massachusetts Business Development Corp. (consolidado)	United States	0.00%	21.61%	21.61%	21.61%	Finance company	-
MB Capital Fund IV, LLC	United States	0.00%	21.51%	21.51%	21.51%	Finance company	-

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Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity	Type of company
		Direct	Indirect	Year 2021	Year 2020		
Merlin Properties, SOCIMI, S.A. (consolidado)	Spain	19.07%	5.70%	24.77%	24.81%	Real estate investment	Associated
Metrovacesa, S.A. (consolidado)	Spain	31.94%	17.50%	49.44%	49.45%	Real estate development	Associated
New PEL S.à r.l. (b)	Luxembourg	0.00%	7.67%	0.00%	0.00%	Holding company	-
NIB Special Investors IV-A LP (g)	Canada	0.00%	0.00%	0.00%	4.99%	Holding company	-
NIB Special Investors IV-B LP (g)	Canada	0.00%	0.00%	0.00%	4.99%	Holding company	-
Niuco 15, S.L. (f)	Spain	37.23%	0.00%	37.23%	37.23%	Technical services	-
Ocyener 2008, S.L.	Spain	0.00%	45.00%	45.00%	—	Holding company	Associated
Operadora de Activos Beta, S.A. de C.V.	Mexico	49.99%	0.00%	49.99%	49.99%	Finance company	Associated
Pag10 Fomento Mercantil Eireli	Brazil	0.00%	41.96%	46.67%	—	Factoring	Joint venture
Payever GmbH	Germany	0.00%	10.00%	10.00%	10.00%	Software	Associated
Play Digital S.A.	Argentina	0.00%	15.59%	15.70%	—	Payment platform	Associated
POLFUND - Fundusz Poręczeń Kредыtowych S.A.	Poland	0.00%	33.70%	50.00%	50.00%	Management	Associated
Portland SPV S.r.l.	Italy	—	(e)	—	—	Securitizations	Joint venture
Procapital - Investimentos Imobiliários, S.A. (b)	Portugal	0.00%	39.96%	40.00%	40.00%	Real estate	-
Project Quasar Investments 2017, S.L. (consolidado)	Spain	49.00%	0.00%	49.00%	49.00%	Holding company	-
Promontoria Manzana, S.A. (consolidado)	Spain	20.00%	0.00%	20.00%	20.00%	Holding company	Associated
PSA Corretora de Seguros e Serviços Ltda.	Brazil	0.00%	44.96%	50.00%	50.00%	Insurance	Joint venture
PSA Insurance Europe Limited	Malta	0.00%	50.00%	50.00%	50.00%	Insurance	Joint venture
PSA Life Insurance Europe Limited	Malta	0.00%	50.00%	50.00%	50.00%	Insurance	Joint venture
Redbanc S.A.	Chile	0.00%	22.44%	33.43%	33.43%	Services	Associated
Redsys Servicios de Procesamiento, S.L. (consolidado)	Spain	24.90%	0.06%	24.96%	20.06%	Cards	Associated
Relevante e Astuto, S.A.	Portugal	0.00%	70.00%	70.00%	—	Real estate management	Joint venture
Retama Real Estate, S.A.	Spain	0.00%	50.00%	50.00%	50.00%	Services	Joint venture
Rías Redbanc S.A.	Uruguay	0.00%	25.00%	25.00%	25.00%	Services	-
RMBS Green Belem I	Portugal	—	(e)	—	—	Securitizations	Joint venture
S3 Caceis Brasil Distribuidora de Títulos e Valores Mobiliários S.A.	Brazil	0.00%	50.00%	50.00%	50.00%	Securities investment	Joint venture
S3 Caceis Brasil Participações S.A.	Brazil	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture
Sancus Green Investments II, S.C.R., S.A.	Spain	0.00%	43.29%	43.29%	—	Venture capital	-
Santander Alternatives SICAV RAIF	Luxembourg	0.00%	48.03%	48.03%	100.00%	Investment company	-
Santander Assurance Solutions, S.A.	Spain	0.00%	66.67%	66.67%	73.99%	Insurance intermediary	Joint venture
Santander Auto S.A.	Brazil	0.00%	44.96%	50.00%	50.00%	Insurance	Associated
Santander Aviva Towarzystwo Ubezpieczeń na Życie S.A.	Poland	0.00%	33.03%	49.00%	49.00%	Insurance	Associated

