Banco Santander, S.A.

Auditor's report, Annual accounts and directors' report for the year ended 31 December 2021

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

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This version of our report is a free translation of the original, which was prepared in Spanish. All possible care has been taken to ensure that the translation is an accurate representation of the original. However, in all matters of interpretation of information, views or opinions, the original language version of our report takes precedence over this translation

Independent auditor's report on the annual accounts

To the shareholders of Banco Santander, S.A.,

Report on the annual accounts

Opinion

We have audited the annual accounts of Banco Santander, S.A. (the Bank), which comprise the balance sheet as at December 31, 2021, and the income statement, statement of recognised income and expenses, statement of changes in total equity, statement of cash flows and related notes for the year then ended.

In our opinion, the accompanying annual accounts present fairly, in all material respects, the equity and financial position of the Bank as at December 31, 2021, as well as its financial performance and cash flows for the year then ended, in accordance with the applicable financial reporting framework (as identified in note 1 of the notes to the annual accounts), and in particular, with the accounting principles and criteria included therein.

Basis for opinion

We conducted our audit in accordance with legislation governing the audit practice in Spain. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the annual accounts* section of our report.

We are independent of the Bank in accordance with the ethical requirements, including those relating to independence, that are relevant to our audit of the annual accounts in Spain, in accordance with legislation governing the audit practice. In this regard, we have not rendered services other than those relating to the audit of the accounts, and situations or circumstances have not arisen that, in accordance with the provisions of the aforementioned legislation, have affected our necessary independence such that it has been compromised.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts of the current period. These matters were addressed in the context of our audit of the annual accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

PricewaterhouseCoopers Auditores, S.L., Torre PwC, Pº de la Castellana 259 B, 28046 Madrid, España
Tel.: +34 915 684 400 / +34 902 021 111, Fax: +34 915 685 400, www.pwc.es

R. M. Madrid, hoja 87.250-1, folio 75, tomo 9.267, libro 8.054, sección 3ª
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Key audit matter	How our audit addressed the key audit matter
Estimation of impairment of financial assets at amortised cost - loans and advances to customers – for credit risk	

The models used to estimate the expected credit losses along with the adaptations made in the context of the current environment, imply a high complexity by incorporating new estimates and judgments, especially those related to the updates and adjustments made to the models to determine the expected credit loss. These estimates require an elevated component of judgment by management and are one of the most significant and complex estimates in the preparation of the annual accounts as at December 31, 2021 included herein, therefore they have been considered one of the key audit matters.

The main judgements and assumptions used by management are the following:

- The estimation of the Probability of Default (PD) and Loss Given Default (LGD) parameters.
- Identification and classification of the staging criteria of loans and advances to customers.
- The definition and evaluation of updates and adjustments to adapt the parameters estimated by the models to the conditions and current environment.
- The main assumptions used in the determination of provisions for risks estimated individually.

The Bank's business is focused primarily on commercial banking products.

As a result, during fiscal year 2021 the Bank has recognised an amount of 2,286 million euros of impairment of financial assets at amortised cost.

Please refer to notes 2, 6, 10 and 49 of the annual accounts as at December 31, 2021.

We have obtained, in collaboration with our credit risk experts, an understanding of management's process to estimate the impairment of financial assets at amortised cost - loans and advances to customers – over the estimation of impairment of financial assets assessed collectively and individually. In addition, and as a part of our audit procedures, we have made inquiries to management to understand the extent of the potential impact of climate change on credit risk.

In regards with the internal control, we have focused on testing the design and operating effectiveness of key controls over the following processes:

- Calculation methodologies, calibrations, monitoring and back-testing performed by management.
- Compliance with internal policies and functionality of the internal models approved by management.
- Reliability of the data sources used in the calculations and the suitability of the models taking into account the circumstances.
- Periodic review process of borrower to determine proper staging criteria.
- Review process over the calculation of the principal models and portfolios.
- Review process of the updates and adjustments to the expected credit loss models made by management due to the conditions and current environment.
- Loan collateral assignment and valuation process associated with mortgage collateral operations, including collateral recovery process.

Key audit matter	How our audit addressed the key audit matter
	In addition, we performed the following tests of details: • Tests of principal models with respect to: i) calculation and segmentation methods; ii) methodology used for the estimation of the expected loss parameters; iii) data and main assumptions used, iv) staging criteria and v) scenario information and assumptions. • For a sample of loans, covered by government guarantees, evaluation of both documentation and payment behaviour presented since the moment of their concession. • Reperformance of collective impairment losses based on the expected credit loss models parameters. • Evaluation of the updates and adjustments to the expected credit loss models made by management due to the conditions and current environment. • Verification of the correct assignment of the loan collaterals, especially those that are classified as doubtful. • On a sample basis, evaluating individual credit files to determine the adequacy of their accounting and classification, discounted cash flows and, where appropriate, corresponding impairment. In the procedures described above, no exceptions were identified outside of a reasonable range.
Litigation provisions and contingencies	
The Bank is party to a range of tax and legal proceedings - administrative and judicial – which primarily arose in the ordinary course of its operations. Also, there are other situations not yet subject to any judicial process that, however, have required the recognition of provisions, such as aspects of conduct with clients and the possible compensations that could be derived. These procedures generally take a long period of time to run their course, giving rise to complex processes in accordance with the applicable legislation, therefore it has been considered one of the key audit matters.	We have obtained, in collaboration with our experts, an understanding of the estimation process performed by management for litigation provisions and contingencies. In regards with the internal control, we have focused on testing the design and operating effectiveness of key controls over the following processes: • Additions, logs and updates over the completeness of the legal matters in the systems. • Accuracy of the key data, maintained in the systems, used in the calculation of the litigations provisions and contingencies.

Key audit matter	How our audit addressed the key audit matter
The management decides when to recognise a provision for these contingent liabilities, based on an amount estimated using certain procedures consistent with the nature of the uncertainty of the obligations. Among these provisions, some of the most significant are those for customer compensation for the sale of certain products; these estimates are based on the number of claims expected to be received, the number expected to be accepted, and the estimated average pay out per case. The amount of the litigation provisions and contingencies as at December 31, 2021 is 990 million euros. Please refer to notes 2 and 23 of the annual accounts as at December 31, 2021.	• Assessment of the criteria used to estimate the expected losses from litigation provisions and contingencies and evaluation of the adequacy over the calculation of the provisions for regulatory, legal or tax procedures and their recognition. • Reconciliation between the minutes of the inspections and the amounts accounted for. In addition, we performed the following tests of details: • Analysis for reasonableness of the expected outcomes of the most significant tax and legal proceedings. • Assessment of possible contingencies relating to compliance with the tax obligations for all the years open to inspection, of the communications with the regulatory bodies and analysis of the ongoing regulatory inspections. • Obtaining confirmation letters from external and internal lawyers and external tax advisors who work with the Bank and performing alternative procedures. • Analysis of the recognition and reasonableness of the provisions recorded. In the procedures described above, no exceptions were identified outside of a reasonable range.
Impairment of investments in subsidiaries	
As indicated in note 13 of the accompanying annual accounts, Banco Santander, S.A. is the parent company of a group of entities, whose fundamental activities are in the financial services sector. The carrying value of the investments in subsidiaries as at December 31, 2021 is 85,272 million euros. Management performs an analysis of the potential losses in investments in subsidiaries that it has registered in its accounting records. This analysis is performed using different parameters such as the market price or the net equity adjusted for the unrealised gains existing at the valuation date, including goodwill net of its corresponding impairment.	We have obtained an understanding of the valuation process of the investment in subsidiaries. In addition, where the valuation of investment requires the use of an elevated component of judgment, we have relied on the assistance of our valuation experts. With respect to internal controls, we have focused on the design and operating effectiveness of the controls in the valuation process and over the methodology, inputs and relevant assumptions used by management for the year-end estimates, including the controls performed to supervise the process and the related approvals.

Key audit matter	How our audit addressed the key audit matter
The valuation or analysis of the impairment of some of these investments require an elevated component of judgment, principally for those investments measured using the net equity adjusted for the unrealised gains existing at the valuation date including its goodwill, therefore it has been considered one of the key audit matters. This valuation, performed by Bank's management, is based on the analysis performed as part of the goodwill impairment assessment, where assumptions such as financial projections, discount rates, perpetual growth rates and market quotes (if available). Management's assessment has considered the updated economic and business environment resulting from covid-19, the current market conditions and the existing economic uncertainty. Please refer to note 13 of the annual accounts as at December 31, 2021.	Additionally, we have performed tests of details consisting of the following: • Verify the valuation performed by the Bank, using as a reference the recoverable balance of the investments in subsidiaries. • Verify that management's valuation methodology is in line with the applicable accounting standards, market practice and the specific expectations of the sector. • For investments whose valuation is calculated considering goodwill, we evaluated the reasonableness of the valuation models based on projected discounted cash flows. In the procedures described above, no exceptions were identified outside of a reasonable range.
Information systems	
The Bank's financial information is highly dependent on information technology (IT) systems, therefore an adequate control of these systems is crucial to ensuring correct data processing. In this context, it is vital to evaluate aspects such as the organization of the Bank's Technology and Operations department, controls over software maintenance and development, physical and logical security controls, and controls over computer operations, therefore it has been considered one of the key audit matters. In this respect, management continues monitoring the internal controls over IT systems, including the access controls that support the Bank´s technology processes.	We have evaluated, in collaboration with our IT system specialists, the internal controls over the IT systems, databases and applications that support the Bank's financial reporting. For this purpose, we have performed procedures over internal control and test of details related to: • The function of the IT governance framework. • Access and logical security controls over the applications, operating systems and databases that support the relevant financial information. • Application development and change management. • Maintenance of computer operations.

Key audit matter	How our audit addressed the key audit matter
	In addition, considering the monitoring carried out by management over its internal controls over IT systems, our approach and audit plan focused on the following aspects: • Evaluation of the monitoring made by management as part of its internal control environment of the Bank. • Testing of the design and operating effectiveness of the controls implemented by management, including access controls. In the procedures described above, no relevant exceptions were identified related to this matter.

Other information: Director's report

Other information comprises only the management report for the 2021 financial year, the formulation of which is the responsibility of the Bank's directors and does not form an integral part of the annual accounts.

Our audit opinion on the annual accounts does not cover the management report. Our responsibility regarding the management report, in accordance with legislation governing the audit practice, is to:

a) Verify only that the statement of non-financial information, certain information included in the Annual Corporate Governance Report and the Annual Report on Directors' Remuneration, as referred to in the Auditing Act, has been provided in the manner required by applicable legislation and, if not, we are obliged to disclose that fact.

b) Evaluate and report on the consistency between the rest of the information included in the management report and the annual accounts as a result of our knowledge of the Company obtained during the audit of the aforementioned financial statements, as well as to evaluate and report on whether the content and presentation of this part of the management report is in accordance with applicable regulations. If, based on the work we have performed, we conclude that material misstatements exist, we are required to report that fact.

On the basis of the work performed, as described above, we have verified that the information mentioned in section a) above has been provided in the manner required by applicable legislation and that the rest of the information contained in the management report is consistent with that contained in the annual accounts for the 2021 financial year, and its content and presentation are in accordance with applicable regulations.

Responsibility of the directors and the audit committee for the annual accounts

The directors are responsible for the preparation of the accompanying annual accounts, such that they fairly present the equity, financial position and financial performance of the Bank, in accordance with the financial reporting framework applicable to the entity in Spain, and for such internal control as the aforementioned directors determine is necessary to enable the preparation of annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts, the directors are responsible for assessing the Bank's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Bank or to cease operations, or has no realistic alternative but to do so.

The audit committee is responsible for overseeing the process of preparation and presentation of the annual accounts.

Auditor's responsibilities for the audit of the annual accounts

Our objectives are to obtain reasonable assurance about whether the annual accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with legislation governing the audit practice in Spain will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts.

As part of an audit in accordance with legislation governing the audit practice in Spain, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the annual accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual accounts, including the disclosures, and whether the annual accounts represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the entity's audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the entity's audit committee with a statement that we have complied with relevant ethical requirements, including those relating to independence, and we communicate with the aforementioned those matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the entity's audit committee, we determine those matters that were of most significance in the audit of the annual accounts of the current period and are therefore the key audit matters.

We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Report on other legal and regulatory requirements

European single electronic format

We have examined the digital file of the European single electronic format (ESEF) of Banco Santander, S.A. for the 2021 financial year that comprises an XHTML file of the annual accounts for the financial year, which will form part of the annual financial report.

The directors of Banco Santander, S.A. are responsible for presenting the annual financial report for 2021 financial year in accordance with the formatting requirements established in the Delegated Regulation (EU) 2019/815 of 17 December 2018 of the European Commission (hereinafter the ESEF Regulation). In this regard, the Annual Corporate Governance Report and the Annual Report on Directors' Remuneration have been incorporated by reference in the management report.

Our responsibility is to examine the digital file prepared by the Bank's directors, in accordance with legislation governing the audit practice in Spain. This legislation requires that we plan and execute our audit procedures in order to verify whether the content of the annual accounts included in the aforementioned file completely agrees with that of the annual accounts that we have audited, and whether the format of these accounts has been affected, in all material respects, in accordance with the requirements established in the ESEF Regulation.

In our opinion, the digital file examined completely agrees with the audited annual accounts, and these are presented, in all material respects, in accordance with the requirements established in the ESEF Regulation.

Report to the audit committee

The opinion expressed in this report is consistent with the content of our additional report to the audit committee of the Bank dated February 25, 2022.

Appointment period

The General Ordinary Shareholders' Meeting held on March 26, 2021 appointed us as auditors for a period of one year, as from the year ended December 31, 2021.

Previously, we were appointed by resolution of the General Ordinary Shareholders' Meeting for a period of three years and we have audited the accounts continuously since the year ended December 31, 2016.

Services provided

Services provided to the audited entity and its subsidiaries for services other than the audit of the accounts are disclosed in note 43 to the annual accounts.

PricewaterhouseCoopers Auditores, S.L. (S0242)

Julián González Gómez (20179)

February 25, 2022

Santander

Banco Santander, S.A.

Financial statements for the year ended 31 December 2021

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

Santander

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

Banco Santander, S.A.

BALANCE SHEETS AS OF 31 DECEMBER 2021 AND 2020

EUR Million

ASSETS	Note	2021	2020*
CASH, CASH BALANCES AT CENTRAL BANKS AND OTHER DEPOSITS ON DEMAND	**6**	**91,736**	**67,561**
FINANCIAL ASSETS HELD FOR TRADING		**86,085**	**81,437**
Derivatives	9 & 11	42,023	53,362
Equity instruments	8	14,619	9,758
Debt instruments	7	14,320	18,243
Loans and advances		15,123	74
Central banks	6	1,118	—
Credit institutions	6	6,980	3
Customers	10	7,025	71
Memorandum items: lent or delivered as guarantees with disposal or pledge rights	*31*	*22,440*	*8,540*
NON-TRADING FINANCIAL ASSETS MANDATORILY AT FAIR VALUE THROUGH PROFIT OR LOSS		**2,355**	**2,225**
Equity instruments	8	908	305
Debt instruments	7	734	671
Loans and advances		713	1,249
Central banks	6	—	—
Credit institutions	6	—	—
Customers	10	713	1,249
Memorandum items: lent or delivered as guarantees with disposal or pledge rights	*31*	*154*	*329*
FINANCIAL ASSETS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS		**13,403**	**33,899**
Debt instruments	7	—	—
Loans and advances		13,403	33,899
Central banks	6	—	482
Credit institutions	6	3,445	9,888
Customers	10	9,958	23,529
Memorandum items: lent or delivered as guarantees with disposal or pledge rights	*31*	*—*	*3,642*
FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME		**15,035**	**22,623**
Equity instruments	8 & 25	1,705	1,942
Debt instruments	7 & 25	9,394	15,146
Loans and advances		3,936	5,535
Central banks	6	—	—
Credit institutions	6	—	—
Customers	10	3,936	5,535
Memorandum items: lent or delivered as guarantees with disposal or pledge rights	*31*	*2,348*	*2,293*

Santander

ASSETS	Note	2021	2020*
FINANCIAL ASSETS AT AMORTIZED COST		**339,053**	**311,020**
Debt instruments	7	17,208	11,413
Loans and advances		321,845	299,607
Central banks	6	26	21
Credit institutions	6	35,084	34,159
Customers	10	286,735	265,427
Memorandum items: lent or delivered as guarantees with disposal or pledge rights	*31*	*1,513*	*2,607*
HEDGING DERIVATIVES	**32**	**1,648**	**3,137**
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	**32**	**120**	**206**
INVESTMENTS		**88,549**	**84,890**
Group entities	13	85,272	81,560
Joint venture entities		257	248
Associated entities	13	3,020	3,082
TANGIBLE ASSETS	**15**	**6,515**	**6,680**
Property, plant and equipment		6,244	6,462
For own-use		*5,392*	*5,715*
Leased out under an operating lease		*852*	*747*
Investment property		*271*	*218*
Of which, Leased out under an operating lease		*271*	*218*
Memorandum items: acquired in financial leasing		*2,695*	*2,879*
INTANGIBLE ASSETS	**16**	**896**	**948**
Goodwill		396	458
Other intangible assets		500	490
TAX ASSETS	**24**	**9,622**	**9,282**
Current tax assets		1,003	721
Deferred tax assets		8,619	8,561
OTHER ASSETS		**1,940**	**4,174**
Insurance contracts linked to pensions	14, 17 & 23	381	423
Inventories	17	—	—
Other	17	1,559	3,751
NON-CURRENT ASSETS HELD FOR SALE	**12**	**993**	**1,287**
TOTAL ASSETS		**657,950**	**629,369**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the balance sheet as of 31 December 2021.

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

BALANCE SHEETS AS OF 31 DECEMBER 2021 AND 2020

EUR Million

LIABILITIES	Note	2021	2020*
FINANCIAL LIABILITIES HELD FOR TRADING		**56,969**	**61,014**
Derivatives	9 & 11	40,672	50,676
Short positions	9	9,244	10,338
Deposits		7,053	—
Central banks	18	44	—
Credit institutions	18	5,718	—
Customers	19	1,291	—
Marketable debt securities	20	—	—
Other financial liabilities	22	—	—
FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS		**12,743**	**16,890**
Deposits		12,743	16,890
Central banks	18	607	1,469
Credit institutions	18	1,067	4,496
Customers	19	11,069	10,925
Marketable debt securities	20	—	—
Other financial liabilities	22	—	—
Memorandum items: subordinated liabilities		—	—
FINANCIAL LIABILITIES AT AMORTIZED COST		**510,272**	**474,619**
Deposits		396,154	376,837
Central banks	18	64,649	60,372
Credit institutions	18	35,262	40,725
Customers	19	296,243	275,740
Marketable debt securities	20	104,094	87,902
Other financial liabilities	22	10,024	9,880
Memorandum items: subordinated liabilities	*20 & 21*	*20,399*	*17,124*
HEDGING DERIVATIVES	**32**	**2,076**	**1,780**
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK		**—**	**—**
PROVISIONS	**23**	**4,349**	**5,007**
Pensions and other post-retirement obligations		1,677	1,849
Other long term employee benefits		1,053	1,581
Taxes and other legal contingencies		516	496
Contingent liabilities and commitments		190	157
Other provisions		913	924
TAX LIABILITIES	**24**	**1,697**	**1,555**
Current tax liabilities		176	45
Deferred tax liabilities		1,521	1,510
OTHER LIABILITIES	**17**	**3,271**	**3,567**
LIABILITIES ASSOCIATED WITH NON-CURRENT ASSETS HELD FOR SALE		**—**	**—**
TOTAL LIABILITIES		**591,377**	**564,432**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the balance sheet as of 31 December 2021.

Santander

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

BALANCE SHEETS AS OF 31 DECEMBER 2021 AND 2020

EUR Million

EQUITY	Note	2021	2020*
SHAREHOLDERS' EQUITY	**26**	**68,375**	**66,498**
CAPITAL		**8,670**	**8,670**
Called up paid capital	27	8,670	8,670
Unpaid capital which has been called up		—	—
Memorandum items: uncalled up capital		—	—
SHARE PREMIUM	**28**	**47,979**	**52,013**
EQUITY INSTRUMENTS ISSUED OTHER THAN CAPITAL	**30**	**658**	**627**
Equity component of compound financial instruments		—	—
Other equity instruments issued		658	627
OTHER EQUITY INSTRUMENTS	**30**	**147**	**157**
ACCUMULATED RETAINED EARNINGS	**29**	**9,683**	**9,683**
REVALUATION RESERVES		**—**	**—**
OTHER RESERVES	**29**	**(1,017)**	**(1,095)**
(-) OWN SHARES	**30**	**(841)**	**—**
RESULTS FOR THE PERIOD	**4**	**3,932**	**(3,557)**
(-) INTERIM DIVIDENDS	**4**	**(836)**	**—**
OTHER COMPREHENSIVE INCOME OR LOSS		**(1,802)**	**(1,561)**
ITEMS THAT WILL NOT BE RECLASSIFIED TO PROFIT OR LOSS	**25**	**(1,858)**	**(1,882)**
Actuarial gains or - losses in defined benefit pension plans		(1,329)	(1,351)
Non-current assets and disposal groups that have been classified as held for sale		—	—
Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income		(468)	(537)
Ineffectiveness 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]		271	154
Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income [hedging instrument]		(271)	(154)
Changes in the fair value of financial liabilities at fair value through profit or loss attributable to changes in credit risk		(61)	6
ITEMS THAT MAY BE RECLASSIFIED TO PROFIT OR LOSS	**25**	**56**	**321**
Hedge of net investments in foreign operations [effective part]		—	—
Currency conversion		—	—
Hedging derivatives. Cash flow hedge reserve [effective part]		(87)	(189)
Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income		143	510
Hedging instruments [non-designated items]		—	—
Non-current assets and disposal groups that have been classified as held for sale		—	—
TOTAL EQUITY		**66,573**	**64,937**
TOTAL LIABILITIES AND EQUITY		**657,950**	**629,369**
MEMORANDUM ITEMS			
Financial guarantees granted	31	10,489	10,135
Loan commitments granted	31	111,410	96,959
Other commitments granted	31	59,421	50,686

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the balance sheet as of 31 December 2021.

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

INCOME STATEMENTS FOR THE YEARS ENDED 31 DECEMBER 2021 AND 2020

EUR Million

		(Debit) Credit	
	Note	2021	2020*
Interest income	34	6,405	6,528
Financial assets at fair value through other comprehensive income		*236*	*256*
Financial assets at amortized cost		*4,847*	*5,078*
Other interest income		*1,322*	*1,194*
Interest expense	35	(2,785)	(3,160)
Expenses for capital stock repayable on demand		—	—
Interest income/(changes)		**3,620**	**3,368**
Dividend income	36	5,489	5,642
Commission income	37	3,119	2,811
Commission expense	38	(541)	(494)
Gains or losses on financial assets and liabilities not measured at fair value through profit or loss, net	39	318	578
Financial assets at amortized cost	*39*	*19*	*10*
Other financial assets and liabilities	*39*	*299*	*568*
Gains or losses on financial assets and liabilities held for trading, net	39	175	(29)
Reclassification of financial assets at fair value through other comprehensive income		—	—
Reclassification of financial assets at amortized cost		—	—
Other gains (losses)		*175*	*(29)*
Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss	39	(45)	(290)
Reclassification of financial assets at fair value through other comprehensive income		—	—
Reclassification of financial assets at amortized cost		—	—
Other gains (losses)		*(45)*	*(290)*
Gains or losses on financial assets and liabilities measured at fair value through profit or loss, net	39	38	4
Gains or losses from hedge accounting, net	39	(28)	10
Exchange differences, net	40	(205)	372
Other operating income	41	441	404
Other operating expenses	41	(894)	(785)
Total income		**11,487**	**11,591**
Administrative expenses		(4,673)	(4,602)
Staff costs	*42*	*(2,707)*	*(2,586)*
Other general administrative expenses	*43*	*(1,966)*	*(2,016)*
Depreciation and amortisation cost	15 & 16	(570)	(625)
Provisions or reversal of provisions, net	23	(758)	(1,133)
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 &10	(2,287)	(2,559)
Financial assets at fair value through other comprehensive income		*(1)*	*(4)*
Financial assets at amortized cost		*(2,286)*	*(2,555)*
Impairment or reversal of impairment of investments in subsidiaries, joint ventures and associates, net	44	800	(5,921)
Impairment or reversal on non-financial assets, net		(85)	(63)
Tangible assets	15	*(85)*	*(62)*
Intangible assets	*16*	—	*(1)*
Others		—	—
Gain or losses on non-financial assets and investments, net	45	—	1,142

	(Debit) Credit		
	Note	2021	2020*
Negative goodwill recognised in results		—	—
Gains or losses on non-current assets held for sale not classified as discontinued operations	12 & 46	(50)	(77)
Operating profit/(loss) before tax		**3,864**	**(2,247)**
Tax expense or income from continuing operations	24	68	(1,310)
Profit/(loss) from continuing operations		**3,932**	**(3,557)**
Profit/(loss) after tax		—	—
Profit/(loss) for the year		**3,932**	**(3,557)**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the income statement the year ended as of 31 December 2021.

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

STATEMENTS OF RECOGNISED INCOME AND EXPENSES FOR THE YEARS ENDED 31 DECEMBER 2021 AND 2020

EUR Million

	Note	2021	2020*
PROFIT/LOSS FOR THE YEAR		**3,932**	**(3,557)**
OTHER RECOGNISED INCOME AND EXPENSES	**25**	**(662)**	**(1,221)**
Items that will not be reclassified to profit or loss		**(397)**	**(858)**
Actuarial gains and losses on defined benefit pension plans		29	(77)
Other recognised income and expense of investments in subsidiaries, joint venture and associates		—	—
Changes in the fair value of equity instruments measured at fair value through other comprehensive income, net		(347)	(796)
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*
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedging instrument)		*(117)*	*(4)*
Changes in the fair value of financial liabilities at fair value through profit or loss attributable to changes in credit risk		(93)	4
Income tax relating to items that will not be reclassified	24	14	11
Items that may be reclassified to profit or loss		**(265)**	**(363)**
Hedges of net investments in foreign operations (Effective portion)		—	—
Revaluation gains (losses)		—	—
Amounts transferred to income statement		—	—
Other reclassifications		—	—
Exchanges differences		—	—
Revaluation gains (losses)		—	—
Amounts transferred to income statement		—	—
Other reclassifications		—	—
Cash flow hedges (Effective portion)		146	(206)
Revaluation gains or (losses)		*152*	*(239)*
Amounts transferred to income statement		*(6)*	*33*
Transferred to initial carrying amount of hedged items		—	—
Other reclassifications		—	—
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)
Revaluation gains (losses)		*(243)*	*244*
Amounts transferred to income statement		*(281)*	*(560)*
Other reclassifications		—	—
Non-current assets held for sale		—	—
Revaluation gains (losses)		—	—
Amounts transferred to income statement		—	—
Other reclassifications		—	—
Income tax related to items that may be reclassified to profit or loss	24	113	159
Total recognised income and expenses for the year		**3,270**	**(4,778)**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the statement of recognized income and expenses for the year ended as of 31 December 2021.

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 50). In the event of a discrepancy, the Spanish-language version prevails.

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

EUR Million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings	Revaluation reserves	Other reserves	(-) Own Equity shares	Result for the period	(-) Interim dividends	Other comprehensive income	Total
Balance at 31 December 2020*	**8,670**	**52,013**	**627**	**157**	**9,683**	**—**	**(1,095)**	**—**	**(3,557)**	**—**	**(1,561)**	**64,937**
Adjustments due to errors	—	—	—	—	—	—	—	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—	—	—	—	—	—	—	—
Opening balance at 1 January 2021*	**8,670**	**52,013**	**627**	**157**	**9,683**	**—**	**(1,095)**	**—**	**(3,557)**	**—**	**(1,561)**	**64,937**
Total recognised income and expense	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**3,932**	**—**	**(662)**	**3,270**
Other changes in equity	**—**	**(4,034)**	**31**	**(10)**	**—**	**—**	**78**	**(841)**	**3,557**	**(836)**	**421**	**(1,634)**
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)	—	—	—	—	—	—	—	(836)	—	(1,313)
Purchase of equity instruments	—	—	—	—	—	—	—	(1,446)	—	—	—	1,446
Disposal of equity instruments	—	—	—	—	—	—	—	605	—	—	—	605
Transfer from equity to liabilities	—	—	—	—	—	—	—	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—	—	—	—	—	—	—	—
Transfers between equity items	—	(3,557)	—	—	—	—	(421)	—	3,557	—	421	—
Increases (decreases) due to business combinations	—	—	—	—	—	—	—	—	—	—	—	—
Share-based payment	—	—	—	(62)	—	—	—	—	—	—	—	(62)
Others increases or (-) decreases of the equity	—	—	31	52	—	—	499	—	—	—	—	582
Of which, discretionary allocation to social funds (only savings banks and credit cooperatives)	—	—	—	—	—	—	—	—	—	—	—	—
Balance at 31 December 2021	**8,670**	**47,979**	**658**	**147**	**9,683**	**—**	**(1,017)**	**(841)**	**3,932**	**(836)**	**(1,802)**	**66,573**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the statement of changes in total equity for the year ended as of 31 December 2021.

Santander

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

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

EUR Million

	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings	Revaluation reserves	Other reserves	(-) Own Equity shares	Result for the period	(-) Interim dividends	Other comprehensive income	Total
Balance at 31 December 2019*	**8,309**	**52,446**	**598**	**144**	**7,814**	**—**	**(617)**	**—**	**3,530**	**(1,662)**	**(340)**	**70,222**
Adjustments due to errors	—	—	—	—	—	—	—	—	—	—	—	—
Adjustments due to changes in accounting policies	—	—	—	—	—	—	—	—	—	—	—	—
Opening balance at 1 January 2020*	**8,309**	**52,446**	**598**	**144**	**7,814**	**—**	**(617)**	**—**	**3,530**	**(1,662)**	**(340)**	**70,222**
Total recognised income and expense	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(3,557)**	**—**	**(1,221)**	**(4,778)**
Other changes in equity	**361**	**(433)**	**29**	**13**	**1,869**	**—**	**(478)**	**—**	**(3,530)**	**1,662**	**—**	**(507)**
Issuance of ordinary shares	361	(72)	—	—	—	—	70	—	—	—	—	359
Issuance of preferred shares	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—	—	—	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—	—	—	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—	—	—	—	—	—	—	—
Capital reduction	—	—	—	—	—	—	—	—	—	—	—	—
Dividends	—	(361)	—	—	—	—	—	—	—	—	—	(361)
Purchase of equity instruments	—	—	—	—	—	—	—	(615)	—	—	—	(615)
Disposal of equity instruments	—	—	—	—	—	—	—	615	—	—	—	615
Transfer from equity to liabilities	—	—	—	—	—	—	—	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—	—	—	—	—	—	—	—
Transfers between equity items	—	—	—	(1)	1,869	—	—	—	(3,530)	1,662	—	—
Increases (decreases) due to business combinations	—	—	—	—	—	—	—	—	—	—	—	—
Share-based payment	—	—	—	(53)	—	—	—	—	—	—	—	(53)
Other increases or (-) decreases of the equity	—	—	29	67	—	—	(548)	—	—	—	—	(452)
Of which, discretionary allocation to social funds (only savings banks and credit cooperatives)	—	—	—	—	—	—	—	—	—	—	—	—
Balance at 31 December 2020*	**8,670**	**52,013**	**627**	**157**	**9,683**	**—**	**(1,095)**	**—**	**(3,557)**	**—**	**(1,561)**	**64,937**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the statements of changes in total equity for the year ended 31 December 2021.

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In the event of a discrepancy, the Spanish-language version prevails.

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED 31 DECEMBER 2021 AND 2020

EUR Million

	Note	2021	2020*
A. CASH FLOWS FROM OPERATING ACTIVITIES		**20,034**	**37,842**
Profit or loss for the year	**4**	**3,932**	**(3,557)**
Adjustments made to obtain the cash flows from operating activities		**2,052**	**12,938**
Depreciation and amortization cost	*15 & 16*	*570*	*625*
Other adjustments		*1,482*	*12,313*
Net increase/(decrease) in operating assets		**9,622**	**(7,513)**
Financial assets held-for-trading		*4,648*	*(5,146)*
Non-trading financial assets mandatorily at fair value through profit or loss		*130*	*(394)*
Financial assets designated at fair value through profit or loss		*(20,496)*	*(15,962)*
Financial assets at fair value through other comprehensive income		*(7,166)*	*(9,299)*
Financial assets at amortized cost		*36,675*	*26,903*
Other operating assets		*(4,169)*	*(3,615)*
Net increase/(decrease) in operating liabilities		**24,024**	**21,199**
Financial liabilities held-for-trading		*(4,045)*	*(3,341)*
Financial liabilities designated at fair value through profit or loss		*(4,147)*	*(7,374)*
Financial liabilities at amortized cost		*32,660*	*35,268*
Other operating liabilities		*(444)*	*(3,354)*
Income tax recovered/(paid)		**(352)**	**(251)**
B. CASH FLOWS FROM INVESTING ACTIVITIES		**4,083**	**(3,263)**
Payments		**2,266**	**8,001**
Tangible assets	*15*	*501*	*489*
Intangible assets	*16*	*110*	*73*
Investments	*13*	*1,655*	*7,439*
Subsidiaries and other business units		—	—
Non-current assets held for sale and associated liabilities		—	—
Other payments related to investing activities		—	—
Proceeds		**6,349**	**4,738**
Tangible assets	*15*	*119*	*118*
Intangible assets	*16*	—	—
Investments	*13 & 36*	*5,959*	*4,398*
Subsidiaries and other business units		—	—
Non-current assets held for sale and associated liabilities		*271*	*222*
Other proceeds related to investing activities		—	—
C. CASH FLOW FROM FINANCING ACTIVITIES		**(277)**	**1,087**
Payments		**5,322**	**3,250**
Dividends	*4*	*1,313*	—
Subordinated liabilities	*21*	*2,248*	*2,348*
Redemption of own equity instruments		—	—
Acquisition of own equity instruments		*1,446*	*615*
Other payments related to financing activities		*315*	*287*
Proceeds		**5,045**	**4,337**
Subordinated liabilities	*21*	*4,440*	*3,722*
Issuance of own equity instruments		—	—
Disposal of own equity instruments		*605*	*615*
Other proceeds related to financing activities		—	—
D. EFFECT OF FOREIGN EXCHANGE RATE CHANGES		**335**	**(576)**

Santander

	Note	2021	2020*
E. NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**24,175**	**35,090**
F. CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		**67,561**	**32,471**
G. CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**91,736**	**67,561**
MEMORANDUM ITEMS			
COMPONENTS OF CASH AND CASH EQUIVALENTS AT END OF THE YEAR			
Cash		*1,184*	*1,302*
Cash equivalents at central banks		*88,268*	*63,984*
Other financial assets		*2,284*	*2,275*
Less - Bank overdrafts refundable on demand		—	—
TOTAL OF CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**91,736**	**67,561**

* Presented for comparison purposes only (note 1.d).

The accompanying notes 1 to 49 and Appendices are an integral part of the statement of cash flows for the year ended as of 31 December 2021.

Translation of annual accounts originally issued in Spanish and prepared in accordance with the regulatory financial reporting framework applicable to Banco Santander in Spain (see notes 1 and 49). In case of discrepancy, the Spanish version prevails.

Banco Santander, S.A.

Notes to the financial statements (annual accounts) for the year ended 31 December 2021.

1. Introduction, basis of presentation of the financial statements (annual accounts) and other information

a) Introduction

Banco Santander, S.A. ('the Bank' 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 ('Grupo 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.

Banco Santander annual accounts for the financial year 2020 were approved in the Banco Santander general shareholders' meeting held on 26 March 2021. The Group's 2021 consolidated financial statements, the financial statements of Banco Santander 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.

Appendix IX includes the list of agents that assist Banco Santander on the performance of its business activities in Spain.

b) Basis of presentation of the financial statements (annual accounts)

Banco Santander financial statements for the year ended 2021 have been formulated by Banco Santander directors (at the Board of Directors meeting on February 24, 2022) in accordance with Bank of Spain Circular 4/2017 and subsequent amendments, as well as the commercial regulations applicable to the Bank. Accounting principles, policies and measurement criteria are applied by the bank as set forth in note 2, in order to faithfully represent Banco Santander´s equity and financial position as of 31 December 2021 and 2020, results of its operations, recognized revenue and expenditure, changes in total equity and cash flows pertaining to financial year 2021 and 2020. These annual accounts have been prepared using the accounting records maintained by Banco Santander.

The notes to the financial statements contain additional information to that presented on the balance sheet, income statement, statement of recognized income and expense, statement of changes in total equity and 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 related interpretations

The following is a summary of the main Bank of Spain Circulars issued that became applicable to Banco Santander in financial year 2021:

Bank of Spain Circular 1/2021, of January 28, which modifies Circular 1/2013, of May 24, on the Risk Information Center, and Circular 5/2012, of June 27 , to credit institutions and payment service providers, on transparency of banking services and responsibility in granting loans. (BOE of January 30, 2021).

The main objective of this circular is to adapt Bank of Spain Circulars 1/2013 of May 24 over the Risk Information Center and Circular 5/2012 over the transparency of banking services and responsibility in the granting of loans to the changes in the regulation of the Risk Information Center (CIR), as well as to update the official reference rates by Order ETD/699/2020 (by which the order Order ECO/ 697/2004 and Order 23 EHA/2899/2011, on transparency and protection of banking services clients).

On July 27, the Rev. Credit OM was published in the Official State Bulletin (BOE) where, among other regulations, Order ECO/697/2004 of March 11 on the Central Risk Information (hereinafter,'OM de la CIR') was modified. Among the objectives of this order is to improve the information available to lenders in performing solvency analyses of potential borrowers, avoiding over-indebtedness positions that lead borrowers to fail to comply with their financial obligations. Having the appropriate information that allows a solid assessment of solvency to prevent situations of excessive indebtedness, takes on special relevance in the context of the economic and social impact caused by the covid-19 health crisis.

On the other hand, the exceptional situation created by covid-19 has made it necessary to deploy different financial measures to mitigate the economic impact of the pandemic. These measures have been articulated in four royal decree-laws that describe the conditions to finance individuals, companies and the self-employed in relation to the implementation of moratoriums and government guarantees, as well as private moratoriums promoted by associated entities. In order to comply with the regulations over information possessed by lenders, imposed by said royal decree laws, and to support the supervision and inspection efforts by the Bank of Spain, reporting entities were requested to send the CIR certain information regarding the characteristics of loans affected by the aforementioned measures.

Additionally, the second rule of the circular modifies certain aspects of Circular 5/2012, in regards to official interest rates by the modification of Order EHA/2899/2011. This change is intended, among other ends, to increase the amount of official interest rate alternatives available to entities, who then apply them in granting loans and modifying existing contracts. In order to accomplish this, a review is conducted of the different official reference rates available and modifications are made to naming conventions of existing rates. In this regard, the circular updates the list of official rates within the Transparency OM and establishes the scope and procedures for determining the new indices.

The application of the circular has not had a significant effect on the Bank's annual accounts.

Bank of Spain Circular 2/2021, of January 28, which modifies Bank of Spain Circular 8/2015, of December 18, to the entities and branches subscribed to the Deposit Guarantee Fund of Credit Institutions, over information to determine the basis for calculating contributions to the Deposit Guarantee Fund for Credit Institutions. (BOE of February 2, 2021).

The objective of this circular is to incorporate changes made to Royal Decree 2017/2008 into the Bank of Spain circular 8/2015, establishing how to collect new information which must be made available to the Bank of Spain, credit institutions, and FGD-subscribed branches. This is outlined within 'Information in determining the basis for calculating contributions to the Deposit Guarantee Fund' as well as the 'Received deposit registry', which appear in annexes 1 and 2, respectively, of the aforementioned Circular 8/2015.

The regulation modifies Circular 8/2015 as follows:

- The fourth rule has been modified to set the minimum frequency by which entities and FGD-subscribed branches must update the detailed deposits received registry (as regulated in annex 2). Specifically, updates must include information related to securities and cash balances held by investment companies, opened with the entity or FGD-subscribed branch and in the name of the investment services company on behalf of its clients.
- Schedule 1, 'Information to determine the basis for calculating contributions to the Deposit Guarantee Fund', has been replaced by another schedule of the same name, schedule 1, which consists of two parts, A and B. In part A's template, 'Information regarding the compartmentalization of deposit and securities guarantees', information is kept until the establishment of this circular are sent by the entities attached to the FGD and the necessary adjustments are made to collect the information on the deposits constituted by investment services companies in instrumental and temporary cash accounts opened in the name of the investment services company in the reporting entity on behalf of its clients, as established in articles 30 quater and 43.3 of the Royal Decree 217/2008. In addition, for admissible deposits, the detail is disaggregated between those by offices located in Spain ('Business in Spain') and those branches in other European Union countries ('Business in branches in other Member States of the European Union'). Lastly, part B has been added to annex 1 of Circular 8/2015, which includes a breakdown by country of residence of the branches containing eligible and guaranteed deposits.

The application of the circular has not had a significant effect on the Bank's annual accounts.

Bank of Spain Circular 3/2021 of May 13, which modifies Circular 5/2012, of June 27, regarding the definition of the reference interest rate based on the Euro short-term rate (EUR STR) to credit institutions and payment service providers, on transparency of banking services and responsibility in granting loans. (BOE of May 17, 2021).

The main objective of this circular is to adapt the definition of the index based on the Euro short-term rate (EUR STR). For the purposes of its consideration as an official rate, included in annex 8, section six, of Circular 5/2012, of June 27, to credit institutions and payment service providers, on transparency of banking services and responsibility in granting loans, following the publication of the European Central Bank's Guideline (EU) 2021/565, of 17 March 2021, which modifies Guideline (EU) 2019/1265, on the short-term interest rate of the euro (EUR STR) (ECB / 2021/10), which establishes the preparation and daily publication, as of April 15, 2021, of compound average rates based on EUR STR.

The application of the circular has not had a significant effect on the Bank's annual accounts.

Bank of Spain Circular 4/2021 of 25 November, to credit institutions and other supervised entities, on models of reserved statements in matters of market conduct, transparency and customer protection, and on the registration of claims. (BOE of 1 December 2021).

The purpose of this circular is to establish the content and frequency of the models of reserved statements in matters of market conduct, transparency and customer protection that must be sent to the Bank of Spain. Further, the circular declares minimum amounts of claims information that said entities must have at the disposal of the Bank of Spain.

The application of the circular has not had a significant effect on the Bank's annual accounts.

Bank of Spain Circular 5/2021 of 22 December, which modifies Circular 2/2016 of February 2 to credit institutions, on supervision and solvency, which completes the adaptation of the Spanish legal system to Directive 2013/36/EU and Regulation (EU) No. 575/2013. (BOE of 23 December 2021) (Correction of BOE errors of December 30, 2021).

This circular covers the principles of necessity, effectiveness, proportionality, legal certainty, transparency, and efficiency, as outlined in article 129 of Law 39/2015 of October 1, on the Common Administrative Procedure of Public Administrations.

In regards to the principles of necessity and effectiveness, this circular is a necessary tool for the development of the framework applicable to the new macroprudential tools that the Bank of Spain has at its disposal, in accordance with Royal Decree-Law 22 /2018 and Royal Decree 102/2019. This Decree-Law's ultimate objective is to identify, prevent and mitigate the development of systemic risk and ensure a sustainable contribution by the financial system to economic growth:

- Capital buffer requirements, as established in articles 43 to 49 of Law 10/2014.
- The establishment of limits to sector concentration, in accordance with article 69 ter of Law 10/2014.
- The setting of conditions over the granting of loans and other operations, by virtue of article 69 quater of Law 10/2014.

The application of the circular has not had a significant effect on the Bank's annual accounts.

Bank of Spain Circular 6/2021 of 22 December, which modifies Circular 4/2017 of 27 November, to credit institutions, on public and reserved financial information standards, and models of financial statements, and Circular 4/2019 of November 26, to financial credit establishments, on standards of public and reserved financial information, and models of financial statements. (BOE of 29 December 2021).

The main objective of this circular is to update Circular 4/2017 (27 of November), pertaining to credit institutions, specifically over public and reserved financial information standards, as well as financial statement models.

Firstly, among the modifications that this circular incorporates in Circular 4/2017 of November 27, there includes changes in the international financial reporting standards adopted in the European Union (IFRS-EU) with regard to International Accounting Standard No. 39 and International Financial Reporting Standards 4, 7, 9 and 16. The mentioned changes are the result of an International Accounting Standards Board (IASB) project that responds to the reform of benchmark interest rate indices known as IBOR (InterBank Offered Rates).

The additional detail required by the amendments to Circular 6/2021 relating to hedging relationships are included in note 32. Note 49 includes a description of Group and Bank management progress in the transition to reference rate alternatives, as well as detail over changes in risk management strategy.

The following is a breakdown of the carrying amount, at 31 December 2021, of financial assets, financial liabilities, derivatives and loan commitments that continue to reference the indices subject to 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	—	68	524	284	121	244	—
Referenced to LIBOR	17,608	1,649	56	2,419	9,101	13,335	948
of which USD	*15,740*	*491*	*56*	*2,419*	*5,719*	*8,383*	*764*
of which GBP	*1,656*	*1,158*	—	—	*3,370*	*4,922*	*162*
TOTAL	**17,608**	**1,717**	**580**	**2,703**	**9,222**	**13,579**	**948**

Secondly, the models and instructions used in preparing the confidential financial statements known as FINREP, among other aspects, have been modified by Commission Execution Regulation (EU) 2021/451 of December 17, 2020, which establishes technical standards for the implementation of Regulation (EU) No. 575/2013 of the European Parliament and of the Council in relation to the communication of information for supervisory purposes by entities, which also repeals the Execution Regulation (EU) No. 680/2014. By virtue of this implemented regulation, changes have been made to FINREP in relation to restructured, refinanced or refinancing operations (forborne exposures). This circular makes adjustments to the treatment of restructured, refinanced or refinancing operations included in annex 9, 'Analysis and coverage of credit risk', of Circular 4/2017 dated November 27, in order to keep it aligned with that of FINREP.

Thirdly, the European Banking Authority (EBA) guidelines on the granting and monitoring of loans (EBA/GL/2020/06) aim to, among other objectives, to improve practices, processes and procedures related to the granting of credit operations. The aforementioned guidelines have been leveraged by the Bank of Spain, the scope of which applying to both less significant credit institutions and for credit financial establishments. The European Central Bank has within it's domain significant credit institutions.

Fourthly, this circular modifies annex 9 of Circular 4/2017, dated November 27, updating the alternative solutions for collective estimations of credit risk loss coverage and discounts on the reference value of the assets awarded or received in the payment of debts. Said modification includes updates to data used in the operations declared by entities under the periphery of the Bank of Spain and, in the case of alternative solutions, it incorporates updated forecasts on future macroeconomic conditions.

Regarding the use of updated alternative solutions, it should be noted that, in accordance with the provisions of points 52 and 53 of annex 9 of Circular 4/2017, dated November 27, the decision over whether to develop internal methodologies for collective estimations of the provisions for credit losses or resort to alternative solutions is one the entity makes itself. Although these alternative solutions will not be established until June 30, 2022, Banco Santander uses internal methodologies to calculate value corrections for impairment (see notes 2.d.iii and 2.i).

Fifthly, Circular 4/2017, dated November 27, was modified to reflect the update in the statistical data requirements of the Economic and Monetary Union (EMU), in accordance with the modifications established by Regulation (EU) 2021 /379 of the European Central Bank, dated January 22, regarding balance sheet items of credit institutions and the monetary financial institutions sector (recast) (ECB/2021/2). The new information that has been requested consists, on the one hand, of additional data requirements to improve the analysis of monetary and credit evolution and, on the other, of modifications of some of the existing data requirements and definitions to facilitate better integration with other statistical data sets.

Finally, specific modifications are made to the reserved individual financial statements pertaining to Circular 4/2017, dated November 27, in order to introduce new data requirements to verify compliance with regulations or collect statistical information, as well as to make the adjustments and corrections identified as necessary since the last update of said circular.

The application of the circular has not had a significant effect on the Bank's annual accounts.

Bank of Spain Circular 5/2020, of November 25, to payment institutions and electronic money institutions, on public and reserved financial reporting rules and model financial statements, and amending Circular 6/2001 of 29 October on holders of currency exchange establishments and Circular 4/2017 of 27 November, to credit institutions, on public and reserved financial reporting rules, and model financial statements. (Official Gazette of 4 December 2020).

This circular establishes the accounting framework for payment and electronic money institutions. It also sets out the accounting documents that such entities and their affiliates have to draw up, including the model public and reserved financial statements. It also determines the rules for recognition, valuation, presentation, and information to be included in the report, as well as a breakdown of model financial statement information to be used in preparing the annual accounts. This circular acts as the accounting regulation for credit institutions, either by setting criteria similar to those communicated directly from credit institutions, or referring to the rules of Bank of Spain Circular 4/2017 of November 27 on credit rules on public and reserved financial information and models of financial statements.

The application of the circular has not had a significant effect on the Bank's annual accounts.

c) Use of critical estimates

The results and the determination of equity are sensitive to the accounting policies, measurement bases and estimates used by the directors of Banco Santander in preparing the financial statements.

The main accounting policies and measurement bases are set forth in note 2.

In the financial statements estimates were occasionally made by the senior management of Banco 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 highest quality information available, relate primarily 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, 8, 10, 12, 13, 15, 16 and 49).
- The assumptions used in the actuarial calculation of the post-employment benefit liabilities and commitments and other obligations (see note 23).
- The useful life of the tangible and intangible assets (see notes 15 and 16).
- Assessment of the impairment of investments in group, joint venture and associated entities (see note 13).
- The measurement of goodwill (see note 16).
- The calculation of provisions and the consideration of contingent liabilities (see note 23).
- The fair value of certain unquoted assets and liabilities (see notes 6, 7, 8, 9, 10, 11, 18, 19 and 20).
- The recoverability of deferred tax assets and the income tax expense (see note 24).
- 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 Bank'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 Bank's operations and financial results, and which generates uncertainty in the Bank's estimates. Therefore, the Bank'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 16, 24 and 49).

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 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 income statement.

d) Comparative information

The information contained in the 2021 annual accounts for the 2020 financial year is presented, solely and exclusively, for comparison with the information relating to 2021.

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 vine 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 forborne 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, the Bank met the minimum capital requirements established by current legislation (see note 49.d).

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

Banco Santander following the Group's policies, 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 and the Bank 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 Banco Santander 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 and the Bank use 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, and therefore the Bank, do not have any environmental liability, expenses, assets, provisions or contingencies that might be material with respect to its equity, financial position or results.

Grupo and Banco Santander consider 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 49.a.

g) Customer Care Service Annual Report

As required by the Article 17 of Ministry of Economy Order ECO/734/2004, of 11 March, on the services and departments of Customer Service and the Customer Ombudsmen of Financial Institutions, the annual report presented by the Head of the department to the board meeting held on March 2022 is summarised in the directors' report.

h) Deposit Guarantee Fund and Resolution Fund

i. Deposit Guarantee Fund

Banco Santander participates in the Deposit Guarantee Fund (DGF). The annual contribution to be made by the entities to this fund, established by Royal Decree - Law 16/2011 of October 14, by which the DGF is created in accordance with the wording given by the Tenth Final Disposition of Law 11/2015 of June 18 on Recovery and Resolution of credit institutions and investment services companies (in force since June 20, 2015), is determined by the Management Committee of the DGF and is established based on the guaranteed deposits of each entity and their risk profile. The annual contribution to be made by the entities to this fund is determined by the Management Committee of the FGD, and consists of the contribution based on the guaranteed deposits of each entity corrected for their risk profile, which includes the phase of the economic cycle and the impact of pro-cyclical contributions, according to section 3 of article 6 of the Royal Decree-Law 16/2011.

The purpose of the FGD is to guarantee deposits with credit institutions up to the limit established in the mentioned Royal Decree-Law. The expense incurred by the contributions accrued to this organism in the year 2021 has amounted to EUR 225 million (EUR 239 million in the year 2020), which are recorded under 'Other operating expenses' in the profit and loss account attached (see note 41).

ii. National Resolution Fund

Law 11/2015 regulates the creation of the National Resolution Fund, whose financial resources should reach, by 31 December 2024, at least 1% of the amount of secured deposits, through contributions from credit institutions and investment firms established in Spain. The details of the calculation of contributions to this Fund is regulated by Commission Delegated Regulation (EU) 2015/63 of 21 October 2014 and is calculated by the Orderly Banking Resolution Fund, on the basis of the information provided by each entity.

iii. Single Resolution Fund

On January 1, 2016, the Single Resolution Fund (SRF), which was implemented by Regulation (EU) No. 806/2014 of the European Parliament and of the Council, became operational. The rules governing the banking union provide that banks will pay contributions to the SRF over eight years.

The Single Resolution Board (SRB) is responsible for calculating the contributions to be made by credit institutions and investment firms to the SRF. These contributions are based, as of fiscal year 2016, on: (a) a flat-rate contribution (or base annual contribution), pro rata with respect to the total liabilities, excluding own funds, guaranteed deposits of all institutions authorized in the territory of the participating member states; and (b) a risk-adjusted contribution, which will be based on the criteria set out in Article 103(7) of Directive 2014/59/EU, taking into account the principle of proportionality, without creating distortions between structures of the banking sector of the member states. The amount of this contribution will accrue from the 2016 financial year, on an annual basis.

The expenditure incurred by the contribution made to the National Fund and the Single Resolution Fund amounted to EUR 307 million in 2021 (EUR 262 million in the year 2020), which are recognised under 'Other operating expenses' in the accompanying income statement (see note 41).

i) Merger by absorption

i. Merger by absorption between Banco Santander, S.A. (as absorbing company) and Popular Spain Holding de Inversiones, S.L.U., Santander Investment I, S.A.U. and Administración de Bancos Latinoamericanos Santander, S.L. (as absorbed companies).

On June 29, 2021, the members of the respective boards of directors of Banco Santander, S.A. (as absorbing company) and Popular Spain Holding de Inversiones, S.L.U., Santander Investment I, S.A.U. and Administration of Latin American Banks Santander, S.L. (as absorbed companies) drafted and signed the common project for the merger by absorption.

Under Articles 49 and 51 of Law 3/2009, of April 3, on Structural Modifications of Commercial Companies ("LME"), it was not necessary for this merger to be approved by the general shareholders' meetings (or, as the case may be, by the sole shareholder) of the absorbed companies, since Banco Santander, S.A. had a direct holding in the case of Popular Spain Holding de Inversiones, S.L.U. and Santander Investment I, S.A.U., and in the case of Administración de Bancos Latinoamericanos Santander, S.L., partly directly and partly indirectly through another absorbed company (Santander Investment I, S.A.U.), partly through another absorbed company (Santander Investment I, S.A.U.), and, in the case of Administración de Bancos Latinoamericanos Santander, S.L., partly directly and partly indirectly through another of the absorbed companies (Santander Investment I, S.A.U.); nor was approval by the shareholders' meeting of Banco Santander, S.A. necessary, since shareholders representing at least 1% of the share capital did not require it, in accordance with Article 51.1 of the LME. Consequently, the board of directors of Banco Santander, S.A. on June 29, 2021 approved both the common merger plan and the merger that is the object of the merger.

Once the mandatory authorization by the Minister of Economic Affairs and Digital Transformation was obtained (twelfth additional provision of Law 10/2014, of June 26, on the regulation, supervision and solvency of credit institutions), on 16 December 2021, the corresponding merger deed was executed and, having been registered in the Commercial Registry of Cantabria, the dissolution without liquidation of Popular Spain Holding de Inversiones, S.L.U. took place with effect from 20 December 2021, Santander Investment I, S.A.U. and Administración de Bancos Latinoamericanos Santander, S.L. and the transfer en bloc, on a universal basis, of all their respective assets and liabilities to Banco Santander, S.A., which acquired them by universal succession and without solution of continuity. It should be noted that the merger, for accounting purposes, was recorded by Banco Santander, S.A. in 2021.

Since the absorbed companies were fully owned by Banco Santander, S.A., in the case of Popular Spain Holding de Inversiones, S.L.U. and Santander Investment I, S.A.U. and directly and indirectly in the case of Administración de Bancos Latinoamericanos Santander, S.L., in accordance with article 49.1, in relation to article 26, of the LME, the Bank did not increase capital. Once the merger became effective on December 20, 2021, all the shares and participations of the absorbed companies were fully amortized, extinguished and cancelled.

The merger balance sheets were considered to be those included in the financial statements for the year ended December 31, 2020, prepared by the administrative bodies of each of the companies participating in the merger. The merger balance sheets of Banco Santander, S.A., Popular Spain Holding de Inversiones, S.L.U., Santander Investment I, S.A.U. and Administración de Bancos Latinoamericanos Santander, S.L. were duly verified by their respective auditors.

In accordance with the provisions of the applicable accounting regulations, for accounting purposes, 1 January 2021 was set as the date from which the transactions of the absorbed companies were to be considered as carried out by Banco Santander, S.A. for the merger.

Likewise, the transaction constitutes a merger of those regulated in article 76.1.c) of Law 27/2014, of November 27, on Corporate Income Tax ("LIS"). Pursuant to Article 89.1 of the LIS, the merger was subject to the tax regime established in Chapter VII of Title VII and in the second additional provision of the LIS, as well as in Article 45, paragraph I.B.10 of the Consolidated Text of the Law on Transfer Tax and Stamp Duty, approved by Royal Legislative Decree 1/1993, of September 24. The information required by Article 86.1 of the Law with respect to the merger is included in these notes to the consolidated financial statements (appendix VIII).

The following are the balance sheets of companies absorbed as of 31 December 2020:

POPULAR SPAIN HOLDING DE INVERSIONES, S.L.U.

Balance as of December 31, 2020

EUR thousands

ASSETS	2020	EQUITY AND LIABILITIES	2020
NON-CURRENT ASSETS	90,882	EQUITY	500,854
Deferred tax asset	90,882	SHAREHOLDERS EQUITY	500,854
		Capital	100
		Share premium	726,127
		Reserves	40
		Loss for the period	(225,413)
CURRENT ASSETS	410,154	CURRENT LIABILITIES	182
Clients, Group companies and Associates	60,095	Commercial creditors and other accounts payable	182
Other credits with public administrations	44		
Cash and other equivalent liquid assets	350,015		
TOTAL ASSETS	**501,036**	**TOTAL EQUITY AND LIABILITIES**	**501,036**

SANTANDER INVESTMENT I, S.A.U.

Balance as of December 31, 2020

EUR thousands

ASSETS	2020	EQUITY AND LIABILITIES	2020
NON-CURRENT ASSETS	1,857,418	EQUITY	217,897
Long term investments in Group companies and Associates	1,857,417	SHAREHOLDERS EQUITY	217,897
Other long term financial assets	1	Capital	601
		Reserves	228,318
		Loss form previous periods	(11,022)
		NON-CURRENT LIABILITIES	1,640,630
		Long term debts to Group companies and Associates	1,629,500
		Deferred tax liabilities	11,130
CURRENT ASSETS	2,682	CURRENT LIABILITIES	1,573
Long-term investments in Group companies and Associates. Loans to companies	4	Short term debts to Group companies and Associates	1,548
Cash and other equivalent liquid assets	2,678	Commercial creditors and other accounts payable	25
TOTAL ASSETS	**1,860,100**	**TOTAL EQUITY AND LIABILITIES**	**1,860,100**

ADMINISTRACIÓN DE BANCOS LATINOAMERICANOS SANTANDER, S.L.

Balance as of December 31, 2020

EUR thousands

ASSETS	2020	EQUITY AND LIABILITIES	2020
NON-CURRENT ASSETS	2,513,961	EQUITY	2,537,251
Long-term equity investments in Group companies and Associates	569,949	SHAREHOLDERS EQUITY	2,537,251
Long-term debt investments in Group companies and Associates	1,944,003	Capital	394,685
Other long-term financial assets	8	Reserves	2,176,029
Long-term debt investments in third parties	1	Negative results from previous exercises	(24,034)
		Loss of the period	(9,429)
		NON-CURRENT LIABILITIES	22,931
		Deferred tax liabilities	22,931
CURRENT ASSETS	46,671	CURRENT LIABILITIES	450
Commercial debts receivable and others accounts bills	2	Short term debts	19
Short-term debt investments in Group companies and Associates	843	Debts with Group companies and Associates in the short term	408
Cash and cash equivalents	45,826	Commercial debts and other accounts payable	23
TOTAL ASSETS	**2,560,632**	**TOTAL EQUITY AND LIABILITIES**	**2,560,632**

In accordance with the provisions of the applicable regulations, because of the accounting record of the merger by absorption carried out by the Bank in 2021, an increase of EUR 1,037 million in the Bank's voluntary reserves in that year was recorded as a result of the decrease on the participation of the absorbed companies (see note 29).

ii. Merger by absorption between Banco Santander, S.A. (absorbing company) and Santander Global Property, S.L.U., Inmobiliaria Viagracia, S.A.U. and BPE Financiaciones, S.A.U. (as absorbed companies)

On 30 June 2020, the directors of Banco Santander, S.A., the joint administrators of Santander Global Property, S.L.U. and the respective solidary administrators of Inmobiliaria Viagracia, S.A.U. and BPE Financiaciones, S.A.U. approved and signed the joint merger project between Banco Santander, S.A. (as an absorbing company) and Santander Global Property, S.L.U., Inmobiliaria Viagracia, S.A.U. and BPE Financiaciones, S.A.U. (as absorbed companies).

Under Articles 49.1 and 51 of Law 3/2009 of 3 April on Structural Modifications of Commercial Companies ('LME'), approval of this merger was not required by the sole partner of the companies acquired, as it was entirely owned by Banco Santander, nor by the shareholders meeting of Banco Santander, to not required by its shareholders in accordance with Article 51 of the LME.

Likewise, the said transaction constitutes a merger of those regulated in Article 76.1.c) of Law 27/2014, of 27 November, on Corporate Tax ('LIS'). The information required in Article 86.1 of the aforementioned Act with regard to merger is incorporated into this report (Annex VIII).

Once obtained the mandatory authorization of the Ministry of Economic Affairs and Digital Transformation (additional provision twelfth Law 10/2014, of 26 June, on the management, supervision and solvency of credit institutions) on December 23, 2020, the corresponding merger deed was granted and, registered in the Commercial Register of Cantabria, with effect from December 23, 2020, the extinction without liquidation of Santander Global Property, S.L.U., Inmobiliaria Viagracia, S.A.U. and BPE Financiaciones, S.A.U., respectively, and the bulk transfer of all of their respective assets to Banco Santander, S.A., which acquired them by succession universal and without continuity solution. It should be noted that the merger, for accounting purposes, was registered by Banco Santander, S.A. in the financial year 2020.

Since the companies acquired were wholly owned by Banco Santander, in accordance with Article 49.1 in conjunction with Article 26 of the LME, Banco Santander did not increase capital. The merger with effect from 23 December 2020 became effective, all the shares of the companies absorbed were fully amortized, extinguished and cancelled.

For the purposes of Spanish legislation, those included in the annual accounts for the financial year ended 31 December 2019, formulated by the board of directors of each of the companies participating in the merger, were considered as merger balance sheets. The merger balance sheets of Banco Santander, S.A. and BPE Financiaciones, S.A.U. have been duly verified by their respective auditors. The merger balance sheets of the remaining companies absorbed have not been subject to auditor verification, as they were not required to audit their accounts.

In accordance with the provisions of the applicable accounting rules, for accounting purposes, the merger was fixed on 1 January 2020 as the date from which the transactions of the companies absorbed were to be considered to be carried out by Banco Santander, S.A.

Furthermore, in accordance with Article 89.1 of the LIS, the merger was subject to the tax regime laid down in Title VII, Chapter VII and the second additional provision of the LIS, as well as Article 45, paragraph I.B.10 of the Consolidated Text of the Law on Tax on Property Transfers and Documented Legal Acts, approved by Royal Legislative Decree 1/1993 of 24 September.

The following are the balance sheets of companies absorbed as of 31 December 2019:

SANTANDER GLOBAL PROPERTY, S.L.U.

Balance at December 31, 2019

EUR thousands

ASSETS	2019	EQUITY AND LIABILITIES	2019
NON-CURRENT ASSETS	94	EQUITY	252,984
Deferred tax asset	94	SHAREHOLDERS EQUITY	252,984
		Capital	211,087
		Share premium	36,414
		Reserves	10,560
		Loss for previous periods	(5,071)
		Loss for the period	(6)
CURRENT ASSETS	252,893	CURRENT LIABILITIES	3
Other credits with Public Administrations	29	Short term debt	3
Investments in Group companies and Associates	2		
Cash and cash equivalent	252,862		
TOTAL ASSETS	**252,987**	**TOTAL EQUITY AND LIABILITIES**	**252,987**

INMOBILIARIA VIAGRACIA, S.A.U.

Balance at December 31, 2019

EUR thousands

ASSETS	2019	EQUITY AND LIABILITIES	2019
NON-CURRENT ASSETS	37,295	EQUITY	92,554
Real Estate Investments	7,666	SHAREHOLDERS EQUITY	90,876
Long term investments in Group companies and Associates	26,634	Capital	4,688
Long term financial investments	2,990	Share premium	10,370
Deferred tax asset	5	Reserves	86,604
		Loss for previous periods	(12,237)
		Loss for the period	1,451
		ADJUSTMENTS FOR CHANGES IN VALUE	1,678
		Financial instruments HTC&S	1,678
		NON-CURRENT LIABILITIES	802
		Long term debts to Group companies and Associates	83
		Deferred tax liabilities	719
CURRENT ASSETS	56,513	CURRENT LIABILITIES	452
Cash and cash equivalent	56,513	Short term debts with Group companies and Associates	428
		Commercial debts and other accounts payable	24
TOTAL ASSETS	**93,808**	**TOTAL EQUITY AND LIABILITIES**	**93,808**

BPE FINANCIACIONES, S.A.U.

Balance at December 31, 2019

EUR thousands

ASSETS	2019	EQUITY AND LIABILITIES	2019
NON-CURRENT ASSETS	—	EQUITY	880
		SHAREHOLDERS EQUITY	880
		Capital	100
		Reserves	840
		Loss for the period	(60)
CURRENT ASSETS	662,680	CURRENT LIABILITIES	661,800
Short term investments in Group companies and Associates	661,797	Short term debit	500,916
Cash and cash equivalent	883	Short term debts to Group companies and Associates	160,772
		Commercial debts and other accounts payable	11
		Accruals expenses	101
TOTAL ASSETS	**662,680**	**TOTAL EQUITY AND LIABILITIES**	**662,680**

Pursuant to the provisions of the applicable legislation, as a result of the accounting record of the above-mentioned merger by absorption by Banco Santander in the financial year 2020, Banco Santander's voluntary reserves have been reduced by EUR 1 million due to the decrease in the financial year participation of the absorbed companies (see note 29).

j) Events after the reporting period

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

2. Accounting policies

The following accounting principles, policies and measurement criteria have been applied in the preparation of the financial statements:

a) Foreign currency transactions

The functional currency of Banco Santander is the euro. Therefore, all balances and transactions denominated in currencies other than the euro are deemed to be denominated in foreign currency.

