## b) Breakdown

The breakdown, by origin of the issuer, of debt securities at 31 December 2023, 2022 and 2021, net of impairment losses, is as follows:

EUR million

| | 2023 | | | | 2022 | | | | 2021 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Private fixed-income | Public fixed-income | Total | % | Private fixed-income | Public fixed-income | Total | % | Private fixed-income | Public fixed-income | Total | % |
| Spain | 2,525 | 40,321 | 42,846 | 17.62% | 1,015 | 26,876 | 27,891 | 14.40% | 3,773 | 20,638 | 24,411 | 14.90% |
| United Kingdom | 2,816 | 4,748 | 7,564 | 3.11% | 2,545 | 3,013 | 5,558 | 2.87% | 3,334 | 2,097 | 5,431 | 3.31% |
| Portugal | 2,826 | 4,815 | 7,641 | 3.14% | 2,572 | 3,603 | 6,175 | 3.19% | 3,008 | 3,845 | 6,853 | 4.18% |
| Italy | 2,968 | 12,945 | 15,913 | 6.54% | 1,948 | 8,329 | 10,277 | 5.31% | 1,215 | 1,531 | 2,746 | 1.68% |
| Ireland | 5,632 | 11 | 5,643 | 2.32% | 6,141 | 11 | 6,152 | 3.18% | 4,759 | 52 | 4,811 | 2.94% |
| Poland | 2,937 | 12,482 | 15,419 | 6.34% | 2,830 | 9,443 | 12,273 | 6.34% | 2,848 | 12,727 | 15,575 | 9.51% |
| Other European countries | 9,797 | 15,495 | 25,292 | 10.40% | 8,161 | 9,655 | 17,816 | 9.20% | 8,922 | 3,422 | 12,344 | 7.53% |
| United States | 8,959 | 22,992 | 31,951 | 13.14% | 8,950 | 22,318 | 31,268 | 16.14% | 5,634 | 21,465 | 27,099 | 16.54% |
| Brazil | 13,551 | 32,342 | 45,893 | 18.87% | 9,201 | 28,191 | 37,392 | 19.30% | 5,446 | 29,251 | 34,697 | 21.18% |
| Mexico | 1,969 | 20,738 | 22,707 | 9.34% | 481 | 17,578 | 18,059 | 9.32% | 517 | 14,572 | 15,089 | 9.21% |
| Chile | 49 | 11,995 | 12,044 | 4.95% | 28 | 10,009 | 10,037 | 5.18% | 51 | 9,467 | 9,518 | 5.81% |
| Other American countries | 2,315 | 2,546 | 4,861 | 2.00% | 1,560 | 5,960 | 7,520 | 3.88% | 655 | 2,128 | 2,783 | 1.70% |
| Rest of the world | 806 | 4,623 | 5,429 | 2.23% | 390 | 2,908 | 3,298 | 1.70% | 77 | 2,419 | 2,496 | 1.52% |
| | **57,150** | **186,053** | **243,203** | **100%** | **45,822** | **147,894** | **193,716** | **100%** | **40,239** | **123,614** | **163,853** | **100%** |

The detail, by issuer rating, of Debt securities at 31 December 2023, 2022 and 2021 is as follows:

EUR million

| | 2023 | | | | 2022 | | | | 2021 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Private fixed-income | Public fixed-income | Total | % | Private fixed-income | Public fixed-income | Total | % | Private fixed-income | Public fixed-income | Total | % |
| AAA | 15,152 | 7,887 | 23,039 | 9.47% | 13,481 | 5,494 | 18,975 | 9.80% | 15,956 | 1,773 | 17,729 | 10.82% |
| AA | 15,142 | 36,704 | 51,846 | 21.32% | 9,542 | 30,502 | 40,044 | 20.67% | 2,005 | 26,355 | 28,360 | 17.31% |
| A | 11,175 | 68,112 | 79,287 | 32.60% | 10,058 | 48,341 | 58,399 | 30.15% | 8,594 | 44,359 | 52,953 | 32.32% |
| BBB | 7,749 | 39,173 | 46,922 | 19.29% | 5,181 | 29,900 | 35,081 | 18.11% | 5,234 | 20,304 | 25,538 | 15.59% |
| Below BBB | 4,654 | 34,177 | 38,831 | 15.97% | 2,974 | 33,657 | 36,631 | 18.91% | 3,584 | 30,823 | 34,407 | 21.00% |
| Unrated | 3,278 | — | 3,278 | 1.35% | 4,586 | — | 4,586 | 2.37% | 4,866 | — | 4,866 | 2.97% |
| | **57,150** | **186,053** | **243,203** | **100%** | **45,822** | **147,894** | **193,716** | **100%** | **40,239** | **123,614** | **163,853** | **100%** |

During 2023, 2022 and 2021, the distribution of the exposure by rating level of the previous table has not been affected by ratings reviews of the sovereign issuers.

The detail, by type of financial instrument, of private fixed-income securities at 31 December 2023, 2022 and 2021, net of impairment losses, is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Securitised mortgage bonds | 9,310 | 9,222 | 5,806 |
| Other asset-backed bonds | 10,243 | 7,120 | 6,304 |
| Floating rate debt | 15,376 | 12,397 | 8,081 |
| Fixed rate debt | 22,221 | 17,083 | 20,048 |
| **Total** | **57,150** | **45,822** | **40,239** |

## c) Impairment losses

The changes in the impairment losses on debt securities are summarised below:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Balance at beginning of year | 226 | 215 | 284 |
| Net impairment losses for the year[A] | *24* | 16 | 28 |
| *Of which:* | | | |
| *Impairment losses charged to income* | *36* | *30* | *49* |
| *Impairment losses reversed with a credit to income* | *(12)* | *(14)* | *(21)* |
| Exchange differences and other items | 36 | (5) | (97) |
| **Balance at end of year** | **286** | **226** | **215** |
| *Of which:* | | | |
| By geographical location of risk: | | | |
| *European Union* | *22* | *26* | *25* |
| *Latin America* | *264* | *200* | *190* |

A. Of the EUR 24 million corresponding to net provisions for the year ended 31 December 2023 (EUR 16 million and EUR 28 million at 31 December 2022 and 2021, respectively), EUR 23 million relates to financial assets at amortized cost (EUR 17 million and EUR 31 million at 31 December 2022 and 2021, respectively) and EUR 1 million relates to financial assets designated at fair value through other comprehensive income (EUR -1 million and EUR -3 million at 31 December 2022 and 2021, respectively).

At 31 December 2023, 2022 and 2021 the loan loss provision by impairment stage of the assets accounted for under IFRS9 amounted to EUR 30 million, EUR 25 million and EUR 26 million in stage 1, EUR 8 million, EUR 2 million and EUR 8 million in stage 2, and EUR 248 million, EUR 199 million and EUR 181 million in stage 3, respectively.

# 8. Equity instruments

## a) Breakdown

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

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Classification** | | | |
| Financial assets held for trading | 15,057 | 10,066 | 15,077 |
| Non-trading financial assets mandatorily at fair value through profit or loss | 4,068 | 3,711 | 4,042 |
| Financial assets designated at fair value through other comprehensive income | 1,761 | 1,941 | 2,453 |
| | **20,886** | **15,718** | **21,572** |
| **Type** | | | |
| Shares of Spanish companies | 3,540 | 3,284 | 3,896 |
| Shares of foreign companies | 15,185 | 10,494 | 15,184 |
| Shares of investment funds | 2,161 | 1,940 | 2,492 |
| | **20,886** | **15,718** | **21,572** |

Note 29 contains a detail of the 'Other comprehensive income', recognised in equity, on 'Financial assets designated at fair value through other comprehensive income'.

## b) Changes

The changes in 'Financial assets at fair value through other comprehensive income' were as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Balance at beginning of the year | 1,941 | 2,453 | 2,783 |
| Net additions (disposals) | 11 | (33) | (276) |
| Changes in the fair value of equity instruments measured at fair value through other comprehensive income (EIGR)[A] | (162) | (497) | (171) |
| Changes in the RV hedged with micro-hedging transactions | (29) | 18 | 117 |
| **Balance at end of year** | **1,761** | **1,941** | **2,453** |

A. They do not include fair value movements for currency risk hedged with hedging instruments.

## c) Notifications of acquisitions of investments

The notifications of the acquisitions and disposals of holdings in investees made by the Bank in 2023, in compliance with Article 155 of the Spanish Limited Liability Companies Law and Article 105 of Spanish Securities Market Law 24/1998, are listed in appendix IV.

# 9. Trading derivatives (assets and liabilities) and short positions

## a) Trading Derivatives

The detail, by type of inherent risk, of the fair value of the trading derivatives arranged by the Group is as follows (see note 11):

EUR million

| | 2023 | | 2022 | | 2021 | |
|---|---|---|---|---|---|---|
| | Debit balance | Credit balance | Debit balance | Credit balance | Debit balance | Credit balance |
| Interest rate risk | 31,480 | 26,014 | 38,789 | 37,641 | 31,884 | 30,192 |
| Currency risk | 22,834 | 23,094 | 26,391 | 26,063 | 19,823 | 21,894 |
| Price risk | 1,279 | 904 | 1,347 | 817 | 1,498 | 891 |
| Other risks | 735 | 577 | 475 | 370 | 1,087 | 589 |
| | **56,328** | **50,589** | **67,002** | **64,891** | **54,292** | **53,566** |

## b) Short positions

Following is a breakdown of the short positions (liabilities):

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Borrowed securities** | | | |
| Debt instruments | 3,263 | 1,979 | 825 |
| *Of which:* | | | |
| *Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México* | *1,881* | *1,362* | *825* |
| *Banco Santander, S.A.* | *1,383* | *617* | — |
| Equity instruments | 546 | 993 | 389 |
| *Of which:* | | | |
| *Banco Santander, S.A.* | *312* | *934* | *318* |
| **Short sales** | | | |
| Debt instruments | 22,365 | 19,543 | 11,022 |
| *Of which:* | | | |
| *Banco Santander, S.A.* | *16,143* | *12,902* | *8,926* |
| *Banco Santander (Brasil) S.A.* | *3,462* | *3,857* | *1,952* |
| *Santander US Capital Markets LLC* | *2,442* | *2,690* | — |
| | **26,174** | **22,515** | **12,236** |

# 10. Loans and advances to customers

## a) Detail

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

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Financial assets held for trading | 11,634 | 9,550 | 6,829 |
| Non-trading financial assets mandatorily at fair value through profit or loss | 982 | 868 | 537 |
| Financial assets designated at fair value through profit or loss | 6,219 | 5,774 | 10,289 |
| Financial assets at fair value through other comprehensive income | 7,669 | 8,215 | 7,663 |
| Financial assets at amortized cost | 1,009,845 | 1,011,597 | 947,364 |
| *Of which:* | | | |
| *Impairment losses* | *(22,788)* | *(22,684)* | *(22,964)* |
| | 1,036,349 | 1,036,004 | 972,682 |
| **Loans and advances to customers disregarding impairment losses** | **1,059,137** | **1,058,688** | **995,646** |

Note 51 contains a detail of the residual maturity periods of 'Financial assets at amortized cost'.

Note 54 shows the Group’s total exposure, by geographical origin of the issuer.

There are no loans and advances to customers for material amounts without fixed maturity dates.

## b) Breakdown

Following is a breakdown of the loans and advances granted to the Group's customers, which reflect the Group's exposure to credit risk in its main activity, without considering the balance of value adjustments for impairment, taking into account the type and situation of the transactions, the geographical area of their residence and the type of interest rate on the transactions:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Loan type and status** | | | |
| Commercial credit | 55,628 | 56,688 | 49,603 |
| Secured loans | 554,375 | 565,609 | 542,404 |
| Reverse repurchase agreements | 44,184 | 39,500 | 33,264 |
| Other term loans | 295,485 | 290,031 | 269,526 |
| Finance leases | 38,723 | 39,833 | 38,503 |
| Receivable on demand | 12,277 | 11,435 | 10,304 |
| Credit cards receivables | 24,371 | 22,704 | 20,397 |
| Impaired assets | 34,094 | 32,888 | 31,645 |
| | **1,059,137** | **1,058,688** | **995,646** |
| **Geographical area** | | | |
| Spain | 203,680 | 212,804 | 216,741 |
| European Union (excluding Spain) | 211,368 | 202,958 | 190,032 |
| United States and Puerto Rico | 126,894 | 125,436 | 102,491 |
| Other OECD countries[A] | 374,812 | 385,906 | 374,729 |
| South America (non - OECD) | 120,610 | 112,803 | 94,010 |
| Rest of the world | 21,773 | 18,781 | 17,643 |
| | **1,059,137** | **1,058,688** | **995,646** |
| **Interest rate formula** | | | |
| Fixed rate | 647,349 | 642,537 | 593,645 |
| Floating rate | 411,788 | 416,151 | 402,001 |
| | **1,059,137** | **1,058,688** | **995,646** |

A. Includes, mainly, customers from the United Kingdom.

At 31 December 2023, 2022 and 2021 the Group had granted loans amounting to EUR 15,544 million, EUR 14,698 million and EUR 14,131 million to Spanish public sector agencies which had a rating at 31 December 2023 of A (ratings of A at 31 December 2022 and 31 December 2021), and EUR 11,530 million, EUR 12,467 million, and EUR 10,263 million to the public sector in other countries (at 31 December 2023, the breakdown of this amount by issuer rating was as follows: 3.2% AAA, 15.7% AA, 1% A, 69.5% BBB, 8.9% below BBB and 1.7% without rating).

Without considering the public administrations, the amount of the loans and advances at 31 December 2023, 2022 and 2021 amounts to EUR 1,032,063 million, EUR 1,031,523 million and EUR 971,252 million, of which, EUR 998,010 million, EUR 998,689 million and EUR 939,645 million are classified as performing, respectively.

Following is a detail, by activity, of the loans to customers at 31 December 2023, net of impairment losses:

EUR million

| | | | Secured loans | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Net exposure | | Loan to value ratio[C] | | | | |
| | Total | Without collateral | Of which property collateral | Of which other collateral | Less than or equal to 40% | More than 40% and less than or equal to 60% | More than 60% and less than or equal to 80% | More than 80% and less than or equal to 100% | More than 100% |
| Public sector | 24,244 | 23,933 | 185 | 126 | 78 | 68 | 29 | 111 | 25 |
| Other financial institutions (financial business activity) | 86,908 | 32,499 | 2,307 | 52,102 | 2,101 | 1,030 | 787 | 49,638 | 853 |
| Non-financial corporations and individual entrepreneurs (non-financial business activity) (broken down by purpose) | 346,211 | 191,266 | 73,311 | 81,634 | 33,074 | 27,279 | 22,263 | 47,483 | 24,846 |
| *Of which:* | | | | | | | | | |
| *Construction and property development* | *18,156* | *1,887* | *14,452* | *1,817* | *5,401* | *5,326* | *1,364* | *2,954* | *1,224* |
| *Civil engineering construction* | *3,125* | *1,898* | *192* | *1,035* | *112* | *149* | *191* | *739* | *36* |
| *Large companies* | *189,654* | *123,353* | *24,368* | *41,933* | *14,610* | *7,958* | *7,504* | *24,357* | *11,872* |
| *SMEs and individual entrepreneurs* | *135,276* | *64,128* | *34,299* | *36,849* | *12,951* | *13,846* | *13,204* | *19,433* | *11,714* |
| Households – other (broken down by purpose) | 560,457 | 113,611 | 359,020 | 87,826 | 103,277 | 126,351 | 124,879 | 54,229 | 38,110 |
| *Of which:* | | | | | | | | | |
| *Residential* | *352,181* | *1,479* | *350,128* | *574* | *94,426* | *116,017* | *113,764* | *23,951* | *2,544* |
| *Consumer loans* | *190,457* | *108,485* | *2,270* | *79,702* | *5,411* | *7,968* | *8,586* | *25,124* | *34,883* |
| *Other purposes* | *17,819* | *3,647* | *6,622* | *7,550* | *3,440* | *2,366* | *2,529* | *5,154* | *683* |
| **Total[A]** | **1,017,820** | **361,309** | **434,823** | **221,688** | **138,530** | **154,728** | **147,958** | **151,461** | **63,834** |
| *Memorandum item* | | | | | | | | | |
| *Refinanced and restructured transactions[B]* | 23,874 | 10,208 | 8,024 | 5,642 | 3,383 | 1,878 | 2,030 | 4,910 | 1,465 |

A. In addition, the Group has granted advances to customers amounting to EUR 18,529 million, bringing the total of loans and advances to EUR 1,036,349 million.
B. Includes the net balance of the impairment of the accumulated value or accumulated losses in the fair value due to credit risk.
C. The ratio is the carrying amount of the transactions at 31 December 2023 provided by the latest available appraisal value of the collateral.

Note 54 contains information relating to the forborne loan portfolio.

Following is the movement of the gross exposure broken down by impairment stage of loans and advances to customers recognised under "Financial assets at amortised cost" and "Financial assets at fair value through other comprehensive income" during 2023, 2022 and 2020:

**2023**

EUR million

| | Stage 1 | Stage 2 | Stage 3 | Total |
|---|---|---|---|---|
| Balance at the beginning of year | 942,861 | 66,696 | 32,617 | 1,042,174 |
| Movements | | | | |
| Transfers | | | | |
| To stage 2 from stage 1 | (43,278) | 43,278 | | — |
| To stage 3 from stage 1[A] | (12,636) | | 12,636 | — |
| To stage 3 from stage 2 | | (9,915) | 9,915 | — |
| To stage 1 from stage 2 | 15,180 | (15,180) | | — |
| To stage 2 from stage 3 | | 2,899 | (2,899) | — |
| To stage 1 from stage 3 | 488 | | (488) | — |
| Net changes on financial assets | 29,696 | (10,673) | (4,218) | 14,805 |
| Write-offs | — | — | (13,847) | (13,847) |
| Exchange differences and others | (3,178) | (451) | 105 | (3,524) |
| **Balance at the end of the year** | **929,133** | **76,654** | **33,821** | **1,039,608** |

**2022**

EUR million

| | Stage 1 | Stage 2 | Stage 3 | Total |
|---|---|---|---|---|
| Balance at the beginning of year | 878,700 | 67,584 | 31,287 | 977,571 |
| Movements | | | | |
| Transfers | | | | |
| To stage 2 from stage 1 | (31,811) | 31,811 | | — |
| To stage 3 from stage 1[A] | (11,143) | | 11,143 | — |
| To stage 3 from stage 2 | | (8,487) | 8,487 | — |
| To stage 1 from stage 2 | 18,907 | (18,907) | | — |
| To stage 2 from stage 3 | | 3,250 | (3,250) | — |
| To stage 1 from stage 3 | 456 | | (456) | — |
| Net changes on financial assets | 86,459 | (8,839) | (2,568) | 75,052 |
| Write-offs | — | — | (12,235) | (12,235) |
| Exchange differences and others | 1,293 | 284 | 209 | 1,786 |
| **Balance at the end of the year** | **942,861** | **66,696** | **32,617** | **1,042,174** |

**2021**

EUR million

| | Stage 1 | Stage 2 | Stage 3 | Total |
|---|---|---|---|---|
| Balance at the beginning of year | 817,906 | 66,104 | 30,318 | 914,328 |
| Movements | | | | |
| Transfers | | | | |
| To stage 2 from stage 1 | (33,051) | 33,051 | | — |
| To stage 3 from stage 1 | (6,617) | | 6,617 | — |
| To stage 3 from stage 2 | | (5,836) | 5,836 | — |
| To stage 1 from stage 2 | 17,796 | (17,796) | | — |
| To stage 2 from stage 3 | | 1,865 | (1,865) | — |
| To stage 1 from stage 3 | 271 | | (271) | — |
| Net changes on financial assets | 62,629 | (11,629) | (719) | 50,281 |
| Write-offs | — | — | (9,089) | (9,089) |
| Exchange differences and others | 19,766 | 1,825 | 460 | 22,051 |
| **Balance at the end of the year** | **878,700** | **67,584** | **31,287** | **977,571** |

A. It includes the effect of the stage 3 definition alignment with the accounting default definition, mainly by Santander Consumer USA.