Societies of which Grupo Santander owns more than 5% (d) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity	Type of company
		Direct	Indirect	Year 2021	Year 2020		
Santander Aviva Towarzystwo Ubezpieczeń S.A.	Poland	0.00%	33.03%	49.00%	49.00%	Insurance	Associated
Santander Caceis Colombia S.A. Sociedad Fiduciaria	Colombia	0.00%	50.00%	50.00%	50.00%	Finance company	Joint venture
Santander Caceis Latam Holding 1, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture
Santander Caceis Latam Holding 2, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture
Santander Generales Seguros y Reaseguros, S.A.	Spain	0.00%	49.00%	49.00%	49.00%	Insurance	Joint venture
Santander Mapfre Seguros y Reaseguros, S.A.	Spain	0.00%	49.99%	49.99%	49.99%	Insurance	Associated
Santander Vida Seguros y Reaseguros, S.A.	Spain	0.00%	49.00%	49.00%	49.00%	Insurance	Joint venture
Sedesa Seguros de Depósitos S.A.	Argentina	0.00%	13.47%	13.56%	—	Fund management	-
Sepacon 31, S.L. (f)	Spain	37.23%	0.00%	37.23%	37.23%	Technical services	-
Servicios de Infraestructura de Mercado OTC S.A	Chile	0.00%	8.37%	12.48%	12.48%	Services	Associated
SIBS-SGPS, S.A.	Portugal	0.00%	16.52%	16.55%	16.55%	Portfolio management	-
Siguler Guff SBIC Fund LP	United States	0.00%	20.00%	20.00%	20.00%	Investment fund	-
Sistema de Tarjetas y Medios de Pago, S.A.	Spain	20.61%	0.00%	20.61%	18.11%	Payment methods	Associated
Sistemas Técnicos de Encofrados, S.A. (consolidado)	Spain	27.15%	0.00%	27.15%	27.15%	Building materials	-
Sociedad Conjunta para la Emisión y Gestión de Medios de Pago, E.F.C., S.A.	Spain	45.70%	0.00%	45.70%	45.70%	Payment services	Joint venture
Sociedad de Garantía Recíproca de Santander, S.G.R.	Spain	25.35%	0.25%	25.60%	25.73%	Financial services	-
Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria, S.A.	Spain	22.21%	0.00%	22.21%	22.21%	Financial services	-
Sociedad Interbancaria de Depósitos de Valores S.A.	Chile	0.00%	19.66%	29.29%	29.29%	Securities deposit	Associated
Solar Maritime Designated Activity Company	Ireland	—	(e)	—	—	Leasing	Joint venture
Stephens Ranch Wind Energy Holdco LLC (consolidado)	United States	0.00%	17.10%	17.10%	19.20%	Renewable energies	-
Tbforte Segurança e Transporte de Valores Ltda.	Brazil	0.00%	17.06%	18.98%	19.81%	Security	Associated
Tbnet Comércio, Locação e Administração Ltda.	Brazil	0.00%	17.06%	18.98%	19.81%	Telecommunications	Associated
Tecban Serviços Integrados Ltda.	Brazil	0.00%	17.06%	18.98%	—	IT services	Associated
Tecnologia Bancária S.A.	Brazil	0.00%	17.06%	19.81%	19.81%	ATM	Associated
Tikgi Aviation One Designated Activity Company	Ireland	—	(e)	—	—	Renting	-
Tonopah Solar Energy Holdings I, LLC (consolidado)	United States	0.00%	26.80%	26.80%	26.80%	Holding company	Joint venture
Trabajando.com Chile S.A.	Chile	0.00%	33.33%	33.33%	33.33%	Services	Associated
Transbank S.A.	Chile	0.00%	16.78%	25.00%	25.00%	Cards	Associated
Tresmares Growth Fund II, SCR, S.A.	Spain	40.00%	0.00%	40.00%	40.00%	Holding company	-
Tresmares Growth Fund III, SCR, S.A.	Spain	40.00%	0.00%	40.00%	40.00%	Holding company	-
U.C.I., S.A.	Spain	50.00%	0.00%	50.00%	50.00%	Holding company	Joint venture
UCI Hellas Credit and Loan Receivables Servicing Company S.A.	Greece	0.00%	50.00%	50.00%	50.00%	Financial services	Joint venture

Societies of which Grupo Santander owns more than 5% (d) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (c)		Activity	Type of company
		Direct	Indirect	Year 2021	Year 2020		
UCI Holding Brasil Ltda.	Brazil	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture
UCI Mediação de Seguros Unipessoal, Lda.	Portugal	0.00%	50.00%	50.00%	50.00%	Insurance brokerage	Joint venture
UCI Servicios para Profesionales Inmobiliarios, S.A.	Spain	0.00%	50.00%	50.00%	50.00%	Real estate services	Joint venture
Unicre-Instituição Financeira de Crédito, S.A.	Portugal	0.00%	21.83%	21.86%	21.86%	Finance company	Associated
Unión de Créditos Inmobiliarios, S.A., EFC	Spain	0.00%	50.00%	50.00%	50.00%	Mortgage credit company	Joint venture
VCFS Germany GmbH	Germany	0.00%	50.00%	50.00%	50.00%	Marketing	Joint venture
Venda de Veículos Fundo de Investimento em Direitos Creditórios	Brazil	—	(e)	—	—	Securitizations	Joint venture
Volvo Car Financial Services UK Limited	United Kingdom	0.00%	50.01%	50.01%	50.00%	Leasing	Joint venture
Webmotors S.A.	Brazil	0.00%	62.94%	70.00%	70.00%	Services	Joint venture
Zurich Santander Brasil Seguros e Previdência S.A.	Brazil	0.00%	48.79%	48.79%	48.79%	Insurance	Associated
Zurich Santander Brasil Seguros S.A.	Brazil	0.00%	48.79%	48.79%	48.79%	Insurance	Associated
Zurich Santander Holding (Spain), S.L.	Spain	0.00%	49.00%	49.00%	49.00%	Holding company	Associated
Zurich Santander Holding Dos (Spain), S.L.	Spain	0.00%	49.00%	49.00%	49.00%	Holding company	Associated
Zurich Santander Insurance América, S.L.	Spain	49.00%	0.00%	49.00%	49.00%	Holding company	Associated
Zurich Santander Seguros Argentina S.A.	Argentina	0.00%	49.00%	49.00%	49.00%	Insurance	Associated
Zurich Santander Seguros de Vida Chile S.A.	Chile	0.00%	49.00%	49.00%	49.00%	Insurance	Associated
Zurich Santander Seguros Generales Chile S.A.	Chile	0.00%	49.00%	49.00%	49.00%	Insurance	Associated
Zurich Santander Seguros México, S.A.	Mexico	0.00%	49.00%	49.00%	49.00%	Insurance	Associated
Zurich Santander Seguros Uruguay S.A.	Uruguay	0.00%	49.00%	49.00%	49.00%	Insurance	Associated

(a) The Group is entitled to receive 51.28% of the dividends distributed by the company.