The balances in the financial statements 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.

In general, balances denominated in foreign currencies, including those branches in countries outside the Monetary Union, have been converted to euros using the official average exchange rates of the Spanish spot currency market ((through the US dollar's quotation on local markets, for non-monetary currencies. listed on the Spanish market) at the end of each fiscal year.

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 income statement, except for exchange differences arising on financial instruments at fair value through profit or loss, which are recognised in the 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 25).

b) Investments in group entities, joint ventures and associates

Group entities are those over which the Bank has the capacity to exercise control; capacity which is generally but not exclusively manifested by the direct or indirect ownership of at least 50% of the voting rights of the investees or, even if this percentage is lower or zero, if, as in the case of agreements with their shareholders, the Bank is granted such control.

Control is understood to be the power to direct the financial and operating policies, by law, by statute or by agreement, of an entity in order to obtain benefits from its activities.

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.

Associated entities are those 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.

The shareholdings in group, multi-group and associated entities are presented on the balance sheet at their acquisition cost, net of any deterioration that, where relevant, those shares may have suffered.

Where there is evidence of impairment of these shares, the amount of such impairment is equivalent to the difference between their recoverable amount and their book value. Impairment losses are recorded under the heading ‘Impairment or reversal of impairment of investments in joint ventures or associates’ in the profit and loss account.

Appendices I and II contain significant information on these companies. In addition, note 13 provides information on the most significant acquisitions and disposals in 2021 and 2020.

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.

Santander

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 Bank 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, Banco Santander 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 Banco Santander 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 23).
- Contracts and obligations relating to employee remuneration based on own equity instruments (see note 30).

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.

Banco Santander´s business models refer to the way in which it manages its financial assets to generate cash flows. In defining these models, the Bank 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. Banco Santander 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 Banco Santander 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 Bank 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. Bank of Spain Circular 4/2017 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.

Banco 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 Bank of Spain Circular 4/2017 and subsequent amendments with changes in profit or loss, unless the Bank, 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 Bank, other than those represented by securities, as well as finance lease receivables and other debit balances of a financial nature in favour of the Bank, 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 Bank 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 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 Bank 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 Bank'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 the Bank, 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.

Banco 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 Bank'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 Bank 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 Bank 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 Bank 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 Banco Santander, 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 Bank of Spain Circular 2/2018 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 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 Bank 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, Bank of Spain Circular 4/2017 states that regular way purchases or sales of financial assets shall be recognised and derecognised on the trade date or on the settlement date. Banco 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 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 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 Bank 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 Bank maximum exposure to credit risk at each reporting date. Also, Banco 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 shows a summary of the fair values, at the end of 2021 and 2020 of financial assets and liabilities classified on the basis of the various measurement methods used by the Bank to determine their fair value:

EUR million

	2021			2020		
	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	28,995	57,090	86,085	27,514	53,923	81,437
Non-trading financial assets mandatorily at fair value through profit or loss	454	1,901	2,355	48	2,177	2,225
Financial assets designated at fair value through profit or loss	—	13,403	13,403	—	33,899	33,899
Financial assets at fair value through other comprehensive income	9,857	5,178	15,035	14,315	8,308	22,623
Hedging derivatives (assets)	—	1,648	1,648	—	3,137	3,137
Financial liabilities held for trading	9,404	47,565	56,969	10,562	50,452	61,014
Financial liabilities designated at fair value through profit or loss	—	12,743	12,743	—	16,890	16,890
Hedging derivatives (liabilities)	—	2,076	2,076	—	1,780	1,780

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 which applies to the Bank, 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 Bank'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 2021 amounted to EUR 178 million (resulting in a reduction of 29.36% compared to 31 December 2020) and DVA amounted to EUR 63 million (resulting in a reduction of 8.69% compared to 31 December 2020). The variations are due to the fact that credit spreads for the most liquid maturities have been decreased in percentages over 40%.

At the end of December 2020, CVA adjustment of EUR 252 million (an increase of 25.50% compared to 31 December 2019) and DVA adjustment of EUR 69 million (an increase of 25,45% compared to 31 December 2019) were recorded. Variations are due to the reduction of credit spreads by percentages exceeding 25% in more liquid terms.

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 and 2020.

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 2021, the amount reclassified to Level 3 by Banco Santander is EUR 626 million (EUR 523 million in 2020). They are mainly due to reclassifications to level 3 of loan positions for which there has been less access to price contributors and actual market transactions with which to demonstrate their observability, and to a lesser extent to certain debt instruments which, based on the Bank's criteria, do not qualify as observable instruments.

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 and the Bank calculate and apply valuation adjustments in accordance with common industry practice. The main sources of model risk are described below:

- 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.
- 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.

Set forth below are Grupo Santander´s financial instruments at fair value whose measurement was based on internal models (levels 2 and 3) at 31 December 2021 and 2020:

EUR million

	Fair values calculated using internal models at 2021*			
	Level 2	Level 3	Valuation techniques	Main assumptions
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		
Swaps	*43,700*	*224*	Present value method, Gaussian Copula	Yield curves, FX market prices, HPI, Basis, Liquidity
Exchange rate options	*539*	*12*	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*2,112*	*182*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate futures	*409*	—	Present value method	Yield curves, FX market prices
Index and securities options	*439*	*41*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Liquidity
Other	*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**	**—**		
Swaps	*4,204*	—	Present value method	Yield curves, FX market prices, Basis
Interest rate options	*9*	—	Black's Model	Yield curves, FX market prices, Volatility surfaces
Other	*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

Santander

EUR million

	Fair values calculated using internal models at 2021*			
	Level 2	Level 3	Valuation techniques	Main assumptions
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		
Swaps	*42,438*	*44*	Present value method, Gaussian Copula	Yield curves, FX market prices, Basis, Liquidity, HPI
Exchange rate options	*658*	*7*	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Index and securities options	*446*	*67*	Black-Scholes Model	Yield curves, FX market prices
Interest rate options	*2,720*	*26*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
Futures on interest rate and variable income	*184*	—	Present value method	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI
Other	*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**	**—**		
Swaps	*4,149*	—	Present value method	Yield curves ,FX & EQ market prices, Basis
Other	*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*		
	Level 2	Level 3	Valuation techniques
ASSETS	**146,468**	**8,543**	
Financial assets held for trading	**67,826**	**740**	
Credit institutions	3	—	Present Value method
Customers**	296	—	Present Value method
Debt and equity instruments	1,453	10	Present Value method
Derivatives	66,074	730	
Swaps	*54,488*	*272*	Present Value method, Gaussian Copula
Exchange rate options	*696*	*22*	Black-Scholes Model
Interest rate options	*3,129*	*241*	Black's Model, advanced multifactor interest rate models
Interest rate futures	*1,069*	—	Present Value method
Index and securities options	*554*	*94*	Black's Model, advanced multifactor interest rate models
Other	*6,138*	*101*	Present Value method, Advanced stochastic volatility models and other
Hedging derivatives	**8,325**	**—**	
Swaps	*6,998*	—	Present Value method
Interest rate options	*25*	—	Black's Model
Other	*1,302*	—	Present Value method, Advanced stochastic volatility models and other
Non-trading financial assets mandatorily at fair value through profit or loss	**1,796**	**934**	
Equity instruments	*984*	*505*	Present Value method
Debt securities issued	*555*	*134*	Present Value method
Loans and receivables	*257*	*295*	Present Value method, swap asset model & CDS
Financial assets designated at fair value through profit or loss	**45,559**	**649**	
Central banks	9,481	—	Present Value method
Credit institutions	11,973	163	Present Value method
Customers	24,102	19	Present Value method
Debt instruments	3	467	Present Value method
Financial assets at fair value through other comprehensive income	**22,962**	**6,220**	
Equity instruments	75	1,223	Present Value method
Debt instruments	18,410	206	Present Value method
Loans and receivables	4,477	4,791	Present Value method

EUR million

	Fair values calculated using internal models at 2020*		
	Level 2	Level 3	Valuation techniques
LIABILITIES	**124,098**	**905**	
Financial liabilities held for trading	**71,009**	**295**	
Derivatives	63,920	295	
Swaps	*51,584*	*81*	Present Value method, Gaussian Copula
Interest rate options	*4,226*	*49*	Black's Model, advanced multifactor interest rate models
Exchange rate options	*724*	*1*	Black-Scholes Model
Index and securities options	*456*	*97*	Black-Scholes Model
Interest rate and equity futures	*1,054*	*2*	Present Value method
Other	*5,876*	*65*	Present Value method, Advanced stochastic volatility models and other
Short positions	7,089	—	Present Value method
Hedging derivatives	**6,869**	**—**	
Swaps	*5,821*	—	Present Value method
Interest rate options	*13*	—	Black's Model
Other	*1,035*	—	Present Value method, Advanced stochastic volatility models and other
Financial liabilities designated at fair value through profit or loss	**45,310**	**610**	Present Value method
Liabilities under insurance contracts	**910**	**—**	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).

The same information from the previous table, but referred to Banco Santander, S.A., is presented below:

EUR million

	Fair values calculated using internal models at 2021*			
	Level 2	Level 3	Valuation techniques	Main assumptions
ASSETS	**74,210**	**5,010**		
Financial assets held for trading	**56,612**	**478**		
Central banks **	1,118	—	Present value method	Yield curves, FX market prices
Credit institutions**	6,980	—	Present value method	Yield curves, FX market prices
Customers**	7,025	—	Present value method	Yield curves, FX market prices
Debt and equity instruments	120	—	Present value method	Yield curves, FX market prices
Derivatives	41,369	478		
Swaps	*33,316*	*281*	Present value method, Gaussian Copula	Yield curves, FX market prices, HPI, Basis, Liquidity
Exchange rate options	*5,554*	*9*	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*2,186*	*183*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate futures	*10*	—	Present value method	Yield curves, FX market prices
Index and securities options	*210*	*5*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Liquidity
Other	*93*	—	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	**1,648**	**—**		
Swaps	*1,447*	—	Present value method	Yield curves, FX market prices, Basis
Exchange rate options	*195*	—	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*6*	—	Black's Model	Yield curves, FX market prices, Volatility surfaces
Non-trading financial assets mandatorily at fair value through profit or loss	**1,360**	**541**		
Equity instruments	87	369	Present value method	Market price, Interest rates curves, Dividends and Others
Debt instruments	585	148	Present value method	Yield curves
Loans and receivables	688	24	Present value method, swap asset model & CDS	Yield curves and Credit curves
Financial assets designated at fair value through profit or loss	**13,403**	**—**		
Credit institutions	3,445	—	Present value method	Yield curves, FX market prices
Customers***	9,958	—	Present value method	Yield curves, FX market prices, HPI
Financial assets at fair value through other comprehensive income	**1,187**	**3,991**		
Equity instruments	—	753	Present value method	Market price, Yield curves, Dividends and Others
Debt instruments	489	—	Present value method	Yield curves, FX market prices
Loans and receivables	698	3,238	Present value method	Yield curves, FX market prices and Credit curves

EUR million

	Fair values calculated using internal models at 2021*			
	Level 2	Level 3	Valuation techniques	Main assumptions
LIABILITIES	**62,058**	**326**		
Financial liabilities held for trading	**47,382**	**183**		
Central banks**	44	—	Present value method	Market price, Yield curves, Dividends and Others
Credit institutions**	5,718	—	Present value method	Yield curves, FX market prices
Customers	1,291	—	Present value method	Yield curves, FX market prices and Credit curves
Derivatives	40,329	183		
Swaps	*31,529*	*114*	Present value method, Gaussian Copula	Yield curves, FX market prices, Basis, Liquidity, HPI
Exchange rate options	*5,368*	*7*	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Index and securities options	*2,686*	*33*	Black-Scholes Model	Yield curves, FX market prices
Interest rate options	*10*	*18*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
Futures on interest rate and variable income	*494*	—	Present value method	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI
Other	*242*	*11*	Present value method, Advanced stochastic volatility models	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI, Credit, Others
Hedging derivatives	**2,076**	**—**		
Swaps	*1,244*	—	Present value method	Yield curves ,FX & EQ market prices, Basis
Exchange rate options	*608*	—	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*1*	—	Black's Model	Yield curves , Volatility surfaces, FX market prices, Liquidity
Other	*223*	—	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	**12,600**	**143**		
Central banks	607	—	Present value method	Yield curves, FX market prices
Credit institutions	1,067	—	Present value method	Yield curves, FX market prices
Customers	*10,926*	*143*	Present value method	Yield curves, FX market prices
Liabilities under insurance contracts	**—**	**—**	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*			
	Level 2	Level 3	Valuation techniques	Main assumptions
ASSETS	**94,940**	**6,504**		
Financial assets held for trading	**53,331**	**592**		
Credit institutions	—	—	Present value method	Yield curves, FX market prices
Customers **	74	—	Present value method	Yield curves, FX market prices
Debt and equity instruments	781	—	Present value method	Yield curves, FX market prices
Derivatives	52,476	592		
Swaps	*44,123*	*326*	Present value method, Gaussian Copula	Yield curves, FX market prices, HPI, Basis, Liquidity
Exchange rate options	*5,692*	*19*	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*1,708*	*241*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate futures	*56*	—	Present value method	Yield curves, FX market prices
Index and securities options	*820*	*6*	Black's Model, multifactorial advanced models interest rate and others	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Liquidity
Other	*77*	—	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	**3,137**	**—**		
Swaps	*2,429*	—	Present value method	Yield curves, FX market prices, Basis
Exchange rate options	*688*	—	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*20*	—	Black´s Model	Yield curves, FX market prices, Volatility surfaces
Other	—	—	Present value method, Advanced stochastic volatility models and other	Yield curves, Volatility surfaces, FX marketprices, Credit, Liquidity, Others
Non-trading financial assets mandatorily at fair value through profit or loss	**1,835**	**342**		
Equity instruments	82	185	Present value method	Market price, Interest rates curves, Dividends and Others
Debt instruments	530	131	Present value method	Yield curves
Loans and receivables	1,223	26	Present value method, swap asset model & CDS	Yield curves and Credit curves
Financial assets designated at fair value through profit or loss	**33,736**	**163**		
Central banks	482	—	Present value method	Yield curves, FX market prices
Credit institutions	9,725	163	Present value method	Yield curves, FX market prices
Customers	23,529	—	Present value method	Yield curves, FX market prices, HPI
Debt instruments	—	—	Present value method	Yield curves, FX market prices
Financial assets at fair value through other comprehensive income	**2,901**	**5,407**		
Equity instruments	—	1,002	Present value method	Market price, Yield curves, Dividends and Others
Debt instruments	1,771	—	Present value method	Yield curves, FX market prices
Loans and receivables	1,130	4,405	Present value method	Yield curves, FX market prices and Credit curves

EUR million

	Fair values calculated using internal models at 2020*			
	Level 2	Level 3	Valuation techniques	Main assumptions
LIABILITIES	**68,640**	**482**		
Financial liabilities held for trading	**50,258**	**194**		
Derivatives	50,258	194		
Swaps	*40,047*	*127*	Present value method, Gaussian Copula	Yield curves, FX market prices, Basis, Liquidity, HPI
Exchange rate options	*5,224*	*1*	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*3,825*	*50*	Black's Model, multifactorial advanced models interest rate	Yield curves, Volatility surfaces, FX market prices, Liquidity
Index and securities options	*45*	*14*	Black-Scholes Model	Yield curves, FX market prices, Volatility surfaces, Liquidity
Interest rate and equity futures	*424*	—	Present value method	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI
Other	*693*	*2*	Present value method, Advanced stochastic volatility models	Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI, Credit, Others
Short positions	—	—	Present value method	Yield curves ,FX & EQ market prices, Equity
Hedging derivatives	**1,780**	**—**		
Swaps	*1,051*	—	Present value method	Yield curves ,FX & EQ market prices, Basis
Exchange rate options	*386*	—	Black-Scholes Model	Yield curves, Volatility surfaces, FX market prices, Liquidity
Interest rate options	*81*	—	Black's Model	Yield curves , Volatility surfaces, FX market prices, Liquidity
Other	*262*	—	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	**16,602**	**288**		
Central banks	*1,470*	—	Present value method	Yield curves, FX market prices
Credit institutions	*4,496*	—	Present value method	Yield curves, FX market prices
Customers	*10,636*	*288*	Present value method	Yield curves, FX market prices
Liabilities under insurance contracts	**—**	—	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).

Financial Instruments (level 3)

Set forth below are the Group and the Bank´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 balance sheet and the gains and losses arising from these financial instruments are reasonable.

The net amount recorded in the 2021 financial year results of the Bank derived from valuation models whose significant inputs are non-observable market data (level 3) amounts to EUR 19 million profit for the Bank (EUR 186 million profit in 2020).

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 (Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Impacts (EUR million)	
					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%	(1.90)	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 (Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Impacts (EUR million) Unfavourable scenario	Impacts (EUR million) 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	1.00%	(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%	(123.10)	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%	(0.50)	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)	—

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2020

Portfolio/ Instrument (Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Impacts (EUR million)	
					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%	10.00%	(50.47)	50.47

2020

Portfolio/ Instrument (Level 3)	Valuation technique	Main unobservable inputs	Range	Weighted average	Impacts (EUR million)	
					Unfavourable scenario	Favourable scenario
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, at Grupo Santander, in 2021 and 2020:

	01/01/2021	Changes						31/12/2021
EUR million	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**

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EUR million	01/01/2020 Fair value calculated using internal models (level 3)	Changes Purchases /Issuances	Sales/ Settlements	Changes in fair value recognized in profit or loss	Changes in fair value recognized in equity	Level reclassifications	Other	31/12/2020 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**

The same information on the movement of financial instruments classified in Level 3, but referred to Banco Santander, S.A., in 2021 and 2020, is presented below:

EUR million	01/01/2021 Fair value calculated using internal models (Level 3)	Changes Purchases/ Issuances	Sales/ Settlements	Changes in fair value recognised in profit or loss	Changes in fair value recognised in equity	Level reclassifications	Other	31/12/2021 Fair value calculated using internal models (level 3)
Financial assets held for trading	**592**	**27**	**(86)**	**(65)**	**—**	**30**	**(20)**	**478**
Debt instruments and equity instrument	—	2	—	—	—	—	(2)	—
Trading derivatives	592	25	(86)	(65)	—	30	(18)	478
Swaps	*326*	*6*	*(21)*	*(45)*	—	*33*	*(18)*	*281*
Exchange rate options	*19*	*13*	*(27)*	*4*	—	—	—	*9*
Interest rate options	*241*	*6*	*(38)*	*(26)*	—	—	—	*183*
Index and securities options	*6*	—	—	*2*	—	*(3)*	—	*5*
Other	—	—	—	—	—	—	—	—
Hedging derivatives (Assets)	—	—	—	—	—	—	—	—
Swaps	—	—	—	—	—	—	—	—
Financial assets at fair value through profit or loss	**163**	**—**	**—**	**—**	**—**	**(163)**	**—**	**—**
Credit entities	163	—	—	—	—	(163)	—	—
Loans and advances to customers	—	—	—	—	—	—	—	—
Debt instruments	—	—	—	—	—	—	—	—
Non-trading financial assets mandatorily at fair value through profit or loss	**342**	**208**	**(17)**	**2**	**—**	**5**	**1**	**541**
Customers	26	4	(4)	(2)	—	—	—	24
Debt instruments	131	18	(6)	—	—	5	—	148
Equity instruments	185	186	(7)	4	—	—	1	369
Financial assets at fair value through other comprehensive income	**5,407**	**5,046**	**(5,959)**	**—**	**(263)**	**(240)**	**—**	**3,991**
Loans and advances	4,405	4,972	(5,951)	—	(14)	(174)	—	3,238
Debt instruments	—	74	(8)	—	—	(66)	—	—
Equity instruments	1,002	—	—	—	(249)	—	—	753
TOTAL ASSETS	**6,504**	**5,281**	**(6,062)**	**(63)**	**(263)**	**(368)**	**(19)**	**5,010**
Financial liabilities held for trading	**195**	**55**	**(39)**	**(35)**	**—**	**29**	**(22)**	**183**
Trading derivatives	195	55	(39)	(35)	—	29	(22)	183
Swaps	*128*	*6*	*(8)*	*(45)*	—	*33*	—	*114*
Exchange rate options	*1*	*2*	—	*4*	—	—	—	*7*
Interest rate options	*50*	*26*	*(19)*	*(2)*	—	—	*(22)*	*33*
Index and securities options	*14*	—	*(9)*	*17*	—	*(4)*	—	*18*
Securities and interest rate futures	—	—	—	—	—	—	—	—
Others	*2*	*21*	*(3)*	*(9)*	—	—	—	*11*
Hedging derivatives (Liabilities)	—	—	—	—	—	—	—	—
Swaps	—	—	—	—	—	—	—	—
Financial liabilities designated at fair value through profit or loss	**289**	**143**	**—**	**—**	**—**	**(289)**	**—**	**143**
TOTAL LIABILITIES	**484**	**198**	**(39)**	**(35)**	**—**	**(260)**	**(22)**	**326**

EUR million	01/01/2020 Fair value calculated using internal models (level 3)	Changes Purchases /Issuances	Sales/ Settlements	Changes in fair value recognized in profit or loss	Changes in fair value recognized in equity	Level reclassifications	Other	31/12/2020 Fair value calculated using internal models (level 3)
Financial assets held for trading	**449**	**21**	**(33)**	**200**	**—**	**11**	**(56)**	**592**
Debt instruments and equity instrument	36	7	(11)	—	—	—	(32)	—
Trading derivatives	413	14	(22)	200	—	11	(24)	592
Swaps	*209*	—	*(10)*	*123*	—	*8*	*(4)*	*326*
Exchange rate options	*5*	—	—	*15*	—	—	*(1)*	*19*
Interest rate options	*197*	*14*	*(12)*	*61*	—	—	*(19)*	*241*
Index and securities options	*2*	—	—	*1*	—	*3*	—	*6*
Other	—	—	—	—	—	—	—	—
Hedging derivatives (Assets)	**4**	**—**	**—**	**—**	**—**	**—**	**(4)**	**—**
Swaps	*4*	—	—	—	—	—	*(4)*	—
Financial assets at fair value through profit or loss	**50**	**164**	**—**	**(1)**	**—**	**(50)**	**—**	**163**
Credit entities	50	164	—	(1)	—	(50)	—	163
Loans and advances to customers	—	—	—	—	—	—	—	—
Debt instruments	—	—	—	—	—	—	—	—
Non-trading financial assets mandatorily at fair value through profit or loss	**620**	**18**	**(13)**	**1**	**—**	**—**	**(284)**	**342**
Loans and advances to customers	26	2	(2)	—	—	—	—	26
Debt instruments	457	—	(9)	(2)	—	—	(315)	131
Equity instruments	137	16	(2)	3	—	—	31	185
Financial assets at fair value through other comprehensive income	**2,924**	**8,356**	**(7,280)**	**—**	**(378)**	**558**	**1,227**	**5,407**
TOTAL ASSETS	**4,047**	**8,559**	**(7,326)**	**200**	**(378)**	**519.00**	**883**	**6,504**
Financial liabilities held for trading	**355**	**19**	**(12)**	**13**	**—**	**4**	**(185)**	**194**
Trading derivatives	355	19	(12)	13	—	4	(185)	194
Swaps	*127*	*8*	*(2)*	*(3)*	—	*2*	*(5)*	*127*
Exchange rate options	*1*	—	—	*2*	—	—	*(2)*	*1*
Interest rate options	*218*	*11*	*(6)*	*6*	—	—	*(179)*	*50*
Index and securities options	*3*	—	*(1)*	*9*	—	*2*	*1*	*14*
Securities and interest rate futures	—	—	—	—	—	—	—	—
Others	*6*	—	*(3)*	*(1)*	—	—	—	*2*
Hedging derivatives (Liabilities)	**4**	**—**	**—**	**—**	**—**	**—**	**(4)**	**—**
Swaps	*4*	—	—	—	—	—	*(4)*	—
Financial liabilities designated at fair value through profit or loss	**287**	**2**	**(1)**	**1**	**—**	**—**	**(1)**	**288**
TOTAL LIABILITIES	**646**	**21**	**(13)**	**14**	**—**	**4**	**(190)**	**482**

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 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 Bank´s equity until the asset giving rise to them is impaired or derecognised, at which time they are recognised in the 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

Banco Santander uses 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 Bank 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 Bank'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 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 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 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 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 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 Bank 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 Bank 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 Bank 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, the Bank 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 Bank of Spain Circular 4/2017 and subsequent modifications. 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 balance sheet at their net amount, only if Banco Santander currently has a legally enforceable right to off set the recognised amounts and intends to either settle on a net basis, or to realise the asset and settle the liability simultaneously.

On the table below is the detail of financial assets and liabilities that were offset on the balance sheet as of 31 December 2021 and 2020:

EUR million

	2021		
Assets	Gross amount of financial assets	Gross amount of financial assets offset on the balance sheet	Net amount of financial assets presented on the balance sheet
Derivatives	83,426	(39,755)	43,671
Repos	39,517	(11,298)	28,219
Total	**122,943**	**(51,053)**	**71,890**

EUR million

	2020		
Assets	Gross amount of financial assets	Gross amount of financial assets offset on the balance sheet	Net amount of financial assets presented on the balance sheet
Derivatives	114,555	(58,056)	56,499
Repos	39,935	(8,856)	31,079
Total	**154,490**	**(66,912)**	**87,578**

EUR million

	2021		
Liabilities	Gross amount of financial liabilities	Gross amount of financial liabilities offset on the balance sheet	Net amount of financial liabilities presented on the balance sheet
Derivatives	82,503	(39,755)	42,748
Repos	26,036	(11,298)	14,738
Total	**108,539**	**(51,053)**	**57,486**

EUR million

	2020		
Liabilities	Gross amount of financial liabilities	Gross amount of financial liabilities offset on the balance sheet	Net amount of financial liabilities presented on the balance sheet
Derivatives	110,512	(58,056)	52,456
Repos	19,447	(8,856)	10,591
Total	**129,959**	**(66,912)**	**63,047**

Furthermore, most of the derivatives and temporary acquisition of uncompensated assets on the balance sheet are subject to netting and collateral agreements.

At December 31, 2021 the balance sheet amounts EUR 69,151 million on derivatives and temporary acquisition of assets and EUR 54,875 million on derivatives and repos as liabilities that are subject to netting and collateral arrangements (EUR 85,714 million and EUR 61,252 million in 2020, respectively).

g) Impairment of financial assets

i. Definition

Banco 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 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 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 Bank 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 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 Bank 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 Bank 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 and the Bank consider the following criteria:

Quantitative criteria	Changes in the risk of a default occurring through the expected life of the financial instrument are analysed and quantified with respect to its credit level in its initial recognition. With the purpose of determining if such changes are considered as significant, with the consequent classification into stage 2, each Group, and therefore the Bank, unit has defined the quantitative thresholds to consider in each of its portfolios taking into account corporate guidelines ensuring a consistent interpretation in all units. Within the quantitative thresholds, two types are considered: A relative threshold is those that compare current credit quality with credit quality at the time of origination in percentage terms of change. In addition, an absolute threshold compares both references in total terms, calculating the difference between the two. These absolute/relative concepts are used homogeneously (with different values) in all geographies. The use of one type of threshold or another (or both) is determined in accordance with the process described in note 49, 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 Bank in the normal management of credit risk. Irregular positions of more than 30 days and renewals are common criteria applied by the Bank and common to all the Group's units. Also,, 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.

Banco Santander considers that a financial instrument to be doubtful for reasons other than delinquency when one or more combined events have occurred with a negative impact on the estimated future cash flows of the financial instrument. To this end, the following indicators, among others, are considered:

a) Negative net equity or decrease because of losses of the client's net equity by at least 50% during the last financial year.

b) Continued losses or significant decrease in revenue or, in general, in the client's recurring cash flows.

c) Generalised delay in payments or insufficient cash flows to service debts.

d) Significantly inadequate economic or financial structure or inability to obtain additional financing by the client.

e) Existence of an internal or external credit rating showing that the client is in default.

f) Existence of overdue customer commitments with a significant amount to public institutions or employees.

These financial instruments may be reclassified to other categories if, as a result of an individualised study, reasonable doubts do not remain about the total repayment under the contractually agreed terms and the client does not have balances 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 case, except in the case of operations with real guarantees that cover more than 10% of the amount of the operation, in general the Bank considers as remote recovery: the operations of holders that are in the liquidation phase of the insolvency creditors, doubtful operations due to delinquency that have been in this category for more than 4 years and doubtful operations due to delinquency whose part not covered by real guarantees has been maintained with 100% credit risk coverage. for more than two years.

  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

Banco 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 Bank of Spain Circular 4/2017 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 Bank 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 Bank 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 Bank 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.

  Banco 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.

Banco 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.

Banco 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. 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 Bank based their 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 Bank of Spain Circular 4/2017.

- 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 Bank'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 Bank 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 Bank of Spain Circular 4/2017,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 Bank 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.).

Bank of Spain Circular 4/2017 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 Bank 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 Grupo Santander 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 Bank assesses the existence of significant risk increase in all its financial instruments.

This information is provided in more detail in note 49 b.

iv. Detail of individual estimate of impairment

For the individual estimate of the assessment for impairment of the financial asset, the Bank 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

Banco Santander the effectiveness of all the guarantees associated considering the following:

- The time required to execute these guarantees.
- Banco 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 Bank 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 state , 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

Banco 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.

Banco 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 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, estimating:

- Period of adjudication.
- Estimated time of sale of the asset.

In addition, the Bank takes into account all those cash inflows and outflows linked to that guarantee until it is sold:

- Possible future income commitments in favour of the borrower which will available after the asset is awarded.
- Estimated foreclosure costs.
- Asset maintenance costs, taxes and community costs.
- Estimated marketing or sales costs.

Finally, since it is considered that the guarantee will be sold in the future, the Bank applies an additional adjustment ('index forward') in order to adjust the value of the guarantees to future valuation expectations.

v. Impairment individual assessment scope

Banco Santander determines the perimeter over which it makes an estimate of the assessment for impairment on an individual basis based on a relevance threshold and the stage in which the operations are located. In general, the Bank 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 Bank'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 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 Banco Santander as total or partial settlement of their debtors' payment obligations to them are deemed to be 'Non-current assets held for sale', unless the Bank has 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 Bank obtains, at the foreclosure date, the fair value of the related asset through a request for appraisal by external appraisal agencies.

Banco 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 Bank 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 whichthe Bank 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.

'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 229 million (EUR 198 million in 2020); however, in accordance with the applicable legislation, 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 Bank of Spain Circular 4/2017 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.

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Thus, the portfolio is segmented into (i) finished assets of a residential and tertiary nature, (ii) developments in progress and (iii) land[1].

In determining the critical segments in the overall portfolio, assets are classified on the basis of the nature of the asset and its stage of development. This segmentation is made in order to seek the liquidation of the asset (which should be carried out in the shortest possible time).

When making decisions, the situation and/or characteristics of the asset are fundamentally taken into account, as well as the evaluation of all the determining factors that favour the recovery of the debt. For them, the following aspects are analyzed, among others:

- The time that has elapsed since the adjudication.
- The transferability and contingencies of the foreclosed asset.
- The economic viability from the real estate point of view with the necessary investment estimate.
- The expenses that may arise from the marketing process.
- The offers received, as well as the difficulties in finding buyers.

In the case of real estate assets foreclosed in Spain, which represent 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 type[2], surface area range and age. The model enables a distinction to be made within the municipality under study as to which areas are similar and comparable and therefore have a similar value in the property market, discriminating between which properties are good comparators and which are not.

  Adjustments to homogenize the properties are made according to: (i) the age of the property according to the age of the property to be valued, (ii) the deviation of the built area from the common area with respect to the property to be valued and (iii) by age of the date of capture of the property according to the price evolution index of the real estate market.

  In addition, for individually significant assets, complete individual valuations are carried out, including a visit to the asset, market analysis (data relating to supply, demand, current sale or rental price ranges and supply-demand and revaluation expectations) and an estimate of expected income and costs.

  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.

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

[2] Assets qualified as protected housing are taken into account. The maximum legal value of these assets is determined by the VPO module, obtained from the result of multiplying the State Basic Module (MBE) by a zone coefficient determined by each autonomous community. To carry out the valuation of a protected property, the useful surface area is used in accordance with current regulations.

For this 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 Bank 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 Banco Santander 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.

Banco Santander applies a discount to the aforementioned reference values that takes into account both the discount on the reference value in the sales process and the estimated costs of marketing or selling the land:

Discount on reference value = % discount on sales + % marketing costs being:

– % discount on Sales: = 100 - (sales price / updated appraisal value).

– marketing costs: calculated on the basis of our historical experience in sales and in accordance with the marketing management fees negotiated with our suppliers of this type of service.

In this way Banco Santander 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 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) Insurance contracts linked to pensions

The item 'Insurance contracts linked to pensions', included within the heading 'Other assets' (see note 2.n), will include the fair value of the insurance policies to cover pension commitments that must be recorded as a Separate asset for not meeting the requirements established in regulation 35 of Bank of Spain Circular 4/2017 and subsequent modifications, to be considered plan assets.

k) Tangible assets

Tangible assets includes the amount of buildings, land, furniture, vehicles, computer hardware and other fixtures owned by Banco Santander 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 Bank 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 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	2.0 %
Furniture	10.0 %
Fixtures	5.0 %
IT equipment	25.0 %
Vehicles	16.0 %
Other	5.0 %
Lease use rights	Less than the lease term or the useful life of the underlying asset

At the end of each reporting period, Banco Santander assesses 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, Banco Santander recognises 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 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 Banco 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 Bank 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.

l) Accounting for leases

The main aspects contained in the regulation Bank of Spain Circular 2/2018 adopted by the Bank are included below:

When the Bank 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 Bank. 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 Bank 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 Bank; in this regard, the Bank 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 Bank, has its own financing this has been used as the starting point for determining the incremental borrowing rate.

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.

Banco Santander 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 Bank.

Only assets whose cost can be estimated reliably and from which the Bank considers 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 subsidiaries, joint ventures and associates 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 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 Banco Santander'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.

Goodwill, in accordance with Bank of Spain Circular 4/2017, is to be amortized over a 10-year period unless otherwise stated. The debits to the income statements for the amortisation of these assets are recorded under the section 'Amortisation' in the income statement.

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 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.

In accordance with Rule Twenty Eight of Bank of Spain Circular 4/2017, for the financial statements (individual and consolidated) not subject to the framework of International Financial Reporting Standards, intangible assets will be considered assets with a limited useful life.

An intangible assets useful life may not exceed the period during which the entity is entitled to use the asset. If the right of use is for a limited period that can be renewed, the useful life will include the renewal period only when there is evidence that the renewal will be carried out without significant cost.

When the useful life of assets cannot be estimated reliably, they will be amortized over a period of ten years. In the absence of evidence to the contrary, the useful life of goodwill, if applicable, shall also be ten years.

Intangible assets shall be amortized in accordance with the criteria established for the tangible assets (a maximum period of 10 years). Banco Santander reviews, at least at the end of each year, the amortisation period and the amortisation method of each of its intangible assets and, if it considers that they are not appropriate, the impact will be treated as a change in its accounting estimates.

The intangible asset amortisation charge is recognised under 'Depreciation and amortisation' in the income statement.

In both cases, Banco Santander recognises 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 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 Bank'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 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 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 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 Bank, 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 Banco Santander, 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 Bank. They include the present obligations of the Bank when it is not probable that an outflow of resources embodying economic benefits will be required to settle them. Banco Santander does not recognise the contingent liability. The Bank will disclose a contingent liability, unless the possibility of an outflow of resources embodying economic benefits is remote.

- Contingent assets: possible assets that arise from past events and whose existence is conditional on, and will be confirmed only by, the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Bank. Contingent assets are not recognised in the balance sheet or in the 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.

Banco Santander`s 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.

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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 23):

- 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 Bank 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 Banco Santander. 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 Banco Santander arising from the ordinary course of their operations (see note 23).

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 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 Banco 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 Banco 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 Banco Santander right to receive them arises.

ii. Commissions, fees and similar items

Fee and commission income and expenses are recognised in the 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.

Banco Santander initially recognises the financial guarantees provided on the liability side of the 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 Bank 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 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 23). These provisions are recognised and reversed with a charge or credit, respectively, to 'Provisions or reversal of provisions', net, in the 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 balance sheet', are reclassified to the appropriate provision.

v) 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.

Banco Santander's post-employment obligations to its employees are deemed to be defined contribution plans when the Bank makes pre-determined contributions (recognised under Personnel expenses in the 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 23).

Defined contribution plans

The contributions made in this connection in each year are recognised under 'Personnel expenses' in the 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 balance sheet.

Defined benefit plans

Banco Santander recognises under 'Provisions - Provision for pensions and similar obligations on the liability side of the 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 Banco Santander, but by a legally separate third party that is not a party related to the Bank.
- They are only available to pay or fund post-employment benefits and they cannot be returned to the Bank 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 the Bank.

If Banco 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 Bank 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 balance sheet.

Banco 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 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).

w) 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 income statement (see note 23).

x) 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.

y) Income tax

The income tax expense is recognised in the income statement, except when they arise from a transaction whose results are recognised directly 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 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 Bank 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.

Deferred tax assets are only recognised for temporary differences to the extent that it is considered probable that the Bank 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 Bank 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 (see note 24).

z) Residual maturity periods

In note 48 its presented the analysis of the maturities of the balances of certain items in the balance sheet.

aa) Statement of recognised income and expenses

This statement presents the income and expenses generated by the Bank as a result of its business activity in the year, and a distinction is made between the income and expenses recognised in the income statement for the year and the other income and expenses recognised directly in equity.

Accordingly, this statement presents:

a. 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 recognised income and expense, calculated as the sum of a) to d) above.

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.

ab) 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 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 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 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 equity.

ac) Statement of cash flows

The following terms are used in the 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.

  Banco Santander classifies as cash and cash equivalents the balances recognised under 'Cash, cash balances at central banks' and 'Other deposits on demand' in the 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, Banco Santander received interest amounting to EUR 6,242 million and paid interest amount to EUR 3,424 million (EUR 6,510 and 3,447 million, respectively in 2020).

Also, the dividends received and paid by Banco Santander are detailed in notes 4 and 36.

3. Santander Group

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 two 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 acquisition of shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México in fiscal year 2019) 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, for the purposes of the Group.

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.

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.

Santander

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 and 2020.

d) Consolidated balance sheet, income statement, statement of recognized income and expenses, statement of changes in total equity and cash-flow statement

The Group's consolidated balance sheets at December 31, 2021 and 2020 and the consolidated income statements, consolidated statements of recognized income and expense, consolidated statements of changes in total equity and consolidated statements of cash flows for the years then ended are as follows:

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021 AND 2020

EUR million

ASSETS	2021	2020*
CASH, CASH BALANCES AT CENTRAL BANKS AND OTHER DEPOSITS ON DEMAND	**210,689**	**153,839**
FINANCIAL ASSETS HELD FOR TRADING	**116,953**	**114,945**
Derivatives	54,292	67,137
Equity instruments	15,077	9,615
Debt instruments	26,750	37,894
Loans and advances	20,834	299
Central banks	3,608	—
Credit institutions	10,397	3
Customers	6,829	296
NON-TRADING FINANCIAL ASSETS MANDATORILY AT FAIR VALUE THROUGH PROFIT OR LOSS	**5,536**	**4,486**
Equity instruments	4,042	3,234
Debt instruments	957	700
Loans and advances	537	552
Central banks	—	—
Credit institutions	—	—
Customers	537	552
FINANCIAL ASSETS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS	**15,957**	**48,717**
Debt instruments	2,516	2,979
Loans and advances	13,441	45,738
Central banks	—	9,481
Credit institutions	3,152	12,136
Customers	10,289	24,121
FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME	**108,038**	**120,953**
Equity instruments	2,453	2,783
Debt instruments	97,922	108,903
Loans and advances	7,663	9,267
Central banks	—	—
Credit institutions	—	—
Customers	7,663	9,267
FINANCIAL ASSETS AT AMORTIZED COST	**1,037,898**	**958,378**
Debt instruments	35,708	26,078
Loans and advances	1,002,190	932,300
Central banks	15,657	12,499
Credit institutions	39,169	37,838
Customers	947,364	881,963
HEDGING DERIVATIVES	**4,761**	**8,325**
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	**410**	**1,980**
INVESTMENTS	**7,525**	**7,622**
Joint venture entities	1,692	1,492
Associated entities	5,833	6,130
ASSETS UNDER INSURANCE OR REINSURANCE CONTRACTS	**283**	**261**

ASSETS	2021	2020*
TANGIBLE ASSETS	**33,321**	**32,735**
Property, plant and equipment	32,342	31,772
For own-use	13,259	13,213
Leased out under an operating lease	19,083	18,559
Investment properties	979	963
Of which leased out under an operating lease	*839*	*793*
INTANGIBLE ASSETS	**16,584**	**15,908**
Goodwill	12,713	12,471
Other intangible assets	3,871	3,437
TAX ASSETS	**25,196**	**24,586**
Current tax assets	5,756	5,340
Deferred tax assets	19,440	19,246
OTHER ASSETS	**8,595**	**11,070**
Insurance contracts linked to pensions	149	174
Inventories	6	5
Other	8,440	10,891
NON-CURRENT ASSETS HELD FOR SALE	**4,089**	**4,445**
TOTAL ASSETS	**1,595,835**	**1,508,250**

* Presented for comparison purposes only.

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021 AND 2020

EUR million

LIABILITIES	2021	2020*
FINANCIAL LIABILITIES HELD FOR TRADING	**79,469**	**81,167**
Derivatives	53,566	64,469
Short positions	12,236	16,698
Deposits	13,667	—
Central banks	1,038	—
Credit institutions	6,488	—
Customers	6,141	—
Marketable debt securities	—	—
Other financial liabilities	—	—
FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS	**32,733**	**48,038**
Deposits	27,279	43,598
Central banks	607	2,490
Credit institutions	1,064	6,765
Customers	25,608	34,343
Marketable debt securities	5,454	4,440
Other financial liabilities	—	—
Memorandum items: subordinated liabilities	—	—
FINANCIAL LIABILITIES AT AMORTIZED COST	**1,349,169**	**1,248,188**
Deposits	1,078,587	990,391
Central banks	139,757	112,804
Credit institutions	52,235	62,620
Customers	886,595	814,967
Marketable debt securities	240,709	230,829
Other financial liabilities	29,873	26,968
Memorandum items: subordinated liabilities	*26,196*	*21,880*
HEDGING DERIVATIVES	**5,463**	**6,869**
CHANGES IN THE FAIR VALUE OF HEDGED ITEMS IN PORTFOLIO HEDGES OF INTEREST RATE RISK	**248**	**286**
LIABILITIES UNDER INSURANCE OR REINSURANCE CONTRACTS	**770**	**910**
PROVISIONS	**9,583**	**10,852**
Pensions and other post-retirement obligations	3,185	3,976
Other long term employee benefits	1,242	1,751
Taxes and other legal contingencies	1,996	2,200
Contingent liabilities and commitments	733	700
Other provisions	2,427	2,225
TAX LIABILITIES	**8,649**	**8,282**
Current tax liabilities	2,187	2,349
Deferred tax liabilities	6,462	5,933
OTHER LIABILITIES	**12,698**	**12,336**
LIABILITIES ASSOCIATED WITH NON-CURRENT ASSETS HELD FOR SALE	**—**	**—**
TOTAL LIABILITIES	**1,498,782**	**1,416,928**

* Presented for comparison purposes only.

CONSOLIDATED BALANCE SHEETS AS OF 31 DECEMBER 2021 AND 2020

EUR million

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

* Presented for comparison purposes only (note 1.d).

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

EUR million

	(Debit) Credit	
	2021	2020*
Interest income	**46,463**	**45,741**
Financial assets at fair value through other comprehensive income	*2,582*	*2,840*
Financial assets at amortized cost	*40,471*	*40,365*
Other interest income	*3,410*	*2,536*
Interest expense	(13,093)	(13,747)
Interest income/(charges)	**33,370**	**31,994**
Dividend income	513	391
Income from companies accounted for using the equity method	432	(96)
Commission income	13,812	13,024
Commission expense	(3,310)	(3,009)
Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net	628	1,107
Financial assets at amortized cost	*89*	*(31)*
Other financial assets and liabilities	*539*	*1,138*
Gain or losses on financial assets and liabilities held for trading, net	1,141	3,211
Reclassification of financial assets at fair value through other comprehensive income	—	—
Reclassification of financial assets at amortized cost	—	—
Other gains (losses)	*1,141*	*3,211*
Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss	132	82
Reclassification of financial assets at fair value through other comprehensive income	—	—
Reclassification of financial assets at amortized cost	—	—
Other gains (losses)	*132*	*82*
Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net	270	(171)
Gain or losses from hedge accounting, net	(46)	51
Exchange differences, net	(562)	(2,093)
Other operating income	2,255	1,920
Other operating expenses	(2,442)	(2,342)
Income from assets under insurance and reinsurance contracts	1,516	1,452
Expenses from liabilities under insurance and reinsurance contracts	(1,305)	(1,242)
Total income	**46,404**	**44,279**
Administrative expenses	(18,659)	(18,320)
Staff costs	*(11,216)*	*(10,783)*
Other general administrative expenses	*(7,443)*	*(7,537)*
Depreciation and amortisation cost	(2,756)	(2,810)
Provisions or reversal of provisions, net	(2,814)	(2,378)
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)
Financial assets at fair value through other comprehensive income	*(19)*	*(19)*
Financial assets at amortized cost	*(7,388)*	*(12,363)*
Impairment or reversal of impairment of investments in subsidiaries, joint ventures and associates, net	—	—
Impairment or reversal of impairment on non-financial assets, net	(231)	(10,416)
Tangible assets	*(150)*	*(174)*
Intangible assets	*(71)*	*(10,242)*
Others	*(10)*	—
Gain or losses on non-financial assets and investments, net	53	114
Negative goodwill recognized in results	—	8

	(Debit) Credit	
	2021	2020*
Gains or losses on non-current assets held for sale not classified as discontinued operations	(43)	(171)
Operating profit/(loss) before tax	14,547	(2,076)
Tax expense or income from continuing operations	(4,894)	(5,632)
Profit/(loss) from continuing operations	**9,653**	**(7,708)**
Profit/(loss) after tax from discontinued operations	—	—
Profit/(loss) for the year	**9,653**	**(7,708)**
Profit/(loss) attributable to non-controlling interests	1,529	1,063
Profit/(loss) attributable to the parent	8,124	(8,771)
Earnings/(losses) per share		
Basic	0.438	(0.538)
Diluted	0.436	(0.538)

* Presented for comparison purposes only (note 1.d).

CONSOLIDATED STATEMENTS OF RECOGNIZED INCOME AND EXPENSE FOR THE YEARS ENDED 31 DECEMBER 2021 AND 2020

EUR million

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

*Presented for comparison purposes only (note 1.d).

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

EUR million

												Non-controlling interest		
	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings	Revaluation reserves	Other reserves	(-) Own shares	Profit attributable to shareholders of the parent	(-) Interim dividends	Other comprehensive income	Other comprehensive income	Other items	Total
Balance at 31 December 2020*	**8,670**	**52,013**	**627**	**163**	**65,583**	**—**	**(3,596)**	**(69)**	**(8,771)**	**—**	**(33,144)**	**(1,800)**	**11,646**	**91,322**
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	—	(3,596)	(69)	(8,771)	—	(33,144)	(1,800)	11,646	91,322
Total recognised income and expense	—	—	—	—	—	—	—	—	8,124	—	54	(274)	1,529	9,433
Other changes in equity	—	(4,034)	31	(11)	(5,310)	—	(881)	(825)	8,771	(836)	371	(30)	(948)	(3,702)
Issuance of ordinary shares	—	—	—	—	—	—	—	—	—	—	—	—	17	17
Issuance of preferred shares	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Capital reduction	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dividends	—	(477)	—	—	—	—	—	—	—	(836)	—	—	(648)	(1,961)
Purchase of equity instruments	—	—	—	—	—	—	—	(1,645)	—	—	—	—	—	(1,645)
Disposal of equity instruments	—	—	—	—	—	—	23	820	—	—	—	—	—	843
Transfer from equity to liabilities	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Transfers between equity items	—	(3,557)	—	—	(5,310)	—	(275)	—	8,771	—	371	(30)	30	—
Increases (decreases) due to business combinations	—	—	—	—	—	—	—	—	—	—	—	—	(5)	(5)
Share-based payment	—	—	—	(62)	—	—	—	—	—	—	—	—	—	(62)
Others increases or (-) decreases in equity	—	—	31	51	—	—	(629)	—	—	—	—	—	(342)	(889)
Balance at 31 December 2021	**8,670**	**47,979**	**658**	**152**	**60,273**	**—**	**(4,477)**	**(894)**	**8,124**	**(836)**	**(32,719)**	**(2,104)**	**12,227**	**97,053**

* Presented for comparison purpose only (note 1.d).

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

EUR million

												Non-controlling interest		
	Capital	Share premium	Equity instruments issued (not capital)	Other equity instruments	Accumulated retained earnings	Revaluation reserves	Other reserves	(-) Own shares	Profit attributable to shareholders of the parent	(-) Interim dividends	Other comprehensive income	Other comprehensive income	Other items	Total
Balance at 31 December 2019*	**8,309**	**52,446**	**598**	**146**	**61,028**	**—**	**(3,110)**	**(31)**	**6,515**	**(1,662)**	**(24,168)**	**(982)**	**11,570**	**110,659**
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	—	(3,110)	(31)	6,515	(1,662)	(24,168)	(982)	11,570	110,659
Total recognised income and expense	—	—	—	—	—	—	—	—	(8,771)	—	(8,976)	(818)	1,063	(17,502)
Other changes in equity	**361**	**(433)**	**29**	**17**	**4,555**	**—**	**(486)**	**(38)**	**(6,515)**	**1,662**	**—**	**—**	**(987)**	**(1,835)**
Issuance of ordinary shares	361	(72)	—	—	—	—	70	—	—	—	—	—	5	364
Issuance of preferred shares	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of other financial instruments	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maturity of other financial instruments	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Conversion of financial liabilities into equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Capital reduction	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dividends	—	(361)	—	—	—	—	—	—	—	—	—	—	(465)	(826)
Purchase of equity instruments	—	—	—	—	—	—	—	(758)	—	—	—	—	—	(758)
Disposal of equity instruments	—	—	—	—	—	—	1	720	—	—	—	—	—	721
Transfer from equity to liabilities	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Transfer from liabilities to equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Transfers between equity items	—	—	—	—	4,555	—	298	—	(6,515)	1,662	—	—	—	—
Increases (decreases) due to business combinations	—	—	—	—	—	—	—	—	—	—	—	—	(54)	(54)
Share-based payment	—	—	—	(53)	—	—	—	—	—	—	—	—	—	(53)
Others increases or (-) decreases in equity	—	—	29	70	—	—	(855)	—	—	—	—	—	(473)	(1,229)
Balance at 31 December 2020*	**8,670**	**52,013**	**627**	**163**	**65,583**	**—**	**(3,596)**	**(69)**	**(8,771)**	**—**	**(33,144)**	**(1,800)**	**11,646**	**91,322**

* Presented for comparison purposes only (note 1.d).

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

EUR million

	2021	2020*
A. CASH FLOWS FROM OPERATING ACTIVITIES	**56,691**	**66,153**
Profit or loss for the year	**9,653**	**(7,708)**
Adjustments made to obtain the cash flows from operating activities	**21,363**	**37,836**
Depreciation and amortisation cost	*2,756*	*2,810*
Other adjustments	*18,607*	*35,026*
Net increase/(decrease) in operating assets	**27,258**	**51,385**
Financial assets held-for-trading	*2,064*	*12,390*
Non-trading financial assets mandatorily at fair value through profit or loss	*969*	*(275)*
Financial assets at fair value through profit or loss	*(32,746)*	*(10,314)*
Financial assets at fair value through other comprehensive income	*(9,152)*	*6,549*
Financial assets at amortized cost	*73,181*	*43,541*
Other operating assets	*(7,058)*	*(506)*
Net increase/(decrease) in operating liabilities	**56,945**	**90,356**
Financial liabilities held-for-trading	*(1,386)*	*7,880*
Financial liabilities designated at fair value through profit or loss	*(14,316)*	*(10,907)*
Financial liabilities at amortized cost	*79,114*	*96,561*
Other operating liabilities	*(6,467)*	*(3,178)*
Income tax recovered/(paid)	**(4,012)**	**(2,946)**
B. CASH FLOWS FROM INVESTING ACTIVITIES	**(3,715)**	**(7,220)**
Payments	**11,669**	**11,976**
Tangible assets	*10,015*	*7,386*
Intangible assets	*1,388*	*1,134*
Investments	*126*	*525*
Subsidiaries and other business units	*140*	*2,931*
Non-current assets held for sale and associated liabilities	—	—
Other payments related to investing activities	—	—
Proceeds	**7,954**	**4,756**
Tangible assets	*6,382*	*2,014*
Intangible assets	—	—
Investments	*672*	*182*
Subsidiaries and other business units	*6*	*1,775*
Non-current assets held for sale and associated liabilities	*894*	*785*
Other proceeds related to investing activities	—	—
C. CASH FLOW FROM FINANCING ACTIVITIES	**(1,322)**	**(1,909)**
Payments	**7,741**	**6,978**
Dividends	*1,313*	—
Subordinated liabilities	*2,684*	*3,780*
Redemption of own equity instruments	—	—
Acquisition of own equity instruments	*1,645*	*758*
Other payments related to financing activities	*2,099*	*2,440*
Proceeds	**6,419**	**5,069**
Subordinated liabilities	*5,340*	*4,095*
Issuance of own equity instruments	—	—
Disposal of own equity instruments	*854*	*721*
Other proceeds related to financing activities	*225*	*253*
D. EFFECT OF FOREIGN EXCHANGE RATE DIFFERENCES	**5,196**	**(4,252)**

	2021	2020*
E. NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS	**56,850**	**52,772**
F. CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR	**153,839**	**101,067**
G. CASH AND CASH EQUIVALENTS AT END OF THE YEAR	**210,689**	**153,839**
COMPONENTS OF CASH AND CASH EQUIVALENTS AT END OF THE YEAR		
Cash	*8,142*	*7,817*
Cash equivalents at central banks	*193,102*	*137,047*
Other financial assets	*9,445*	*8,975*
Less, bank overdrafts refundable on demand	—	—
TOTAL CASH AND CASH EQUIVALENTS AT END OF THE YEAR	**210,689**	**153,839**
In which, restricted cash	—	—

* Presented for comparison purposes only (note 1.d).

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 21) 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
Profit (Loss) attributable to the Parent (EUR million)	8,124	(8,771)
Remuneration of contingently convertible preference shares (CCP) (EUR million) (note 21)	(566)	(552)
	7,558	(9,323)
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)*
Weighted average number of shares outstanding	17,272,055,430	17,316,288,908
Impact factor correction	Not applicable	Not applicable
Adjusted number of shares	17,272,055,430	17,316,288,908
Basic earnings (Loss) per share (euros)	**0.438**	**(0.538)**
Of which, from discounted operations (euros)	**—**	**—**
Basic earnings (Loss) per share from continuing operations (euros)	**0.438**	**(0.538)**

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 21) 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
Profit (Loss) attributable to the Parent (EUR million)	8,124	(8,771)
Remuneration of contingently convertible preference shares (CCP) (EUR million) (note 21)	(566)	(552)
Dilutive effect of changes in profit for the period arising from potential conversion of ordinary shares	—	—
	7,558	(9,323)
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)*
Weighted average number of shares outstanding	17,272,055,430	17,316,288,908
Dilutive effect of options/ rights on shares	48,972,459	Not applicable
Impact factor correction	Not applicable	Not applicable
Adjusted number of shares	17,321,027,889	17,316,288,908
Diluted earnings (Loss) per share (euros)	**0.436**	**(0.538)**
Of which, from discounted operations (euros)	**—**	**—**
Diluted earnings (Loss) per share from continuing operations (euros)	**0.436**	**(0.538)**

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).

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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	2020 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	2020 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 Alvarez'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																		2020
	Bylaw-stipulated emoluments																		
	Annual emolument									Short-term and deferred (not subject to long-term goals) salaries of executive directors									
	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	Fixed	Variable-immediate payment		Deferred variable						
											In cash	In shares	In cash	In shares	Total	Pension contribution	Other remuneration	Total	Total
Ana Botín	90	170	—	—	—	—	—	25	45	3,176	1,838	1,839	1,103	1,103	9,059	1,041	1,006	11,436	6,819
José Antonio Álvarez	90	170	—	—	—	—	—	25	45	2,541	1,241	1,240	744	745	6,511	783	1,536	9,160	6,019
Bruce Carnegie-Brown	276	170	—	75	75	—	—	25	80	—	—	—	—	—	—	—	—	700	595
Homaira Akbari	90	—	40	—	—	—	15	25	78	—	—	—	—	—	—	—	—	248	203
Javier Botín[A]	90	—	—	—	—	—	—	—	39	—	—	—	—	—	—	—	—	129	122
Álvaro Cardoso[B]	90	—	—	—	—	28	15	—	50	—	—	—	—	—	—	—	—	183	243
R.Martín Chávez[C]	90	—	—	25	25	40	—	95	99	—	—	—	—	—	—	—	—	374	37
Sol Daurella	90	—	—	25	25	—	15	—	84	—	—	—	—	—	—	—	—	239	214
Henrique de Castro[D]	90	—	40	—	25	—	—	25	87	—	—	—	—	—	—	—	—	267	217
Gina Díez[E]	90	—	—	1	—	—	—	—	39	—	—	—	—	—	—	—	—	130	4
Luis Isasi[F]	90	170	—	—	25	40	—	—	81	—	—	—	—	—	—	—	1,000	1,406	943
Ramiro Mato	90	170	40	—	—	40	65	—	94	—	—	—	—	—	—	—	—	499	431
Sergio Rial[G]	90	—	—	—	—	—	—	—	39	750	—	—	—	—	750	—	—	879	63
Belén Romana	90	170	40	—	—	93	15	25	100	—	—	—	—	—	—	—	—	533	418
Pamela Walkden[H]	90	—	110	—	—	27	—	—	76	—	—	—	—	—	—	—	—	303	214
Rodrigo Echenique[I]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,956
Ignacio Benjumea[J]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	276
Guillermo de la Dehesa[K]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107
Esther Giménez-Salinas[L]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	192
Total 2021	**1,536**	**1,020**	**270**	**126**	**175**	**268**	**125**	**245**	**1,035**	**6,467**	**3,079**	**3,079**	**1,847**	**1,848**	**16,320**	**1,824**	**3,542**	**26,486**	**—**
Total 2020	**1,303**	**915**	**208**	**133**	**138**	**252**	**135**	**—**	**1,066**	**5,717**	**514**	**515**	**308**	**309**	**7,363**	**2,019**	**5,537**	**—**	**19,073**

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.

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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 42.

EUR thousand

	2021			2020
	Variable subject to Long-term objectives[1]			
	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 42).

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			
	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 Alvarez (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 Alvarez 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 42):

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 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)	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
2015 variable remuneration															
Ms Ana Botín-Sanz de Sautuola y O'Shea	128,809	—	—	—	—	—	128,809	—	—	—	—	—	—	—	128,809
Mr José Antonio Álvarez Álvarez	85,620	—	—	—	—	—	85,620	—	—	—	—	—	—	—	85,620
	214,429						**214,429**								**214,429**
2016 variable remuneration															
Ms Ana Botín-Sanz de Sautuola y O'Shea	216,308	—	—	—	(72,102)	—	144,206	(34,177)	—	—	—	—	(72,102)	—	37,927
Mr José Antonio Álvarez Álvarez	145,998	—	—	—	(48,667)	—	97,331	(23,067)	—	—	—	—	(48,667)	—	25,597
	362,306				**(120,769)**		**241,537**	**(57,244)**					**(120,769)**		**63,524**
2017 variable remuneration															
Ms Ana Botín-Sanz de Sautuola y O'Shea	275,700	—	—	(68,925)	—	—	206,775	(112,692)	—	—	—	(68,925)	—	—	25,158
Mr José Antonio Álvarez Álvarez	184,377	—	—	(46,094)	—	—	138,283	(75,364)	—	—	—	(46,094)	—	—	16,825
	460,077			**(115,019)**			**345,058**	**(188,057)**				**(115,019)**			**41,983**
2018 variable remuneration															
Ms Ana Botín-Sanz de Sautuola y O'Shea	516,519	—	(103,304)	—	—	—	413,215		—	—	(103,304)	—	—	—	309,911
Mr José Antonio Álvarez Álvarez	345,161	—	(69,032)	—	—	—	276,129		—	—	(69,032)	—	—	—	207,097
	861,680		**(172,336)**				**689,344**				**(172,336)**				**517,008**
2019 variable remuneration															
Ms Ana Botín-Sanz de Sautuola y O'Shea	887,193	(354,877)	—	—	—	—	532,316	—	—	(106,463)	—	—	—	—	425,853
Mr José Antonio Álvarez Álvarez	592,915	(237,166)	—	—	—	—	355,749	—	—	(71,150)	—	—	—	—	284,599
	1,480,108	**(592,043)**					**888,065**			**(177,613)**					**710,452**

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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)	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
2020 variable remuneration															
Ms Ana Botín-Sanz de Sautuola y O'Shea	—	—	—	—	—	310,615	310,615	—	(124,246)	—	—	—	—	—	186,369
Mr José Antonio Álvarez Álvarez	—	—	—	—	—	168,715	168,715	—	(67,486)	—	—	—	—	—	101,229
Mr Sergio Rial[2]	—	—	—	—	—	355,263	355,263	—	(142,105)	—	—	—	—	—	213,158
						834,593	**834,593**		**(333,837)**						**500,756**
2021 variable remuneration[1]															
Ms Ana Botín-Sanz de Sautuola y O'Shea	—	—	—	—	—	—	—	—	—	—	—	—	—	1,480,622	1,480,622
Mr José Antonio Álvarez Álvarez	—	—	—	—	—	—	—	—	—	—	—	—	—	999,259	999,259
Mr Sergio Rial[2]	—	—	—	—	—	—	—	—	—	—	—	—	—	625,000	625,000
														3,104,881	**3,104,881**

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.

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 42):

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

		Short-term salaries and deferred remuneration							
			Variable remuneration (bonus) - Immediate payment		Deferred variable remuneration				
Year	Number of persons	Fixed	In cash	In shares[2]	In cash	In shares[3]	Pensions	Other remuneration[1]	Total
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 42 to the 2021, Bank's financial statement 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 42):

EUR thousand

		Variable remuneration subject to long-term objectives[1]		
Year	Number of people	Cash payment	Share payment	Total
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 42):

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 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

Set forth below is the breakdown of 'Loans and advances to credit institutions' according to their classification, nature and currency of the transactions:

EUR million	2021	2020
CENTRAL BANKS		
Classification		
Financial assets held for trading	1,118	—
Financial assets designated at fair value through profit or loss	—	482
Financial assets designated at fair value through other comprehensive income	—	—
Financial assets at amortized cost	26	21
	1,144	**503**
Breeakdown by product		
Reverse repurchase agreements	1,118	482
Other term loans	25	20
Advances different from loans	1	1
Of which, impaired assets	—	—
Of which, valuation adjustments for impairment	—	—
	1,144	**503**
Currency		
Euro	1,143	502
US Dollars	1	1
	1,144	**503**
CREDIT INSTITUTIONS		
Classification		
Financial assets held for trading	6,980	3
Financial assets designated at fair value through profit or loss	3,445	9,888
Financial assets designated at fair value through other comprehensive income	—	—
Financial assets at amortized cost	35,084	34,159
	45,509	**44,050**
Breakdown by product		
Reverse repurchase agreements	13,602	15,897
Other term loans	21,192	17,671
Non-loans advances	10,715	10,482
Of which, impaired assets	—	—
Of which, valuation adjustments for impairment	*(4)*	*(6)*
	45,509	**44,050**
Currency		
Euro	32,341	30,815
Pound sterling	1,493	1,555
US dollar	11,395	10,632
Chilean pesos	3	741
Brazilian real	—	—
Other currencies	277	307
	45,509	**44,050**
TOTAL	**46,653**	**44,553**

The loans and advances classified in the 'Financial assets held for trading' portfolio correspond to temporary acquisitions of assets from Spanish and foreign institutions.

Deposits in credit institutions classified as 'Financial assets at amortized cost' are mainly term accounts and guarantees given in cash to credit institutions.

The loans and advances to credit institutions classified under 'Financial assets at amortized' are mainly time accounts and deposits. In addition, at December 31, 2021, there were outstanding balances with central banks and credit institutions of EUR 88,268 million and EUR 2,284 million, respectively (2020: EUR 63,984 million and EUR 2,275 million, respectively). The increase occurs due to the liquidity management carried out by the Bank. These balances are included under 'Cash, cash balances at central banks and other deposits on demand'.

Note 48 shows the details of the maturity terms of 'Financial assets at amortized cost' and 'Cash, cahs balances at central banks and other deposits on demand'.

The breakdown as of December 31, 2021 of the exposure and the provision fund for fiancial assets at amortized cost is EUR 35,114 million and EUR 4 million, respectively, all in Phase 1 (EUR 34,187 million and EUR 6 million, also Phase 1, in 2020).

7. Debt instruments

The detail, by classification, type, listing status and currency, of 'Debt instruments' in the accompanying balance sheets is as follows:

EUR millon

	2021	2020
Classification		
Financial assets held for trading	14,320	18,243
Non-trading financial assets mandatorily at fair value through profit or loss	734	671
Financial assets designated at fair value through profit or loss	—	—
Financial assets designated at fair value through other comprehensive income	9,394	15,146
Financial assets at amortized cost	17,208	11,413
	41,656	**45,473**
Type		
Central banks	892	362
Public sector	13,358	23,681
Credit institutions	14,771	10,123
Other financial institutions	11,356	10,169
Non-financial institutions	1,279	1,138
Of which, impaired assets	*144*	*134*
Of which, value adjustments for impairment	*(148)*	*(74)*
	41,656	**45,473**
Currency		
Euro	27,246	32,431
US dollar	7,764	6,105
Pound sterling	4,161	3,903
Brazilian real	1,245	1,491
Other currencies	1,240	1,543
	41,656	**45,473**

As of December 31, 2021, the nominal amount of the debt securities subject to own obligations, mostly as collateral for financing lines received by the Bank, amounts to EUR 14,877 million (EUR 9,495 million as of December 31 2020), of which EUR 8,067 million correspond to Spanish Public Debt (EUR 5,512 million as of December 31, 2020).

The breakdown as of December 31, 2021 of the exposure, by phase of impairment, of the assets subject to impairment is EUR 26,606 million in phase 1 and EUR 144 million in phase 3. In 2020 it was EUR 26,500 million in phase 1 and EUR 134 million in phase 3.

The breakdown as of December 31, 2021 of the provision fund by phase of impairment of assets subject to impairment is EUR 33 million in phase 1 and EUR 115 million in phase 3. In 2020 it was EUR 9 million in phase 1 and EUR 65 million in phase 3.