In addition, at 31 December 2023, the Group had EUR 694 million (EUR 322 million at 31 December 2022 and EUR 420 million at 31 December 2021) of exposure in assets purchased with impairment of which EUR 273 million still show signs of additional impairment, which correspond mainly to the business combinations carried out by the Group.

## c) Impairment losses on loans and advances to customers at amortised cost and at fair value through other comprehensive income

The changes in the impairment losses on the assets making up the balances of financial assets at amortised cost and at fair value through other comprehensive income - Loans and advances - Customers:

| EUR million | 2023 | 2022 | 2021 |
|---|---|---|---|
| Amount at beginning of the year | 22,684 | 22,964 | 23,595 |
| Impairment losses charged to income for the year | 14,011 | 11,676 | 8,762 |
| *Of which:* | | | |
| *Impairment losses charged to profit or loss* | *21,413* | *19,879* | *18,240* |
| *Impairment losses reversed with a credit to profit or loss* | *(7,402)* | *(8,203)* | *(9,478)* |
| Change of perimeter | (48) | — | — |
| Write-off of impaired balances against recorded impairment allowance | (13,847) | (12,235) | (9,089) |
| Exchange differences and other changes | (12) | 279 | (304) |
| **Amount at end of the year** | **22,788** | **22,684** | **22,964** |
| *Which correspond to:* | | | |
| *Impaired assets* | *14,238* | *13,931* | *13,550* |
| *Other assets* | *8,550* | *8,753* | *9,414* |
| *Of which:* | | | |
| *Individually calculated* | *2,951* | *2,493* | *2,496* |
| *Collective calculated* | *19,837* | *20,191* | *20,468* |

In addition, provisions for debt securities amounting to EUR 24 million were recorded at 31 December 2023 (provisions amounting to EUR 16 million and EUR 28 million as of 31 December 2022 and 2021, respectively), written-off assets recoveries have been recorded in the year amounting to EUR 1,592 million at 31 December 2023 (EUR 1,459 million and EUR 1,383 million at 31 December 2022 and 2021, respectively).

EUR 513 million were recorded in the account for losses on renegotiation or contractual modification at 31 December 2023 (EUR 630 and EUR 0 million at 31 December 2022 and 2021, respectively) mainly due to the impact of the adjustment of the gross amount of mortgage loans denominated and indexed to foreign currencies in Poland, and of the Moratorium law approved in July 2022 in this same country (see note 25.e.)

With this, the impairment recorded in Impairment or reversal of impairment at financial assets not measured at fair value through  profit or loss and net gains and losses from changes: 'Financial assets at fair value through other comprehensive income' and 'Financial assets at amortised cost (IFRS 9) and, Loans and receivables (IAS 39)'; amounts EUR 12,956 million at 31 December 2023 (EUR 10,863 million and EUR 7,407 million at 31 December 2022 and 2021, respectively).

Following is the movement of the loan loss provision broken down by impairment stage of loans and advances to customers during 2023, 2022 and 2021:

**2023**

| EUR million | Stage 1 | Stage 2 | Stage 3 | Total |
|---|---|---|---|---|
| Loss allowance at the beginning of the year | 3,626 | 5,127 | 13,931 | 22,684 |
| Transfers | | | | |
| To stage 2 from stage 1 | (696) | 2,954 | | 2,258 |
| To stage 3 from stage 1 | (405) | | 4,278 | 3,873 |
| To stage 3 from stage 2 | | (1,820) | 3,721 | 1,901 |
| To stage 1 from stage 2 | 149 | (905) | | (756) |
| To stage 2 from stage 3 | | 282 | (920) | (638) |
| To stage 1 from stage 3 | 27 | | (184) | (157) |
| Net changes of the exposure and modifications in the credit risk | 875 | (557) | 7,212 | 7,530 |
| Write-offs | — | — | (13,847) | (13,847) |
| FX and other movements | 20 | (127) | 47 | (60) |
| **Loss allowance at the end of the year** | **3,596** | **4,954** | **14,238** | **22,788** |

**2022**

| EUR million | Stage 1 | Stage 2 | Stage 3 | Total |
|---|---|---|---|---|
| Loss allowance at the beginning of the year | 4,188 | 5,226 | 13,550 | 22,964 |
| Transfers | | | | |
| To stage 2 from stage 1 | (713) | 3,046 | | 2,333 |
| To stage 3 from stage 1 | (557) | | 4,586 | 4,029 |
| To stage 3 from stage 2 | | (1,802) | 3,182 | 1,380 |
| To stage 1 from stage 2 | 215 | (894) | | (679) |
| To stage 2 from stage 3 | | 400 | (933) | (533) |
| To stage 1 from stage 3 | 9 | | (161) | (152) |
| Net changes of the exposure and modifications in the credit risk | 414 | (1,056) | 5,940 | 5,298 |
| Write-offs | — | — | (12,235) | (12,235) |
| FX and other movements | 70 | 207 | 2 | 279 |
| **Loss allowance at the end of the year** | **3,626** | **5,127** | **13,931** | **22,684** |

**2021**

EUR million

| | Stage 1 | Stage 2 | Stage 3 | Total |
|---|---|---|---|---|
| Loss allowance at the beginning of the year | 4,265 | 5,672 | 13,658 | 23,595 |
| Transfers | | | | |
| To stage 2 from stage 1 | (578) | 2,968 | | 2,390 |
| To stage 3 from stage 1 | (237) | | 2,209 | 1,972 |
| To stage 3 from stage 2 | | (1,086) | 2,474 | 1,388 |
| To stage 1 from stage 2 | 254 | (1,025) | | (771) |
| To stage 2 from stage 3 | | 216 | (760) | (544) |
| To stage 1 from stage 3 | 8 | | (67) | (59) |
| Net changes of the exposure and modifications in the credit risk | 617 | (1,557) | 5,326 | 4,386 |
| Write-offs | — | — | (9,089) | (9,089) |
| FX and other movements | (141) | 38 | (201) | (304) |
| **Loss allowance at the end of the year** | **4,188** | **5,226** | **13,550** | **22,964** |

## d) Impaired assets and assets with unpaid past-due amounts

The detail of the changes in the balance of the financial assets classified as 'Financial assets Loans to customers' considered to be impaired due to credit risk is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Balance at beginning of year | 32,888 | 31,645 | 30,815 |
| Net additions | 14,944 | 13,060 | 9,390 |
| Written-off assets | (13,847) | (12,235) | (9,089) |
| Changes in the scope of consolidation | (59) | — | — |
| Exchange differences and other | 168 | 418 | 529 |
| **Balance at end of year** | **34,094** | **32,888** | **31,645** |

This amount, after deducting the related allowances, represents the Group's best estimate of the discounted value of the flows that are expected to be recovered from the impaired assets.

At 31 December 2023, the Group's written-off assets totalled EUR 48,138 million (EUR 43,675 million and EUR 40,585 million at 31 December 2022 and 2021, respectively).

Set forth below for each class of impaired asset are the gross amount, associated allowances and information relating to the collateral and/or other credit enhancements obtained at 31 December 2023:

EUR million

| | Gross amount | Allowance recognised | Estimated collateral value[A] |
|---|---|---|---|
| Without associated real collateral | 14,375 | 8,102 | — |
| With real estate collateral | 10,373 | 2,583 | 7,682 |
| With other collateral | 9,346 | 3,553 | 5,213 |
| **Total** | **34,094** | **14,238** | **12,895** |

A. Including the estimated value of the collateral associated with each loan. Accordingly, any other cash flows that may be obtained, such as those arising from borrowers' personal guarantees, are not included.

When classifying assets in the previous table, the main factors considered by the Group to determine whether an asset has become impaired are the existence of amounts past due — assets impaired due to arrears— or other circumstances that may arise which will not result in all contractual cash flows being recovered, such as a deterioration of the borrower's financial situation, the worsening of its capacity to generate funds or difficulties experienced by it in accessing credit.

## e) Transferred credits

'Loans and advances to customers' includes, inter alia, the securitised loans transferred to third parties on which the Group has retained the risks and rewards, albeit partially, and which therefore, in accordance with the applicable accounting standards, cannot be derecognised. This is mainly due to mortgage loans, loans to companies and consumer loans in which the group retains subordinate financing and/or grants some kind of credit enhancement to new holders.

Securitisation is used as a tool for the management of regulatory capital and as a means of diversifying the Group's liquidity sources.

The breakdown of securitized loans held on the balance sheet, according to the nature of the financial instrument in which they are originated, is shown below:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Retained on the balance sheet | 75,738 | 82,603 | 80,600 |
| *Of which* | | | |
| *Securitised mortgage assets* | *16,994* | *16,265* | *19,523* |
| *Of which: UK assets* | *6,096* | *4,144* | *5,295* |
| *Other securitised assets* | *58,744* | *66,338* | *61,077* |
| **Total[A]** | **75,738** | **82,603** | **80,600** |

A. Note 22 details the liabilities associated with these securitisation transactions.

At 31 December 2023, Grupo Santander had loans that had been fully derecognised and for which it retained servicing amounting to EUR 13,923 million (EUR 13,711 million and EUR 14,141 million at 31 December 2022 and 2021, respectively).

## 11. Trading derivatives

The detail of the notional amounts and the market values of the trading derivatives held by the Group in 2023, 2022 and 2021 is as follows:

EUR million

| | 2023 | | 2022 | | 2021 | |
|---|---|---|---|---|---|---|
| | **Notional amount** | **Market value** | **Notional amount** | **Market value** | **Notional amount** | **Market value** |
| **Trading derivatives** | | | | | | |
| Interest rate risk | | | | | | |
| Forward rate agreements | 829,913 | 3 | 100,579 | 22 | 147,603 | (11) |
| Interest rate swaps | 5,381,966 | 5,514 | 4,844,043 | 2,387 | 3,920,945 | 1,931 |
| Options, futures and other derivatives | 398,519 | (51) | 495,994 | (1,261) | 508,723 | (228) |
| Credit risk | | | | | | |
| Credit default swaps | 22,462 | (86) | 16,185 | (6) | 13,571 | 436 |
| Foreign currency risk | | | | | | |
| Foreign currency purchases and sales | 471,955 | 33 | 384,024 | 423 | 329,781 | (664) |
| Foreign currency options | 77,934 | 288 | 54,967 | 150 | 49,680 | (114) |
| Currency swaps | 586,405 | (581) | 496,441 | (245) | 430,644 | (1,293) |
| Securities and commodities derivatives and other | 68,664 | 619 | 71,237 | 641 | 69,850 | 669 |
| **Total** | **7,837,818** | **5,739** | **6,463,470** | **2,111** | **5,470,797** | **726** |

## 12. Non-current assets

The detail of Non-current assets held for sale in the consolidated balance sheets is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Tangible assets | 2,991 | 3,435 | 4,089 |
| *Of which:* | | | |
| *Foreclosed assets* | *2,773* | *3,101* | *3,651* |
| *Of which property assets in Spain* | *2,138* | *2,596* | *3,120* |
| *Other tangible assets held for sale* | *218* | *334* | *438* |
| Other assets | 23 | 18 | — |
| **Total** | **3,014** | **3,453** | **4,089** |

At 31 December 2023, the provisions recognised for the total non-current assets held for sale totalled EUR 2,956 million (EUR 3,425 million and EUR 3,811 million at 31 December 2022 and 2021, respectively). The charges recorded in those years amounted to EUR 139 million, EUR 204 million and EUR 239 million, respectively, and the recoveries during these exercises are amounted to EUR 88 million, EUR 110 million and EUR 98 million, respectively.

# 13. Investments

## a) Breakdown

The detail, by company, of Investments is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Associated entities** | **5,682** | **5,634** | **5,833** |
| Merlin Properties, SOCIMI, S.A. | 1,621 | 1,653 | 1,640 |
| Caceis | 1,139 | 1,046 | 975 |
| Zurich Santander Insurance America, S.L. - Consolidated | 936 | 916 | 826 |
| Metrovacesa, S.A. | 899 | 979 | 1,087 |
| CNP Santander | 423 | 406 | 418 |
| Ebury Partners Limited (note 3) | — | — | 394 |
| Other companies | 664 | 634 | 493 |
| **Joint Ventures entities** | **1,964** | **1,981** | **1,692** |
| Santander Caceis Latam Holding 1, S.L. - Consolidated (previously Santander Securities Services Latam Holding, S.L) | 389 | 359 | 334 |
| Santander Vida Seguros y Reaseguros, S.A. | 362 | 356 | 378 |
| U.C.I., S.A. - Consolidated | 349 | 416 | 228 |
| Fortune Auto Finance Co., Ltd. | 254 | 244 | 222 |
| Hyundai Capital UK Limited | 205 | 223 | 201 |
| Banco RCI Brasil S.A. | 92 | 95 | 92 |
| Other companies | 313 | 288 | 237 |
| **Total Associated entities and Joint ventures** | **7,646** | **7,615** | **7,525** |

Of the entities included above, at 31 December 2023, the entities Merlin Properties, SOCIMI, S.A, and Metrovacesa S.A. and Compañía Española de Viviendas en Alquiler, S.A., are the only listed companies.

Below is a breakdown of the Goodwill of the main investments in joint ventures and associates included in the balance of this heading:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Goodwill** | **1,460** | **1,508** | **1,723** |
| *Of which:* | | | |
| *Zurich Santander Insurance America, S.L. - Consolidated* | *526* | *526* | *526* |
| *Caceis* | *337* | *337* | *337* |

## b) Changes

The changes in the investments were as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Balance at beginning of year | 7,615 | 7,525 | 7,622 |
| Acquisitions (disposals) of companies and capital increases (reductions) | 52 | 142 | 94 |
| Changes in the consolidation method (note 3) | *(43)* | *(320)* | — |
| *Of which:* | | | |
| *Ebury Partners Limited* | — | *(382)* | — |
| Effect of equity accounting | 613 | 702 | 432 |
| Dividends distributed and reimbursements of share premium | (565) | (560) | (662) |
| *Of which:* | | | |
| *Zurich Santander Insurance América, S.L. - Consolidado* | *(202)* | *(160)* | *(230)* |
| *Caceis* | — | — | *(144)* |
| *Hyundai Capital UK Limited* | *(58)* | — | — |
| *Santander Vida Seguros y Reaseguros, S.A.- Consolidated* | *(52)* | *(40)* | *(31)* |
| *CNP Santander* | *(51)* | *(15)* | *(60)* |
| *Merlin Properties, SOCIMI, S.A.* | *(51)* | *(139)* | *(52)* |
| *Metrovacesa, S.A.* | *(50)* | *(124)* | *(60)* |
| Other global result | (24) | 70 | (13) |
| Exchange differences and other changes | (2) | 56 | 52 |
| **Balance at end of year** | **7,646** | **7,615** | **7,525** |

## c) Impairment adjustments

During the years 2023, 2022 and 2021 there was no evidence of significant impairment in the Group's associated interests.

## d) Other information

A summary of the financial information at the end of December 2023 of the main associates and joint ventures (obtained from the information available at the date of preparation of the consolidated financial statements) is shown below:

EUR million

| | Associates | | | | | Joint ventures | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Merlin Properties, SOCIMI, S.A.** [A] | **Metrovacesa, S.A.** [A] | **Caceis** | **Zurich Santander Insurance América, S.L. - Consolidated** | **CNP Santander** | **Santander Caceis Latam Holding, S.L. - Consolidated** | **U.C.I., S.A. - Consolidated** | **Hyundai Capital UK Limited** | **Fortune Auto Finance Co., LTD** | **Santander Vida Seguros y Reaseguros, S.A.- Consolidated (note 3)** | **Banco RCI Brasil S.A.** |
| Current assets | 539 | 2,106 | 31,026 | 1,595 | 217 | 140 | 270 | 1,885 | 186 | 88 | 8 |
| Non current assets | 11,512 | 407 | 85,305 | 19,252 | 2,157 | 584 | 10,302 | 3,099 | 2,034 | 1,702 | 2,144 |
| **Total assets** | **12,051** | **2,513** | **116,331** | **20,847** | **2,374** | **724** | **10,572** | **4,984** | **2,220** | **1,790** | **2,152** |
| Current liabilities | 951 | 382 | 8,979 | 333 | 25 | 136 | 146 | 2,465 | 21 | 198 | 73 |
| Non current liabilities | 4,252 | 326 | 102,575 | 19,405 | 1,907 | 13 | 9,776 | 2,107 | 1,691 | 1,025 | 1,842 |
| **Total liabilities** | **5,203** | **708** | **111,554** | **19,738** | **1,932** | **149** | **9,922** | **4,572** | **1,712** | **1,223** | **1,915** |
| Attributable profit for the period | 263 | (23) | 392 | 465 | 100 | 80 | (88) | 72 | 50 | 109 | 31 |
| Other accumulated comprehensive income | 80 | — | (6) | (639) | (43) | (209) | 150 | (7) | (19) | (48) | (223) |
| Rest of equity | 6,505 | 1,828 | 4,391 | 1,283 | 385 | 704 | 588 | 347 | 477 | 506 | 429 |
| **Total Equity** | **6,848** | **1,805** | **4,777** | **1,109** | **442** | **575** | **650** | **412** | **508** | **567** | **237** |
| **Total liabilities and equity** | **12,051** | **2,513** | **116,331** | **20,847** | **2,374** | **724** | **10,572** | **4,984** | **2,220** | **1,790** | **2,152** |
| Ordinary activities income | 487 | 524 | 6,459 | 5,097 | 817 | 143 | 592 | 1,110 | 219 | 737 | 299 |
| Profit (loss) from continuing operations | 41 | (23) | 392 | 465 | 100 | 80 | (88) | 72 | 50 | 109 | 31 |
| Profit (loss) for the year from discontinuing operations | 222 | — | — | — | — | — | — | — | — | — | — |

A. Data as of 31 December 2022, latest accounts available.

# 14. Insurance contracts linked to pensions

The detail of Insurance contracts linked to pensions in the consolidated balance sheets is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Assets relating to insurance contracts covering post-employment benefit plan obligations:** | | | |
| Banco Santander, S.A. | 93 | 104 | 149 |
| | **93** | **104** | **149** |

# 15. Liabilities under insurance contracts

The detail of Liabilities under insurance contracts and reinsurance assets in the consolidated balance sheets (see note 2.i) is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Liabilities relating to insurance contracts** | **17,799** | **16,426** | **18,560** |
| Component of the present value of future cash flows (BEL) | 16,627 | 15,206 | 17,196 |
| Risk adjustment (RA) | 211 | 154 | 185 |
| Contractual service margin (CSM) | 424 | 481 | 592 |
| Remaining coverage liability | 71 | 78 | 75 |
| Liabilities for incurred claims (LIC) | *466* | *507* | *512* |

The balance of liabilities under insurance contracts reflected in the consolidated balance sheet includes the following elements:

- Liability for Remaining Coverage (LRC): amount of obligations provisioned to meet the fulfillment of future services assigned to the group on a date for a specific coverage period . The valuation differs depending on the length of the coverage period of the contract groups. In the case of long-term contracts, valued using the General Method (BBA) or the Variable Commission Method (VFA), this amount is formed from the sum of BEL, RA and CSM; In the case of short-term contracts, this amount is calculated using the Premium Allocation Method (PAA).

- Liability for Incurred Claims (LIC): amount of obligations provisioned to meet the fulfillment of past services assigned to the group on a date.