(b) Company in liquidation as at 31 December 2021.

(c) Pursuant to Article 3 of Royal Decree 1159/2010, of 17 September, approving the rules for the preparation of consolidated annual accounts, in order to determine the voting rights, voting rights held directly by the parent company have been added to those held by companies controlled by the parent company or by other persons acting in their own name but on behalf of a group company. For these purposes, the number of votes corresponding to the parent company, in relation to the companies indirectly dependent on it, is that corresponding to the dependent company that directly participates in the share capital of the latter.

(d) Excluding the Group companies listed in Appendix I, as well as those which are of negligible interest with respect to the true and fair view that the consolidated financial statements must give (in accordance with articles 48 of the Commercial Code and 260 of the Spanish Companies Act).

(e) Companies over which joint control is maintained.

(f) Company with no financial information available.

(g) Company in liquidation. Pending registration.

Appendix III

Issuing subsidiaries of shares and preference shares

Company	Location	% of ownership held by Banco Santander		Activity
		Direct	Indirect	
Emisora Santander España, S.A. Unipersonal	Spain	100.00%	0.00%	Finance company
Santander UK (Structured Solutions) Limited	United Kingdom	0.00%	100.00%	Finance company
Sovereign Real Estate Investment Trust	United States	0.00%	100.00%	Finance company

Appendix IV

Notifications of acquisitions and disposals of investments in 2021

Details of the notifications of acquisitions and disposals of participations for 2021 in accordance with Article 125 of the Securities Market Law may be found below:

On 10 May 2021, Banco Santander, S.A. notified to the CNMV of the increase of its stake in REPSOL above the 3% threshold up to 3.584%, dated as of 4 May 4 2021.

On 25 June 2021, Banco Santander, S.A. notified to the CNMV of the decrease of its stake in REPSOL, S.A. below the 3% threshold up to 2.718%, dated as of 21 June 2021.

On 26 November 2021, Banco Santander, S.A. notified to the CNMV of the increase of its stake in REPSOL above the 3% threshold up to 3.829%, dated as of 22 November 2021.

In relation to the information required by 155 of the Corporate Enterprises Act, on the shareholdings in which Grupo Santander owns more than 10% of the capital of another company, and the successive acquisitions of more than 5% of the share capital, see appendices I, II and III.

Appendix V

Other information on the Group's banks

Following is certain information on the share capital of the Group's main banks based on their total assets.

1. Santander UK plc

a) Number of financial equity instruments held by the Group.

At 31 December 2021, the Company was a subsidiary of Banco Santander, S.A. and Santusa Holding, S.L.

On 12 November 2004 Banco Santander, S.A. acquired the then entire issued ordinary share capital of 1,485,893,636 Ordinary shares of 10p. each. On 12 October 2008 a further 10 billion Ordinary shares of 10p. each were issued to Banco Santander, S.A. and an additional 12,631,375,230 Ordinary shares of 10p. each were issued to Banco Santander, S.A. on 9 January on 2009. On 3 August 2010, 6,934,500,000 Ordinary shares of 10p. each were issued to Santusa Holding, S.L. With effect from 10 January 2014, Santander UK Group Holdings Limited, a subsidiary of Banco Santander, S.A. and Santusa Holding, S.L., became the beneficial owner of 31,051,768,866 Ordinary shares of 10p. each, being the entire issued ordinary share capital of the Company, by virtue of a share exchange agreement between Santander UK Group Holdings Limited, Banco Santander, S.A. and Santusa Holding, S.L. Santander UK Group Holdings Limited became the legal owner of the entire issued Ordinary share capital of the Company on 1 April 2014 and on 25 March 2015 became a public limited company and changed its name from Santander UK Group Holdings Limited to Santander UK Group Holdings plc. In addition to this, there are 325,000,000 Non-Cumulative Non-Redeemable 10.375% and 8.625% Sterling Preference Shares of GBP 1.00 each. In addition to this there were 13,780 Series A Fixed (6.222%)/Floating Rate Non-Cumulative Callable Preference Shares of GBP 1.00 each which were redeemed and cancelled in their entirety on 24 May 2019. The legal and beneficial title to the entire issued Preference share capital is held by third parties and is not held by Banco Santander, S.A.

b) Capital increases in progress

At 31 December 2021, there were no approved capital increases.

c) Share capital authorised by the shareholders at the general meeting

The shareholders resolved at the Annual General Meeting held on 18 March 2021, to authorise unconditionally, the company to carry out the following repurchases of the share capital:

(1) To buy back its own 8.625% Sterling Preference shares on the following terms:

- The Company may buy back up to 125,000,000 8.625% Sterling Preference shares;
- The lowest price which the Company can pay for 8.625% Sterling Preference shares is 75% of the average of the market values of the preference shares for five business days before the purchase is made; and
- The highest price (not including expenses) which the Company can pay for each 8.625% Sterling Preference share is 125% of the average of the market values of the preference shares for five business days before the purchase is made.