Note 25.e) shows the details of 'Other comprehensive income' accumulated in Equity for the 'Financial Assets designated at fair value through other comprehensive income'.

Note 48 contains details of the maturity periods of 'Loans and Advances and Financial Assets designated at fair value through other comprehensive income'.

8. Equity instruments

a) Breakdown

The detail, by classification and type, of Equity instruments in the accompanying balance sheets is as follows:

EUR million

	2021	2020
Classification		
Financial assets held for trading	14,619	9,758
Non-trading financial assets mandatorily at fair value through profit or loss	908	305
Financial assets designated at fair value through other comprehensive income	1,705	1,942
	17,232	**12,005**
Type		
Shares of Spanish companies	3,818	3,276
Shares of foreign companies	12,843	8,396
Investment fund units and shares	571	333
	17,232	**12,005**

Note 25.c contains a detail of the 'Other comprehensive income', recognized in equity, on 'Financial assets designated at fair value through other comprehensive income'.

b) Changes

The changes in 'Non-trading financial assets mandatorily at fair value through profit or loss' and 'Financial assets at fair value through other comprehensive income' during 2021 and 2020 were as follows:

EUR million

	2021	2020*
Balance at December 31 of the previous year	1,942	1,856
Purchases and capital increases	2	1,433
Of which		
Project Quasar Investments 2017, S.L.	—	*956*
Disposals and capital reductions	(4)	(372)
Of which		
Saudi British Bank	—	*(326)*
Valuation adjustment and other items*	(235)	(975)
Balance at end of the year	**1,705**	**1,942**

* Changes in value occurred during the year 2020, due to the fall in prices of listed companies covered under this heading.

During the 2021 financial year, there has been a reduction in the fair value of the stake in Project Quasar Investments 2017, S.L. derived from the updating of the valuation of the assets of said company, for an import of EUR 250 million.

In September 2020, as a result of the loss control over Project Quasar Investments 2017, S.L., Banco Santander's holding in the portfolio, until then registered under the heading 'Associated Entities' (see note 13 a.ii) and amounting to EUR 956 million, was reclassified to this portfolio.

Also, on September 7, 2020 and on December 1, 2020, Banco Santander proceeded to sell its shares owned by Saudi British Bank, which resulted in a reduction of its share valued at that time EUR 326 million.

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. 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 Banco Santander at 31 December 2021 and 2020 is as follows:

EUR million

	2021		2020	
	Debit balance	Credit balance	Debit balance	Credit
Interest rate	26,763	23,483	35,280	31,484
Equity instruments	1,393	955	1,873	918
Currency and Gold	13,739	15,911	16,062	17,986
Credit	104	252	77	223
Commodities	—	—	—	—
Others	24	71	70	65
Total	**42,023**	**40,672**	**53,262**	**50,676**

b) Short positions

The following is a breakdown of short positions:

EUR million	2021	2020
Securities lending		
Equity instruments	318	289
Uncovered on assignments		
Debt instruments	8,926	10,049
Total	**9,244**	**10,338**

10. Loans and advances to customers

a) Detail

The detail, by classification, of 'Loans and advances to customers' on the balance sheets is as follows:

EUR million	2021	2020
Financial assets held for trading	7,025	71
Non-trading financial assets mandatorily at fair value through profit or loss	713	1,249
Financial assets designated at fair value through profit or loss	9,958	23,529
Financial assets at fair value through other comprehensive income	3,936	5,535
Financial assets at amortized cost	286,735	265,427
Loans and advances to customers (carrying amount)	**308,367**	**295,811**
Of which		
Impairment losses	*(6,899)*	*(6,981)*
Loans and advances to customers disregarding impairment losses	**315,266**	**302,792**

Note 48 shows the details of the maturity periods of financial assets at amortized cost.

At 31 December 2021 and 2020, there were no loans and advances to customers for material amounts without fixed maturity dates.

b) Breakdown

The following is a breakdown of the loans and advances granted to Banco Santander´s clients, which include exposure to the Bank´s credit risk in its main activity, without considering the balance of impairment reserve or the valuation adjustments depending on the modality and situation of the operations, the geographical area of the residence of the borrower and the modality of interest rate of the operation:

EUR million

	2021	2020
Loan type and status		
On demand and with a short prior period	3,167	2,473
Credit cards receivables	1,269	1,264
Commercial credit	27,423	15,920
Finance leases	2,965	2,951
Reverse repurchase agreements	6,459	14,700
Other term loans	255,799	246,679
Non loans advances	11,285	11,824
Of which		
Impaired assets	*12,882*	*13,524*
Impairment losses	*(6,899)*	*(6,981)*
Book value	**35,084**	**295,811**
Gross book value	**315,266**	**302,792**
Geographical area		
Spain	211,525	213,407
European Union (excluding Spain)	28,469	27,949
United States of America and Puerto Rico	25,065	22,624
Other OECD countries	28,186	20,224
Latin America (non-OECD)	9,548	7,704
Rest of the world	12,473	10,884
	315,266	**302,792**
Interest rate:		
Fixed rate	143,101	137,397
Floating rate	172,165	165,395
	315,266	**302,792**

At December 31, 2021 and 2020 the Bank had EUR 13,819 and 11,767 million, respectively, of loans and advances granted to Spanish public administrations whose rating at December 31, 2021 is A (rating at December 31, 2020 was A) and with EUR 2,085 and 1,691 million, respectively, granted to the Public Sector of other countries (as of December 31, 2021 this amount was composed, based on the rating of the issuer as follows: 1% AAA, 19% AA, 20% A, 12% BBB and 48% lower than BBB).

The above-mentioned ratings were obtained by converting the internal ratings awarded to customers by Banco Santander (see note 49) into the external ratings classification established by Standard & Poor's, in order to make them more readily comparable.

Without considering the Public Administrations, the amount of the loans and advances at 31 December 2021 and 2020 amounts to EUR 299,362 million and EUR 289,334 million, of which EUR 286,480 million and EUR 275,810 million are classified as performing, respectively.

The following is a detail, by activity, of the loans to customers at 31 December 2021, net of impairment losses:

EUR million

	Total*	Without collateral	Secured loans						
			Net exposure		Loan-to-value ratio***				
			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	14,030	13,280	163	587	56	79	25	590	—
Other financial institutions and individual traders (business financial activity)	54,658	38,209	1,198	15,251	572	614	222	14,628	413
Non-financial companies and individual entrepreneurs (non-financial business activity) (broken down by purpose)	150,865	107,895	21,371	21,599	8,968	7,388	4,735	16,563	5,316
Of which									
Construction and property development (including land)	*2,418*	*11*	*2,388*	*19*	*1,011*	*763*	*500*	*24*	*109*
Civil engineering construction	*1,690*	*943*	*33*	*714*	*16*	*76*	*10*	*603*	*42*
Large companies	*96,636*	*74,601*	*5,847*	*16,188*	*2,773*	*2,318*	*1,443*	*12,014*	*3,487*
SMEs and individual traders	*50,121*	*32,340*	*13,103*	*4,678*	*5,168*	*4,231*	*2,782*	*3,922*	*1,678*
Other households (broken down by purpose)	77,529	9,035	66,938	1,556	18,584	21,058	21,118	5,069	2,665
Of which									
Residential	*61,961*	*746*	*61,023*	*192*	*16,680*	*19,288*	*19,345*	*4,166*	*1,736*
Consumer loans	*8,607*	*7,782*	*412*	*413*	*193*	*154*	*239*	*160*	*79*
Other purposes	*6,961*	*507*	*5,503*	*951*	*1,711*	*1,616*	*1,534*	*743*	*850*
Total*	**297,082**	**168,419**	**89,670**	**38,993**	**28,180**	**29,139**	**26,100**	**36,850**	**8,394**
Memorandum item									
*Refinanced and restructured transactions***	*15,301*	*7,542*	*6,472*	*1,287*	*1,517*	*1,466*	*1,144*	*1,514*	*2,118*

* Not including loan advances.
** Includes the net balance of value adjustments associated with impaired assets.
*** The ratio is the carrying amount of the transactions at 31 December 2021 calculated using the latest available appraisal value of the collateral.

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Note 49 contains information relating to the forborne loan portfolio.

Below is a breakdown of the movement in gross exposure by impairment stage of loans and advances from customers recorded under the headings 'Financial assets at amortized cost' and 'Financial assets at fair value through other comprehensive income' under Bank of Spain Circular 4/2017 to 31 December 2021 and 2020:

2021

EUR million	Stage 1	Stage 2	Stage 3	Total
Balance at beginning of the year	252,388	12,031	13,524	277,943
Movements				
Transfers				
Transfer to Stage 2 from Stage 1	(8,873)	8,873		—
Transfer to Stage 3 from Stage 1	(1,368)		1,368	—
Transfer to Stage 3 from Stage 2		(1,116)	1,116	—
Transfer to Stage 1 from Stage 2	1,386	(1,386)		—
Transfer to Stage 2 from Stage 3		357	(357)	—
Transfer to Stage 1 from Stage 3	36		(36)	—
Net changes on financial assets	24,411	(2,051)	(278)	22,082
Failed			(2,455)	(2,455)
Differences in change and other movements				
Balance at end of the year	**267,980**	**16,708**	**12,882**	**297,570**

2020

EUR million	Stage 1	Stage 2	Stage 3	Total
Balance at beginning of the year	226,826	9,288	13,994	250,108
Movements				
Transfers				
Transfer to Stage 2 from Stage 1	(6,288)	6,288		—
Transfer to Stage 3 from Stage 1	(812)		812	—
Transfer to Stage 3 from Stage 2		(1,910)	1,910	—
Transfer to Stage 1 from Stage 2	1,818	(1,818)		—
Transfer to Stage 2 from Stage 3		301	(301)	—
Transfer to Stage 1 from Stage 3	259		(259)	—
Net changes on financial assets	30,585	(118)	(702)	29,765
Failed	—	—	(1,930)	(1,930)
Differences in change and other movements				
Balance at end of the year	**252,388**	**12,031**	**13,524**	**277,943**

As of December 31, 2021, the total net exposure of loans and advances to the Bank's customers is EUR 290,671 million, of which EUR 267,471 million correspond to phase 1, EUR 16,002 million to phase 2 and EUR 7,198 millionto phase 3. This exposure includes EUR 233 million (EUR 284 million as of December 31, 2020) in impaired assets purchased with impairment, classified in phase 3, which correspond mainly to business combinations carried out by the Bank.

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c) Impairment losses on loans and advances to customers at amortized 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 amortized cost and at fair value through other comprehensive income 'Loans and advances to customers':

EUR million	2021	2020
Balance at beginning of the year	6,981	6,245
Net impairment losses charged to income for the year	2,304	2,577
Of which		
Impairment losses charged to profit or loss	*3,535*	*4,075*
Impairment losses reversed with a credit to profit or loss	*(1,231)*	*(1,498)*
Write-off of impaired balances against recorded impairment allowance	(2,455)	(1,930)
Exchange differences and other changes	69	89
Balance at end of the year	**6,899**	**6,981**
Of which	—	
By status of the asset		
Impaired assets	*5,684*	*5,782*
Of which, due to country risk	*7*	—
Other assets	*1,208*	*1,199*
Balance at end of the year	**6,899**	**6,981**
Of which		
Individually calculated	*881*	*909*
Collective calculated	*6,018*	*6,072*

The net provision charged to results for the year includes provisions for renegotiation or contractual modification for EUR 75 million (EUR 38 million on December 31, 2020).

Taking into account the assets in suspense recovered, which amount to EUR 89 million as of December 31, 2021 (EUR 82 million as of December 31, 2020) and adding to the net provision of the previous table, the impairment of 'Credit Entities and Debt Securities' (see notes 6 and 7), the amount recorded under the heading 'Impairment or reversal of impairment of financial assets not measured at fair value through profit or loss and net gains or losses' , due to changes in 'Financial assets at fair value with changes in other comprehensive income' and 'Financial assets at amortized cost', amounts to EUR 2,287 million as of December 31, 2021 (EUR 2,559 million as of December 31, 2020) .

The following is the movement of loan loss provisions broken down by impairment stage of loans and advances to customers, during 2021 and 2020:

2021

EUR million	Stage 1	Stage 2	Stage 3	Total
Balance at beginning of the year	485	714	5,782	6,981
Transfers				
Transfer to Stage 2 from Stage 1	(19)	248		229
Transfer to Stage 3 from Stage 1	(52)		240	188
Transfer to Stage 3 from Stage 2		(119)	384	265
Transfer to Stage 1 from Stage 2	4	(76)		(72)
Transfer to Stage 2 from Stage 3		23	(77)	(54)
Transfer to Stage 1 from Stage 3	1		(13)	(12)
Net changes of the exposure and modifications in the credit risk	71	(84)	1,773	1,760
Changes due to update in the methodology of estimates of the entity				
Write-offs			(2,455)	(2,455)
FX and other movements	19	—	50	69
Gross carrying amount end of the year	**509**	**706**	**5,684**	**6,899**

2020

EUR million	Stage 1	Stage 2	Stage 3	Total
Balance at beginning of the year	335	513	5,397	6,245
Transfers				
Transfer to Stage 2 from Stage 1	(138)	242		104
Transfer to Stage 3 from Stage 1	(94)		382	288
Transfer to Stage 3 from Stage 2		(122)	288	166
Transfer to Stage 1 from Stage 2	10	(82)		(72)
Transfer to Stage 2 from Stage 3		22	(65)	(43)
Transfer to Stage 1 from Stage 3	6		(19)	(13)
Net changes of the exposure and modifications in the credit risk	359	131	1,657	2,147
Changes due to update in the methodology of estimates of the entity				
Write-offs			(1,930)	(1,930)
FX and other movements	7	10	72	89
Gross carrying amount end of the year	**485**	**714**	**5,782**	**6,981**

d) Impaired assets

The detail of the movement in the balance of financial assets classified as 'Loans and advances to customers' and considered to be impaired by reason of their credit risk:

EUR million	2021	2020
Balance at beginning of the year	13,524	13,994
Net additions	1,813	1,460
Written-off assets	(2,455)	(1,930)
Other changes	—	—
Balance at end of the year	**12,882**	**13,524**

This amount, once the corresponding provisions have been deducted, is Banco Santander´s best estimate of the discounted value of the cashflows that are expected to be recovered from impaired assets.

At 31 December 2021, the balance of the assets written-off amounted to EUR 8,198 million. (December 2020: EUR 8,660 million).

The following are the credit impaired financial assets and related guarantees maintained to mitigate potential losses as of 31 December 2021:

EUR million	Gross amount	Allowance recognized	Estimated collateral value*
Without associated real collateral	4,881	2,973	—
With associated real collateral	7,093	2,275	4,508
With other collateral	908	436	255
Total	**12,882**	**5,684**	**4,763**

* Collects the estimated value of the collateral associated with each loan. Consequently, it does not include any other cash flow that could be obtained, such as those from the personal guarantees of the accredited.

When classifying assets in the previous table, the main factors considered by Banco Santander 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

The heading 'Loans and advances to customers' includes, among others, those loans transferred to third parties by securitisation on which risks and profits are maintained, albeit partially, which is why and in accordance with the accounting regulations that apply, they cannot be removed from the balance sheet. This is mainly due to mortgage loans, loans to companies and consumer loans. The breakdown of securitised loans held on the balance sheet, taking into account the nature of the financial instrument from which they originate, is shown below.

EUR million	2021	2020
Retained on the balance sheet	15,347	20,113
Of which, mortgage assets are securitized through:		
*Mortgage transfer certificates (nota 20.c)**	*11,133*	*17,610*
Total	**15,347**	**20,113**

* Note 19 reports the liabilities associated with securitization operations, discounting the bonds of the securitization funds repurchased by the Bank.

The evolution of this activity responds to its use as a regulatory capital management tool and as a resource for the diversification of Banco Santander's liquidity sources. During 2021 and 2020 the Bank didn't derecognized any of the securitizations carried out in years mentioned before, and the balance derecognized at those dates corresponds to securitizations carried out in previous years.

On the other hand, as of December 31, 2021, Banco Santander has credits derecognized from the balance sheet and on which the administration maintains for an amount of EUR 2,397 million (EUR 2,783 million as of December 31, 2020). Within the total loans written off the balance sheet, as of December 31, 2021, there are EUR 845 million (EUR 1,005 million in 2020) of securitized assets.

f) Guarantee

Below is the breakdown of the liabilities issued guaranteed by assets, discounting own values as of 31 December 2021 and 2020:

EUR million

	2021	2020
Liabilities secured by assets:		
Mortgage-backed bonds	22,274	23,589
Asset-backed securities	2,290	381
Territorial bonds	625	872
Total	**25,189**	**24,842**

The mortgage-backed bonds ('*cédulas hipotecarias*') are secured by mortgage loans with average maturities of more than ten years. In order to calculate the amount of the qualifying assets, the following transactions are excluded from the total base of the unsecuritized mortgage portfolio:

- Transactions classified as at pre-action stage and procedural stage.
- Transactions without appraisal by a specialist valuer.
- Transactions exceeding 80% of the appraized value in residential financing and 60% in the case of other assets.
- Second mortgages or mortgages with insufficient collateral.
- Transactions without insurance or with insufficient insurance.

The asset-backed securities, including asset-backed securities and notes issued by special-purpose vehicles (SPVs), are secured by:

- Mortgage loans to individuals to finance the acquisition and refurbishment of homes with an average maturity of more than ten years.
- Personal consumer finance loans with no specific guarantee and unsecured loans with an average maturity of five years.
- Loans to SMEs (non-financial small and medium-sized enterprises) secured by State guarantees, and loans to companies (SMEs -self-employed, microbusinesses, small and medium-sized enterprises- and large companies) secured by property mortgages, the borrower's personal guarantee, guarantees and other collateral other than property mortgages, with an average maturity of seven years.
- Mortgage and non-mortgage loans to finance municipalities, autonomous communities and subsidiaries with an average maturity of more than ten years.
- Asset-backed securities issued by various European special-purpose vehicles backed by German and Italian loans for the purchase of vehicles and Italian personal loans, with an average maturity of eight years.
- Commercial credit of Banco Santander (ordinary and occasional invoice discounting and advances to customers on legitimate receivables) with an average maturity of 45 days.

The fair value of the guarantees received by Banco Santander (financial and non-financial assets) which the Bank is authorized to sell or pledge even if the owner of the guarantee has not defaulted is scantly material taking into account the Bank's financial statements as a whole.

11. Trading derivatives

The detail of the notional and/or contractual amounts and the market values of the trading derivatives held by the Bank in 2021 and 2020 is as follows:

EUR million

	2021		2020	
	Notional value	Market value	Notional value	Market value
Held for trading:				
Interest rate	4,163,388	3,280	4,423,110	3,795
Options	203,013	(304)	247,858	(441)
Other	3,960,375	3,584	4,175,252	4,236
Equity instruments	55,548	439	50,733	955
Options	36,920	(231)	39,270	4
Other	18,628	670	11,463	951
Currency	687,473	(2,172)	618,977	(1,925)
Options	43,666	48	39,842	41
Other	643,807	(2,220)	579,135	(1,966)
Credit	12,856	(147)	11,652	(146)
Hedging default derivative and total through out	12,856	(147)	11,652	(146)
Securities and commodities derivatives and other	5,518	(49)	6,067	7
	4,924,783	**1,351**	**5,110,539**	**2,686**

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12. Non-current assets held for sale

The balance detail under this heading of the attached balance sheets is shown below:

EUR million	2021	2020
Foreclosed assets	966	1,001
Other assets leased out under an operating lease	27	231
Investment property	—	55
Total	**993**	**1,287**

As of December 31, 2021, reducing the balance of this heading, there were EUR 644 million corresponding to value adjustments due to impairment of said assets, which entails a coverage of 39.3% of them (EUR 626 million, with a coverage of 32.7%, in the 2021 financial year) of which EUR 70 million have been recorded during the 2020 financial year (EUR 68 million in the 2020 financial year) under the heading 'Gains or losses from non-current assets and groups disposal of items classified as held for sale not eligible as discontinued operations' (see Note 46)

At December 31, 2021 there are no liabilities associated in disposable groups of items that have been classified as held for sale associated with other non-current assets and alienable groups of items that have been classified as held for sale.

13. Investments

a) Associated entities

'Investments - Associates' in the accompanying balance sheets includes Banco Santander`s ownership interests in associates (see note 2.b).

Appendix II contains a detail of these companies, indicating the percentages of direct or indirect ownership and other relevant information.

At 31 December 2021 there were no capital increases in progress at any associated company.

i. Breakdown

The detail of the balance of this heading of the attached balances, based on the contracting currency and the admission or non-listing of the securities, is as follows:

EUR million	2021	2020
Currency:		
Euro	3,020	3,082
Foreign Currency	—	—
	3,020	**3,082**
Listing status:		
Listed	1,917	1,978
Unlisted	1,103	1,104
	3,020	**3,082**

ii. Changes

The changes in 2021 and 2020 in 'Investments - Associates'', disregarding impairment losses, were as follows, (see note 13.a.iii):

EUR million	2021	2020
Balance at the beginning of the year	3,363	5,432
Purchases, capital increases and mergers	20	512
Of which		
Popular Spain Holding de Inversiones, S.L.U. (before Allianz Popular, S.L.)	*—*	*414*
Merlín Properties, SOCIMI, S.A.	*6*	*87*
Redsys Servicios de Procesamiento, S.L.	*10*	*—*
Promontoria Manzana, S.A.	*—*	*3*
Disposals, reductions and mergers:	(78)	(9)
Of which		
Merlin Properties, SOCIMI, S.A.	*(25)*	*—*
Metrovacesa, S.A.	*(52)*	*—*
Promontoria Manzana, S.A.	*—*	*(4)*
Transfers	—	(2,535)
Of which		
Popular Spain Holding de Inversiones, S.L.U. (before Allianz Popular, S.L.)	*—*	*(834)*
Project Quasar Investment 2017, S.L.	*—*	*(1,701)*
Other changes (net)	7	(37)
Balance at end of the year	**3,312**	**3,363**

In April 2021, the company Merlín Properties, SOCIMI, S.A. has made a distribution of dividends charged to the issue premium, with Banco Santander receiving an amount of EUR 27 million, which has led to the recording of a reduction in the cost of the participation of EUR 25 million and the recording of an income of EUR 2 million.

Additionally, during the 2021 financial year, Banco Santander has acquired, through various purchases in the stock market, shares of the entity Merlín Properties, SOCIMI, S.A. for a net total of EUR 6 million.

In May and December 2021, Metrovacesa, S.A. made two distributions of dividends charged to the unrestricted reserve (issue premium), with Banco Santander receiving two payments of EUR 19 million. These operations have entailed a reduction in the cost of the participation of EUR 52 million and an impairment application of EUR 14 million.

In July 2021 and September 2021, as a result of changes in the composition of the Spanish banking sector, Banco Santander has exercised its preferential acquisition right, included in the partners' agreement dated June 29, 2021, of shares in Redsys Servicios of Procesamiento, S.L. for imports of EUR 2 million and EUR 8 million, respectively, until reaching the maximum established share of 24.9%.

On January 31, 2020, Banco Santander proceeded to repurchase 60% of the stake in Allianz Popular, S.L., reaching a 100% stake in this company. The total cost of this participation after this acquisition has been fixed at EUR 834 million, and then reclassify it to the heading of 'Group Entities' (see note 13.b.ii).

In addition, during the year 2020, Banco Santander acquired shares of Merlín Properties, SOCIMI, S.A. through various purchases on the stock market for a net total of EUR 87 million.

Also, in September 2020, on the occasion of the loss of control over the entity Project Quasar Investments 2017, S.L., Banco Santander's share in the same, amounting to EUR 1,701 million (EUR 956 million net impairment fund), was reclassified to the portfolio of Equity Instruments (see note 8.b.ii).

iii. Impairment losses

The changes in the balance of this item were as follows:

EUR million

	2021	2020
Balance at the beginning of the year	281	572
Net impairment losses (reversals) (note 44)	24	460
Other changes	(13)	(751)
Balance at end of the year	**292**	**281**

b) Group entities

'Investments - Group entities' includes the equity instruments owned by Banco Santander and issued by subsidiaries belonging to Grupo Santander.

Relevant information on these companies is provided in Appendix I.

i. Breakdown

The detail, by currency and listing status, of 'Investments - Subsidiaries' on the balance sheets as at 31 December 2021 and 2020 is as follows:

EUR million

	2021	2020
Currency:		
Euro	45,780	44,346
Pound Sterling	13,303	12,163
Other currencies	26,189	25,051
	85,272	**81,560**
Listing status:		
Listed	6,338	5,968
Unlisted	78,934	75,592
	85,272	**81,560**

ii. Changes

The changes in 2021 and 2020 in 'Investments - Subsidiaries', disregarding impairment losses, were as follows:

EUR million

	2021	2020
Balance at beginning of the year	93,918	89,318
Acquisitions, contributions, capital increase payments and mergers	6,593	7,108
Of which		
Contingently convertible debt (AT1)	*996*	*—*
PagoNXT, S.L. (before Santander Digital Businesses, S.L.)	*917*	*1,030*
Ablasa Participaciones, S.L.	*616*	*—*
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	*343*	*—*
PagoNXT Merchant Solutions, S.L. (before Santander Merchant Platform Solutions, S.L.)	*296*	*—*
Tresmares Santander Direct Lending, SICC, S.A.	*274*	*—*
Retail Company 2021, S.L.U.	*262*	*—*
Banco Santander de Negocios Colombia S.A.	*178*	*—*
Openbank, S.A.	*170*	*—*
Open Digital Services, S.L.	*161*	*—*
Deva Capital Holding Company, S.L.	*96*	*—*
Santander Fintech Holding, S.L.	*62*	*—*
Landcompany 2020, S.L. (before Landmark Ibérica, S.L.)	*21*	*33*
Santander Totta, SGPS, S.A.	*—*	*4,949*
SAM Investment Holdings, S.L.	*—*	*292*
Uro Property Holdings, SOCIMI, S.A. (OCI portfolio transfer)	*—*	*179*
Disposals, capital reductions and mergers	(4,841)	(3,725)
Of which		
Contingently convertible debt (AT1)	*(1,157)*	*—*
Popular Spain Holding de Inversiones, S.L.U. (before Allianz Popular, S.L.)	*(542)*	*(292)*
PagoNXT Merchant Solutions, S.L. (before Santander Merchant Platform Solutions, S.L.)	*(296)*	*(150)*
Sterrebeck B.V.	*(264)*	*—*
Getnet Europe, Entidad de Pago, S.L. (before Santander España Merchant Services, Entidad de Pago, S.L.)	*(185)*	*—*
Grupo Empresarial Santander, S.L.	*(141)*	*—*
Banco Santander (Brasil) S.A.	*—*	*(2,478)*
Santander Global Property, S.L.U.	*—*	*(255)*
Inmobiliaria Viagracia, S.A.U.	*—*	*(109)*
Inversiones Capital Global, S.A. Unipersonal	*—*	*(67)*
BPE Financiaciones, S.A.U.	*—*	*(1)*
Transfers	—	1,013
Of which		
Popular Spain Holding de Inversiones, S.L.U. (before Allianz Popular, S.L.)	*—*	*834*
FX and other movements*	1,054	204
Balance at end of the year	**96,724**	**93,918**

* In 2020 it includes EUR 2,507 million corresponding to the contingently convertible debt instruments (AT1) transferred under this heading.

On May 14, 2021, Banco Santander has subscribed a capital increase in the company Landcompany 2020, S.L. (formerly Landmark Iberia, S.L.) through a non-monetary contribution of land for a total amount of EUR 21 million, reaching a participation percentage of 17.66%.

In June 2021, the companies PagoNxt Merchant Solutions, S.L. (formerly Santander Merchant Platform Solutions, S.L.), Grupo Empresarial Santander, S.L. and Sterrebeck B.V. drafted two partial spin-off projects pursuant to which the spun-off companies (Grupo Empresarial Santander, S.L. and Sterrebeck B.V.) transfer en bloc and by universal succession a part of their assets consisting of all the shares representing the share capital of Getnet Adquirência e Serviços para Meios de Pagamento S.A. (Getnet Brasil) of its ownership to the beneficiary company (PagoNxt Mechant Solutions, S.L.). This has led to a capital increase in PagoNxt Merchant Solutions, S.L. and a decrease in Grupo Empresarial Santander, S.L. and Sterrebeck B.V. for amounts of EUR 141 million and EUR 264 million, respectively. The Bank, as shareholder of the spun-off companies, has received shares of PagoNxt Merchant Solutions, S.L.

On the other hand, throughout the 2021 financial year, Banco Santander has made various monetary contributions to the equity of the company PagoNxt, S.L. (formerly Santander Digital Businesses, S.L.) amounting EUR 407 million. Likewise, during the 2021 financial year it has also subscribed non-monetary contributions to this company for a total of EUR 510 million, through the contribution of its participation in the following companies: EUR 215 million by Getnet Europe, Entidad de Pago, S.L. (formerly Santander España Merchant Services, Entidad de Pago, S.L.) and EUR 295 million for PagoNxt Merchant Solutions, S.L. (formerly Santander Merchant Platform Solutions, S.L.).

In July 2021, the Bank proceeded to purchase the remaining 8% of its stake in Parque Solar Páramo, S.L. for an amount of EUR 6 million, transferring it from the portfolio of investments in joint ventures to the portfolio of investments in subsidiaries (see note 13.c.). Subsequently, this interest was transferred to the heading 'Non-current assets held for sale', due to Management's intention to sell them during the year (see note 12).

On July 5, 2021, the merger by absorption of Santander Global Operations, S.A. was signed (absorbed company) by Santander Global Tecnhnology, S.L. (absorbing company), with dissolution without liquidation of the absorbed company and en bloc transfer of its assets to the absorbing company. The new company resulting from the merger is renamed Santander Global Technology and Operations, S.L.

On October 21, 2021, within the process of rationalizing and optimizing the corporate structure of Grupo Santander, a segregation project was signed by virtue of which Banco Santander has segregated the autonomous economic unit that integrates the branch management business empty bank offices, with closure project or leased to third parties not linked to the banking activity of Banco Santander (split company), including the contracts linked to them and the employees currently in charge of their management, in favor of a newly creation called Retail Company 2021, S.L.U (beneficiary company). The amount of the segregation has risen to EUR 262 million.

On December 7, 2021, within the framework of the Public Offer for the Acquisition of shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México, for up to all of the Series B shares representing the capital stock, Banco Santander has acquired 4.51% of the shares of said company, both in Mexico and in the United States. This has meant a disbursement of EUR 343 million, including the expenses of the operation.

On December 16, 2021, the deed of merger by absorption by the Bank of the companies Popular Spain Holding de Inversiones, S.L.U. (formerly Allianz Popular, S.L.), Santander Investment I, S.A.U. and Administration of Bancos Latinoamericanos Santander, S.L., incorporating, among other assets, the companies Ablasa Participaciones, S.L. and Banco Santander de Negocios Colombia. The net amount registered under this heading for this operation was EUR 223 million, with a credit in reserves of EUR 1,039 million.

Also, throughout the 2021 financial year Banco Santander has subscribed capital increases and made partner contributions, the most relevant being: EUR 274 million euros to Tresmares Santander Direct Lending, SICC, S.A., EUR 170 million to Open Bank, S.A., EUR 161 million to Open Digital Services, S.L., EUR 96 million to Deva Capital Holding Company, S.L. and EUR 62 million to Santander Fintech Holdings, S.L.

On January 31, 2020, Banco Santander proceeded to transfer to this heading 100% of its stake in Popular Spain Holding de Inversiones, S.L.U. (formerly Allianz Popular, S.L.) amounting EUR 834 million (see note 13.a.ii). Next, on 28 April 2020, Popular Spain Holding de Inversiones, S.L.U. approved a refund of the issuance premium of EUR 292 million to Banco Santander by transferring a credit right derived from the deferred price of two contracts for the sale of shares.

Banco Santander also made a contribution to their own funds of SAM Investment Holdings, S.L. for the same amount, by the assignment of the said right.

On May 8, 2020, Banco Santander signed two successive capital increases by Landcompany 2020, S.L. (before Landmark Iberia, S.L.) through non-cash contributions of land totaling EUR 33 million, reaching a share rate of 17.22%.

On June 30, 2020, the sole partner of Investments Capital Global, S.A.U. approved a partial distribution of the shared premium, which has meant a decrease Banco Santander´s share in the company of EUR 67 million.

In September 2020, Banco Santander acquired 85.03% of the shares of Uro Property Holdings, SOCIMI, S.A. reaching a total share of 99.99%. As a result of this acquisition, this stake was enforced under this heading at a total cost of EUR 179 million.

On December 22, 2020, in the context of the reorganization of the shareholder of Banco Santander (Brasil) S.A. within the Group, Banco Santander sold 13.89% of its stake in that entity to Grupo Empresarial Santander, S.L. for EUR 3,605 million. As a result of this sale, the Bank recorded a profit of EUR 1,127 million (see note 45).

Also, on December 23, 2020, the deeds of merger by absorption by Banco Santander of the entities Santander Global Property, S.L.U., Inmobiliaria Viagracia, S.A.U. and BPE Financiaciones, S.A.U. raised to the public. The amount discharged under this heading for this operation was EUR 365 million.

In addition, on December 28, 2020, Banco Santander acquired 99.85% of Santander Totta, SGPS, S.A. shares from Santusa Holding, S.A. for an amount of EUR 4,949 million.

In addition, during the year 2020, Banco Santander made various monetary contributions to the own funds of the company PagoNxt, S.L. (formerly Santander Digital Businesses, S.L.) totaling EUR 754 million. In addition, it signed capital increases during 2020 and made non-cash contributions to this company totaling EUR 276 million, by contributing its participation in the following companies: EUR 45 million by Ebury Partners Limited, EUR 31 million by Moneybit, S.L. (currently PagoNxt Trade Services, S.L.) EUR 150 million for Santander Merchant Solutions, S.L. (before PagoNxt Merchant Solutions, S.L.) and EUR 50 million for PagoNxt Solutions, S.L.

iii. Impairment losses

The changes in the balance of this item were as follows:

EUR million

	2021	2020
Balance at beginning of the year	12,358	7,095
Net impairment losses (reversals) (note 44)	(851)	5,466
Other changes	(55)	(203)
Balance at end of the year	**11,452**	**12,358**

The Management carries out an analysis of the potential loss of value of the investments in subsidiaries, joint ventures and associates that it has registered with respect to their book value. Said analysis is carried out using different parameters, such as equity value, listed value and recoverable value, which is obtained from estimates of expected cash flows or net worth corrected by tacit capital gains existing on the date of the valuation.

In accordance with the foregoing, Banco Santander has carried out in December 2021 the evaluation of its investees. The provisions for impairment made by the Bank during the 2021 financial year include EUR 144 million corresponding to the impairment of the stake held in Open Digital Services, S.L. Additionally, during the year impairment releases have been made that include EUR 887 million corresponding to the stake in Santander UK Group Holdings plc, derived from the results obtained by the group of entities of which it is the parent and the positive evolution of the interest rate of exchange affected.

During the 2020 financial year, considering the expected evolution of the macroeconomic variables included in the valuation of its investees and the impact of the covid-19 crisis, the Bank made provisions for impairment that included EUR 4,313 million corresponding to the impairment of the investment held in Santander UK Group Holdings plc.

c) Joint venture entities

The cost of the investee entities registered under this heading as of 31 of December 2021 amounts to EUR 451 million, while impairment provisions recorded at that date are EUR 194 million (EUR 420 millon and EUR 172 million in 2020).

In July 2021, Banco Santander proceeded to purchase the remaining 8% of its stake in Parque Solar Páramo, S.L. for an amount of EUR 6 million, transferring it to the Group's portfolio of investments in subsidiaries (see note 13.b.ii).

Likewise, in December 2021, UCI, S.A. approved a capital increase, corresponding to Banco Santander an amount of EUR 30 million.

During the 2021 financial year, Banco Santander has provided impairment for a net amount of EUR 27 million for the entities registered under this heading, mainly by the company UCI, S.A., while in the 2020 financial year it released provisions of EUR 5 million for the same company.

14. Insurance contracts linked to pensions

The detail of Insurance contracts linked to pensions in the accompanying balance sheets are as follows:

EUR million

	2021	2020
Assets relating to insurance contracts covering post-employment benefit plan obligations (notes 17 and 23)	381	423
Total	**381**	**423**

15. Tangible assets

a) Changes

The movement under this heading of the balance sheet during the financial year 2021 and 2020 was as follows:

EUR million

	Tangible assets				Of which, right-of-use for operating lease			
	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								
Opening balance at 1 January 2020	8,597	850	337	9,784	2,946	—	—	2,946
Additions/disposals (net)	174	126	—	300	8	—	—	8
Transfers and other	(455)	—	(10)	(465)	—	—	—	—
Balance at 31 December 2020	**8,316**	**976**	**327**	**9,619**	**2,954**	**—**	**—**	**2,954**
Additions/disposals (net)	110	147	(2)	255	(51)	—	—	(51)
Transfers and others	(627)	—	55	(572)	(8)	—	—	(8)
Balance at 31 December 2021	**7,799**	**1,123**	**380**	**9,302**	**2,895**	**—**	**—**	**2,895**
Accumulated depreciation								
Opening balance at 1 January 2020	(2,298)	(199)	(21)	(2,518)	(268)	—	—	(268)
Charge for the year	(453)	(99)	(2)	(554)	(262)	—	—	(262)
Disposals	43	69	—	112	28	—	—	28
Transfers and others	195	—	7	202	—	—	—	—
Balance at 31 December 2020	**(2,513)**	**(229)**	**(16)**	**(2,758)**	**(502)**	**—**	**—**	**(502)**
Charge for the year	(455)	(114)	(4)	(573)	(276)	—	—	(276)
Disposals	93	72	—	165	84	—	—	84
Transfers and others	606	—	(2)	604	133	—	—	133
Balance at 31 December 2021	**(2,269)**	**(271)**	**(22)**	**(2,562)**	**(561)**	**—**	**—**	**(561)**
Impairment losses								
Opening balance at 1 January 2020	(46)	—	(89)	(135)	—	—	—	—
Charge for the year	(62)	—	—	(62)	—	—	—	—
Disposals	—	—	—	—	—	—	—	—
Transfers and others	20	—	(4)	16	—	—	—	—
Balance at 31 December 2020	**(88)**	**—**	**(93)**	**(181)**	**—**	**—**	**—**	**—**
Charge for the year	(85)	—	—	(85)	—	—	—	—
Disposals	—	—	—	—	—	—	—	—
Transfers and others	35	—	6	41	—	—	—	—
Balance at 31 December 2021	**(138)**	**—**	**(87)**	**(225)**	**—**	**—**	**—**	**—**
Tangible assets, net								
Balance at 31 December 2020	**5,715**	**747**	**218**	**6,680**	**2,452**	**—**	**—**	**2,452**
Balance at 31 December 2021	**5,392**	**852**	**271**	**6,515**	**2,334**	**—**	**—**	**2,334**

b) Property, plant and equipment for own use

The detail, by class of asset, of 'Property, plant and equipment - For own use' on the balance 2021 and 2020 sheets is as follows:

EUR million

	Cost	Accumulated depreciation	Impairment losses	Carrying amount	Of which, right-of-use for operating lease
Land and buildings	5,514	(644)	(88)	4,782	2,452
Furniture, fixtures and vehicles	2,130	(1,322)	—	808	—
Computer hardware	634	(547)	—	87	—
Other	38	—	—	38	—
Balance at 31 December 2020	**8,316**	**(2,513)**	**(88)**	**5,715**	**2,452**
Land and buildings	5,389	(740)	(138)	4,511	2,334
Furniture, fixtures and vehicles	2,037	(1,278)	—	759	—
Computer hardware	326	(251)	—	75	—
Other	47	—	—	47	—
Balance at 31 December 2021	**7,799**	**(2,269)**	**(138)**	**5,392**	**2,334**

The carrying amount at 31 December 2021 in the table above includes the following approximate amounts:

- EUR 3 million (31 December 2020: EUR 2 million) relating to property, plant and equipment owned by Banco Santander's branches located abroad.
- EUR 484 million (31 December 2020: EUR 549 million) relating to property, plant and equipment held under finance leases by Banco Santander, of which EUR 360 million related to leases in effect as of 31 December 2021 (31 December 2020: EUR 427 million).

c) Tangible assets - Leased out under an operating lease

Banco Santander has assets assigned under operating lease where the company is the lessor and they do not meet the accounting requirements to be classified as financial leases. The net cost of these leases is recorded as an asset and is depreciated on a straight-line basis over the contractual term of the lease up to the expected residual value.

The expected residual value and, consequently, the monthly depreciation expense may change during the term of the lease. The Bank estimates expected residual values using independent data sources and internal statistical models. Likewise, it evaluates the estimate of the residual value of said leases and adjusts the depreciation rate based on the change in the expected value of the asset at the end of the lease.

Banco Santander periodically evaluates its investment in operating leases and whenever there are indications of impairment, such as a systemic and material decrease in the values of the assigned assets. If assets leased under operating leases are considered to be impaired, impairment is measured as the amount by which the assets' carrying amount exceeds fair value as estimated by discounted cash flows. During the years 2021 and 2020, the Bank has not recorded any material impairment for this concept.

During the 2021 financial year, no significant variable payments have been made not included in the valuation of lease assets.

16. Intangible assets

a) Goodwill

The detail of the 'Goodwill', on the balance sheets is as follows:

EUR million

	2021	2020
Santander España	623	623
Amortization charge	(227)	(165)
Balance at end of year	**396**	**458**

The movement during the years 2021 and 2020 has been as follows:

EUR million

	2021	2020
Balance at beginning of the year	458	521
Additions (note 3)	—	—
Amortization charge	(62)	(63)
Impairment losses	—	—
Disposals or changes in scope	—	—
Balance at end of year	**396**	**458**

Neither in 2021, nor in 2020 has goodwill been generated.

All of the goodwill recorded at the end of the 2021 and 2020 financial years comes from the following corporate operations that were carried out in the 2018 financial year:

- Merger by absorption of Banco Popular Español, S.A.U. On June 7, 2017, Banco Santander acquired 100% of the share capital of Banco Popular Español, S.A.U. Subsequently, on September 28, 2018, the deed of merger by absorption of Banco Popular Español, S.A.U. was registered in the Mercantile Registry of Cantabria by Banco Santander, S.A. with accounting effects January 1, 2018, transferring to the books of Banco Santander a gross goodwill of EUR 248 million.
- Repurchase of the credit and debit card business marketed by Grupo Banco Popular in Spain and Portugal generating the business combination a goodwill of EUR 375 million.

In accordance with Bank of Spain Circular 4/2017, the goodwill is amortized within a period of ten years. In addition, the Bank periodically reviews the term and method of amortization and, if deemed inappropriate, the impact will be treated as a change in accounting estimates.

As of 31 December 2021 and 31 December 2020, the amount of goodwill recorded by Banco Santander, net of accumulated depreciation, amounted to EUR 396 million and EUR 458 million, respectively.

Banco Santander, at least annually and whenever there are indicators of impairment, conducts an analysis of the potential loss of value of the trade funds it has recorded in respect of their recoverable value.

The first step in carrying out this analysis requires the identification of the cash-generating units, which are the smallest identifiable groups of assets in Banco Santander that generate cash inflows and are largely independent of the cash flows of other assets or asset groups.

For the purposes of those mentioned in the preceding paragraph, the Bank's administrators have identified the commercialbanking business in Spain as the cash-generating unit to which to allocate goodwill arising both by the acquisition and subsequent merger by absorption of Banco Popular Español, S.A.U. and by the repurchase of the credit and debit cards from Grupo Banco Popular.

Its carrying value is determined taking into account the book value of all the assets and liabilities that make up the commercial banking business in Spain, together with the corresponding goodwill.

The recoverable amount of Santander España cash-generating unit has been determined as the fair value of such cash-generating unit obtained using quotes, market references (multiples) or internal estimates.

Based on previous data, and in accordance with the estimates of the Bank's administrators, during the years 2021 and 2020 the Bank has not recorded any amount under the heading 'Impairment in value or reversal of impairment in value of non-financial assets - intangible assets' in concept of impairment of goodwill.

b) Other intangible assets

i. Breakdown

The detail of Intangible assets 'Other intangible assets' on the balance sheets is as follows:

EUR million

	2021	2020
With finite useful life		
IT Developments	1,106	996
Accumulated amortization	(606)	(506)
Balance at end of year	**500**	**490**

ii. Changes

The changes in Intangible assets 'Other intangible assets' on the balance sheets were as follows:

EUR million

	2021	2020
Balance at end of prior year	490	164
Net additions and disposals	110	447
Amortization charge	(100)	(120)
Impairments losses	—	(1)
Balance at end of year	**500**	**490**

17. Other assets and Other liabilities

The detail of 'Other assets and Other liabilities' on the accompanying balance sheets is as follows:

EUR million

	Assets		Liabilities	
	2021	2020	2021	2020
Transactions in transit	11	—	—	20
Insurance contracts linked to pensions (note 14)	381	423	—	—
Inventory	—	—	—	—
Prepayments and accrued income	504	447	2,133	1,789
Other*	1,044	3,304	1,138	1,758
Total	**1,940**	**4,174**	**3,271**	**3,567**

* Includes, mainly, unsettled transactions.

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18. Deposits from central banks and credit institutions

The detail by classification, type and currency of 'Deposits from central banks' and 'Deposits from credit institutions' on the accompanying balance sheets is as follows:

EUR million	2021	2020
CENTRAL BANKS		
Classification		
Financial liabilities held for trading	44	—
Financial liabilities designated at fair value through profit or loss	607	1,469
Financial liabilities at amortized cost	64,649	60,372
	65,300	**61,841**
Type		
Time deposits	63,161	60,932
Deposits available with prior notice	—	—
Repurchase agreements	2,139	909
	65,300	**61,841**
Currency		
Euro	60,343	56,306
US dollar	2,809	4,909
Pound Sterling	2,110	593
Other currencies	38	33
	65,300	**61,841**
CREDIT INSTITUTIONS		
Classification		
Financial liabilities held for trading	5,718	—
Financial liabilities designated at fair value through profit or loss	1,067	4,496
Financial liabilities at amortized cost	35,262	40,725
	42,047	**45,221**
Nature		
Current accounts / Intraday deposits	15,989	14,280
Time deposits	15,698	23,869
Deposits available with prior notice	—	—
Repurchase agreements	10,360	7,072
	42,047	**45,221**
Currency		
Euro	31,067	32,063
US dollar	7,737	8,963
Pound Sterling	2,577	3,541
Other currencies	666	654
	42,047	**45,221**
Total	**107,347**	**107,062**

Banco Santander, following the various long-term financing programmes of the European Central Bank (TLTRO), mantain deposits at amortized cost from the TLTRO III programme amounting to EUR 61,183 million as of 31 December 2020 (EUR 56,288 million as at 31 December 2021 from TLTRO III). As of December 2021, the income recognized in the profit and loss account, corresponding to TLTRO III, is EUR 608 million (EUR 299 millions as at 31 December 2020).

The deposits classified in the 'Liabilities held for trading' portfolio correspond to temporary transfers of assets of Spanish and foreign institutions.

Note 48 contains a detail of the residual maturity periods of financial liabilities at amortized cost.

19. Customer deposits

The detail by classification, type, sector and geographical area, of 'Customer deposits' is as follows:

EUR million

	2021	2020
Classification		
Financial liabilities held for trading	1,291	—
Financial liabilities designated at fair value through profit or loss	11,069	10,925
Financial liabilities at amortized cost	296,243	275,740
	308,603	**286,665**
Type		
Current accounts / Intraday deposits	269,721	247,394
Time deposits	36,644	36,660
Deposits available with prior notice	—	—
Repurchase agreements	2,238	2,611
Of which, subordinated deposits	*—*	*—*
Of which, issued securities	*2,290*	*381*
	308,603	**286,665**
Sector		
Public sector	23,231	21,754
Other financial companies	43,610	47,169
Non-financial companies	95,810	75,877
Households	145,952	141,865
	308,603	**286,665**
Geographical area		
Spain	262,261	249,522
European Union (excluding Spain)	25,002	21,801
United States and Puerto Rico	9,027	7,902
Other OECD countries	6,699	3,116
Latin America (non-OECD)	2,796	2,385
Rest of the world	2,818	1,939
	308,603	**286,665**

Funds received under 'Financial asset' transfers in the table above include the liabilities associated with securitisation transactions (see note 10.e).

Note 48 contains a detail of the residual maturity periods of financial liabilities at amortized cost.

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20. Marketable debt securities

a) Breakdown

The detail by classification and type, of 'Marketable debt securities' in the accompanying balance sheets is as follows:

EUR million	2021	2020
Classification:		
Financial liabilities at amortized cost	104,094	87,902
	104,094	**87,902**
Type:		
Certificates of deposit	4,444	3,921
Guaranteed bonds	62,454	55,110
Mortgage bonds	49,764	44,343
Others mortgage bonds and guaranteed bonds	12,690	10,767
Other issued securities (note 21)	76,890	59,209
Of which, subordinated liabilities	*20,399*	*17,124*
Treasury shares*	(41,018)	(32,430)
Valuation adjustments	1,324	2,092
	104,094	**87,902**

* At 31 December 2021 y 2020, the registered balance corresponds mainly to guaranteed bonds.

Note 48 contains a detail of the residual maturity periods of financial liabilities at amortized cost.

b) Certificates of deposit

The detail of certificates of deposits by currency of issuance is as follows:

	EUR million		2021	
Currency of issuance	2021	2020	Outstanding issue amount in foreign currency (million)	Annual interest rate*
US dollar	1,564	2,351	1,772	0.35 %
Hong Kong Dollars	2,880	21	2,419	0.17 %
Pound Sterling	—	1,549	—	— %
Balance at end of the year	**4,444**	**3,921**		

* Average interest rates for different issue based on their nominal values.

i. Changes

The movement that has occurred in the certificate of deposit account during the years 2021 and 2020 is as follows:

EUR million

	2021	2020
Balance at end of the prior year	3,921	3,661
Issues	15,684	10,193
Redemptions	(15,386)	(9,530)
Exchange differences and other changes	225	(403)
Balance at end of the year	**4,444**	**3,921**

As at 31 December 2021, the Bank issued certificates of deposit issues amounting to EUR 15,684 million (EUR 10,193 million as at 31 December 2020), with an average maturity of 3 months (6 months during the 2020 financial year), of which EUR 15,386 million have been amortized (EUR 9,530 million as at December 2020).

c) Mortgage bonds

The detail by currency of issuance, of 'Marketable mortgage-backed securities' is as follows:

	EUR million		2021
Currency of issuance	2021	2020	Annual interest rate*
Euros	49,764	44,343	0.82 %
Balance at end of the year	**49,764**	**44,343**	

* Average interest rate of the various issues based on their nominal values.

i. Changes

The changes in 2021 and 2020 in 'Marketable mortgage-backed securities' were as follows:

EUR million

	2021	2020
Balance at the end of the prior year	44,343	41,199
Reclassification of deposits	—	—
Issues	12,720	6,250
Of which		
April 2020	—	2,750
May 2020	—	1,000
June 2020	—	2,000
October 2020	—	500
June 2021	6,000	—
July 2021	4,970	—
September 2021	1,000	—
December 2021	750	—
Transfers	1	(66)
Amortizations on maturity	(7,300)	(3,040)
Balance at end of the year	**49,764**	**44,343**

ii. Disclosures required pursuant to the Mortgage Market Law 2/1981, of 25 March, of the Spanish Royal Decree 716/2009, of 24 April, implementing certain provisions of this Law, and to Bank of Spain Circular 7/2010, of 30 November, and Bank of Spain Circular 5/2011, of 30 November

The members of the board of directors hereby state that the Bank and the companies of the Group that 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 and Banco 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 and Banco Santander have specialised document comparison procedures and tools for verifying customer information and solvency (see note 49).

Grupo and Banco Santander's 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 and the Bank 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 and the Bank 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 and the Bank 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 and the Bank 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.

Mortgage-backed bonds

The mortgage-backed bonds (*'cédulas hipotecarias'*) issued by the Bank 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.

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 and Bank had replacement assets assigned to them.

The following is a detail, by their main features and nominal amounts, of the marketable mortgage-backed bonds outstanding at 31 December 2021 and 2020:

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	Code ISIN	EUR million			Annual interest rate (%)
		2021	2020	Nominal amount	
Issues					
Euros					
Issue February 2006	ES0413900129	1,500	1,500	1,500	3.87 %
Issue May 2007	ES0413900160	1,500	1,500	1,500	4.63 %
Issue January 2010	ES0413900194	100	100	100	— %
Issue November 2014	ES0413900368	1,750	1,750	1,750	1.13 %
Issue November 2014	ES0413900376	1,250	1,250	1,250	2.00 %
Issue September 2015	ES0413900384	1,000	1,000	1,000	0.75 %
Issue January 2016	ES0413900392	1,000	1,000	1,000	1.50 %
Issue February 2016	ES0413900400	907	907	907	2.04 %
Issue March 2016	ES0413900418	100	100	100	1.52 %
Issue June 2016	ES0413900434	—	4,000		
Issue December 2016	ES0413900467	—	250		
Issue June 2017	ES0413900475	350	350	350	0.13 %
Issue June 2017	ES0413900483	—	2,000		
Issue June 2017	ES0413900491	2,000	2,000	2,000	0.16 %
Issue November 2017	ES0413900509	12	12	12	— %
Bonds Pitch		300	300	300	5.13 %
Issue April 2013	ES0413790256	—	200		
Issue July 2013	ES0413790264	15	15	15	5.28 %
Issue July 2013	ES0413790280	400	400	1,250	1.19 %
Issue July 2013	ES0413790298	500	500	1,500	1.44 %
Issue July 2013	ES0413790306	1,500	1,500	1,500	1.69 %
Issue December 2013	ES0413790322	—	100		
Issue February 2014	ES0413790330	1,000	1,000	1,500	1.95 %
Issue March 2014	ES0413790348	200	200	200	1.08 %
Issue March 2014	ES0413790389	250	250	250	0.23 %
Issue April 2015	ES0413790397	1,000	1,000	1,000	1.00 %
Issue June 2015	ES0413790405	575	575	575	— %
Issue October 2015	ES0413790421	—	750		
Issue March 2016	ES0413790439	1,500	1,500	1,500	1.00 %
Issue December 2016	ES0413790462	250	250	250	1.13 %
Issue March 2017	ES0413790470	1,000	1,000	1,000	0.25 %
Issue April 2017	ES0413790488	1,600	1,600	1,600	0.51 %
Issue July 2014 (Banco Pastor)	ES0405035009	1,000	1,000	1,000	2.72 %
Issue June 2018	ES0413900517	350	350	350	— %
Issue October 2018	ES0413900533	1,000	1,000	1,000	1.12 %
Issue October 2018	ES0413900525	2,000	2,000	2,000	0.29 %
Issue November 2018	ES0413900541	200	200	200	0.40 %
Issue May 2019	ES0413900558	1,500	1,500	1,500	0.88 %
Issue July 2019	ES0413900566	1,500	1,500	1,500	0.25 %
Issue December 2019	ES0413900574	1,750	1,750	1,750	0.13 %
Issue February 2020	ES0413900590	1,250	1,250	1,250	0.01 %
Issue February 2020	ES0413900608	1,250	1,250	1,250	0.10 %
Issue February 2020	ES0413900582	250	250	250	0.05 %
Issue March 2020	ES0413900616	1,000	1,000	1,000	0.01 %
Issue April 2020	ES0413900624	2,000	2,000	2,000	0.27 %
Issue October 2020	ES0413900699	500	500	500	0.01 %
Issue June 2021	ES0413900723	4,000	—	4,000	0.18 %
Issue June 2021	ES0413900731	2,000	—	2,000	0.19 %
Issue July 2021	ES0413900749	4,000	—	4,000	0.18 %

	Code ISIN	EUR million			Annual interest rate (%)
		2021	2020	Nominal amount	
Issue July 2021	ES0413900756	220	—	220	0.18 %
Issue July 2021	ES0413900764	750	—	750	0.02 %
Issue September 2021	ES0413900772	1,000	—	1,000	0.11 %
Issue December 2021	ES0413900780	750	—	750	— %
Balance at end of the year		**49,829**	**44,409**	**52,179**	

The detail of the principal amount of Banco Santander mortgage securities outstanding at 31 December 2021 and 2020 is as follows:

EUR million

	Principal amount	
	2021	2020
1. Mortgage bonds outstanding	**—**	**—**
2. Mortgage-backed bonds issued (note 10.f)	**49,829**	**44,409**
Of which, recognized in liabilities	*22,274*	*23,589*
2.1. Debt instruments. Issued through a public offering	49,829	44,409
- Term to maturity of up to one year	7,700	7,300
-Term to maturity of one to two years	1,125	7,700
-Term to maturity of two to three years	3,000	1,125
-Term to maturity of three to five years	7,150	6,250
-Term to maturity of five to ten years	26,947	16,627
-Term to maturity of more than ten years	3,907	5,407
2.2. Debt instruments. Other issues	—	—
2.3 Deposits	—	—
3. Mortgage transfer certificates issued (1)	**—**	**—**
4. Mortgage transfer certificates issued (1) (2)	**11,133**	**17,610**
4.1. Issued through a public offering (note 10.e)	11,133	17,610

(1) Relating solely to mortgage loans and credits not derecognized.
(2) The average term to maturity weighted by amount, expressed in months, rounded up, was 496 months .

Asset transactions

According to Bank of Spain Circulars 7/2010 and 5/2011, of 30 November, on the implementation of certain aspects of the mortgage market, the table below details: the principal amount of all the mortgage loans and credits, those that are eligible pursuant to Royal Degree 716/2009 on the regulation of the Spanish mortgage market for the purposes of calculating the limit of mortgage-backed bond issues, the mortgage loans and credits covering mortgage bond issues, those that have been transferred through mortgage participation certificates or mortgage transfer certificates, and the uncommitted transactions relating to Banco Santander. The breakdown of the mortgage loans at 31 December 2021 and 2020 indicating their eligibility and computability for mortgage market regulatory purposes, is as follows:

EUR million

	Principal amount	
	2021	2020
Total mortgage loans and credits (1)	94,975	95,114
Mortgage participation certificates issued	1,699	1,811
Of which, loans recognized in assets	—	—
Mortgage transfer certificates issued	11,590	18,305
Of which, loans recognized in assets (note 10.e)	*11,133*	*17,610*
Mortgage loans and credits backing mortgage and mortgage-backed bond issues (2)	81,686	74,998
i) Non-eligible mortgage loans and credits (3)	17,744	18,652
- Which comply with the eligibility requirements, except for the limit established in Article 5.1 of Royal Decree 716/2009	11,357	11,621
- Other non-eligible loans	6,387	7,031
ii) Eligible mortgage loans and credits (4)	63,942	56,346
- Un-measurable amounts (5)	—	—
- Measurable amounts	63,942	56,346
a) Mortgage loans and credits covering mortgage bond issues	—	—
b) Mortgage loans and credits eligible to cover mortgage-backed bond issues	63,942	56,346

(1) Including mortgage loans and credits acquired through mortgage participation certificates and mortgage transfer certificates, irrespective of whether they have been derecognized.
(2) Total loans less mortgage participation certificates issued, mortgage transfer certificates issued and mortgage loan securing borrowings.
(3) Due to non-compliance with the requirements of Art. 3 of Royal Decree 716/2009.
(4) Pursuant to Art. 3 of Royal Decree 716/2009, without taking into account the measurement limits established in Art. 12 of Royal Decree 716/2009.
(5) Pursuant to Art. 12 of Royal Decree 716/2009.

The following is a detail of the principal amount of the outstanding mortgage loans and credits and of the principal amount of the loans and credits that are eligible pursuant to Royal Decree 716/2009, without considering the measurement limits established under Article 12 of Royal Decree 716/2009, by origin, currency, payment status, average term to maturity, interest rate, borrower and type of guarantee:

EUR million

	Principal amount			
	2021		2020	
	Mortgage loans and credits backing mortgage and mortgage-backed bond issues	Of which, eligible loans*	Mortgage loans and credits backing mortgage and mortgage-backed bond issues	Of which, eligible loans*
By origin of transactions				
Originated by the entity	80,951	63,246	74,238	55,621
From subrogations	735	696	760	725
	81,686	**63,942**	**74,998**	**56,346**
By currency				
Euro	80,984	63,942	74,299	56,346
Other currencies	702	—	699	—
	81,686	**63,942**	**74,998**	**56,346**
By payment status				
Current	73,299	62,148	66,215	54,967
Past due	8,387	1,794	8,783	1,379
	81,686	**63,942**	**74,998**	**56,346**
By term to maturity				
Less than 10 years	25,460	15,418	26,072	15,185
10 to 20 years	30,185	26,059	27,436	23,249
20 to 30 years	25,125	22,125	20,301	17,445
More than 30 years	916	340	1,189	467
	81,686	**63,942**	**74,998**	**56,346**
By interest rate				
Fixed-rate loans	20,601	17,944	13,623	10,921
Floating-rate loans	61,085	45,998	61,375	45,425
	81,686	**63,942**	**74,998**	**56,346**
By borrower				
Legal entities and individual traders	23,554	12,877	25,492	13,290
Of which, property developments(including land)	*2,572*	—	*2,837*	—
Other individuals and non-profit institutions serving households	58,132	51,065	49,506	43,056
	81,686	**63,942**	**74,998**	**56,346**
By type of guarantee				
Completed buildings – residential	63,465	53,989	55,297	46,001
Of which, officially sponsored housing	*8,837*	*6,419*	*4,996*	*3,452*
Completed buildings – commercial	5,744	3,652	6,908	3,782
Completed buildings – other	9,035	5,212	9,085	5,343
Buildings under construction – residential	1,031	—	1,225	1
Of which, officially sponsored housing	*33*	—	*99*	—
Buildings under construction – commercial	67	—	46	—
Buildings under construction – other	46	5	57	1
Land – developed consolidated land	1,110	382	801	434
Land – other	1,188	702	1,579	784
	81,686	**63,942**	**74,998**	**56,346**

* Pursuant to Art. 3 of Royal Decree 716/2009, without taking into account measurement limits established in Art. 12 of Royal Decree 716/2009.

The following is a detail, by loan-to-value ratio, of the principal amount of the eligible mortgage loans and credits pursuant to Royal Decree 716/2009, without considering the measurement limits established in Article 12 of Royal Decree 716/2009:

EUR million

	31 December 2021				
	Principal amount by LTV range				
	<=40%	>40%, <= 60%	>60%, <= 80%	>80%	TOTAL
Mortgage loans and credits for mortgage and mortgage-backed bond issues	24,614	23,674	15,654	—	63,942
Home property	18,771	19,564	15,654	—	53,989
Other property	5,843	4,110	—	—	9,953

* Pursuant to Art. 3 of Royal Decree 716/2009, without taking into account measurement limits established in Art. 12 of Royal Decree 716/2009.

The following is a detail of the changes in 2021 in the principal amount of eligible and non-eligible mortgage loans and credits pursuant to Royal Decree 716/2009:

EUR million

	Eligible mortgage loans and credits*	Non-eligible mortgage loans and credits**
Balance at 31 December 2020	56,346	18,652
Period additions:	16,897	12,618
Originated by Banco Santander	10,256	3,595
Subrogations from other entities	11	6
Other	6,630	9,017
Period disposals:	9,301	13,526
Repayments on maturity	205	2,206
Early repayments	3,558	2,260
Other***	5,538	9,060
Balance at 31 December 2021	**63,942**	**17,744**

* Pursuant to Art. 3 of Royal Decree 716/2009, without taking into account the measurement limits established in Art. 12 of Royal Decree 716/2009.
** That do not comply with the requirements of Art. 3 of Royal Decree 716/2009.
*** The Bank performs a reappraisal its mortgage portfolio on a regular basis and, as a result, the measurable amount is updated.

Below is a breakdown of the available balances of the mortgage loans and credits that back the issuance of mortgage bonds and mortgage bonds:

EUR million

	Principal amount*	
	2021	2020
Potentially eligible **	662	589
Non-eligible	1,608	1,387

* Amounts committed less amounts drawn down, including amounts delivered to property developers only when the housing units are sold.
** Pursuant to Art. 3 of Royal Decree 716/2009.

d) Other mortgage bonds and guaranteed bonds

The balance of 'Other mortgage bonds and guaranteed bonds' relates to the rest of covered bonds and certificates. The breakdown, by issue currency and interest rate, is as follows:

Currency of issuance	EUR million		2021
	2021	2020	Annual interest rate*
Euro	8,452	7,671	0.18 %
US dollar	4,238	3,096	0.58 %
Balance at end of the year	**12,690**	**10,767**	

* Average interest rate of the various securities at 31 December 2021 based on their nominal amounts.

Internationalisation bonds were repaid early in February 2020, replaced by internationalisation bonds, issued in April 2020.

i. Changes

The following movement in 2021 and 2020 in the 'Other non-convertible marketable securities' account was as follows:

	EUR million		2021	
	2021	2020	Annual interest rate (%)**	Maturity date
Balance at end of the prior year	10,767	8,411		
Issues	1,851	10,145		
Of which	—	—		
April, 2020	—	*1,100*	*— %*	*abr-25*
April, 2020	—	*1,200*	*— %*	*abr-27*
April, 2020	—	*3,095*	*0.66 %*	*abr-27*
June, 2021	—	*750*	*0.07 %*	*jun-27*
June, 2021	—	*2,000*	*0.06 %*	*jun-27*
July, 2021	—	*2,000*	*0.01 %*	jul-27
March, 2021	*851*	—	*0.26 %*	mar-26
May, 2021	*1,000*	—	*0.20 %*	may-31
Amortizations	(218)	(7,789)		
Exchange differences	290	—		
Balance at end of the year	**12,690**	**10,767**		

In May 2021, Banco Santander has amortized the outstanding territorial bonds as of December 2020 for an amount of EUR 218 million.

In March 2021, Internalization Bonds were issued for an amount of USD 1,000 million (EUR 851 million) and in May, Territorial Bonds were issued for an amount of EUR 1,000 million.

In February 2020 Banco Santander has amortized the live internationalization bonds to December 2019 in the amount of EUR 2,639 million.

In addition, there have been other depreciations in territorial ballot cards amounting to EUR 4,900 million.

Three new issues of territorial cards were made in the financial year two of them amounting to 2 billion and a third EUR 750 million.

In April 2020, 3 new issues of internalization cards amounting EUR 5,396 million were formalized.

ii. Territorial bonds

The members of the board of directors have stated that in the territorial bond issuances Banco Santander has established specific policies and procedures in relation to the financing activities of public entities pursuant to Bank of Spain Circular 4/2017, of 27 November.

The following is a detail of the total principal amount of the loans used to secure the territorial bonds outstanding at 31 December 2021:

EUR million	Principal amount*
Central governments	103
Autonomous or regional governments	10,216
Local governments	769
Total	**11,088**

* Unrepaid portion of the loan nominal amounts.