The insurance activity is carried out mainly in the life insurance sector in its life-savings modality. Within the amount of liabilities for insurance contracts, Individual Life Annuities are the product that has the greatest weight in the consolidated balance sheet. This product consists of life annuities where the client contributes a single premium and receives a constant and periodic insured income (monthly, quarterly, semi-annual or annual) until his death where, at that time, the beneficiaries will receive the insured capital of 102% or 101% of the premium contributed. This product is valued using the General Method (BBA) methodology and its remaining coverage liability is made up of the following components:

- Best Estimated Liability (BEL): estimate of incoming and outgoing cash flows weighted by their probability of occurrence and discounted to a certain curve in order to reflect the time value of money over time. weather.

- Risk adjustment for non-financial risk (RA): reflects compensation for the uncertainty of cash flows by quantifying the amount necessary to compensate for unexpected losses in liability flows.

- Contractual Service Margin (CSM): future benefit to be recognized during the coverage period.

- The income and expenses recorded in the profit and loss account for the insurance activity, including reinsurance income and expenses, are not material in the Group's consolidated annual accounts.

# 16. Tangible assets

## a) Changes

The changes in Tangible assets in the consolidated balance sheets were as follows:

EUR million

| | Tangible assets | | | | Of which: For leasing | | | |
|---|---|---|---|---|---|---|---|---|
| | For own use | Leased out under an operating lease | Investment property | Total | For own use | Leased out under an operating lease | Investment property | Total |
| **Cost** | | | | | | | | |
| **Balances at 1 January 2021** | 24,896 | 24,204 | 1,460 | 50,560 | 3,948 | — | — | 3,948 |
| Additions / disposals (net) due to change in the scope of consolidation | 66 | (257) | — | (191) | 1 | — | — | 1 |
| Additions / disposals (net) | 781 | (1,076) | (64) | (359) | 96[A] | — | — | 96 |
| Transfers, exchange differences and other items | (214) | 1,552 | 141 | 1,479 | 384 | — | — | 384 |
| **Balance at 31 December 2021** | **25,529** | **24,423** | **1,537** | **51,489** | **4,429** | **—** | **—** | **4,429** |
| Additions / disposals (net) due to change in the scope of consolidation | 14 | 89 | — | 103 | 1 | — | — | 1 |
| Additions / disposals (net) | 604 | (822) | (64) | (282) | 109[A] | — | — | 109 |
| Transfers, exchange differences and other items | 423 | 1,476 | 107 | 2,006 | 153 | — | — | 153 |
| **Balance at 31 December 2022** | **26,570** | **25,166** | **1,580** | **53,316** | **4,692** | **—** | **—** | **4,692** |
| Additions / disposals (net) due to change in the scope of consolidation | 11 | 37 | — | 48 | (13) | — | — | (13) |
| Additions / disposals (net) | 1,122 | 742 | (34) | 1,830 | 125[A] | — | — | 125 |
| Transfers, exchange differences and other items | (1,460) | (641) | 30 | (2,071) | 33 | — | — | 33 |
| **Balance at 31 December 2023** | **26,243** | **25,304** | **1,576** | **53,123** | **4,837** | **—** | **—** | **4,837** |
| | | | | | | | | |
| **Accumulated depreciation** | | | | | | | | |
| Balances at 1 January 2021 | (11,543) | (5,585) | (133) | (17,261) | (1,217) | — | — | (1,217) |
| Disposals due to change in the scope of consolidation | (1) | 40 | — | 39 | — | — | — | — |
| Disposals | 733 | 3,390 | 3 | 4,126 | 44 | — | — | 44 |
| Charge for the year | (1,733) | — | (10) | (1,743) | (612) | — | — | (612) |
| Transfers, exchange differences and other items | 529 | (3,083) | (9) | (2,563) | (4) | — | — | (4) |
| **Balance at 31 December 2021** | **(12,015)** | **(5,238)** | **(149)** | **(17,402)** | **(1,789)** | **—** | **—** | **(1,789)** |
| Disposals due to change in the scope of consolidation | (7) | (30) | 4 | (33) | — | — | — | — |
| Disposals | 1,065 | 2,882 | 16 | 3,963 | 164 | — | — | 164 |
| Charge for the year | (1,821) | — | (13) | (1,834) | (636) | — | — | (636) |
| Transfers, exchange differences and other items | (114) | (3,192) | (30) | (3,336) | (4) | — | — | (4) |
| **Balance at 31 December 2022** | **(12,892)** | **(5,578)** | **(172)** | **(18,642)** | **(2,265)** | **—** | **—** | **(2,265)** |
| Disposals due to change in the scope of consolidation | 7 | — | — | 7 | 7 | — | — | 7 |
| Disposals | 284 | 2,540 | — | 2,824 | 160 | — | — | 160 |
| Charge for the year | (1,744) | — | (11) | (1,755) | (609) | — | — | (609) |
| Transfers, exchange differences and other items | 1,708 | (2,744) | (16) | (1,052) | 98 | — | — | 98 |
| **Balance at 31 December 2023** | **(12,637)** | **(5,782)** | **(199)** | **(18,618)** | **(2,609)** | **—** | **—** | **(2,609)** |

A. Includes contract extensions on operating leases and repurchases.

EUR million

| | Tangible assets | | | | Of which: For leasing | | | |
|---|---|---|---|---|---|---|---|---|
| | **For own use** | **Leased out under an operating lease** | **Investment property** | **Total** | **For own use** | **Leased out under an operating lease** | **Investment property** | **Total** |
| **Impairment losses** | | | | | | | | |
| Balances at 1 January 2021 | (140) | (60) | (364) | (564) | (9) | — | — | (9) |
| Impairment charge for the year | (144) | (17) | (8) | (169) | (13) | — | — | (13) |
| Releases | 10 | 4 | 5 | 19 | 1 | — | — | 1 |
| Disposals due to change in the scope of consolidation | — | — | — | — | — | — | — | — |
| Disposals | 61 | — | 3 | 64 | 7 | — | — | 7 |
| Exchange differences and other | (42) | (29) | (44) | (115) | (1) | — | — | (1) |
| **Balance at 31 December 2021** | **(255)** | **(102)** | **(408)** | **(765)** | **(15)** | **—** | **—** | **(15)** |
| Impairment charge for the year | (95) | (33) | (29) | (157) | (2) | — | — | (2) |
| Releases | 12 | 1 | 4 | 17 | 1 | — | — | 1 |
| Disposals due to change in the scope of consolidation | — | — | — | — | — | — | — | — |
| Disposals | 34 | 76 | 9 | 119 | 13 | | | 13 |
| Exchange differences and other | 115 | 25 | 45 | 185 | (11) | — | — | (11) |
| **Balance at 31 December 2022** | **(189)** | **(33)** | **(379)** | **(601)** | **(14)** | **—** | **—** | **(14)** |
| Impairment charge for the year | (115) | (29) | (12) | (156) | (39) | — | — | (39) |
| Releases | 5 | 11 | 4 | 20 | 4 | — | — | 4 |
| Disposals due to change in the scope of consolidation | — | — | — | — | — | — | — | — |
| Disposals | 36 | — | 4 | 40 | 5 | | | 5 |
| Exchange differences and other | 65 | 47 | (38) | 74 | (1) | — | — | (1) |
| **Balance at 31 December 2023** | **(198)** | **(4)** | **(421)** | **(623)** | **(45)** | **—** | **—** | **(45)** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Tangible assets, net** | | | | | | | | |
| Balances at 31 December 2021 | 13,259 | 19,083 | 979 | 33,321 | 2,625 | — | — | 2,625 |
| Balances at 31 December 2022 | 13,489 | 19,555 | 1,029 | 34,073 | 2,413 | — | — | 2,413 |
| **Balances at 31 December 2023** | **13,408** | **19,518** | **956** | **33,882** | **2,183** | **0** | **—** | **2,183** |

## b) Tangible assets - For own use

The detail, by class of asset, of 'Property, plant and equipment' which is owned by the Group in the consolidated balance sheets is as follows:

EUR million

| | Tangible assets for own use | | | | |
|---|---|---|---|---|---|
| | Cost | Accumulated depreciation | Impairment losses | Carrying amount | Of which: for leasing |
| Land and buildings | 13,855 | (3,675) | (240) | 9,940 | 2,570 |
| IT equipment and fixtures | 5,543 | (4,335) | — | 1,208 | 42 |
| Furniture and vehicles | 5,982 | (3,954) | — | 2,028 | 12 |
| Construction in progress and other items | 149 | (51) | (15) | 83 | — |
| **Balances at 31 December 2021** | **25,529** | **(12,015)** | **(255)** | **13,259** | **2,624** |
| | | | | | |
| Land and buildings | 14,623 | (4,467) | (175) | 9,981 | 2,349 |
| IT equipment and fixtures | 5,285 | (3,984) | — | 1,301 | 53 |
| Furniture and vehicles | 6,445 | (4,389) | — | 2,056 | 11 |
| Construction in progress and other items | 217 | (52) | (14) | 151 | — |
| **Balances at 31 December 2022** | **26,570** | **(12,892)** | **(189)** | **13,489** | **2,413** |
| | | | | | |
| Land and buildings | 14,973 | (5,010) | (154) | 9,809 | 2,104 |
| IT equipment and fixtures | 5,614 | (4,154) | — | 1,460 | 60 |
| Furniture and vehicles | 5,412 | (3,424) | — | 1,988 | 19 |
| Construction in progress and other items | 244 | (49) | (44) | 151 | — |
| **Balances at 31 December 2023** | **26,243** | **(12,637)** | **(198)** | **13,408** | **2,183** |

The carrying amount at 31 December 2023 in the foregoing table includes the following approximate amounts EUR 7,119 million (EUR 7,083 million at 31 December 2022 and EUR 6,753 million at 31 December 2021) relating to property, plant and equipment owned by group entities and branches located abroad.

## c) Tangible assets - Leased out under an operating lease

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

The expected residual value and, consequently, the monthly depreciation expense may change during the term of the lease. The Group estimates expected residual values using independent data sources and internal statistical models. It also assesses the estimate of the residual value of these leases and adjusts the depreciation rate in line with the change in the expected value of the asset at the end of the lease.

Grupo Santander periodically assesses its investment in operating leases for impairment in certain circumstances, such as a systemic and material decrease in the values of used vehicles. If assets leased out under operating leases are deemed to be impaired, impairment is measured as the amount by which the carrying amount of the assets exceeds the fair value as estimated by discounted cash flows.

Of the EUR 19,518 million that the Group had assigned to operating leases at 31 December 2023 (EUR 19,555 million and EUR 19,083 at 31 December 2022  and 2021, respectively), EUR 12,525 million (EUR 13,389 and EUR 13,630 at 31 December 2022 and 2021, respectively) relate to vehicles of Santander US Auto's business. The variable lease payments of various items of this business are not significant.

In addition, the maturity analysis of the assets leased out under operating leases from Santander US Auto, is as follows:

EUR million

| | 2023 |
|---|---|
| **Maturity Analysis** | |
| 2024 | 3,365 |
| 2025 | 4,248 |
| 2026 | 5,100 |
| 2027 | 1,124 |

## d) Tangible assets - Investment property

The fair value of investment property at 31 December 2023, 2022, 2021 amounted to EUR 1,163, 1,153 and 1,088 million, respectively. A comparison of the fair value of investment property at 31 December 2023, 2022 and 2021 with the net book value shows gross unrealised gains of EUR 207, 124 and 109 million, respectively, attributed completely to the group.

The rental income earned from investment property and the direct costs related both to investment properties that generated rental income in 2023, 2022 and 2021 and to investment properties that did not generate rental income in those years are not material in the context of the consolidated financial statements.

## 17. Intangible assets – Goodwill

The detail of goodwill, based on the cash-generating units giving rise thereto, is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Banco Santander (Brasil) | 3,679 | 3,503 | 3,219 |
| SAM Investment Holdings Limited | 1,444 | 1,444 | 1,444 |
| Santander Consumer Germany | 1,304 | 1,304 | 1,304 |
| Santander Bank Polska | 1,159 | 1,075 | 1,095 |
| Santander Portugal | 1,040 | 1,040 | 1,040 |
| Santander US Auto | 1,003 | 1,039 | 979 |
| Santander España | 998 | 998 | 1,027 |
| Santander Holding USA (ex. Auto)[A] | 814 | 844 | 643 |
| Santander UK | 612 | 599 | 633 |
| Grupo Financiero Santander (México) | 523 | 469 | 435 |
| Banco Santander - Chile | 516 | 548 | 516 |
| Ebury Partners | 350 | 298 | — |
| Santander Consumer Nordics | 206 | 215 | 224 |
| Other companies | 369 | 365 | 154 |
| **Total Goodwill** | **14,017** | **13,741** | **12,713** |

A. Includes the Santander US Capital Markets LLC's business (previously Amherst Pierpoint Securities LLC) (see note 3).

The changes in goodwill were as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Balance at beginning of year | 13,741 | 12,713 | 12,471 |
| Additions (note 3) | 56 | 534 | 81 |
| *Of which:* | | | |
| *Ebury Partners* | *45* | *316* | — |
| *Santander Holding USA (ex. Auto)* [A] | — | *158* | — |
| Impairment losses | (20) | — | (6) |
| Disposals or changes in scope of consolidation | — | — | — |
| Exchange differences and other items | 240 | 494 | 167 |
| **Balance at end of year** | **14,017** | **13,741** | **12,713** |

A. Acquisition of Santander US Capital Markets LLC (previously Amherst Pierpoint Securities LLC) (see note 3).

Grupo Santander has goodwill generated by cash-generating units located in non-euro currency countries (mainly Brazil, Poland, the United States, the United Kingdom, Chile, Mexico, Norway and Sweden) and, therefore, this gives rise to exchange differences on the translation to euros, at closing rates, of the amounts of goodwill denominated in foreign currencies. Accordingly, in 2023 there was an increase of EUR 240 million (an increase of EUR 494 million in 2022 and EUR 167 million in 2021), due to exchange differences and other items which, pursuant to current standards, were recognised with a change to 'Other comprehensive income - Items that may be reclassified to profit or loss - Exchange differences in other comprehensive income in the consolidated statement of recognised income and expense' (see note 29.d).

At least once per year (or whenever there is any indication of impairment), Grupo Santander performs an analysis of the potential impairment of its recorded goodwill with respect to its recoverable amount. The first step that must be taken in order to perform this analysis is the identification of the cash-generating units, which are the Group's smallest identifiable groups of assets that generate cash inflows that are largely independent of the cash flows of other assets or groups of assets.

The amount to be recovered of each cash-generating unit is determined taking into consideration the carrying amount (including any fair value adjustment arising on the business combination) of all the assets and liabilities of all the independent legal entities composing the cash-generating unit, together with the related goodwill.

The amount to be recovered of the cash-generating unit is compared with its recoverable amount in order to determine whether there is any impairment.

Grupo Santander's directors assess the existence of any indication that might be considered to be evidence of impairment of the cash-generating unit by reviewing information including the following (i) certain macroeconomic variables that might affect its investments (population data, political situation, economic situation —including banking concentration level—, among others) and (ii) various microeconomic variables comparing the investments of the Group with the financial services industry of the country in which the cash-generating unit carries on most of its business activities (balance sheet composition, total funds under management, results, efficiency ratio, capital adequacy ratio, return on equity, among others).

Regardless of whether there is any indication of impairment, every year the Group calculates the recoverable amount of each cash-generating unit to which goodwill, has been allocated and, to this end, it uses price quotations, market references (multiples), internal estimates and valuations performed by internal and external experts.

Firstly, the Group determines the recoverable amount by calculating the fair value of each cash-generating unit on the basis of the quoted price of the cash-generating units, if available.

In addition, the Group performs estimates of the recoverable amounts of certain cash-generating units by calculating their value in use using discounted cash flow projections. The main assumptions used in this calculation are (i) earnings projections based on the financial budgets approved by the Group's directors which cover between three and five year periods (unless a longer time horizon can be justified), (ii) discount rates determined as the cost of capital taking into account the risk-free rate of return plus a risk premium in line with the market and the business in which the units operate and (iii) constant growth rates used in order to extrapolate earnings in perpetuity which do not exceed the long-term average growth rate for the market in which the cash-generating unit in question operates.

The cash flow projections used by Group management to obtain the values in use are based on the financial budgets approved by both local management of the related local units and the Group's directors. The Group's budgetary estimation process is common for all the cash-generating units. The local management teams prepare their budgets using the following key assumptions:

a) Microeconomic variables of the cash-generating unit: management takes into consideration the current balance sheet structure, the product mix and the business decisions taken by local management in this regard.

b) Macroeconomic variables: growth is estimated on the basis of the changing environment, taking into consideration expected GDP growth in the unit's geographical location and forecast trends in interest and exchange rates. These data, which are based on external information sources, are provided by the Group's economic research service.

c) Past performance variables: in addition, management takes into consideration in the projection the difference (both positive and negative) between the cash-generating unit's past performance and budgets.

During 2023, the Group has recognised impairment losses of EUR 20 million euros of immaterial goodwill that has been recorded under the heading 'Impairment or reversal of the impairment of non-financial assets - Intangible assets' (EUR 0 million and EUR 6 million in 2022 and 2021, respectively). Goodwill is deducted from CET1 for regulatory purposes, so an impairment of goodwill has no impact on the Group's capital ratios.

Following is a detail of the main assumptions taken into account in determining the recoverable amount, at 2023 year-end, of the most significant cash-generating units which were valued using the discounted cash flow method:

| | 2023 | | |
|---|---|---|---|
| | Projected period | Discount rate[A] | Nominal perpetual growth rate |
| Santander UK | 5 years | 11.9% | 2.5% |
| Santander Bank Polska | 5 years | 13.2% | 5.0% |
| Santander US Auto | 3 years | 12.8% | 3.0% |
| Santander Holding USA (ex. Auto)[B] | 5 years | 13.4% | 3.5% |
| Santander Consumer Germany | 5 years | 9.7% | 2.3% |
| SAM Investment Holdings, Limited | 5 years | 11.6% | 2.5% |
| Santander Portugal | 5 years | 11.2% | 2.5% |

A. Post-tax discount rate.
B. Weighted information of the main assumptions of the segments to which goodwill has been allocated.

The discount and nominal perpetual growth rates taken into account in 2022 and 2021 are presented below for comparison purposes:

| | Discount rate[A] | | Nominal perpetual growth rate | |
|---|---|---|---|---|
| | 2022 | 2021 | 2022 | 2021 |
| Santander UK | 11.1% | 9.2% | 2.5% | 2.3% |
| Santander Bank Polska | 15.6% | 10.3% | 4.8% | 3.5% |
| Santander US Auto | 12.2% | 10.6% | 2.8% | 1.5% |
| Santander Holding USA (ex. Auto)[B] | 12.6% | 11.6% | 3.5% | 3.0% |
| Santander Consumer Germany | 9.4% | 8.3% | 2.3% | 1.8% |
| SAM Investment Holdings, Limited | 12.2% | 10.4% | 2.5% | 2.5% |
| Santander Portugal | 11.1% | 9.7% | 2.3% | 1.8% |

A. Post-tax discount rate.
B. Weighted information of the main assumptions of the segments to which goodwill has been allocated.

The variations reflected in the assumptions used in 2023 are mainly a consequence of the current macroeconomic scenario, as well as the level of inflation and difficulties in supply chains, which have led to a rapid increase in central banks' benchmark interest rates in the main countries where the Group's CGU are operating.

Given the degree of uncertainty of the above key assumptions on which the recoverable amount of the cash-generating units is based, the Group performs a sensitivity analysis which consisted of adjusting +/- 50 basis points the discount rate, adjusting +/- 50 basis points the growth rate in perpetuity and reducing the cash flow projections by 5%. These changes in the key assumptions in isolation mean that the recoverable amount of all the cash-generating units continues to exceed their amount to be recovered and have been considered by the Group as reasonably possible changes in the business operations of the cash-generating units are not contemplated.