This authority shall begin on the date of the passing of this resolution and end on the conclusion of the next Annual General Meeting of the

Company. The Company may agree, before this authorisation ends, to buy back its own 8.625% preference shares even though the purchase may be completed after this authorisation ends.

(2) To buy back its own 10.375% Sterling Preference shares on the following terms:

- The Company may buy up to 200,000,000 10.375% Sterling Preference shares;
- The lowest price which the Company can pay for 10.375% Sterling Preference shares is 75% of the average of the market values of the preference shares for five business days before the purchase is made; and
- The highest price (not including expenses) which the Company can pay for each 10.375% Sterling Preference share is 125% of the average of the market values of the preference shares for five business days before the purchase is made.

This authority shall begin on the date of the passing of this resolution and end on the conclusion of the next Annual General Meeting of the Company. The Company may agree, before this authorisation ends, to buy back its own 10.375% preference shares even though the purchase may be completed after this authorisation ends.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Not applicable.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Quoted equity instruments

The preference share capital of Santander UK plc is traded on the London Stock Exchange under the following details:

- 10.375% Sterling Preference - ISIN: GB0000064393
- 8.625% Sterling Preference - ISIN: GB0000044221

2. Santander Financial Services plc

a) Number of financial equity instruments held by the Group

The Group holds ordinary shares amounting to GBP 249,998,000 through Santander UK Group Holdings plc (249,998,000 ordinary shares with a par value of GBP 1 each).

The Group also holds 1,000 tracker shares (shares without voting rights but with preferential dividend rights) amounting to GBP 1,000 and 1,000 B tracker shares amounting to GBP 1,000 through Santander UK Group Holdings plc, both with a par value of GBP 1 each.

b) Capital increases in progress

No approved capital increases are in progress.

c) Capital authorised by the shareholders at the general meeting

Not applicable.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Not applicable.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Quoted equity instruments

Not applicable.

3. Banco Santander (Brasil) S.A.**a) Number of financial equity instruments held by the Group**

The Group holds 3,440,170,512 ordinary shares and 3,273,507,089 preference shares through Banco Santander, S.A. and its subsidiaries Sterrebeek B.V., Grupo Empresarial Santander, S.L., Banco Santander, S.A..

The shares composing the share capital of Banco Santander (Brasil) S.A. have no par value and there are no pending payments. At 2021 year-end, the bank's treasury shares consisted of 15,755,205 ordinary shares and 15,755,205 preferred shares, with a total of 31,510,410 shares.

In accordance with current Bylaws (Article 5.7), the preference shares do not confer voting rights on their holders, except under the following circumstances:

- a) In the event of transformation, merger, consolidation or spin-off of the company.
- b) In the event of approval of agreements between the company and the shareholders, either directly, through third parties or other companies in which the shareholders hold a stake, provided that, due to legal or bylaw provisions, they are submitted to a general meeting.
- c) In the event of an assessment of the assets used to increase the company's share capital.

The General Assembly may, at any moment decide to convert the preference shares into ordinary shares, establishing a reason for the conversion.

However, the preference shares do have the following advantages (Article 5.6):

- a) Their dividends are 10% higher than those distributed to ordinary shares.
- b) Priority in the dividends distribution.
- c) Participation, on the same terms as ordinary shares, in capital increases resulting from the reserves and profits capitalization and in the distribution of bonus shares arising from the capitalization of retained earnings, reserves or any other funds.
- d) Priority in the reimbursement of capital in the event company's dissolution.
- e) In the event of a public offering due to a change in control of the company, the holders of preferred shares are guaranteed the right to sell the shares at the same price paid for the block of shares transferred as part of the change of control, i.e. they are treated the same as shareholders with voting rights.

b) Capital increases in progress

No approved capital increases are in progress.

c) Capital authorised by the shareholders at the general meeting

The company is authorised to increase share capital, subject to approval by the Board of Directors, up to a limit of 9,090,909,090 ordinary shares or preferred shares, and without need to maintain any ratio between any of the different classes of shares, provided they remain within the limits of the maximum number of preferred shares provided in Law.

As of 31 December 2021, the share capital consists of 7,498,531,051 shares (3,818,695,031 ordinary shares and 3,679,836,020 preferred shares).

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

At the general meeting held on 21 December 2016 the shareholders approved the rules relating to the deferred remuneration plans for the directors, management and other employees of the company and of companies under its control. Shares delivery is linked to achievement of certain targets.

e) Specific circumstances that restrict reserves availability

The only restriction on the availability of Banco Santander (Brasil) S.A.'s reserves is connected to the requirement for the legal reserve formation (restricted reserves), which can only be used to offset losses or to increase capital.

The legal reserve requirement is set-forth in Article 193 of the Brazilian Corporations Law, which establishes that before allocating profits to any other purpose, 5% of profits must be transferred to the legal reserve, which must not exceed 20% of the company's share capital.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Listed capital instruments

All the shares are listed on the São Paulo Stock Exchange (B3 - Brasil, Bolsa, Balcão) and the shares deposit certificates (American Depositary Receipts - ADR) are listed on the New York Stock Exchange (NYSE).