The following is a detail of the territorial bonds issued and outstanding at 31 December 2021:

EUR million	Principal amount
Issued through a public offering	—
Other emissions	**6,154**
Of which,treasury shares	*5,529*
Term to maturity of up to one year	309
Term to maturity of one to two years	95
Term to maturity of two to three years	250
Term to maturity of three to five years	—
Term to maturity of five to ten years	5,500
Term to maturity of more than ten years	—

The coverage ratio of the territorial bonds with respect to the loans was 55.50% at 31 December 2021 (54.39% at 31 December 2020).

iii. Internationalization bonds

The following is a detail of the face value of all loans that serve as collateral to live internationalization bonds as of December 31, 2021:

	Nominal value (EUR million)
Eligible loans under Article 34.6 and 7 of Law 14/2013	11,806
Less: loans that support the issuance of internationalization bonds	—
Less: loans in arrears to be deducted in the calculation of the emission limit, in accordance with Article 13 of Royal Decree 579/2014	—
Total loans included in the base of the emission limit	**11,806**

Below is a detail of the internationalization bonds issued live on December 31, 2021:

	Nominal value (EUR million)
(1) Debt securities. Issued by public offer	—
Of which, own values	—
Residual maturity up to one year	—
Residual maturity greater than one year and up to two years	—
Residual maturity greater than two and up to three years	—
Residual maturity greater than three and up to five years	—
Residual maturity greater than five and up to ten years	—
(2) Debt securities. Other emissions	—
Of which, own values	*6,538*
Residual maturity up to one year	6,538
Residual maturity greater than one year and up to two years	—
Residual maturity greater than two and up to three years	—
Residual maturity greater than two and up to three years	—
Residual maturity greater than three and up to five years	1,983
Residual maturity greater than five and up to ten years	4,555
Residual maturity greater than ten years	—
(3) Deposits	—
Residual maturity up to one year	—
Residual maturity greater than one year and up to two years	—
Residual maturity greater than two and up to three years	—
Residual maturity greater than three and up to five years	—
Residual maturity greater than five and up to ten years	—
Residual maturity greater than ten years	—
TOTAL	**6,538**

The coverage ratio of internationalization bonds on loans is 55.38% as of December 31, 2021 (55.11% as of December 31, 2020)

21. Other issuances

a) Breakdown

The following is a breakdown of the balance under this heading on the attached balance sheets, taking into account their nature and currency of the transactions:

EUR million*	2021	2020
Type		
Other issuances	76,890	59,209
Of which, subordinated liabilities	*20,399*	*17,124*
	76,890	**59,209**
Currency		
Euro	39,266	34,321
US dollar	27,628	18,848
Pound Sterling	5,240	2,692
Other currencies **	4,756	3,348
	76,890	**59,209**

* This amount includes the principal, in other currencies.

** As of December 31, 2021, the most significant currencies are yen (EUR 1,283 million), Swiss Frankfurt (EUR 1,431 million) and Australian Dollar (EUR 1,310 million).

b) Changes

The changes in 'Subordinated marketable debt securities' in the foregoing table for the years 2021 and 2020 are as follows:

EUR million	2021	2020
Balance at the end of prior year	59,209	59,273
Issues	43,474	28,255
Redemptions	(28,107)	(26,297)
Exchange differences	2,314	(2,022)
Balance at end of the year	**76,890**	**59,209**

Within the sub-heading Other Non-convertible Marketable Securities there are commercial paper issues as well as other issuances made by Banco Santander.

- Commercial paper

On April 15, 2021, Banco Santander has approved the annual renewal of the 'European Commercial Paper Issuance Program' for a maximum nominal global amount of up to EUR 15,000 million. On November 22, 2021, the 'American Commercial Paper Issuance Program' was renewed for a global nominal amount of up to USD 25,000 million.

As of December 31, 2021, the interest rate is between -0.88% and 0.33% per year, with the average nominal interest rate being 0.125% per year. At the end of the 2020 financial year, the interest rate was between -0.66% and 3.0% per year, with the average nominal interest rate being 1.059% per year.

On 16 April 2020, Banco Santander approved the annual renewal of the 'European Commercial Paper Issue Programme' for a maximum nominal global amount of up to EUR 15,000 million. On November 2020, the 'American Commercial Paper Issue Program' was renewed for a nominal global amount of up to USD 15,000 million.

- Remaining emissions

During the 2021 fiscal year, Banco Santander, S.A. has reported 37 issues for a nominal amount of EUR 11,846 million (without considering perpetual issues amounting to EUR 2,568 million , see note 21.c), of which the Bank has repurchased a balance of EUR 74 million. The average remuneration of these issues has been set at 1.30% per year.

During the financial year 2020, Banco Santander reported 17 issues at a nominal amount of EUR 8,088 million (excluding perpetual issues amounting to EUR 1,500 million, see note 21.c). The average remuneration of these emissions has been set at 1.63% per annum.

c) Other disclosures

This caption includes contingent convertible or redeemable preferred participations, as well as other subordinated financial instruments issued, which do not qualify as equity (preferred shares).

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 , 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.)

22. Other financial liabilities

a) Breakdown

The following is a detail of 'Other financial liabilities' on the accompanying balance sheets:

EUR million

	2021	2020
Trade payables	888	721
Payment obligations	2,711	2,864
Public agency revenue collection accounts	4,506	3,498
Unsettled financial transactions	617	797
Other accounts	1,302	2,000
Total	**10,024**	**9,880**

b) Average payment period to suppliers

Set forth below are the disclosures required by Additional Provision Three of Law 15/2010, of 5 July (amended by Final Provision Two of Law 31/2014, of 3 December), prepared in accordance with the Spanish Accounting and Audit Institute (ICAC) Resolution of 29 January 2016 on the disclosures to be included in notes to financial statements in relation to the average period of payment to suppliers in commercial transactions.

	2021	2020
	Days	
Average period of payment to suppliers	10	11
Ratio of transactions paid	10	11
Ratio of transactions pending payments	—	—
	EUR million	
Total payments made	2,848	2,966
Total payments outstanding	—	—

In accordance with the ICAC Resolution, the average period of payment to suppliers was calculated by taking into account commercial transactions relating to the supply of goods or services for which payment has accrued since the date of issuance of Law 31/2014, of December, 3.

For the sole purpose of the disclosures provided for in the Resolution, suppliers are considered to be the trade creditors for the supply of goods or services.

"Average period of payment to suppliers" is taken to be the period that elapses from the delivery of the goods or the provision of the services by the supplier to the effective payment of the transaction,

Note 48 contains a detail of the maturity periods of 'Other financial liabilities' at each year-end.

c) Lease liabilities

The total lease cash outflow in fiscal year 2021 was EUR 301 million (EUR 324 millon during 2020). The analysis of maturities corresponding to lease liabilities, as of December 31, 2021, is as follows:

EUR million

	2021	2020
Maturity Analysis – Discounted payments		
Within 1 year	351	289
Between 1 and 3 years	445	485
Between 3 and 5 years	317	349
Later than 5 years	1,336	1,411
Total Discounted payments at 31 December 2021	**2,449**	**2,534**

During 2021, no significant variable payments have been made not included in the measurement of lease liabilities.

23. Provisions

a) Breakdown

The detail of 'Provisions' in the balance sheets at 31 December 2021 and 2020 is as follows:

EUR million

	2021	2020
Provision for pensions and similar obligations	2,730	3,430
Of which		
Pensions and similar defined benefit obligations post-employment	*1,677*	*1,849*
Other long-term remunerations to employees	*1,053*	*1,581*
Restructuring	439	484
Provisions for taxes and other legal contingencies	516	496
Provisions for commitments and guarantees given	190	157
Other provisions	474	440
Total	**4,349**	**5,007**

b) Changes

The changes in 'Provisions' in 2021 and 2020 were as follows:

EUR million

	2021					2020				
	Post-employment	Long – Term	Contingent liabilities and commitments	Other provisions	Total	Post-employment	Long - Term	Contingent liabilities and commitments	Other provisions	Total
Balance at end of prior year	1,849	1,581	157	1,420	5,007	3,918	1,220	180	1,172	6,490
Changes in value recognized in equity	(29)	—	—	—	(29)	77	—	—	—	77
Additions charged to income	(9)	24	24	747	786	(340)	728	(20)	804	1,172
(Interest income)/ Interest expense (notes 34 and 35)	12	11	—	—	23	20	8	—	—	28
Staff costs (note 42)	4	1	—	—	5	10	1	—	—	11
Provisions or reversal of provision	(25)	12	24	747	758	(370)	719	(20)	804	1,133
Payments to pensioners and pre-retirees	(164)	(552)	—	—	(716)	(1,817)	(367)	—	—	(2,184)
Amounts used and other changes	30	—	9	(738)	(699)	11	—	(3)	(556)	(541)
Balances at end of year	**1,677**	**1,053**	**190**	**1,429**	**4,349**	**1,849**	**1,581**	**157**	**1,420**	**5,007**

c) Provision for pensions and similar obligations

The detail of 'Provision for pensions and similar obligations' at 31 December 2021 and 2020 is as follows:

EUR million

	2021	2020
Provisions for pensions and similar defined benefit plan obligations	2,730	3,430
Of which		
Provisions for pensions	*1,677*	*1,849*
Provisions for similar obligations	*1,053*	*1,581*
Of which, pre-retirements	*1,041*	*1,567*
Provisions for pensions and similar defined contribution plan obligations	—	—
Total provisions for pensions and similar obligations	**2,730**	**3,430**

i. Defined contribution plans

At the end of 2012, Banco Santander reached an agreement with workers' representatives to transform the defined benefit commitments derived from the collective agreement into defined contribution plans. Similarly, the contracts for senior management staff with pension commitments in the defined benefit modality were amended to transform them into a defined contribution provision system.

Almost all of the pension commitments with active personnel correspond to defined contribution plans. The total contributions made to these plans during 2021 amounted to EUR 77 million (EUR 80 million during 2020) (see nota 42).

ii. Defined Benefit Plans

In addition to the previous defined contribution plans, as of December 31, 2021, Banco Santander maintained definite service commitments. Below is the present value of the Bank`s commitments in post-employment remuneration for defined benefit programs, as well as the value of the reimbursement entitlements for insurance contracts linked to those obligations as of 31 December 2021 and preceding years:

EUR million

	2021	2020	2019
Present value of the obligations			
To current employees	42	78	78
To retired employees	2,806	3,304	5,378
Other	—	—	—
	2,848	**3,382**	**5,456**
Fair value of plan assets	(1,205)	(1,537)	(1,543)
Assets not recognized	5	4	5
Provisioned assets on the balance sheet	29	—	—
Provisions - Provisions for pensions	**1,677**	**1,849**	**3,918**
Of which			
Internal provisions for pensions	*1,296*	*1,426*	*3,407*
Insurance contracts linked to pensions (note 14)	*381*	*423*	*511*
Of which			
Group insurance entities	*232*	*249*	*319*
Other insurers	*149*	*174*	*192*

On July 8, 2021, the Bank reached an agreement with the employees' representatives for the transformation of the defined benefit pension commitments into defined contribution for certain retired personnel from Banco Popular and Banco Pastor.

Through the previously mentioned Collective Agreement, an aggrement has been to carry out an offer to replace the annuities that the passive personnel included in the scope of application of said Collective Agreement had been receiving with 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.

In December 2019 Banco Santander reached an agreement with the workers' representatives to offer during 2020 to part of its passive staff, the possibility of collecting in the form of a single consideration or split in a maximum of 5 equal annuities, the pensionable rights derived from the collective agreement. 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 installments of a maximum of 5 annuities amounted to 15,613 people. The effect of the reduction of the aforementioned commitments is shown in the following tables.

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:

EUR million

	2021	2020
Annual discount rate	0.90 %	0.60 %
Expected return on plan assets rate	0.90 %	0.60 %
Mortality tables	PE2020 M/F Col. Orden 1	PE2020 M/F Col. Orden 1
Cumulative annual CPI growth	1.00 %	1.00 %
Annual pension increase rate	1.00 %	1.00 %

3. The discount rate used for the flows was determined referencing to high-quality corporate bonds.

4. 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.

5. The fair value of insurance contracts was determined as the present value of the related payment obligations, taking into account the following assumptions:

EUR million

	2021	2020
Expected rate of return on reimbursement rights	0.90 %	0.60 %

The amounts recognized in the accompanying income statements in relation to the aforementioned defined benefit obligations are as follows:

EUR million

	2021	2020
Service cost:		
Current service cost (note 42)	4	10
Past service cost (including reductions)	13	2
Pre-retirement cost	—	—
Settlements	(38)	(372)
Net interest (note 35)	24	26
Expected return on insurance contracts linked to pensions (note 34)	(12)	(6)
Total	**(9)**	**(340)**

In addition, in 2021 'Other comprehensive income – items not reclassified to profit or loss - Actuarial gains or (-) losses on defined benefit pension plans' has caused an additional actuarial profits of EUR 30,7 million in respect to defined benefit obligations (2020: EUR 78,7 million of actuarial loss).

The changes in 2021 and 2020 of the present value of the accrued defined benefit obligations were as follows:

EUR million

	2021	2020
Present value of the obligations at beginning of the year	3,382	5,456
Current service cost	4	10
Interest cost	36	39
Pre-retirement cost	—	—
Settlements	(60)	(372)
Benefits paid for settlements	(166)	(1,551)
Other benefits paid	(245)	(356)
Past service cost	13	2
Actuarial (gains)/losses*	(122)	160
Exchanges rate differences and others	6	(6)
Present value of the obligations at end of the year	**2,848**	**3,382**

* Included in 2021 are demographic actuarial losses of EUR 9 million and financial actuarial profits of EUR 131 million (2020: demographic actuarial losses of EUR 90 million and financial actuarial losses of EUR 70 million).

The changes in 2021 and 2020 in the fair value of the plan assets are as follows:

EUR million

	2021	2020
Fair value of plan assets at beginning of year	1,537	1,543
Expected return on plan assets	12	13
Benefits paid	(262)	(94)
Contributions payable by the employer	14	5
Settlements gains/(losses)	(22)	—
Exchange rate differences and others	5	(6)
Actuarial gains/(losses)	(79)	76
Fair value of plan assets at end of year	**1,205**	**1,537**

The changes in 2021 and 2020 in the fair value of the insurance contracts linked to pensions are as follows:

EUR million

	2021	2020
Fair value of insurance contracts linked to pensions at beginning of the year	423	511
Expected return on insurance contracts (note 34)	12	6
Actuarial gains/(losses)	(12)	5
Premiums paid/(surrenders)	—	(7)
Benefits paid	(42)	(92)
Fair value of insurance contracts linked to pensions at end of the year (note 14)	**381**	**423**

Plan assets and pension insurance contracts linked to pensions are mainly appear in insurance policies.

iii. Other long-term employee benefits

In various years, Banco Santander offered to some certain of its employees the possibility of leaving its employ prior to their retirement. Therefore, provisions are recognized to cover the obligations to pre-retirees -in terms of both salaries and other employee benefit costs- from the date of their pre-retirement to the date of their effective retirement.

The present value of the aforementioned obligations and the fair value of the assets arising from insurance contracts linked to these obligations at 31 December 2021 and for the preceding years are as follows:

EUR million

	2021	2020	2019
Present value of the obligations:			
To pre-retirees	1,052	1,580	1,220
Long-service bonuses and other benefits	11	13	14
	1,063	**1,593**	**1,234**
Fair value of plan assets	(10)	(12)	(14)
Provisions - Provisions for pensions	**1,053**	**1,581**	**1,220**
Insurance plans linked to pensions	—	—	—
Group insurers	—	—	—
Other insurance entities	—	—	—

In December 2020, Banco Santander reached an agreement with the workers' representatives to implement an early retirement and incentivized termination plan, which is expected to benefit 3,572 employees during 2021, with the provision set up to cover these commitments amounting to EUR 674 million. In addition, the provision set up to cover the dismissal of employees who have taken advantage of early retirement offers and incentivized dismissals during 2020 amounted to EUR 63 million. In 2021, to complete the plan announced in 2020, EUR 82 million have been allocated, increasing the number of early retirements and incentivized dismissals to 3,643 employees in the total period.

The amount of the other long-term remuneration commitments defined benefit has been determined on the basis of work performed by independent actuaries, applying the following criteria to quantify them:

1. Valuation method: projected unit credit method.
2. Actuarial assumptions used: unbiased and mutually compatible. Specifically, the most significant actuarial assumptions used in the calculations were as follows:

EUR million

	2021	2020
Annual discount rate	0.90 %	0.60 %
Expected return on plan assets rate	0.90 %	0.60 %
Mortality tables	PE2020 M/F Col. Orden 1	PE2020 M/F Col. Orden 1
Cumulative annual CPI growth	1.00 %	1.00 %
Annual benefit increase rate	Entre 0% y 1,5%	Entre 0% y 1,5%

3. The discount rate used for the flows was determined by reference to high-quality corporate bonds.
4. 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.
5. The amounts recognised in the income statement in relation to the aforementioned defined benefit obligations are as follows:

EUR million

	2021	2020
Service cost:		
Current service cost	1	1
Interest cost (note 35)	11	8
Extraordinary charges		
Actuarial (gains)/losses recognized in the year	(14)	(3)
Pre-retirement cost	81	737
Other	(55)	(15)
Total	**24**	**728**

The changes in 2021 and 2020 in the present value of the accrued obligations for other long-term benefits were as follows:

EUR million

	2021	2020
Present value of the obligations at beginning of the year	1,593	1,234
Current service cost	1	1
Cost per interest (note 35)	11	8
Past service cost	—	—
Pre-retirement cost	81	737
Effect of curtailment/settlement	(55)	(15)
Benefits paid	(554)	(369)
Actuarial (gains)/losses	(14)	(3)
Other	—	—
Present value of the obligations at end of the year	**1,063**	**1,593**

The movement that has occurred, during the years 2021 and 2020, in the fair value of the assets of the plan, has been as follows:

EUR million

	2021	2020
Fair value of plan assets at the beginning of the year	12	14
Expected return on plan assets	—	—
Benefits paid	(2)	(2)
Contributions by the employer	—	—
Contributions by the employee and others	—	—
Actuarial gains / (losses)	—	—
Present value of the obligations at end of the year	**10**	**12**

iv. Sensitivity analysis

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 post-employment obligations of 5.00% and -5.06%, respectively, and an increase or decrease in the present value of the long-term obligations of 1.18% and -1.18%, These changes would be offset in part by increases or decreases in the fair value of the assets and insurance contracts linked to pensions.

The following table shows the estimate of benefits to be paid as of December 31, 2021 for the next ten years:

EUR Million	
2022	571
2023	436
2024	376
2025	311
2026	267
2027 to 2030	878

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 Bank 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.

'Provisions for taxes and other legal contingencies' include proceedings and other legal proceedings such as judicial, arbitral or administrative proceedings initiated against Banco Santander. Qualitative information on the main disputes is provided in note 23.e. For their part, the provisions for restructuring include only costs arising from restructuring processes incurred at Banco Santander.

The Bank'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 Bank 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.

Regarding the provision for restructuring, in 2020 EUR 299 million were allocated in relation to the agreement reached with the worker's' representatives in order to implement an early retirement and incentivized dismissal plan, in that said year. The amounts associated with this plan were recorded according to their nature under the heading 'Provisions for restructuring' and under the heading 'Provisions for pensions and similar obligations', explained in note 23.c above. The increase in the provision for restructuring was offset by the application of EUR 99 million in 2020.

As for the 'Other provisions' contains very atomized and individually insignificant provisions, such as the provisions corresponding to cover other operational risks of the Bank.

e) Litigation and other matters

i. Tax-related litigation

At 31 December 2021 the main tax-related proceedings concerning the Group and the Bank 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 Mobiliarios, Ltda. (DTVM, actually Santander Brasil Tecnología 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. (Brasil), 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 and the Bank 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 Frances'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 Económicos': 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 P5Y 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 Bank 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 Bank. 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.

24. 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).

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 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). 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. Consequently, no provision has been recorded for this concept. 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.

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 and the Bank'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 Bank's financial statements.

c) Reconciliation

The reconciliation between the income tax expense at the applicable tax rate (30%) and the income tax expense recorded (in EUR millions) is shown below:

EUR million	2021	2020
Profit before taxes	3,864	(2,247)
Corporate tax at the applicable rate of 30%	1,159	(674)
Dividends and capital gains not subject	(1,454)	(1,885)
Impairment of non-deductible shares	(240)	1,776
Deferred tax review effect	—	1,632
Remaining permanent differences and others	467	461
Expense/(Incomes) taxes recorded	**(68)**	**1,310**

d) Tax recognized in equity

Regardless of the income tax incurred in profit and loss accounts, Banco Santander has passed on the net worth the following amounts during 2021 and 2020:

EUR million	Amounts receivable/ (Amounts payable)	
	2021	2020
Fair value changes of debt instruments measured at fair value with changes in other comprehensive income	156	96
Equity instruments valued at fair value with changes in other comprehensive income	(4)	87
Cash flow hedges	(44)	62
Other valuation adjustments (note 25)	19	23
Total	**127**	**268**

e) Deferred taxes

The balance under the heading 'Deferred tax assets' of the balance sheets includes the debtor balances against the Public Treasury for Advance Tax; in turn, the balance under the heading 'Deferred tax liabilities' includes the liabilities corresponding to the different deferred taxes of Banco Santander.

In Spain Royal Decree-Law 14/2013 of 29 November, confirmed by Law 27/2014 of 27 November, established a regime to allow certain deferred tax assets to continue to count as prudential capital, within the 'Global regulatory framework to strengthen banks and banking systems' (called Agreements Basel III) and under the implemented regulations of those Agreements, i.e. Regulation (EU) No 575/2013 and Directive 2013/36/EU, both of 26 June 2013 (hereinafter CRD IV).

Prudential legislation provides that deferred tax assets that depend on their use of future profits must be deducted from regulatory capital, although taking into account whether they are credits for tax losses and deductions or for temporary differences. It is for the latter category of deferred tax assets and within it those arising from insolvencies, awarded, commitments for pensions and pre-retirements, for which it is established that they do not depend on future profits, since in certain circumstances they can be converted into credits against the Public Treasury, and therefore not deducts from regulatory capital (hereinafter referred to as monetizable deferred tax assets).

During 2015, the regulation on monetizable deferred tax assets was completed by the introduction of a capital supply involving the payment of an amount of 1.5% per annum, in order to maintain the right to monetization, and will be applied to a part of the deferred tax assets that meet the legal requirements to be considered monetizables generated before 2016.

The following are the breakdown of tax assets and liabilities as of December 31, 2021 and 2020:

EUR million

	2021	2020
Tax assets:	**9,622**	**9,282**
Current	1,003	721
Deferred	8,619	8,561
Of which		
Relating to pensions	*3,540**	*3,540**
Relating to allowances for loan losses	*3,023**	*3,023**
Relating to deductions and negative tax bases	*632*	*380*
Tax liabilities:	**1,697**	**1,555**
Of which, deferred tax liabilities	*1,521*	*1,510*

* Banco Popular Español, S.A.U. considered that part of its monetizable assets were converted into credit against the Tax Administration in 2017 Corporate 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 Consolidated Tax Group in Spain, 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.

At the end of the fiscal year, deferred taxes, both assets and liabilities, are reviewed in order to verify whether adjustments are necessary to be made in accordance with the results of the analyses carried out.

These analyses take into account all the positive and negative evidence of the recoverability of such assets, including (i) the results generated in previous years, (ii) the projections of results, (iii) the estimate of the reversal of the various temporary differences depending on their nature and (iv) the period and limits established in current legislation for the recovery of the various deferred tax assets, thus concluding on Banco Santander's ability to recover its deferred tax assets.

The results projections used in this analysis are based on the financial budgets approved by both the local bureaux of the respective units and by Banco Santander managers. Grupo Santander budget estimation process is common for all units, including the Bank. The Grupo Santander management prepares its financial budgets based on the following key assumptions.

a. Microeconomic variables of the entities that make up the tax group at each location: consideration is taken of the existing balance sheet structure, the mix of products offered and the commercial strategy at any time defined by the local authorities in this regard based on the competition, regulatory and market environment.

b. Macroeconomic variables: The estimated growth is based on the evolution of the economic environment considering the expected developments in the Gross Domestic Product of each location and the forecasts on behaviour of interest rates, inflation and exchange rates. This data is provided by Grupo Santander's Studies Service, and based on external sources of information.

In addition, Grupo Santander performs retrospective reviews (backtesting) on the variables projected in the past. The differential performance of these variables with respect to the actual market data is considered in the estimated projections for each financial year. Thus, in relation to Spain, the deviations identified by Management in recent years are due to non-recurring events that are not related to the business's operations, such as the impacts for the first application of new applicable regulations, the costs incurred for accelerating restructuring plans and the changing effect of the current macroeconomic environment.

Finally, and given the degree of uncertainty of the assumptions regarding those variables, Grupo Santander conducts a sensitivity analysis of the most significant ones used in the analysis of the recoverability of deferred tax assets, considering reasonable changes in the key assumptions upon which the projections of results of each tax entity or group and the estimate of the reversal of the various temporary differences. In relation to Spain, the sensitivity analysis consisted of adjusting 50 basis points for growth (gross domestic product) and adjusting 50 basis points for inflation. Following this analysis, the maximum recovery period of deferred tax assets recorded at 31 December 2020 is maintained for 15 years.

During 2020, given the uncertainties about the economic impacts derived from the covid-19 health crisis, the Group reassessed the ability to generate future tax profits in relation to the recoverability of deferred tax assets recorded in the main companies that make up the Group. In Spain, the changes in the key hypotheses on which the projections of the results of its tax group were based, derived from the aforementioned impact of covid-19, meant in the case of Banco Santander the recording of an impairment of EUR 1,632 million of deferred tax assets with a balancing entry under the heading 'Income tax' in the profit and loss account.

In addition, the Spanish Tax Group, of which Banco Santander, S.A. is the dominant entity, has not recognized deferred tax assets in respect of tax losses, investment deductions and other incentives amounting to approximately EUR 9,700 million, of which EUR 300 million are subject, among other requirements, to time limits.

f) Regulatory changes

In 2018, for the purpose of regulating the tax effects of the first application of the Bank of Spain's Circular 4/2017, Royal Decree-Law 27/2018 of 28 December established a transitional regime, according to which charges and credits to reserve accounts accounted for in first application, which have tax effects, will be integrated into the Tax base for corporation tax equally in each of the first three tax periods starting from January 1, 2018.

In application of the aforementioned Royal Decree-law, it was included in the tax base of Banco Santander, S.A. corresponding to 2020 a negative adjustment amounting to EUR 99 million, EUR 30 million in installment.

On the other hand, in 2020 the General State Budget Law for 2021 was approved, which, among other tax measures, established the non-deductibility in the Corporation Tax of the management expenses of capital holdings whose dividends or capital gains are exempt. of taxes, setting the amount of these non-deductible expenses at 5% of the dividend or positive income obtained. In 2021, the General State Budget Law for 2022 was approved, which establishes a minimum tax rate of 15% (18% for financial entities) on the tax base in Corporation Tax.

g) Other information

In compliance with the reporting obligation set out in the 2005 Contributing Standards Instrument issued by the Financial Conduct Authority of the United Kingdom, it is stated that shareholders of Banco Santander who are resident in the United Kingdom shall be entitled to apply for a tax credit paid abroad in respect of withholdings to be made by Banco Santander on dividends to be paid to those shareholders if the total dividend income exceeds the amount of exempt dividends of £2,000 for the 2021/2022 financial year. Banco Santander shareholders who reside in the United Kingdom and maintain their participation in Banco Santander through Santander Nominee Service will be directly provided with information on the amount withheld as well as any other information they may need to complete their tax returns in the UK. All other shareholders of Banco Santander who reside in the United Kingdom should contact their bank or securities agency.

Banco Santander, is part of the Large Business Forum and has adhered to the Code of Good Tax Practices in Spain since 2010, actively participating in the cooperative compliance programmes being developed by the tax administration.

25. 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 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 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.

The amounts of these items are recognized gross, presenting the corresponding tax effect is presented under a separate item.

a) Breakdown of Other accumulated comprehensive income - Items that will not be reclassified in results and Items that can be classified in results

EUR million

	2021	2020
Other accumulated comprehensive income	**(1,802)**	**(1,561)**
Items that will not be reclassified in results	**(1,858)**	**(1,882)**
Actuarial gains and losses on defined benefit pension plans	(1,329)	(1,351)
Non-current assets held for sale	—	—
Other recognized income and expense of investments in subsidiaries, joint ventures and associates	—	—
Rest of valuation adjustments	—	—
Changes in the fair value of equity instruments measured at fair value through other comprehensive income	(468)	(537)
Ineffectiveness 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 through other comprehensive income (hedged item)	271	154
Changes in the fair value of equity instruments measured at fair value through other comprehensive income (hedging instrument)	(271)	(154)
Changes in the fair value of financial liabilities at fair value through profit or loss attributable to changes in credit risk	(61)	6
Items that can be classified in results	**56**	**321**
Hedges of net investments in foreign operations (effective portion)	—	—
Exchange differences	—	—
Cash flow hedges (effective portion)	(87)	(189)
Changes in the fair value of debt instruments measured at fair value through changes in other comprehensive income	143	510
Hedging instruments (items not designated)	—	—
Non-current assets held for sale	—	—
Share in other income and expenses recognized in investments in joint ventures and associates	—	—

b) Other accumulated 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 is shown in the statement of income and expense.

c) Other accumulated 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.

Includes the net amount of unrealized fair value changes of equity instruments at fair value with changes in other comprehensive income.

The following is a breakdown of the composition of the balance as of 31 December 2021 and 2020 under 'Other accumulated 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' (see note 8):

EUR million

	2021				2020			
	Capital gains by valuation	Capital losses by valuation	Net gains/ losses by valuation	Fair value	Capital gains by valuation	Capital losses by valuation	Net gains/ losses by valuation	Fair value
Equity instruments	178	(646)	(468)	1,705	275	(812)	(537)	1,942

d) Other accumulated 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 recognized in the income statement in the periods in which the hedged items affect it (see note 32).

e) Other accumulated 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 unrealized changes in the fair value of assets classified as items than can be reclassified in results 'Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income' (see note 7).

Below is a breakdown of the balance composition as of December 31, 2021 and 2020 of 'Other accumulated global income - Items that can be reclassified in results - Changes in the fair value of the instruments of debt valued at fair value with changes in other comprehensive income' depending on the type of instrument:

EUR million

	2021				2020			
	Revaluation gains	Revaluation losses	Net revaluation gains/ (losses)	Fair value	Revaluation gains	Revaluation losses	Net revaluation gains/ (losses)	Fair value
Debt instruments	172	(29)	143	9,394	526	(16)	510	15,146

As of 31 December 2021, the handicaps recorded in the 'Other cumulative comprehensive income - Elements that can be reclassified into profit or loss - Changes in the fair value of debt instruments measured at fair value through other comprehensive income' are not significant.

As of December 31, 2021, Banco Santander has not recorded in equity any impairment corresponding to debt securities.

26. Shareholders' equity

The changes in 'Shareholders' equity' are presented in the statement of changes in total equity. Significant information on certain items of 'Shareholders' equity' and the changes therein in 2021 are set forth below.

27. Issued capital

a) Changes

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 30).

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%).

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

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 million shares, representing 0.22% of the share capital in 2020). In addition, the number of Banco Santander's shares owned by third parties and received as security was 231 million shares (equal to 1.33% of the Bank's share capital).

28. 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 27.a).

The decrease in 2020 was due to the reduction of EUR 361 million to cover the capital increase on 3 December (see note 27.a).

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 an amount of EUR 72 million was transferred from the Share premium account to the Legal reserve (see note 29.b).

29. 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 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 income statement.

b) Breakdown

The detail of 'Shareholders' equity - reserves' at 31 December 2021 and 2020 is as follows:

EUR million

	2021	2020
Restricted reserves	**2,543**	**2,460**
Legal reserve	1,734	1,734
Own shares	755	672
Revaluation reserve Royal Decree-Law 7/1996	43	43
Reserve for retired capital	11	11
Unrestricted reserves		
Voluntary reserves	6,123	6,128
Total	**8,666**	**8,588**

i. Legal reserve

According to the Consolidated Text of the Corporate Enterprise Act, Spanish entities that obtain profits in the financial year must provide 10% of the net profit for the financial year to the legal reserve. These allocations must be made until the reserve reaches 20% of the share capital. The legal reserve may be used to increase the share capital in the share of its balance exceeding 10% of the share capital already increased.

During the 2021 financial year, Banco Santander has not allocated any amount to Legal Reserve. In 2020, EUR 72 million of Share Premium were allocated to the Legal Reserve (see note 28).

The amount of the Legal Reserve reached 20% of the share capital figure, and that Reserve was fully established on 31 December 2021.

ii. Reserve for equity shares

According to the Consolidated Text of the Corporate Enterprise 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. Voluntary Reserve

During the 2021 fiscal year there has been a decrease in voluntary reserves amounting to EUR 5 million; which correspond to an increase in merger reserves of EUR 957 million, a decrease of EUR 83 million due to the constitution of reserves for treasury shares, a decrease of EUR 431 million due to interest on the PPCC (see note 21), a decrease of EUR 421 million for losses on the sale of equity instruments valued at fair value with a charge to other accumulated comprehensive income and a decrease of EUR 27 million for transfer between equity items and other items.

30. Other equity instruments and own shares

a) Equity instruments issued not capital and other equity instruments

It includes the amount corresponding to compound financial instruments with a nature of net worth, the increase in staff remuneration, and other items not recorded in other items of own funds.

On July 13, 2017, Banco Santander and Banco Popular Español, S.A.U. (hereinafter, Banco Popular) communicated that they had decided to launch a commercial action with the purpose of building loyalty among retail customers of their networks affected by the resolution of Banco Popular (the 'Loyalty Action').

Under the Loyalty Action, customers who met certain conditions and have been affected by Banco Popular's decision could receive, without disbursement by their part, marketable securities issued by Banco Santander for a nominal amount equivalent to the investment in shares or in certain bonds subordinates of Banco Popular (with certain limits) of which they held at the date of Banco Popular's resolution. In order to avail itself of such action, it was necessary for the client to waive legal action against the Group.

The Loyalty Action would be carried out by providing the customer with contingently amortizable perpetual obligations ('Loyalty Bonds') of Banco Santander, S.A. Loyalty Bonds will accrue a cash coupon, discretionary, non-cumulative, payable for completed quarters.

This issuance was made by Banco Santander, S.A. on 8 September 2017 for a nominal amount of EUR 981 million, fully subscribed by Banco Popular Español, S.A.U. As at 31 December 2021, the cost recorded under the heading 'Equity instruments' issued other than capital on Banco Santander balance sheet amounts to EUR 658 million (EUR 627 million as at 31 December 2020).

Loyalty Bonds are perpetual securities; however, they may be fully amortized at the will of Banco Santander, S.A., with prior authorization from the European Central Bank, on any of the dates of payment of the coupon, seven years after its issuance.

b) Own shares

'Shareholders' equity - Own shares' includes the amount of equity instruments held by Banco Santander.

Transactions involving own 'Equity instruments', including their issuance and cancellation, are recognized directly in equity, and no profit or loss may be recognized on these transactions. The costs of any transaction involving own equity instruments are deducted directly from equity, net of any related tax effects.

The Bank's shares owned by the consolidated companies accounted for 1.60% of issued share capital at 31 December 2021 (December 31, 2020 0.164%)

In 2021, the average price per share of the Bank was EUR 3.16 per share and the average transfer price EUR 3.09 per share. Of the shares acquired in the period, 259,930,273 shares (1.499% of the issued share capital) are from the First Share Repurchase Program at a weighted average price of EUR 3.24 (see note 4).

As of year end of 2021, the purchase and sale of shares issued by Banco Santander have not generated any results (no results in 2020 as well).

31. Memorandum items

Memorandum items relate 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 even though they may not impinge on its net assets.

a) Guarantees and contingent commitments granted

Guarantees include transactions for which an entity secures obligations of a third party arising from financial guarantees granted by the entity or other types of contracts. 'Contingent liabilities' include 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:

EUR million

	2021	2020
Loans commitment granted	**111,410**	**96,959**
Available in lines of credit	111,246	96,870
Deposits in the future	164	89
Financial guarantees granted	**10,489**	**10,135**
Financial guarantees	179	189
Credit derivatives sold	10,310	9,946
Other commitments granted	**59,421**	**50,686**
Irrevocable documentary credits	3,330	1,947
Other guarantees and guarantees granted	29,971	24,675
Other	26,120	24,064
Of which:		
Subscribed securities pending disbursement	*1*	*1*
Conventional asset acquisition contracts	*6,265*	*4,593*
Other contingent commitments	*19,854*	*19,470*
Total	**181,320**	**157,780**

The breakdown at December 31, 2021 of off-balance sheet exposures and allowance fund (see note 23) by impairment phase under Bank of Spain Circular 4/2017 are EUR 175,871 million and EUR 48 million in phase 1, EUR 4,403 million and EUR 60 million in phase 2 and EUR 1,046 million and EUR 82 million in phase 3, respectively. In addition the breakdown at December 31, 2020 of exposures and the allowance fund were EUR 155,706 million and EUR 69 million in phase 1, EUR 1,630 million and EUR 45 million in phase 2 and EUR 444 million and EUR 43 million in phase 3, respectively.

A significant part of these amounts will mature without any payment obligation material for the Bank; therefore, the aggregate balance of these commitments cannot be considered as a real future need for financing or liquidity to be granted to third parties by Banco Santander.

Income from guarantee instruments is recognized under 'Fee and commission income' in the 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

Firm commitments to provide credit under pre-established conditions and terms, except for those that meet the definition of derivatives because they may be settled in cash or through the delivery or issuance of another financial instrument. They include those available in lines of credit and forward deposits.

ii. Financial guarantees granted

Include financial guarantee contracts such as financial guarantees, credit derivatives sold, derivative risks contracted on behalf of third parties and others.

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) Other information

i. Assets advanced as collateral

In addition to collateral assets, there are assets owned by Banco Santander which guarantee both transactions carried out by the Bank or by third parties and various contingent liabilities and liabilities over which the assignee has the right, by contract or custom, to re-transfer and pledge them.

The carrying value of Banco Santander's financial assets delivered as collateral for such contingent and assimilated liabilities or liabilities is the following:

EUR million

	2021	2020
Financial assets held for trading	22,440	8,540
Of which	—	
Public debt Public Sector Agencies	*3,785*	*314*
Fix rent instruments	*9,284*	*3,113*
Equity instruments	*9,371*	*5,113*
Non-trading financial assets mandatorily at fair value through profit or loss	154	329
Financial assets designated at fair value through profit or loss	—	3,642
Financial assets at fair value through other comprehensive income	2,348	2,293
Financial assets at amortized cost	1,513	2,607
Total	**26,455**	**17,411**

Santander

32. Hedging derivatives

Banco 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, Banco 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 cover 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 Bank.

Due to the replacement of the current rates by the alternative rates defined in the note 1 of this report, in the section Bank of Spain Circular 6/2021 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 6.85% of the total hedging derivatives:

EUR million

	2021
	USD LIBOR
Total hedging instruments affected	**12,311**
Fair value hedges	11,870
Interest rate risk	*11,870*
Cash flow hedges	*441*
Interest rate risk	*441*
Post-transition date agreement	**8,909**
Fair value hedges	8,909
Interest rate risk	*8,909*
Cash flow hedges	—
Interest rate risk	—

As for the hedged items directly affected by the uncertainties related to the IBOR reforms, their nominal amount is shown below, which represents 0.00% of the total notional amount hedged:

EUR million

	2021
	USD LIBOR
Total hedging instruments affected	**441**
Fair value hedges	—
Interest rate risk	
Cash flow hedges	441
Interest rate risk	*441*
Post-transition date agreement	**—**
Fair value hedges	—
Interest rate risk	—
Cash flow hedges	—
Interest rate risk	—

The details of the coverage derivatives of Banco Santander, S.A. according to the type of coverage, the risk they cover and the product, can be found in the following table:

EUR million

	31 December 2021				
	Notional Value	Carrying amount		Changes in fair value used for calculating hedge ineffectiveness	Balance sheet items
		Assets	Liabilities		
Fair Value Hedges	**55,470**	**1,379**	**(1,141)**	**(618)**	
Interest rate risk	36,099	1,143	(581)	(610)	
Of which:					
Interest Rate Swap	*35,745*	*1,136*	*(580)*	*(608)*	*Hedging derivatives*
Exchange rate risk	13,073	1	(416)	22	
Of which:					
Fx forward	*13,073*	*1*	*(416)*	*22*	*Hedging derivatives*
Interest rate and exchange risk	6,125	235	(142)	(31)	
Of which:					
Interest Rate Swap	*1,650*	*12*	*(9)*	*(7)*	*Hedging derivatives*
Currency Swap	*4,475*	*223*	*(133)*	*(24)*	*Hedging derivatives*
Credit Risk	173	—	(2)	1	
Of which:					
CDS	*173*	*—*	*(2)*	*1*	*Hedging derivatives*
Cash flow Hedges	**51,218**	**74**	**(328)**	**146**	
Interest rate risk	47,721	12	(111)	145	
Of which:					
Interest Rate Swap	*45,441*	*12*	*(33)*	*(36)*	*Hedging derivatives*
Exchange rate risk	85	—	—	—	
Of which:					
Fx forward	*85*	*—*	*—*	*—*	*Hedging derivatives*
Interest rate and exchange risk	3,412	62	(217)	1	
Of which:					
Currency exchange	*3,348*	*61*	*(215)*	*3*	*Hedging derivatives*
Net Investments hedges abroad	**23,357**	**195**	**(607)**	**—**	
Exchange rate risk	23,357	195	(607)	—	
Of which:					
Fx forward	*23,357*	*195*	*(607)*	*—*	*Hedging derivatives*
Total	**130,045**	**1,648**	**(2,076)**	**(472)**	

EUR million

	31 December 2020				
	Notional Value	Carrying amount		Changes in fair value used for calculating hedge ineffectiveness	Balance sheet line items
		Assets	Liabilities		
Fair value hedges	**49,371**	**2,357**	**(988)**	**366**	
Interest rate risk	36,371	1,875	(723)	336	
Interes Rate Swap	*35,983*	*1,855*	*(711)*	*336*	*Hedging derivatives*
Call money Swap	*7*	*—*	*—*	*—*	*Hedging derivatives*
Swaption	*51*	*11*	*(11)*	*—*	*Hedging derivatives*
Floor	*330*	*9*	*(1)*	*—*	*Hedging derivatives*
Exchange rate risk	7,990	209	(34)	(1)	
Fx forward	*7,990*	*209*	*(34)*	*(1)*	*Hedging derivatives*
Interest rate and exchange rate risk	4,803	273	(228)	27	
Interest Rate Swap	*426*	*9*	*(1)*	*1*	*Hedging derivatives*
Currency Swap	*4,377*	*264*	*(227)*	*26*	*Hedging derivatives*
Credit risk	207	—	(3)	4	
CDS	*207*	*—*	*(3)*	*4*	*Hedging derivatives*
Cash flow hedges	**40,140**	**92**	**(405)**	**(206)**	
Interest rate risk	35,443	39	(271)	(204)	
Interest rate swap	*30,000*	*39*	*(12)*	*39*	*Hedging derivatives*
Futures	*5,443*	*—*	*(259)*	*(243)*	*Hedging derivatives*
Interest rate and exchange rate risk	4,697	53	(134)	(2)	
Currency swap	*4,697*	*53*	*(134)*	*(2)*	*Hedging derivatives*
Net investment hedges abroad	**20,211**	**688**	**(387)**	**—**	
Exchange rate risk	20,211	688	(387)	—	
Fx forward	*20,211*	*688*	*(387)*	*—*	*Hedging derivatives*
Total	**109,722**	**3,137**	**(1,780)**	**160**	

Banco Santander covers the risks of its balance sheet in a variety of ways. On the one hand, documented as fair value hedges, it covers the risk of both interest rate, exchange rate and credit of fixed-income portfolios (REPOs are included in this typology) and are therefore exposed to changes in fair value thereof due to changes in market conditions in based on the various risks covered, which has an impact on Banco Santander's income statement. To mitigate these risks, the Bank contracts hedging instruments (Derivatives), basically Interest rate Swaps, Cross Currency Swaps, Cap&Floors, Forex Forward and Credit Default Swaps.

On the other hand, the risk of both interest and exchange of loans granted to corporate clients at a fixed rate is generally covered. These hedges are made using Interest Rate Swaps, Cross Currency Swaps and exchange rate derivatives (Forex Swaps and Forex Forward).

In addition, the Bank manages the interest and exchange risk of debt issues in its various categories (mortgage, perpetual, subordinate and senior debt issuances) and in different currencies, denominated at fixed rate, and therefore subject to changes in fair value. These issues are covered by Interest Rate Swaps and Cross Currency Swaps or the combination of both through differentiated fair value hedging strategies for interest rate risk, and cash flows to cover exchange-rate risk.

The methodology used by Banco Santander, to measure the effectiveness of fair value hedge is based on comparing the market values of hedged items, based on the objective risk of hedging, and hedging instruments in order to analyse that changes in that fair value of hedging the items covered by hedging are offset by the market value of hedging instruments, mitigating hedged risk and minimizing volatility in the income statement. Prospectively, the same analysis is performed, measuring theoretical market values in the face of parallel variations of market curves at a positive base point.

There is a structured loan macro-coverage covering the interest rate risk of fixed-rate loans (mortgage, personal or other collateral) granted to commercial or corporate legal entities and medium/long-term Wealth clients. This coverage is instrumented as a faire value macro coverage being the main coverage instruments, Interest Rate Swap and Cap&Floors. In the event of total or partial early cancellation or amortization, the client is obliged to pay/receive the cost/income of the cancellation of the interest rate risk coverage that Banco Santander manages.

With regard to cash flow hedges, the objective is to be covered by the exposure of flows from changes in interest rate and exchange rates.

For retrospective purposes, the 'Hypothetical Derivate' methodology is used to measure efficacy. Through this methodology, the hedged risk is modelled as a derivative — not real — instrument created exclusively for the purpose of measuring the effectiveness of the hedging, and which must meet that its main characteristics match the critical terms of the hedged item for the entire period for which the ratio of coverage. This hypothetical derivative does not incorporate characteristics that are unique to the hedging instrument. In addition, it should be mentioned that, for the purpose of the effectiveness calculation, any risk component not associated with the target risk covered and actually documented at the beginning of the risk is excluded. The market value of the hypothetical derivative replicating 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 inefficiencies is residual.

Changes in the market values of the hedging instrument and the hedged item (represented by the hypothetical derivative) are prospectively measured for parallel movements of a positive base point in the market curves concerned.

There is also another macro-hedging, this time of cash flows, which aims to actively manage the risk-free interest rate risk (excluding credit risk) of a portion of the variable rate assets of Banco Santander, through the contracting of interest rate derivatives for which the bank exchanges interest flows at variable rate with others at a fixed rate agreed upon at the time of contract of transactions. Items affected by Macrocoverage have been designated as those in which their cash flows are exposed to interest rate risk, in particular mortgages of Banco Santander´s network at variable rate referenced to Euribor 12 months or Euribor Mortgage, with annual rate renewal, classified as healthy risk and which do not present a contractual floor (or otherwise, the floor is not activated). The hedged position affects the Macrocoverage of Cash Flows at the present time is EUR 7.000 million.

Regarding net foreign investments hedges, basically, they are allocated in Banco Santander and Santander Consumer Finance Group. The Group assumes, as a priority objective in risk management, to minimize – up to a determined limit set up by the responsible for the financial management of the Group- the impact on the calculation of the capital ratio of their permanent investments included within the consolidation perimeter of the Group, and whose shares are legally named in a different currency than the holding has. For this purpose, financial instruments (generally derivatives) on exchange rates are hired, that allow mitigating the impact on the capital ratio of changes in the forward exchange rate. The Group hedges the risk, mainly, for the following currencies: BRL, CLP, MXN, CAD, COP, GBP, CHF, USD and PLN.

The instruments used to hedge the risk of these investments are Forex Swaps, Forex Forward and Spot currency purchases/sales.

In the case of this type of coverage, ineffectiveness scenarios are considered to be low probability, since the hedging instrument is designated considering the position determined and the spot rate at which it is located.

Additionally, the profile information of maturities and the price/average rate for Banco Santander is shown:

EUR million

	31 December 2021					
	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	**633**	**4,584**	**13,475**	**25,468**	**11,310**	**55,470**
Interest rate risk						
Interest rate instruments						
Nominal	*14*	*1,822*	*3,038*	*21,507*	*10,031*	*36,412*
Average fixed interest rate (%) GBP	*—*	*—*	*—*	*2.14*	*1.75*	
Average fixed interest rate (%) EUR	*3.86*	*0.99*	*(0.03)*	*1.21*	*1.53*	
Average fixed interest rate (%) CHF	*—*	*—*	*—*	*0.83*	*0.40*	
Average fixed interest rate (%) JPY	*—*	*—*	*—*	*0.46*	*—*	
Average fixed interest rate (%) RON	*—*	*—*	*—*	*4.21*	*3.20*	
Average fixed interest rate (%) USD	*4.75*	*1.45*	*3.46*	*2.74*	*3.37*	
Exchange rate risk						
Exchange rate instruments						
Nominal	*503*	*1,634*	*10,350*	*586*	*—*	*13,073*
GBP / EUR average exchange rate	*—*	*0.88*	*0.86*	*0.88*	*—*	
USD / EUR average exchange rate	*1.19*	*1.17*	*1.18*	*—*	*—*	
COP / USD average exchange rate	*—*	*—*	*—*	*—*	*—*	
PEN / USD average exchange rate	*—*	*4.00*	*—*	*—*	*—*	
AUD / EUR average exchange rate	*—*	*—*	*—*	*—*	*—*	
SAR / EUR average exchange rate	*—*	*—*	*—*	*—*	*—*	
CNY / EUR average exchange rate	*7.86*	*7.72*	*7.41*	*—*	*—*	
JPY / EUR average exchange rate	*132.69*	*130.74*	*—*	*—*	*—*	
Interest rate and exchange risk						
Instruments of exchange rate and interest						
Nominal	*116*	*1,109*	*53*	*3,255*	*1,279*	*5,812*
Average fixed interest rate (%) AUD/EUR	*—*	*—*	*—*	*4.00*	*4.66*	
Average fixed interest rate (%) EUR/USD	*—*	*—*	*—*	*(0.14)*	*—*	
Average fixed interest rate (%) CZK/EUR	*—*	*—*	*—*	*0.86*	*—*	
Average fixed interest rate (%) EUR/COP	*—*	*—*	*—*	*—*	*—*	
Average fixed interest rate (%) RON/EUR	*—*	*—*	*—*	*4.85*	*—*	
Average fixed interest rate (%) HKD/EUR	*—*	*—*	*—*	*2.58*	*—*	
Average fixed interest rate (%) JPY/EUR	*—*	*—*	*—*	*0.73*	*1.14*	
Average fixed interest rate (%) NOK/EUR	*—*	*—*	*—*	*—*	*3.61*	
Average fixed interest rate (%) CHF/EUR	*—*	*—*	*—*	*0.76*	*1.24*	
Average fixed interest rate (%) USD/CLP	*—*	*—*	*—*	*3.45*	*—*	
Average fixed interest rate (%) USD/COP	*—*	*5.14*	*9.47*	*6.79*	*7.15*	
AUD/EUR average exchange rate	*—*	*—*	*—*	*1.50*	*1.53*	
NZD/EUR average exchange rate	*—*	*—*	*—*	*—*	*1.67*	
CZK/EUR average exchange rate	*—*	*—*	*—*	*25.51*	*—*	
EUR/GBP average exchange rate	*—*	*1.18*	*—*	*—*	*—*	
EUR/COP average exchange rate	*—*	*—*	*—*	*—*	*—*	
EUR/USD average exchange rate	*—*	*—*	*—*	*0.89*	*—*	
HKD/EUR average exchange rate	*—*	*—*	*—*	*8.78*	*—*	
JPY/EUR average exchange rate	*—*	*—*	*—*	*132.97*	*126.60*	
MXN/EUR average exchange rate	*—*	*—*	*14.70*	*—*	*—*	

EUR million

	31 December 2021					
	Up to one month	One to three months	Three months to one year	One year to five years	More than five years	Total
NOK/EUR average exchange rate	—	—	—	—	9.61	
RON/EUR average exchange rate	—	—	—	4.82	4.93	
CHF/EUR average exchange rate	—	—	—	1.09	1.11	
USD/CLP average exchange rate	—	—	—	—	—	
USD/COP average exchange rate	—	—	—	—	—	
USD/MXN average exchange rate	—	—	—	0.05	—	
Credit risk						
Credit Risk Instruments						
Nominal	—	19	34	120	—	173
Cash flow hedges	**4,279**	**9**	**6,360**	**40,162**	**408**	**51,218**
Interest rate and exchange rate risk						
Interest rate and exchange instruments						
Nominal	—	9	1,169	1,848	408	3,434
Average fixed interest rate (%) AUD/EUR	—	—	—	0.30	—	
Average fixed interest rate (%) EUR/PEN	—	—	3.44	—	—	
Average fixed interest rate (%) EUR/AUD	—	1.63	—	—	1.56	
EUR / PEN average exchange rate	—	—	0.21	—	—	
EUR / USD average exchange rate	—	—	—	0.88	—	
AUD / EUR average exchange rate	—	—	—	1.60	1.56	
RON / EUR average exchange rate	—	—	—	4.89	—	
JPY / EUR average exchange rate	—	—	—	120.57	—	
CHF / EUR average exchange rate	—	—	—	—	1.10	
EUR / GBF average exchange rate	—	—	1.10	1.11	—	
NOK / EUR average exchange rate	—	—	—	—	10.24	
CZK / EUR average exchange rate	—	—	—	26.13	—	
EUR / AUD average exchange rate	—	0.62	—	—	—	
Interest rate risk						
Interest Rate Swaps						
Nominal	4,279	—	5,191	38,314	—	47,784
Average fixed interest rate (%) EUR	—	—	(0.47)	(0.26)	—	
Average fixed interest rate (%) USD	—	—	1.77	—	—	
Average fixed interest rate (%) AUD	—	—	—	1.65	—	
Bond Forward Instruments						
Nominal						
Net investment hedges abroad	**560**	**1,397**	**11,280**	**10,120**	**—**	**23,357**
Exchange rate risk						
Exchange rate instruments						
Nominal	560	1,397	11,280	10,120	—	23,357
BRL / EUR average exchange rate	6.66	6.76	6.84	—	—	
CLP / EUR average exchange rate	943.35	929.69	949.61	—	—	
COP / EUR average exchange rate	—	—	4,538,971	—	—	
GBP / EUR average exchange rate	0.85	0.86	0.85	0.88	—	
MXN / EUR average exchange rate	25.54	25.33	25.19	—	—	
PLN / EUR average exchange rate	4.59	4.58	4.63	—	—	
Total	**5,472**	**5,990**	**31,115**	**75,750**	**11,718**	**130,045**

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	**2,906**	**4,848**	**5,999**	**20,242**	**15,377**	**49,372**
Interest rate risk						
Interest rate instruments						
Nominal	*2,073*	*409*	*2,165*	*17,430*	*14,294*	*36,371*
Average fixed interest rate (%) GBP	—	—	—	*1.38*	*4.07*	
Average fixed interest rate (%) EUR	*0.65*	*0.55*	*0.39*	*0.82*	*1.93*	
Average fixed interest rate (%) CHF	—	—	—	*0.80*	*0.40*	
Average fixed interest rate (%) JPY	—	—	—	*0.46*	—	
Average fixed interest rate (%) RON	—	—	—	*3.61*	—	
Average fixed interest rate (%) USD	*0.70*	*0.57*	*2.03*	*3.00*	*3.56*	
Exchange rate risk						
Exchange rate instruments						
Nominal	*833*	*4,149*	*3,008*	—	—	*7,990*
GBP / EUR average exchange rate	—	*0.90*	*0.92*	—	—	
USD / EUR average exchange rate	*1.16*	*1.17*	*1.18*	—	—	
COP / USD average exchange rate	*3,628.14*	*3,603.59*	—	—	—	
PEN / USD average exchange rate	—	*3.61*	—	—	—	
AUD / EUR average exchange rate	—	*1.61*	—	—	—	
SAR / EUR average exchange rate	*4.48*	*4.51*	—	—	—	
CNY / EUR average exchange rate	*8.11*	*8.10*	*8.00*	—	—	
JPY / EUR average exchange rate	—	*124.61*	—	—	—	
Interest rate and exchange risk						
Instruments of exchange rate and interest						
Nominal	—	*282*	*818*	*2,621*	*1,083*	*4,804*
Average fixed interest rate (%) AUD/EUR	—	—	—	*4.00*	*4.66*	
Average fixed interest rate (%) COP/USD	—	—	*6.00*	—	—	
Average fixed interest rate (%) CZK/EUR	—	—	—	*0.86*	—	
Average fixed interest rate (%) EUR/COP	—	—	*4.38*	—	—	
Average fixed interest rate (%) RON/EUR	—	—	—	*4.85*	—	
Average fixed interest rate (%) HKD/EUR	—	—	—	*2.58*	—	
Average fixed interest rate (%) JPY/EUR	—	—	*2.20*	*0.57*	*1.28*	
Average fixed interest rate (%) NOK/EUR	—	—	—	—	*3.61*	
Average fixed interest rate (%) CHF/EUR	—	—	—	—	*1.24*	
Average fixed interest rate (%) USD/CLP	—	—	*0.93*	—	—	
Average fixed interest rate (%) USD/COP	—	—	*8.03*	*6.66*	*7.23*	
AUD/EUR average exchange rate	—	—	—	*1.50*	*1.51*	
COP/USD average exchange rate	—	—	*3,437.20*	—	—	
CZK/EUR average exchange rate	—	—	—	*25.54*	—	
EUR/GBP average exchange rate	—	*1.11*	—	—	—	
EUR/COP average exchange rate	—	—	—	—	—	
EUR/USD average exchange rate	—	—	—	*0.89*	—	
HKD/EUR average exchange rate	—	—	—	*8.78*	—	
JPY/EUR average exchange rate	—	—	*113.30*	*133.84*	*125.88*	
MXN/EUR average exchange rate	—	—	—	*14.70*	—	

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
NOK/EUR average exchange rate	—	—	—	—	*9.61*	
RON/EUR average exchange rate	—	—	—	*4.73*	—	
CHF/EUR average exchange rate	—	—	—	*1.09*	*1.11*	
USD/CLP average exchange rate	—	—	—	—	—	
USD/COP average exchange rate	—	—	—	—	—	
USD/MXN average exchange rate	—	—	*0.05*	—	—	
Credit risk						
Credit Risk Instruments						
Nominal	—	*8*	*8*	*191*	—	*207*
Cash flow hedges	**3,164**	**5,000**	**24,247**	**7,521**	**208**	**40,140**
Interest rate and exchange rate risk						
Interest rate and exchange instruments						
Nominal	—	—	*1,247*	*3,242*	*208*	*4,697*
EUR / GBP average exchange rate	—	—	*1.08*	*1.10*	—	
EUR / USD average exchange rate	—	—	—	*0.88*	—	
AUD / EUR average exchange rate	—	—	—	*1.62*	—	
RON / EUR average exchange rate	—	—	—	*4.81*	—	
JPY / EUR average exchange rate	—	—	—	*120.57*	—	
CHF / EUR average exchange rate	—	—	—	—	*1.10*	
Interest rate risk						
Interest Rate Swaps						
Nominal	*3,164*	*5,000*	*23,000*	*4,279*	—	*35,443*
Average fixed interest rate (%) EUR	—	*(0.26)*	*(0.25)*	*(0.24)*	—	
Bond Forward Instruments						
Nominal	—	—	—	—	—	—
Net investment hedges abroad	**2,229**	**4,554**	**11,570**	**1,858**	**—**	**20,211**
Exchange rate risk						
Exchange rate instruments						
Nominal	*2,229*	*4,554*	*11,570*	*1,858*	—	*20,211*
BRL / EUR average exchange rate	*5.27*	*5.31*	*6.33*	—	—	
CLP / EUR average exchange rate	*869.63*	*861.55*	*864.34*	*932.22*	—	
COP / EUR average exchange rate	—	—	*4,471.31*	—	—	
GBP / EUR average exchange rate	*0.91*	*0.92*	*0.91*	—	—	
MAD / EUR average exchange rate	*23.12*	*25.46*	*26.79*	—	—	
MXN / EUR average exchange rate	*4.43*	*4.42*	*4.52*	—	—	
Total	**8,299**	**14,402**	**41,816**	**29,621**	**15,585**	**109,723**

Regarding the hedged items, in the following table we have the detail of the type of coverage, the risk that is covered and what products are being covered as of December 31, 2021 and 2020 (mainly they are loaned deposits, financial and corporate bonds and corporate repos):

EUR million

	31 December 2021						
	Amount in books of the item covered		Cumulative amount of fair value adjustments on the covered line		Change in the fair value of the item covered for inefficiency assessment	Cash flow hedge reserve / foreign currency conversion	
	Assets	Liabilities	Assets	Liabilities		Coverage continues	Discontinuous coverage
Fair value hedges	**22,469**	**27,060**	**(232)**	**575**	**590**	**—**	**—**
Interest rate risk	8,769	24,188	65	551	613	—	—
Exchange rate risk	11,972	—	(282)	—	(48)	—	—
Interest rate and exchange rate risk	1,549	2,872	(17)	24	27	—	—
Credit risk	179	—	2	—	(2)	—	—
Cash flow hedges	**—**	**—**	**—**	**—**	**101**	**(109)**	**(16)**
Interest rate risk	—	—	—	—	101	(101)	(16)
Interest rate and exchange rate risk	—	—	—	—	—	(8)	—
Net investment hedges abroad	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Exchange rate risk	—	—	—	—	—	—	—
Total	**22,469**	**27,060**	**(232)**	**575**	**691**	**(109)**	**(16)**

EUR million

	31 December 2020						
	Amount in books of the item covered		Cumulative amount of fair value adjustments on the covered line		Change in the fair value of the item covered for inefficiency assessment	Cash flow hedge reserve / foreign currency conversion	
	Assets	Liabilities	Assets	Liabilities		Coverage continues	Discontinuous coverage
Fair value hedges	**23,964**	**20,775**	**321**	**1,440**	**(356)**	**—**	**—**
Interest rate risk	13,939	18,278	264	1,360	(328)	—	—
Exchange rate risk	8,030	—	40	—	1	—	—
Interest rate and exchange rate risk	1,775	2,497	14	80	(27)	—	—
Credit risk	220	—	3	—	(2)	—	—
Cash flow hedges	**—**	**—**	**—**	**—**	**231**	**(274)**	**3**
Interest rate risk	—		—	—	231	(266)	3
Interest rate and exchange rate risk	—	—	—	—	—	(8)	—
Net investment hedges abroad	**20,211**	**—**	**—**	**—**	**—**	**—**	**—**
Exchange rate risk	20,211	—	—	—	—	—	—
Total	**44,175**	**20,775**	**321**	**1,440**	**(125)**	**(274)**	**3**

The cumulative amount of adjustments of the fair value hedging instruments that remain in the balance for covered items that are no longer adjusted by profit and loss of coverage as of 31 December 2021 is EUR 115 million (December 31, 2020 is EUR 150 million).

The following table contains information regarding the effectiveness of the hedging relationships designated by Banco Santander, as well as the impacts on profit or loss and other comprehensive income as of 31 December 2021 and 2020:

EUR million

	31 December 2021				
	Earnings / (losses) recognized in Other accumulated global income	Coverage inefficiency recognized in the income statement	Line of the income statement that includes ineffective coverage	Reclassified amount of reserves to the income statement due to: Covered transaction that affects the income statement	Reclassified amount of reserves to the income statement due to: Line of the income statement that includes reclassified amounts
Fair value hedges	**—**	**(28)**		**—**	
Interest rate risk	—	4	Gains or losses of financial assets/liabilities	—	N/A
Exchange rate risk	—	(27)	Gains or losses of financial assets/liabilities	—	N/A
Interest and Exchange rate risk	—	(5)	Gains or losses of financial assets/liabilities	—	N/A
Credit risk	—	—	N/A	—	N/A
Cash flow hedges	**146**	**—**		**(7)**	
Interest rate risk	145	—	Gains or losses of financial assets/liabilities	(32)	Net interest income/ Gains or losses of financial assets/ liabilities
Interest rate and exchange rate risk	1	—	Gains or losses of financial assets/liabilities	25	Net interest income/ Gains or losses of financial assets/ liabilities
Total	**146**	**(28)**		**(7)**	

EUR million

	31 December 2020				
	Earnings / (losses) recognized in Other accumulated global income	Coverage inefficiency recognized in the income statement	Line of the income statement that includes ineffective coverage	Reclassified amount of reserves to the income statement due to: Covered transaction that affects the income statement	Reclassified amount of reserves to the income statement due to: Line of the income statement that includes reclassified amounts
Fair value hedges	**—**	**10**		**—**	
Interest rate risk	—	4	Gains or losses of financial assets/liabilities	—	N/A
Exchange rate risk	—	—	N/A	—	N/A
Interest and Exchange rate risk	—	4	Gains or losses of financial assets/liabilities	—	N/A
Credit risk	—	2	Gains or losses of financial assets/liabilities	—	N/A
Cash flow hedges	**(206)**	**—**		**33**	
Interest rate risk	(204)	—	Gains or losses of financial assets/liabilities	(10)	Net interest income/ Gains or losses of financial assets/ liabilities
Interest rate and exchange rate risk	(2)	—	Gains or losses of financial assets/liabilities	43	Net interest income/ Gains or losses of financial assets/ liabilities
Total	**(206)**	**10**		**33**	

The following table shows a reconciliation of each component of equity and an analysis of other comprehensive income in relation to hedge accounting as of December 31, 2021 and 2020:

EUR million

	2021	2020
Balance at the end of the previous year	(189)	(45)
Amount recognized in Other accumulated global income		
Cash flow hedges	146	(206)
Interest rate risk and interest rate and exchange rate risk	146	(206)
Changes in equity by discharge at P&L	*(6)*	*33*
Remains of equity movements	*152*	*(239)*
Taxes	(44)	62
Balance at year end	**(87)**	**(189)**

33. Off-balance-sheet funds under management

As of 31 December 2021, Banco Santander held off-balance-sheet funds under management, namely investment funds and assets under management, amounting to EUR 88,123 million (31 December 2020, EUR 81,964 million). Also, as of 31 December 2021, the funds marketed but not held under management amounted to EUR 25,172 million (31 December 2020, EUR 20,503 million).

34. Interest income

Interest and similar income in the accompanying income statements 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 recognized gross, without deducting any tax withheld originally.

The detail of the main items of interest and similar income earned in 2021 and 2020 is as follows:

EUR million

	2021	2020
Debt instruments	**723**	**777**
Central Banks	3	2
Public sector	190	210
Credit entities	316	342
Other financial companies	178	169
Non-financial companies	36	54
Loans and advances	**4,811**	**5,095**
Central Banks	25	41
Public sector	122	162
Credit entities	156	406
Other financial companies	580	467
Non-financial companies	2,634	2,607
Households	1,294	1,412
Other assets	**77**	**85**
Of which, insurance contracts linked to pensions (note 23.c)	*12*	*6*
Deposits	**727**	**520**
Central Banks	618	375
Public sector	12	2
Credit entities	64	105
Other financial companies	22	30
Non-financial companies	11	8
Households	—	—
Hedging derivatives - Interest rate risk	**38**	**34**
Other financial liabilities	**19**	**12**
Debt securities issued	**10**	**5**
Total	**6,405**	**6,528**

Most of the interest and similar income was generated by Banco Santander's financial assets that are measured either at amortized cost or at fair value through Other comprehensive income.