The recoverable amount of Banco Santander - Chile and Banco Santander (Brasil) was calculated as the fair values of the aforementioned cash-generating units obtained from the quoted market prices of their shares at year-end. This value exceeded the amount to be recovered. A significant reduction in the quoted market prices of these cash generating unit could result in an indication of impairment which in turn may lead to a goodwill impairment charge in the future.

# 18. Intangible assets - Other intangible assets

The detail of Intangible assets - Other intangible assets in the consolidated balance sheets and of the changes therein in 2023, 2022, and 2021 is as follows:

EUR million

| | Estimated useful life | 31/12/2022 | Net additions and disposals | Change in scope of consolidation | Amortization and impairment | Application of amortization and impairment | Exchange differences and other | 31/12/2023 |
|---|---|---|---|---|---|---|---|---|
| **Cost** | | **12,502** | **2,197** | **176** | **—** | **(230)** | **128** | **14,773** |
| Brand names | | 33 | — | 8 | | (2) | 1 | 40 |
| IT developments | 3-10 years | 10,721 | 2,197 | 18 | | (196) | 127 | 12,867 |
| Other | | 1,748 | — | 150 | | (32) | — | 1,866 |
| Accumulated amortisation | | (7,554) | — | 5 | (1,429) | 209 | (82) | (8,851) |
| *Development* | | *(6,866)* | — | — | *(1,294)* | *177* | *(95)* | *(8,078)* |
| *Other* | | *(688)* | — | *5* | *(135)* | *32* | *13* | *(773)* |
| Impairment losses | | (44) | — | — | (53) | 21 | 8 | (68) |
| *Of which addition* | | — | — | — | *(53)* | — | — | — |
| *Liberation* | | — | — | — | — | — | — | — |
| | | **4,904** | **2,197** | **181** | **(1,482)** | **—** | **54** | **5,854** |

EUR million

| | Estimated useful life | 31/12/2021 | Net additions and disposals | Change in scope of consolidation | Amortization and impairment | Application of amortization and impairment | Exchange differences and other | 31/12/2022 |
|---|---|---|---|---|---|---|---|---|
| **Cost** | | **10,712** | **1,757** | **381** | **—** | **(511)** | **163** | **12,502** |
| Brand names | | 4 | — | 27 | | — | 2 | 33 |
| IT developments | 3-10 years | 9,189 | 1,748 | 153 | | (497) | 128 | 10,721 |
| Other | | 1,519 | 9 | 201 | | (14) | 33 | 1,748 |
| Accumulated amortisation | | (6,707) | — | — | (1,151) | 412 | (108) | (7,554) |
| *Development* | | *(6,149)* | — | — | *(1,024)* | *403* | *(96)* | *(6,866)* |
| *Other* | | *(558)* | — | — | *(127)* | *9* | *(12)* | *(688)* |
| Impairment losses | | (134) | — | — | (75) | 99 | 66 | (44) |
| *Of which addition* | | — | — | — | *(75)* | — | — | — |
| *Liberation* | | — | — | — | — | — | — | — |
| | | **3,871** | **1,757** | **381** | **(1,226)** | **—** | **121** | **4,904** |

EUR million

| | Estimated useful life | 31/12/2020 | Net additions and disposals | Change in scope of consolidation | Amortization and impairment | Application of amortization and impairment | Exchange differences and other | 31/12/2021 |
|---|---|---|---|---|---|---|---|---|
| **Cost** | | **9,376** | **1,409** | **5** | **—** | **(293)** | **215** | **10,712** |
| Brand names | | 37 | — | — | | (34) | 1 | 4 |
| IT developments | 3-10 years | 7,900 | 1,325 | 4 | | (212) | 172 | 9,189 |
| Other | | 1,439 | 84 | 1 | | (47) | 42 | 1,519 |
| Accumulated amortisation | | (5,809) | — | (2) | (1,013) | 232 | (115) | (6,707) |
| *Development* | | *(5,307)* | — | *(1)* | *(922)* | *178* | *(97)* | *(6,149)* |
| *Other* | | *(502)* | — | *(1)* | *(91)* | *54* | *(18)* | *(558)* |
| Impairment losses | | (130) | — | — | (65) | 61 | — | (134) |
| *Of which addition* | | — | — | — | *(65)* | — | — | — |
| *Liberation* | | — | — | — | — | — | — | — |
| | | **3,437** | **1,409** | **3** | **(1,078)** | **—** | **100** | **3,871** |

In 2023, 2022 and 2021, impairment losses of EUR 53 million, EUR 75 million and EUR 65 million, respectively, were recognised under Impairment or reversal of impairment on non-financial assets, net – intangible assets. This impairment losses are related mainly to the decline in or loss of the recoverable value of certain computer systems and applications as a result of the processes initiated by the Group to adapt to the various regulatory changes and to transform or integrate businesses.

## 19. Other assets

The detail of 'Other assets' is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Transactions in transit | 246 | 83 | 157 |
| Net pension plan assets (note 25) | 1,001 | 1,345 | 1,990 |
| Prepayments and accrued income | 2,911 | 3,003 | 2,610 |
| Other (note 2.m) | 4,598 | 5,536 | 3,683 |
| | **8,756** | **9,967** | **8,440** |

# 20. Deposits from central banks and credit institutions

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

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **CENTRAL BANKS** | | | |
| **Classification** | | | |
| Financial liabilities held for trading | 7,808 | 5,757 | 1,038 |
| Financial liabilities designated at fair value through profit or loss | 1,209 | 1,740 | 607 |
| Financial liabilities at amortized cost | 48,782 | 76,952 | 139,757 |
| | **57,799** | **84,449** | **141,402** |
| **Type** | | | |
| Deposits on demand | 117 | — | 10 |
| Time deposits | 43,853 | 72,320 | 134,439 |
| Reverse repurchase agreements | 13,829 | 12,129 | 6,953 |
| | **57,799** | **84,449** | **141,402** |
| **CREDIT INSTITUTIONS** | | | |
| **Classification** | | | |
| Financial liabilities held for trading | 17,862 | 9,796 | 6,488 |
| Financial liabilities designated at fair value through profit or loss | 1,735 | 1,958 | 1,064 |
| Financial liabilities at amortized cost | 81,246 | 68,582 | 52,235 |
| | **100,843** | **80,336** | **59,787** |
| **Type** | | | |
| Deposits on demand | 5,468 | 6,808 | 6,139 |
| Time deposits | 54,402 | 49,221 | 37,332 |
| Reverse repurchase agreements | 40,689 | 24,245 | 16,198 |
| Subordinated deposits | 284 | 62 | 118 |
| | **100,843** | **80,336** | **59,787** |
| **Currency** | | | |
| Euro | 53,921 | 65,133 | 107,908 |
| Pound sterling | 27,697 | 35,357 | 42,451 |
| US dollar | 49,447 | 30,924 | 24,012 |
| Brazilian real | 7,997 | 14,195 | 11,297 |
| Other currencies | 19,580 | 19,176 | 15,521 |
| **TOTAL** | **158,642** | **164,785** | **201,189** |

At 31 December 2023, the balance of the conditional long-term financing of the European Central Bank (TLTRO- Targeted Long-Term Refinancing Operation-) amounts to EUR 11,583 million, which corresponds to TLRTO III (EUR 33,536 million and EUR 88,894 million at 31 December 2022 and 2021, respectively).

At 31 December 2023, the expense recognized in the consolidated income statement corresponding to TLTRO III amounts to EUR 659 million (income of EUR 489 million and EUR 868 million at 31 December 2022 and 2021, respectively), as a result of the conditions of the financing program (see note 2.c.iv).

Note 51 contains a detail of the residual maturity periods of financial liabilities at amortised cost.

# 21. Customer deposits

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

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Classification** | | | |
| Financial liabilities held for trading | 19,837 | 12,226 | 6,141 |
| Financial liabilities designated at fair value through profit or loss | 32,052 | 31,143 | 7,818 |
| Financial liabilities at amortized cost | 995,280 | 966,353 | 886,595 |
| | **1,047,169** | **1,009,722** | **900,554** |
| **Geographical area** | | | |
| Spain | 388,736 | 386,826 | 305,775 |
| European Union (excluding Spain) | 120,540 | 111,930 | 108,361 |
| United Kingdom | 235,698 | 232,364 | 243,734 |
| United States | 83,555 | 87,497 | 73,814 |
| Rest of America | 208,713 | 181,782 | 159,381 |
| Rest of the world | 9,927 | 9,323 | 9,489 |
| | **1,047,169** | **1,009,722** | **900,554** |
| **Type** | | | |
| Demand deposits- | 661,262 | 710,232 | 717,728 |
| *Current accounts* | *437,972* | *477,739* | *482,649* |
| *Savings accounts* | *216,077* | *225,445* | *227,318* |
| *Other demand deposits* | *7,213* | *7,048* | *7,761* |
| Time deposits- | 307,085 | 236,099 | 146,469 |
| *Fixed-term deposits and other term deposits* | *302,545* | *232,619* | *144,382* |
| *Home-purchase savings accounts* | *33* | *38* | *38* |
| *Discount deposits* | *—* | *—* | *3* |
| *Hybrid financial liabilities* | *4,408* | *3,296* | *1,906* |
| *Subordinated liabilities* | *99* | *146* | *140* |
| Repurchase agreements | 78,822 | 63,391 | 36,357 |
| | **1,047,169** | **1,009,722** | **900,554** |

Note 51 contains a detail of the residual maturity periods of financial liabilities at amortised cost.

# 22. Marketable debt securities

## a) Breakdown

The detail, by classification and type, of Marketable debt securities is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Classification** | | | |
| Financial liabilities held for trading | — | — | — |
| Financial liabilities designated at fair value through profit or loss | 5,371 | 5,427 | 5,454 |
| Financial liabilities at amortized cost | 303,208 | 274,912 | 240,709 |
| | **308,579** | **280,339** | **246,163** |
| **Type** | | | |
| Bonds and debentures outstanding | 231,880 | 211,597 | 194,362 |
| Subordinated | 30,529 | 25,717 | 25,938 |
| Notes and other securities | 46,170 | 43,025 | 25,863 |
| | **308,579** | **280,339** | **246,163** |

The distribution of the book value of debt securities issued by contractual maturity at 31 December 2023 is shown below:

EUR million

| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Subordinated debt | — | — | 5,934 | 3,160 | 21,435 | 30,529 |
| Senior unsecured debt | 2,788 | 23,351 | 54,527 | 35,156 | 28,099 | 143,921 |
| Senior secured debt | 3,283 | 17,845 | 33,733 | 20,344 | 12,754 | 87,959 |
| Promissory notes and other securities | 22,802 | 23,368 | — | — | — | 46,170 |
| **Debt securities issued** | **28,873** | **64,564** | **94,194** | **58,660** | **62,288** | **308,579** |

The distribution by contractual maturity of the notional amounts of these debt securities issued at 31 December 2023 is as follows:

EUR million

| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|
| Subordinated debt | — | — | 5,913 | 3,135 | 20,978 | 30,026 |
| Senior unsecured debt | 2,741 | 22,957 | 53,607 | 34,563 | 27,624 | 141,492 |
| Senior secured debt | 3,290 | 17,884 | 33,806 | 20,388 | 12,782 | 88,150 |
| Promissory notes and other securities | 22,788 | 23,352 | — | — | — | 46,140 |
| **Debt securities issued** | **28,819** | **64,193** | **93,326** | **58,086** | **61,384** | **305,808** |

## b) Bonds and debentures outstanding

The detail, by currency of issue, of 'Bonds and debentures outstanding' is as follows:

| | EUR million | | | 2023 | |
|---|---|---|---|---|---|
| **Currency of issue** | **2023** | **2022** | **2021** | **Outstanding issue amount in foreign currency (Million)** | **Annual interest rate (%)** |
| Euro | 101,657 | 87,295 | 90,348 | 101,657 | 2.22% |
| US dollar | 70,229 | 75,798 | 66,581 | 77,624 | 3.95% |
| Pound sterling | 20,520 | 15,883 | 13,340 | 17,805 | 3.86% |
| Brazilian real | 21,861 | 18,024 | 9,131 | 117,281 | 11.71% |
| Chilean peso | 4,921 | 4,653 | 3,757 | 4,749,711 | 3.12% |
| Other currencies | 12,692 | 9,944 | 11,205 | | |
| **Balance at end of year** | **231,880** | **211,597** | **194,362** | | |

The changes in 'Bonds and debentures outstanding' were as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Balance at beginning of year** | **211,597** | **194,362** | **191,577** |
| Net inclusion of entities in the Group | (1,467) | — | — |
| *Of which:* | | | |
| *Auto ABS UK Loans PLC* | *(841)* | — | — |
| *PSA Bank Deutschland GmbH* | *(626)* | — | — |
| **Issues** | **68,568** | **66,033** | **59,937** |
| *Of which:* | | | |
| *Banco Santander, S.A.* | *19,706* | *19,243* | *11,766* |
| *Banco Santander (Brasil) S.A.* | *12,781* | *11,233* | *14,996* |
| *Santander Consumer USA Holdings Inc.* | *7,309* | *13,315* | *15,771* |
| *Santander UK Group Holdings plc* | *6,002* | *10,178* | *3,372* |
| *Santander Consumer Finance, S.A.* | *2,557* | *1,293* | *1,169* |
| *Santander Holdings USA, Inc.* | *1,850* | *2,315* | — |
| *Banco Santander Totta, S.A.* | *1,734* | *113* | *183* |
| *Santander Consumer Bank S.p.A.* | *1,460* | — | *505* |
| *Santander Bank, National Association* | *1,346* | *1,222* | *252* |
| Santander Consumer Bank AG | 1,256 | — | — |
| *Banque Stellantis France (previously PSA Banque France)* | *1,145* | *60* | *815* |
| *Santander Bank Polska S.A.* | *1,102* | — | — |
| *Santander International Products, Plc.* | *1,054* | *599* | *914* |
| *Banco Santander - Chile* | *814* | *1,486* | *1,158* |
| *SC Germany S.A., Compartment Consumer 2023-1* | *783* | — | — |
| *Santander Consumo 4, F.T.* | — | — | *1,531* |
| *SC Germany S.A., Compartment Consumer 2021-1* | — | — | *1,496* |
| **Redemptions and repurchases** | **(48,825)** | **(49,903)** | **(61,846)** |
| *Of which:* | | | |
| *Santander Consumer USA Holdings Inc.* | *(14,466)* | *(15,252)* | *(15,151)* |
| *Banco Santander (Brasil) S.A.* | *(10,542)* | *(2,721)* | *(15,182)* |
| *Banco Santander, S.A.* | *(7,889)* | *(9,297)* | *(3,185)* |
| *Santander UK Group Holdings plc* | *(6,185)* | *(5,267)* | *(14,695)* |
| *Santander Consumer Finance, S.A.* | *(1,800)* | *(3,357)* | *(3,779)* |
| *Banque Stellantis France (previously PSA Banque France)* | *(813)* | *(1,165)* | *(335)* |
| *Banco Santander - Chile* | *(575)* | *(1,452)* | *(1,030)* |
| *Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México* | *(140)* | *(1,316)* | *(411)* |
| *Santander Holdings USA, Inc.* | — | *(3,153)* | *(778)* |
| Exchange differences and other movements | 2,007 | 1,105 | 4,694 |
| **Balance at year-end** | **231,880** | **211,597** | **194,362** |

## c) Notes and other securities

The notes of the Group (see Note 22.a) were issued basically by Santander Consumer Finance, S.A., Santander UK plc, Banco Santander (México), S.A. Institución de Banca Múltiple, Grupo Financiero Santander México, Banco Santander, S.A., Santander Consumer Bank AG, Banque Stellantis France, Banco Santander - Chile and Banco Santander S.A. - Uruguay.

## d) Guarantees

Set forth below is information on the liabilities secured by assets:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Asset-backed securities | 37,717 | 40,138 | 40,519 |
| *Of which, mortgage-backed securities* | *3,019* | *1,549* | *1,487* |
| Other mortgage securities | 49,478 | 43,650 | 41,779 |
| *Of which: mortgage-backed bonds* | *24,619* | *22,049* | *23,197* |
| Covered bonds (non mortgage and export financing) | 764 | 352 | 630 |
| | **87,959** | **84,140** | **82,928** |

The main characteristics of the assets securing the aforementioned financial liabilities are as follows:

1. Asset-backed securities

a. Mortgage-backed securities- these securities are secured by mortgage assets (see Note 10.e) with average maturities of more than ten years that must: be a first mortgage for acquisition of principal or second residence, be current in payments, have a loan-to-value ratio below 80% and have a liability insurance policy in force covering at least the appraisal value. The value of the financial liabilities broken down in the foregoing table is lower than the balance of the assets securing them —securitised assets retained on the balance sheet— mainly because the Group repurchases a portion of the bonds issued, and in such cases they are not recognised on the liability side of the consolidated balance sheet.

b. Other asset - backed securities: includes asset-backed securities, notes issued by securitization funds collateralized mainly by mortgage loans that do not meet the above requirements and other loans (mainly personal loans with an average maturity of five years and loans to SMEs with average maturities of seven years) and private issues of Santander Consumer USA Holdings Inc. collateralized by vehicles assigned under operating leases.

2. Other mortgage securities include mainly:

a. Mortgage-backed bonds with average maturities of more than ten years that are secured by a portfolio of mortgage loans and credits (included in secured loans —see note 10.b —) which must: not be classified as of procedural stage; have available appraisals performed by specialised entities; have a loan-to-value (LTV) ratio below 80% in the case of home loans and below 60% for loans for other assets and have sufficient liability insurance.

b. Other debt securities issued as part of the Group's liquidity strategy in the UK, mainly covered bonds in the UK secured by mortgage loans and other assets.

Grupo Santander has a balance corresponding to mortgage bonds at 31 December 2023 of EUR 24,619 million (all of them issued in euros), which correspond to issues of Banco Santander, SA (with an outstanding face value of EUR 24,457 million).

The issuing entity may repay the mortgage bonds early, if this has been expressly established in the final conditions of the issue in question and in the conditions established there.

None of the mortgage bonds issued by Banco Santander have replacement assets involved.

During 2023, the Bank of Spain has published Circular 1/2023 of 4 February , which modifies Circular 4/2017, repealing the breakdown in the annual accounts and the information related to internal accounting development and management control.

Additionally, Banco Santander, S.A. issues internationalization certificates, which are securities whose capital and interest are guaranteed by loans and credits that are linked to the financing of export contracts or the internationalization of companies.

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

# 23. Subordinated liabilities

## a) Breakdown

The detail, by currency of issue, of Subordinated liabilities, deposits and marketable debt securities, in the consolidated balance sheets is as follows:

| | EUR million | | | 2023 | |
|---|---|---|---|---|---|
| **Currency of issue** | **2023** | **2022** | **2021** | **Outstanding issue amount in foreign currency (million)** | **Annual interest rate (%)** |
| Euro | 13,684 | 12,940 | 13,857 | 13,684 | 3.81% |
| US dollar | 11,300 | 8,438 | 8,236 | 12,490 | 6.17% |
| Pound sterling | 1,353 | 1,358 | 1,535 | 1,174 | 4.30% |
| Brazilian real | 2,518 | 1,127 | 879 | 13,509 | 13.72% |
| Other currencies | 2,057 | 2,063 | 1,689 | | |
| **Balance at end of year** | **30,912** | **25,926** | **26,196** | | |

Note 51 contains a detail of the residual maturity periods of subordinated liabilities at each year-end.