4. Santander Bank, National Association**a) Number of financial equity instruments held by the Group**

At 31 December 2021, the Group held 530,391,043 ordinary shares that carry the same voting and dividend acquisition rights over Santander Holdings USA, Inc. (SHUSA). This holding company and Independence Community Bank Corp. (ICBC) hold 1,237 ordinary shares with a par value of USD 1 each, which carry the same voting rights. These shares constitute all the share capital of Santander Bank, National Association (SBNA). SHUSA holds an 80.84% ownership interest in SBNA, and the remaining 19.16% belongs to ICBC. ICBC is wholly owned by SHUSA. There is no shareholders' meeting for the ordinary shares of SBNA.

b) Capital increases in progress

At 31 December 2021 there were no approved capital increases.

c) Capital authorised by the shareholders at the general meeting

Not applicable.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Not applicable.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Quoted equity instruments

Not applicable.

5. Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México**a) Number of financial instruments of capital held by the group.**

On December 8, 2021 the period for the acceptance of the public offering to acquire up to 561,353,228 shares of Banco Santander México that were not held directly by Banco Santander, S.A., which represented the 8.27% of the capital stock Banco Santander México. As a result of the offer Banco Santander, S.A. increased its position in Banco Santander México from 91.64% to 96.15%, with the remaining 3.76% held by minority shareholders, 0.08% in own shares and 0.01% to Gesban México Servicios Administrativos Globales, S.A. de C.V.

On June 15, 2020, Gesban México Servicios Administrativos Globales, S.A. de C.V., acquired the 1,340 shares of Banco Santander México owned by Santander Global Facilities, S.A. de C.V.

As a result Grupo Financiero Santander México, S.A. de C.V. ('Grupo Financiero') and Gesban México Servicios Administrativos Globales, S.A. de C.V. (México), hold 5,087,801,602 shares which represent the 74.97% of the capital stock of Banco Santander México and Banco Santander, S.A. holds 1,438,256,710 shares which represent the 21.19% of such capital stock.

On September 30, 2020, the General Extraordinary Shareholders' Meetings of Banco Santander México and Santander Vivienda, S.A. de C.V., SOFOM E.R., GFSM, were held. In such meetings the merger by absorption of Banco Santander México with Santander Vivienda, S.A. de C.V., SOFOM E.R., GFSM, was approved. This merger did not result in a movement of the share capital of Banco Santander México, since it was a shareholder of 99.99998% of the shares representative of the share capital of Santander Vivienda, S.A. de C.V., SOFOM, E.R., GFSM, and such circumstance results in the material and legal impossibility for Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México to perform the redemption of the shares, since these shares are already integrated into the assets of the merger.

b) Ongoing capital stock increases.

To this date there are not on going capital stock increases.

c) Authorized Capital by the Shareholders Meeting.

The capital stock of the Bank is 32,485,600,110.00 Mexican pesos (thirty-two thousand four hundred eighty-five million six hundred

thousand one hundred ten Mexican pesos) represented by a total of 8,592,294,357 (eight thousand five hundred ninety-two million two hundred ninety-four thousand three hundred fifty-seven) shares with a nominal value of 3.780782962 Mexican pesos (three Mexican pesos 780782962/1000000000) each one; divided in 4,385,824,012 (four thousand three hundred eighty-five million eight hundred twenty-four thousand twelve) stocks "F" Series and 4,206,470,345 four thousand two hundred six million four hundred seventy thousand three hundred forty-five) shares "B" Series. The capital stock is constituted as follows:

- Paid-in and subscribed capital of the Bank is 25,660,152,629.00 Mexican pesos (twenty five thousand six hundred sixty million one hundred fifty two thousand six hundred and twenty nine Mexican pesos) represented by a total of 6,786,994,357 (six thousand seven hundred eighty six million nine hundred ninety four thousand three hundred and fifty seven) shares with a nominal value of 3.780782962 Mexican pesos (three Mexican pesos 780782962/1000000000) each one; divided in 3,464,309,145 (three thousand four hundred sixty four million three hundred and nine thousand one hundred and forty five) shares "F" Series and 3,322,685,212 (three thousand three hundred twenty two million six hundred eighty five thousand two hundred and twelve) shares Series.
- The authorized capital stock for the conversion of obligations into shares of the Company is 6,825,447,481.00 Mexican pesos, (six thousand eight hundred twenty-five million four hundred forty-seven thousand four hundred eighty-one), represented by a total of 1,805,300,000 (one thousand eight hundred five million three hundred thousand) shares with a nominal value of 3.780782962 Mexican pesos (three pesos 780782962/1000000000) each; divided into 921,514,867 (nine hundred twenty-one million five hundred fourteen thousand eight hundred sixty-seven) Series "F" shares and 883,785,133 (eight hundred eighty-three million seven hundred eighty-five thousand one hundred thirty-three) Series "B" shares ". which are kept in the treasury of the Bank.

d) Rights incorporated into parts of founder, bonds or debt, convertible obligations and securities or similar rights.