35. Interest expense

Interest expense and similar charges in the accompanying income statements 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 and 2020 is as follows:

EUR million

	2021	2020
Derivatives - Trading	**41**	**—**
Of which: interest income from derivatives in economic hedges	*41*	*—*
Debt securities Issued	**1,432**	**1,507**
Debt securities	**66**	**97**
Central Banks	—	—
Public sector	46	49
Credit entities	13	40
Other financial companies	6	8
Non-financial companies	1	—
Loans and advances	**479**	**361**
Central Banks	239	101
Public sector	1	9
Credit entities	162	198
Other financial companies	72	48
Non-financial companies	5	5
Households	—	—
Deposits	**689**	**1,006**
Central Banks	12	111
Public sector	156	145
Credit entities	220	351
Other financial companies	239	279
Non-financial companies	54	94
Households	8	26
Other financial liabilities	**197**	**190**
Hedging derivatives - Interest rate risk	**(154)**	**(35)**
Pensions and other obligations of defined post-employment benefits (note 23)	**35**	**34**
Others	**—**	**—**
Total	**2,785**	**3,160**

Most of the interest expense and similar charges was generated by Banco Santander's financial liabilities that are measured at amortized cost.

36. 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 equity instruments is as follows:

EUR million

	2021	2020
Financial assets held for trading	355	264
Non-trading financial assets mandatorily at fair value through profit or loss	7	—
Financial assets at fair value through other comprehensive income	55	62
Investments in subsidiaries, jointly controlled entities and associates	5,072	5,316
Group entities	*4,765*	*5,221*
Associates	*307*	*95*
Total	**5,489**	**5,642**

<u>Investments in subsidiaries, jointly controlled entities and associates</u>

The detail of the main items of interest expense and similar charges accrued in 2021 and 2020 is as follows:

EUR million	2021	2020
Detail of the companies:		
SANTANDER CONSUMER FINANCE, S.A.	1,876	—
SANTANDER UK GROUP HOLDINGS PLC	1,229	88
SANTANDER HOLDING INTERNATIONAL, S.A.	500	1,270
SANTANDER HOLDING USA, Inc.	423	112
ZURICH SANTANDER INSURANCE AMÉRICA, S.L.	230	80
GRUPO FINANCIERO SANTANDER MÉXICO, S.A. de C.V.	153	—
SANTANDER CONSUMER FINANCE, S.A. (AT1)	73	65
SANTANDER UK GROUP HOLDINGS PLC (AT1)	72	72
SANTANDER INVESTMENT, S.A.	70	30
CNP SANTANDER INSURANCE LIFE DESIGNATED ACTIVITY COMPANY	60	—
TEATINOS SIGLO XXI INVERSIONES S.A.	49	733
SANTANDER CHILE HOLDING S.A.	41	16
BANCO SANTANDER MÉXICO, S.A., INSTITUCIÓN DE BANCA MÚLTIPLE, GRUPO FINANCIERO SANTANDER MÉXICO	33	—
BANCO SANTANDER URUGUAY, S.A.	33	37
SANTANDER BANK POLSKA S.A.	33	—
SAM INVESTMENT HOLDINGS, S.L.	32	72
SANTANDER TOTTA, SGPGS, S.A.	32	61
SANTANDER TOTTA, SGPGS, S.A. (AT1)	28	—
SOCUR S.A.	18	17
SANTANDER GLOBAL TECHNOLOGY, S.L.	14	20
SANTANDER TOWARZYSTWO FUNDUSZY INWESTYCYJNYCH S.A.	13	20
BANCO SANTANDER (BRASIL) S.A.	1	59
STERREBEECK B.V.	—	1,260
SANTUSA HOLDING, S.L.	—	1,019
SANTANDER FACTORING Y CONFIRMING, S.A., E.F.C	—	200
SANTANDER GLOBAL OPERATIONS, S.A.	—	17
SAM UK INVESTMENT HOLDINGS LIMITED	—	1
Other companies	59	67
Total	**5,072**	**5,316**

37. Commission income

Fee and commission income comprise the amount of all fees and commissions accruing in favour of Banco Santander 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 in the accompanying income statements for 2021 and 2020 is as follows:

EUR million	2021	2020
Collection and payment services:		
Current Accounts	374	300
Credit and debit cards	155	194
Transfers and other payment orders	91	84
Other commission income in connection with payment services	67	71
	687	**649**
Marketing of non-banking financial products:		
Collective Investment	512	465
Insurance	281	232
Other	1	—
	794	**697**
Securities services:		
Securities underwriting and placement	125	138
Transfer orders	18	12
Other	72	90
	215	240
Clearing and settlement	**74**	**78**
Asset management	**88**	**78**
Custody	**75**	**67**
Structured finance	**266**	**229**
Loan granted commitments granted	**283**	**217**
Financial granted guarantees granted	**223**	**222**
Other:		
Foreign currency exchange	100	88
Other concepts	314	246
	414	**334**
Total	**3,119**	**2,811**

38. Commission expense

Fee and commission expense show the amount of all fees and commissions paid or payable by Banco Santander in the year, except those that form an integral part of the effective interest rate on financial instruments.

The detail of fee and commission expense in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Clearing and settlement	71	73
Loan commitments received	—	—
Financial guarantees received	100	113
Custody	—	—
Other *	370	308
Total	**541**	**494**

* Other Includes mainly commissions paid for financial and mediation services, as well as credit cards.

39. Gains or losses on financial assets and liabilities

The following information is presented below regarding the gains or losses on financial assets or liabilities:

a) Breakdown

The detail, by classification of the related instrument, of Gains/losses on financial assets and liabilities in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Gains or losses on financial assets and liabilities not measured at fair value through profit or loss, net	318	578
Financial assets at amortized cost	19	10
Other financial assets and liabilities	299	568
Of which, debt instruments	*286*	*565*
Of which, equity instruments	—	—
Gains or losses on financial assets and liabilities held for trading, net*	175	(29)
Gains or losses on non-trading financial assets and liabilities mandatory at fair value through profit or loss	(45)	(290)
Gains or losses on financial assets and liabilities measured at fair value through profit or loss, net*	38	4
Gains or losses from hedge accounting, net	(28)	10
Total	**458**	**273**

* Includes the net income obtained from transactions with debt securities, capital instruments, derivatives and short positions included in this portfolio when the Banco Santander jointly manages its risk in those instruments.

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
Loans and receivables	29,239	35,222
Central Banks	1,118	482
Credit institutions	10,425	9,891
Customers	17,696	24,849
Debt instruments*	15,054	18,914
Equity instruments	15,527	10,063
Derivatives	42,023	53,362
Total	**101,843**	**117,561**

* Include EUR 10,307 million related to Spanish and foreign government debt securities at 31 December 2021 (31 December 2020, EUR 13,842 million).

The foregoing table shows the maximum credit risk exposure of these assets at 31 December 2021 and 2020, respectively, Banco Santander mitigates and reduces this exposure as follows.

With respect to derivatives, Banco Santander 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.

Loans and receivable' to credit institutions and loans and receivable to 'customers' included reverse repos amounting to EUR 28,219 million at 31 December 2021 (31 December 2020: EUR 31,070 million).

In addition, assets amounting to EUR 1,134 million have a mortgage guarantee at 31 December 2021 (31 December 2020: EUR 1,408 million).

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
Deposits	19,796	16,890
Central Banks	651	1,469
Credit Institutions	6,785	4,496
Customers	12,360	10,925
Short positions	9,244	10,338
Derivatives	40,672	50,676
Total	**69,712**	**77,904**

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.

40. Exchange differences, net

This chapter basically includes the results obtained in the purchase and sale of currencies, the differences that arise when converting monetary items in foreign currency to functional currency and those from non-monetary assets in foreign currency at the time of disposal.

The detail of 'Exchange differences (net)' in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Exchange differences, net	**(205)**	**372**

Banco 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 analyzed together with those recognized under Gains/losses on financial assets and liabilities (see note 39).

41. Other operating income and other operating expenses

The detail of 'Other operating income' in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Exploitation of real estate investments and operating leases	256	241
Others	185	163
Total	**441**	**404**

The detail of 'Other operating expenses' in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Contribution to Deposit Guarantee Fund (note 1.h)	(225)	(239)
Contribution to Resolution Fund* (note 1.h)	(307)	(262)
Other operating expenses	(362)	(284)
Total	**(894)**	**(785)**

*Includes the expense incurred by contribution to the National Resolution Fund and to the Single Resolution Fund.

42. Staff costs

a) Breakdown

The detail of 'Staff costs' in 2021 and 2020 is as follows:

EUR million

	2021			2020		
	Of which, in Spain	Of which, foreign branches	Total	Of which, in Spain	Of which, foreign branches	Total
Wages and salaries	1,728	323	2,051	1,639	241	1,880
Social security costs	343	33	376	381	27	408
Additions to provisions for defined benefit pension plans (note 23)	5	—	5	11	—	11
Contributions to defined contribution pension funds	67	10	77	72	8	80
Equity-instrument-based remuneration	—	—	—	—	—	—
Other staff costs	169	29	198	191	16	207
Total	**2,312**	**395**	**2,707**	**2,294**	**292**	**2,586**

b) Headcount

The average number of employees at the Bank, by professional category, is as follows:

Average number of employees

	2021	2020
Executive and Senior management	19	21
Other line personnel	23,343	26,527
Staff at branches abroad	1,150	955
Total	**24,512**	**27,503**

The number of employees, as of December 31, 2021 and December 31, 2020, is 23,311 and 27,337, respectively.

The functional breakdown, by gender, at 31 December 2021 is as follows:

	Breakdown by gender			
	Executives		Other line personnel	
	Men	Women	Men	Women
Breakdown by gender	76 %	24 %	50 %	50 %

The labour relations between employees and the various Group companies and, therefore, the Bank are governed by the related collective agreements or similar regulations.

The number of employees with disabilities greater than or equal to 33%, distributed by professional categories at December 31, 2021 and 2020, is as follows:

	2021	2020
Senior management	—	—
Other management	27	30
Other staff	280	287
Total	**307**	**317**

The average number of employees of Banco Santander with a disability greater than or equal to 33%, during the year 2021 was 288 (319 at the end of the year 2020).

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. Banco Santander

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	Description and plan beneficiaries	Conditions	Calculation Base
(i) Deferred and conditional variable remuneration plan (2015, 2016, 2017, 2018, 2019, 2020 and 2021)	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: 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. iv. Significant changes in the Group's economic capital or risk profile. In the case of the seventh, eight, 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: v. significant failures in risk management committed by the entity , or by a business unit or risk control unit. vi. 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. vii. 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. viii. 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 over3 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, eight, 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	Description and plan beneficiaries	Conditions	Calculation Base
(ii)Deferred Multiyear Objectives Variable Remuneration Plan (2016, 2017, 2018, 2019, 2020 and 2021)	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: i. Poor performance of the Group. ii. breach by the beneficiary of the internal regulations, including in particular that relating to risks. iii. material restatement of the Group's consolidated financial statements, except when appropriate under a change in accounting regulations. iv. 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: v. Significant failures in risk management committed by the entity, or by a business unit or risk control unit. vi. 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. vii. 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. viii. 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 implementating 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 overs shares, will be subject generally to the Group's general *malus* & *clawback* 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. Fair value

The fair value of the performance share plans was calculated as follows:

– 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.

43. Other general administrative expenses

a) Breakdown

The detail of Other general administrative expenses in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Technology and systems	705	666
Fixtures and supplies	207	258
Other administrative expenses	619	630
Technical reports	180	194
Advertising	88	101
Per diems and travel expenses	16	19
Surveillance and cash courier services	37	42
Communications	9	31
Taxes other than income tax	79	58
Insurance premiums	26	17
Total	**1,966**	**2,016**

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*
Audit fees	103.7	99.4
Audit-related fees	6.0	6.0
Tax fees	0.7	0.8
All other fees	2.4	1.2
Total	**112.8**	**107.4**

* Of those corresponding to Banco Santander, SA, EUR 30.5 million, EUR 2.3 million, EUR 0 million and EUR 0.5 million, respectively, as of December 31, 2021 (EUR 27.7 million, EUR 2.0 million, EUR 0 million and EUR 0.4 million, respectively, as of December 31, 2020); and Branches of Banco Santander, SA, EUR 2.5 million, EUR 0.1 million, EUR 0 million and EUR 0 million, respectively, as of December 31, 2021 (EUR 2.3 million of 'Audit fees' as of December 31, 2020).

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 in 2020).

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 and 2020 is as follows:

Number of branches

	Group	
	2021	2020
Spain	1,998	2,989
Group	7,881	8,247
Total	**9,879**	**11,236**

Number of branches

	Of which, Banco Santander	
	2021	2020
Spain	1,916	2,905
International	9	9
Total	**1,925**	**2,914**

44. Impairment or reversal of the impairment of investments in joint ventures and associates

The detail of 'Impairment losses on other assets (net)' in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Investments in subsidiaries, joint ventures or associates (note 13)	800	(5,921)
Total	**800**	**(5,921)**

45. Gains or losses on non-financial assets and investments, net

The detail of 'Gains/(losses) on disposal of assets not classified as non-current assets held for sale' in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
On disposal of tangible assets	4	7
On disposal of investments in subsidiaries, jointly controlled entities and associates	(4)	1,135
Of which (note 13. b. ii)		
Banco Santander Brasil (sale to company de Grupo Santander)	—	1,127
Total	**—**	**1,142**

46. 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' in the accompanying income statements for 2021 and 2020 is as follows:

EUR million

	2021	2020
Impairment of non-current assets held for sale (note 12)	(70)	(68)
Gain / (loss) on disposal*	20	(9)
Total	**(50)**	**(77)**

* Year 2020: includes the result of extraordinary sales of real estate portfolio.

47. Related parties

The parties related to Banco Santander are deemed to include, in addition to its subsidiaries, associates and jointly controlled entities, Banco Santander'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 is a detail of the transactions performed by Banco Santander with its related parties at 31 December 2021 and 2020, distinguishing between group entities, joint venture entities and associated entities, members of Banco Santander's board of directors, Banco Santander'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			
	Subsidiaries, associates and jointly controlled entities	Members of the board of directors*	Executive vice presidents*	Other related parties*
Assets	**150,489**	**—**	**14**	**20**
Equity instruments	88,997	—	—	—
Debt instruments	14,352	—	—	—
Loans and advances	47,140	—	14	20
From which: impaired financial assets	*270*	—	—	—
Liabilities	**24,498**	**8**	**11**	**193**
Deposits credit institution and clients	24,277	8	11	193
Marketable debt securities	221	—	—	—
Income statement	**6,551**	**—**	**—**	**1**
Interest and similar income	715	—	—	1
Interest expense and similar charges	(80)	—	—	—
Interest from equity instruments	5,072	—	—	—
Gains / (Losses) on financial instruments and other	781	—	—	—
Fee and commission income	86	—	—	—
Fee and commission expense	(23)	—	—	—
Other	**471,034**	**1**	**1**	**62**
Contingent liabilities	6,447	—	—	3
Contingent commitments	5,371	1	1	13
Financial instruments - derivatives	459,216	—	—	46

* Includes transactions carried out with both Banco Santander and with other entities of Grupo Santander.

EUR million

	2020			
	Subsidiaries, associates and jointly controlled entities	Members of the board of directors*	Executive vice presidents*	Other related parties*
Assets	**144,956**	**—**	**24**	**90**
Equity instruments	85,329	—	—	—
Debt instruments	10,803	—	—	—
Loans and advances	48,824	—	24	90
From which: impaired financial assets	*138*	—	—	—
Liabilities	**19,740**	**4**	**16**	**158**
Deposits credit institution and clients	19,123	4	16	158
Marketable debt securities	617	—	—	—
Income statement	**6,555**	**—**	**—**	**3**
Interest and similar income	671	—	—	2
Interest expense and similar charges	(62)	—	—	—
Interest from equity instruments	5,318	—	—	—
Gains / (Losses) on financial instruments and other	7	—	—	—
Fee and commission income	770	—	—	1
Fee and commission expense	(149)	—	—	—
Other	**347,736**	**1**	**1**	**45**
Contingent liabilities	5,521	—	—	3
Contingent commitments	9,070	1	1	13
Financial instruments - derivatives	333,145	—	—	29

* Includes transactions carried out with both Banco Santander and with other entities of Grupo Santander.

Additionally, the above-mentioned breakdown shows pension insurance contracts with Grupo Santander insurance companies amounting to EUR 232 million on December 31 of 2021 (EUR 249 million on December 31 of 2020).

48. Other disclosures

a) Residual maturity periods

The detail, by maturity, of the balances of certain items in the balance sheets as of 31 December 2021 and 2020 is as follows:

EUR million

	31 December 2021						
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
Assets:							
Cash, cash balances at central banks and other demand deposits	91,736	—	—	—	—	—	91,736
Financial assets at fair value with changes in other comprehensive income							
Representative values of debt	—	653	600	278	2,278	5,585	9,394
Financial assets at amortised cost							
Representative values of debt	—	236	360	451	6,225	9,936	17,208
Loans and advances							
Central banks	—	25	—	1	—	—	26
Credit institutions	212	15,859	2,048	6,949	7,056	2,960	35,084
Customer	5,701	37,915	17,853	32,304	70,133	122,829	286,735
	97,649	**54,688**	**20,861**	**39,983**	**85,692**	**141,310**	**440,183**
Liabilities:							
Financial liabilities at amortised cost							
Deposits							
Central banks	64	1,215	850	144	62,376	—	64,649
Credit institutions	25,263	1,880	2,052	606	3,469	1,992	35,262
Customer	270,745	4,023	5,251	8,867	5,256	2,101	296,243
Debt securities issued	—	5,323	9,028	8,580	33,145	48,018	104,094
Other financial liabilities	3,370	980	109	3,784	893	888	10,024
	299,442	**13,421**	**17,290**	**21,981**	**105,139**	**52,999**	**510,272**
Difference (assets less liabilities)	**(201,793)**	**41,267**	**3,571**	**18,002**	**(19,447)**	**88,311**	**(70,089)**

Santander

EUR million

	2020						
	On demand	Within 1 month	1 to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
Assets:							
Cash, cash balances at central banks and other demand deposits	67,561	—	—	—	—	—	67,561
Financial assets at fair value with changes in other comprehensive income							
Representative values of debt	—	50	1,466	234	1,723	11,673	15,146
Financial assets at amortized cost							
Representative values of debt	—	107	122	276	2,366	8,542	11,413
Loans and advances							
Central banks	—	20	—	1	—	—	21
Credit institutions	12,082	2,489	4,233	8,998	5,539	818	34,159
Customer	19,238	10,345	28,981	22,142	79,552	105,169	265,427
	98,881	**13,011**	**34,802**	**31,651**	**89,180**	**126,202**	**393,727**
Liabilities:							
Financial liabilities at amortized cost							
Deposits							
Central banks	42	—	3,368	404	56,558	—	60,372
Credit institutions	25,495	4,863	2,055	2,434	4,930	948	40,725
Customer	247,219	6,740	5,677	9,513	5,611	980	275,740
Debt securities issued	1,401	2,380	4,791	5,865	32,120	41,345	87,902
Other financial liabilities	123	3,453	3,935	472	778	1,119	9,880
	274,280	**17,436**	**19,826**	**18,688**	**99,997**	**44,392**	**474,619**
Difference (assets less liabilities)	**(175,399)**	**(4,425)**	**14,976**	**12,963**	**(10,817)**	**81,810**	**(80,892)**

b) Equivalent euro value of assets and liabilities

The detail of the main foreign currency balances in the balance sheets as of 31 December 2021 and 2020, based on the nature of the related items, is as follows:

Countervalue in EUR million

	2021	2020
Assets	**183,507**	**162,058**
Cash, cash balances at central banks and other deposits on demand	13,775	5,168
Financial assets held for trading	32,947	29,422
Non-trading financial assets mandatorily at fair value through profit or loss	1,279	768
Financial assets designated at fair value through profit or loss	293	11,107
Financial assets at fair value through other comprehensive income	4,785	5,419
Financial assets at amortized cost	90,011	70,802
Hedging derivatives	668	1,116
Changes in the fair value of hedged items in portfolio hedges of interest rate risk	—	—
Investments	39,492	37,215
Tangible assets	16	21
Intangible assets	4	4
Tax assets	99	28
Other assets	138	988
Non-current assets held-for-sale	—	—
Liabilities	**114,567**	**100,734**
Financial liabilities held for trading	23,869	26,178
Financial liabilities designated at fair value through profit or loss	5,888	6,143
Financial liabilities at amortized cost	83,923	67,101
Hedging derivatives	391	362
Changes in the fair value of hedged items in portfolio hedges of interest risk rate	—	—
Provisions	120	88
Tax liabilities	21	—
Refundable equity on demand	—	—
Other liabilities	355	862
Liabilities associated with non-current assets held-for-sale	—	—

c) Fair value of financial assets and liabilities not measured at fair value

Financial assets are measured at fair value in the accompanying balance sheets, except for loans and receivables under a business model whose objective is to collect the flows of principal and interest , equity instruments whose market value cannot be estimated reliably and derivatives that have these instruments as their underlying and are settled by delivery thereof.

Similarly, financial liabilities except for financial liabilities held for trading, those measured at fair value and derivatives having equity instruments whose market value cannot be estimated reliably as their underlying- are measured at amortized cost in the accompanying balance sheets.

The following is a comparison between the value of Grupo Santander's financial instruments valued using other criteria rather than fair value and their corresponding fair value at year-end:

Financial assets and liabilities measured at other than fair value

The fair value of financial instruments measured at amortized cost as of 31 December 2021 was as follows:

a. The fair value of debt securities is 4.98% higher than the carrying amount.

b. The fair value of the loans and advances is 0.36% lower than the carrying amount.

c. The fair value of deposits is 0.19% lower than the carrying amount.

d. The fair value of marketable debt securities is 3.15% greater than the carrying amount.

Set forth below are the main valuation methods and inputs used in the estimates made at 31 December 2021 to determine the fair values of the financial assets and liabilities recognized at cost detailed above:

- Loans and receivables: The fair value has been estimated using the present cost method, the estimation has considered factors such as the expected maturity of the portfolio, market interest rates, spreads of new concession of operations, or market spreads – If these were available.
- Held to maturity portfolio: The fair value has been determined based on market prices for those instruments.
- Financial liabilities at amortized cost:
  a. The fair value of deposits at Central Banks has been assimilated to their carrying amount because they are mainly short-term balances.
  b. Credit Institutions: Fair value has been obtained using the present value technique by applying interest rates and market spreads.
  c. Customer deposits: Fair value has been estimated using the present value technique. The estimation has considered factors such as the expected maturity of the operations and the current financing cost of Grupo Santander in similar operations.
  d. Marketable debt securities: Fair value has been determined based on market prices for these instruments, when available, or using the present value technique, by applying interest rates and market spreads.

Additionally, the fair value of Cash, Cash Balances at central banks and other deposits on demand has been assimilated to its carrying amount, mainly because of short-term balances.

49. Risk management

a) Risk principles and culture

Banco and 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.

Banco 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 and Banco 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 and Banco Santander also take 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 and Banco Santander 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 and Banco Santander's 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 and Banco 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 and the Bank. 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 and Banco 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 and Banco 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 and Banco Santander have 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 and Banco 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 and Bank'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 and Banco 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 and Banco Santander know well;
- A conduct model that protects Grupo and Banco 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 and Banco 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.

1	Earnings volatility The maximum loss Grupo Santander can tolerate in an acute -but- plausible stress scenario.
2	Solvency Minimum capital position Grupo Santander can tolerate in a stress scenario. Maximum leverage Grupo Santander can tolerate in a stress scenario.
3	Liquidity Minimum structural liquidity position. Minimum liquidity horizon Grupo Santander can tolerate in peak stress scenario. Minimum liquidity coverage position.
4	Concentration Concentration in single names, industries and portfolios. Concentration in non-investment grade counterparties. Concentration in large exposures.
5	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 and Banco Santander have 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 and Banco Santander identify, analyse, control and decide 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 and Banco Santander's portfolios effectively. Grupo and Banco Santander classify external and internal risks in each business and adopt corrective and mitigating measures when needed through these processes:

1.1. Planning

Grupo and Banco 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 Group.

1.2. Risk assessment and credit rating process

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 and Banco Santander's parameter estimation models follow econometric models built on the Group and the Bank's portfolios' historical defaults and losses. Grupo and Banco Santander uses them to calculate economic and regulatory capital as well as Bank of Spain circular 4/2017provisions for each portfolio.

Grupo and Banco Santander regularly monitoring and evaluate models' appropriateness, predictive capacity, performance, granularity, compliance with policies and other related factors. Grupo and Banco Santander reviews ratings with the latest available financial and economic information. Grupo and Banco 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 and Banco Santander have 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 and Banco 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 and Banco Santander use 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 and Banco 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 and Banco Santander apply 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 the Group and the Bank are 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 and Banco Santander use 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 and Banco 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 and Banco Santander's holistic monitoring of customers helps detect impacts on risk performance and credit quality early.

Grupo and Banco Santander assign 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 and Banco Santander track 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 and Banco 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 and Banco Santander define 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, 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 and Banco Santander apply 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 and Banco Santander's diverse customer base requires segmentation to manage recoveries appropriately. The highly technological and digital processes Grupo and Banco Santander follow help us attend to large groups of customers with similar profiles and products. Grupo and Banco Santander's personalized management, however, focus on customer profiles that require a special manager and approach.

Grupo and Banco Santander split recovery management into four phases: arrears, credit impaired loans, write-offs and foreclosed assets. Grupo and Banco Santander may use mechanisms to rapidly reduce assets like sales of foreclosed assets or credit impaired loans pool sales. Grupo and Banco Santander constantly seek alternatives to legal action in order to collect debt.

Grupo and Banco Santander include 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.

Santander

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	2021	2020	2021	2020
Europe	**636,123**	**606,997**	**19,822**	**20,272**	**3.12**	**3.34**
Spain	221,100	221,341	12,758	13,796	5.77	6.23
UK**	262,869	252,255	3,766	3,138	1.43	1.24
Portugal	41,941	40,693	1,442	1,584	3.44	3.89
Poland	33,497	31,578	1,210	1,496	3.61	4.74
North America	**149,792**	**131,626**	**3,632**	**2,938**	**2.42**	**2.23**
US	112,808	99,135	2,624	2,025	2.33	2.04
Mexico	36,984	32,476	1,009	913	2.73	2.81
South America	**141,874**	**129,590**	**6,387**	**5,688**	**4.50**	**4.39**
Brazil	85,702	74,712	4,182	3,429	4.88	4.59
Chile	41,479	42,826	1,838	2,051	4.43	4.79
Argentina	5,481	4,418	198	93	3.61	2.11
Digital Consumer Bank	**117,049**	**116,381**	**2,490**	**2,525**	**2.13**	**2.17**
Corporate Centre	**6,277**	**4,862**	**903**	**344**	**14.38**	**7.08**
Total Group	**1,051,115**	**989,456**	**33,234**	**31,767**	**3.16**	**3.21**

*Management perimeter according to the reported segments
** 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 and Banco 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 local units of the Group 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 Bank of Spain Circular 4/2017, 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, Group and Banco Santander analyses losses under IFRS 9 and Bank of Spain Circular 4/2017 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 the Group and the Bank operate 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 and Banco Santander have evaluated the evolution of the credit quality of its customers, for the purposes of their classification in Grupo and Banco Santander financial statements.

In terms of classification, in 2021 Grupo and Banco Santander have 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 and 10, as well as in this note of these annual accounts.

Grupo and Banco Santander estimate 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 and Bank of Spain Circular 4/2017, respectively.

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 and 2020. 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**

* 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 millionn 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).

The remaining exposure, including all financial instruments not included before, amounts to EUR 349,228 million (EUR 478,093 million in 2020), 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 at 31 December 2020) of purchased credit-impaired assets, which relate mainly to the business combinations carried out by the Group.

Regarding the evolution of credit risk provisions, Grupo and Banco Santander, 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, Grupo and Banco Santander also perform 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 Bank of Spain Circular 4/2017 stages is carried out in accordance with the regulation through the risk management policies, 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 and the Bank 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).
- Bank of Spain Circular 4/2017: the approach must take into consideration Bank of Spain Circular 4/2017 (aligned with 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 the Group and the Bank 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, the Group and the Bank 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 and Banco 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 and the Bank 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 and Banco Santander have 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 of Bank of Spain Circular 4/2017 and IFRS 9, respectively, 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. Details of the management units of Banco Santander, S.A.

Following is the risk information relating to the geography of Grupo España, as well as the Santander Corporate & Investment Banking (SCIB) portfolio, both in terms of exposure and 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 Santander Spain

Portfolio overview

Santander España's credit risk, excluding intra-group financing operations and foreign branches, amounts to EUR 221,100 million (21% 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 decreased -0.1% 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 5.77%, 46 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 52% (+5 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 reflects the rise in Covid-19 provisions, with slight improvement at the end of 2021 compared to 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 and 2020 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

	2021			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
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

	2020			
Credit quality *	Stage 1	Stage 2	Stage 3	Total
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**

* 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 portdolio and undrawn commitments
*** Includes provisions for undrawn authorized lines (loan commitments).

The real estate unit in Spain (UAI) was consolidated within Santander Spain in 2019, (this process was completed in 2020). Consequently, in 2021 and 2020 the perimeter is aligned.

From the information detailed above, Banco Santander, S.A. reaches a total gross exposure of EUR 328,748 million in the heading of financial assets at amortized cost (see note 6 and 10) and EUR 111,410 million in loan commitments granted for off-balance sheet exposures (see note 31) Impairment losses amount to EUR 6,903 and EUR 190 million, respectively. (The amount of losses due to impairment of off-balance sheet exposures includes the coverage of financial guarantees and other commitments granted in addition to the aforementioned loan commitments).

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:

	2022-2026		
Variables	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
Pessimistic scenario	30 %	30 %
Base scenario	40 %	40 %
Optimistic scenario 1	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 in 2020), 99.33% of which have a mortgage guarantee (99.35% in 2020).

EUR million

	2021			
	Santander Group Spain		Of Which, Banco Santander, S.A.	
	Gross amount	Of which: impaired	Gross amount	Of which: Non-performing
Home purchase loans to families	62,324	1,860	60,947	1,798
Without mortgage guarantee	*419*	*115*	*418*	*115*
With mortgage guarantee	*61,905*	*1,745*	*60,529*	*1,683*

EUR million

	2020			
	Santander Group Spain		Of Which, Banco Santander, S.A.	
	Gross amount	Of which: impaired	Gross amount	Of which: Non-performing
Home purchase loans to families	59,605	1,850	58,079	1,784
Without mortgage guarantee	*387*	*75*	*387*	*75*
With mortgage guarantee	*59,218*	*1,775*	*57,692*	*1,709*

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% in 2020).
- The 89.41% of the portfolio has a LTV below 80% calculated as total risk/latest available house appraisal.

Santander

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					
	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%	Total
Santander Group						
Gross amount	16,479	19,391	19,479	4,376	2,180	61,905
Of which, impaired	*187*	*240*	*349*	*313*	*656*	*1,745*
Of which, Banco Santander, S.A.						
Gross amount	16,151	19,019	19,236	4,186	1,937	60,529
Of which, impaired	*183*	*230*	*339*	*303*	*628*	*1,683*

Businesses portfolio

Credit risk with SME and corporates amounted to EUR 117,544 million, 3.1% lower than in December 2020, mainly due to the fall in the portfolio of SMEs. This is Santander Spain's main lending segment, accounting for 51% of the total. Most of the portfolio corresponds 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 7.50% in December 2021. Even though total risk decreased, the NPL ratio increased by 8 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 and the Bank'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
Balance at beginning of year	2,871	2,939
Foreclosed assets	(1)	(6)
Reductions*	(230)	(24)
Written-off assets	(15)	(38)
Balance at end of year	**2,625**	**2,871**

* Includes portfolio sales, cash recoveries and third-party subrogations and new production.

The NPL ratio of this portfolio ended the year at 6.13% (compared with 6.13% at December 2020 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% in 2020).

EUR million

	2021					
	Santander Group			Of which, Banco Santander, S.A.		
	Gross amount	Excess of gross exposure over maximum recoverable amount	Specific allowance	Gross amount	Excess of gross exposure over maximum recoverable amount	Specific allowance
Financing for construction and property development (including land) (business in Spain)	2,625	380	53	2,641	380	-53
Of which impaired	*133*	*22*	*40*	*133*	*22*	*(40)*
Memorandum items written-off assets	650	—	—	(650)		

Memorandum items: Data from the public balance sheet

EUR million

	2021	
	Carrying amount	
	Santander Group	Of which, Banco Santander, S.A.
Total loans and advances to customers excluding the Public sector (business in Spain) (Book value)	239,328	238,861
Total consolidated assets (Total business) (Book value)	*1,595,835*	*657,950*
Impairment losses and credit risk allowances. Coverage for unimpaired assets (business in Spain)	1,472	1,279

At year-end, the distribution of this portfolio was as follows:

EUR million

	2021	
	Loans: Gross amount	
	Santander Group	Of which, Banco Santander, S.A.
1. Without mortgage guarantee	180	180
2. With mortgage guarantee	2,445	2,461
2.1 Completed buildings	1,412	1,428
2.1.1 Residential	876	892
2.1.2 Other	536	536
2.2 Buildings and other constructions under construction	969	968
2.2.1 Residential	907	906
2.2.2 Other	62	62
2.3 Land	64	65
2.3.1 Developed consolidated land	46	46
2.3.2 Other land	18	19
Total	**2,625**	**2,641**

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 and the Bank'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 and the Bank 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	Carrying amount
Property assets arising from financing provided to construction and property development companies	6,313	3,376	2,455	2,937
Of which:				
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**

The same information in the previous table reference to Banco Santander, S.A. is presented below:

EUR million

	2021			
	Gross carrying amount	Valuation adjustments	Of which impairment losses on assets since time of foreclosure	Carrying amount
Property assets arising from financing provided to construction and property development companies	974	373	290	601
Of which:				
Completed buildings	*917*	*356*	*275*	*561*
Residential	*186*	*64*	*49*	*122*
Other	*731*	*292*	*226*	*439*
Buildings under construction	—	—	—	—
Residential	—	—	—	—
Other	—	—	—	—
Land	*57*	*17*	*15*	*40*
Developed land	*47*	*15*	*13*	*32*
Other land	*10*	*2*	*2*	*8*
Property assets from home purchase mortgage loans to households	773	279	190	494
Other foreclosed property assets	171	68	51	103
Total property assets	**1,918**	**720**	**531**	**1,198**

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 and the Bank have considered foreclosure to be a more efficient method for resolving cases of default than legal proceedings. The Group and the Bank initially recognise 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 and the Bank'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):

	2021	2020
Gross additions	0.4	0.5
Disposals	(1.1)	(0.9)
Difference	(0.7)	(0.4)

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 and the Bank continuously monitor ,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 and Banco 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 entrepeneurs (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'.

The same information in the previous table referring to Banco Santander, S.A. it is presented below:

EUR million

	2021*				
	Total	Spain	Other EU countries	America	Rest of the world
Central banks and Credit institutions	207,265	110,832	37,237	28,840	30,356
Public sector	29,774	23,332	1,002	2,588	2,852
Of which:					
Central government	*17,743*	*11,441*	*921*	*2,538*	*2,843*
Other central government	*12,031*	*11,891*	*81*	*50*	*9*
Other financial institutions (financial business activity)	158,780	51,116	41,610	39,030	27,024
Non-financial companies and individual entrepreneurs (Non-financial business activity) (broken down by purpose)	207,999	116,044	29,472	25,519	36,964
Of which:					
Construction and property development	*2,418*	*2,401*	*16*	*—*	*1*
Civil engineering construction	*3,683*	*2,094*	*909*	*510*	*170*
Large companies	*142,835*	*56,969*	*27,044*	*23,525*	*35,297*
SMEs and individual entrepreneurs	*59,063*	*54,580*	*1,503*	*1,484*	*1,496*
Households – other (broken down by purpose)	77,853	76,439	352	362	700
Of which:					
Residential	*61,963*	*60,830*	*293*	*227*	*613*
Consumer loans	*8,607*	*8,550*	*5*	*16*	*36*
Other purposes	*7,283*	*7,059*	*54*	*119*	*51*
Total	**681,671**	**377,763**	**109,673**	**96,339**	**97,896**

* 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 the Group 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 risk 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
AAA	15 %	18 %
AA	32 %	25 %
A	26 %	25 %
BBB	11 %	14 %
Less than BBB	16 %	18 %

*Internal ratings are applied

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 and Banco Santander's internal forbearance policy acts as a reference for Group's subsidiaries and the Bank's units. 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.

A consolidated level, the 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 there of 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													
	Total							Of which, non-performing/Doubtful						
	Without real guarantee		With real guarantee					Without real guarantee		With real guarantee				
					Maximum amount of the actual collateral that can be considered		Impairment of accumulated value or accumulated losses in fair value due to credit risk					Maximum amount of the actual collateral that can be considered		Impairment of accumulated value or accumulated losses in fair value due to credit risk
	Number of transactions	Gross amount	Number of transactions	Gross amount	Real estate guarantee	Rest of real guarantees		Number of transactions	Gross amount	Number of transactions	Gross amount	Real estate guarantee	Rest of real guarantees	
Credit entities	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Public sector	32	18	15	7	2	—	4	7	1	14	5	2	—	4
Other financial institutions and: individual shareholder	1,002	93	720	200	102	79	30	421	51	528	67	54	7	27
Non-financial institutions and individual shareholder	248,375	11,548	47,865	8,915	5,517	1,206	4,367	116,009	4,377	32,263	5,261	3,308	424	3,891
Of which financing for constructions and property development	*8,576*	*113*	*1,321*	*550*	*390*	*40*	*176*	*4,638*	*63*	*849*	*301*	*172*	*34*	*148*
Other warehouses	3,650,507	4,491	451,930	10,771	6,063	3,615	3,860	1,839,629	1,879	162,177	3,898	2,641	434	2,382
Total	**3,899,916**	**16,150**	**500,530**	**19,893**	**11,684**	**4,900**	**8,261**	**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	—	—	—	—	—	—	—	—	—	—	—	—	—	—

The same information in the previous table referring to Banco Santander, S.A. it is presented below:

Amounts in EUR million, except number of transactions that are in units

	2021													
	Total							Of which, non-performing/Doubtful						
	Without real guarantee		With real guarantee					Without real guarantee		With real guarantee				
					Maximum amount of the actual collateral that can be considered		Impairment of accumulated value or accumulated losses in fair value due to credit risk					Maximum amount of the actual collateral that can be considered		Impairment of accumulated value or accumulated losses in fair value due to credit risk
	Number of transactions	Gross amount	Number of transactions	Gross amount	Real estate guarantee	Rest of real guarantees		Number of transactions	Gross amount	Number of transactions	Gross amount	Real estate guarantee	Rest of real guarantees	
Credit entities	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Public sector	24	17	8	4	2	—	1	3	1	7	2	2	—	1
Other financial companies and sole proprietorships (financial business activity)	411	72	150	156	67	72	26	149	36	109	31	26	1	24
Non-financial corporations and sole proprietorships (non-financial business activity)	93,041	8,546	23,508	6,197	4,110	758	2,613	31,926	2,828	18,940	3,810	2,689	227	2,397
Of which, financing for construction and real estate development (including land)	*42*	*3*	*340*	*192*	*159*	*22*	*38*	*39*	*2*	*223*	*110*	*77*	*22*	*34*
Other warehouses	30,917	501	41,846	3,259	2,797	29	811	12,757	269	29,960	2,083	1,714	6	745
Total	**124,393**	**9,136**	**65,512**	**9,616**	**6,976**	**859**	**3,451**	**44,835**	**3,134**	**49,016**	**5,926**	**4,431**	**234**	**3,167**
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 at a consolidated level, 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.

In 2021, the amortised cost of financial assets owned by the Bank 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 1,396 million, without these modifications having a material impact on the income statement. Also, during 2021, the total of financial assets owned by the Bank 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 711 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 risk, 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 Group or the Bank. 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 Group or the Bank. 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 and Banco 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 and Banco 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% 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	
	VaR (99%)				ES (97.5%)	VaR	
	Min	Average	Max	Latest	Latest	Average	Latest
Total Trading	**6.8**	**10.5**	**15.9**	**12.3**	**11.9**	**12.5**	**8.3**
Diversification effect	(6.3)	(12.9)	(26.6)	(13.4)	(15.0)	(13.0)	(11.8)
Interest rate	6.0	9.6	15.3	9.1	9.4	9.2	5.4
Equities	2.2	3.5	7.7	5.1	5.1	4.4	3.1
Exchange rate	1.9	4.2	8.0	5.7	5.6	5.9	6.0
Credit spread	2.6	4.8	8.0	5.1	6.0	5.5	4.5
Commodities	0.4	1.3	3.5	0.7	0.8	0.5	1.1
Total Europe	**6.1**	**9.3**	**16.1**	**9.9**	**9.7**	**10.5**	**8.0**
Diversification effect	(5.2)	(9.3)	(16.9)	(12.6)	(13.1)	(10.7)	(8.9)
Interest rate	5.3	7.7	11.7	7.1	6.7	7.9	6.5
Equities	1.8	3.3	8.3	5.8	5.2	4.3	3.0
Exchange rate	1.6	2.8	5.0	4.5	4.9	3.5	2.9
Credit spread	2.6	4.8	8.0	5.1	6.0	5.5	4.5
Commodities	—	—	—	—	—	—	—
Total North America	**1.6**	**2.5**	**7.4**	**2.7**	**2.8**	**6.6**	**2.9**
Diversification effect	0.2	(0.7)	(2.9)	(0.6)	(0.5)	(2.2)	(1.0)
Interest rate	1.3	2.5	7.0	2.7	2.7	3.4	3.3
Equities	—	0.1	1.5	—	—	0.3	0.1
Exchange rate	0.1	0.6	1.8	0.6	0.6	5.1	0.5
Total South America	**3.3**	**5.9**	**10.5**	**6.3**	**6.4**	**5.6**	**4.5**
Diversification effect	(1.2)	(4.9)	(16.0)	(5.1)	(3.8)	(3.8)	(5.4)
Interest rate	3.0	5.5	12.2	5.8	6.3	5.2	4.1
Equities	0.4	1.2	3.2	1.1	1.0	1.0	0.5
Exchange rate	0.7	2.8	7.6	3.8	2.1	2.7	4.2
Commodities	0.4	1.3	3.5	0.7	0.8	0.5	1.1

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 and Banco Santander continue 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 32.

3. Structural balance sheet risks

3.1. Main aggregates and variations

Consistent with previous years, the market risk profile of Grupo and Banco Santander's balance sheet remained moderate in 2021 in terms of asset, shareholders' equity and NII volumes.

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 and Banco 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	Latest
Structural VaR	**895.8**	**993.7**	**1,090.7**	**1,011.9**	**911.1**	**903.2**	**511.4**	**729.2**
Diversification effect	(158.8)	(327.3)	(431.4)	(240.2)	(349.8)	(263.4)	(304.2)	(402.0)
VaR Interest Rate*	224.2	400.7	540.5	287.8	465.1	345.5	345.6	629.7
VaR Exchange Rate	521.3	600.6	655.2	655.2	499.9	502.6	308.1	331.7
VaR Equities	309.1	319.7	326.4	309.1	295.9	318.5	161.9	169.8

* 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 zloty 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 at the end of 2020).

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 and the Bank's recurring activity optimising maturities and costs, while avoiding taking on undesired liquidity risks.

Group and Banco 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 and the Bank maintain 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 and Banco 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 and, therefore, the Bank 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 and Banco 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 and Banco 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 and Banco Santander calculate 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 and Banco Santander have 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:

i. An idiosyncratic scenario of events detrimental only to the Group;

ii. a local market scenario of events highly detrimental to a base country's financial system or real economy;

iii. a global market scenario of events highly detrimental to the global financial system; and

iv. combined scenario consisting of a combination of more severe idiosyncratic and market events (local and global) occurring simultaneously and interactively.

Grupo and Banco Santander use 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		
Cash and reserves available at central banks	*206,507*	*149,893*
Marketable assets Level 1	*81,925*	*104,270*
Marketable assets Level 2A	*3,422*	*5,272*
Marketable assets Level 2B	*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 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
Cash outflows	233,294	204,813
Cash inflows	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 of the consolidated annual accounts and Note 20 of the individual accounts, under the name, 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	<=1month	>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 2020 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%[3] 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
Subscribed capital	8,670	8,670
Share premium account	47,979	52,013
Reserves	56,606	62,777
Treasury shares	(894)	(69)
Attributable profit	8,124	(8,771)
Approved dividend***	(836)	—
Shareholders' equity on public balance sheet	**119,649**	**114,620**
Valuation adjustments	(32,719)	(33,144)
Non-controlling interests	10,123	9,846
Total Equity on public balance sheet	**97,053**	**91,322**
Goodwill and intangible assets	(16,132)	(15,711)
Eligible preference shares and participating securities	10,050	9,102
Accrued dividend***	(895)	(478)
Other adjustments*	(7,624)	(5,734)
Tier 1**	**82,452**	**78,501**

*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
Capital coefficients		
Level 1 ordinary eligible capital (EUR million)	72,402	69,399
Level 1 additional eligible capital (EUR million)	10,050	9,102
Level 2 eligible capital (EUR million)	14,865	12,514
Risk-weighted assets (EUR million)	578,930	562,580
Level 1 ordinary capital coefficient (CET 1)	12.51%	12.34%
Level 1 additional capital coefficient (AT1)	1.73%	1.61%
Level 1 capital coefficient (TIER1)	14.24%	13.95%
Level 2 capital coefficient (TIER 2)	2.57%	2.23%
Total capital coefficient	**16.81%**	**16.18%**

[3] Figures calculated by applying the transitional provisions of IFRS 9

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Eligible capital

EUR million

	2021	2020
Eligible capital		
Common Equity Tier I	**72,402**	**69,399**
Capital	8,670	8,670
(-) Treasure shares and own shares financed	(966)	(126)
Share Premium	47,979	52,013
Reserves	58,157	64,766
Other retained earnings	(34,784)	(34,937)
Minority interests	6,736	6,669
Profit net of dividends	6,394	(9,249)
Deductions	(19,784)	(18,407)
Goodwill and intangible assets	*(16,064)*	*(15,711)*
Others	*(3,720)*	*(2,696)*
Additional Tier I	**10,050**	**9,102**
Eligible instruments AT1	10,102	8,854
T1-excesses-subsidiaries	(52)	248
Residual value of dividends	—	—
Others	—	—
Tier II	**14,865**	**12,514**
Eligible instruments T2	15,424	13,351
Gen. funds and surplus loans loss prov. IRB	75	—
T2-excesses - subsidiaries	**(634)**	**(837)**
Others	**0**	**0**
Total eligible capital	**97,317**	**91,015**

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
Leverage		
Level 1 Capital	82,452	78,501
Exposure	1,536,516	1,471,480
Leverage Ratio	**5.37 %**	**5.33 %**

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.

Appendix I

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander Direct	% of ownership held by Banco Santander Indirect	Percentage of voting power (k) Year 2021	Percentage of voting power (k) Year 2020	Activity	EUR million (a) Capital + reserves	EUR million (a) Net results	EUR million (a) Carrying amount
2 & 3 Triton Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate	78	107	12
A & L CF (Guernsey) Limited (n)	Guernsey	0.00%	100.00%	100.00%	100.00%	Leasing	0	0	0
A & L CF June (2) Limited (e)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
A & L CF June (3) Limited (e)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	6	(2)	0
A & L CF March (5) Limited (d)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	1	0	0
A & L CF September (4) Limited (f)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	21	0	0
A3T Luxco 1 S.A.	Luxembourg	0.00%	100.00%	100.00%	0.00%	Holding company	4	(1)	4
A3T Luxco 2 S.A.	Luxembourg	100.00%	0.00%	100.00%	0.00%	Holding company	(18)	18	0
Abbey Business Services (India) Private Limited (d)	India	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Abbey Covered Bonds (Holdings) Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Abbey Covered Bonds (LM) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	0	0	0
Abbey Covered Bonds LLP	United Kingdom	—	(b)	—	—	Securitization	75	168	0
Abbey National Beta Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Abbey National Business Office Equipment Leasing Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Abbey National International Limited	Jersey	0.00%	100.00%	100.00%	100.00%	Financial services	4	0	4

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Subsidiaries of Banco Santander, S.A. [1]

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Abbey National Nominees Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Abbey National PLP (UK) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Abbey National Property Investments	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	296	(3)	165
Abbey National Treasury Services Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Abbey National Treasury Services Overseas Holdings	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Abbey National UK Investments	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Abbey Stockbrokers (Nominees) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Abbey Stockbrokers Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securities company	0	0	0
Abent 3T, S.A.P.I de C.V.	Mexico	0.00%	100.00%	100.00%	0.00%	Electricity production	115	(18)	5
Ablasa Participaciones, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	210	23	894
Aduro S.A.	Uruguay	0.00%	100.00%	100.00%	100.00%	Payments and collection services	0	0	2
Aevis Europa, S.L.	Spain	96.34%	0.00%	96.34%	96.34%	Cards	1	0	1
AFB SAM Holdings, S.L.	Spain	1.00%	99.00%	100.00%	100.00%	Holding company	0	0	0
Afisa S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Fund management company	4	0	4
Aljardi SGPS, Lda.	Portugal	0.00%	100.00%	100.00%	100.00%	Holding company	1,195	(3)	1,148

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Allane Leasing GmbH	Austria	0.00%	46.95%	100.00%	100.00%	Renting	(2)	0	0
Allane Location Longue Durée S.a.r.l.	France	0.00%	46.95%	100.00%	100.00%	Renting	10	3	0
Allane Mobility Consulting AG	Switzerland	0.00%	46.95%	100.00%	100.00%	Consulting services	1	0	0
Allane Mobility Consulting B.V.	Netherlands	0.00%	46.95%	100.00%	100.00%	Consulting services	(2)	0	0
Allane Mobility Consulting GmbH	Germany	0.00%	46.95%	100.00%	100.00%	Consulting services	1	1	0
Allane Mobility Consulting Österreich GmbH	Austria	0.00%	46.95%	100.00%	100.00%	Consulting services	0	0	0
Allane Mobility Consulting S.a.r.l	France	0.00%	46.95%	100.00%	100.00%	Consulting services	(1)	0	0
Allane Schweiz AG	Switzerland	0.00%	46.95%	100.00%	100.00%	Renting	13	0	0
Allane SE	Germany	0.00%	46.95%	92.07%	92.07%	Leasing	192	0	175
Allane Services GmbH & co. KG	Germany	0.00%	46.95%	100.00%	100.00%	Services	1	0	0
Allane Services Verwaltungs GmbH	Germany	0.00%	46.95%	100.00%	100.00%	Management of portfolios	0	0	0
Alliance & Leicester Cash Solutions Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Alliance & Leicester Commercial Bank Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Alliance & Leicester Investments (Derivatives) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Alliance & Leicester Investments (No.2) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Alliance & Leicester Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Alliance & Leicester Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Alliance & Leicester Personal Finance Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	(241)	0	0
Altamira Santander Real Estate, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Real estate	(369)	(161)	0
Alternative Leasing, FIL (Compartimento B)	Spain	100.00%	0.00%	100.00%	99.99%	Investment fund	75	3	75
Amazonia Trade Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Holding company	0	0	0
AN (123) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Andaluza de Inversiones, S.A.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	37	0	27
ANITCO Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Apê11 Tecnologia e Negócios Imobiliários S.A.	Brazil	0.00%	80.92%	90.00%	0.00%	Real estate	6	0	9
Aquanima Brasil Ltda.	Brazil	0.00%	100.00%	100.00%	100.00%	E-commerce	2	1	0
Aquanima Chile S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Services	2	1	0
Aquanima México S. de R.L. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	E-commerce	2	1	2
Aquanima S.A.	Argentina	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
Artarien S.A. (o)	Uruguay	0.00%	100.00%	100.00%	0.00%	Insurance auxiliary services	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Asto Digital Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	39	(26)	0
Athena Corporation Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Financial services	(9)	0	0
Atlantes Azor No. 2	Portugal	—	(b)	—	—	Securitization	0	0	0
Atlantes Mortgage No. 2	Portugal	—	(b)	—	—	Securitization	0	0	0
Atlantes Mortgage No. 3	Portugal	—	(b)	—	—	Securitization	0	0	0
Atlantes Mortgage No. 4	Portugal	—	(b)	—	—	Securitization	0	0	0
Atlantes Mortgage No. 5	Portugal	—	(b)	—	—	Securitization	0	0	0
Atlantes Mortgage No. 7	Portugal	—	(b)	—	—	Securitization	0	0	0
Atual - Fundo de Invest Multimercado Crédito Privado Investimento no Exterior	Brazil	0.00%	89.91%	100.00%	100.00%	Investment fund	325	18	308
Atual Serviços de Recuperação de Créditos e Meios Digitais S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Financial services	410	15	383
Auto ABS Belgium Loans 2019, SA/NV	Belgium	—	(b)	—	—	Securitization	0	0	0
Auto ABS DFP Master Compartment France 2013	France	—	(b)	—	—	Securitization	0	0	0
Auto ABS French Leases 2018	France	—	(b)	—	—	Securitization	0	0	0
Auto ABS French Leases 2021	France	—	(b)	—	—	Securitization	0	0	0
Auto ABS French Leases Master Compartiment 2016	France	—	(b)	—	—	Securitization	0	0	0

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Auto ABS French Loans Master	France	—	(b)	—	—	Securitization	0	0	0
Auto ABS French LT Leases Master	France	—	(b)	—	—	Securitization	0	0	0
Auto ABS Italian Balloon 2019-1 S.R.L.	Italy	—	(b)	—	—	Securitization	0	0	0
Auto ABS Italian Loans 2018-1 S.R.L.	Italy	—	(b)	—	—	Securitization	0	0	0
Auto ABS Italian Rainbow Loans 2020-1 S.R.L.	Italy	—	(b)	—	—	Securitization	0	0	0
Auto ABS Spanish Loans 2018-1, Fondo de Titulización	Spain	—	(b)	—	—	Securitization	0	0	0
Auto ABS Spanish Loans 2020-1, Fondo de Titulización	Spain	—	(b)	—	—	Securitization	0	0	0
Auto ABS UK Loans 2017 Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Auto ABS UK Loans 2017 Plc	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Auto ABS UK Loans 2019 Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Auto ABS UK Loans 2019 Plc	United Kingdom	—	(b)	—	—	Securitization	(3)	0	0
Auto ABS UK Loans Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Auto ABS UK Loans PLC	United Kingdom	—	(b)	—	—	Securitization	(10)	2	0
Autodescuento, S.L.	Spain	0.00%	93.89%	93.89%	93.89%	Vehicles purchase by Internet	1	1	18
Autohaus24 GmbH	Germany	0.00%	46.95%	100.00%	100.00%	Renting	(2)	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	% of ownership held by Banco Santander: Indirect	Percentage of voting power (k): Year 2021	Percentage of voting power (k): Year 2020	Activity	EUR million (a): Capital + reserves	EUR million (a): Net results	EUR million (a): Carrying amount
Auttar HUT Processamento de Dados Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	IT services	4	1	5
Aviación Antares, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting	48	5	28
Aviación Británica, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting	22	4	6
Aviación Centaurus, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting	7	18	25
Aviación Comillas, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Renting	7	0	8
Aviación Intercontinental, A.I.E.	Spain	99.97%	0.03%	100.00%	100.00%	Renting	66	(24)	42
Aviación Laredo, S.L.	Spain	99.00%	1.00%	100.00%	100.00%	Air transport	3	0	3
Aviación Oyambre, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Renting	1	0	1
Aviación Santillana, S.L.	Spain	99.00%	1.00%	100.00%	100.00%	Renting	3	1	2
Aviación Suances, S.L.	Spain	99.00%	1.00%	100.00%	100.00%	Air transport	5	1	3
Aviación Tritón, A.I.E.	Spain	99.99	0.01	100.00	100.00	Renting	22	7	19
Aymoré Crédito, Financiamento e Investimento S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Finance company	205	160	328
Azor Mortgages PLC (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
Banca PSA Italia S.p.A.	Italy	0.00%	50.00%	50.00%	50.00%	Banking	320	72	153
Banco Bandepe S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Banking	832	24	770

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Banco de Albacete, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking	14	0	9
Banco Hyundai Capital Brasil S.A.	Brazil	0.00%	44.96%	50.00%	50.00%	Banking	51	5	25
Banco Madesant - Sociedade Unipessoal, S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Banking	1,076	(3)	1,073
Banco PSA Finance Brasil S.A.	Brazil	0.00%	44.96%	50.00%	50.00%	Banking	37	4	18
Banco Santander - Chile	Chile	0.00%	67.12%	67.18%	67.18%	Banking	2,963	803	2,827
Banco Santander (Brasil) S.A.	Brazil	0.04%	89.88%	90.50%	90.58%	Banking	10,104	2,373	10,795
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	66	11	74
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	8	0	7
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	14	1	14
Banco Santander de Negocios Colombia S.A.	Colombia	94.90%	5.10%	100.00%	100.00%	Banking	134	6	141
Banco Santander International	United States	0.00%	100.00%	100.00%	100.00%	Banking	1,110	85	1,195
Banco Santander International SA	Switzerland	0.00%	100.00%	100.00%	100.00%	Banking	1,113	49	815
Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México	Mexico	21.19%	75.04%	96.24%	91.80%	Banking	6,376	778	7,425
Banco Santander Perú S.A.	Peru	100.00%	0.00%	100.00%	100.00%	Banking	194	37	122
Banco Santander Río S.A.	Argentina	0.00%	99.31%	99.26%	99.26%	Banking	1,532	92	550

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Banco Santander S.A.	Uruguay	97.75%	2.25%	100.00%	100.00%	Banking	359	69	191
Banco Santander Totta, S.A.	Portugal	0.00%	99.86%	99.96%	99.96%	Banking	3,857	303	3,415
Bansa Santander S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Real estate	21	1	22
BEN Benefícios e Serviços Instituição de Pagamento S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Payment services	11	(1)	9
Bilkreditt 6 Designated Activity Company (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
Bilkreditt 7 Designated Activity Company	Ireland	—	(b)	—	—	Securitization	0	0	0
Bond Company Merger Sub LLC	United States	0.00%	100.00%	100.00%	0.00%	Inactive	0	0	0
Bond First Merger Sub Inc.	United States	0.00%	100.00%	100.00%	0.00%	Inactive	0	0	0
Bond Fourth Merger Sub LLC	United States	0.00%	100.00%	100.00%	0.00%	Inactive	0	0	0
Bond Second Merger Sub LLC	United States	0.00%	100.00%	100.00%	0.00%	Inactive	0	0	0
Bond Third Merger Sub LLC	United States	0.00%	100.00%	100.00%	0.00%	Inactive	0	0	0
BRS Investments S.A.	Argentina	5.10%	94.90%	100.00%	100.00%	Finance company	41	23	35
Cántabra de Inversiones, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	(118)	262	187
Cántabro Catalana de Inversiones, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	275	3	267
Canyon Multifamily Impact Fund IV LLC (c)	United States	0.00%	98.00%	98.00%	98.00%	Real estate	26	0	27

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Capital Street Delaware LP	United States	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Capital Street Holdings, LLC	United States	0.00%	100.00%	100.00%	100.00%	Holding company	14	0	14
Capital Street REIT Holdings, LLC	United States	0.00%	100.00%	100.00%	100.00%	Holding company	1,212	1	1,213
Capital Street S.A.	Luxembourg	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Carfax (Guernsey) Limited (j) (n)	Guernsey	0.00%	100.00%	100.00%	100.00%	Insurance brokerage	0	0	0
Casa de Bolsa Santander, S.A. de C.V., Grupo Financiero Santander México	Mexico	0.00%	99.97%	99.97%	99.97%	Securities company	55	2	58
Cater Allen Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Cater Allen International Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Cater Allen Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Banking	685	34	265
Cater Allen Lloyd's Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Cater Allen Syndicate Management Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
CCAP Auto Lease Ltd.	United States	0.00%	80.22%	100.00%	100.00%	Leasing	182	162	276
Centro de Capacitación Santander, A.C.	Mexico	0.00%	96.24%	100.00%	100.00%	Non-profit institute	1	0	1
Certidesa, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Aircraft rental	(59)	(5)	0
Chrysler Capital Auto Funding I LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	30	24	0

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Chrysler Capital Auto Funding II LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	4	(4)	0
Chrysler Capital Auto Receivables LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	0	0	0
Chrysler Capital Master Auto Receivables Funding 2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	(217)	(27)	0
Chrysler Capital Master Auto Receivables Funding 4 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	(3)	(4)	0
Chrysler Capital Master Auto Receivables Funding LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	61	48	0
Cobranza Amigable, S.A.P.I. de C.V.	Mexico	0.00%	85.00%	100.00%	100.00%	Collection services	4	0	3
Community Development and Affordable Housing Fund LLC (c)	United States	0.00%	96.00%	96.00%	96.00%	Asset management	0	0	0
Compagnie Generale de Credit Aux Particuliers - Credipar S.A.	France	0.00%	50.00%	100.00%	100.00%	Banking	363	161	428
Compagnie Pour la Location de Vehicules - CLV	France	0.00%	50.00%	100.00%	100.00%	Banking	20	2	26
Compartment German Auto Loans 2021-1	Luxembourg	0.00%	(b)	0.00%	0.00%	Securitization	0	0	0
Comunidad Laboral Trabajando Argentina S.A. (j)	Argentina	—	100.00	100.00	100.00	Services	0	0	0
Consulteam Consultores de Gestão, Unipessoal, Lda.	Portugal	100.00%	0.00%	100.00%	100.00%	Real estate	0	0	0
Consumer Lending Receivables LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	0	0	0
Crawfall S.A. (g) (j)	Uruguay	100.00%	0.00%	100.00%	100.00%	Services	0	0	0
Darep Designated Activity Company	Ireland	100.00%	0.00%	100.00%	100.00%	Reinsurances	8	0	7

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Decarome, S.A.P.I. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Finance company	50	5	51
Deva Capital Advisory Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Advisory services	1	1	2
Deva Capital Holding Company, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	226	(9)	228
Deva Capital Investment Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	111	4	111
Deva Capital Management Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Advisory services	17	(10)	7
Deva Capital Servicer Company, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	97	4	96
Digital Procurement Holdings N.V.	Netherlands	0.00%	100.00%	100.00%	100.00%	Holding company	5	0	1
Diners Club Spain, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	75.00%	Cards	10	(1)	9
Dirección Estratega, S.C.	Mexico	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
Drive Auto Receivables Trust 2017-3	United States	0.00%	(b)	0.00%	0.00%	Securitization	38	53	0
Drive Auto Receivables Trust 2018-1	United States	—	(b)	—	—	Securitization	25	45	0
Drive Auto Receivables Trust 2018-2	United States	—	(b)	—	—	Securitization	(6)	77	0
Drive Auto Receivables Trust 2018-3	United States	—	(b)	—	—	Securitization	(31)	82	0
Drive Auto Receivables Trust 2018-4	United States	—	(b)	—	—	Securitization	(41)	82	0
Drive Auto Receivables Trust 2018-5	United States	—	(b)	—	—	Securitization	(37)	79	0

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Drive Auto Receivables Trust 2019-1	United States	—	(b)	—	—	Securitization	(29)	83	0
Drive Auto Receivables Trust 2019-2	United States	—	(b)	—	—	Securitization	(51)	97	0
Drive Auto Receivables Trust 2019-3	United States	—	(b)	—	—	Securitization	(69)	136	0
Drive Auto Receivables Trust 2019-4	United States	—	(b)	—	—	Securitization	(92)	149	0
Drive Auto Receivables Trust 2020-1	United States	—	(b)	—	—	Securitization	(122)	156	0
Drive Auto Receivables Trust 2020-2	United States	—	(b)	—	—	Securitization	(135)	181	0
Drive Auto Receivables Trust 2021-1	United States	—	(b)	—	—	Securitization	0	(115)	0
Drive Auto Receivables Trust 2021-2	United States	—	(b)	—	—	Securitization	0	(310)	0
Drive Auto Receivables Trust 2021-3	United States	—	(b)	—	—	Securitization	0	(275)	0
Ductor S.à r.l. (f)	Luxembourg	1.00	—	1.00	—	Holding company	26	1	20
EDT FTPYME Pastor 3 Fondo de Titulización de Activos	Spain	0.00%	(b)	0.00%	0.00%	Securitization	0	0	0
Elcano Renovables, S.L	Spain	—	0.70	0.70	—	Holding company	1	0	1
Electrolyser, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	Services	0	0	0
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	27	6	33
Erestone S.A.S.	France	0.00%	90.00%	90.00%	90.00%	Inactive	1	0	1