## b) Changes

The movement in the balance of subordinated liabilities in the last three years were as follows:

EUR million

| | **2023** | **2022** | **2021** |
|---|---|---|---|
| Balance at beginning of year | 25,926 | 26,196 | 21,880 |
| Net inclusion of entities in the Group | (40) | — | — |
| Issuances[A] | 7,007 | 119 | 5,340 |
| *Of which:* | | | |
| *Banco Santander, S.A.* | *5,610* | — | *4,469* |
| *Banco Santander (Brasil) S.A.* | *1,112* | — | *871* |
| *Banque Stellantis France* | *150* | — | — |
| *Banco Santander - Chile* | — | *113* | — |
| Redemptions and repurchases[A] | (1,781) | (1,040) | (1,500) |
| *Of which:* | | | |
| *Banco Santander, S.A.* | *(1,000)* | *(889)* | *(1,500)* |
| *Santander UK plc* | *(702)* | *(98)* | — |
| *Banque Stellantis France* | *(78)* | — | — |
| *Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México* | — | *(52)* | — |
| Exchange differences and other movements | (200) | 651 | 476 |
| **Balance at end of year** | **30,912** | **25,926** | **26,196** |

A. The balance relating to issuances, redemptions and repurchases (EUR 5,226 million), together with the interest paid in remuneration of these issuances including PPCC (EUR 1,150 million), is included in the cash flow from financing activities.

## c) Other disclosures

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

Preferred shares do not have voting rights and are non-cumulative. They have been subscribed by third parties outside the Group, and except for the issues of Santander UK plc, the rest are redeemable by decision of the issuer, according to the terms of each issue.

Banco Santander's contingently convertible preferred participations are subordinated debentures and rank after common creditors and any other subordinated credit that by law and/or by their terms, to the extent permitted by Spanish law, ranks higher than the contingently convertible preferred participations. Their remuneration is conditioned to the obtainment of sufficient distributable profits, and to the limitations imposed by the regulations on shareholders' equity, and they have no voting rights. The other issues of Banco Santander, S.A. mentioned in this caption are also subordinated debentures and, for credit ranking purposes, they rank behind all the common creditors of the issuing entities and ahead of any other subordinated credit that ranks pari passu with the Bank's contingently convertible preferred participations.

The main issues of subordinated debt securities issued, broken down by company, are detailed below:

Issues by Banco Santander, S.A.

At 29 December 2023, Banco Santander, S.A., proceeded to prepay all the Tier 1 Contingently Convertible Preferred Securities with ISIN code XS1692931121 for a total nominal amount of EUR 1,000 million and which were traded on the Irish Stock Market 'Global Exchange Market' (the 'PPCC').

At 21 November 2023, Banco Santander, S.A., carried out a placement of two series of contingently convertible preferred shares into newly issued ordinary shares of the Bank, for a total nominal amount of USD 1,150 million (EUR 1,054 million at the exchange rate on the day of issue) and USD 1,350 million (EUR 1,235 million at the exchange rate on the day of issue), respectively.

The issue was carried out at par and the remuneration of the PPCC, whose payment is subject to certain conditions and is also discretionary, was set (i) for the first Series at 9.625% annually for the first five years and six months, being reviewed every five years thereafter by applying a margin of 530.6 basis points on the five-year UST rate (5-year UST), and (ii) for the second Series at 9.625% annually for the first ten years, being reviewed thereafter every five years, applying a margin of 529.8 basis points on the five-year UST rate.

At 8 August 2023, Banco Santander, S.A. carried out an issue of subordinated obligations for an amount of 2,000 million dollars (1,821 million euros at the exchange rate on the day of issuance). The issue was carried out at par coupon was set at 6.921% per year, payable semiannually during the 10-year life of the operation.

At 23 May 2023, Banco Santander, S.A. issued subordinated bonds for an amount of 1,500 million euros for a term of 10 years and 3 months. The issue was carried at 99.739% and the coupon of the issue was set at 5.75% annually for the first 5 years and 3 months, with the option of amortization in August 2028, revising the coupon, in case of non-amortization, at a margin of 285 points plus the Euro Swap type 5 years.

At 6 July 2022 and 20 July 2022, two subordinated issues matured for a nominal amount of EUR 114 million and EUR 25 million, respectively.

At 25 April 2022, Banco Santander, S.A. proceeded to prepay all the Tier 1 Contingently Convertible Preferred Securities with ISIN code XS1602466424 and common code 160246642 in circulation, for a total nominal amount of EUR 750 million and which were traded on the Irish Stock Market 'Global Exchange Market' (the 'PPCC').

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. This issue has an early redemption option in the tenth year from the issue date and if the redemption is not executed in the tenth year, the coupon is repriced at a margin of 160 points over the one-year US 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 was carried out at par and the remuneration of the PPCC, whose payment is subject to certain conditions and is also discretionary, was 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 XS1107291541 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, S.A. 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 was carried out at par and the remuneration of the PPCC, whose payment is subject to certain conditions and is also discretionary, was 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 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 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 SOFR Spread Adjusted ICE Swap 5-year).

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 ten-year subordinated debenture issue of EUR 1,250 million was carried out. The issue accrues annual interest of 2.125% payable annually.

Issues by Banco Santander - Chile

In January 2022, Banco Santander - Chile carried out an issuance, in the local market, of subordinated obligations with a term of 6 years, for an amount of UF 3.3 million (equivalent to USD 105 million), which accrues an annual interest of 1.25%.

In June 2020, Banco Santander - Chile issued subordinated debentures for a term of fifteen years, in the amount of UF 5 million (equivalent to USD 185 million). The issue bears annual interest at 3.5%.

In April 2020, Banco Santander - Chile issued two subordinated debentures, the first for a term of fourteen years, for an amount of UF 3 million (equivalent to USD 100 million), bearing annual interest at 3%, and the second for a term of nineteen years, for an amount of UF 3 million (equivalent to USD 100 million), bearing annual interest at 3.15%.

Issues Banco Santander (Brasil) S.A.

At the beginning of October 2023, Banco Santander (Brasil) S.A. carried out an issue of Subordinated Financial Bills (TIER II) in its local market for a 10-year term, with a repurchase option as of the fifth anniversary of the issue date, in the amount of BRL 6,000 million. The issue price was CDI +1.6% per annum, payable at maturity.

At the end of November 2021, Banco Santander (Brasil) S.A. carried out an issue of Subordinated Financial Bills (TIER II) in its local market for a 10-year term, with a repurchase option as of the fifth anniversary of the issue date, in the amount of BRL 5,500 million. The issue price was CDI 2% per annum, payable at maturity.

Issues by Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México

In January 2022, Banco Santander México, S.A. Multiple Institution, Grupo Financiero Santander México proceeded to redeem early a perpetual issue carried out at 30 December 2016 for a nominal amount of USD 500 million, of which 88.2% of the issue had been acquired by the Group.

At 1 October 2018, a ten-year subordinated debenture issue was made by Banco Santander México, S.A. Institución de Banca Múltiple, Grupo Financiero Santander México for a nominal amount of USD 1,300 million and at an interest rate of 5.95%, with the group having acquired 75% of the issue.

Issues by Santander Bank Polska S.A.

At 20 April 2018, Santander Bank Polska S.A. carried out a ten-year subordinated debenture issue with a redemption option on the fifth anniversary of the issue date in the amount of PLN 1,000 million. The issue bears floating interest at Wibor (6M) + 160 basis points payable semi-annually.

The accrued interests from the subordinated liabilities during 2023 amounted to EUR 1,049 million (EUR 992 million and EUR 648 million during 2022 and 2021, respectively).

In addition, interests from the PPCC and PPCA during 2023 amounted to EUR 492 million (EUR 529 million and EUR 566 million in 2022 and 2021, respectively).

## 24. Other financial liabilities

The detail of Other financial liabilities in the consolidated balance sheets is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Trade payables | 1,783 | 1,563 | 1,475 |
| Clearing houses | 1,269 | 1,200 | 650 |
| Tax collection accounts: | | | |
| Public Institutions | 4,986 | 5,796 | 5,315 |
| Factoring accounts payable | 272 | 262 | 275 |
| Unsettled financial transactions | 6,412 | 5,429 | 3,779 |
| Lease liabilities (note 2.k) | 2,400 | 2,622 | 2,856 |
| Other financial liabilities | 23,065 | 20,187 | 15,523 |
| | **40,187** | **37,059** | **29,873** |

Note 51 contains a detail of the residual maturity periods of other financial liabilities at each year-end.

Lease liabilities

The cash outflow of leases in 2023 was EUR 738 million (EUR 710 million and EUR 715 in 2022 and 2021, respectively).

The analysis of the maturities of lease liabilities at 31 December 2023, 2022 and 2021 is shown below:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Maturity Analysis - Discounted payments** | | | |
| Within 1 year | 586 | 707 | 690 |
| Between 1 and 3 years | 918 | 1,005 | 933 |
| Between 3 and 5 years | 480 | 454 | 534 |
| Later than 5 years | 416 | 456 | 699 |
| **Total discounted payments at the end of the year** | **2,400** | **2,622** | **2,856** |

During 2023, 2022 and 2021 there were no significant variable lease payments not included in the valuation of lease liabilities.

# 25. Provisions

## a) Breakdown

The detail of Provisions in the consolidated balance sheets is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Provision for pensions and other obligations post-employments | 2,225 | 2,392 | 3,185 |
| Other long term employee benefits | 880 | 950 | 1,242 |
| Provisions for taxes and other legal contingencies | 2,715 | 2,074 | 1,996 |
| Contingent liabilities and commitments (note 2.o) | 702 | 734 | 733 |
| Other provisions | 1,919 | 1,999 | 2,427 |
| **Provisions** | **8,441** | **8,149** | **9,583** |

## b) Changes

The changes in 'Provisions' in the last three years were as follows:

EUR million

| | 2023 | | | | |
|---|---|---|---|---|---|
| | Post employment plans | Long term employee benefits | Contingent liabilities and commitments | Other provisions | Total |
| **Balances at beginning of year** | **2,392** | **950** | **734** | **4,073** | **8,149** |
| Incorporation of Group companies, net | (4) | — | — | — | (4) |
| Additions charged to income | 93 | 244 | (24) | 2,501 | 2,814 |
| Interest expense (note 39) | 60 | 34 | — | — | 94 |
| Staff costs (note 46) | 33 | 9 | — | — | 42 |
| Provisions or reversion of provisions | — | 201 | (24) | 2,501 | 2,678 |
| *Addition* | *3* | *204* | *392* | *4,013* | *4,612* |
| *Release* | *(3)* | *(3)* | *(416)* | *(1,512)* | *(1,934)* |
| Other additions arising from insurance contracts linked to pensions | — | — | — | — | — |
| Changes in value recognised in equity | 944 | — | — | — | 944 |
| Payments to pensioners and pre-retirees with a charge to internal provisions | (182) | (316) | — | — | (498) |
| Insurance premiums paid | — | — | — | — | — |
| Payments to external funds | (750) | — | — | — | (750) |
| Amounts used | — | — | (1) | (2,087) | (2,088) |
| Transfer, exchange differences and other changes | (268) | 2 | (7) | 147 | (126) |
| **Balances at end of year** | **2,225** | **880** | **702** | **4,634** | **8,441** |

EUR million

| | 2022 | | | | | 2021 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Post employment plans** | **Long term employee benefits** | **Contingent liabilities and commitments** | **Other provisions** | **Total** | **Post employment plans** | **Long term employee benefits** | **Contingent liabilities and commitments** | **Other provisions** | **Total** |
| **Balances at beginning of year** | **3,185** | **1,242** | **733** | **4,423** | **9,583** | **3,976** | **1,751** | **700** | **4,425** | **10,852** |
| Incorporation of Group companies, net | — | — | — | — | — | — | — | — | — | — |
| Additions charged to income | 128 | 69 | (27) | 1,876 | 2,046 | 100 | 101 | 29 | 2,748 | 2,978 |
| Interest expense (note 39) | 73 | 27 | — | — | 100 | 78 | 13 | — | — | 91 |
| Staff costs (note 46) | 57 | 8 | — | — | 65 | 67 | 6 | — | — | 73 |
| Provisions or reversion of provisions | (2) | 34 | (27) | 1,876 | 1,881 | (45) | 82 | 29 | 2,748 | 2,814 |
| *Addition* | *10* | *105* | *618* | *3,484* | *4,217* | *21* | *154* | *473* | *3,065* | *3,713* |
| *Release* | *(12)* | *(71)* | *(645)* | *(1,608)* | *(2,336)* | *(66)* | *(72)* | *(444)* | *(317)* | *(899)* |
| Other additions arising from insurance contracts linked to pensions | (33) | — | — | — | (33) | (8) | — | — | — | (8) |
| Changes in value recognised in equity | 242 | — | — | — | 242 | (1,705) | — | — | — | (1,705) |
| Payments to pensioners and pre-retirees with a charge to internal provisions | (229) | (363) | — | — | (592) | (201) | (605) | — | — | (806) |
| Insurance premiums paid | (3) | — | — | — | (3) | — | — | — | — | — |
| Payments to external funds | (451) | — | — | — | (451) | (440) | — | — | — | (440) |
| Amounts used | — | — | — | (2,817) | (2,817) | — | — | — | (2,961) | (2,961) |
| Transfer, exchange differences and other changes | (447) | 2 | 28 | 591 | 174 | 1,463 | (5) | 4 | 211 | 1,673 |
| **Balances at end of year** | **2,392** | **950** | **734** | **4,073** | **8,149** | **3,185** | **1,242** | **733** | **4,423** | **9,583** |

## c) Provision for pensions and other obligations post – employments and Other long term employee benefits

The detail of Provisions for pensions and similar obligations is as follows:

EUR million

| | **2023** | **2022** | **2021** |
|---|---|---|---|
| Provisions for post-employment plans - Spanish entities | 770 | 1,245 | 1,709 |
| Provisions for other similar obligations - Spanish entities | 817 | 895 | 1,188 |
| *Of which pre-retirements* | *805* | *884* | *1,176* |
| Provisions for post-employment plans - United Kingdom | 76 | 29 | 44 |
| Provisions for post-employment plans - Other subsidiaries | 1,379 | 1,118 | 1,432 |
| Provisions for other similar obligations - Other subsidiaries | 63 | 55 | 54 |
| **Provision for pensions and other obligations post -employments and Other long term employee benefits** | **3,105** | **3,342** | **4,427** |
| *Of which defined benefits* | *3,097* | *3,335* | *4,419* |

### i. Spanish entities - Post-employment plans and other similar obligations

At 31 December 2023, 2022 and 2021, the Spanish entities had post-employment benefit obligations under defined contribution and defined benefit plans. In addition, in various years some of the consolidated entities offered certain of their employees the possibility of taking pre-retirement and, therefore, provisions are recognised each year for the obligations to employees taking pre-retirement -in terms of salaries and other employee benefit costs- from the date of their pre-retirement to the agreed end date.

In December 2020, Banco Santander reached an agreement with the workers' representatives to implement an early retirement and incentivized dismissals plan, which was expected to benefit 3,572 employees during 2021, constituting a provision to cover these commitments amounting to EUR 688 million.

In 2021, to complete the plan announced in 2020, an amount of EUR 139 million was recognised, increasing the number of early retirements and incentivized dismissals plan to 3,915 employees in the total period.

In 2022, the provisions made to cover the commitments with 446 employees covered by early retirement and incentivized dismissals plan amounted to EUR 92 million.

In 2023, the provisions made to cover the commitments with 502 employees covered by early retirements and incentivized dismissals amounted to EUR 160 million.

On 8 July 2021, Banco Santander reached an agreement with the employee representatives for the transformation of defined benefit pension commitments into defined contributions for certain retired personnel from Banco Popular and Banco Pastor. Through the aforementioned Collective Agreement, it was agreed to carry out an offer to replace the life annuities that the passive personnel included in the scope of application of said Collective Agreement had been receiving, for a capitalization fund in the Santander Employees pension plan. The number of beneficiaries who exercised the voluntary option to accept the substitution of the life annuity for a capitalization fund in the Santander Employees pension plan amounted to 1,468 people.

The effect of the reduction of the aforementioned commitments is shown in the tables below under the headings 'Benefits paid by settlement' amounting to EUR 166 million and 'Effect reduction / settlement' amounting to EUR 38 million.

The expenses incurred by the Spanish companies in 2023, 2022 and 2021 in respect of contributions to defined contribution plans amounted to EUR 116 million, EUR 101 million and EUR 91 million, respectively.

The amount of the defined benefit obligations was determined on the basis of the work performed by independent actuaries using the following actuarial techniques:

1. Valuation method: projected unit credit method, which sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately.

2. Actuarial assumptions used: unbiased and mutually compatible. Specifically, the most significant actuarial assumptions used in the calculations were as follows:

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | **2023** | **2022** | **2021** | **2023** | **2022** | **2021** |
| Annual discount rate | 3.35% | 3.80% | 0.90% | 3.35% | 3.80% | 0.90% |
| Mortality tables | PE2020 M/F Col. Orden 1 | PE2020 M/F Col. Orden 1 | PE2020 M/F Col. Orden 1 | PE2020 M/F Col. Orden 1 | PE2020 M/F Col. Orden 1 | PE2020 M/F Col. Orden 1 |
| Cumulative annual CPI growth | 2.00% | 2.00% | 1.00% | 2.00% | 2.00% | 1.00% |
| Annual salary increase rate | 1.25%[A] | 1.25%[A] | 1.25%[A] | N/A | N/A | N/A |
| Annual social security pension increase rate | 2.12% | 2.00% | 1.00% | N/A | N/A | N/A |
| Annual benefit increase rate | N/A | N/A | N/A | 0% | 0% | 0 % |

A. Corresponds to the group's defined-benefit obligations.

The discount rate used for the flows was determined by reference to high-quality corporate bonds (at least AA in euros) matching the durations of the commitments. From the bond portfolio considered, callable, putable and sinkable bonds, which could distort the rates, are excluded.

Any changes in the main assumptions could affect the calculation of the obligations. At 31 December 2023, if the discount rate used had been decreased or increased by 50 basis points (bp), there would have been an increase or decrease in the present value of the post-employment obligations of 4.15% (-50 bp) to -3.85% (+50 bp),respectively, and an increase or decrease in the present value of the long-term obligations of 1.04% (-50 bp) to -1.02% (+50 bp), respectively.

These changes would be offset in part by increases or decreases in the fair value of the assets and insurance contracts linked to pensions.

3. The estimated retirement age of each employee is the first at which the employee is entitled to retire or the agreed-upon age, as appropriate.

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

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | **2023** | **2022** | **2021** | **2023** | **2022** | **2021** |
| Expected rate of return on plan assets | 3.35% | 3.80% | 0.90% | 3.35% | 3.80% | 0.90% |
| Expected rate of return on reimbursement rights | 3.35% | 3.80% | 0.90% | N/A | N/A | N/A |

The funding status of the defined benefit obligations in 2023 and the two preceding years is as follows:

EUR million

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | **2023** | **2022** | **2021** | **2023** | **2022** | **2021** |
| **Present value of the obligations** | | | | | | |
| To current employees | 21 | 25 | 29 | — | — | — |
| Vested obligations to retired employees | 1,917 | 2,005 | 2,797 | — | — | — |
| To pre-retirees employees | — | — | — | 812 | 892 | 1,186 |
| Long-service bonuses and other benefits | — | — | — | 12 | 11 | 12 |
| Other | 49 | 46 | 65 | — | — | — |
| | **1,987** | **2,076** | **2,891** | **824** | **903** | **1,198** |
| Less - Fair value of plan assets | 1,235 | 861 | 1,217 | 7 | 8 | 10 |
| **Provisions - Provisions for pensions** | **752** | **1,215** | **1,674** | **817** | **895** | **1,188** |
| *Of which:* | | | | | | |
| *Internal provisions for pensions* | *677* | *1,141* | *1,560* | *817* | *895* | *1,188* |
| *Net pension assets* | *(14)* | *(24)* | *(30)* | — | — | — |
| *Insurance contracts linked to pensions (note 14)* | *93* | *104* | *149* | — | — | — |
| *Unrecognised net assets for pensions* | *(4)* | *(6)* | *(5)* | — | — | — |

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

EUR million

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2023 | 2022 | 2021 |
| Current service cost | 2 | 3 | 5 | 1 | 1 | 1 |
| Interest cost (net) | 42 | 48 | 24 | 30 | 25 | 11 |
| Expected return on insurance contracts linked to pensions | (4) | (4) | (1) | — | — | — |
| Provisions or reversion of provisions | | | | | | |
| *Actuarial (gains)/losses recognised in the year* | *—* | *—* | *—* | *7* | *(67)* | *(15)* |
| *Past service cost* | *2* | *2* | *13* | *13* | *—* | *—* |
| *Pre-retirement cost* | *—* | *—* | *—* | *160* | *92* | *139* |
| *Other*[A] | *(1)* | *(8)* | *(39)* | *(1)* | *—* | *(55)* |
| | **41** | **41** | **2** | **210** | **51** | **81** |

A. Including reduction/settlement effect

In addition, in 2023 'Other comprehensive income – Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans' has increased by EUR 10 million with respect to defined benefit obligations (decrease of EUR 295 and EUR 37 million in 2022 and 2021, respectively).