- The Board of Directors on its meeting held on October 22, 2015, was updated regarding the situation of the debt issuance of Banco Santander Mexico, S.A. , which had been previously ratified in the meeting held on October 17, 2013, in order to issue debt for the amount of 6,500 million dollars in local or international markets, for a maximum period of 15 years, senior or subordinated debt including debt instruments qualifying for purposes of capital in accordance with the legislation in force, which can be implemented individually or through several issuance programs.

The approved debt issuance of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México is currently composed as follows:

Instrument	Type	Term	Amount	Available
Issuance Program of unsecured bonds and unsecured certificates of deposit	Revolving	4-Mar-26	55,000 million Mexican pesos, or its equivalent in UDIs, dollars or any other foreign currency	\$27,461 million Mexican pesos
				With fix rate according to Banxico 31/Dec/ 2021
Private banking structured bonds Act	Not Revolving*	16-Ago-34	20,000 million Mexican pesos	\$3,356 million Mexican pesos
Structured bonds without public offering	Not Revolving	16-Feb-32	10,000 million Mexican pesos	\$10,000 million Mexican pesos
Senior Bonds	Not Revolving	09-Nov-22	1,000 million American dollars	N/A
Capital Notes (Tier 2 Capital)	Not Revolving	1-Oct-2028	1,300 million American dollars	N/A
Senior notes 144.ª/RegS	Not Revolving	17-Abr-2025	1,750 million American dollars	N/A
Subordinated Notes, perpetual and convertible (Tier 1)	Not Revolving	Perpetual	700 million American dollars	N/A

* The issuance of the structured private banking bonds isn't revolving. Once placed the amount laid down in the corresponding brochure a new certificate will be issued on the authorized amount.

(ii) The Board of Directors on its meeting held on January 27, 2011 approved the general conditions for the senior debt issue among international markets. On October 18, 2012 such issuance was approved on the amount of 500 and 1000 million American dollars, for a term of 5 to 10 years. The issuance was approved with the purpose of obtaining resources to finance the increase in business assets and the liquidity of the Bank. Under these agreements adopted by the Board of Directors, the debt was issued for an amount of 1,000 million American dollars on November 9, 2012.

(iii) On December 27, 2013 Banco Santander México, S.A., issued subordinated notes (subordinated notes 2013) for a total amount of 1,300,000,000 American dollars, in accordance with the capital requirements established in the Basilea III criteria for complementary capital/ Tier 2 at a rate of 5.95% with redemption date of January, 30, 2024. The controlling shareholder, Banco Santander, S.A., agreed to buy 975,000,000 American dollars of such notes equivalent to the 75% of the latter.

Such notes were offered through a private offering only to qualified institutional buyers, in accordance with Rule 144A of the U.S. Securities Act of 1933 and its modifications, and outside the U.S. under the Regulation S of the Market Law.

The issuance was approved with the purpose of increasing the efficiency of the capital of the Bank, to adequate its capital profile to its main competitors, as well as to increase the cost effectiveness of resources with the same capital strength and capacity for growth in risk-weighted assets.

(iv) The Board of Director on its meeting held on October 27, 2016 approved the issuance in Mexico of debt up to 500 million American dollars or its equivalent in Mexican pesos. The Ordinary and Extraordinary Shareholder's meeting held on December 5, 2016, approved to issuance of a financial instrument complying with the requirements of regulatory capital established in Basilea III, which was considered as not fundamental basic capital, for up to 500 million American dollars.

On December 29, 2016, Banco Santander México made an overseas private offering of subordinated, non preferred, perpetual and

convertible obligations ("2016 Obligations") representing the share capital by a total amount of 500,000,000 American dollars, which had the character of a 'mirror issuance' (back-to-back), as a guarantee of liquidity of the subordinated non preferred perpetual and convertible obligations, issued by Grupo Financiero Santander Mexico.

It is worth mentioning that in September, 2019, it was requested before the Registro Nacional de Valores of the National Banking and Securities Commission (Comision Nacional Bancaria y de Valores) ("CNBV"), the registry cancellation of the above mentioned 2016 Obligations, as well as the list cancellation of such notes in the Bolsa Mexicana de Valores, S.A.B. de C.V. ("BMV"). By means of official note No. 153/12251/2019 dated November 4, 2019, CNBV authorized such cancellation.

(v) As a result of the corporate restructure which included, among others, the merger of Banco Santander México, as the merging entity with Grupo Financiero Santander Mexico as the merged entity, the subordinated obligations referred to in paragraph (iv), were acquired entirely by Banco Santander México; therefore the subordinate obligations of Banco Santander Mexico became extinct by confusion of rights and obligations, since the Bank as a merging party met the quality of debtor and creditor in these instruments at the moment that the merger was finalized.

(vi) On September 20, 2018, Banco Santander México, issued and placed equity instruments, subordinated, preferential, and not convertible into shares, governed by foreign law, representative of the complementary part of the net capital of Banco Santander Mexico (Tier 2 subordinated preferred capital notes), for the amount of 1,300,000,000.00 American dollars (the "Instruments"), whose resources were used mainly for the acquisition of the 94.07% of the Subordinated Notes 2013.

The amount issued of 1,300,000,000.00 American dollars covers in full the sum of the repurchase of the Subordinated Notes 2013, for 1,222,907,000.00 American dollars.

Regarding the acquisition of the Subordinated Notes 2013: (a) the acquired total amount was 1,222,907,000.00 American dollars (nominal value), at a price of 1,010.50 American dollars and (b) the amount acquired by Banco Santander, S.A. (Spain), was a nominal 1,078,094,000.00 American dollars.