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Esfera Fidelidade S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Services	58	56	102
Evidence Previdência S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Insurance	132	(12)	95
Eyemobile Tecnologia S.A.	Brazil	0.00%	53.95%	60.00%	0.00%	IT services	2	0	1
F1rst Tecnologia e Inovação Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	IT services	2	2	4
Financeira El Corte Inglés, Portugal, S.F.C., S.A.	Portugal	0.00%	51.00%	100.00%	100.00%	Finance company	8	0	4
Financiera El Corte Inglés, E.F.C., S.A.	Spain	0.00%	51.00%	51.00%	51.00%	Finance company	260	59	140
Finsantusa, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	1,259	(2)	1,020
First National Motor Business Limited (j)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	0	0	0
First National Motor Contracts Limited (j)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	0	0	0
First National Motor Facilities Limited (j)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	0	0	0
First National Motor Finance Limited (j)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Advisory services	0	0	0
First National Motor Leasing Limited (j)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	0	0	0
First National Motor plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
First National Tricity Finance Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	6	0	6
Fondation Holding Auto ABS Belgium Loans	Belgium	0.00%	(b)	0.00%	0.00%	Securitization	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Fondo de Titulización de Activos Santander Consumer Spain Auto 2014-1	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización PYMES Santander 13	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización PYMES Santander 14	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización PYMES Santander 15	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización Santander Consumer Spain Auto 2016-1	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización Santander Consumer Spain Auto 2016-2	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización Santander Financiación 1	Spain	—	(b)	—	—	Securitization	0	0	0
Fondo de Titulización, RMBS Santander 7	Spain	—	(b)	—	—	Securitization	0	0	0
Fondos Santander, S.A. Administradora de Fondos de Inversión (en liquidación) (j)	Uruguay	—	100.00	100.00	100.00	Fund management company	0	0	0
Fortensky Trading, Ltd.	Ireland	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Fosse (Master Issuer) Holdings Limited	United Kingdom	0.00%	(b)	0.00%	0.00%	Securitization	0	0	0
Fosse Funding (No.1) Limited	United Kingdom	—	1.00	1.00	1.00	Securitization	(134)	136	0
Fosse Master Issuer PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	5	(6)	0
Fosse PECOH Limited	United Kingdom	0.00%	(b)	—%	—%	Inactive	0	0	0
Fosse Trustee (UK) Limited	United Kingdom	—	100.00	100.00	100.00	Securitization	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
FTPYME Banesto 2, Fondo de Titulización de Activos	Spain	0.00%	(b)	0.00%	0.00%	Securitization	0	0	0
Fundo de Investimento em Direitos Creditórios Atacado- Não Padronizado	Brazil	—	(b)	—	—	Investment fund	130	(6)	0
Fundo de Investimentos em Direitos Creditórios Multisegmentos NPL Ipanema VI – Não padronizado	Brazil	—	(b)	—	—	Investment fund	194	23	0
Gamma, Sociedade Financeira de Titularização de Créditos, S.A.	Portugal	—	1.00	1.00	1.00	Securitization	7	0	8
GC FTPYME Pastor 4 Fondo de Titulización de Activos	Spain	0.00%	(b)	0.00%	0.00%	Securitization	0	0	0
Gentium Payments Processing FZ-LLC	United Arab Emirates	—	100.00	100.00	—	Financial services	4	(2)	2
Gesban México Servicios Administrativos Globales, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Services	1	0	0
Gesban Santander Servicios Profesionales Contables Limitada	Chile	0.00%	100.00%	100.00%	100.00%	Accounting services	1	0	0
Gesban Servicios Administrativos Globales, S.L.	Spain	99.99%	0.01%	100.00%	100.00%	Services	5	0	1
Gesban UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Payments and collection services	1	0	0
Gestión de Instalaciones Fotovoltaicas, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Renewable energies	1	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	% of ownership held by Banco Santander: Indirect	Percentage of voting power (k): Year 2021	Percentage of voting power (k): Year 2020	Activity	EUR million (a): Capital + reserves	EUR million (a): Net results	EUR million (a): Carrying amount
Gestión de Inversiones JILT, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Services	5	(2)	5
Gestora de Procesos S.A. en liquidación (j)	Peru	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Getnet Adquirência e Serviços para Meios de Pagamento S.A.	Brazil	0.04%	89.88%	89.91%	100.00%	Payment services	340	75	297
Getnet Europe, Entidad de Pago, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Payment services	215	6	218
Getnet Sociedade de Credito Direto S.A.	Brazil	0.00%	89.91%	100.00%	0.00%	Finance company	12	1	12
Gira, Gestão Integrada de Recebíveis do Agronegócio S.A.	Brazil	0.00%	71.93%	80.00%	0.00%	Consulting services	1	(1)	2
Golden Bar (Securitisation) S.R.L.	Italy	—	(b)	—	—	Securitization	0	0	0
Golden Bar Stand Alone 2016-1	Italy	—	(b)	—	—	Securitization	0	0	0
Golden Bar Stand Alone 2018-1	Italy	—	(b)	—	—	Securitization	0	0	0
Golden Bar Stand Alone 2019-1	Italy	—	(b)	—	—	Securitization	0	0	0
Golden Bar Stand Alone 2020-1	Italy	—	(b)	—	—	Securitization	0	0	0
Golden Bar Stand Alone 2020-2	Italy	—	(b)	—	—	Securitization	0	0	0
Golden Bar Stand Alone 2021-1	Italy	—	(b)	—	—	Securitization	0	0	0
Grupo Empresarial Santander, S.L.	Spain	99.62%	0.38%	100.00%	100.00%	Holding company	3,348	637	2,406
Grupo Financiero Santander México, S.A. de C.V.	Mexico	100.00%	0.00%	100.00%	100.00%	Holding company	4,837	584	4,510

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Guaranty Car, S.A. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Automotive	2	1	2
Hipototta No. 13	Portugal	—	(b)	—	—	Securitization	0	0	0
Hipototta No. 4 FTC	Portugal	—	(b)	—	—	Securitization	(51)	(2)	0
Hipototta No. 4 plc	Ireland	—	(b)	—	—	Securitization	(3)	(1)	0
Hipototta No. 5 FTC	Portugal	—	(b)	—	—	Securitization	(39)	(2)	0
Hipototta No. 5 plc	Ireland	—	(b)	—	—	Securitization	(11)	(2)	0
Holbah II Limited	Bahamas	0.00%	100.00%	100.00%	100.00%	Holding company	404	0	557
Holbah Santander, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	213	349	785
Holmes Funding Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	(3)	11	0
Holmes Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Holmes Master Issuer plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	(11)	(1)	0
Holmes Trustees Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	0	0	0
Hyundai Capital Bank Europe GmbH	Germany	0.00%	51.00%	51.00%	51.00%	Banking	701	(6)	391
Ibérica de Compras Corporativas, S.L.	Spain	97.17%	2.83%	100.00%	100.00%	E-commerce	7	1	6
Independence Community Bank Corp.	United States	0.00%	100.00%	100.00%	100.00%	Holding company	3,501	85	3,587

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Insurance Funding Solutions Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Interfinance Holanda B.V.	Netherlands	100.00%	0.00%	100.00%	100.00%	Holding company	0	0	0
Inversiones Capital Global, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	105	(6)	111
Inversiones Marítimas del Mediterráneo, S.A.	Spain	0.00%	100.00%	100.00%	100.00%	Inactive	5	(1)	0
Isar Valley S.A.	Luxembourg	—	(b)	—	—	Securitization	0	0	0
Isla de los Buques, S.A.	Spain	99.98%	0.02%	100.00%	100.00%	Finance company	1	0	1
Klare Corredora de Seguros S.A.	Chile	0.00%	33.63%	50.10%	50.10%	Insurance brokerage	6	(3)	1
Landcompany 2020, S.L.	Spain	17.66%	82.34%	100.00%	100.00%	Real estate management	1,779	(78)	1,704
Langton Funding (No.1) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	(22)	22	0
Langton Mortgages Trustee (UK) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	0	0	0
Langton PECOH Limited	United Kingdom	—	(b)	—	—	Inactive	0	0	0
Langton Securities (2008-1) plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	1	(1)	0
Langton Securities (2010-1) PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	2	(2)	0
Langton Securities (2010-2) PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	0	0	0
Langton Securities Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Laparanza, S.A.	Spain	61.59%	0.00%	61.59%	61.59%	Agricultural holding	28	0	16
Liderança Serviços Especializados em Cobranças Ltda.	Brazil	0.00%	89.91%	100.00%	0.00%	Collection services	(1)	2	1
Liquetine, S.L	Spain	0.00%	70.00%	100.00%	0.00%	Renewable energies	0	0	1
Liquidity Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Factoring	(1)	0	0
Luri 1, S.A., en liquidación (j) (m)	Spain	46.00%	0.00%	46.00%	46.00%	Real estate	0	0	0
Luri 6, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Real estate investment	1,366	(8)	1,373
MAC No. 1 Limited	United Kingdom	—	(b)	—	—	Mortgage credit company	0	0	0
Master Red Europa, S.L.	Spain	96.34%	0.00%	96.34%	96.34%	Cards	1	0	1
Mata Alta, S.L.	Spain	0.00%	61.59%	100.00%	100.00%	Real estate	0	0	0
Max Merger Sub, Inc.	United States	0.00%	100.00%	100.00%	0.00%	Inactive	0	0	0
Mercadotecnia, Ideas y Tecnología, S.A. de C.V.	Mexico	0.00%	70.00%	70.00%	0.00%	Payment methods	1	3	15
Merciver, S.L.	Spain	99.90%	0.10%	100.00%	100.00%	Financial advisory	1	0	1
Mercury Trade Finance Solutions S.A.S.	Colombia	0.00%	50.10%	100.00%	0.00%	IT services	0	0	0
Mercury Trade Finance Solutions, S.A. de C.V.	Mexico	0.00%	50.10%	100.00%	100.00%	IT services	0	0	0
Mercury Trade Finance Solutions, S.L.	Spain	0.00%	50.10%	50.10%	50.10%	IT services	10	1	24

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Subsidiaries of Banco Santander, S.A. [1]

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Mercury Trade Finance Solutions, S.p.A.	Chile	0.00%	50.10%	100.00%	100.00%	IT services	1	0	0
Merlion Aviation One Designated Activity Company	Ireland	—	(b)	—	—	Renting	25	6	0
Mortgage Engine Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Financial services	(7)	(4)	0
Motor 2016-1 Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Motor 2016-1 PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	0	0	0
Motor 2017-1 Holdings Limited	United Kingdom	—	(b)	—	—	Securitization	0	0	0
Motor 2017-1 PLC	United Kingdom	0.00%	100.00%	100.00%	100.00%	Securitization	(6)	6	0
Motor Securities 2018-1 Designated Activity Company	Ireland	—	(b)	—	—	Securitization	(1)	(1)	0
Mouro Capital I LP	United Kingdom	0.00%	100.00%	100.00%	100.00%	Investment fund	281	211	249
Multiplica SpA	Chile	0.00%	100.00%	100.00%	100.00%	Payment services	4	0	4
Naviera Mirambel, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Finance company	0	0	0
Naviera Trans Gas, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting	21	(3)	40
Naviera Trans Iron, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Leasing	24	0	21
Naviera Trans Ore, A.I.E.	Spain	99.99%	0.01%	100.00%	100.00%	Renting	25	3	17
Naviera Transcantábrica, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Leasing	5	0	4

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Naviera Transchem, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Leasing	1	0	1
NeoAuto S.A.C.	Peru	0.00%	55.00%	55.00%	55.00%	Vehicles purchase by Internet	1	0	1
Newcomar, S.L., en liquidación (j)	Spain	40.00%	40.00%	80.00%	80.00%	Real estate	1	0	0
Novimovest – Fundo de Investimento Imobiliário	Portugal	0.00%	78.63%	78.74%	78.74%	Investment fund	254	4	203
NW Services CO.	United States	0.00%	100.00%	100.00%	100.00%	E-commerce	6	0	2
Open Bank Argentina S.A.	Argentina	0.00%	99.66%	100.00%	100.00%	Banking	35	(8)	33
Open Bank, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking	451	10	462
Open Digital Market, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
Open Digital Services Argentina S.A.U.	Argentina	0.00 %	100.00 %	100.00 %	0.00 %	IT services	0	0	0
Open Digital Services, S.L.	Spain	99.97%	0.03%	100.00%	100.00%	Services	176	(108)	18
Open Mx Servicios Administrativos, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	0.00%	Financial services	0	0	0
Operadora de Carteras Gamma, S.A.P.I. de C.V.	Mexico	100.00%	0.00%	100.00%	100.00%	Holding company	8	1	6
Optimal Investment Services SA	Switzerland	100.00%	0.00%	100.00%	100.00%	Fund management company	33	9	29
Optimal Multiadvisors Ireland Plc / Optimal Strategic US Equity Ireland Euro Fund (e) (p)	Ireland	0.00%	0.00%	0.00%	54.10%	Fund management company	0	0	0
Optimal Multiadvisors Ireland Plc / Optimal Strategic US Equity Ireland US Dollar Fund (e) (p)	Ireland	0.00%	0.00%	0.00%	51.93%	Fund management company	0	0	0

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
PagoFX Europe S.A.	Belgium	0.00%	100.00%	100.00%	100.00%	Payment services	2	(1)	1
PagoFX UK Ltd	United Kingdom	0.00%	100.00%	100.00%	100.00%	Payment services	5	(3)	2
PagoNxt Ltd	United Kingdom	100.00%	0.00%	100.00%	0.00%	Holding company	0	0	0
PagoNxt Merchant SoluçõesTecnológicas Brasil Ltda.	Brazil	0.00%	100.00%	100.00%	100.00%	IT services	57	(20)	37
PagoNxt Merchant Solutions, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	913	(46)	938
PagoNxt One Trade UK Ltd	United Kingdom	0.00%	100.00%	100.00%	0.00%	Financial services	0	0	0
PagoNxt OneTrade España, E.D.E., S.L.	Spain	0.00%	100.00%	100.00%	0.00%	Financial services	0	0	0
PagoNxt Solutions, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Payment services	90	(61)	29
PagoNxt Trade Services, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Services	197	(58)	140
PagoNxt Trade, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	IT services	244	(71)	172
PagoNxt, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	1,815	(153)	1,838
Parasant SA	Switzerland	100.00%	0.00%	100.00%	100.00%	Holding company	1,162	(2)	927
Paytec Logística e Armazém Ltda.	Brazil	0.00%	89.91%	100.00%	0.00%	Logistics services	0	0	0
Paytec Tecnologia em Pagamentos Ltda.	Brazil	0.00%	89.91%	100.00%	0.00%	Commerce	3	0	3
PBD Germany Auto 2018 UG (Haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
PBD Germany Auto Lease Master 2019	Luxembourg	—	(b)	—	—	Securitization	0	0	0
PBD Germany Auto Lease Master S.A, Compartment 2021-1	Luxembourg	—	(b)	—	—	Securitization	0	0	0
PBD Germany Auto Loan 2021 UG (Haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
PBE Companies, LLC	United States	0.00%	100.00%	100.00%	100.00%	Real estate	110	0	110
PECOH Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Pereda Gestión, S.A.	Spain	99.99%	0.01%	100.00%	100.00%	Holding company	45	35	4
Phoenix C1 Aviation Designated Activity Company	Ireland	—	(b)	—	—	Renting	13	4	0
Phoenix S.A.	Uruguay	0.00%	100.00%	100.00%	0.00%	Payment methods	0	0	3
PI Distribuidora de Títulos e Valores Mobiliários S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Securities company	79	(6)	66
Pingham International, S.A. (j)	Uruguay	—	100.00	100.00	100.00	Inactive	0	0	0
Pony S.A.	Luxembourg	—	(b)	—	—	Securitization	0	0	0
Portal Universia Argentina S.A.	Argentina	0.00%	75.75%	75.75%	75.75%	Internet	0	0	0
Portal Universia Portugal, Prestação de Serviços de Informática, S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Internet	0	0	0
Prime 16 – Fundo de Investimentos Imobiliário	Brazil	0.00%	89.91%	100.00%	100.00%	Investment fund	31	(2)	24
PSA Bank Deutschland GmbH	Germany	0.00%	50.00%	50.00%	50.00%	Banking	517	57	229

Subsidiaries of Banco Santander, S.A. [1]

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
PSA Banque France	France	0.00%	50.00%	50.00%	50.00%	Banking	1,068	74	463
PSA Consumer Finance Polska Sp. z o.o.	Poland	0.00%	40.22%	100.00%	100.00%	Finance company	3	1	0
PSA Finance Belux S.A.	Belgium	0.00%	50.00%	100.00%	50.00%	Finance company	91	15	52
PSA Finance Polska Sp. z o.o.	Poland	0.00%	40.22%	50.00%	50.00%	Finance company	33	5	10
PSA Finance UK Limited	United Kingdom	0.00%	50.00%	100.00%	50.00%	Finance company	339	65	181
PSA Financial Services Nederland B.V.	Netherlands	0.00%	50.00%	100.00%	50.00%	Finance company	52	17	32
PSA Financial Services Spain, E.F.C., S.A.	Spain	0.00%	50.00%	50.00%	50.00%	Finance company	739	53	363
PSA Renting Italia S.p.A.	Italy	0.00%	50.00%	100.00%	100.00%	Renting	9	11	3
PSRT 2019-A	United States	—	(b)	—	—	Securitization	58	53	0
Punta Lima Wind Farm, LLC	United States	0.00%	100.00%	100.00%	100.00%	Renewable energies	44	(1)	43
Punta Lima, LLC	United States	0.00%	100.00%	100.00%	100.00%	Leasing	44	(1)	43
Retail Company 2021, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	0.00%	Real estate	262	(3)	262
Retop S.A. (f)	Uruguay	100.00%	0.00%	100.00%	100.00%	Finance company	14	14	45
Return Capital S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Collection services	(1)	4	3
Riobank International (Uruguay) SAIFE (p)	Uruguay	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander – Direct	% of ownership held by Banco Santander – Indirect	Percentage of voting power (k) – Year 2021	Percentage of voting power (k) – Year 2020	Activity	EUR million (a) – Capital + reserves	EUR million (a) – Net results	EUR million (a) – Carrying amount
Roc Aviation One Designated Activity Company	Ireland	—	(b)	—	—	Renting	(2)	(2)	0
Roc Shipping One Designated Activity Company	Ireland	—	(b)	—	—	Renting	(4)	0	0
Rojo Entretenimento S.A.	Brazil	0.00%	85.06%	94.60%	94.60%	Services	21	0	17
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	20	21	162
SAM Investment Holdings, S.L.	Spain	92.37%	7.63%	100.00%	100.00%	Management of funds	1,326	74	1,597
SANB Promotora de Vendas e Cobrança S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Finance company	3	(1)	2
Sancap Investimentos e Participações S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Holding company	139	39	142
Santander (CF Trustee Property Nominee) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Santander (CF Trustee) Limited (d)	United Kingdom	—	(b)	—	—	Inactive	0	0	0
Santander (UK) Group Pension Schemes Trustees Limited (d)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Santander Ahorro Inmobiliario 1, S.A.	Spain	98.53%	0.00%	98.53%	98.53%	Real estate rental	1	0	1
Santander Ahorro Inmobiliario 2, S.A.	Spain	99.91%	0.00%	99.91%	99.91%	Real estate rental	1	0	1
Santander Asesorías Financieras Limitada	Chile	0.00%	67.44%	100.00%	100.00%	Securities company	53	2	37
Santander Asset Finance (December) Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	73	5	0
Santander Asset Finance plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	287	11	173

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Santander Asset Management - S.G.O.I.C., S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Fund management company	7	5	12
Santander Asset Management Chile S.A.	Chile	0.01%	99.94%	100.00%	100.00%	Securities investment	(5)	0	0
Santander Asset Management Luxembourg, S.A.	Luxembourg	0.00%	100.00%	100.00%	100.00%	Fund management company	4	4	0
Santander Asset Management S.A. Administradora General de Fondos	Chile	0.00%	100.00%	100.00%	100.00%	Fund management company	13	9	132
Santander Asset Management UK Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company	195	5	186
Santander Asset Management UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Management of funds and portfolios	41	15	201
Santander Asset Management, LLC (j)	Puerto Rico	0.00%	100.00%	100.00%	100.00%	Management	0	(1)	0
Santander Asset Management, S.A., S.G.I.I.C.	Spain	0.00%	100.00%	100.00%	100.00%	Fund management company	248	61	393
Santander Back-Offices Globales Mayoristas, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Services	2	1	1
Santander Banca de Inversión Colombia, S.A.S.	Colombia	100.00%	0.00%	100.00%	100.00%	Advisory services	2	0	2
Santander Bank & Trust Ltd.	Bahamas	0.00%	100.00%	100.00%	100.00%	Banking	66	(1)	22
Santander Bank Polska S.A.	Poland	67.41%	0.00%	67.41%	67.41%	Banking	4,984	199	4,270
Santander Bank, National Association	United States	0.00%	100.00%	100.00%	100.00%	Banking	10,197	444	10,637
Santander Brasil Administradora de Consórcio Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	Services	107	53	144
Santander Brasil Gestão de Recursos Ltda.	Brazil	0.08%	99.92%	100.00%	100.00%	Securities investment	396	30	470

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	% of ownership held by Banco Santander: Indirect	Percentage of voting power (k): Year 2021	Percentage of voting power (k): Year 2020	Activity	EUR million (a): Capital + reserves	EUR million (a): Net results	EUR million (a): Carrying amount
Santander Capital Desarrollo, SGEIC, S.A. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Management company of investment entities	5	0	3
Santander Capital Structuring, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Investment companies	11	0	0
Santander Capitalização S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Insurance	9	58	60
Santander Cards Ireland Limited	Ireland	0.00%	100.00%	100.00%	100.00%	Cards	(8)	0	0
Santander Cards Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Cards	100	0	100
Santander Cards UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	163	0	115
Santander Chile Holding S.A.	Chile	22.11%	77.73%	99.84%	99.84%	Holding company	1,490	310	1,208
Santander Consulting (Beijing) Co., Ltd.	China	0.00%	100.00%	100.00%	100.00%	Advisory services	9	0	4
Santander Consumer (UK) plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	853	296	310
Santander Consumer Auto Receivables Funding 2013-B2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	(283)	200	0
Santander Consumer Auto Receivables Funding 2013-B3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	101	70	0
Santander Consumer Auto Receivables Funding 2018-L1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	182	75	0
Santander Consumer Auto Receivables Funding 2018-L3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	63	49	0
Santander Consumer Auto Receivables Funding 2018-L5 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	53	99	0
Santander Consumer Auto Receivables Funding 2019-B1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	(140)	190	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Consumer Auto Receivables Funding 2019-L2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	58	87	0
Santander Consumer Auto Receivables Funding 2019-L3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	32	36	0
Santander Consumer Auto Receivables Funding 2020-B1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	(98)	82	0
Santander Consumer Auto Receivables Funding 2020-L1 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	71	39	0
Santander Consumer Auto Receivables Funding 2020-L2 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	7	11	0
Santander Consumer Auto Receivables Funding 2021-B1 LLC	United States	0.00%	80.22%	100.00%	0.00%	Inactive	0	0	0
Santander Consumer Auto Receivables Funding 2021-B2 LLC	United States	0.00%	80.22%	100.00%	0.00%	Inactive	0	0	0
Santander Consumer Auto Receivables Funding 2021-L1 LLC	United States	0.00%	80.22%	100.00%	0.00%	Inactive	0	0	0
Santander Consumer Auto Receivables Grantor Trust 2021-D	United States	0.00%	80.22%	100.00%	0.00%	Inactive	0	0	0
Santander Consumer Auto Receivables Trust 2021-D	United States	0.00%	80.22%	100.00%	0.00%	Inactive	0	0	0
Santander Consumer Bank AG	Germany	0.00%	100.00%	100.00%	100.00%	Banking	3,313	461	5,070
Santander Consumer Bank AS	Norway	0.00%	100.00%	100.00%	100.00%	Banking	2,540	202	2,313
Santander Consumer Bank GmbH	Austria	0.00%	100.00%	100.00%	100.00%	Banking	399	45	363
Santander Consumer Bank S.A.	Poland	0.00%	80.44%	100.00%	100.00%	Banking	743	35	484
Santander Consumer Bank S.p.A.	Italy	0.00%	100.00%	100.00%	100.00%	Banking	824	178	603

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	% of ownership held by Banco Santander: Indirect	Percentage of voting power (k): Year 2021	Percentage of voting power (k): Year 2020	Activity	EUR million (a): Capital + reserves	EUR million (a): Net results	EUR million (a): Carrying amount
Santander Consumer Banque S.A.	France	0.00%	100.00%	100.00%	100.00%	Banking	544	40	492
Santander Consumer Credit Services Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	(39)	0	0
Santander Consumer Finance Global Services, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	IT	6	2	5
Santander Consumer Finance Inc.	Canada	96.42%	0.00%	96.42%	96.42%	Holding company	63	0	94
Santander Consumer Finance Limitada	Chile	49.00%	34.23%	100.00%	100.00%	Finance company	63	20	41
Santander Consumer Finance Oy	Finland	0.00%	100.00%	100.00%	100.00%	Finance company	314	54	165
Santander Consumer Finance Schweiz AG	Switzerland	0.00%	100.00%	100.00%	100.00%	Leasing	50	7	60
Santander Consumer Finance, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking	8,807	601	10,022
Santander Consumer Financial Solutions Sp. z o.o.	Poland	0.00%	80.44%	100.00%	100.00%	Leasing	2	0	2
Santander Consumer Finanse Sp. z o.o. w likwidacji (j)	Poland	0.00%	80.44%	100.00%	100.00%	Services	16	0	12
Santander Consumer Holding Austria GmbH	Austria	0.00%	100.00%	100.00%	100.00%	Holding company	364	20	518
Santander Consumer Holding GmbH	Germany	0.00%	100.00%	100.00%	100.00%	Holding company	5,564	309	6,077
Santander Consumer Inc.	Canada	0.00%	96.42%	100.00%	100.00%	Finance company	66	16	46
Santander Consumer International Puerto Rico LLC	Puerto Rico	0.00%	80.22%	100.00%	100.00%	Services	9	0	7
Santander Consumer Leasing GmbH	Germany	0.00%	100.00%	100.00%	100.00%	Leasing	20	109	101

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	% of ownership held by Banco Santander: Indirect	Percentage of voting power (k): Year 2021	Percentage of voting power (k): Year 2020	Activity	EUR million (a): Capital + reserves	EUR million (a): Net results	EUR million (a): Carrying amount
Santander Consumer Mobility Services, S.A.	Spain	0.00%	100.00%	100.00%	100.00%	Renting	12	0	12
Santander Consumer Multirent Sp. z o.o.	Poland	0.00%	80.44%	100.00%	100.00%	Leasing	27	4	5
Santander Consumer Operations Services GmbH	Germany	0.00%	100.00%	100.00%	100.00%	Services	11	1	18
Santander Consumer Receivables 10 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	764	286	0
Santander Consumer Receivables 11 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	420	196	0
Santander Consumer Receivables 3 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	315	60	0
Santander Consumer Receivables 7 LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	303	369	0
Santander Consumer Receivables Funding LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	1	3	0
Santander Consumer Renting, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Leasing	37	1	38
Santander Consumer S.A.	Argentina	0.00%	99.31%	100.00%	100.00%	Finance company	7	(2)	6
Santander Consumer S.A. Compañía de Financiamiento	Colombia	79.02%	20.98%	100.00%	0.00%	Finance company	6	(1)	6
Santander Consumer Services GmbH	Austria	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
Santander Consumer Services, S.A.	Portugal	0.00%	100.00%	100.00%	100.00%	Finance company	11	2	6
Santander Consumer Spain Auto 2019-1, Fondo de Titulización	Spain	—	(b)	—	—	Securitization	0	0	0
Santander Consumer Spain Auto 2020-1, Fondo de Titulización	Spain	—	(b)	—	—	Securitization	0	0	0

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Consumer Spain Auto 2021-1, Fondo de Titulización	Spain	—	(b)	—	—	Securitization	0	0	0
Santander Consumer Technology Services GmbH	Germany	0.00%	100.00%	100.00%	100.00%	IT services	21	3	22
Santander Consumer USA Holdings Inc.	United States	0.00%	80.22%	80.22%	80.24%	Holding company	4,688	2,871	6,705
Santander Consumer USA Inc.	United States	0.00%	80.22%	100.00%	100.00%	Finance company	5,257	(917)	3,481
Santander Consumo 4, F.T.	Spain	—	(b)	—	—	Securitization	0	0	0
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	1,123	222	1,295
Santander Corredora de Seguros Limitada	Chile	0.00%	67.20%	100.00%	100.00%	Insurance brokerage	72	2	50
Santander Corredores de Bolsa Limitada	Chile	0.00%	83.23%	100.00%	100.00%	Securities company	47	2	40
Santander Corretora de Câmbio e Valores Mobiliários S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Securities company	114	13	115
Santander Corretora de Seguros, Investimentos e Serviços S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Holding company	567	166	656
Santander Customer Voice, S.A.	Spain	99.50%	0.50%	100.00%	100.00%	Services	2	0	1
Santander de Titulización, S.G.F.T., S.A.	Spain	81.00%	19.00%	100.00%	100.00%	Fund management company	5	3	2
Santander Digital Assets, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	IT services	0	2	4
Santander Drive Auto Receivables LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	0	0	0
Santander Drive Auto Receivables Trust 2017-3	United States	—	(b)	—	—	Securitization	52	29	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Drive Auto Receivables Trust 2018-1	United States	—	(b)	—	—	Securitization	41	39	0
Santander Drive Auto Receivables Trust 2018-2	United States	—	(b)	—	—	Securitization	18	37	0
Santander Drive Auto Receivables Trust 2018-3	United States	—	(b)	—	—	Securitization	1	52	0
Santander Drive Auto Receivables Trust 2018-4	United States	—	(b)	—	—	Securitization	4	46	0
Santander Drive Auto Receivables Trust 2018-5	United States	—	(b)	—	—	Securitization	(4)	50	0
Santander Drive Auto Receivables Trust 2019-1	United States	—	(b)	—	—	Securitization	(15)	58	0
Santander Drive Auto Receivables Trust 2019-2	United States	—	(b)	—	—	Securitization	(23)	80	0
Santander Drive Auto Receivables Trust 2019-3	United States	—	(b)	—	—	Securitization	(38)	86	0
Santander Drive Auto Receivables Trust 2020-1	United States	—	(b)	—	—	Securitization	(111)	134	0
Santander Drive Auto Receivables Trust 2020-2	United States	—	(b)	—	—	Securitization	(131)	175	0
Santander Drive Auto Receivables Trust 2020-3	United States	—	(b)	—	—	Securitization	(241)	271	0
Santander Drive Auto Receivables Trust 2020-4	United States	—	(b)	—	—	Securitization	(242)	233	0
Santander Drive Auto Receivables Trust 2021-1	United States	—	(b)	—	—	Securitization	0	(43)	0
Santander Drive Auto Receivables Trust 2021-2	United States	—	(b)	—	—	Securitization	0	(162)	0
Santander Drive Auto Receivables Trust 2021-3	United States	—	(b)	—	—	Securitization	0	(263)	0

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander - Direct	% of ownership held by Banco Santander - Indirect	Percentage of voting power (k) - Year 2021	Percentage of voting power (k) - Year 2020	Activity	EUR million (a) - Capital + reserves	EUR million (a) - Net results	EUR million (a) - Carrying amount
Santander Drive Auto Receivables Trust 2021-4	United States	—	(b)	—	—	Securitization	0	(272)	0
Santander Drive Auto Receivables Trust 2022-1	United States	—	(b)	—	—	Inactive	0	0	0
Santander Drive Auto Receivables Trust 2022-2	United States	—	(b)	—	—	Inactive	0	0	0
Santander Drive Auto Receivables Trust 2022-3	United States	—	(b)	—	—	Inactive	0	0	0
Santander Drive Auto Receivables Trust 2022-4	United States	—	(b)	—	—	Inactive	0	0	0
Santander Equity Investments Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	41	(11)	35
Santander España Servicios Legales y de Cumplimiento, S.L.	Spain	99.97%	0.03%	100.00%	100.00%	Services	9	1	8
Santander Estates Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate	3	(10)	0
Santander European Hospitality Opportunities	Luxembourg	100.00%	0.00%	100.00%	0.00%	Investment fund	1	0	1
Santander F24 S.A.	Poland	0.00%	67.41%	100.00%	100.00%	Finance company	0	0	0
Santander Facility Management España, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Real estate	417	(3)	392
Santander Factoring S.A.	Chile	0.00%	99.84%	100.00%	100.00%	Factoring	37	0	37
Santander Factoring Sp. z o.o.	Poland	0.00%	67.41%	100.00%	100.00%	Financial services	27	11	1
Santander Factoring y Confirming, S.A., E.F.C.	Spain	100.00%	0.00%	100.00%	100.00%	Factoring	208	70	126
Santander Finance 2012-1 LLC	United States	0.00%	100.00%	100.00%	100.00%	Financial services	3	0	3

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Financial Exchanges Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Inactive	0	0	0
Santander Financial Services plc	United Kingdom	0.00%	100.00%	100.00%	100.00%	Banking	356	32	401
Santander Financial Services, Inc.	Puerto Rico	0.00%	100.00%	100.00%	100.00%	Finance company	22	(7)	14
Santander Financiamientos S.A.	Peru	100.00%	0.00%	100.00%	0.00%	Finance company	8	(1)	8
Santander Financing S.A.S.	Colombia	100.00%	0.00%	100.00%	100.00%	Financial advisory	1	(1)	1
Santander Finanse Sp. z o.o.	Poland	0.00%	67.41%	100.00%	100.00%	Financial services	60	7	19
Santander Fintech Holdings, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	79	(14)	61
Santander Fintech Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Finance company	218	(7)	144
Santander Fundo de Investimento Santillana Multimercado Crédito Privado Investimento No Exterior (e)	Brazil	—	(b)	—	—	Investment fund	413	19	432
Santander Fundo de Investimento SBAC Referenciado di Crédito Privado (h)	Brazil	0.00%	89.91%	100.00%	100.00%	Investment fund	1,440	11	1,303
Santander Gestión de Recaudación y Cobranzas Ltda.	Chile	0.00%	99.84%	100.00%	100.00%	Financial services	6	0	5
Santander Global Cards & Digital Solutions Brasil S.A.	Brazil	0.00%	100.00%	100.00%	100.00%	IT consulting	0	0	0
Santander Global Consumer Finance Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Finance company	7	0	7
Santander Global Facilities, S.A. de C.V.	Mexico	100.00%	0.00%	100.00%	100.00%	Real estate management	125	3	127
Santander Global Facilities, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Real estate	73	2	70

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Global Services S.A. (j)	Uruguay	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
Santander Global Sport, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Sports activity	21	(2)	19
Santander Global Technology and Operations Brasil Ltda.	Brazil	0.00%	100.00%	100.00%	100.00%	IT services	3	0	1
Santander Global Technology and Operations Chile Limitada	Chile	0.00%	100.00%	100.00%	100.00%	IT services	22	2	20
Santander Global Technology and Operations, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	IT services	434	19	370
Santander Green Investment, S.L.	Spain	99.97%	0.03%	100.00%	0.00%	Holding company	14	0	14
Santander Guarantee Company	United Kingdom	0.00%	100.00%	100.00%	100.00%	Leasing	5	0	3
Santander Hipotecario 1 Fondo de Titulización de Activos	Spain	—	(b)	—	—	Securitization	0	0	0
Santander Hipotecario 2 Fondo de Titulización de Activos	Spain	—	(b)	—	—	Securitization	0	0	0
Santander Hipotecario 3 Fondo de Titulización de Activos	Spain	—	(b)	—	—	Securitization	0	0	0
Santander Holding Imobiliária S.A.	Brazil	0.00%	89.91%	100.00%	100.00%	Real estate	71	1	65
Santander Holding Internacional, S.A.	Spain	99.95%	0.05%	100.00%	100.00%	Holding company	4,031	26	2,247
Santander Holdings USA, Inc.	United States	100.00%	0.00%	100.00%	100.00%	Holding company	17,120	2,633	12,579
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	14	(7)	7
Santander Insurance Agency, U.S., LLC	United States	0.00%	100.00%	100.00%	100.00%	Insurance	1	0	1

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Insurance Services UK Limited	United Kingdom	100.00%	0.00%	100.00%	100.00%	Asset management	44	0	44
Santander Intermediación Correduría de Seguros, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Insurance brokerage	24	2	18
Santander International Products, Plc. (l)	Ireland	99.99%	0.01%	100.00%	100.00%	Finance company	1	0	0
Santander Inversiones S.A.	Chile	0.00%	100.00%	100.00%	100.00%	Holding company	968	201	1,032
Santander Investment Bank Limited	Bahamas	0.00%	100.00%	100.00%	100.00%	Banking	577	15	529
Santander Investment Chile Limitada	Chile	0.00%	100.00%	100.00%	100.00%	Finance company	473	6	321
Santander Investment Securities Inc.	United States	0.00%	100.00%	100.00%	100.00%	Securities company	456	32	488
Santander Investment, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Banking	1,408	77	245
Santander Investments GP 1 S.à.r.l.	Luxembourg	0.00%	100.00%	100.00%	100.00%	Management of funds	1	0	1
Santander Inwestycje Sp. z o.o.	Poland	0.00%	67.41%	100.00%	100.00%	Securities company	17	1	7
Santander ISA Managers Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Management of funds and portfolios	37	8	6
Santander Lease, S.A., E.F.C.	Spain	100.00%	0.00%	100.00%	100.00%	Leasing	61	11	51
Santander Leasing Poland Securitization 01 Designated Activity Company	Ireland	—	(b)	—	—	Securitization	0	0	0
Santander Leasing S.A.	Poland	0.00%	67.41%	100.00%	100.00%	Leasing	133	9	28
Santander Leasing S.A. Arrendamento Mercantil	Brazil	0.00%	89.91%	100.00%	100.00%	Leasing	1,709	59	1,590

Subsidiaries of Banco Santander, S.A. [1]

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Santander Leasing, LLC	United States	0.00%	100.00%	100.00%	100.00%	Leasing	0	1	2
Santander Lending Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Mortgage credit company	243	10	247
Santander Mediación Operador de Banca-Seguros Vinculado, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Insurance intermediary	49	1	3
Santander Merchant Platform Operations, S.A. de C.V.	Mexico	0.00%	98.16%	100.00%	100.00%	Financial services	1	1	2
Santander Merchant Platform Services, S.A. de C.V.	Mexico	0.00%	98.16%	100.00%	100.00%	Financial services	1	0	1
Santander Merchant Platform Solutions México, S.A. de C.V.	Mexico	0.00%	98.16%	100.00%	100.00%	Holding company	119	28	134
Santander Merchant Platform Solutions S.A.	Argentina	0.00%	99.66%	100.00%	100.00%	Payment methods	15	(6)	10
Santander Merchant Platform Solutions Uruguay S.A.	Uruguay	0.00%	100.00%	100.00%	100.00%	Payment methods	5	0	5
Santander Merchant S.A.	Argentina	5.10%	94.90%	100.00%	100.00%	Finance company	1	0	2
Santander Mortgage Holdings Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Financial services	(1)	(23)	0
Santander Paraty Qif PLC	Ireland	0.00%	89.91%	100.00%	100.00%	Investment companies	261	0	235
Santander Pensiones, S.A., E.G.F.P.	Spain	0.00%	100.00%	100.00%	100.00%	Pension fund management company	83	16	184
Santander Pensões - Sociedade Gestora de Fundos de Pensões, S.A.	Portugal	100.00%	0.00%	100.00%	100.00%	Pension fund management company	3	0	3
Santander Prime Auto Issuance Notes 2018-A Designated Activity Company	Ireland	—	(b)	—	—	Securitization	(15)	10	0
Santander Prime Auto Issuance Notes 2018-B Designated Activity Company	Ireland	—	(b)	—	—	Securitization	(17)	(12)	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Prime Auto Issuance Notes 2018-C Designated Activity Company	Ireland	—	(b)	—	—	Securitization	(6)	(1)	0
Santander Prime Auto Issuance Notes 2018-D Designated Activity Company	Ireland	—	(b)	—	—	Securitization	(24)	(2)	0
Santander Prime Auto Issuance Notes 2018-E Designated Activity Company	Ireland	—	(b)	—	—	Securitization	(10)	(4)	0
Santander Private Banking Gestión, S.A., S.G.I.I.C.	Spain	100.00%	0.00%	100.00%	100.00%	Fund management company	52	12	35
Santander Private Banking s.p.a. in Liquidazione (j)	Italy	100.00%	0.00%	100.00%	100.00%	Finance company	13	1	7
Santander Private Banking UK Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company	304	0	414
Santander Private Real Estate Advisory & Management, S.A.	Spain	99.99%	0.01%	100.00%	100.00%	Real estate	4	0	4
Santander Private Real Estate Advisory, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Real estate	14	1	15
Santander Real Estate, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Inactive	1	0	1
Santander Retail Auto Lease Funding LLC	United States	0.00%	80.22%	100.00%	100.00%	Finance company	0	0	0
Santander Retail Auto Lease Trust 2019-A	United States	—	(b)	—	—	Securitization	67	89	0
Santander Retail Auto Lease Trust 2019-B	United States	—	(b)	—	—	Securitization	42	71	0
Santander Retail Auto Lease Trust 2019-C	United States	—	(b)	—	—	Securitization	45	59	0
Santander Retail Auto Lease Trust 2020-A	United States	—	(b)	—	—	Securitization	48	33	0
Santander Retail Auto Lease Trust 2020-B	United States	—	(b)	—	—	Securitization	26	40	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (k): Year 2021	Year 2020	Activity	EUR million (a): Capital + reserves	Net results	Carrying amount
Santander Retail Auto Lease Trust 2021-A	United States	—	(b)	—	—	Securitization	0	63	0
Santander Retail Auto Lease Trust 2021-B	United States	—	(b)	—	—	Securitization	0	63	0
Santander Retail Auto Lease Trust 2021-C	United States	—	(b)	—	—	Securitization	0	88	0
Santander Retail Auto Lease Trust 2022-A	United States	—	(b)	—	—	Inactive	0	0	0
Santander Retail Auto Lease Trust 2022-B	United States	—	(b)	—	—	Inactive	0	0	0
Santander Retail Auto Lease Trust 2022-C	United States	—	(b)	—	—	Inactive	0	0	0
Santander Revolving Auto Loan Trust 2019-A	United States	—	(b)	—	—	Securitization	(112)	111	0
Santander Revolving Auto Loan Trust 2021-A	United States	—	(b)	—	—	Inactive	0	0	0
Santander Río Asset Management Gerente de Fondos Comunes de Inversión S.A.	Argentina	0.00%	100.00%	100.00%	100.00%	Fund management company	6	7	3
Santander Río Trust S.A.	Argentina	0.00%	99.97%	100.00%	100.00%	Services	0	0	0
Santander Río Valores S.A.	Argentina	5.10%	94.25%	100.00%	100.00%	Securities company	3	1	4
Santander RMBS 6, Fondo de Titulización	Spain	—	(b)	—	—	Securitization	0	0	0
Santander S.A. Sociedad Securitizadora	Chile	0.00%	67.24%	100.00%	100.00%	Fund management company	0	0	0
Santander Secretariat Services Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Santander Securities LLC	United States	0.00%	100.00%	100.00%	100.00%	Securities company	39	4	43

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Santander Seguros y Reaseguros, Compañía Aseguradora, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Insurance	1,434	191	1,188
Santander Servicios Corporativos, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	Services	11	0	11
Santander Servicios Especializados, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	Services	3	0	3
Santander Technology USA, LLC	United States	0.00%	100.00%	100.00%	100.00%	IT services	80	(12)	69
Santander Tecnología Argentina S.A.	Argentina	0.00%	99.35%	100.00%	100.00%	IT services	3	2	4
Santander Tecnología México, S.A. de C.V.	Mexico	0.00%	96.24%	100.00%	100.00%	IT services	45	1	45
Santander Tecnología y Operaciones España, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	IT services	46	(4)	37
Santander Totta Seguros, Companhia de Seguros de Vida, S.A.	Portugal	0.00%	99.91%	100.00%	100.00%	Insurance	117	25	47
Santander Totta, SGPS, S.A.	Portugal	99.91 %	0.00 %	99.91 %	99.91 %	Holding company	3,550	54	5,351
Santander Towarzystwo Funduszy Inwestycyjnych S.A.	Poland	50.00 %	33.70 %	100.00 %	100.00 %	Fund management company	4	25	15
Santander Trade Services Limited	Hong Kong	0.00 %	100.00 %	100.00 %	100.00 %	Inactive	19	3	16
Santander UK Group Holdings plc	United Kingdom	77.67 %	22.33 %	100.00 %	100.00 %	Finance company	14,302	1,783	16,444
Santander UK Investments	United Kingdom	100.00 %	0.00 %	100.00 %	100.00 %	Finance company	53	(2)	48
Santander UK Operations Limited	United Kingdom	0.00 %	100.00 %	100.00 %	100.00 %	Services	27	2	18
Santander UK plc	United Kingdom	0.00 %	100.00 %	100.00 %	100.00 %	Banking	16,029	937	15,741

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Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Santander UK Technology Limited	United Kingdom	0.00 %	100.00 %	100.00 %	100.00 %	IT services	39	4	7
Santander Wealth Management International SA	Switzerland	0.00 %	100.00 %	100.00 %	100.00 %	Asset management	0	0	0
Santusa Holding, S.L.	Spain	69.76 %	30.24 %	100.00 %	100.00 %	Holding company	8,423	637	6,524
SC Austria Finance 2020-1 Designated Activity Company	Ireland	—	(b)	—	—	Securitization	0	0	0
SC Germany Auto 2014-2 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany Auto 2016-2 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany Auto 2018-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	(1)	0	0
SC Germany Auto 2019-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany Consumer 2014-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany Consumer 2018-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany Mobility 2019-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany S.A.	Luxembourg	—	(b)	—	—	Securitization	0	0	0
SC Germany S.A., Compartment Consumer 2020-1	Luxembourg	—	(b)	—	—	Securitization	0	0	0
SC Germany S.A., Compartment Consumer 2021-1	Luxembourg	—	(b)	—	—	Securitization	0	0	0
SC Germany S.A., Compartment Mobility 2020-1	Luxembourg	—	(b)	—	—	Securitization	0	0	0

Subsidiaries of Banco Santander, S.A. [1]

Company	Location	% of ownership held by Banco Santander Direct	% of ownership held by Banco Santander Indirect	Percentage of voting power (k) Year 2021	Percentage of voting power (k) Year 2020	Activity	EUR million (a) Capital + reserves	EUR million (a) Net results	EUR million (a) Carrying amount
SC Germany Vehicles 2013-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Germany Vehicles 2015-1 UG (haftungsbeschränkt)	Germany	—	(b)	—	—	Securitization	0	0	0
SC Poland Consumer 15-1 Sp. z.o.o. (j)	Poland	—	(b)	—	—	Securitization	0	0	0
SC Poland Consumer 16-1 Sp. z o.o.	Poland	—	(b)	—	—	Securitization	0	0	0
SCF Ajoneuvohallinto I Limited (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Ajoneuvohallinto II Limited (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Ajoneuvohallinto IX Limited	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Ajoneuvohallinto KIMI VI Limited (j)	Ireland	—	(b)	—	—	Securitization	0	0	0

Subsidiaries of Banco Santander, S.A.1

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
SCF Ajoneuvohallinto VII Limited	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Ajoneuvohallinto VIII Limited	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Ajoneuvohallinto X Limited	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Eastside Locks GP Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate management	0	0	0
SCF Rahoituspalvelut I Designated Activity Company (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Rahoituspalvelut II Designated Activity Company (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Rahoituspalvelut IX DAC	Ireland	—	(b)	—	—	Securitization	1	0	0
SCF Rahoituspalvelut KIMI VI Designated Activity Company (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Rahoituspalvelut VII Designated Activity Company	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Rahoituspalvelut VIII Designated Activity Company	Ireland	—	(b)	—	—	Securitization	0	0	0
SCF Rahoituspalvelut X DAC	Ireland	—	(b)	—	—	Securitization	0	0	0
SCM Poland Auto 2019-1 DAC	Ireland	—	(b)	—	—	Securitization	0	0	0
SDMX Superdigital, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Payment platform	0	0	2
Secucor Finance 2013-I Designated Activity Company (i) (j)	Ireland	—	(b)	—	—	Securitization	0	0	0

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Subsidiaries of Banco Santander, S.A.1

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Secucor Finance 2021-1, DAC	Ireland	—	(b)	—	—	Securitization	0	0	0
Services and Promotions Delaware Corp.	United States	0.00%	100.00%	100.00%	100.00%	Holding company	58	2	60
Services and Promotions Miami LLC	United States	0.00%	100.00%	100.00%	100.00%	Real estate	51	3	53
Servicio de Alarmas Controladas por Ordenador, S.A.	Spain	99.99%	0.01%	100.00%	100.00%	Security	2	0	1
Servicios de Cobranza, Recuperación y Seguimiento, S.A. de C.V.	Mexico	0.00%	85.00%	85.00%	85.00%	Finance company	34	1	32
Sheppards Moneybrokers Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Shiloh III Wind Project, LLC	United States	0.00%	100.00%	100.00%	100.00%	Renewable energies	324	1	325
Silk Finance No. 5	Portugal	—	(b)	—	—	Securitization	1	9	0
SMPS Merchant Platform Solutions México, S.A de C.V	Mexico	0.00%	98.16%	100.00%	100.00%	Payments and collection services	112	27	141
Sociedad Integral de Valoraciones Automatizadas, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Appraisals	1	1	1
Sociedad Operadora de Tarjetas de Pago Santander Getnet Chile S.A.	Chile	0.00%	67.12%	100.00%	100.00%	Payments and collection services	20	-8	8
Socur S.A. (f)	Uruguay	100.00%	0.00%	100.00%	100.00%	Finance company	43	23	59
Solarlaser Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Solution 4Fleet Consultoria Empresarial S.A.	Brazil	0.00%	71.93%	80.00%	0.00%	Vehicle rental	3	0	2

Subsidiaries of Banco Santander, S.A.1

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Sovereign Community Development Company	United States	0.00%	100.00%	100.00%	100.00%	Holding company	38	1	39
Sovereign Delaware Investment Corporation	United States	0.00%	100.00%	100.00%	100.00%	Holding company	134	1	135
Sovereign Lease Holdings, LLC	United States	0.00%	100.00%	100.00%	100.00%	Financial services	221	1	221
Sovereign REIT Holdings, Inc.	United States	0.00%	100.00%	100.00%	100.00%	Holding company	7501	74	7575
Sovereign Spirit Limited (n)	Bermudas	0.00%	100.00%	100.00%	100.00%	Leasing	0	0	0
SSA Swiss Advisors AG	Switzerland	0.00%	100.00%	100.00%	0.00%	Asset management	0	0	3
Sterrebeeck B.V.	Netherlands	100.00%	0.00%	100.00%	100.00%	Holding company	4058	713	10331
Suleyado 2003, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	100.00%	Securities investment	25	0	24
Summer Empreendimentos Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	Real estate management	3	0	3
Super Pagamentos e Administração de Meios Eletrônicos S.A.	Brazil	0.00%	100.00%	100.00%	100.00%	Payment services	30	-7	79
Superdigital Argentina S.A.U.	Argentina	0.00%	100.00%	100.00%	100.00%	IT services	1	-1	1
Superdigital Colombia S.A.S.	Colombia	0.00%	100.00%	100.00%	99.97%	IT services	0	0	0
Superdigital Holding Company, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	103	3	106
Superdigital Perú S.A.C.	Peru	0.00%	100.00%	100.00%	100.00%	Financial services	1	0	0

Santander

Subsidiaries of Banco Santander, S.A.1

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Suzuki Servicios Financieros, S.L.	Spain	0.00%	51.00%	51.00%	51.00%	Intermediation	9	3	0
Svensk Autofinans WH 1 Designated Activity Company	Ireland	—	(b)	—	—	Securitization	0	0	0
Swesant SA	Switzerland	0.00%	100.00%	100.00%	100.00%	Holding company	19	42	0
SX Negócios Ltda.	Brazil	0.00%	89.91%	100.00%	100.00%	Telemarketing	10	2	11
Tabasco Energía España, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	6	0	0
Taxagest Sociedade Gestora de Participações Sociais, S.A.	Portugal	0.00%	99.87%	100.00%	100.00%	Holding company	56	0	0
Teatinos Siglo XXI Inversiones S.A.	Chile	50.00%	50.00%	100.00%	100.00%	Holding company	1497	277	2064
Tekutina Private Limited	India	0.00%	100.00%	100.00%	0.00%	Financial services	1	0	1
The Alliance & Leicester Corporation Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Real estate	14	0	14
The Best Specialty Coffee, S.L. Unipersonal	Spain	100.00%	0.00%	100.00%	100.00%	Restaurant services	3	0	2
Time Retail Finance Limited (j)	United Kingdom	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
TIMFin S.p.A.	Italy	0.00%	51.00%	51.00%	51.00%	Finance company	53	-8	28
Tonopah Solar I, LLC	United States	0.00%	100.00%	100.00%	100.00%	Holding company	5	0	5
Tornquist Asesores de Seguros S.A. (j)	Argentina	0.00%	99.99%	99.99%	99.99%	Inactive	0	0	0

Subsidiaries of Banco Santander, S.A.1

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (k)		Activity	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020		Capital + reserves	Net results	Carrying amount
Toro Corretora de Títulos e Valores Mobiliários Ltda.	Brazil	0.00%	53.95%	60.00%	0.00%	Securities investment	11	-2	5
Toro Investimentos S.A.	Brazil	0.00%	53.95%	100.00%	0.00%	Consulting services	5	-1	2
Totta (Ireland), PLC (h)	Ireland	0.00%	99.86%	100.00%	100.00%	Finance company	451	9	450
Totta Urbe - Empresa de Administração e Construções, S.A.	Portugal	0.00%	99.86%	100.00%	100.00%	Real estate	102	-5	100
Trabajando.com Mexico, S.A. de C.V. en liquidación (j)	Mexico	0.00%	100.00%	100.00%	100.00%	Services	0	0	0
Trade Maps 3 Hong Kong Limited	Hong-Kong	—	(b)	—	—	Securitization	0	0	0
Trade Maps 3 Ireland Limited (j)	Ireland	—	(b)	—	—	Securitization	0	0	0
Trans Rotor Limited (j)	United Kingdom	100.00%	0.00%	100.00%	100.00%	Renting	0	0	0
Transolver Finance EFC, S.A.	Spain	0.00%	51.00%	51.00%	51.00%	Leasing	67	4	17
Tresmares Growth Fund Santander, SCR, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	32	0	32
Tresmares Santander Direct Lending, SICC, S.A.	Spain	99.60%	0.00%	99.60%	99.60%	Management of funds	414	6	413
Tuttle and Son Limited	United Kingdom	0.00%	100.00%	100.00%	100.00%	Inactive	0	0	0
Universia Brasil S.A.	Brazil	0.00%	100.00%	100.00%	100.00%	Internet	0	0	0
Universia Chile S.A.	Chile	0.00%	86.84%	86.84%	86.84%	Internet	0	0	0

Subsidiaries of Banco Santander, S.A.1

		% of ownership held by Banco Santander		Percentage of voting power (k)			EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Capital + reserves	Net results	Carrying amount
Universia Colombia S.A.S.	Colombia	0.00%	100.00%	100.00%	100.00%	Internet	0	0	0
Universia España Red de Universidades, S.A.	Spain	0.00%	89.45%	89.45%	89.45%	Internet	2	0	2
Universia Holding, S.L.	Spain	100.00%	0.00%	100.00%	100.00%	Holding company	19	-3	17
Universia México, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Internet	0	0	0
Universia Perú, S.A.	Peru	0.00%	99.76%	99.76%	100.00%	Internet	0	0	0
Universia Uruguay, S.A.	Uruguay	0.00%	100.00%	100.00%	100.00%	Internet	0	0	0
Uro Property Holdings, SOCIMI, S.A. (c)	Spain	99.99%	0.00%	99.99%	99.99%	Real estate investment	163	9	179
Verbena FCVS - Fundo de Investimentos em Direitos Creditórios	Brazil	—	(b)	—	—	Investment fund	-3	3	0
Wallcesa, S.A.	Spain	100.00%	0.00%	100.00%	100.00%	Financial services	-936	9	0
Wave Holdco, S.L.	Spain	0.00%	100.00%	100.00%	100.00%	Holding company	0	0	0
Waypoint Insurance Group, Inc.	United States	0.00%	100.00%	100.00%	100.00%	Holding company	9	0	9
WIM Servicios Corporativos, S.A. de C.V.	Mexico	0.00%	100.00%	100.00%	100.00%	Advisory services	0	0	0
WTW Shipping Designated Activity Company	Ireland	100.00%	0.00%	100.00%	100.00%	Leasing	15	1	9
Yera Servicer Company 2021, S.L. Unipersonal	Spain	0.00%	100.00%	100.00%	0.00%	Real estate management	19	-1	18

a. Amount according to the provisional books of each company at the date of publication of these annexes generally referring to 31 December 2021 without taking into account, where applicable, interim dividends paid during the year. In the carrying amount (cost net of provision), the Group's percentage ownership has been applied to the figure for each holding company, disregarding goodwill impairments made in the consolidation process. The figures for foreign companies are converted into euros at the year-end exchange rate.
b. Companies over which effective control is maintained.
c. Data as at 31 December 2020, latest available accounts.
d. Data as at 31 March 2021, latest accounts available.
e. Data as at 30 June 2021, last accounts available.
f. Data as at 30 September 2021, last accounts available.
g. Data as at 31 July 2021, last accounts available.
h. Data as at 30 November 2021, last accounts available.
i. Data as at 31 January 2021, latest available accounts.
j. Company in liquidation as at 31 December 2021.
k. 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.
l. Company resident for tax purposes in Spain.
m. See note 2.b.i.
n. Company resident for tax purposes in the United Kingdom.
o. Data as at 28 February 2021, last accounts available.
p. Companies in liquidation. Pending registration.

(1) Companies issuing preference shares are listed in Annex III, together with other relevant information.

Santander

Appendix II

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

		% of ownership held by Banco Santander		Percentage of voting power (f)				EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Type of company	Asset	Capital + reserves	Net results
Abra 1 Limited (k)	Caymand Island	—	(h)	—	—	Leasing	Joint venture	0	0	0
Achmea Tussenholding, B.V. (b)	Netherlands	8.89%	0.00%	8.89%	8.89%	Holding company	-	356	356	20
Administrador Financiero de Transantiago S.A.	Chile	0.00%	13.42%	20.00%	20.00%	Payment and collection services	Associated	56	18	2
Aegon Santander Portugal Não Vida - Companhia de Seguros, S.A.	Portugal	0.00%	48.95%	49.00%	49.00%	Insurance	Joint venture	56	14	9
Aegon Santander Portugal Vida - Companhia de Seguros Vida, S.A.	Portugal	0.00%	48.95%	49.00%	49.00%	Insurance	Joint venture	129	23	18
Aeroplan - Sociedade Construtora de Aeroportos, Lda. (e)	Portugal	0.00%	19.97%	20.00%	20.00%	Inactive	-	0	0	0
Aguas de Fuensanta, S.A. (e) (k)	Spain	36.78%	0.00%	36.78%	36.78%	Food	-	0	0	0
Alcuter 2, S.L. (k)	Spain	37.23%	0.00%	37.23%	37.23%	Technical services	-	0	0	0
Alma UK Holdings Ltd	United Kingdom	30.00%	0.00%	30.00%	0.00%	Holding company	Joint venture	4	4	-1
Altamira Asset Management, S.A. (consolidado)	Spain	0.00%	15.00%	15.00%	15.00%	Real estate	-	236	3	-2
Apolo Fundo de Investimento em Direitos Creditórios	Brazil	0.00%	29.97%	33.33%	33.33%	Investment fund	Joint venture	454	421	33
Arena Communications Network, S.L. (consolidado) (b)	Spain	20.00%	0.00%	20.00%	20.00%	Advertising	Associated	296	99	-6
Attijariwafa Bank Société Anonyme (consolidado) (b)	Morocco	0.00%	5.10%	5.10%	5.11%	Banking	-	54,011	4,809	352

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Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (f)		Activity	Type of company	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020			Asset	Capital + reserves	Net results
Autopistas del Sol S.A. (b)	Argentina	0.00%	14.17%	14.17%	14.17%	Motorway concession	-	169	82	0
Banco RCI Brasil S.A.	Brazil	0.00%	35.87%	39.89%	39.89%	Banking	Joint venture	1,699	217	25
Banco S3 Caceis México, S.A., Institución de Banca Múltiple	Mexico	0.00%	50.00%	50.00%	50.00%	Banking	Joint venture	157	67	4
Bank of Beijing Consumer Finance Company	China	0.00%	20.00%	20.00%	20.00%	Finance company	Associated	1,369	120	8
Bank of Shanghai Co., Ltd. (consolidado) (b)	China	6.54%	0.00%	6.54%	6.54%	Banking	-	342,252	23,563	2,903
CACEIS (consolidado)	France	0.00%	30.50%	30.50%	30.50%	Custody services	Associated	122,132	3,979	187
Câmara Interbancária de Pagamentos - CIP	Brazil	0.00%	16.07%	17.87%	17.65%	Payment and collection services	-	342	235	69
Cantabria Capital, SGEIC, S.A.	Spain	50.00%	0.00%	50.00%	50.00%	Venture capital	Associated	0	0	0
Car10 Tecnologia e Informação S.A.	Brazil	0.00%	41.96%	46.67%	—	Internet	Joint venture	8	2	(1)
CCPT - ComprarCasa, Rede Serviços Imobiliários, S.A.	Portugal	0.00%	49.98%	49.98%	49.98%	Real estate services	Joint venture	0	0	0
Centro de Compensación Automatizado S.A.	Chile	0.00%	22.37%	33.33%	33.33%	Payment and collection services	Associated	14	9	3
Centro para el Desarrollo, Investigación y Aplicación de Nuevas Tecnologías, S.A. (b)	Spain	0.00%	49.00%	49.00%	49.00%	Technology	Associated	3	2	0
CNP Santander Insurance Europe Designated Activity Company	Ireland	49.00%	0.00%	49.00%	49.00%	Insurance brokerage	Associated	1,004	191	42
CNP Santander Insurance Life Designated Activity Company	Ireland	49.00%	0.00%	49.00%	49.00%	Insurance brokerage	Associated	1,294	151	43

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

		% of ownership held by Banco Santander		Percentage of voting power (f)				EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Type of company	Asset	Capital + reserves	Net results
CNP Santander Insurance Services Ireland Limited	Ireland	49.00%	0.00%	49.00%	49.00%	Services	Associated	31	4	1
Comder Contraparte Central S.A	Chile	0.00%	8.37%	12.47%	12.47%	Financial services	Associated	34	11	1
Companhia Promotora UCI	Brazil	0.00%	25.00%	25.00%	25.00%	Financial services	Joint venture	1	-1	0
Compañia Española de Financiación de Desarrollo, Cofides, S.A., SME (b)	Spain	20.18%	0.00%	20.18%	20.18%	Finance company	-	153	140	10
Compañía Española de Seguros de Crédito a la Exportación, S.A., Compañía de Seguros y Reaseguros (consolidado) (b)	Spain	23.33%	0.55%	23.88%	23.88%	Credit insurance	-	942	385	34
Compañía Española de Viviendas en Alquiler, S.A.	Spain	24.07%	0.00%	24.07%	24.07%	Real estate	Associated	528	333	14
Compañía para los Desarrollos Inmobiliarios de la Ciudad de Hispalis, S.L., en liquidación (l) (e)	Spain	21.98%	0.00%	21.98%	21.98%	Real estate development	-	38	6	0
Connecting Visions Ecosystems, S.L.	Spain	19.90%	0.00%	19.90%	19.90%	Consulting services	Joint venture	2	2	-1
Corkfoc Cortiças, S.A. (c)	Portugal	0.00%	27.55%	27.58%	27.58%	Cork industry	-	3	20	0
Corridor Texas Holdings LLC (consolidado) (b)	United States	0.00%	33.40%	33.40%	36.30%	Holding company	-	190	163	-5
Desarrollo Eólico las Majas VI, S.L.	Spain	45.00%	0.00%	45.00%	0.00%	Renewable energies	Joint venture	28	6	0
Ebury Partners Limited (consolidado) (d) (m)	United Kingdom	0.00%	44.06%	51.28%	50.41%	Payment services	Associated	781	55	-69
Energias Renovables de Ormonde 25, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	0	0	0
Energias Renovables de Ormonde 26, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	0	0	0

Santander

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (f)		Activity	Type of company	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020			Asset	Capital + reserves	Net results
Energias Renovables de Ormonde 27, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	0	0	0
Energias Renovables de Ormonde 30, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	1	0	0
Energias Renovables de Titania, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	0	0	0
Energias Renovables Gladiateur 45, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	0	0	0
Energias Renovables Prometeo, S.L.	Spain	0.00%	55.00%	55.00%	0.00%	Renewable energies	Joint venture	0	0	0
Euro Automatic Cash Entidad de Pago, S.L.	Spain	50.00%	0.00%	50.00%	50.00%	Payment services	Associated	57	46	-12
European Hospitality Opportunities S.à r.l. (o)	Luxembourg	0.00%	49.00%	49.00%	0.00%	Holding company	Joint venture	0	0	0
Evolve SPV S.r.l.	Italy	—	(h)	—	—	Securitizations	Joint venture	105	0	7
FAFER- Empreendimentos Urbanísticos e de Construção, S.A. (b) (e)	Portugal	0.00%	36.57%	36.62%	36.62%	Real estate	-	0	1	0
Federal Reserve Bank of Boston (b)	United States	0.00%	20.09%	20.09%	25.73%	Banking	-	194,429	1,573	-1
Fondo de Titulización de Activos UCI 11	Spain	—	(h)	—	—	Securitizations	Joint venture	133	0	0
Fondo de Titulización de Activos UCI 14	Spain	—	(h)	—	—	Securitizations	Joint venture	346	0	0
Fondo de Titulización de Activos UCI 15	Spain	—	(h)	—	—	Securitizations	Joint venture	426	0	0
Fondo de Titulización de Activos UCI 16	Spain	—	(h)	—	—	Securitizations	Joint venture	597	0	0

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

		% of ownership held by Banco Santander		Percentage of voting power (f)				EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Type of company	Asset	Capital + reserves	Net results
Fondo de Titulización de Activos UCI 17	Spain	—	(h)	—	—	Securitizations	Joint venture	517	0	0
Fondo de Titulización Hipotecaria UCI 12	Spain	—	(h)	—	—	Securitizations	Joint venture	189	0	0
Fondo de Titulización, RMBS Prado III	Spain	—	(h)	—	—	Securitizations	Joint venture	0	0	0
Fondo de Titulización, RMBS Prado IV	Spain	—	(h)	—	—	Securitizations	Joint venture	288	0	0
Fondo de Titulización, RMBS Prado IX	Spain	—	(h)	—	—	Securitizations	Joint venture	499	0	0
Fondo de Titulización, RMBS Prado V	Spain	—	(h)	—	—	Securitizations	Joint venture	309	0	0
Fondo de Titulización, RMBS Prado VI	Spain	—	(h)	—	—	Securitizations	Joint venture	340	0	0
Fondo de Titulización, RMBS Prado VII	Spain	—	(h)	—	—	Securitizations	Joint venture	481	0	0
Fondo de Titulización, RMBS Prado VIII	Spain	—	(h)	—	—	Securitizations	Joint venture	467	0	0
Fortune Auto Finance Co., Ltd	China	0.00%	50.00%	50.00%	50.00%	Finance company	Joint venture	3,181	384	61
Fremman limited	United Kingdom	33.00%	0.00%	4.99%	4.99%	Finance company	Associated	2	0	-3
Gestora de Inteligência de Crédito S.A.	Brazil	0.00%	17.98%	20.00%	20.00%	Collection	Joint venture	186	21	-10
Gire S.A.	Argentina	0.00%	57.93%	58.33%	58.33%	Payment and collection services	Associated	158	25	13
HCUK Auto Funding 2017-2 Ltd	United Kingdom	—	(h)	—	—	Securitizations	Joint venture	833	0	0