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

EUR million

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2023 | 2022 | 2021 |
| Present value of the obligations at beginning of year | 2,076 | 2,891 | 3,419 | 903 | 1,198 | 1,707 |
| Incorporation of Group companies, net | — | — | 6 | — | — | — |
| Current service cost | 2 | 3 | 5 | 1 | 1 | 1 |
| Interest cost | 82 | 78 | 36 | 30 | 25 | 11 |
| Pre-retirement cost | — | — | — | 160 | 92 | 139 |
| Effect of curtailment/settlement | (1) | (8) | (61) | (1) | — | (55) |
| Benefits paid | (210) | (258) | (248) | (290) | (346) | (589) |
| Benefits paid due to settlements | — | — | (166) | — | — | — |
| Past service cost | 2 | 2 | 13 | 13 | — | — |
| Actuarial (gains)/losses | 37 | (631) | (121) | 7 | (68) | (15) |
| *Demographic actuarial (gains)/losses* | *(2)* | *2* | *9* | *—* | *(5)* | *(8)* |
| *Financial actuarial (gains)/losses* | *39* | *(633)* | *(130)* | *7* | *(63)* | *(7)* |
| Exchange differences and other items | (1) | (1) | 8 | 1 | 1 | (1) |
| **Present value of the obligations at end of year** | **1,987** | **2,076** | **2,891** | **824** | **903** | **1,198** |

The changes in the fair value of plan assets and of insurance contracts linked to pensions were as follows:

**Plan Assets**

EUR million

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | **2023** | **2022** | **2021** | **2023** | **2022** | **2021** |
| Fair value of plan assets at beginning of year | 861 | 1,217 | 1,542 | 8 | 10 | 12 |
| Incorporation of Group companies, net | — | — | 6 | — | — | — |
| Expected return on plan assets | 40 | 30 | 12 | — | — | — |
| Gains/(losses) on settlements | — | — | (22) | — | — | — |
| Benefits paid | (89) | (78) | (263) | (2) | (2) | (2) |
| Contributions/(surrenders) | 409 | 2 | 15 | — | — | — |
| Actuarial gains/(losses) | 25 | (303) | (76) | — | (1) | — |
| Exchange differences and other items | (11) | (7) | 3 | 1 | 1 | — |
| **Fair value of plan assets at end of year** | **1,235** | **861** | **1,217** | **7** | **8** | **10** |

**Insurance Contracts linked to pensions**

EUR million

| | Post-employment plans | | | Other similar obligations | | |
|---|---|---|---|---|---|---|
| | **2023** | **2022** | **2021** | **2023** | **2022** | **2021** |
| Fair value of insurance contracts linked to pensions at beginning of year | 104 | 149 | 174 | — | — | — |
| Incorporation of Group companies, net | — | — | — | — | — | — |
| Expected return on insurance contracts linked to pensions | 4 | 4 | 1 | — | — | — |
| Benefits paid | (15) | (16) | (19) | — | — | — |
| Paid premiums | — | — | 1 | — | — | — |
| Actuarial gains/(losses) | — | (33) | (8) | — | — | — |
| **Fair value of insurance contracts linked to pensions at end of year** | **93** | **104** | **149** | **—** | **—** | **—** |

In view of the conversion of the defined-benefit obligations to defined-contribution obligations, the Group will not make material current contributions in Spain in 2024 to fund its defined-benefit pension obligations.

The plan assets and the insurance contracts linked to pensions are instrumented mainly through insurance policies.

The following table shows the estimated benefits payable at 31 December 2023 for the next ten years:

| EUR million | |
|---|---|
| 2024 | 464 |
| 2025 | 390 |
| 2026 | 338 |
| 2027 | 281 |
| 2028 | 229 |
| 2029 to 2033 | 744 |

### ii. United Kingdom

At the end of each of the last three years, the businesses in the United Kingdom had post-employment benefit obligations under defined contribution and defined benefit plans. The expenses incurred in respect of contributions to defined contribution plans amounted to EUR 87 million in 2023 (EUR 77 million in 2022 and EUR 89 million in 2021).

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:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Annual discount rate | 4.63% | 4.88% | 1.90% |
| Mortality tables | The S3 Middle tables weighted at 84% of the CMI_2022 projection with an initial addition of 0.25%, smoothing parameter 7 and improving 1.25%. | The S3 Middle tables weighted at 84% of the CMI_2021 projection with an initial addition of 0.25%, smoothing parameter 7 and improving 1.25%. | The S3 Middle tables weighted at 84% of the CMI_2020 projection with an initial addition of 0.15%, smoothing parameter 7 and improving 1.25%. |
| Cumulative annual CPI growth | 3.02% | 3.11% | 3.37% |
| Annual salary increase rate | 1.00% | 1.00% | 1.00% |
| Annual pension increase rate | 2.96% | 2.98% | 3.21% |

The discount rate used for the flows was determined by reference to high-quality corporate bonds (at least AA in pounds sterling) that coincide with the terms of the obligations.

Any changes in the main assumptions could affect the calculation of the obligations. At 31 December 2023, if the discount rate used had been decreased or increased by 50 basis points, there would have been an increase or decrease in the present value of the obligations of 6.89% (-50 bp) and -6.18% (+50 bp), respectively. If the inflation assumption had been increased or decreased by 50 basis points, there would have been an increase or decrease in the present value of the obligations of 4.69% (+50 bp) and -4.51% (-50 bp), respectively. These changes would be offset in part by increases or decreases in the fair value of the assets.

The funding status of the defined benefit obligations in 2023 and the two preceding years is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Present value of the obligations | 9,451 | 8,982 | 15,392 |
| Less- | | | |
| Fair value of plan assets | 10,208 | 10,152 | 17,244 |
| **Provisions - Provisions for pensions** | **(757)** | **(1,170)** | **(1,852)** |
| *Of which:* | | | |
| *Internal provisions for pensions* | *76* | *29* | *44* |
| *Net assets for pensions* | *(833)* | *(1,199)* | *(1,896)* |

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

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Current service cost | 14 | 30 | 33 |
| Interest cost (net) | (62) | (37) | (6) |
| Provisions or reversal of provisions, net | | | |
| Cost of services provided | — | — | 6 |
| Others | — | — | — |
| | **(48)** | **(7)** | **33** |

In addition, in 2023 'Other comprehensive income – Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans' increased by EUR 687 million with respect to defined benefit obligations (increase of EUR 857 million and decrease of EUR 1,475 million in 2022 and 2021, respectively).

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

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Present value of the obligations at beginning of year | 8,982 | 15,392 | 15,472 |
| Net incorporation of companies into the Group | (28) | — | — |
| Current service cost | 14 | 30 | 33 |
| Interest cost | 436 | 283 | 219 |
| Benefits paid | (428) | (487) | (465) |
| Benefits paid by settlements | (9) | — | — |
| Contributions made by employees | 6 | 9 | 18 |
| Past service cost | — | — | 6 |
| Actuarial (gains)/losses | 281 | (5,660) | (933) |
| *Demographic actuarial (gains)/losses* | *(59)* | *(144)* | *(17)* |
| *Financial actuarial (gains)/losses* | *340* | *(5,516)* | *(916)* |
| Exchange differences and other items | 197 | (585) | 1,042 |
| **Present value of the obligations at end of year** | **9,451** | **8,982** | **15,392** |

The changes in the fair value of the plan assets were as follows:

| EUR million | 2023 | 2022 | 2021 |
|---|---|---|---|
| Fair value of plan assets at beginning of year | 10,152 | 17,244 | 15,575 |
| Net incorporation of companies into the Group | (41) | — | — |
| Expected return on plan assets | 498 | 320 | 225 |
| Benefits paid | (434) | (487) | (463) |
| Contributions | 225 | 262 | 285 |
| Actuarial gains/(losses) | (406) | (6,517) | 541 |
| Exchange differences and other items | 214 | (670) | 1,081 |
| **Fair value of plan assets at end of year** | **10,208** | **10,152** | **17,244** |

In 2024 the Group expects to make current contributions to fund these obligations for amounts similar to those made in 2023.

The main categories of plan assets as a percentage of total plan assets are as follows:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Equity instruments | — | — | 10% |
| Debt instruments | 62% | 51% | 51% |
| Properties | 12% | 13% | 10% |
| Other | 26% | 36% | 29% |

The following table shows the estimated benefits payable at 31 December 2023 for the next ten years:

| EUR million | |
|---|---|
| 2024 | 525 |
| 2025 | 448 |
| 2026 | 466 |
| 2027 | 494 |
| 2028 | 512 |
| 2029 to 2033 | 2,764 |

### iii. Other foreign subsidiaries

Certain of the consolidated foreign entities have acquired commitments to their employees similar to post-employment benefits.

At 31 December 2023, 2022 and 2021, these entities had defined-contribution and defined-benefit post-employment benefit obligations. The expenses incurred in respect of contributions to defined contribution plans amounted to EUR 107 million in 2023 (EUR 118 million at 31 December 2022 and EUR 106 million at 31 December 2021).

The actuarial assumptions used by these entities (discount rates, mortality tables and cumulative annual CPI growth) are consistent with the economic and social conditions prevailing in the countries in which they are located.

Specifically, the discount rate used for the flows was determined by reference to high-quality corporate bonds, except in the case of Brazil where there is no extensive corporate bond market and, accordingly the discount rate was determined by reference to the series B bonds issued by the Brazilian National Treasury Secretariat for a term coinciding with that of the obligations. In Brazil the discount rate used was between 8.65% and 8.70%, the CPI 3.00% and the mortality table the AT-2000 Basic.

Any changes in the main assumptions could affect the calculation of the obligations. At 31 December 2023, if the discount rate used had been decreased or increased by 50 basis points, there would have been an increase or decrease in the present value of the obligations of 4.49% (-50 bp) and -4.16% (+50 bp), respectively. These changes would be offset in part by increases or decreases in the fair value of the assets.

The funding status of the obligations similar to post-employment benefits and other long-term benefits in 2023 and the two preceding years is as follows:

EUR million

| | 2023 | Of which business in Brazil | 2022 | 2021 |
|---|---|---|---|---|
| Present value of the obligations | 8,485 | *5,961* | 7,578 | 8,018 |
| Less- | | | | |
| *Of which: with a charge to the participants* | *114* | *114* | *107* | *106* |
| Fair value of plan assets | 7,787 | *6,132* | 7,321 | 7,167 |
| **Provisions - Provisions for pensions** | **584** | ***(285)*** | **150** | **745** |
| *Of which:* | | | | |
| *Internal provisions for pensions* | *1,434* | *474* | *1,166* | *1,478* |
| *Net assets for pensions* | *(154)* | *(63)* | *(122)* | *(64)* |
| *Unrecognised net assets for pensions* | *(696)* | *(696)* | *(894)* | *(669)* |

The amounts recognised in the consolidated income statements in relation to these obligations are as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Current service cost | 25 | 31 | 34 |
| Interest cost (net) | 84 | 64 | 62 |
| Provisions or reversion of provisions | | | |
| (Actuarial gains)/losses recognised in the year | 23 | 8 | 11 |
| Past service cost | 1 | 8 | 3 |
| Pre-retirement cost | — | — | (24) |
| Other | (3) | (3) | (3) |
| | **130** | **108** | **83** |

In addition, in 2023 'Other comprehensive income – Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans' increased by EUR 247 million with respect to defined benefit obligations (decreased EUR 320 million and EUR 193 million in 2022 and 2021, respectively).

The changes in the present value of the accrued obligations were as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Present value of the obligations at beginning of year | 7,578 | 8,018 | 8,434 |
| Incorporation of Group companies, net | (20) | — | (5) |
| Current service cost | 25 | 31 | 34 |
| Interest cost | 600 | 546 | 429 |
| Pre-retirement cost | — | — | (24) |
| Effect of curtailment/settlement | (2) | (3) | (3) |
| Benefits paid | (730) | (653) | (538) |
| Benefits paid due to settlements | (2) | (179) | — |
| Contributions made by employees | 3 | 5 | 3 |
| Past service cost | 1 | 8 | 3 |
| Actuarial (gains)/losses | 697 | (876) | (486) |
| *Demographic actuarial (gains)/losses* | *40* | *5* | *16* |
| *Financial actuarial (gains)/losses* | *657* | *(881)* | *(502)* |
| Exchange differences and other items | 335 | 681 | 171 |
| **Present value of the obligations at end of year** | **8,485** | **7,578** | **8,018** |

The changes in the fair value of the plan assets were as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Fair value of plan assets at beginning of year | 7,321 | 7,167 | 7,182 |
| Incorporation of Group companies, net | (16) | — | (6) |
| Expected return on plan assets | 588 | 570 | 411 |
| Benefits paid | (644) | (766) | (478) |
| Contributions | 124 | 198 | 152 |
| Actuarial gains/(losses) | 110 | (498) | (155) |
| Exchange differences and other items | 304 | 650 | 61 |
| **Fair value of plan assets at end of year** | **7,787** | **7,321** | **7,167** |

In 2024 the Group expects to make contributions to fund these obligations for amounts similar to those made in 2023.

The main categories of plan assets as a percentage of total plan assets are as follows:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Equity instruments | 11% | 11% | 12% |
| Debt instruments | 83% | 83% | 83% |
| Properties | 1% | 1% | 1% |
| Other | 5% | 5% | 4% |

The following table shows the estimated benefits payable at 31 December 2023 for the next ten years:

| EUR million | |
|---|---|
| 2024 | 658 |
| 2025 | 665 |
| 2026 | 671 |
| 2027 | 682 |
| 2028 | 694 |
| 2029 to 2033 | 3,499 |

## d) Provisions for taxes and other legal contingencies and Other provisions

'Provisions - Provisions for taxes and other legal contingencies' and 'Provisions - Other provisions', which include, inter alia, provisions for restructuring costs and tax-related and non-tax-related proceedings, were estimated using prudent calculation procedures in keeping with the uncertainty inherent to the obligations covered. The definitive date of the outflow of resources embodying economic benefits for the Group depends on each obligation. In certain cases, these obligations have no fixed settlement period and, in other cases, depend on the legal proceedings in progress.

The detail, by geographical area, of Provisions for taxes and other legal contingencies and Other provisions is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Recognised by Spanish companies | 1,921 | 1,768 | 1,595 |
| Recognised by other EU companies | 433 | 328 | 779 |
| Recognised by other companies | 2,280 | 1,977 | 2,049 |
| *Of which:* | | | |
| *Brazil* | *1,618* | *1,243* | *1,339* |
| | **4,634** | **4,073** | **4,423** |

Set forth below is the detail, by type of provision, of the balance at 31 December 2023, 2022 and 2021 of Provisions for taxes and other legal contingencies and Other provisions.

The types of provision were determined by grouping together items of a similar nature:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Provisions for taxes | 745 | 679 | 564 |
| Provisions for employment-related proceedings (Brazil) | 611 | 301 | 328 |
| Provisions for other legal proceedings | 1,359 | 1,094 | 1,104 |
| Provision for customer remediation | 454 | 349 | 745 |
| Provision for restructuring | 596 | 641 | 749 |
| Other | 869 | 1,009 | 933 |
| | **4,634** | **4,073** | **4,423** |

Relevant information is set forth below in relation to each type of provision shown in the preceding table.

The provisions for taxes include provisions for tax-related proceedings.

The provisions for employment-related proceedings (Brazil) relate to claims filed by trade unions, associations, the prosecutor's office and ex-employees claiming employment rights to which, in their view, they are entitled, particularly the payment of overtime and other employment rights, including litigation concerning retirement benefits. The number and nature of these proceedings, which are common for banks in Brazil, justify the classification of these provisions in a separate category or as a separate type from the rest. The Group calculates the provisions associated with these claims in accordance with past experience of payments made in relation to claims for similar items. When claims do not fall within these categories, a case-by-case assessment is performed and the amount of the provision is calculated in accordance with the status of each proceeding and the risk assessment carried out by the legal advisers.

The provisions for other legal proceedings include provisions for court, arbitration or administrative proceedings (other than those included in other categories or types of provisions disclosed separately) brought against Grupo Santander companies.

The provisions for customer remediation include mainly the estimated cost of payments to remedy errors relating to the sale of certain products in the UK, as well as the estimated amount related to the floor clauses of Banco Popular Español, S.A.U. To calculate the provision for customer remediation, the best estimate of the provision made by management is used, which is based on the estimated number of claims to be received and, of these, the number that will be accepted, as well as the estimated average payment per case.

The provisions for restructuring include only the costs arising from restructuring processes carried out by the various Group companies.

Lastly, the Other heading contains very atomized and individually insignificant provisions, such as the provisions to cover the operational risk of the different offices of the Group.

Qualitative information on the main litigation is provided in Note 25 e to the consolidated financial statements.

The Group's general policy is to record provisions for tax and legal proceedings in which the Group assesses the chances of loss to be probable and the Group does not record provisions when the chances of loss are possible or remote. Grupo Santander determines the amounts to be provided for as its best estimate of the expenditure required to settle the corresponding claim based, among other factors, on a case-by-case analysis of the facts and the legal opinion of internal and external counsel or by considering the historical average amount of the loss incurred in claims of the same nature. The definitive date of the outflow of resources embodying economic benefits for the Group depends on each obligation. In certain cases, the obligations do not have a fixed settlement term and, in others, they depend on legal proceedings in progress.

Regarding their variations in fiscal year 2023, in provisions for labor processes and others of a legal nature, EUR 556 million and EUR 238 million were recorded in Brazil in 2023, making payments of EUR 269 million and EUR 227 million, respectively.

## e) Litigation and other matters

### i. Tax-related litigation

At 31 December 2023 the main tax-related proceedings concerning the Group were as follows:

- Legal actions filed by Banco Santander (Brasil) S.A. and other Group entities to avoid the application of Law 9.718/98, which modifies the basis to calculate Programa de Integraçao Social (PIS) and Contribuição para Financiamento da Seguridade Social (COFINS), 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 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 Federal Supreme Court also admitted the appeals related to the other Group entities both for PIS and COFINS. On June 13, 2023, the Federal Supreme Court ruled unfavorably two cases through General Repercussion (Theme 372), including Banco Santander (Brasil) S.A. case. The Bank has filed a new appeal, considering the possible loss as a contingent liability. The cases of the other Group entities are no longer susceptible of appeal and a provision has been recognized for the amount of the estimated loss.

- 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 (Imposto sobre a Renda das Pessoas Jurídicas - IRPJ - and Contribuçao Social sobre o Lucro Liquido -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 the administrative Court, the Conselho Adminisitrativo de Recursos Fiscais (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 (Contribuição Provisória sobre Movimentação Financeira) 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. (Brasil), (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) (currently Zurich Santander Brasil Seguros e Previdência S.A.), 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 of year 2009 and 2019. The appeals are pending decision at the administrative level. No provision was recognised in connection with this matter as it is considered to be a contingent liability.