In connection with the issuance of the Instruments, the total amount distributed with Banco Santander, S.A. (Spain), was 75% of such issuance; that is, the placed amount was 975,000,000.00.

Therefore, the Bank's General Extraordinary Shareholder's Meeting held on September 10, 2018, among other subjects, approved to ratify the issuance limit for up to 6,500 million and a term of 15 years, senior or subordinate, in local and/or international markets, instrumented individually or through issuance programs, which was previously authorized by the Board of Directors on its meeting held on April 26, 2018.

On January 30, 2019, Banco Santander México paid off the total remaining due amount of the Subordinated Notes 2013.

On April 17th., 2020, Banco Santander Mexico issued an international Senior Note, due on five years in the global market, on the amount of 1,750 million dollars, with a rate of 5.375 per cent, whereas the demand exceeded three times the placed amount. The due date of such notes will be April 17th, 2025.

On September 15, 2021, Banco Santander Mexico issued abroad the "Perpetual Subordinated Non-Preferred Contingent Convertible Additional Tier 1 Notes", up to an amount of 700,000,000.00. American dollars. On the same date, the Bank paid the "2016 Obligations" above mentioned, on a fixed initial rate of 4.625% up to an amount of 700,000,000.00. American dollars.

e) Specific circumstances restricting the availability of reserves.

According to the Law of Financial Institutions, general dispositions applicable to financial institutions, General Corporations law and the bylaws, the Bank has to constitute or increase its capital reserves to ensure the solvency to protect the payments system and the public savings.

The Bank increases its legal reserve annually accordingly to the results obtained in the fiscal year (benefits).

The Bank must constitute the different reserves established in the legal provisions applicable to financial institutions, which are determined accordingly to the qualification granted to credits and they are released when the credit rating improves, or when it is settled.

f) Entities outside the Group which own, directly or through subsidiaries, a stake equal to or greater than 10% of the equity.

Not applicable.

g) Equity instruments admitted to trading.

Not applicable.

6. Banco Santander Totta, S.A

a) Number of equity instruments held by the Group

The Group holds 1,256,195,888 ordinary shares through its subsidiaries: Santander Totta, SGPS, S.A. with 1,241,179,513 shares, Taxigest Sociedade Gestora de Participações Sociais, S.A. with 14,593,315 shares, and Banco Santander Totta, S.A. with 423,060 treasury shares, all of which have a par value of EUR 1 each and identical voting and dividend rights and are subscribed and paid in full.

b) Capital increases in progress

At 31 December 2021, there were no equity increases in progress.

c) Capital authorised by the shareholders at the general meeting

Not applicable.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Under Article 296 of the Portuguese Companies' Code, the legal and merger reserves can only be used to offset losses or to increase capital.

Non-current asset revaluation reserves are regulated by Decree- Law 31/98, under which losses can be offset or capital increased by the amounts for which the underlying asset is depreciated, amortised or sold.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Equity instruments

Not applicable.

7. Santander Consumer Bank AG

a) Number of financial equity instruments held by the Group

At 31 December 2021, through Santander Consumer Holding GmbH, the Group held 30,002 ordinary shares with a par value of EUR 1,000 each, all of which carry the same voting rights.

b) Capital increases in progress

Not applicable.

c) Capital authorised by the shareholders at the general meeting

Not applicable.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Not applicable.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Quoted equity instruments

Not applicable.

8. Banco Santander - Chile

a) Number of equity instruments held by the Group

The Group holds a 67.18% ownership interest in its subsidiary in Chile corresponding to 126,593,017,845 ordinary shares of Banco Santander - Chile through its subsidiaries: Santander Chile Holding S.A. with 66,822,519,695 ordinary shares, Teatinos Siglo XXI Inversiones S.A., with 59,770,481,573 ordinary shares and Santander Inversiones S.A. with 16,577 fully subscribed and paid ordinary shares that carry the same voting and dividend rights.

b) Capital increases in progress

At 31 December 2021, there were no approved capital increases.

c) Capital authorised by the shareholders at the general meeting

Share capital at 31 December 2021 amounted to CLP 891,302,881,691.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Remittances to foreign investors in relation to investments made under the Statute of Foreign Investment (Decree-Law 600/1974) and the amendments thereto require the prior authorisation of the foreign investment promotion agency.

f) Non-Group entities which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Quoted equity instruments

All the shares are listed on the Chilean stock exchanges and, through American Depositary Receipts (ADRs), on the New York Stock Exchange (NYSE).

9. Santander Bank Polska S.A.**a) Number of financial equity instruments held by the Group**

At 31 December, 2021, Banco Santander, S.A. held 68,880,774 ordinary shares with a par value of PLN 10 each, all of which carry the same voting rights.

b) Capital increases in progress

At 31 December, 2021, there were no equity increases in progress.

c) Capital authorised by the shareholders at the general meeting

There was no share capital increase in 2021.

d) Rights on founder's shares, "rights" bonds, convertible debentures and similar securities or rights

Not applicable.

e) Specific circumstances that restrict the availability of reserves

Not applicable.

f) Non-Group entities, which hold, directly or through subsidiaries, 10% or more of equity

Not applicable.

g) Quoted equity instruments

All the shares of Santander Bank Polska S.A. are listed on the Warsaw Stock Exchange.