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

		% of ownership held by Banco Santander		Percentage of voting power (f)				EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Type of company	Asset	Capital + reserves	Net results
Healthy Neighborhoods Equity Fund I LP (b)	United States	0.00%	22.37%	22.37%	22.37%	Real estate	-	14	14	-2
Hyundai Capital UK Limited	United Kingdom	0.00%	50.01%	50.01%	50.01%	Finance company	Joint venture	4,338	323	79
Hyundai Corretora de Seguros Ltda.	Brazil	0.00%	44.96%	50.00%	50.00%	Insurance brokerage	Joint venture	1	0	0
Imperial Holding S.C.A. (e) (i)	Luxembourg	0.00%	36.36%	36.36%	36.36%	Securities investment	-	0	-112	0
Imperial Management S.à r.l. (b) (e)	Luxembourg	0.00%	40.20%	40.20%	40.20%	Holding company	-	0	0	0
Indice Iberoamericano de Investigación y Conocimiento, A.I.E.	Spain	0.00%	51.00%	51.00%	51.00%	Information system	Joint venture	1	-6	-1
Inmoalemania Gestión de Activos Inmobiliarios, S.A.	Spain	0.00%	20.00%	20.00%	20.00%	Holding company	-	0	0	0
Innohub S.A.P.I. de C.V.	Mexico	0.00%	20.00%	20.00%	20.00%	IT services	Associated	1	3	-2
Inverlur Aguilas I, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Real estate	Joint venture	0	0	0
Inverlur Aguilas II, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Real estate	Joint venture	1	1	0
Inversiones Ibersuizas, S.A. (b)	Spain	25.42%	0.00%	25.42%	25.42%	Venture capital	-	31	19	10
Inversiones ZS América Dos Ltda.	Chile	0.00%	49.00%	49.00%	49.00%	Real estate and securities investment	Associated	269	269	34
Inversiones ZS América SpA	Chile	0.00%	49.00%	49.00%	49.00%	Real estate and securities investment	Associated	395	396	35
J.C. Flowers I L.P. (b)	United States	0.00%	11.10%	0.00%	0.00%	Holding company	-	2	2	-1

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (f)		Activity	Type of company	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020			Asset	Capital + reserves	Net results
JCF AIV P L.P. (b)	Canada	0.00%	7.67%	4.99%	4.99%	Holding company	-	5	5	0
LB Oprent, S.A.	Spain	40.00%	0.00%	40.00%	38.33%	Industrial machinery rent	Associated	4	1	1
Loop Gestão de Pátios S.A.	Brazil	0.00%	32.10%	35.70%	35.70%	Business services	Joint venture	7	2	-1
Mapfre Santander Portugal - Companhia de Seguros, S.A.	Portugal	0.00%	49.94%	49.99%	49.99%	Insurance	Associated	13	8	-3
Massachusetts Business Development Corp. (consolidado) (b)	United States	0.00%	21.61%	21.61%	21.61%	Finance company	-	55	11	1
MB Capital Fund IV, LLC (b)	United States	0.00%	21.51%	21.51%	21.51%	Finance company	-	18	17	1
Merlin Properties, SOCIMI, S.A. (consolidado) (b)	Spain	19.07%	5.70%	24.77%	24.81%	Real estate investment	Associated	13,478	6,640	56
Metrovacesa, S.A. (consolidado) (b)	Spain	31.94%	17.50%	49.44%	49.45%	Real estate development	Associated	2,927	2,343	-164
New PEL S.à r.l. (c) (e)	Luxembourg	0.00%	7.67%	0.00%	0.00%	Holding company	-	0	0	0
NIB Special Investors IV-A LP (n)	Canada	0.00%	0.00%	0.00%	4.99%	Holding company	-	0	0	0
NIB Special Investors IV-B LP (n)	Canada	0.00%	0.00%	0.00%	4.99%	Holding company	-	0	0	0
Niuco 15, S.L. (k)	Spain	37.23%	0.00%	37.23%	37.23%	Technical services	-	0	0	0
Ocyener 2008, S.L.	Spain	0.00%	45.00%	45.00%	0.00%	Holding company	Associated	2	1	1
Operadora de Activos Beta, S.A. de C.V.	Mexico	49.99%	0.00%	49.99%	49.99%	Finance company	Associated	0	0	0

Santander

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (f)		Activity	Type of company	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020			Asset	Capital + reserves	Net results
Pag10 Fomento Mercantil Eireli	Brazil	0.00%	41.96%	46.67%	—	Factoring	Joint venture	0	0	0
Payever GmbH	Germany	0.00%	10.00%	10.00%	10.00%	Software	Associated	3	2	0
Play Digital S.A.	Argentina	0.00%	15.59%	15.70%	0.00%	Payment platform	Associated	11	23	-12
POLFUND - Fundusz Poręczeń Kredytowych S.A.	Poland	0.00%	33.70%	50.00%	50.00%	Management	Associated	28	20	0
Portland SPV S.r.l.	Italy	0.00%	(h)	0.00%	0.00%	Securitizations	Joint venture	234	0	0
Procapital - Investimentos Imobiliários, S.A. (c) (e)	Portugal	0.00%	39.96%	40.00%	40.00%	Real estate	-	2	13	0
Project Quasar Investments 2017, S.L. (consolidado) (b)	Spain	49.00%	0.00%	49.00%	49.00%	Holding company	-	6,984	2,638	-1,852
Promontoria Manzana, S.A. (consolidado) (b)	Spain	20.00%	0.00%	20.00%	20.00%	Holding company	Associated	1,068	319	-38
PSA Corretora de Seguros e Serviços Ltda.	Brazil	0.00%	44.96%	50.00%	50.00%	Insurance	Joint venture	0	0	0
PSA Insurance Europe Limited	Malta	0.00%	50.00%	50.00%	50.00%	Insurance	Joint venture	254	59	26
PSA Life Insurance Europe Limited	Malta	0.00%	50.00%	50.00%	50.00%	Insurance	Joint venture	110	13	20
Redbanc S.A.	Chile	0.00%	22.44%	33.43%	33.43%	Services	Associated	29	9	1
Redsys Servicios de Procesamiento, S.L. (consolidado)	Spain	24.90%	0.06%	24.96%	20.06%	Cards	Associated	108	71	4
Relevante e Astuto, S.A.	Portugal	0.00%	70.00%	70.00%	0.00%	Real estate management	Joint venture	5	0	0

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (f)		Activity	Type of company	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020			Asset	Capital + reserves	Net results
Retama Real Estate, S.A.	Spain	0.00%	50.00%	50.00%	50.00%	Services	Joint venture	30	-45	-1
Rías Redbanc S.A.	Uruguay	0.00%	25.00%	25.00%	25.00%	Services	-	3	1	0
RMBS Green Belem I	Portugal	—	(h)	—	—	Securitizations	Joint venture	309	0	0
S3 Caceis Brasil Distribuidora de Títulos e Valores Mobiliários S.A.	Brazil	0.00%	50.00%	50.00%	50.00%	Securities investment	Joint venture	207	143	18
S3 Caceis Brasil Participações S.A.	Brazil	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture	163	145	18
Sancus Green Investments II, S.C.R., S.A. (o)	Spain	0.00%	43.29%	43.29%	0.00%	Venture capital	-	0	0	0
Santander Alternatives SICAV RAIF (c)	Luxembourg	0.00%	48.03%	48.03%	100.00%	Investment company	-	13	12	0
Santander Assurance Solutions, S.A.	Spain	0.00%	66.67%	66.67%	73.99%	Insurance intermediary	Joint venture	10	4	1
Santander Auto S.A.	Brazil	0.00%	44.96%	50.00%	50.00%	Insurance	Associated	25	5	2
Santander Aviva Towarzystwo Ubezpieczeń na Życie S.A.	Poland	0.00%	33.03%	49.00%	49.00%	Insurance	Associated	299	20	21
Santander Aviva Towarzystwo Ubezpieczeń S.A.	Poland	0.00%	33.03%	49.00%	49.00%	Insurance	Associated	94	39	12
Santander Caceis Colombia S.A. Sociedad Fiduciaria	Colombia	0.00%	50.00%	50.00%	50.00%	Finance company	Joint venture	7	7	-1
Santander Caceis Latam Holding 1, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture	722	716	5
Santander Caceis Latam Holding 2, S.L.	Spain	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture	2	2	0

Santander

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander: Direct	Indirect	Percentage of voting power (f): Year 2021	Year 2020	Activity	Type of company	EUR million (a): Asset	Capital + reserves	Net results
Santander Generales Seguros y Reaseguros, S.A.	Spain	0.00%	49.00%	49.00%	49.00%	Insurance	Joint venture	732	206	39
Santander Mapfre Seguros y Reaseguros, S.A.	Spain	0.00%	49.99%	49.99%	49.99%	Insurance	Associated	90	57	-13
Santander Vida Seguros y Reaseguros, S.A.	Spain	0.00%	49.00%	49.00%	49.00%	Insurance	Joint venture	1,036	367	36
Sedesa Seguros de Depósitos S.A. (b)	Argentina	0.00%	13.47%	13.56%	0.00%	Fund management	-	2	2	0
Sepacon 31, S.L. (k)	Spain	37.23%	0.00%	37.23%	37.23%	Technical services	-	0	0	0
Servicios de Infraestructura de Mercado OTC S.A	Chile	0.00%	8.37%	12.48%	12.48%	Services	Associated	37	13	0
SIBS-SGPS, S.A. (b)	Portugal	0.00%	16.52%	16.55%	16.55%	Portfolio management	-	365	59	41
Siguler Guff SBIC Fund LP (b)	United States	0.00%	20.00%	20.00%	20.00%	Investment fund	-	8	1	0
Sistema de Tarjetas y Medios de Pago, S.A. (b)	Spain	20.61%	0.00%	20.61%	18.11%	Payment methods	Associated	673	4	0
Sistemas Técnicos de Encofrados, S.A. (consolidado) (b)	Spain	27.15%	0.00%	27.15%	27.15%	Building materials	-	89	14	0
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	107	36	1
Sociedad de Garantía Recíproca de Santander, S.G.R. (b)	Spain	25.35%	0.25%	25.60%	25.73%	Financial services	-	17	11	0
Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria, S.A. (b)	Spain	22.21%	0.00%	22.21%	22.21%	Financial services	-	27,586	230	-1,073
Sociedad Interbancaria de Depósitos de Valores S.A.	Chile	0.00%	19.66%	29.29%	29.29%	Securities deposit	Associated	7	6	1

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

		% of ownership held by Banco Santander		Percentage of voting power (f)				EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Type of company	Asset	Capital + reserves	Net results
Solar Maritime Designated Activity Company (b)	Ireland	—	(h)	—	—	Leasing	Joint venture	113	-7	0
Stephens Ranch Wind Energy Holdco LLC (consolidado) (b)	United States	0.00%	17.10%	17.10%	19.20%	Renewable energies	-	218	208	-7
Tbforte Segurança e Transporte de Valores Ltda.	Brazil	0.00%	17.06%	18.98%	19.81%	Security	Associated	101	62	2
Tbnet Comércio, Locação e Administração Ltda.	Brazil	0.00%	17.06%	18.98%	19.81%	Telecommunications	Associated	69	66	2
Tecban Serviços Integrados Ltda.	Brazil	0.00%	17.06%	18.98%	0.00%	IT services	Associated	0	0	0
Tecnologia Bancária S.A.	Brazil	0.00%	17.06%	19.81%	19.81%	ATM	Associated	428	115	26
Tikgi Aviation One Designated Activity Company	Ireland	—	(h)	—	—	Renting	-	224	-2	1
Tonopah Solar Energy Holdings I, LLC (consolidado) (b)	United States	0.00%	26.80%	26.80%	26.80%	Holding company	Joint venture	0	0	0
Trabajando.com Chile S.A.	Chile	0.00%	33.33%	33.33%	33.33%	Services	Associated	2	-1	1
Transbank S.A.	Chile	0.00%	16.78%	25.00%	25.00%	Cards	Associated	1,366	101	-13
Tresmares Growth Fund II, SCR, S.A.	Spain	40.00%	0.00%	40.00%	40.00%	Holding company	-	49	45	-2
Tresmares Growth Fund III, SCR, S.A.	Spain	40.00%	0.00%	40.00%	40.00%	Holding company	-	38	34	-2
U.C.I., S.A.	Spain	50.00%	0.00%	50.00%	50.00%	Holding company	Joint venture	448	127	-6
UCI Hellas Credit and Loan Receivables Servicing Company S.A.	Greece	0.00%	50.00%	50.00%	50.00%	Financial services	Joint venture	1	1	0

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

Company	Location	% of ownership held by Banco Santander		Percentage of voting power (f)		Activity	Type of company	EUR million (a)		
		Direct	Indirect	Year 2021	Year 2020			Asset	Capital + reserves	Net results
UCI Holding Brasil Ltda.	Brazil	0.00%	50.00%	50.00%	50.00%	Holding company	Joint venture	1	0	0
UCI Mediação de Seguros Unipessoal, Lda.	Portugal	0.00%	50.00%	50.00%	50.00%	Insurance brokerage	Joint venture	0	0	0
UCI Servicios para Profesionales Inmobiliarios, S.A.	Spain	0.00%	50.00%	50.00%	50.00%	Real estate services	Joint venture	1	0	0
Unicre-Instituição Financeira de Crédito, S.A.	Portugal	0.00%	21.83%	21.86%	21.86%	Finance company	Associated	409	99	20
Unión de Créditos Inmobiliarios, S.A., EFC	Spain	0.00%	50.00%	50.00%	50.00%	Mortgage credit company	Joint venture	11,294	459	7
VCFS Germany GmbH	Germany	0.00%	50.00%	50.00%	50.00%	Marketing	Joint venture	1	0	0
Venda de Veículos Fundo de Investimento em Direitos Creditórios	Brazil	—	(h)	—	—	Securitizations	Joint venture	107	103	4
Volvo Car Financial Services UK Limited	United Kingdom	0.00%	50.01%	50.01%	50.00%	Leasing	Joint venture	927	81	-4
Webmotors S.A.	Brazil	0.00%	62.94%	70.00%	70.00%	Services	Joint venture	54	32	10
Zurich Santander Brasil Seguros e Previdência S.A.	Brazil	0.00%	48.79%	48.79%	48.79%	Insurance	Associated	11,892	365	106
Zurich Santander Brasil Seguros S.A.	Brazil	0.00%	48.79%	48.79%	48.79%	Insurance	Associated	156	-2	29
Zurich Santander Holding (Spain), S.L.	Spain	0.00%	49.00%	49.00%	49.00%	Holding company	Associated	1,182	936	246
Zurich Santander Holding Dos (Spain), S.L.	Spain	0.00%	49.00%	49.00%	49.00%	Holding company	Associated	587	384	204
Zurich Santander Insurance América, S.L.	Spain	49.00%	0.00%	49.00%	49.00%	Holding company	Associated	1,996	1,490	475

Societies of which Grupo Santander owns more than 5% (g) , entities associated with Grupo Santander and jointly controlled entities

		% of ownership held by Banco Santander		Percentage of voting power (f)				EUR million (a)		
Company	Location	Direct	Indirect	Year 2021	Year 2020	Activity	Type of company	Asset	Capital + reserves	Net results
Zurich Santander Seguros Argentina S.A. (j)	Argentina	0.00%	49.00%	49.00%	49.00%	Insurance	Associated	60	18	18
Zurich Santander Seguros de Vida Chile S.A.	Chile	0.00%	49.00%	49.00%	49.00%	Insurance	Associated	213	23	30
Zurich Santander Seguros Generales Chile S.A.	Chile	0.00%	49.00%	49.00%	49.00%	Insurance	Associated	249	45	13
Zurich Santander Seguros México, S.A.	Mexico	0.00%	49.00%	49.00%	49.00%	Insurance	Associated	887	34	88
Zurich Santander Seguros Uruguay S.A.	Uruguay	0.00%	49.00%	49.00%	49.00%	Insurance	Associated	32	14	7

a. Amount according to the provisional books at the date of publication of these annexes of each company generally referring to 31 December 2021, unless otherwise indicated because the annual accounts have not yet been prepared. Data for foreign companies are converted into euros at the year-end exchange rate.
b. Data as at 31 December 2020, latest available accounts.
c. Data as at 31 December 2019, latest available accounts.
d. The Group is entitled to receive 51.28% of the dividends distributed by the company.
e. Company in liquidation as at 31 December 2021.
f. 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.
g. 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).
h. Companies over which joint control is maintained.
i. Data as at 31 October 2020, latest available accounts.
j. Data as at 30 June 2021, latest available accounts.
k. Company with no financial information available.
l. Data as at 30 November 2018, latest available accounts.
m. Data as at 30 April 2021, latest available accounts.
n. Company in liquidation. Pending registration.
o. Company recently incorporated, no accounts available.

Santander

Appendix III

Issuing subsidiaries of shares and preference shares

Company	Location	% of ownership held by Banco Santander		Activity	EUR million (a)			
		Direct	Indirect		Capital	Reserves	Cost of preferred	Net results
Emisora Santander España, S.A. Unipersonal	Spain	100.00%	0.00%	Finance company	2	—	—	—
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	4,931	(3,219)	43	74

a. Amount according to the books of each interim company as at 31 December 2021, converted into euro (in the case of foreign companies) at the year-end exchange rate.

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

Deduction for reinvestment of extraordinary income corresponding to the companies of the Fiscal Consolidation Group, whose dominant was Banco Popular Español, S.A.U.

Based on the provisions of the Transitional Provision 24th of Law 27/2014 on income eligible for the reinvestment of extraordinary profits provided for in article 42 of the previous Consolidated Text of the Corporation Income Tax Law, which states that such income shall be regulated by the provisions of the aforementioned article 42, and in particular compliance with paragraph 10 of that provision, which provides for the obligation to detail the amount of the income received from the deduction provided for in that Article, as well as the year in which the reinvestment took place, all of this as long as the period for maintaining the investment has not yet been met provided for in paragraph 8 of the aforementioned provision, the following information is collected concerning capital gains generated up to the financial year 2014, with a reinvestment period from the year 2014 to 2017.

The detailed information refers to both Banco Popular and other companies in its Fiscal Consolidated Group up to 2017, inclusive, which obtained income eligible for the reinvestment deduction and/or have made investments in assets referred to in Article 42 (3).

Amount of income received to the 12% deduction in 2017: EUR 21,333,543.67.

Reinvestments made in 2017: EUR 47,546,533.73.

Appendix VI

List of Transactions subject to the Special Regime for Mergers, Divisions, Assets Contributions and Exchange of Securities in which the company has acted as an Acquiring Entity or Partner

In compliance with the reporting obligations established in Article 86 of Law 27/2014, of 27 November, on Corporate Tax (LIS), the following information is provided on the transactions subject to the tax regime of mergers, divisions, contributions of assets and exchange of securities, provided for in Chapter VII of Title VII of the LIS, in which BANCO SANTANDER, S.A. has intervened during 2021:

I. According to Article 86 (1) of the LIS, it is reported that the company BANCO SANTANDER, S.A. has intervened as an acquirer in the following transactions:

- Merger by absorption of POPULAR SPAIN HOLDING DE INVERSIONES S.L.U., SANTANDER INVESTMENT I S.A.U. and ADMINISTRACIÓN DE BANCOS LATINOAMERICANOS SANTANDER S.L., by BANCO SANTANDER, S.A. which owned all the shares of the absorbed entities, directly or indirectly. This transaction constitutes a merger as regulated in Article 76.1.c) of the LIS. The information required by Article 86.1 of the LIS is included in these notes to the consolidated financial statements.

II. According to Article 86 (2) of the LIS, it is reported that BANCO SANTANDER, S.A. has intervened as a partner in the following operations:

- Merger by absorption of SANTANDER GLOBAL OPERATIONS, S.A., SOCIEDAD UNIPERSONAL by SANTANDER GLOBAL TECHNOLOGY AND OPERATIONS, S.L., SOCIEDAD UNIPERSONAL (formerly SANTANDER GLOBAL TECHNOLOGY, S.L., SOCIEDAD UNIPERSONAL). This transaction constitutes a merger as regulated in article 76.1.a) of the LIS. BANCO SANTANDER, S.A. had a full shareholding in the capital of both the absorbed company and the absorbing company. The book value of the securities delivered from SANTANDER GLOBAL OPERATIONS, S.A., SOCIEDAD UNIPERSONAL was EUR 23,619,104.29. The value at which BANCO SANTANDER, S.A. has accounted for the securities received in the entity SANTANDER GLOBAL TECHNOLOGY AND OPERATIONS, S.L., SOCIEDAD UNIPERSONAL is EUR 23,619,104.29.
- Segregation of the autonomous economic unit that integrates the business of management of empty bank branches, with project of closure or leased to third parties not linked to the banking activity of BANCO SANTANDER, S.A. in favor of a newly created company called RETAILCOMPANY 2021, S.L.U. This operation constitutes a spin-off of those regulated in article 76.2.1ºb) of the LIS. The net value of the assets and liabilities corresponding to the branch of activity contributed amounts to EUR 262,030,688.77. The value at which BANCO SANTANDER, S.A. has recorded the securities received from RETAILCOMPANY 2021, S.L.U. is EUR 262,030,688.77.
- Exchange of securities regulated in articles 76.5 and 80 of the LIS by which PAGONxt, S.L. acquires most of the voting rights (51%) in the entity GETNET EUROPE, ENTIDAD DE PAGO, S.L. (formerly called SANTANDER ESPAÑA MERCHANT SERVICES ENTIDAD DE PAGO S.L.) through the attribution to its partner BANCO SANTANDER, S.A., of securities representing the acquiring entity. The book value at which BANCO SANTANDER, S.A. had accounted for the securities delivered from GETNET EUROPE, ENTIDAD DE PAGO, S.L. was EUR 94,452,410.36. The value at which BANCO SANTANDER, S.A. has accounted for the securities received from PAGONxt, S.L. is EUR 110,111,550.00.
- Exchange of securities regulated in articles 76.5 and 80 of the LIS by which PAGONxt, S.L. acquires a greater shareholding (it already held the majority) of the voting rights in the entity PAGONxt MERCHANT SOLUTIONS S.L. This transaction is executed as a contribution to reserves made by the partners, consisting of a non-monetary contribution by BANCO SANTANDER, S.A. of the shares of PAGONxt MERCHANT SOLUTIONS S.L. (representing a 39.4% share of the share capital of this company and of its voting rights). The book value at which BANCO SANTANDER, S.A. had recorded the securities delivered from PAGONxt MERCHANT SOLUTIONS S.L. was EUR 295,504,952.66, while their tax value amounted to EUR 594,734,704.60, the difference corresponding to a mark-to-market adjustment made in BANCO SANTANDER, S.A. as a result of the spin-off operations that gave rise to the acquisition of the holdings (article 17.4 of the LIS). The value at which BANCO SANTANDER, S.A. has recorded the securities received from PAGONxt, S.L. is EUR 295,504,952.66.

- Non-monetary contribution regulated in article 87 of the LIS by which PAGONxt, S.L. acquires a participation (49%) in the entity GETNET EUROPE, ENTIDAD DE PAGO, S.L. (formerly called SANTANDER ESPAÑA MERCHANT SERVICES ENTIDAD DE PAGO S.L.) through the attribution to its partner BANCO SANTANDER, S.A., of securities representing the acquiring entity. The book value at which BANCO SANTANDER, S.A. had accounted for the securities delivered from GETNET EUROPE, ENTIDAD DE PAGO, S.L. was EUR 90,748,394.22. The value at which BANCO SANTANDER, S.A. has accounted for the securities received from PAGONxt, S.L. is EUR 104,924,000.
- Non-monetary contribution of assets by BANCO SANTANDER, S.A. and ALTAMIRA SANTANDER REAL ESTATE, S.A. to LANDCOMPANY 2020, S.L. This transaction constitutes a non-monetary contribution as regulated in article 87 of the LIS and did not benefit from the regime provided for in article 77.1 of said regulation. The net value of the assets contributed amounts to EUR 20,998,930.00. The value at which BANCO SANTANDER, S.A. has accounted for the securities received from LANDCOMPANY 2020, S.L. is EUR 20,998,930.00.

III. In compliance with Article 86.3 of the LIS, it is noted that the particulars required by Article 86 (1) and (2) relating to transactions subject to the tax regime for mergers, divisions, contributions of assets and exchange of securities provided for in Chapter VII of Title VII of the LIS, in which BANCO SANTANDER , S.A. has intervened as an acquirer or as a partner during previous years, they are listed in the first annual report approved after each of the aforementioned operations.

Appendix VII

Information to include in compliance with Article 12.3 of the TRLIS

Regarding the information requested in Article 12.3 of the Consolidated Text which passes on the Corporate Income Tax Law as amended by Law 4/2008 of December 23, 2008, regarding tax periods whisch began on January 1, 2008, until its repeal by Law 16/2013 of October 29, 2013, Banco Santander has no deductions pending to integrate as of year-end 2021.

Appendix VIII

Information regarding the merger by absorption of Popular Spain Holding de Inversiones, S.L.U., Santander Investment I, S.A.U. and Administración de Bancos Latinoamericanos Santander, S.L., pursuant to Article 86.1 of the Corporate Income Tax Law 27/2014.

a. A year in which the transferring entity acquired the transferred assets that are liable to amortization.

There are no assets in Santander Global Property, S.L.U. and BPE Financiaciones, S.A.U. entities that are subject to amortization.

There are no assets at Popular Spain Holding de Inversiones, S.L.U., Santander Investment I, S.A.U. and Administración de Bancos Latinoamericanos Santander, S.L. that are subject to depreciation.

b. Last balance sheet closed by transmitting entities.

The latest balance sheets of transmitting entities are contained in note 1.i.

c. A list of assets acquired which have been incorporated into the accounting books for a value other than the value listed in the transferring entity prior to the completion of the transaction, expressing both values as well as the value corrections made in the accounting books of the two entities.

The following is a detail of the asset captions in the balance sheet of the transferring entity that have been recorded at a different carrying amount in the acquiring entity:

EUR thousand

Heading	Book value Santander Investment I, S.A.U.	Merge Value Adjustment	Book value Banco Santander
Investments in subsidiaries, joint ventures and associates	1,857	227	2,084

EUR thousand

Heading	Book value Administración de Bancos Latinoamericanos Santander, S.L.	Merge Value Adjustment	Book value Banco Santander
Investments in subsidiaries, joint ventures and associates	576	176	752

d. List of tax profits enjoyed by the transferring entity, for which the acquiring entity must assume compliance with certain requirements.

There are no tax benefits in the transferring entity over which Banco Santander, S.A. must assume compliance with certain requirements.

Appendix IX

Agent network - Collaborating agents, Agents empowered at 31 of December 2021.

NEOBAN SL	GONZALO MARTINEZ-CAÑAVATE GOMEZ-MILLAN	VINUESA & MOCHON 2014, S.L.L.
BERCAMLU S.L.	MAYKA GONZALEZ HEREDIA	ISAMER FINANCIEROS S.L.
SALVADOR CEA PEREZ	LIDIA MONTILLA GONZALEZ	ABU ROAD, S.L.
FRANCISCO JAVIER MARTINEZ FERNANDEZ	JOSEFA SIMON YEBENES	RODRIGUEZ CALS FINANCIERA S.L.
ANTONIO GUILLEN RAMIREZ	MANUEL BARRIGA DORADO	GESTIÓN FINANCIERA MALACITANA 2007 S.L.
MARIA DE LOS ANGELES ESCUDERO ORTEGA	FERNANDO GONZALEZ SANCHEZ	RC 2007 FINANCIEROS SL
ALBERTO SANTIAGO LLORENTE MARTINEZ	CORDOBESA DE INVERSIONES PUNTAS LEÓN S.L.	ESTEPONA FINANCIEROS, S.L.
JOSE ANTONIO ESCUDERO ORTEGA	AAFF RUTE S.L.	MIGUEL ANGEL CASASOLA CASASOLA
JOAQUIN GALVEZ RODRIGUEZ	FINANTOR 2017, S.L.	AGUEDA MARTIN RAMIREZ
CRISTOPHER DIAZ MUÑOZ	ROLARG SERVICIOS FINANCIEROS, S.L.	FRANCISCO JOSE LOPEZ SILVENTE
IVAN PEREZ VARGAS	BURMA AGENTES FINANCIEROS S.L.	SOLEDAD LAMBERTO GARCIA
SIMO CONSULTORIA SL	MONICA CARRANZA S.L.U.	GESTIONES MORENO E HIJOS S.L.
ALICIA MATILDE LOPEZ FRANCO	TINTO SANTA ROSA S.L.	ANTONIO MARIN VALIENTE
RAFAEL JESUS VILLARREAL ARIZA	SERSAF S.L.	ANTONIO ALFONSO HERRERA RAMIREZ
SARA GIL LECHADO	BOPECON INVERSIONES S.L.	ANTONIO CEREZUELA RUIZ
FANDILA GARCIA ZAMORA	CHARUMA S.L.	FRANCISCO JOSE GARCIA MORA
CARBALLO & CARO 2019, S.L.	CETINVE, S.L.	MULTIALGAIDA, S.L.
ERNESTO MARTINEZ FERNANDEZ	TREZAVILLA SLU	MARIA LUISA PEREZ GUILLEN
ISAMAR ORDOÑEZ MUÑOZ	SANPIBO SL	CRISTINA NADALES PEREZ
BRIGIDA MARIA ROMERO SALADO	NUBARPOL S.L.	NATALIA FERNANDEZ SANCHEZ
FRANCISCA MARIA LOPEZ PEREZ	SERVICIOS FINANCIEROS SANLO, S.L.	SERVICIOS FINANCIEROS PEDRO ABAD, S.L.
	GRANDERSAN SLU	JOSE MARIN PEREZ

Santander

JUAN CARLOS GOMEZ GARCIA	MARIA JESUS MARTIN RODRIGUEZ	NAVARRETE GESTION 2018 SL
ANGEL LOPEZ RODRIGUEZ	JOSE CABRERA COSANO	JOAN FELIU PUIGVERT
JOSE MANUEL GUEVARA GONZALEZ	JOMICACE, S.L.	MARIA DEL CARMEN NIEVES MARTINEZ
SERVICIOS FINANCIEROS DEL CONDADO S.L.U.	MANUEL DOMINGUEZ BEATO	MARIA DEL PILAR RAMIREZ DIEZ
ASESORIA GESTION GLOBAL S.L.	SEBASTIAN PAVON CAMPOY	MARIA HERNANDEZ ALONSO
ANA MARIA DIAZ SANTANA	JUAN PEDRO BENITEZ GARCIA	LANZA MENDOZA GESTION FINANCIERA, S.L.
NURIA MONTERO GONZALEZ	MARIA BELEN GONZALEZ RAMIREZ	LOURDES GIMENO TIRADO
MARIA ISABEL GARCIA GONZALEZ	MARIA CONCEPCION TELLEZ RUIZ	GEMMA ARRUFAT RAFALES
FRANCISCO JAVIER ORTIZ CASTILLO	GRUPO ALMARES 2015 S.L.	JOSE GABRIEL PASTOR MANZANO
MARIA ANTONIA POZA GARCIA	SERGIO MUÑOZ RAMIREZ	DIEGO CARCAS SANCHEZ
NURIA FERNANDEZ REYES	ROCIO BELTRAN ZAFRA	ELSA TORRES MOLINA
MARIA DEL PILAR PLAZA MUÑOZ	FERNANDO POLO MATEOS	IRENE ABIZANDA VAL
MARIA JOSE CHARNECO HERRERO	PLAZA SERVICIOS FINANCIEROS SL	MARIA JOSE AUSEJO MARTINEZ
ANTONIO ESCUDERO VILLAREJO	CARLOS GAVIN LORIENTE	MARIA AURORA TORRES GARCIA
CARMEN PINTO DIAZ	JOSE ANTONIO GARCIA CHINCHETRU	LAURA MARTINEZ ZUBIRI
LOURDES ROMERO LOPEZ	MARIA PILAR UROZ PASCUAL	ALVARO MOLINER ABADIA
REQUERTILLO, S.L.	HECTOR EDO ALEGRE	SERGIO URDANIZ GARBAYO
JUAN LEON NAVARRETE	ALCARRAZ PERALTA, S.L.	IGNACIO SAGÜETA URTASUN
SERVICIOS INTEGRALES DOÑANA S.L.	ANA BELEN PAMPLONA CALAHORRA	ANA ISABEL MONTULL CACHO
MARIA DOLORES MORIANA RODRIGUEZ	JAVIER GURIDI EZQUERRO	OSCAR MANUEL MATA VIDAL
RICARDO PIÑERO GARCIA	MARIA ELENA TREMPS ALDEA	MIRIAM GARCIA ALFARO
FRANCISCO CASTILLO CONTRERAS	LIDYA FERNANDEZ AMURRIO	SARA MORALES ECHEVERRIA
MARIA VICTORIA POVEDA DIOS	MAXIMO PLUMED LUCAS	MANUEL GARCIA MONTOLIO

BELEN PALACIO TORRES	BEATRIZ SERRANO SAN PEDRO	GONZALEZ Y NAVES, S.L.
MARIA EUGENIA GONZALEZ SANCHEZ	RAUL RIVAS VAL	ALVARO DIAZ ASTARLOA
MARIA DANIELA URUÑUELA NAJERA	SAIORA ELISABET GARCIA URZAINQUI	RAMON ARENAS NUÑEZ
JOSE JAVIER MAZUELA CREGO	OLAIA SAN MIGUEL MICHELENA	ALMUDENA GONZALEZ GALLEGO
VICTOR JIMENEZ VERANO	SHEILA DEL BARRIO SAENZ	VICTOR GONZALEZ CABO
Oliver Labarta S.L.	ANGELA FIGAROLA TARDIU	NOELIA MARTIN BOLIVAR
ANA MARIA RUBIO PALACIOS	JUAN ROSSELLO AMENGUAL	FRANCISCO JOSE VIEJO GONZALEZ
ROSA MARIA POBLADOR ASENSIO	MARMA MALLORCA, S.L.	JAVIER TERAN CAMUS
LAURA ALTABA ASENJO	MARIA JOSE DE LA DUEÑA FUSTER	DAVID GONZALEZ SANZ
FINANZAS ALLOZA S.L	ERNESTO DOMINGUEZ SLU	OLGA LLORENTE DA COSTA
JOSE DANIEL GARCES VIRGOS	MARIA ANTONIA BARCELO AMENGUAL	HELLEN JANETH MENDEZ MURCIA
ADRIAN MILIAN GONZALEZ	ANGEL MOLLEDA VELEZ	OSCAR MANUEL ALFAGEME MARTIN
INTERMEDIACION NASARRE S.L.	MIGUEL SUAREZ RODRIGUEZ	HECTOR DIAZ DIEZ
JESUS QUINTANA MAULEON	LIDIA RIVAS JODAR	MARIA VISITACION BECARES MARTINEZ
PASCUAL HIGINIO DOMINGO PEÑA	MARIA DE LOS ANGELES RODRIGO GUTIERREZ	LUIS MIGUEL VEGA JANILLO
CLARA URGEL CASEDAS	MARIA FERNANDEZ DE LA UZ	EMILIO MARTIN LANCHAS
LAURA COMENGE HIGUERAS	PEDRO CONDE DIEZ	MARIA SASTRE GONZALEZ
MARIA MERCEDES SALAS BAENA	PATRICIA RODRIGUEZ ALONSO	0880 SANTANDER SANTIBAÑEZ, S.L.
MARIA ESTHER FERRANDEZ PARDOS	RAQUEL RIVERA PALACIO	PABLO HERRERO ALONSO
PRISCILA CRISTOBAL MALO	JAVIER COBO GARCIA	MARIA MANUELA SANCHEZ CASTAÑO
SERGIO BUIL GARCIA	CARLA SANJULIAN MENDEZ	DAVID LOPEZ-GAVALO GAGO
ALEJANDRO IBAÑEZ LERA	BUSINESS AND PERSONAL SERVICE S.A.	ALBERTO RIAÑO MOROCHO
JOSE JAVIER SALAVERRI MARTINEZ	LAP ASTURIAS S.L.	ARCADIO SAEZ SANZ

RAUL DE PABLO DEL OLMO

FRANCISCO ALBARRÁN PELAYO

RAQUEL BARBA ARRANZ

JAIME RIVERO CALVO

1321 SANTANDER LA ALBERCA S.L.

MARIA VICTORIA IGLESIAS MATEOS

RAQUEL GAVELA SANCHEZ

JUAN MANUEL CASTRO FANEGO

ÓRDAS CASADO S.L.

MARTA ISABEL MARTINEZ ESCOBAR

FERNANDO ENRIQUE RODRIGUEZ PEREZ

MARIA TERESA SALGADO RODRIGUEZ

MARIA VICTORIA DURAN ALVEZ

MADRIGAL FINANCIERO SL

BEATRIZ GALLEGO MARTIN

JESUS CANTON GONZALEZ

VANESA VEGA BLANCO

CRISTINA GONZALEZ MARTIN

MARIA SALOME DE LA ROSA DIEZ

SONSOLES RIVERO HERNANDEZ

FERNANDO AREVALO GOMEZ

JORGE ALONSO ARRIBAS

MARIA TERESA FRUTOS BERNAL

ASUNCION MATEOS PASCUAL

MARIA ELENA BRAVO SAN INOCENTE

2927 GESTION SANTANDER SL

40165 AGENTE COLABORADOR PRADENA, S.L.

ALBA SANCHEZ MATEOS

MARIA INES VALCUENDE GARMON

AGUSTINA AGUDO FRANCIA

IGNACIO MARIA ANTOLIN FERNANDEZ

JULIANA BERLANA DEL POZO

MARIA VICTORIA SAN ROMAN FERNANDEZ

NOELIA SANZ VILLARREAL

JORGE APARICIO GONZALEZ

ANGELA MAGDALENO GONZALEZ

ALBERTO MORAN PEREZ

EDUARDO GONZALEZ MARTIN

ALBARRAN FIGAL S.L.

GONZALO PEREZ JOSE

MARIA ELISA ROSON FERRERO

MARTA HERNANDEZ PEREZ

ANA MARIA SIERRA HERNANDEZ

JONATAN PEREZ DE DIOS

A.C. SANTOVENIA DE PISUERGA SL.

PABLO ALVAREZ CORTIÑAS

BEATRIZ GARRIDO SANTANDER S.L.

24198 SANTANDER LA VIRGEN DEL CAMINO, S.L.

JOSE MARIA CABERO MATA

GESBANCYL, S.L.

JOSE BERZAL MIGUEL

4079 SANTANDER-SACRAMENIA S.L.

PEDRO CUESTA BAUTISTA

6155 SANTANDER LEDESMA, S.L.

SUSANA CASADO FERRERO

CLARA HERNANDEZ NOVOA

MARCIAL SANTOS SANCHEZ

6395 Poyales del Hoyo Agente Colaborador S.L.

JOANA LOPEZ ROZAS

ANA MARIA SAN MILLAN COBO

IGNACIO ARROYO RODRIGUEZ

SANTOS BOL GARCIA

NURIA COBELO DE ANDRES

MARIA DEL CARMEN CAMUS SAN EMETERIO

MIGUEL ANGEL PRIETO CORDERO

A.C. LAGUNA DE NEGRILLOS S.L.

MERINO LOBATO S.L.

MARIA MERCEDES GUZON LIEBANA

JACINTO MANUEL PALOMERO PALOMERO

MARIA DEL SOCORRO BENAVIDES SANCHEZ

GESTION SANTANDER CARBAJOSA, S.L.

MIKEL ANDRES SANCHEZ CASTILLO

BENEDICTO GUTIERREZ BERNAL

MARIA AUXILIADORA PEREZ SERRADA

ANNA LOURDES MATEOS SANCHEZ

ARACELI GONZALEZ MEJIAS

JUAN ANTONIO ARRIBAS CRISTOBAL

ANA MARIA MARTIN LOBO

MARCOS ASENJO HERNANDO

AREVALO Y MONGE, S.L.

EDUARDO LERONES AGUADO

MIRIAM CARRO HERNANDO

JUAN ANTONIO SALGADO HERNANDEZ

ALICIA FADRIQUE PICO

MARTA MARIA GARCINUÑO CASELLES

GESTION INTEGRAL SANTANDER, S.L.

ENRIQUE Y SINDE ASOCIADOS SL

MARIA TERESA RODRIGUEZ FUENTES

LORENA HERNANDEZ ATIENZA

CARLOS GARCIA RODRIGUEZ

ANGEL ARMENTEROS CUESTA

JESUS BERZAL MIGUEL

JOSE GARDUÑO CALVO

MARIA ANTONIA ROVIROSA PIÑOL

MIGUEL JOSE MALAVE FERNANDEZ

GERENCIA & DESARROLLO DE SUCURSALES S.L.

OLGA MARIA SANCHO ARASA

SERGIO LORENZO RODRIGUEZ

MARIA DOLORES MORERA SOLA

ANTONI MONSO BONET

MANUELA BUERA GILABERT

MATEU & SANTANDER, S.L.

MARIA AFRICA CARDIEL COLL

MONTSERRAT SABATE BORRELL

ERIC NADAL GRIFOL

ALEXANDRE COLL QUINTANA

ISABEL OLMO VIBORAS

PABLO GODAYOL RUIZ

DAVID RIDER JIMENEZ

MARIA PILAR ALMARAZ FERNANDEZ

AGUSTI MONTANE DELCOR

MARIA ROSA BERTRAN CASALS

AMALIA GEMMA AGUILAR CASAS

OSCAR BLANCO CID

ESTEVE UTSET BADIELLA

EDUARD RAMON NADEU ABENOZA

VIRGINIA LEDESMA ARCOS

JIA AGENTS SL

MARIA DOLORES ROCA BLANCH

DAMIÁ RIERA ALBAREDA

DIPTOS, S.L.

PILAR UREÑA QUEROL

GESTION INVERGARA S.L.

MARTI FORTUNY PLANAS

FINANZAS SAN ANDRÉS S.L.

ALBALATE SERVICIOS FINANCIEROS Y DE GESTION

EVA CASAHUGA FUSET

SISMOINT, S.L.

EMA VILATORRADA 2007, S.L.

MATARÓ ASESORES LEGALES Y TRIBUTARIOS, S.L.

BANEST BLANES, S.L.

Glinkgo Biloba Properties S.L.

SERVEIS FINANCERS DE BANYOLES, S.L.

PUNT FINANCER GESTIO I ASSESSORAMENT, S.L.

DAVID OLMO FORTE

ANA MARIA JIMENEZ AGUAYO

CRISTINA HUERTOS CABEZA

INVERSIONES TERRA FERMA, S.L.

FINANCERES ARO, S.L.	OSCAR PLANES NOVAU	ANABEL SANCHEZ MARTIN
FRANQUICIES FINANCERES LLEIDA S.L.	ANTONIO DE PADUA BELLAUBI MIRO	CECILIO ALVARADO GARCIA
GRUP BBR GESTIO PRIVADA, S.L.	MARC MAYORAL SERRET	ANA MARIA LOPEZ OVEJERO
ALEIX SUBIRA SOLER	JOSE MARIA FONT VILASECA	MARIA CARMEN CIUDAD MORENO
PAU FONT RODES	ANNA SANS GARDEÑES	JOSE IGNACIO BORDALLO MEDINA
MONTSERRAT OLIVA MANDAÑA	SONIA ROIGE VIDAL	PATRICIA GUIJO LOZANO
INMACULADA SAHUN JOVE	ANTONIO FORNOS ISERN	OSCAR RODRIGUEZ ROMERO
INVERSIONS RIBAGORÇA S.L.	PALMIRA RODRIGUEZ PEREZ	MERCEDES GARCIA DURAN
TANIA GELPI ESCANDIL	ANTONIO VICO ARCE	MARIA PILAR FERNANDEZ CARRASCO
JORDI BRULL MARGALEF	ABEL ISERN ROIG	LOURDES IGLESIAS ALONSO
BBR BATEA GROUP S.L.	GUADALUPE FORNE TENA	RAFAEL SALGUERO VARGAS
AAFF OLESA 2019,S.L.	JOAQUIN SERRA BERTRAN	ALBERTO VAZQUEZ OLMEDA
SUSANA MARIA JOVANI BELTRAN	MARIA BELEN GARCIA BLANCO	MARIA ROSA AMPARO BLAZQUEZ FRAILE
INGRID QUILES SANCHEZ	JORDI ALUJA OSSO	JUAN MIGUEL ALFARO GONZALEZ
ELISABET PUGA JODAR	OFICINA 6788, S.L.	FELIX ALFONSO TORRADO DIAZ
ELOY HARO ROMERO	ENRIC PUJOL ROVIRA	VICTOR MANUEL DIAZ MARRON
MYRIAM ALPAÑEZ PINO	CRISTINA PURROY CASTELLO	VICTOR TOME LLANOS
FELIPE PARRA CARRERA	OSCAR MUSTE ROIG	ALICIA ESTEBAN GARRIDO
JAUME VEGAS BAUTISTA	MARIA LUISA VALIENTE LORENZO	ANGELICA MONTERO ASENSIO
MANUEL MOLINA ESTEBAN	ROBERTO MARTIN RIVERO	VIRGINIA CASTAÑO GONZALEZ
ROSA MARIA PADROS ANGUITA	SAUL ANTONIO TOVAR ASENSIO	ALEJANDRO GOMEZ CORRALES
DANIEL TORRES MUIXI	PATRICIA FRIERO BRAGADO	MARIA ANGELICA RODRIGUEZ OLIVEROS
DANIEL LIENAS GRANDE	MONICA LIBERAL CAMISÓN	CARLOS MIGUEL GIJON MELENDEZ

SERVICIOS FINANCIEROS CERES SL	LAURA MARTIN PALOMO	MARIA LUZ IMIA RIVERA
MARIA MERCEDES GARCIA SANTANA	OLMO JULIAN PUERTO FERNANDEZ	JOSE LUIS EXPOSITO PITA
JUAN MANUEL MARTIN DURAN	SERVICIOS FINANCIEROS AHIGAL, S.L.	PAULA EIRIZ OTERO
REYES MARTIN MORENO	CARLOS RUIZ BURDALO	CONCEPCION ISOLINA SOMOZA CALVIÑO
ANA MARIA GARCIA DOMINGUEZ	VIRGINIA VELASCO MAJADA	PATRICIA SOUTO LOPEZ
FELIX CARPINTERO DELEITO	LAURA FERNANDEZ TORIBIO	OSCAR PARDAL ANIDO
MARIA DEL CARMEN LEDESMA COUTO	AMBROSIO TORNAVACAS VINAGRE	JOSE LUIS COUCEIRO DORELLE
JULIAN HERNANDEZ RANZ	BELEN GONZALEZ BERMEJO	SERBAN AGUIÑO S.L.
JOSE CARLOS VENERO TANCO	DAMIAN CEBALLOS SORIA	JOSE ALFONSO FUENTE PARGA
MIGUEL RODRIGUEZ GARCIA	MARIA TRINIDAD BRIEVA DOMINGUEZ	NATALIA DIOS OUTEDA
ARCADIO PAREDES ROMERO	MARIA MARTIN SANCHEZ	ARACELI GONZALEZ GONZALEZ
PEDRO MANUEL BALSERA GARCIA	CRISTINA SANCHEZ MARTIN	ALEX BEMBIBRE ALVAREZ
JOSE CARLOS GARCIA SANCHEZ	VALENZUELA MARTIN ASESORES S.L.	MARIA DEL CARMEN CARBALLO GOMEZ
ELENA LAJA MONTES	ANSELMO HERNANDEZ RANZ	MARTA MARIA COPA PEREZ
ELENA DIAZ FERNANDEZ	JOSE GAMERO MUÑIZ	HECTOR PIÑEIRO MARTIN
ANA MARIA MORALES NUÑEZ	ASEVAL ASESORES S.L	JOSE RAMON DOMONTE RODRIGUEZ
ANGEL LUIS GIL PEÑA	JOAQUIN SANCHEZ GRANDE TOVAR	SONIA LANDROVE MARTINEZ
NOEMI VIVAS SANCHEZ	VERONICA GOMEZ MONTERO	MARIA PRAXEDES FRANCISCO FERNANDEZ
ALMUDENA GARCIA SANCHEZ	MARIA JOSE SALGADO ALVAREZ	CARLOTA RODRIGUEZ VARELA
PATRICIA ACOSTA SERRADILLA	OSCAR SOTELO SALINAS	MARIA CARMEN GONZALEZ BARRAL
JUAN HERNANDEZ DE TORRES	MONICA ALVAREZ ALVAREZ	ANXO VAZQUEZ BLANCO
MARTA ESPINAR SANCHEZ	CESAR RODRIGUEZ SOTELO	JOSE MANUEL AMEAL MAS
MARIA SAZO SALGUERO	JUAN MIGUEL GOMEZ LOPEZ	MARIA LUISA VALIÑO IGLESIAS

MARTA GARRIDO FERNANDEZ

GAGO Y SOUTO FINANCIAL SERVICES S.L.

JAVIER PONTANILLA MARTINEZ

AGENCIA FINANCIERA ULLOA S.L.

SERCOM ASFICO AGENTES FINANCIEROS, S.L.

MEDA FINANCIERA, S.L.

INTERMEDIACION FINANCIERA RIAS BAIXAS, SLL

MARIA MARTINA GONZALEZ ANDRADE

ÓSCAR NÚÑEZ PUGA

PILAR VILA AYERBE

DAVID GONZALEZ BECEIRO

JOSE MANUEL FURELOS FERREIRA

ANGELINA CUESTA BERAMENDI

TANIA ARAUJO SOTO

BORJA MENDEZ VAZQUEZ

BARBARA FARIÑA REBOREDO

SERVICIOS FINANCIEROS FORCAREI, S.L.

DANIEL VIEIROS CAMPOS

LUCIA MARTIN GRANDE

ROBERTO QUIROGA LOPEZ

ANGEL LUIS GONZALEZ CASTRO

ASESORES FINANCIEROS VIANA SL

MARIA ROCIO LOPEZ TABOADA

MARIA CRISTINA SANCHEZ UZAL

OFILAR 2020 S.L.

CELIA MONICA MARTINEZ OTERO

MARIA ELISA CAMBEIRO CAAMAÑO

MONICA GARCIA CAAMAÑO

JOSE LUIS FARIÑAS PEREZ

MANUEL MARIA GARCIA FERNANDEZ

MANUEL ARTURO DOVALE VAZQUEZ

IVAN GONZALEZ MARTINEZ

ADRIAN TELLA VILLAMARIN

MARTA FEIJOO ARIAS

LUCIA ALVAREZ GONZALEZ

QUIRINO MASCITTI

JOSE BENITO SAMPEDRO FEIJOO

ESTHER LOPEZ GONZALEZ

JOSE LUIS PRIETO PARADA

JUAN SOTELO LORENZO

CANDIDO JUNCAL RUA

CELAVEDRA S.L

NIEVES NUÑEZ PUGA

BLANCA FERNANDEZ MURAS

MIRIAM SAMPAYO IGLESIAS

RICARDO CORREA FOLGAR

GHG COPERNICO, S.L.L.

SERVIBAN OURENSE, S.L.

ANA BELEN DUARTE FIGUEIRAS

SERVICIOS FINANCIEROS SOUTELO SL

PABLO SEIJO NOVOA

ANDREA SAYANS RIVEIRO

FABIAN MANTEIGA VARELA

JOSE MANUEL SOBREDO SIGUEIRO

JOSE MANUEL VAZQUEZ BERTOA

ANABEL PALLAS FUENTES

NATALIA LOPEZ LOPEZ

JAVIER NOVIO MIDON

MARIA JIMENEZ GONZALEZ

RAFAEL ROMERO RODRIGUEZ

ANTONIO SANCHEZ ARGÜELLES

EQUITY CONSULTING FINANCIERO, S.L.

ELVIRA DE CASTRO FERNANDEZ

LUIS ALFONSO MARTINEZ JIMENEZ

FRANCISCO JAVIER ARTEAGA LOPEZ

JOSE ANTONIO LOPEZ LOPEZ

MARIA ANGELICA CORTES CORTES

FRANCISCO FLORES ROMERO

ARREAZA SERVICIOS FINANCIEROS, S.L.

JUAN JOSE TAMUREJO CARDOSO	JOSE LUIS HERNANDEZ-SONSECA MIRANDA	JOSE LUIS BLAZQUEZ FERNANDEZ
CARLOS ARCAS CHECA	LETICIA MARÍA MARTINEZ ABAD	VICENTE CANO CAMARA
ANA MARIA RODRIGUEZ MORENO	JOSE CARLOS LOZANO CANO	LUCIA CARO ESPARCIA
MARIA ANGELES GONZÁLEZ IBÁÑEZ	LUIS JAVIER NAVARRO SIMON	JUAN FRANCISCO GARCIA JUNCOS
RUBEN LOPEZ CARMONA	MARIA TRINIDAD SORIANO RAMIREZ	JESSICA MARIA SEGADOR RISCO
ROSA ARCE LANDETE	JUAN MONTERO RODENAS	BRAULIO ALMENA AMARO
TERESA ROLDAN QUINQUER	SANDRA ORTEGA QUILON	MIGUEL ANGEL RUIZ LOPEZ
FELIPE CHILLARON CASTILLO	MARIA PAZ CULEBRAS RAMOS	MARIA JOSE PACHECO GALLEGO
MONICA CANO CANO	LUCIA PEREZ CUELLAR	EMPRESA GESTORA JUAN JOSE MUÑOZ S.L.
BEATRIZ BLANES RUIZ	DAVID MOYA LUCAS	ESTHER PEIRO ORTEGA
ASIS DE FEREZ S.L.	AROA GOMEZ LOZANO	ANA CRISTINA MUÑOZ ALVAREZ
VILLASEQUILLA AP SL	MARTA TRIGUERO RUIZ	ANTONIO MOTOS RECUENCO
CARLOS MORENO LOPEZ SOLORZANO	DIEGO GALLEGO VALVERDE	PATRICIA MONTERO DURAN
YEBEGEST S.L.	ANGELA ZURITA MARTINEZ	MARIA TERESA OLMEDA PICAZO
ARANCHA LOPEZ SANTOS	MARIA DEL PILAR MUÑOZ GONZALEZ	JAVIER MONGE LOPEZ
ANA MARIA RODRIGUEZ VARGAS	MARTA LUJAN FERNANDEZ	JUAN CARLOS LAZARO BERDEJO
CRISTOBAL NAVARRO DE VEGA	MARIA EUGENIA DE LA CRUZ DE LA ROSA	BARRIOS DE LA CRUZ, S.L.
BNT 2008 AGENTES FINANCIEROS SL	SARA PULIDO PANADERO	AGUADO Y ORTEGA ASESORES S L
ASESORAMIENTOS FINANCIEROS TEM 2012, S.L.L.	JESUS ALVARADO CAMARA	JAIME VALDES BRAVO
EVA LEON BELINCHON	MIGUEL MORENO ALONSO	LORENZO CANDELAS MIRANDA GARCIA CARO
TANIA BOGALO ROMERO	MARIA LUISA SANGUINO GUTIERREZ	ROSA ISABEL BENEITEZ SALINERO
IVAN QUINTANA ROJAS	MIGUEL GARCIA TAPIA	ALFONSO RODRIGUEZ MADROÑAL
PEDRO CARO CANO	JESUS MATEO HIDALGO MARTIN	MARIA CARMEN SANCHEZ PEÑA

SANDRA COFRADES SANCHEZ

FERNANDO GARCIA BARATAS

MARIA DEL CARMEN PALMERO MORENO CID

RAQUEL MAQUEDA MUÑOZ

SONIA MELGUIZO BEJAR

CARMEN CARLA PEREZ CUESTA

SAGRARIO MAQUEDA RUIZ

JOSE MARIA FERNANDEZ RAMIREZ

MARCOS GARCIA-DIES PASTRANA

MIGUEL ANGEL ORTIZ DE MIGUEL

ALEJANDRA SANCHEZ JUAN

DAVID RUIZ MARCHESE

ALBERTO ANDION ACEDOS

LUIS CARLOS SEPULVEDA SANCHEZ

RAUL VEGA ROMERO

MARIA LETICIA GUTIERREZ SANZ

CARLOS ALBERTO PALACIOS MARTIN

AYZA FINANZAS S.L.

ANTONIO BERNAL MERINO

DANIEL NAVAS ALONSO

LASTRAS AGENTE FINANCIERO SLP

FINANZAS NUEVA ERA S.L.

ZONA 4 SERVICIOS FINANCIEROS S.R.L.

BUZABRIN, S.L.

DE-TWO Y MAS INVESTMENT SERVICES S.L.

COFARESA SERVICIOS FINANCIEROS COMPLEMENTARIOS, S.A.U.

G.S.G. GRUPO CORPORATIVO DE SERVICIOS S.L.

BANFORTUNIA S.L.

SOLUCIONES DE PATRIMONIO E INVERSIÓN, S.L.

TABULA AGO,S.L.

OFISFIN S.L.

ALMA 812 S.L

MARIA FERNANDEZ RUFO

MARIA DE LAS NIEVES CALDERON IZQUIERDO

PAOLA GARCIA NUÑEZ

ANGELA MARTIN PUENTES

FINANCIAL ADVANTAGES SL.

EDUARDO GOMES HORCAJUELO

MARIA PILAR PEREZ NAVARRO

ROBERTO BLANCO GARCIA

JESSICA LIMA BLANCO

ANPADU INVERSIONES, S.L.

MARIA-TERESA JIMENEZ PACIOS

BEATRIZ TORREÑO NIETO

ALFONSOCRIADO SL

DIEGO CAÑAMERO NAVARRO

RUBEN BERNALDO DE QUIROS DE DOMPABLO

PATRICIA CONDE GARCIA BLANCO

LUCIA DIAZ PRUDENCIO

JOSE MANUEL TORRES MIGUEL

PALOMA MILAGROS BLANCO GONZALEZ

MAIALEN SAEZ SEGUROLA

MIGUEL LLANO ABAITUA

AGURTZANE ITZIAR AGUIRRE COLECHA

AINARA GONZALEZ ANGULO

IÑIGO MARTINEZ GARCIA

BRUNO MARTIN GARCIA

OSCAR CAÑIBANO ALVAREZ

OSCAR CAUDELI BOLO

MANSANET RIPOLL SL

ENRIQUE CHACON FERNANDEZ

RUBEN MARTI CALATAYUD

VICENTE MANUEL MARTI SEGARRA

JOSE IGNACIO CANTO PEREZ

RAFAEL BELLMUNT BELLMUNT

CONCEPCION MORATA HOMBRIA

FERNANDO DONET ALBEROLA

MARIA JOSE CABALLERO GRAU

YOLANDA CASTILLO VILA

MARIA TERESA BROCH RUBERT	SUSANA DONAT DE LA CRUZ	JUAN JOSE MONTEAGUDO MARTINEZ
SILVANA JAIME GARCES	JOSE JOAQUIN APARISI GRAU	SEMAGERA, S.L.L.
LIDIA CARRASCO MARIN	ISABEL CARMEN DOMINGUEZ ZANON	ALESA CAPITAL, S.L.
MIRIAM PEREZ SORIA	CARLES ROYO DELPOZO	AYALA MARTINEZ MELERO, SLL
MARIA MERCEDES RIERA RIERA	MIGUEL ANGEL FERNANDEZ MENDEZ	INMACULADA FERRUS AZNAR
SONIA BELLMUNT SAURA	MIREYA GARCIA MARTINEZ	ALEJANDRO SANTAELLA FERRER
JOAN ANDREU GABARRI LLOP	ALEJANDRO SANCHEZ BERMUDEZ	JOSE JUAN FERRANDEZ SANCHEZ
JUANA MARTINEZ MARTINEZ	ANA MARIA LOPEZ MARTINEZ	BEATRIZ SALA GARCIA
ALBERO PAYA FINANCIEROS, S.L.	DIEGO MARTINEZ OTON	ARANTXA CARDENAL FERNANDEZ
DRIMTY S.L.	MARIA DELS DESAMPARATS ROSELLO MORELL	MARTA HERREROS LOPEZ
VERIS SERVICIOS FINANCIEROS S.L.	MIGUEL ANGEL VIDAL JOVER	MARÍA CRUZ GARCÍA-ESTELLER TORRES
TRAMYGEST FINANCIERA S.L.	VEGUILLAS Y VEGUILLAS SL	SILVIA GARCIA SENDRA
SAVINGS ELX 2014, S.L.	JOSE ALFONSO TARI ESCLAPEZ	FRANCISCO MUÑOZ PUERTO
ERNESTO DAIMAN MARQUES ASENSIO	MAGDALENA JOVER SELLER	ANGEL EDUARDO RODRIGUEZ REY
ASEMAR FINANCIERA, S.L.	PAULA GRACIA CABRERA COLONQUES	HOPE FINANCE SL
GESTIONES FINANCIERAS FERRER Y GARCIA 2015, S.L.	GESFINPRO, S.L	JESUS MARTINEZ CAÑAVATE GOMEZ MILLAN
AGENTES XIRIVELLA, S.L.	BEATRIZ PEREZ GARCIA	MARIA ISABEL RAMIREZ RODRIGUEZ
AGENCIA FINANCIERA ANNA FRANCO, S.L.	MIGUEL ALCALDE PITARCH	ALBERTO LOPEZ CARDENAS
HOTRARESCON SL	ANTONIO LUIS CASTELLO APARISI	JUAN CARLOS MALDONADO HODAR
VIMAGARMA A.F. SL	MARTA FAUS BLANES	JULUM FINANZAS, S.L.U.
CAROLINA GARCIA BELMONTE	JUAN ANTONIO ALCAIDE NAVARRO	FRANCISCO JIMENEZ PERALVAREZ
JOSE SANTAMARIA CABRERA	MIGUEL GARCIA ABAD	AM SERVICIOS FINANCIEROS SL
VANESA GONZALEZ VILA	VICENTE MOSCARDO TORRES	MARIA PAZ IBARRA RECHE

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JUCAR ASESORES, S.L.	ONUBA FINANCIEROS SL	MARIA DOLORES FOLLA-CISNEROS GARCIA
ALVARO FABREGAS SANTAMARIA	DANIEL MARTI RODRIGUEZ	JOSE JIMENEZ OVEJAS
ASESORAMIENTO Y COACHING FINANCIERO S.L.	SANPUEBLA SL	MARIA GEMA GARCIA BUIL
EFEROR ASOCIADOS S.L.	GABRIEL MENENDEZ NOTARIO	VERONICA PUEY MUÑOZ
JOSE PABLO CASTELLANO GARCIA-DONAS	MILAGROSA ESTUDILLO CEPILLO	JOSE GABRIEL BALLESTERO FERNANDEZ
FINANSANDO S.L	MARIA DEL MAR CARRETERO FERNANDEZ	USTARIZ ZUBIRI ASOCIADOS SL
FRANCISCA MARQUEZ CONTRERAS	JORGE BARRERA PEREZ	FEDERICO SOROLLA LLAQUET
NUÑEZ MONTES FINANCIEROS S.L.	JUAN MANUEL MAYORGA BELLOSO	VERONICA REMIRO BASANTA
JOLUANCA 2006 S.L.	MARIA DEL CARMEN ZAMBRANO MONGE	RAUL LANGA GOMEZ
BERNABE JOSE VALLECILLO MUÑOZ	FATIMA DEL PINO ARIZA	OIHANE AICUA RODRIGUEZ
ASESORAMIENTO FINANCIERO Y ANALISIS DE MERCADOS SLU	JUAN DAVID PEREZ VALENZUELA	JAVIER ROYO HERRANZ
JUAN RAMON BENITEZ GOMEZ	MARIA ASUNCION PALOMARES RUIZ	FLORENTINO LARA NOTIVOLI
JOSE MANUEL MARTINEZ MILLAN	JUAN MANUEL PEREZ PRADO	OSCAR ADAN CABEZON
PEDRO ANGEL LUPIAÑEZ RODRIGUEZ	FINANCIACIONES LAS CABEZAS SL	CRISTINA ZABALA USTARIZ
CASTOR INVERYSER S.L	MARIA ESCRIBANO PAVON	ANDONI ABRIL GOICOECHEA
MARTA DOLORES CASTRO HIDALGO	MARIA MORATALLA RUIZ	FERNANDEZ DEL VALLE NOE 046869184C S L N E
MANUEL GUERRERO VERDEJA	MIGUEL ANGEL MARTIN ISERTE	GUILLERMO FOS ALZAMORA
IGNACIO IÑARETA MARQUEZ	MARIA EUGENIA BOZAL HUGUET	JORDI JUAN RIBAS
JESUS RAMOS NIETO	JAVIER DOMINGO PASCUAL JIMENEZ	ALBERTO BARTOLOME DE BLAS GUASP
ALVARO DELGADO DE MENDOZA CORTES	LUIS FERNANDO ANDRES VILLALBA	GUILLEM GENOVARD CALDENTEY
VC SERVICIOS FINANCIEROS SL	JULIA MARIA SEGURA VICENTE	CECILIA MARIA ROSSELLO FLORIT
SEFIAL 2021, S.L.	ROSA ANA FATAS LAPLANA	DAMIAN DAVID PONCELL OLIVER
SERVICIOS BANCARIOS BERJA SL	MARIA TERESA MARTIN MUNIESA	ELISENDA ARIMANY BALLART

ADELA GALLEGO BERMUDEZ

JUAN CARBONELL SOCIAS S.L.

JUAN MANUEL ALARCON GARCIA

LUIS DA COSTA FERNANDEZ

MALULA SERVICIOS FINANCIEROS SL

TEROR VP INVERSION SL

OMAR PEREZ GARCIA

LUIS FERRERAS GRANADO

LETICIA INES MARTIN SANGUINO

ANA ISABEL GARCIA RODRIGUEZ

FRANCISCO JAVIER SANTIAGO ALEMAN

PEDRO JAVIER SANCHEZ RODRIGUEZ

JOSE MANUEL PERERA QUINTANA

FRANCISCO JAVIER CABRERA LLAMAS

EDUARDO HERNANDEZ HERNANDEZ

PEDRO ROMAN SANMARTI

RUBEN TORIJANO BUENO

JOSE ANDRES HERNANDEZ FALCON

GORKA PEREZ DIAGO

JON DIEZ DE DIEGO

SARA SANCHEZ GONZALEZ

ENRIQUE MARCOS ORTEGA

AGUSTIN RUIZ SAIZ

ALEJANDRO FERNANDEZ GARCIA

ALEJANDRO MARTIN KARLSSON

CARLOS MESA DIEZ

JESUS ARDUENGO CUADRADO

LUCAS RIVAS PORTILLO

EMMANUEL GRANDA TARRAZO

POSADA GESTION FINANCIERA SLU

DAVID GARCIA-ARCICOLLAR RODRIGUEZ

SERFISAN SERVICIOS FINANCIEROS S.L.

DAVID INCHAUSPE PEÑA

TAMARA CANTERO SANCHEZ

ENRIQUE ARAUJO IRUSTA

IGNACIO SORDO AGÜERO

JOSE IGNACIO UBILLA BOLADO

ENRIQUE FOMPEROSA RUIZ

SERVICIOS FINANCIEROS MAZA Y VILAR SL

CLARA POO GARCIA

JESUS ANTONIO AMO FERNANDEZ

SERGIO GONZALEZ PALACIO

YOLANDA ALVAREZ RODRIGUEZ

AOMAR NUÑEZ APARICIO

JONATHAN AGUSTIN COLODRO DIAZ

JUAN MARIA VALDES MARTIN

JOSE MARIA ANTON GARCIA

MONICA CUBAS HERNANDEZ

A C CARRIZO DE LA RIBERA SL

ALBERTO GONZALEZ MONTES

MARIA ELISA SAEZ JIMENEZ

MARIA JESUS MONROY CARNERO

PEDRO MARIA MARINA MEDRANO

JOSE ANGEL TIERNO ARANDA

JESUS ANGEL GUTIERREZ QUINTANILLA

MANUEL JAVIER DELBOY RODRIGUEZ

A.C. PAREDES DE NAVA S.L.

SERGIO SANCHEZ RODRIGUEZ

A.C. CIGUEÑA SL

A.C. VILLARCAYO S.L.