- Banco Santander (Brasil) S.A. filed a suspensive judicial measure aiming to avoid the withholding income tax (Imposto sobre a Renda Retido na Fonte - IRRF), on payments derived from technology services provided by Group foreign entities. A favorable decision was handed down and an appeal was filed by the tax authority at the Federal Regional Court, where it awaits judgment. No provision was recognized 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 815 million, and for lawsuits that qualify as contingent liabilities is EUR 5,567 million.

- 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 definitively confirmed these Decisions. The dismissal of the appeal, that only affects these two decisions, had no impact on results.

At the date of approval of these consolidated annual accounts, there are other less significant tax disputes.

### ii. Non-tax-related proceedings

At 31 December 2023 the main non-tax-related proceedings concerning the Group were as follows:

- Payment Protection Insurance (PPI):the dispute relates to the liability for PPI mis-selling complaints relating to pre-2005 PPI policies that two entities of the Axa Group (hereinafter "Axa France" 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 relevant period. Santander UK plc entered into a Complaints Handling Agreement (CHA) with Axa France pursuant to which it agreed to handle complaints on their behalf, and Axa France agreed to pay redress assessed to be due to relevant policyholders on a without prejudice basis. A standstill agreement was entered into between the Santander Entities and Exe France as a condition of the CHA.

  In July 2020, Genworth announced that it had agreed to pay Axa SA circa GBP 624 million in respect of PPI mis-selling losses in settlement of the related dispute concerning obligations under the sale and purchase agreement pursuant to which Genworth sold Axa France to Axa SA. The CHA between Santander UK plc and Axa France terminated on 26 December 2020. On 30 December 2020 Axa France provided written notice to the Santander Entities to terminate the standstill agreement. During 2021, Axa France commenced litigation in the High Court of England and Wales (Commercial Curt) against the Santander Entities seeking recovery of GBP 636 million (EUR 733.5 million) (plus interest) and any further losses relating to pre-2005 PPI.

  Judgment in respect of the Santander Entities application for Axa Frances's claim to be struck out/summarily dismissed was handed down by the Commercial Court on 12 July 2022. In summary, the Commercial Court upheld a significant part of the Santander Entities' strike-out application and required Axa France to re-plead a significant portion of its pleadings. Axa France updated the amount of losses claimed from GBP 636 million (EUR 733.5 million) to GBP 670 million (EUR 772.7 million) (plus interest) in their Re-Amended Particulars of Claim dated December 2022 (RAPOC).

  On 31 January 2023, the Santander Entities filed their Defence to the RAPOC and an Additional Claim. In response, Axa France conceded its claim for charges paid to Santander Entities pursuant to the CHA, reducing the overall value of its claim from GBP 670 million (EUR 772.7 million) to GBP 552 million (EUR 636.6 million) (plus interest) and has agreed to the requested rectification. Axa France filed its Re-Re-Amended Particulars of Claim on 29 June 2023. Trial has been fixed for six weeks, beginning on 3 March 2025.

Overall, there remains significant uncertainty as to how the dispute will be resolved. There are ongoing factual issues to be resolved 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 of the matter.

In addition, and in relation to PPI more generally, the PPI provision includes an amount relating to legal claims challenging the FCA's industry guidance on the treatment of the Plevin judgment and of recurring non-disclosure assessments. This provision is based on current stock levels, future projected claims, and average redress. There remains a risk that the number of claims issued (whether individually or on a collective basis) in the future may be higher than forecast. The actual cost of customer compensation could differ from the amount provided. It is not currently practicable to provide an estimate of the risk and amount of any further financial impact.

- Motor Finance Broker Commissions: following the FCA's Motor Market review in 2019 which resulted in a change in rules in January 2021, Santander Consumer (UK) plc (SCUK) has received a number of county court claims and complaints in respect of its historical use of discretionary commission arrangements (DCAs) prior to the 2021 rule changes. In the context of the complaints made to the Financial Ombudsman Service relating to such commission arrangements, the FCA announced on 11 January 2024 that it intends to use its powers under s166 of the Financial Services and Markets Act 2000 to review the historical use of DCAs between lenders and credit brokers (the "FCA Review") and whether redress should be payable. In line with the FCA's announcement, we have paused the response to customer complaints until at least 20 November 2024. A claim has been issued against SCUK, Santander UK plc and others in the Competition Appeal Tribunal (CAT), alleging that SCUK's historical commission arrangements in respect of used car financing operated in breach of the Competition Act 1998. While it is possible that certain charges may be incurred in relation to existing or future county court claims, complaints and the CAT proceedings, it is not considered that a legal or constructive obligation has been incurred in relation to these matters that would require a provision to be recognised at this stage. The resolution of such matters is not possible to predict with any certainty and there remain significant inherent uncertainties regarding the existence, scope and timing of any possible outflow which make it impracticable to disclose the extent of any potential financial impact.

- Delforca: dispute arising from equity swaps entered into by Gaesco (now Delforca 2008, S.A. (Delforca)) 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, S.A., parent of Delforca (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, Monesa and the bankruptcy administrator. On 1 June 2023, the appeal hearing took place and on 15 November 2023 the Provincial Court of Barcelona rendered a judgment dismissing the appeals filed by Delforca, Monesa and the bankruptcy administrator and confirming the first instance judgment. Delforca and Monesa (not the bankruptcy administrator) have filed an appeal in cassation before the Supreme Court against the judgment of the Provincial Court of Barcelona.

  Separately, Monesa, 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: class action filed by AFABESP (an association of retirees and former Banespa employees) claiming payment of a semi-annual bonus provided for in the Bank's bylaws. The final decision rendered on the merits was unfavorable to Santander. However, a favorable decision was subsequently rendered stating that each beneficiary of the decision shall file an individual lawsuit to receive the due amount.

  Since the judgments adopted different positions for each case, a procedure called Incident for the Resolution of Repetitive Demands (IRDR) was commenced before the Regional Labor Court (TRT) with the purpose of establishing objective criteria regarding the arguments brought by the Bank, mainly the statute of limitations and limitation of payments until December 2006 (Plan V) .

  Finally, due to the divergence between the interpretation of the Federal Constitution, an Action for Allegation of Non-Compliance with a Fundamental Precept (ADPF) was also filed, so that the Federal Supreme Court (STF) settles the issue and indicates the correct statute of limitations to be used in the individual cases filed.

  Santander Brazil's 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 2023.

- 'Planos Económicos': like the rest of the banking system in Brazil, 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 proved the existence of the account and its balance on the date the indexes were changed. In November 2018, the STF ordered the suspension of all economic plan proceedings for two years from May 2018. On 29 May 2020, the STF approved the extension of the agreement for 5 additional years starting from 3 June 2020. Condition for this extension was to include in the agreement actions related to the 'Collor I Plan'. On 31 December 2023, the provision recorded for the economic plan proceedings amounts to EUR 196.3 million.

- Floor clauses:  as a consequence of the acquisition of Banco Popular Español, S.A.U. (Banco Popular), 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 included floor clauses in certain asset-side transactions with customers. In relation to this type of clauses, and after several rulings issued by the Court of Justice of the European Union (CJEU) and the Spanish Supreme Court, and the extrajudicial process established by the Spanish Royal Decree-Law 1/2017, of 20 January, Banco Popular 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. On 31 December 2023, after having processed most of the customer requests, the potential residual loss associated with ongoing court proceedings is estimated at EUR 52.6 million, amount which is fully covered by provisions.

- Banco Popular´s acquisition: after the declaration of the resolution of Banco Popular, some investors filed claims against the EU's Single Resolution Board decision, and the FROB's resolution executed in accordance with the aforementioned decision. Likewise, numerous appeals were filed against Banco Santander, S.A. alleging that the information provided by Banco Popular was erroneous and requesting from Banco Santander, S.A. the restitution of the price paid for the acquisition of the investment instruments or, where appropriate, the corresponding compensation.

In relation to these appeals, on the one hand, the General Court of the European Union (GCUE) selected 5 appeals from among all those filed before the European courts by various investors against the European institutions and processed them as pilot cases. On 1 June 2022, the GCUE rendered five judgements in which it completely dismissed the appeals, (i) supporting the legality of the resolution framework applied to Banco Popular, (ii) confirming the legality of the action of the European institutions in the resolution of Banco Popular and (iii) rejecting, in particular, all the allegations that there were irregularities in the sale process of Banco Popular to Banco Santander, S.A. Although four of these five judgments were initially appealed in cassation before the CJEU, in July 2023 one of the appellants withdrew his appeal. Therefore, only the appeals against three judgments are pending before the CJEU.

On the other hand, in relation to the lawsuits initiated by investors directly against Banco Santander, S.A. derived from the acquisition of Banco Popular, on 2 September 2020, the Provincial Court of La Coruña submitted a preliminary ruling to the CJEU in which it asked for the correct interpretation of the Article 60, section 2 of Directive 2014/59/EU of the European Parliament and of the Council of 15 May, establishing a framework for the restructuring and resolution of credit institutions and investment services companies. Said article establishes that, in the cases of redemption of capital instruments in a bank resolution, no liability will subsist in relation to the amount of the instrument that has been redeemed. On 5 May 2022, the CJEU rendered its judgement confirming that Directive 2014/59/EU of the European Parliament and of the Council does not allow that, after the total redemption of the shares of the share capital of a credit institution or an investment services company subject to a resolution procedure, the shareholders who have acquired shares within the framework of a public subscription offer issued by said company before the start of such a resolution procedure, exercise against that entity or against its successor, an action for liability for the information contained in the prospectus, under Directive 2003/71/EC of the European Parliament and of the Council, or an action for annulment of the subscription contract for those shares, which, taking into account its retroactive effects, gives rise to the restitution of the equivalent value of said shares, plus the interest accrued from the date of execution of said contract.

Regarding this judgment, several courts have referred additional preliminary rulings before the CJEU: (i) in December 2022 the Supreme Court requested three preliminary rulings in respect of its applicability to the holders of subordinated obligations, preferred stocks and subordinated bonds of Banco Popular; (ii) in April 2023, the First Instance Court 3 of Santa Coloma de Farners requested three preliminary rulings to the CJEU asking about pre-emptive subscription rights and the compatibility of the principles of proportionality and legal certainty with the bringing of legal actions by former holders of pre-emptive subscription rights and shares against the entity issuing the securities or against the entity succeeding it, which have been stayed by the CJEU until the preliminary rulings raised by the Supreme Court are resolved; and (iii) in November 2023, the Supreme Court requested another two preliminary rulings which supplement the ones requested in December 2022, regarding to a holder of subordinated bonds who filed a claim against Banco Popular before the resolution.

Separately, the Central Court of Instruction 4 is currently conducting preliminary proceedings 42/2017, in which, amongst other things, the following is being investigated: (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 these proceedings, Banco Santander, S.A. could potentially be subsidiarily liable for the civil consequences. In view of the CJEU ruling of 5 May 2022, the Bank requested confirmation of the exclusion of its subsidiary civil liability status in this criminal proceeding. On 26 July 2022, the Court rejected this request stating that it is a matter to be determined at a later procedural time. This decision was confirmed on appeal by the Chamber of the National Court by judgment of 5 October 2022. The instruction expired on 29 April 2023. The instruction expired on 29 April 2023. On 15 January 2024, the National Court notified the parties that within the first half of February 2024, they will be notified with the ruling transforming the proceedings into an abbreviated procedure**.**

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. The CJEU judgement of 5 May 2022 represented a very significant reduction in the risk associated with these claims.

- 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. was sued in a legal proceeding in which the plaintiff alleges that the Bank breached his contract as CEO of the institution: in the lawsuit, the claimant mainly requested a declaratory ruling upholding the existence, validity and effectiveness of such contract and its enforcement together with the payment of certain amounts. For the case that 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 legal action stating that the conditions to which the appointment of that position was subject to were not met; that the executive services contract required by law was not concluded; and that in any case, the parties could terminate the contract without any justified cause.

- On 17 May 2021, the plaintiff reduced his claims for compensation to EUR 61.9 million. On 9 December 2021, the Court upheld the claim and ordered the Bank to compensate the claimant in the amount of EUR 67.8 million. By court order of 13 January 2022, the Court corrected and supplemented its judgment, reducing the total amount to be paid by the Bank to EUR 51.4 million and clarifying that part of this amount (buy out) was to be paid under the terms of the offer letter, i.e., entirely in Banco Santander shares, within the deferral period for this type of remuneration at the plaintiff's former employer and subject to the performance metrics or parameters of the plan in force at the Bank, which was that of 2018. As explained in note 5 of the report of the consolidated annual accounts of the year 2022, the degree of performance of these objectives was 33.3%.

  The Bank filed an appeal against the judgment before the Madrid Court of Appeal, which was opposed by the plaintiff. At the same time, the plaintiff filed an application for provisional enforcement of the judgment in the First Instance Court. A court order was issued ordering enforcement of the judgment, and the Bank deposited in the court bank account the full amount provisionally awarded to the claimant, including interest, for an approximate sum of EUR. 35.5 million, within the voluntary compliance period.

  On 6 February 2023, Banco Santander was notified with the judgment of 20 January 2023 by which the Madrid Court of Appeal partially upheld the appeal filed by the Bank. The judgment has reduced the amount to be paid by EUR 8 million, which, to the extent that this amount was already paid in the provisional partial enforcement of the judgement of first instance court, must be returned to the Bank together with other amounts for interest, which the appeal judgement also rejects. The plaintiff deposited circa EUR 9.6 million. This amount was received by the Bank on 11 July 2023.

  On 11 April 2023, the Bank filed an extraordinary appeal for procedural infringement and an appeal in cassation against the Madrid Court of Appeal's judgment before Spanish Supreme Court. Existing provisions cover the estimated risk of loss.

- Universalpay Entidad de Pago, S.L. (Upay): has filed a lawsuit against Banco Santander, S.A. for breach of the marketing alliance agreement (MAA) and claims payment (EUR 1,050 million). The MAA was originally entered into by Banco Popular and its purpose is the rendering of acquiring services (point of sale payment terminals) for businesses in the Spanish market. The lawsuit was mainly based on the potential breach of clause 6 of the MAA, which establishes certain obligations of exclusivity, non-competition and customer referral. On 16 December 2022, the Court ruled in favour of the Bank and dismissed the plaintiff's claim in its entirety. The decision has been appealed before the Provincial Court of Madrid and the Bank has filed its opposition to Upay's appeal.

  Considering the decision at first instance and following the analysis carried out by the Bank's external lawyers, with the best information available to date, it is considered that no provision needs to be registered.

- CHF Polish Mortgage Loans: on 3 October 2019, the 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 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.

  In 2021, the Supreme Court was expected to take a position regarding the key issues in dispute concerning loans based on foreign currency, clarifying the discrepancies and unifying case law. The Supreme Court met several times, with the last session taking place on 2 September 2021. However, 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 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. The case law of the Polish courts has not yet been fully formed, but the prevailing line of case law is based on the annulment of the loan contract.

  On 15 June 2023, the CJEU issued its judgment in Case C-520/21, in which it confirmed that it is national law that is relevant to determine the effect of cancellation of a contract - respecting the principles arising from Directive 93/13/EEC. According to the ruling of the CJEU in that case, the bank's claims in excess of the repayment of the nominal amount of the loan's principal and, as the case may be, the payment of default interest are contrary to the objectives of Directive 93/13/EEC if they were to lead to a profit analogous to the one it intended to make from the performance of the contract and thus eliminate the deterrent effect.

  At the same time, the CJEU ruled that, under European law, there is no obstacle to the consumer being able to claim compensation from the bank beyond the return of the installments paid, but at the same time stipulated that such a claim should be evaluated in light of all the circumstances of the case, so that the consumer's possible benefits from the cancellation of the contract do not exceed what is necessary to restore the factual and legal situation in which he would have been without entering into the defective contract and do not constitute an excessive sanction for the entrepreneur (principle of proportionality).

  The Polish Financial Supervisory Authority (KNF) on 17 February and on 15 June 2023 expressed its disagreement with the conclusions of the Attorney General that preceded the 15 June 2023 judgment and subsequently, with the judgment itself expressing, in particular, that the ruling is contrary to the principles of proportionality and balance between the protection of values protected by Directive 93/13 and superior values such as stability and security of the financial system.

  The case law of national courts implementing the CJEU rulings (including the ruling of 15 June 2023), and the possible position of the Supreme Court will be crucial for the final assessment of the legal risk related to this matter.

  At the date of the Group's consolidated financial statements, it is not possible to predict the Supreme Court's and CJEU decisions on individual cases. Santander Bank Polska and Santander Consumer Bank Poland estimate legal risk using a model which considers different possible outcomes and regularly monitor court rulings on foreign currency loans to verify changes in case law practice.

  As of 31 December 2023, 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 gross amount of PLN 6,398.1 million (EUR 1,473.1 million). As of 1 January 2022, in accordance with IFRS 9 and based on the new best available information, the accounting methodology was adapted so that the gross carrying amount of mortgage loans denominated and indexed in foreign currencies is reduced by the amount in which the estimated cash flows are not expected to cover the gross amount of loans, including as a result of legal controversies relating to these loans. In the absence of exposure or insufficient gross exposure, a provision according to IAS 37 is recorded.

  As of 31 December 2023, the total value of adjustment to gross carrying amount in accordance with IFRS9 as well as provisions recorded under IAS37, amount to PLN 5,030.3 million (EUR 1,158.2 million) of which PLN 4,226.9 million (EUR 973.2 million) corresponds to adjustment to gross carrying amount under IFRS 9 and PLN 803.4 million (EUR 185.0 million) to provisions recognized in accordance with IAS 37. Throughout 2023, the adjustment to gross carrying amount in accordance with IFRS9 amounted to PLN 1,651.0 million (EUR 363.6 million), the additional provisions under IAS37 amounted to PLN 445.2 million (EUR 98.1 million) and other costs related to the dispute amounted to PLN 455.8 million (EUR 100.4 million).

  These provisions represent the best estimate as at 31 December 2023. Santander Bank Polska and Santander Consumer Bank Poland will continue to monitor and assess appropriateness of those provisions.

In December 2020, the 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. The KNF continues to support the concept of offering such settlements by banks after the verdict of the CJEU on 15 June 2023. The Bank has prepared settlement proposals which consider both the key elements of conversion of home loans indexed to CHF, as proposed by the KNF Chairman, and the conditions defined internally by the Bank. The proposals are being presented to customers. This is reflected in the model which is currently used to calculate legal risk provisions...

- 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.

  Santander Mexico has filed various constitutional reviews and appeals against the recurso de amparo referred to above, which have been dismissed by the Supreme Court of Justice of the Nation. As of this date, an amparo review filed by the Bank is pending to be resolved in the Collegiate Courts in the State of Nuevo León, thus the judgment is not final.

  On 29 June 2022, Santander México, within the framework of the amparo review filed by the Bank, requested the First Collegiate Court in Civil Matters of the Fourth Circuit of Nuevo León the recusal of two of the three Magistrates who rendered against Santander Mexico, which was resolved in favour of Santander Mexico. Plaintiffs requested the recusal of the third Magistrate who ruled with a dissenting vote against the recurso de amparo referred above and this was resolved in favour of Plaintiffs, and consequently the matter has been referred to the Second Collegiate Court of the Fourth Circuit based in Nuevo León, for it to resolve the matter.

  Santander México believes that the actions taken should prevail and reverse the decision against it. 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. At the current stage of the proceedings, the provisions recorded are considered to be sufficient to cover the risks deriving from this claim.