Appendix VI

Annual banking report

Grupo Santander's total tax contribution (taxes incurred directly and by third parties, generated in the course of business) is around EUR 16,200 million, including more than EUR 7,600 million in taxes incurred directly (corporate income tax, non-recoverable VAT and other indirect taxes, employer Social Security contributions, payroll taxes and other taxes and levies).

This report complies with Article 89 of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, and its transposition into Spanish law pursuant to Article 87 of Act 10/2014 of 26 June on the regulation, supervision and capital adequacy of credit institutions.

The criteria used to prepare this report were:

a) Name(s), activities and location

Appendices I to III to the consolidated financial statements contain details of the companies operating in each jurisdiction, including their name(s), location and activities.

Santander main activity in the jurisdictions where operate is commercial banking. The Group primarily operates in ten markets through subsidiaries that are autonomous in capital and liquidity. This has clear strategic and regulatory advantages, since it limits the risk of contagion between units, imposes a double layer of global and local oversight, and facilitates crisis management and resolution.

b) Turnover and profit or loss before tax

Turnover in this report is Total income, and profit or loss before tax, Operating profit/(loss) before tax, both as defined and presented in the consolidated income statement that forms part of the consolidated financial statements.

c) Number of full time equivalent employees

The data on full-time equivalent employees stem from the average headcount of each jurisdiction.

d) Tax on profit or loss

In the absence of specific criteria, we have included the amount effectively paid (EUR 4,012 million in 2021, with an effective tax rate of 27.6%) in respect of taxes whose effect is recognized under Income tax in the consolidated income statement.

Taxes effectively paid by the companies in each jurisdiction include:

- Supplementary payments relating to income tax returns, usually for prior years.
- Advances, prepayments, withholdings made or borne in respect of tax on profit or loss for the year. We included taxes borne abroad in the jurisdiction of the company that bore them.
- Refunds received with respect to prior years' returns.
- Where appropriate, the amount payable from assessments and litigation relating to these taxes.

The foregoing form part of the cash flow statement and differ from the corporate income tax expense recognized in the consolidated income statement (EUR 4,894 million in 2021, representing an effective rate of 33.6%, or, discounting extraordinary results, EUR

5,076 million, which represents an effective rate of 33.3%, see note 27 and 51.c). This is because each country's tax regulations establish:

- when taxes must be paid. There is often a mismatch between the payment dates and the generation of the income bearing the tax.
- their own calculation criteria to define temporary or permanent restrictions on expense deduction, exemptions and relief or deferrals of certain income, generating the differences between the accounting profit (or loss) and taxable profit (or tax loss) which is ultimately taxed; tax loss carry forwards from prior years, tax credits and/or relief, etc., must also be added. In certain cases, special regimes such as the tax consolidation of companies in the same jurisdiction are established.

e) Public subsidies

In the context of the legally-required disclosures, this was interpreted as any aid or subsidy in line with the European Commission's Guidance on the notion of State aid. Grupo Santander did not receive public subsidies in 2021.

The breakdown of information is as follows :

Jurisdiction	2021			
	Turnover (millions of euros)	Employees	Gross profit or loss before tax (EUR million)	Tax on profit or loss (EUR million)
Germany	1,659	5,097	650	204
Argentina	1,362	8,637	274	115
Austria	177	348	86	17
Bahamas	4	26	(2)	2
Belgium	75	171	58	3
Brazil ¹	10,585	45,191	4,383	1,385
Canada	55	203	20	5
Chile	2,406	10,334	1,140	180
China	22	72	1	—
Colombia	49	334	6	4
United Arab Emirates	—	24	(2)	—
Spain ²	7,026	33,408	(1,588)	399
United States	7,389	14,994	3,693	376
Denmark	176	218	113	10
Finland	117	166	64	14
France	823	975	474	93
Greece	—	18	(4)	—
Hong Kong	94	172	13	3
India	—	47	—	—
Ireland	(37)	2	(31)	1
Isle of Man	15	67	5	1
Italy	507	937	279	46
Jersey	36	73	21	1
Luxembourg	179	18	158	41
Mexico	3,529	25,428	1,086	207
Norway	255	524	95	22
Netherlands	95	268	55	51
Peru	110	292	56	26
Poland	1,929	12,314	435	206
Portugal	1,371	6,189	477	17
Puerto Rico	4	18	(12)	—
United Kingdom	5,722	20,820	2,292	525
Singapore	12	19	6	1
Sweden	180	251	58	26
Switzerland	138	280	45	4
Uruguay	340	1,457	143	27
Consolidated Group Total	46,404	189,392	14,547	4,012

1. Including the information relating to a branch in the Cayman Islands, the profits of which are taxed in full in Brazil. The contribution of this branch profit before tax from continuing operations is EUR 432 million.

2. Includes the Corporate Centre.

At 31 December 2021, the Group's return on assets (ROA) was 0.62%.

Exhibits

Exhibit Number	Description
23.1	<u>Consent of PricewaterhouseCoopers Auditores, S.L.</u>
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document

We will furnish to the SEC, upon request, copies of any unfiled instruments that define the rights of holders of long-term debt of Santander.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Banco Santander, S.A.

Date: 8 April 2022

By: /s/ José García Cantera

Name: José García Cantera

Title: Chief Financial Officer