JUAN BAUTISTA HIDALGO IÑIGO

JUAN ANTONIO YUBERO MORENO

JOSE ENRIQUE ARBONAS MAS

MARIA SOLE RIBERA

ROGER BELLET SANJUAN

JORDI RIBALTA ARIAS

CARLOS DE PABLO LOPEZ

VICENT MORE CAMPS

MARTA CORTES MARISTANY

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ROSA MARIA HOMEDES PERIS	FINANCIAL VALUE INVESTMENT, SL	INTERMEDIACION FINANCIERA DEL NOROESTE SL
JORGE TORTA BELBIS	LORENZO BARREIRA VIA	SUSANA FARIÑA FERNANDEZ
GROUP CLOP INVERSIO SL	AA FF NV FINANCERA 2018 SL	JOSE MANUEL CAPON FERNANDEZ
JUAN JOSE GISBERT FERRERES	EDUARD MAS POMES	SILVA&RUA ASOCIADOS SLU
ALEJANDRO LLERA FERNANDEZ	JOSE MARIA BALTASAR TOMAS	ANGELA MUÑIZ ARROJO
JORDI ROSA ARIZA	INVERSORA TUCKERTON SLU	SOLFIN CONSULTORIA DE MERCADOS SL
MARC OLIVA VIDAL	ESTHER NOGUES FERNANDEZ	SONIA LOPEZ AZNAR
ANNA BATALLA FARRE	LUIS LOPEZ SIRER	ALEJANDRO GIADANES TORREIRA
AINOA LORAS COLL	LARA & RAUL ASOCIADOS S.L.	MARIA CARMEN CEREIJO VARGAS
ELISA SANS VIDAL	SOLEDAD GALAN FREJO	JOSE MARTINEZ PARDO
BERTA RIERA FERRAN	JUAN JOSE SANCHEZ ACEDO	MIGUEL ANGEL FUENTE REGO
IVAN GUIU FARRE	CARMEN MARIA MARTINEZ BOHORQUEZ	CARLOS GONZALEZ FERNANDEZ
MARIA TERESA BORRELL MICOLA	BARBARA FERNANDES DIAS	DAVID VALIN ANTON
DANIEL MASSA I RAMIREZ	MARIA EVA NUÑEZ GONZALEZ	ADRIÁN MONTERO VARELA
SAUSOLUCIONS SL	RAQUEL BARRERO GORDILLO	BRAIS MIDON LOPEZ
NESTOR GALIMANY SANROMA	JUAN MARIA DOMINGUEZ GARCIA	GREGORIO LEAL MORALEDA
ISIDRE CALBO PELLICER	SATURNINO QUIÑONES GARCIA	PEDRO JESUS ROLDAN PRIETO
POL MIR MARTINEZ	ISMAEL PALACIOS AGUDO	CRISTINA GOMEZ GUTIERREZ
ENRIQUE SANCHEZ CASADEVALL	ELENA PUERTO GALVEZ	MARIA DE RUS MONTERO ORTEGA
ENRIC CORTADA GUTIERREZ	JOSE MARIA MANZANO CIDONCHA	JOSE LUIS BECERRA QUIROS
ALEXANDRE UTSET BADIELLA	ROBERTO CABALLERO MARTIN	SERGIO GONZALEZ RUISECO
ALFONSO ROMERO IDIGORA	ALEJANDRO PIÑOL PEREZ	DIEGO FERNANDEZ MARCOTE
MARC TARRES MALE	LAURA MACIA GONZALEZ	CECILIO PARRO CORTES

JUAN ANGEL ALCAZAR VERGARA	JUAN CARLOS FUSTER DE CACERES	FRANCISCO JAVIER MORALES MURCIA
GEMMA GUTIERREZ BAJO	FERNANDO DOMINGUEZ RUIZ	ANTONIO IGLESIAS SANCHEZ
ALFONSO ILLAN GARCIA ROJAS	MARTA ZAMBRANO PEREZ	ENRIQUE SATURNINO MORENO
MARIA LOPEZ MARTINEZ	MARIA TERESA PEREZ PEREZ DE LAS VACAS	BASKY INVERSIONES FINANCIERAS SL
JAVIER GUTIERREZ ARAGON	ANDREA PRATS SEGURA	FORUM 20 S.L.
MIGUEL ANGEL GARCIA RODRIGUEZ	CRISTINA HIDALGO GARCIA	ALEXANDRA FRANCH CANALDA
ARACELI CARAVANTES CASTILLO	JESUS MAILLO NIETO	CASTEL GANDOLFO S.L
CARMELO PACHECO MARIN	FRANCISCO JAVIER RIVAS VALENZUELA	MILAGROS FLORES LEAL
BEATRIZ ARROYO AVILA	MARIA TERESA GUTIERREZ GALERON	FINANZAS E INVERSIONES ALBAL S.L.
NURIA DEL AMO LETON	MARIA ALMUDENA MORENO NAVARRO	ROSA CARRERES LUCAS
INMACULADA TORRES BERMUDEZ	IEA SERVICIOS FINANCIEROS S.L.U.	ELOISA ESPUIG IBORRA
DIANA DIAZ ANGELINA	IMANOL IPARRAGUIRRE JAUREGUI	ALICANTE VALLEY SERVICIOS FINACIEROS S.L.
CRISTINA TORIJA PRIETO	MKS GESTION FINANCIERA S.L.	TRAKZIONA INVEST SL
SONIA ARNAO VILLANUEVA	UNAI LEKUBE ARAMBERRI	ENRIQUE MARTINEZ MORENO
FRANCISCO DAVID SAIZ CANO	ALFREDO ROLDAN FERNANDEZ	JOSE ANTONIO SANCHEZ NAVARRO
ALEJANDRO MATESANZ FLORENCIO	MARIA MANUELA GONZALEZ CUESTA	PIC LLOCH MONTGO SOCIEDAD LIMITADA
FRANCISCO JAVIER MARTIN ROMERO	JUAN JOSE ARAGONESES MARTINEZ	RUBEN TRAVER SALES
BEATRIZ LOPEZ MONTEJO	JESUS RAMON HERNANDEZ GARCIA	ANDRES RIVERO JIMENEZ
LUIS ALBERTO MASEDO DEL CASTILLO	NEREA SOBRADILLO TRUEBA	JUAN ANTONIO CANTERO SANCHEZ
ALEJANDRO GARCIA GUERRERO	JOSE MANUEL MUÑOZ EZQUERRO	JOSE MANUEL AYALA ARNALDOS
TAGOAN JUAREZ SL	CRISTINA NAVARRO MACHIN	JAVIER GONZALVEZ BOTELLA
MARIA DEL PILAR MARTIN SANCHEZ	ELENA EGAÑA ALZAGA	SONIA ZAPLANA VERGARA
ALVARO FERNANDEZ ROCAMORA	EDER SERVICIOS FINANCIEROS SL	MOR FINANCE SL

INMACULADA LATORRE CANA	MARGARITA LUZ BOLINCHES IBAÑEZ	GRATIANA TORRES ROSA
ALBERTO SAEZ CLEMENTE	C M FINANCIAL SERVICES S.L.	SERGIO VIVANCOS ALVARO
MISTERA BUSINESS SOLUTIONS S.L.	EUGENIA DURAN HERNANDEZ	IVÁN LÓPEZ DURÁ
SAMAI FINANZAS S.L.U.	ISIDRO VIVANCOS ROS	IVAN GODINEZ GUERRERO
LUIS ALBERTO SALA GARCIA	ROCIO NAVARRETE MARTÍNEZ	MUNICH FINANZ S.L
VANESSA SORO GINER	JOSE LUIS MATA RIBELLES	CARMEN RODRIGUEZ-BUSTELO GONZALEZ
ROSA MARIA BLAY PASCUAL	MIGUEL ANGEL RIOS MUT	BEATRIZ GARCIA ESTELLER TORRES
SANDRA CHOVER GOMEZ	RAMON DANIEL MUNUERA SANZ	ISABEL CARBONELL SERNA
NURIA MANUEL CERVERA	MARIA MERCEDES SABATER JIMENEZ	
JOSE FERMIN MOMPO VIDAL	SANMAFRAILES SL	

Directors' report

Banco Santander, S.A.

1. Introduction

Banco Santander, S.A. ('the Bank' or 'Banco Santander') is a Spanish bank, incorporated as a sociedad anónima in Spain and is the parent company of Grupo Santander or Santander. Banco Santander, S.A. operates under the commercial name Santander.

Banco Santander operates through a branch network distributed in Spain and abroad.

On 7 June 2017, Banco Santander acquired the entire share capital of Banco Popular Español, S.A.U. ('Banco Popular') in an auction in connection with a resolution plan adopted by the European Single Resolution Board (the European banking resolution authority) and executed by the FROB (the Spanish banking resolution authority) following a determination by the European Central Bank that Banco Popular was failing or likely to fail, in accordance with Regulation (EU) 806/2014 establishing a framework for the recovery and resolution of credit institutions and investment firms. On 24 April 2018, Banco Santander announced that the boards of directors of Banco Santander, S.A. and Banco Popular Español, S.A.U. had agreed to an absorption of Banco Popular by Banco Santander. The legal absorption was effective on 28 September 2018.

The directors' report has been prepared based on the accounting and Management records of Banco Santander, S.A.

The financial information included in this directors' report has been prepared in conformity with the Bank of Spain Circular 4/2017 of 27 November on Public and Reserved Financial Information Regulations and Financial Statements Forms, and subsequent modifications.

2. Situation of Banco Santander

Santander is one of the largest banks in the eurozone. As of December 2021, we had EUR 1,595,835 million of assets and EUR 1,153,656 million of total funds. Our market capitalization reached EUR 50,990 million.

Our purpose is to help people and businesses prosper in a way that is Simple, Personal and Fair. We do not merely meet our legal and regulatory obligations, but also aspire to exceed expectations. We focus on areas where our activity can have the greatest impact, supporting economic growth in an inclusive and sustainable way.

We engage in all types of typical banking activities, operations and services. Our track record, business model and strategic execution drive our aim to be the best open digital financial services platform, acting responsibly and earning the lasting loyalty of our stakeholders (customers, shareholders, people and communities).

Therefore, in 2021, a year in which the global economy and society were still affected by the covid-19 pandemic, we continued to play an active role in the the economic recovery and continued to support our 153 million customers and society.

With regard to our 197,070 employees, our priority remains safeguarding their health and safety in line with local government recommendations and based on three pillars: (i) development and implementation of health and safety protocols; (ii) remote working where necessary; and (iii) track and tracing (diagnostic tests, health apps and even vaccination centres in our corporate buildings for employees and the general public).

We are living in an increasingly digital world, and the covid-19 pandemic has contributed largely to this transformation. As such, more than ever, our aim is to continue to offer our customers digital products and services that meet their needs, and support them in their digital learning.

We interact with our customers through a wide variety of channels. We have a network of 9,879 branches. In recent years, significant effort and investment has been put in to ensuring our branches meet our customers' needs.

Our offices include universal offices and specialist centres for certain customer segments, such as businesses and universities. We are also promoting new collaborative spaces with excellent digital capabilities (Work Café, SmartBank and Ágil branches). Additionally, our contact centres, which provide model service quality, continue to serve our customers.

Through this process, in addition to improving our branches, we are continuously investing in our digital capabilities and technological infrastructure to optimize our product and service offerings, reducing our cost to serve while being among the top banks in customer satisfaction in almost all of our main markets.

As a result, the number of digital and loyal customers as well as digital activity continued to increase. We have more than 25 million loyal customers (+11% year-on-year), with growth in both individuals and companies. Digital customers rose 12% in the year, exceeding 47 million. Similarly, digital sales accounted for 54% of total sales (44% in 2020 and 36% in 2019).

The world is also increasingly aware of the different environmental, social and corporate governance factors (most commonly known as ESG).

In this regard, we are focused on delivering profitable growth responsibly and creating value for our 3.9 million shareholders.

Our strategic priorities and their execution are essential to improving the profitability of our core businesses by offering simple, fair and innovative products.

Grupo Santander has a balanced diversification in three geographical between mature and emerging markets, and operates mainly in 10 core units, where it has significant market shares.

3. Financial performance

3.1 Economic outlook:

In 2021, Santander developed its activity in an environment marked by (i) the implementation of fiscal and monetary policies in response to the adverse effects of the covid-19 pandemic (ii) the ongoing recovery from this pandemic, uneven across countries and sectors, (iii) new variants of covid-19 and significant outbreaks (iv) the overall upturn in inflation in the second half of the year, which, in the case of mature markets, reached a three-decade high.

Inflationary pressures have intensified as a results of a number of factors, including the revitalization of demand for consumer goods, labour shortages, tensions in the supply chains of microchips and other key items, transportation problems and the increase in the price of energy, certain raw materials and food.

Under these circumstances, the expansionary fiscal and monetary policies implemented in response to the covid-19 pandemic began to reverse, especially in the last quarter of 2021, particularly in countries with the greatest pressure on prices.

Economic performance in the Eurozone and Spain was as follows:

- Eurozone (GDP: 5.2% estimated in 2021). GDP growth driven by the lifting of lockdown measures and expansionary monetary and fiscal policies. The ECB kept interest rates stable despite the 5% rise in inflation in December, on the expectation that this rebound is transitory. However, in December the ECB announced a reduction in its asset purchases starting on spring 2022.
- Spain (GDP: 5.0% in 2021). Economic recovery continued in 2021, likely to reach pre-pandemic GDP levels in 2022. Improvement in the labour market accelerated, with employment exceeding pre-pandemic levels. Inflation reached 6.7% in December, largely due to energy prices.
- To complete the information with the performance indicators of the rest of geographies where the Group is present, see the Consolidated Directors' Report.

3.2 Balance sheet and results:

Banco Santander, S.A. is the Parent Bank of a financial group that operates in different countries through different businesses therefore its financial statements not only reflect its commercial activity in Spain, but also the activity derived from being the head of the Group. This last aspect makes it difficult to analyse its evolution without distinguishing the results obtained from the commercial activity from those more directly related to its holding nature.

Strong pick up of activity in individuals in 2021, especially in residential mortgages, where we reached record highs in new lending, and in consumer credit, which recovered to pre-pandemic levels in Q2. As a result, we gained market share in both products.

In corporates, signs of recovery started to show in H2'21, with growth in working capital management (+15% year-on-year). However, there was an overall slowdown in the demand for loans due to the extensions of grace periods in ICO funding and expectations regarding the European Next Generation EU funds.

In transactional products, we continued to grow in PoS with significant market share gains and customer base expansion, which was reflected in a 44% increase in turnover compared to the previous year. Card turnover rose 17% year-on-year, both credit and debit.

Regarding the balance sheet, as of 31 December 2021, the **total assets** of Banco Santander stood at EUR 657,950 million, with an increase of 4.54% over the previous year.

Loans and advances to customers at the end of the year stood at EUR 308,367 million, with an increase of 4.24% over the previous year driven by the growth of mortgages and consumer loans.

Customer deposits, at the end of the year, stood at EUR 308,603 million with an increase of 7.65% over the previous year. Demand deposits increased by 9.02%, offsetting the fall in time deposits (-0.04%), with growth in both corporates and households.

Net interest income in 2021 stood at EUR 3,620 million, 7.48% higher than the previous year due to the higher income derived from the TLTRO and the greater volume of credit, which offset the lower interest rates.

Income from equity instruments amounted to EUR 5,489 million in 2021. This line includes **dividends** received from the Group subsidiaries.

Net fee income increased by 11.26% compared to 2020 to 2,578 million euros, highlighting the strong growth in commissions from investment funds, insurance and those from wholesale banking.

Gains/losses on financial transactions (including exchange differences) reflected gains of EUR 253 million as compared to 645 million in the previous year.

General administrative expenses (personnel and other administrative expenses) were EUR 4,673 million, increasing 1.54% as compared to the previous year.

Impairment losses on financial assets (net) in 2021 accounted for EUR 2,287 million, 0.6% of financial assets at fair value with changes in other comprehensive income plus financial assets at amortized cost.

On the other hand, **the reversal of impairment of investments in subsidiaries, joint ventures or associates** in 2021 amounted to EUR 800 million and **losses of non-current assets held for sale** amounted to EUR 50 million.

<u>Distribution proposal of the Bank's profit</u>

ECB Recommendation of 15 December 2020, which asked banks not to pay out dividends charged against 2021 results (ECB Recommendation III), was in force for over half of 2021.

On 23 July 2021, the ECB believed the reasons underpinning ECB Recommendation III to limit dividend payouts were no longer valid and, thus, repealed it effectively on 30 September 2021.

On 28 September 2021, the board announced its 2021 shareholder remuneration policy to pay out an interim distribution from approximately 40% of the Group's underlying profit (half through a cash dividend and half through a shares buyback).

- Interim remuneration. Accordingly, it authorized the payment of an interim dividend of 4.85 euro cents per share (i.e. 20% of the Group's underlying profit for H1'21), in cash and charged against 2021 profits; it was paid on 2 November 2021. The board also voted to launch the First Buyback Programme worth 841 million euros (20% of the Group's underlying profit for H1'21) once the ECB approved it on 28 September 2021.
- Final remuneration. On 24 February 2022, within the 2021 shareholder remuneration policy, the board of directors voted to:
  - submit a resolution at the 2022 AGM to approve a final cash dividend in the gross amount of 5.15 euro cents per share, worth approximately 865 million euros (approximately 20% of the Group's underlying profit for H2 2021). If approved at the AGM, the dividend would be payable from 2 May 2022. The estimate of 865 million euros is based on the assumption that, once the Second Buyback Programme has taken place, the number of outstanding shares entitled to receiving dividends will be 16,804,353,202. Therefore, the total dividend may be higher if fewer shares than anticipated are acquired in the Second Buyback Programme; otherwise, it will be lower.

- implement a Second Buyback Programme worth 865 million euros (approximately 20% of the Group's underlying profit for H2 2021), once the necessary regulatory authorization has been obtained.

If shareholders approve the dividend payout resolution and the ECB authorizes the Second Buyback Programme, it will result in a payout of approximately 40% of the Group's underlying attributable profit for 2021. If the buyback reaches the maximum within the programme period, remuneration will be split equally between cash dividends and shares buybacks. This final remuneration will enable Santander to meet the target set in the shareholder remuneration policy disclosed to the market on 28 September 2021.

See more information in section 9.2 Dividend policy.

4. Trend information

This director's report contains certain prospective information on the directors' plans, forecasts and estimates, based on what they consider to be reasonable assumptions.

Readers of this report should take into account that such prospective information must not be considered a guarantee of our future performance. As the plans, forecasts and estimates are subject to numerous risks and uncertainties, our future performance may not match initial expectations. These risks and uncertainties are described in note 49 of the financial statements.

The economic outlook for 2022 is subject to considerable uncertainty due to the spread of new covid-19 variants in Europe and the US in the final stretch of 2021 - and the risk of it spreading to other areas - and doubts as to the more or less temporary nature of the 2021 inflation hike.

The impact of the Omicron variant and any future variants or outbreaks and their effect on activity is difficult to gauge. It will depend to a large extent on the pressure they generate on hospital capacity, which is not easy to foresee given, on the one hand, the varying capacity for contagion and virulence of each variant of the covid-19. Inflation will have an adverse impact on consumption and on financial conditions.

In our baseline scenario, we assume that covid-19 control measures will have a moderate effect on activity, that inflation will ease and return to the target from spring onwards and that, with some exceptions, the withdrawal of monetary stimuli will be very gradual. In this environment, among the most relevant economies for the bank, the European economies and the United States are expected to maintain strong growth, while in Latin America the evolution may be more uneven.

The macroeconomic forecast for 2022 **by country/region** is as follows:

Euro area

Growth recorded in 2021 is expected to continue in 2022, although the start of the year could be somewhat hesitant, supported by financial conditions that will continue to be openly expansionary, fiscal conditions that will not yet be restrictive, a greater weight of European Next Generation EU funds, an improvement in the pandemic and a gradual decline in inflation.

The elections to be held in several countries in the area and the reforms and credibility of the countries' fiscal consolidation plans will be relevant, in a year in which the reestablishment of the Stability and Growth Pact may be announced and the monetary and prudential measures used to face the pandemic will be gradually withdrawn.

Spain

In Europe, the deployment of European funds (especially relevant for the country), the potential improvement of international tourism, the time left for household consumption to recover and the expected reactivation of residential construction suggest remarkable growth that could drive GPD close to pre-pandemic levels.

The success of ongoing structural reforms, partly related to European funds, will be fundamental in the short and medium term.

The priority for Europe is the integration of all European businesses within a common operating model that allows us to continue capturing cost efficiencies and improving service quality. To this end, the main action lines in 2022 are:

→ To continue to expand our digital capabilities in the region, accelerating customer-to-digital conversion to improve service quality and thus customer satisfaction, while reducing the cost base.

→ Deliver on our EUR 1 billion cost savings commitment.

→ Leverage our global businesses (SCIB and WM&I) and the connection with PagoNxt to accelerate efficient allocation of capital to the most profitable segments and thereby improve the overall profitability of the business.

→ Excel in risk management, maintaining and reinforcing our balance sheet strength.

The cornerstone of our strategy in Spain is customer service:

- Grow the customer base through excellence service quality and seamless interaction with both customers and non-customers through digital channels.
- Increase customer loyalty by improving customer experience when acquiring products through simple, digital processes.
- Achieve operational excellence and improve NPS.
- Develop low capital-intensive revenue streams (funds and insurance) .
- Continue to review the cost structure, as the new model will be more efficient.

See more information in the Consolidated Directors' Report.

5. Non-financial information

This Statement of Non-Financial Disclosures of Banco Santander, S.A., which is part of the Separate Directors' Report, contains the non-financial disclosures set out in the Consolidated Directors' Report of Grupo Santander together with other material useful comparative information for Banco Santander, S.A. that is appropriate for an understanding of the trends, results, status and impact of the activities of Banco Santander, S.A., including information on matters of the environment, society, human rights, the fight against corruption and bribery, and personnel.

When drawing up the non-financial information contained in this Separate Statement Of Non-Financial Disclosures, Banco Santander performed a materiality analysis, in line with the international reporting framework developed by the Global Reporting Initiative (GRI), which enabled it to identify the most important aspects about which to inform its stakeholders in accordance with the GRI standards.

General information

The purpose of Santander Group is to help people and businesses prosper. To achieve this, it has a distinctive business model that seeks to satisfy the needs of all kinds of customer: private individuals with varying income levels; companies of any size and sector; private corporations and public institutions.

Long-term personal relationships with its customers are the basis of the business. Through innovation, Banco Santander is transforming its commercial model to capture a greater number of loyal and digital customers, thereby driving a more profitable and sustainable business.

Banco Santander considers the proper integration of environmental, social and governance (ESG) criteria in its financial activity to be critical.

To achieve this, and in compliance with the international best practices regarding sustainability and responsible banking, Banco Santander has a sound corporate governance structure, with the board of directors as the maximum decision-making body of the Banco Santander, with the exclusive power to approve Grupo and Banco Santander general policies and strategies, including those regarding sustainability.

It also has a general sustainability policy that defines our general sustainability principles and our voluntary commitments with the aim of generating long-term value for our stakeholders, and with a new environmental and social risk management policy that governs the Groups's financial activity in sectors such as energy, mining/metals and soft commodities (e.g. palm oil, soya and timber). It also has a defence sector policy outlining the criteria for the group's operations with companies that perform defence-related activities.

Likewise, the Bank has a sensitive sector policy that sets down guidelines for assessment and decision making about Banco Santander's participation in certain sectors, whose potential impact could lead to reputational risks. These policies are reviewed annually.

Banco Santander's responsible banking strategy is also underpinned by other internal regulations such as the general code of conduct, the corporate culture policy (which includes principles of diversity and inclusion governing the Group), the human rights policy, the consumer protection policy, the cybersecurity policy, or the Third-party certification policy (which includes the principles on the responsible behaviour of suppliers).

Moreover, Banco Santander redesigned and strengthened its corporate governance, both to ensure it is compliant and to help address the challenges that were identified.

The responsible banking, sustainability and culture committee (RBSCC) has been created which will help the board of directors to comply with its responsibilities regarding the definition and supervision of the responsible banking, sustainability and culture strategy.

The committee is supported by the Responsible banking forum, which meets at least six times a year. It executes the responsible banking agenda across the Group, drives decision-making on responsible banking issues and, ensures the execution of any mandates from the RBSCC, other Board committees and the board of directors. It also ensures alignment on key issues, including the review and escalation of reports to the RBSCC.

The corporate Responsible Banking unit coordinates and drives the responsible banking agenda. Supporting this unit, Santander has a Senior Advisor on Responsible Business Practices, who reports directly to the executive chairman.

In addition, in 2019 metrics and medium and long-term public commitments have been established to drive Santander´s and embed Responsible Banking agenda into the heart of Group Santander's business strategy (these public commitments are carved out throughout the report).

The identification of non-financial risks associated with its activity is a priority for Banco Santander.

Banco Santander has procedures in place for their identification, analysis and assessment in transactions subject to Group policies and to external commitments such as the criteria of the Equator Principles, an initiative the Bank joined in 2009.

In this sense, Banco Santander recognises the right of communities to a clean and healthy environment and undertakes to minimise the environmental impact of its operations, which means:

- Assuming, in line with the bank's commitment to the Equator Principles, the obligation to analyse, identify and correct, during the analysis of the risks of financing activities and consistently with the guidelines approved by the International Finance Corporation, the negative social and environmental impacts, including those affecting local communities.
- During due diligence prior to signing agreements for financing or of any other kind and complying with the Equator Principles and social and environmental risk management policies, Santander undertakes, as part of its analysis, to assess the human rights policies and practices of its counterparties.
- Establish specific policies governing the requirements for offering financing to those sectors, activities or potential customers that present a special risk in respect of social, environmental or human rights issues.

Banco Santander is part of the main initiatives at international level regarding sustainability (United Nations World Agreement, Banking Environment Initiative, World Business Council for sustainable Development, UNEP FI, Equator Principles, Responsible Banking Principles, CEO Partnership for Financial Inclusion, etc.). In addition, we are one of the founding signatories of the United Nations Principles of Responsible Banking. The aim is to contribute to the fight against climate change and the achievement of the United Nations' Sustainable Development Goals.

In 2021 we joined the we joined the Glasgow Financial Alliance for Net Zero, Net Zero Asset Management and were co-founders to the Net Zero Banking Alliance. Within GFANZ, we co-led the Net Zero Public Policy and their call to action launched in October.

In Spain, we are member of Foretica, of the Green Growth Spanish Group as well as Fundación SERES.

In addition, Banco Santander forms part of the main stock market indices that analyse and evaluate companies' actions on sustainability.

We are member of Dow Jones Sustainability Index for the 21st year in a row, with top marks in financial inclusion, environmental reporting, operational eco-efficiency and social reporting. Santander was also included in the S&P Sustainability Yearbook, receiving a silver class award.

MSCI increased our rating from BBB (2020) to AA (2021),

CDP rating category up from B to A-, putting us among leading financial institutions.

Sustainalytics also recognized our progress, raising our score from 27.1 to 23.9

We are members of the FTSE4GOOD Index, and improved from 4.3 in 2020 to 4.5 out of 5 in 2021.

We increased our score in the Bloomberg Gender-Equality Index (BGEI) from 85 to 90 and were the highest-ranked bank and second highest company.

Information about environmental issues

At Santander, we want to play our part in supporting our customers and the global economy to be zero by 2050.

We are offering our customers decarbonization solutions to help them fulfil their climate goals. We are aligning our portfolios with the Paris Agreement Goals and keeping our operations carbon-neutral. Integrating climate within our risk management is key to tracking our plan's robustness.

We have a four-pronged climate strategy and public commitments to:

1) align our portfolio with the Paris Agreement Goals and set sectorportfolio alignment targets in line with the NZBA and with the NZAMi: to ensure projected carbon emissions will contribute to limiting warming to a 1.5ºC rise above pre-industrial levels.

2) help customers transition to a low-carbon economy, with the commitment to raise EUR 120bn in green finance between 2019 and 2025 and EUR 220bn by 2030; offer our customers guidance, advice and specific business solutions; and enable them to invest in a wide-ranging ESG proposition according to their sustainability preferences.

Some environmental products and services delivered by Banco Santander in Spain are:

• Funding renewable energy projects: In 2021 Banco Santander helped to finance new renewable energy projects in Spain with an installed capacity of 3.212 MW.

• Management of credit lines in relation to energy efficiency in collaboration with multilateral institutions such as the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD).

Financing of low-emission vehicles, Banco Santander offers Ecological Car loans for the purchase of hybrid or electric cars with reduced interest rates.

3) reduce our impact on the environment by remaining carbon neutral and sourcing all our electricity from renewable energy by 2025.

In 2021, Banco Santander S.A.. has continued reducing its CO_2 emissions by 56.7% compared to 2020. Additionally, 100% of the electricity used by Banco Santander S.A. comes from green energy sources.

Banco Santander continues to hold the ISO 14001 environmental certificate for the Santander Group City in Boadilla, the bank's headquarters. It has also obtained the LEED GOLD certificate for the new headquarters of Santander España (Luca de Tena), the Abelias building and the DPC in Santander.

4) embed climate in risk management; understand and manage the sources of climate change risks in our portfolios.

Banco Santander considers social and environmental aspects to be crucial in risk analysis and decision making within its financing operations in accordance with its general and sector policies in respect of sustainability, as mentioned above.

In this regard, the bank has established procedures for the analysis and assessment of these risks in operations subject to Banco Santander policies and to external commitments such as the Equator Principles.

Santander Asset Management is operating in 10 countries and aims to have net zero greenhouse gas emissions from the assets we manage by 2050, and it was the first asset manager in Spain and Latam (ex Brazil) to join the initiative. This is consistent with Santander's push for leadership in sustainability and the Group commitment to be net zero in CO2 emissions by 2050.

We continued to make progress in meeting the public commitments set out in 2019.

- Financing or facilitating the mobilisation of EUR 120 billion up to 2025 and EUR 220 billion up to 2030. Since 2019 we have already mobilised €61 billion.
- Since 2020 we are carbon neutral in our own operations.
- That 100% of the electricity we use comes from renewable sources by 2025. At the end of 2021, 77% of the energy consumed in the Group (10 main geographies) came from renewable sources. In Spain it is 100%.
- Eliminate the use of unnecessary single-use plastic in all our offices and buildings. By the end of 2021 we have completely eliminated unnecessary single-use plastic.

Information about labour questions and employees

Banco Santander aims to be one of the best banks to work for, able to attract and retain the best global talent, enabling it to accelerate the transformation and helping people and society prosper.

Human resources strategy is based on having the best team of professionals: a diverse and committed team with a common culture (based on corporate behaviour and a way of making things simple, personal and fair) ready to give customers a distinctive and quality service.

a) Employment

At 31 December 2021, Banco Santander, SA, in Spain, had a headcount of 21,848 employees, 1.8% less than in 2020, with an average age of 45, of whom 50% were women and 50% men.

Some 99.9% of labour contracts are permanent full-time.

In 2021, we began to reduce our workforce on organizational, production-based and economic grounds. Following informal discussions with workers' legal representatives to explain our reasons, we entered into formal negotiations that ended with an agreement with most trade unions. All of the measures agreed with the European Works Council to align workforce restructuring with socially responsible practices were in the restructuring agreement. The alternative measures we proposed included geographic and in-company relocations to lower the number of potential lay-offs. On top of considering employees in vulnerable situations to protect their jobs. In total there were 3,541 dismissals.

The gender pay gap at Banco Santander S.A. in Spain is 13.1% (in median) and the difference in compensation for identical positions is 5.1%. The difference in comparison with the Group (1%) is due mainly to the legacy of the mergers carried out in recent years and to changes in functions or the fact that some positions are not equivalent.

Employees with a disability account for 1.4% of the total (+0.2 vs 2020).

b) Work organisation

At Santander we believe our diverse organization must adapt to the needs and characteristics of its teams.

We redesigned our global flexiworking framework to address where, when and how much we work:

- 'Where': Possibility of home/remote working.
- 'When': Intensive day, flexible start/end and break times and alternative shifts.
- 'How much': Part-time working, special leave, flexible holidays, job sharing and other measures.

Because we enabled managers to take charge of deciding where their people can work, each area and business has implemented new ways of working based on the characteristics of the team and its needs.

The corporate FlexiWorking policy, applicable to Santander S.A. and the entire Group, encompasses a wide range of measures so that employees can benefit according to their personal needs and professional situation. These measures refer mainly to:

In addition, the Banco Santander has measures aimed at facilitating the work-life balance of its employees through the different agreements signed with the relevant unions´ representatives. Santander has committed to promoting a rational management of working time and its flexible application, as well as the use of technologies that allow a better organisation of the work of our professionals, specifically addressing the employees´ right to digital disconnection.

c) Health and safety

The health of its employees is a priority for the bank.

In 2021, we appointed a global head of health and well-being to help draw up a strategy and implement it across our footprint.

We drafted our Global health and well-being policy, which will be available to the public in 2022. We also began work on global guides that will set standards on mental and emotional health, digital balance and other priority areas to be implemented by subsidiaries

The BeHealthy initiative aims to make Banco Santander one of the healthiest companies in the world and to offer employees health and wellbeing benefits.

As part of our Covid-19 response, we continued to enforce these prevention measures to make sure our employees stayed healthy.

Banco Santander has a plan for the prevention of workplace risks that is available to all employees on the corporate intranet.

Banco Santander also **promotes a healthy work/life balance through flexible work policies and services** to satisfy employees' personal and family needs. The general code of conduct highlights our ethical principles, including the importance of encouraging a working environment that is compatible with employees' personal and family life.

Also, as part of the "**Our way of working**" initiative, the bank has assessed its new work spaces and equipment, both from an ergonomic and safety perspective.

d) Labour relations

Banco Santander has made **a formal commitment to foster workforce labour** relations in its code of conduct.

The code of conduct stablishes the obligation to respect the internationally recognised rights of unionisation, association and collective bargaining, and the activities carried out by the unions that represent employees, in accordance with the functions and areas of responsibility legally attributed to them.

In addition, the human rights policy describes Banco Santander's principles and commitments with respect to relations with the Bank's employees. These commitments are fostered through social dialogue and include:

- Preventing discrimination and practices that are harmful to people's dignity.
- Rejecting forced and child labour.
- Respecting freedom of association and collective bargaining.
- Protecting employees' health.
- Offering decent work

Also, in meetings of the European Works Committee, various declarations have been signed together with legal representatives of employees in the main European countries in which the Group Santander operates (Spain, Portugal, Germany, the UK, Italy, Poland and Nordics).

- 2008: equal treatment in Santander Group companies.
- 2009: basic labour principles and rights that should govern the framework of labour relations in Santander within the scope of the European Union.
- 2011: framework of labour relations for the provision of financial services.
- 2016: joint declaration on the restructuring of workforces in the European area.

In addition, the collective labour agreement for the banking sector, negotiated and signed by the bank, contains various declarations about promoting labour dialogue.

The dialogue with employees' representatives is maintained through numerous bilateral meetings and specific committees, including:

- The Health and Safety Committee
- The Employment Committee
- The Training Committee
- The Pension Plan Oversight Committee
- The Equal Opportunities Committee
- The Committee for the Solidarity and Social Assistance Fund
- Bilateral meetings with Santander Group companies, such as Openbank and Santander Consumer

These specific meetings with the unions are held to inform them about significant Banco Santander projects and to obtain their feedback, in the understanding that their support is necessary and is directly related to the satisfactory implementation of these projects.

In Spain, practically 100% of the workforce is covered by a collective labour agreement.

In 2021, we began to reduce our workforce on organizational, production-based and economic grounds. Following informal discussions with workers' legal representatives to explain our reasons, we entered into formal negotiations that ended with an agreement with most trade unions. All of the measures agreed with the European Works Council to align workforce restructuring with socially responsible practices were in the restructuring agreement. The alternative measures we proposed included geographic and in-company relocations to lower the number of potential lay-offs. On top of considering employees in vulnerable situations to protect their jobs

e) Training

We value continuous learning so our employees can adapt to an ever-changing environment and help accelerate our transformation.

Our global learning and development policy sets the standards for designing, reviewing, launching, overseeing and enhancing training and development programmes to:

- support our business and cultural transformation in accordance with Santander's governance standards; and,
- foster innovation, knowledge sharing and transfer, and the skills employees need to perform their duties successfully as part of global talent management.

The three pillars of our employee upskilling and reskilling are strategic workforce planning (SWP), our current skill model and a single skills catalogue to meet strategic business needs.

We put training modules on our digital ecosystem, Dojo, which turns them into study plans and "roadmaps" for learning. Dojo facilitates informal, interactive and structured ways of learning, combining many formats, settings and tools so every employee can choose what, when, how and how much to learn.

Furthermore, each subsidiary's Learning and Development team pinpoints specific learning needs relating to its geography and designs training courses consistent with Dojo's standards.

f) Accessibility

Improving access to our products and services is a key aspect of Banco Santander's commitment to be a bank that is Simple, Personal and Fair.

The corporate works manual includes minimum accessibility criteria based on Design for All (DfA) principles. These criteria, which refer to office architecture, furniture, lighting, signage and the functional allocation of spaces, are applied by default in new offices and in those upgrades in which this is technically possible.

Banco Santander also wants to provide maximum accessibility for all the users of its various websites. In this respect, both in the development and maintenance of its websites, the bank applies the accessibility guidelines established by the Web Accessibility Initiative (WAI) working group of the World Wide Web Consortium (W3C), at level AA.

g) Equality

Banco Santander believes that diversity enriches human capital, resulting in an inclusive and diverse work environment that achieves better solutions and offers added value.

The board of directors of Banco Santander is a clear example of diversity in all its aspects. It has diversity of gender (40% of board members are women) and nationality (Spanish, British, American and Mexican) and a broad industry representation (finance, retail, technology, infrastructure and academia).

In managing employee talent, Santander considers all existing sources of diversity, including gender, race, age, national origin, disability, culture, education, and professional and life experience.

In 2017, Banco Santander approved principles for promoting diversity that act as a benchmark for all the initiatives that are developed in this area. These principles, which are included in the corporate culture policy, envisage all the aforementioned sources of diversity, and they are applicable to all stages of talent management in the bank (recruitment, training, professional development, compensation, etc.).

Our commitment to a diverse and inclusive work environment is a cornerstone of our corporate strategy. Our global D&I executive working group and D&I expert network of local representatives perform a vital role in driving and cascading the importance of diversity and inclusion across Grupo Santander.

To recruit, manage and develop talent that reflects broader society, we developed a diversity and inclusion (D&I) strategy in 2020. It sets out to consolidate an inclusive workforce in terms of gender, LGBTI, people with disabilities, and cultural diversity (age, ethnicity and race, nationality, educational and professional background, and international experience) by:

- encouraging leaders to get involved: their commitment to being open and inclusive and to promoting diversity will help consolidate our diverse and inclusive culture.
- increasing awareness: promoting diversity and shaping our culture through global standards and actions such as FlexiWorking, parental leave, training, employee networks and the celebration of international days.
- promoting balance: special focus on increasing the number of women in management and in development programmes.

In 2019, the bank has established various commitments with the objective of achieving equality between men and women.

- To have between 40% - 60% women members on our Group Board by 2021. We have closed 2021 with 40% women on the board.
- To have 30% women in senior leadership positions by 2025. We have closed 2021 with 26,3% women on senior leadership positions.

Banco Santander is one of the leading companies in the *Bloomberg Gender-Equality Index 2021*, We are the first bank, and the second highest rated company.

Information about Human Rights

In line with its corporate culture, Banco Santander undertakes to respect and promote human rights in its sphere of operations, and to prevent or minimise any violation directly caused by its activity.

Banco Santander has a specific policy that includes commitment to human rights, in accordance with the strictest international standards, especially the UN's Guiding Principles on Business and Human Rights of 2011.

This policy, driven by the Board of Directors, is applicable to Grupo and Banco Santander and is available at www.santander.com

Banco Santander's policy on human rights is in line with Banco Santander's General Code of Conduct and its other policies in respect of sustainability.

Information about the fight against corruption

Banco Santander is staunchly committed to fighting any kind of corruption in the public and private sectors alike. In order to comply with this pledge, Banco Santander has drawn up this Anti-Corruption Policy which lays down all the anti-corruption elements which the Grupo Santander must comply with.

Banco Santander considers it a strategic objective to have a system for the prevention of money-laundering and terrorist financing that is advanced and effective, permanently adapted to the latest international regulations and able to deal with new techniques employed by criminal organisations.

It also has a corporate framework that lays down principles for acting in this respect and sets minimum standards applicable to local units. The latter are responsible for directing and co-ordinating procedures for the prevention of money-laundering and terrorist financing, and for investigating and issuing alerts about suspicious transactions and responding to requests for information from the supervisors.

As a signatory of the ten principles of the UN's Global Compact, Banco Santander undertakes to work against corruption in all its forms, including extortion and bribery.

In addition, Banco Santander has whistle-blowers' channels for employees, which form part of the general code of conduct, and for suppliers, designed for reporting inappropriate behaviour by bank employees in matters regarding corruption and bribery that are contrary to internal regulations, to the compliance function.

In 2021, the main concerns were related to corporate values (SPF) and behaviours and to labour regulations, followed by internal fraud, workplace harassment, marketing of products and services, privacy and data protection.

In 2021, 79 equal opportunity and non-discrimination complaints were received in the Group, 6 of which resulted in disciplinary action, including 2 dismissals.

Information about society

a) The bank's commitments to sustainable development

Banco Santander contributes to economic and social development through initiatives and programmes that promote education, entrepreneurship, employability and social wellbeing.

Banco Santander has, as one of its priority lines of action to contribute to sustainable development, the financial empowerment of people. We help people to access financing, to create or develop micro-enterprises, and we provide them with the necessary skills to manage their finances through financial education. Our goal is to include and financially empower 10 million people by 2025. Three main focuses of action:

- We help unbanked, underbanked and vulnerable people to access and use basic financial services.
- We offer specific products and services to low-income people, people with financial problems, and vulnerable groups.
- We promote financial education programs

Through Santander Universities, a unique initiative in the world, we focus our efforts on supporting education, entrepreneurship and employment. Banco Santander developed the largest scholarship programme ever launched by a private entity.

Grupo Santander has over 1,400 agreements with universities and academic institutions in 31 countries. Banco Santander SA has agreements with 100 academic institutions.

During 2021 Banco Santander invested a total of EUR 106 million to support higher education. Of which 69 million was disbursed by Santander Spain and the Corporate Centre, and which supported more than 43,000 students and university professors.

The bank also supports the communities where it operates through numerous local programmes, encouraging the participation of bank employees as a way of promoting solidarity, motivation and pride in belonging, maintaining proximity and ties with their surroundings.

In total, in 2021, Banco Santander invested more than EUR 46 million, EUR 13 million in social programs in Spain, helping more than 500,000 people.

Also, through the Banco Santander Foundation, the bank carries out important work in cultural patronage and the protection and recovery of natural spaces.

b) Outsourcing and suppliers

Banco Santander has a supplier management model and policy that establishes a common methodology for all units about the selection, certification and assessment of suppliers. In addition to price, quality of service and other traditional criteria, it includes ESG factors, such as diversity and inclusion, human rights and sustainability. These include:

- Whether the supplier has obtained official certifications related to quality, environmental management, labour relations, the prevention of workplace risks, corporate social responsibility and similar.
- Whether they have subscribed to the Global Compact or have their own principles in respect of ethical, social and environmental questions and report about these on a regular basis.
- Or whether they have frameworks, policies, procedures, records of indicators and/or initiatives related to environmental and social matters.

The third-party certification policy include the responsible behaviour principles for suppliers. These principles lay down the minimum conditions that Banco Santander expects of its suppliers around ethics (ethics and conduct), labour matters (human rights, health and safety, and diversity and inclusion) and the environment.

Santander

Similarly, Banco Santander has a whistle-blowers' channel for suppliers through which suppliers who provide services to the Bank or any of its subsidiaries in Spain can report inappropriate conduct by Group Santander employees which does not conform to the framework of the contractual relationship between the supplier and the general principles of conduct of the Banco Santander.

c) Consumers

For Banco Santander a key characteristic of a responsible bank is that it manages and oversees the marketing and commercialization of products and services and consumer protection appropriately.

By placing our customers at the heart of what we do, we aim to win and keep their loyalty. To achieve that, we use a range of interactive channels to listen to and understand them better.

Our product, service and consumer protection framework sets out the principles that promote a strong SPF relationship with customers and establishes the basics for managing and mitigating conduct risk in design, sales, post-sales and services.

Our Product Governance & Consumer Protection function, is responsible for ensuring appropriate management and control in relation to products and services and consumer protection.

Within this function, the Product Governance Forum protects the customers by validating products and services and preventing the launch of inappropriate ones.

In addition, the corporate consumer protection policy establishes the criteria for the identification, organisation and implementation of consumer protection principles and the mechanism for the overseeing and supervising compliance.

In 2021, we worked on an instruction manual about our vulnerable customer and special case management model, and set a roadmap for its roll-out among subsidiaries, therefore ensuring a consistent, group-wide approach to identifying and managing vulnerable customers in such high-impact procedures as collections and fraud management. We offered monthly training courses and we ran an awareness campaign at the Corporate Centre and shared the manual across our footprint.

Appropriate management of complaints is another important aspect of a responsible banking strategy. Banco Santander has a procedure for complaint management and root cause analysis whose objective is to issue standards to all the units for proper complaint management, ensuring compliance with the local and industry-wide regulations applicable in each case, and offering the best possible service to customers. In 2021 Banco Santander received a total of 120,953 complaints, 19.3% lower than in 2020..

Banco Santander also constantly monitors its customers' opinions and their experiences. This information reveals how the range of services offered can be improved and helps to measure customer loyalty. To measure customer loyalty and satisfaction, Banco Santander uses the Net Promoter Score (NPS). In 2021 we have performed well, maintaining our 2nd position in Spain, and being top 3 in 8 of the main markets in which we operate at a group level..

d) Tax information

Banco Santander pays its fair share in taxes in every jurisdiction where we operate. Our tax strategy, which has been approved by the Board, sets out the principles by which the entire Group Santander operates. It is published on our website.

Banco Santander contributes economically and socially to the countries in which it operates by paying all taxes borne directly by the Grupo Santander (taxes paid by the Group[4]) and collecting or withholding taxes from third parties generated through business activity, cooperating as required with the local tax authorities (taxes from third parties[5]).

The total taxes collected and paid by Banco Santander in Spain in 2021 amounted to EUR 3,048 million, of which 1,707 million were the bank's own taxes and EUR 1,341 million were third-party taxes.

[4] Including net corporation tax payments, VAT and other non-recoverable indirect taxes, employer's social security contributions and other withholding taxes, as well as other charges and tariffs.

[5] Including net payments for salary withholdings and employees' social security contributions, recoverable VAT, tax deducted at source on capital, non-resident taxes and others.

6. Research, development and innovation

Research, development and innovation activities

Innovation and technological development are strategic pillars of Grupo Santander. We aim to respond to fresh challenges that emanate from digital transformation, focusing on operational excellence and customer experience.

Moreover, the information from our new technological platforms will help us better understand our customers' journey and enable us to design a more accurate digital profile to generate more confidence and increase customer loyalty.

As well as competition from other banks, financial entities must watch out for new financial system entrants, whose differentiating factor and competitive advantage is their use of new technology.

Developing a competent strategic technology plan must provide:

- greater capacity to adapt to customers' needs (customized products and services, full availability and excellent service across all channels).
- enhanced processes for Grupo Santander's professionals to ensure greater reliability and productivity; and
- proper risk management, supplying teams with the necessary infrastructures to support the identification and assessment of all business, operational reputational, regulatory and compliance risks.

As a global systemically important bank, Santander and its subsidiaries face increasing regulatory demands that impact system models and their underlying technology. This requires additional investments to guarantee compliance and legal security.

As in previous years, the latest European Commission ranking (2021 EU Industrial R&D Investment Scoreboard, based on 2020 data) ranked our technological effort first among Spanish companies and we are the second global bank for investment in R&D.

The equivalent investment in R&D&I to that considered in this ranking amounted to EUR 1,325 million.

Technological strategy

To meet business and customer needs, we must integrate new digital capabilities such as agile methodologies, public- and private-Cloud-based products and core systems development. We must also broaden our data and technological capabilities (APIs - Application Programming Interface, artificial intelligence, robotics, blockchain, etc.).

Our technological strategy aligns with the three pillars of the group's strategy: One Santander, PagoNxt and Digital Consumer Bank. Our technological pillars (Cloud, Agile, Data, Core evolution and Deep tech skills), a flexible and common architecture and a global operating model, as well as better management of risk and associated costs, help us achieve this.

In order to ensure the alignment of the technology strategy in all Group units, the SARB (Santander Architecture Review Board) holds monthly meetings that bring together the Chief Technology Officers (CTOs) of the different units and businesses to actively participate in key architecture decisions. The SARB oversees everything, the analysis of potential assets, the migration to cloud or the review of datalake reference architectures.

The use of a single technology stack and reference architectures are key to achieving Santander Common Architecture. Based on simplification, the recycling of components and the principle of Composable Architecture, the SARB also guarantees the use of technologies that matches the business of the future.

Our implementation of this strategy is based on our set of rules, a committed and experienced organization in relationships with our country units, and a governance model that articulates projects and initiatives that help crystallize the strategy in all our markets.

The development of our technology and operations (T&O) model will help us cultivate new business, focusing on global products and digital services. Almost 5,000 Santander Global Tech professionals in Spain, the UK, Portugal, Poland, the US, Mexico, Brazil and Chile are gradually incorporating the global product portfolio agreed by the country units, our global businesses and the T&O division, guaranteeing the quality of digital services and products, and also their security.

Technological infrastructure

Grupo Santander has a network of high-quality data centres (CPDs) interconnected by a redundant communications system. The CPDs are spread across strategic countries to support and develop Grupo Santander's activity and combine traditional information technology (IT) systems with the capabilities supplied by an on-premise private Cloud, which thanks to its swift adoption enables integrated management of the business areas' technology, accelerates the digital transformation and allows significant cost savings.

Santander has currently migrated more than 75% of its technology infrastructure to the cloud and expects to complete the roll-out by 2023. Our Cloud strategy enables us to improve processes, swiftly innovate and improve service quality. Thanks to the Local Cloud Centres of Excellence (local CCoEs), coordinated under the Global CCoE, we can guarantee consistent and rigorous adoption of the Cloud across our entities. This minimizes risks in accordance with the Public Cloud policy. This process is also expected to reduce the energy consumption of the Bank's technology infrastructure by 70%, which contributes to Santander's responsible banking goals.

Cybersecurity

Cybersecurity is one of Grupo Santander's main priorities and a crucial element in supporting our mission of 'helping people and businesses prosper', as well as offering excellent digital services to our customers.

New cyber services and capabilities created during the Cybersecurity Transformation 3-year Plan have been completed in 2020 and moved to business as usual (BAU) operation in line with the Group's Cybersecurity Framework. This has allowed us to set the organisational foundations and governance for cyber security globally, establish global cyber services within the group, strengthen defences in line with existing best practices and latest technology tools, and help drive a security aware culture for employees and clients. During the transformation, Santander established a Global Cybersecurity Centre in Madrid which provides services to protect all Group entities, systems and customers by taking a proactive approach to identifying, monitoring and responding to cyber threats 24/7.

At the same time, as cyber threats and attack techniques continue to develop, continuous evolution of cyber defences is essential. In 2021, the following key strategic cyber security pillars and initiatives were established to help Santander evolve its cyber defences in line with emerging threats and technologies:

- Level the "battlefield": The current threat landscape is increasingly challenging with new vulnerabilities, techniques and procedures reported on a daily basis. It is crucial to take actions that make attacks more difficult through deterrence, deception and automation techniques.
- Defend the (hyper-connected) Bank of the Future: The banking ecosystem (platforms, cloud and supply chain) is increasingly hyper-connected and interdependent. Cybersecurity teams have been working on implementing new defence paradigms such as "Zero Trust" and other innovative solutions.
- Generate Value & Trust: Helping customers stay safe online is key to continue building trust and helping everyone prosper in the digital world. Additionally, promoting public-private partnerships and collaborating to tackle cyber crime is key to protect customers and society as a whole.

See more information in the Consolidated Directors' Report.

7. Customer service and customer defence

Customer Service Annual Report

In accordance with article 17 of order ECO / 734/2004 of March 11 of the Ministry of Economy on the departments and services of Customer Service and the Customer Ombudsman of Financial Institutions, the directors' report summarizes the Annual Report to be presented by the holder of the Service on the Board of Directors in March 2021.

Customer service and customer defence service

In compliance with Law 44/2002 on Measures for the Reform of the Financial System of the 734/2004 Order of the Ministry of Economy on Departments and Services of Customer Service and the Customer Ombudsman of Financial Institutions and in accordance with Article 37 Of the Regulations of the Customer Claims and Attention and Defence Service in Grupo Santander, below is a summary of the activity developed by the said Service during 2021, in relation to the management of complaints and claims.

This complaint and customer service department has managed during 2021 the claims of 18 companies of Grupo Santander in Spain, three less than in 2020 after the liquidation of Santander Brasil at the end of 2020, the adhesion of Caceis Bank to its own customer service and the sale of the Popular Vida 2020 business to Santander Generales Seguros y Reaseguros, S.A., a company not adhered to this service.

Also, note the name change from Santander Spain Merchant Services to Getnet Europe.

Global evolution of complaints and claims received by Banco Santander in 2021

In 2021, 131,029 claims were accepted in the complaint and customer service department. Of these, 2,071 came through the Customer Ombudsman, 2,814 through the Bank of Spain, 216 through the National Securities Market Commission (CNMV) and 125 through the General Directorate of Insurance and Pension Funds (DGSFP).

Analysis of claims by affected products

Complaints and claims

The following is the classification of complaints received in 2021 according to the type of product:

Number of complaints	2021	2020
Assets	47,442	47,806
Liabilities	31,314	33,948
Services	18,063	18,967
Insurances	2,178	1,901
Funds and Plans	1,407	1,922
Payment methods	23,503	24,024
Securities / Capital Markets / Treasury	5,326	25,384
Others	1,736	1,916
	131,029	**155,868**

Resolution of claims and complaints

As of 31 December 2021, 95% of the complaints and claims received had been resolved.

The average resolution time in 2020 was 34 calendar days. 67% of the complaints and claims resolved have required a processing time of more than 15 calendar days.

In 23% of cases, the resolutions have been favourable to customers.

Entities

The following are the companies adhering to the Regulation of the Customer Service of Complaints, Care and Defence of Grupo Santander and their corresponding number of complaints and claims received.

Entities	Admitted to processing	Non-admitted to processing
BANCO SANTANDER, S.A.	114,353	5,922
SANTANDER CONSUMER FINANCE, S.A.	10,076	417
OPEN BANK, S.A.	2,784	25
SANTANDER SEGUROS Y REASEGUROS CÍA. ASEGURADORA,SA	2,115	116
SANTANDER PENSIONES, S.A., E.G.F.P.	767	41
SANTANDER ASSET MANAGEMENT, S.A., S.G.I.I.C.	393	36
GETNET EUROPE, EP, SL	337	13
ALTAMIRA SANTANDER REAL ESTATE, S.A.	137	25
SANTANDER FACTORING Y CONFIRMING, S.A., E.F.C.	31	—
EURO AUTOMATIC CASH	24	—
SANTANDER LEASE, S.A., E.F.C.	12	—
TRANSOLVER FINANCE, E.F.C., S.A.	—	—
SANTANDER REAL ESTATE, S.A.	—	—
SANTANDER INTERMEDIACIÓN CORREIDURÍA DE SEGUROS, S.A.	—	—
LURI 6, S.A.U.	—	—
CACEIS BANK SPAIN, S.A.	—	—
SANTANDER INVESTMENT, S.A.	—	—
SANTANDER BRASIL E.F.C., S.A.	—	—
SANTANDER PRIVATE BANKING GESTIÓN, S.A., S.G.I.I.C	—	—
SANTANDER CAPITAL DESARROLLO, S.G.E.I.C., S.A.U.	—	—
Total	**131,029**	**6,595**

The network of branches and the different channels of relationship solve, in the first instance, the requests, disconformities or incidents that the clients communicate to Banco Santander, trying to avoid that they become complaints to other instances.

8. Risk management, solvency and capital

See notes 49 and 1.e) on risk and capital to the Bank Annual Accounts. See more information in the Consolidated Directors' Report.

9. Other relevant information

9.1 Treasury shares:

See note 30 to the Bank Annual Accounts.

The acquisition of treasury shares was last authorized at our April 2020 AGM, for five years and subject to the following provisions:

- Treasury shares held at any time cannot exceed 10% of Banco Santander's share capital, which is the legal limit set under the *Ley de Sociedades de Capital* (Spanish Companies Act).
- The purchase price cannot be lower than the nominal value of the shares nor exceed 3% of the last trading price in the Spanish market for any trades in which Banco Santander does not act on its own behalf.
- The board may establish the purposes for and the procedures through which the authorization may apply.

On 27 October 2020, the board approved the current treasury shares policy, which dictates that treasury share transactions may be carried out for these purposes:

- Provide liquidity or supply of securities in the market for Banco Santander shares, which gives this market depth and minimizes any temporary imbalances in supply and demand.
- Take advantage for the benefit of all shareholders of weakness in the share price in relation to its medium-term outlook.
- Meet our obligations to deliver shares to our employees and directors.
- Serve any other purpose authorized by the board within the limits set at the general meeting.

Among other things, the policy also provides for:

- The principles to uphold in treasury share trades, which include protecting financial markets' integrity and prohibiting market manipulation and insider trading.
- The operating rules on how treasury share trades must be carried out, unless in exceptional circumstances as per the policy. These rules include:
  - Responsibility for execution of these trades, which falls on the Investments and Holdings department, kept separate from the rest of Santander.
  - Venues and types of trades. Trades must generally be carried out in the orders market of the *mercado continuo* (continuous market) of Spanish stock exchanges.
  - Volume limits, which in general must not exceed 15% of the average daily trading volume for Banco Santander shares in the previous 30 sessions in the *mercado continuo*.
  - Price limits. In general, (a) buy orders should not exceed the greater of the price of the last trade in the market between independent parties or the highest price in a buy order in the order book and (b) sell orders should not be lower than the lesser of the price of the last trade in the market by independent parties and the lowest price in a sell order in the order book.
  - Time limits, including a 15-day black-out period that applies before each quarterly results presentation.
- Disclosure to the markets of treasury shares trading.

The policy applies to the discretionary trading of treasury shares. It does not apply to transactions in Banco Santander shares carried out to hedge market risks or provide brokerage or hedging for customers.

The full treasury shares policy is at Banco Santander's corporate website.

On 28 September 2021, the board resolved to execute a treasury shares buyback programme (First Buyback Programme) worth up to 841 million euros (20% of the Group's underlying profit for H1 2021) according to the Treasury shares policy and 2021 Shareholder remuneration policy. It had based its decision on authorization by the ECB, and by shareholders at the April 2020 AGM.

In the First Buyback Programme (from 6 October to 25 November 2021), we acquired 259,930,273 treasury shares —1.499% of Banco Santander's share capital— at a weighted average price per share of 3.2355 euros.

The purpose of the First Buyback Programme was to reduce Banco Santander's share capital by cancelling the repurchased shares, which the board put to a vote at the 2022 AGM.

Under the same AGM approval, on 24 February 2022 the board of directors resolved to execute another shares repurchase programme at a maximum of 865 million euros (approximately 20% of the Group's underlying profit for H2 2021) as part of shareholder remuneration charged against 2021 results (Second Buyback Programme).

The purpose of the Second Buyback Programme is to reduce Banco Santander's share capital by cancelling purchased shares (up to the agreed maximum), for which the board submitted a resolution for a vote at the 2022 AGM.

The Bank's shares owned by the consolidated companies accounted for 1.60% of issued share capital at 31 December 2021.

9.2 Dividend policy:

As required in Banco Santander's by-laws, each year the shareholder remuneration policy is submitted for approval by the AGM.

Distribution charged against 2021 results

ECB Recommendation of 15 December 2020, which asked banks not to pay out dividends charged against 2021 results (ECB Recommendation III), was in force for over half of 2021.

On 23 July 2021, the ECB believed the reasons underpinning ECB Recommendation III to limit dividend payouts were no longer valid and, thus, repealed it effectively on 30 September 2021.

On 28 September 2021, the board announced its 2021 shareholder remuneration policy to pay out an interim distribution from approximately 40% of the Group's underlying profit (half through a cash dividend and half through a shares buyback).

- Interim remuneration. Accordingly, it authorized the payment of an interim dividend of 4.85 euro cents per share (i.e. 20% of the Group's underlying profit for H1'21), in cash and charged against 2021 profits; it was paid on 2 November 2021. The board also voted to launch the First Buyback Programme worth 841 million euros (20% of the Group's underlying profit for H1'21) once the ECB approved it on 28 September 2021.
- Final remuneration. On 24 February 2022, within the 2021 shareholder remuneration policy, the board of directors voted to:
  - submit a resolution at the 2022 AGM to approve a final cash dividend in the gross amount of 5.15 euro cents per share, worth approximately 865 million euros (approximately 20% of the Group's underlying profit for H2 2021). If approved at the AGM, the dividend would be payable from 2 May 2022. The estimate of 865 million euros is based on the assumption that, once the Second Buyback Programme has taken place, the number of outstanding shares entitled to receiving dividends will be 16,804,353,202. Therefore, the total dividend may be higher if fewer shares than anticipated are acquired in the Second Buyback Programme; otherwise, it will be lower.
  - implement a Second Buyback Programme worth 865 million euros (approximately 20% of the Group's underlying profit for H2 2021), once the necessary regulatory authorization has been obtained.

If shareholders approve the dividend payout resolution and the ECB authorizes the Second Buyback Programme, it will result in a payout of approximately 40% of the Group's underlying attributable profit for 2021. If the buyback reaches the maximum within the programme period, remuneration will be split equally between cash dividends and shares buybacks. This final remuneration will enable Santander to meet the target set in the shareholder remuneration policy disclosed to the market on 28 September 2021.

9.3 Stock market information:

Banco Santander shares are listed on Spanish stock exchanges (Madrid, Barcelona, Bilbao and Valencia, under the trading symbol 'SAN'), the New York Stock Exchange (NYSE) as American Depositary Shares (ADS) under the trading symbol 'SAN' (each ADS represents one Banco Santander share), the London Stock Exchange as Crest Depositary Interests (CDI) under trading symbol 'BNC' (each CDI represents one Banco Santander share), the Mexican Stock Exchange under the trading symbol 'SAN', and the Warsaw Stock Exchange under the trading symbol 'SAN'.

The global economy came back strong. Vaccination programmes enabled a return to economic activity and mobility amid excess liquidity and expansionary fiscal policies. Despite uncertainties due to the surge of new covid-19 variants, positive trends drove a rise in commodity prices and inflationary pressures, which rebounded to the highest levels in a decade in the US and the eurozone.

Central banks in developed economies began a widespread withdrawal of monetary stimulus. The Bank of England raised interest rates to 0.25% on the back of a strong jobs market and high inflation. The US Federal Reserve announced its intention to start raising rates no later than mid-2022. The ECB is limiting the withdrawal of stimulus to liquidity by scaling back its purchase programmes.

Major global equity indices ended 2021 with significant aggregate gains. The banking industry registered better performance owing to the lifting of restrictions on dividend payments, favourable results of US bank stress tests, and better outlooks for most European banks.

The IBEX 35 in Spain increased 7.9%; the DJ Stoxx 50 in Europe by 22.8%; DJ Banks by 34.0%; and the MSCI World Banks by 22.7%.

By 31 December 2021, Santander's market capitalization of EUR 50,990 million was the second largest in the eurozone and 24th largest in the world among the financial institutions.

13,484 million shares traded in the year for an effective value of EUR 41,195 million and a liquidity ratio of 78%.

The Santander share closed 2021 at 2.941 euros.

At 31 December 2021 the total number of Santander shareholders was 3,936,922.

9.4 Average period of payment to suppliers:

The average period of payment to suppliers during 2021 is 10 days, term which is below the maximum established in applicable regulations.

10. Events after the reporting period

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

11. Annual corporate governance report and Annual report on directors' remuneration

According to articles 540 and 541 of the Spanish Companies Act, Banco Santander, S.A. has prepared the annual corporate governance report and the annual report on directors' remuneration for the year ended 31 December 2021 (that are part of the directors' report of that financial year) with the contents determined by Order ECC/461/2013, of 20 March, and by Circular 3/2021, of 28 September, of the National Securities Market Commission (CNMV), that modifies Circular 5/2013, of 12 June, that defines the annual corporate governance report model for listed companies, and Circular 4/2013, of 12 June, that defines the annual report on directors' remuneration model for listed companies.

The annual corporate governance report includes a section that refers to the compliance of the corporate governance recommendations in Spain.

The annual corporate governance report and the annual report on directors' remuneration are included, as a separate section, in the individual directors' report in accordance with the provisions of article 538 of the Corporate Enterprise Act. The aforementioned reports are sent individually, as other relevant information, to the CNMV, and are included in the consolidated directors' report as a separate section. They are available on the Bank's corporate website (www.santander.com) and on the CNMV website (www.cnmv.es).

Pursuant to Article 253, section 1 of the revised Spanish Companies Act *(Ley de Sociedades de Capital*), the board of directors of Banco Santander, S.A. draws up the individual financial statements (comprising the balance sheet, the income statement, the statement of recognized income and expense, the statement of changes in total equity, the statement of cash flows and the notes to the individual financial statements) and the individual directors' report for the 2021 fiscal year in eXtensible HyperText Markup Language (XHTML) format, which conforms to the single electronic reporting format required under Directive 2004/109/EC and Delegated Regulation (EU) 2019/815.

The directors of Banco Santander, S.A., listed below with an indication of their respective positions, declare that, to the best of their knowledge, the company's individual financial statements for the 2021 financial year were drawn up in accordance with the applicable accounting principles and give a true and fair view of the assets, liabilities, financial position and profit or loss of the company, and that the directors' report includes a fair review of the development, performance and position of the company, together with a description of the principal risks and uncertainties that it faces.

Boadilla del Monte (Madrid), 24 February 2022

ANA PATRICIA BOTÍN-SANZ DE SAUTUOLA Y O'SHEA

Chair

BRUCE CARNEGIE-BROWN

Vice Chair

JOSÉ ANTONIO ÁLVAREZ ÁLVAREZ

Vice Chair and Chief Executive Officer

MEMBERS:

HOMAIRA AKBARI

LUIS ISASI FERNÁNDEZ DE BOBADILLA

FRANCISCO JAVIER BOTÍN-SANZ DE SAUTUOLA Y O'SHEA

HENRIQUE MANUEL DRUMMOND BORGES CIRNE DE CASTRO

SOL DAURELLA COMADRÁN

SERGIO AGAPITO LIRES RIAL

GINA DÍEZ BARROSO

R. MARTÍN CHÁVEZ MÁRQUEZ

RAMIRO MATO GARCÍA-ANSORENA

BELÉN ROMANA GARCÍA

ÁLVARO ANTONIO CARDOSO DE SOUZA

PAMELA ANN WALKDEN