- URO Property Holdings, S.A. (before URO Property Holdings, SOCIMI SA): on 16 February 2022, legal proceedings were commenced in the Commercial Court of London against Uro Property Holdings S.A. (Uro), a subsidiary of Banco Santander, S.A., by BNP Paribas Trust Corporation UK Limited (BNP) in its capacity as trustee on behalf of certain bondholders and beneficiaries of security rights. The litigation concerns certain terms of a financing granted to Uro which was supported by a bond issue in 2015. The claimant seeks a declaration by the Court and a monetary award against Uro, in connection with an additional premium above the nominal value of the financing repayment because of Uro having lost its status as SOCIMI (Sociedad Anónima Cotizada de Inversión Inmobiliaria), such loss causing the prepayment of the bond issue and, in the opinion of the claimant BNP, also the obligation to pay the additional premium by Uro. Uro denies being liable to pay that additional premium and filed its defense statement and a counterclaim against the claimant. The trial hearing has been scheduled for November and December 2024. Furthermore, Uro filed a summary judgement application for BNP's claim to be dismissed before trial. The dismissal of this application by the Commercial Court was confirmed by the Appeal Court. It is estimated that the maximum loss associated with this possible contingency, amounts to approximately EUR 250 million.

  Banco Santander and the other Group companies are subject to claims and, therefore, are party to certain legal proceedings incidental to the normal course of their business including those in connection with lending activities, relationships with employees and other commercial or tax matters additional to those referred to here.

With the information available to it, the Group considers that, at 31 December 2023, it had reliably estimated the obligations associated with each proceeding and had recognized, where necessary, sufficient provisions to cover reasonably any liabilities that may arise as a result of these tax and legal risks. Disputes in which provisions have been registered but are not disclosed is justified on the basis that it would be prejudicial to the proper defense of the Group. Subject to the qualifications made, it also believes that any liability arising from such claims and proceedings will not have, overall, a material adverse effect on the Group’s business, financial position, or results of operations.

## 26. Other liabilities

The detail of Other liabilities in the consolidated balance sheets is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Transactions in transit | 767 | 457 | 545 |
| Accrued expenses and deferred income | 9,136 | 8,445 | 7,084 |
| Other | 7,695 | 5,707 | 5,069 |
| | **17,598** | **14,609** | **12,698** |

# 27. Tax matters

## a) Consolidated Tax Group

Pursuant to current legislation, the Consolidated Tax Group includes Banco Santander, S.A. (as the parent) and the Spanish subsidiaries that meet the requirements provided for in Spanish legislation regulating the taxation of the consolidated profits of corporate groups (as the controlled entities).

The other Group companies file income tax returns in accordance with the tax regulations applicable to them.

## b) Years open for review by the tax authorities

In January 2024 Spanish tax authorities formalized acts with agreement, conformity and non-conformity relating to the corporate income tax financial years 2017 to 2019.

The adjustments signed in conformity and with agreement had not impact on results and, in relation to the concepts signed in disconformity both for these years and for previous years (corporate income tax 2003 to 2015), Banco Santander, S.A., as the Parent of the Consolidated Tax Group, considers, in accordance with the advice of its external lawyers, that the adjustments made should not have a significant impact on the consolidated financial statements, as there are sound arguments as proof in the appeals filed against them pending at the National Appellate Court (tax years 2003 to 2011) and at the Central Economic Administrative Court (tax years 2012-2015), as well as in the acts that are still pending review by Spanish tax authorities. Consequently, no provision has been recorded for this concept. It should also be noted that, in those cases where it has been considered appropriate, the mechanisms available to avoid international double taxation have been used.

At the date of approval of these consolidated annual accounts subsequent years up to and including 2023, are subject to review.

The other entities have the corresponding years open for review, pursuant to their respective tax regulations.

Because of the possible different interpretations which can be made of the tax regulations, the outcome of the tax audits of the rest of years subject to review might give rise to contingent tax liabilities which cannot be objectively quantified. However, the Group's tax advisers consider that it is unlikely that such tax liabilities will materialize, and that in any event the tax charge arising therefrom would not materially affect the Group's consolidated financial statements.

## c) Reconciliation

The reconciliation of the income tax expense calculated at the tax rate applicable in Spain (30%) to the income tax expense recognised and the detail of the effective tax rate are as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Consolidated profit (loss) before tax: | | | |
| From continuing operations | 16,459 | 15,250 | 14,547 |
| From discontinued operations | — | — | — |
| | 16,459 | 15,250 | 14,547 |
| Income tax at tax rate applicable in Spain (30%) | 4,938 | 4,575 | 4,364 |
| By the effect of application of the various tax rates applicable in each country[A] | (100) | 61 | 210 |
| *Of which:* | | | |
| *Brazil* | *198* | *472* | *634* |
| *United Kingdom* | *(51)* | *(161)* | *(158)* |
| *United States* | *(28)* | *(99)* | *(179)* |
| *Chile* | *(28)* | *(30)* | *(34)* |
| *Poland* | *(164)* | *(101)* | *—* |
| Effect of profit or loss of associates and joint ventures | (184) | (210) | (130) |
| USA electric vehicle leasing incentives | (259) | — | — |
| Effect of reassessment of deferred taxes | — | — | 9 |
| Permanent differences and other | (119) | 60 | 441 |
| **Current income tax** | **4,276** | **4,486** | **4,894** |
| Effective tax rate | 25.98% | 29.42% | 33.64% |
| *Of which:* | | | |
| *Continuing operations* | *4,276* | *4,486* | *4,894* |
| *Of which:* | | | |
| *Current taxes* | *5,568* | *4,272* | *3,799* |
| *Deferred taxes* | *(1,292)* | *214* | *1,095* |
| Income tax (receipts)/payments | 5,214 | 5,498 | 4,012 |

A. Calculated by applying the difference between the tax rate applicable in Spain and the tax rate applicable in each jurisdiction to the profit or loss contributed to the Group by the entities which operate in each jurisdiction.

## d) Tax recognised in equity

In addition to the income tax recognised in the consolidated income statement, the Group recognised the following amounts in consolidated equity in 2023, 2022 and 2021:

| EUR million | 2023 | 2022 | 2021 |
|---|---|---|---|
| Other comprehensive income | | | |
| **Items not reclassified to profit or loss** | **358** | **49** | **(510)** |
| Actuarial gains or (-) losses on defined benefit pension plans | 302 | 96 | (530) |
| Changes in the fair value of equity instruments measured at fair value through other comprehensive income | 20 | (19) | (13) |
| Financial liabilities at fair value with changes in results attributable to changes in credit risk | 36 | (26) | 33 |
| Other recognised income and expense of investments in subsidiaries, joint ventures and associates | — | (2) | — |
| **Items that may be reclassified to profit or loss** | **(919)** | **1,522** | **1,136** |
| Cash flow hedges | (732) | 912 | 278 |
| Changes in the fair value of debt instruments through other comprehensive income | (214) | 661 | 857 |
| Other recognised income and expense of investments in subsidiaries, joint ventures and associates | 27 | (51) | 1 |
| **Total** | **(561)** | **1,571** | **626** |

## e) Deferred taxes

'Tax assets' in the consolidated balance sheets includes debit balances with the Public Treasury relating to deferred tax assets. 'Tax liabilities' includes the liability for the Group’s various deferred tax liabilities.

In accordance with EU Regulation 575/2013 on prudential requirements for credit institutions and investment firms (CRR), and subsequently amended by EU Regulation 2019/876 of the European Parliament and of the Council, deferred tax assets that do not rely on future profitability arising from temporary differences (referred to hereinafter as 'monetizable deferred tax assets’) meeting certain conditions, should not be deducted from regulatory capital and should not be risk-weighted at 250% according to the thresholds set out in Article 48 of the said Regulation, but shall apply a risk weight of 100% under Article 39.

The detail of deferred tax assets, by classification as monetizable or non-monetizable assets, and of deferred tax liabilities at 31 December 2023, 2022 and 2021 is as follows:

EUR million

| | 2023 | | 2022 | | 2021 | |
|---|---|---|---|---|---|---|
| | Monetizable[A] | Other | Monetizable[A] | Other | Monetizable[A] | Other |
| **Tax assets** | **11,099** | **9,668** | **10,660** | **10,127** | **10,473** | **8,967** |
| Tax losses and tax credits | — | 2,393 | — | 1,778 | — | 1,249 |
| Temporary differences | 11,099 | 7,275 | 10,660 | 8,349 | 10,473 | 7,718 |
| *Of which:* | | | | | | |
| *Non-deductible provisions* | — | *1,965* | — | *2,182* | — | *2,256* |
| *Valuation of financial instruments* | — | *1,543* | — | *1,535* | — | *600* |
| *Loan losses* | *8,248* | *1,577* | *7,696* | *1,232* | *6,888* | *988* |
| *Pensions* | *2,851* | *665* | *2,964* | *560* | *3,585* | *669* |
| *Valuation of tangible and intangible assets* | — | *1,060* | — | *1,270* | — | *1,509* |
| | | | | | | |
| **Tax liabilities** | **—** | **6,086** | **—** | **6,428** | **—** | **6,462** |
| Temporary differences | — | 6,086 | — | 6,428 | — | 6,462 |
| *Of which:* | | | | | | |
| *Valuation of financial instruments* | — | *2,059* | — | *1,792* | — | *1,419* |
| *Valuation of tangible and intangible assets* | — | *2,594* | — | *3,169* | — | *3,081* |
| *Investments in Group companies* | — | *378* | — | *359* | — | *337* |

A. In 2023, the Spanish Economic Administrative Court ruled that in 2017 the requirements for the conversion of part of the monetizable assets of Popular Group into a credit against the Tax Administration were met, allowing the conversion to 995 million euros. This amount has been paid to Banco Santander, without impact on results. The favorable Economic Administrative Court decision has been declared harmful to the public interests and challenged at the National Appellate Court by the Tax Administration. The estimation of this appeal would imply that Grupo Santander should repay the amount refunded and would, once again, credit these monetizable assets with no impact on results except for late payment interests. However, it is considered that there are strong defense arguments in relation to this appeal.

Grupo Santander only recognises deferred tax assets for temporary differences or tax loss and tax credit carryforwards where it is considered probable that consolidated entities that generated them will have sufficient future taxable profits against which they can be utilised.

The deferred tax assets and liabilities are reassessed at the reporting date in order to ascertain whether any adjustments need to be made on the basis of the findings of the analyses performed.

These analyses take into consideration all evidence, both positive and negative, of the recoverability of such deferred tax assets, among which we can find, (i) the results generated by the different entities in previous years, (ii) the projections of results of each entity or fiscal group, (iii) the estimation of the reversal of the different temporary differences according to their nature and (iv) the period and limits established under the applicable legislation of each country for the recovery of the different deferred tax assets, thus concluding on the ability of each entity or fiscal group to recover the deferred tax assets registered.

The projections of results used in this analysis are based on the financial planning approved by both the local directions of the corresponding units and by the Group's directors. The Group's budget estimation process is common for all units. The Group's management prepares its financial planning based on the following key assumptions:

a) Microeconomic variables of the entities that make up the fiscal group in each location: the existing balance structure, the mix of products offered and the commercial strategy at each moment defined by local directions are taken into account, based on the competition, regulatory and market environment.

b) Macroeconomic variables: estimated growths are based on the evolution of the economic environment considering the expected evolution in the gross domestic product of each location, and the forecasts of interest rates, inflation and exchange rates fluctuations. These data are provided by the Group's Studies Service, based on external sources of information.

Additionally, the Group performs retrospective contrasts (backtesting) on the variables projected in the past. The differential behaviour of these variables with respect to the real market data is considered in the projections estimated in each fiscal year. Thus, and in relation to Spain, the deviations identified by the Directors in recent past years are due to non-recurring events outside the operation of the business, such as the impacts due to the first application of new regulations, the costs assumed for the acceleration of the restructuring plans and the changing effect of the current macroeconomic environment.

Finally, and given the degree of uncertainty of these assumptions on the referred variables, the Group conducts a sensitivity analysis of the most significant assumptions considered in the deferred tax assets' recoverability analysis, considering any reasonable change in the key assumptions on which the projections of results of each entity or fiscal group and the estimation of the reversal of the different temporary differences are based.

In relation to Spain, the sensitivity analysis has consisted of making reasonable changes to the key assumptions, mainly by adjusting 50 basis points for growth (gross domestic product) and adjusting 50 basis points for inflation.

Relevant information is set forth below for the main countries which have recognised deferred tax assets:

### Spain

The deferred tax assets recognised at the Consolidated Tax Group total EUR 8,125 million, of which EUR 5,670 million were for monetizable temporary differences with the right to conversion into a credit against the tax administration, EUR 1,774 million for other temporary differences and EUR 681 million for tax losses and credits.

### Brazil

The deferred tax assets recognised in Brazil total EUR 7,896 million, of which EUR 5,328 million were for monetizable temporary differences, EUR 1,507 million for other temporary differences and EUR 1,061 million for tax losses and credits.

### Mexico

The deferred tax assets recognized in Mexico total EUR 1,456 million, which are temporary differences.

### United States

The deferred tax assets recognised in the United States total EUR 932 million, of which EUR 423 million were for temporary differences and EUR 509 million for tax losses and credits.

The Group estimates that the recognised deferred tax assets for temporary differences, tax losses and credits in the different jurisdictions could be recovered in a maximum period of 15 years.

The changes in Tax assets - Deferred and Tax liabilities - Deferred in the last three years were as follows:

EUR million

| | Balances at 31 December 2022 | (Charge)/ Credit to income | Foreign currency balance translation differences and other items | (Charge)/Credit to asset and liability valuation adjustments | Acquisition for the year (net) | Balances at 31 December 2023 |
|---|---|---|---|---|---|---|
| **Deferred tax assets** | **20,787** | **629** | **(130)** | **(422)** | **(97)** | **20,767** |
| Tax losses and tax credits | 1,778 | 392 | 224 | — | (1) | 2,393 |
| Temporary differences | 19,009 | 237 | (354) | (422) | (96) | 18,374 |
| *Of which monetizable* | *10,660* | *1,232* | *(787)* | — | *(6)* | *11,099* |
| **Deferred tax liabilities** | **(6,428)** | **663** | **3** | **(338)** | **14** | **(6,086)** |
| Temporary differences | (6,428) | 663 | 3 | (338) | 14 | (6,086) |
| | **14,359** | **1,292** | **(127)** | **(760)** | **(83)** | **14,681** |

EUR million

| | Balance at 31 December 2021 | (Charge)/ Credit to income | Foreign currency balance translation differences and other items | (Charge)/Credit to asset and liability valuation adjustments | Acquisition for the year (net) | Balance at 31 December 2022 |
|---|---|---|---|---|---|---|
| **Deferred tax assets** | **19,440** | **273** | **376** | **697** | **1** | **20,787** |
| Tax losses and tax credits | 1,250 | 211 | 317 | — | — | 1,778 |
| Temporary differences | 18,190 | 62 | 59 | 697 | 1 | 19,009 |
| *Of which monetizable* | *10,473* | *507* | *(320)* | — | — | *10,660* |
| **Deferred tax liabilities** | **(6,462)** | **(487)** | **(149)** | **684** | **(14)** | **(6,428)** |
| Temporary differences | (6,462) | (487) | (149) | 684 | (14) | (6,428) |
| | **12,978** | **(214)** | **227** | **1,381** | **(13)** | **14,359** |

EUR million

| | Balances at 31 December 2020 | (Charge)/ Credit to income | Foreign currency balance translation differences and other items | (Charge)/Credit to asset and liability valuation adjustments | Acquisition for the year (net) | Balance at 31 December 2021 |
|---|---|---|---|---|---|---|
| **Deferred tax assets** | **19,246** | **(209)** | **193** | **209** | **1** | **19,440** |
| Tax losses and tax credits | 1,093 | 129 | 28 | — | — | 1,250 |
| Temporary differences | 18,153 | (338) | 165 | 209 | 1 | 18,190 |
| *Of which monetizable* | *10,721* | *(273)* | *25* | — | — | *10,473* |
| **Deferred tax liabilities** | **(5,933)** | **(886)** | **(170)** | **528** | **(1)** | **(6,462)** |
| Temporary differences | (5,933) | (886) | (170) | 528 | (1) | (6,462) |
| | **13,313** | **(1,095)** | **23** | **737** | **—** | **12,978** |

Also, the Group did not recognise deferred tax assets amounting to approximately EUR 11,788 million of which EUR 7,228 million relate to tax losses, EUR 3,648 million to tax credits, and EUR 912 million to other concepts.

## f) Global Minimum Tax Pillar Two

In the European Union, in December 2022, was adopted Council Directive 2022/2523 on ensuring an overall minimum level of taxation for multinational enterprise groups and large domestic groups in the EU, that had to be transposed by 31 December 2023, entering into force the new minimum taxation on 1 January 2024. The Directive implements at EU level the Pillar Two rules of the OECD's Inclusive Framework on base erosion and profit shifting. Pillar Two applies to multinational groups with a turnover of more than EUR 750 million and entails a minimum tax of 15% calculated on adjusted accounting profit on a jurisdiction-by-jurisdiction basis. In 2023, the OECD has completed these rules by approving administrative guidance and a report on safe harbours in order to simplify their application.

In Spain, on 19 December 2023 the preliminary draft law transposing the European Directive establishing a minimum overall tax level of 15% for multinational companies and large domestic groups was published. Once approved, the law will enter into force on 1 January 2024. Pillar Two legislation has also been enacted or is in the process of being enacted in the United Kingdom and in most EU Member States.

The Group is in scope of this legislation and has performed an assessment of its potential exposure to Pillar Two income taxes taking into consideration the transitory safe harbours. Once the legislation is approved in Spain, Banco Santander S.A. will be the ultimate parent entity liable to pay the additional tax due for those subsidiaries located in jurisdictions below the minimum effective tax rate of 15%. Group entities will also be subject to tax in those countries where a domestic global minimum tax is approved according to the Pillar Two rules.

The assessment of the potential exposure to Pillar Two income taxes is based on the most recent tax filings, country-by-country reporting and financial statements for the Group entities. Based on this assessment, the Pillar Two effective tax rates in most of the jurisdictions in which the Group operates are above 15%. Consequently, the Group does not estimate a significant impact derived from this new regulation, without prejudice to the relevant administrative burdens that will entail its implementation.

## g) Tax reforms

The following significant tax reforms were approved in 2023 and previous years:

In Spain, in 2020 the General State Budget Law for 2021 established, among other tax measures, the non deductibility in Corporation Tax of management fees on participations whose dividends or capital gains are exempt, determining the amount of these expenses as a 5% of the dividends or capital gains. In 2021 the General State Budget Law for 2022 established a minimum effective tax rate of 15% (18% for financial entities) on corporate income tax base. In 2022, Law 38/2022 established a new temporary levy on credit institutions and financial credit institutions for fiscal years 2023 and 2024. The levy is calculated as 4.8% of net interest and fees earned in the business carried out in Spain in the precedent year and the payment obligation arises on the first day of each period. Accordingly, this new levy was recorded in January 2023 for an amount of 224 million euros that has been paid during 2023. In January 2024, an estimated amount of 335 million euros has been registered for this concept. Additionally, this law also established a 50% limitation on the integration of negative individual taxable bases into the consolidated tax group's tax base. This limitation has been in force only in 2023, with a 10 year deadline for the reversal of this positive adjustment.

In December 2023, Royal Decree-Law 8/2023, was approved, which foresees the revision of the configuration of the temporary levy on credit institutions and financial credit institutions during the financial year 2024 for its inclusion into the tax system and its agreement with the Basque Country and Navarre.

In the United Kingdom, the Budget Act for 2021 increased the main Corporation Tax rate from 19% to 25% with effect from 1 April 2023. In addition, and also with effect from 1 April 2023, the Bank Surcharge tax rate was reduced from 8% to 3%, so the corporate tax rate for banks is set at 28%.

In Brazil, Provisional Measure 1.115/2022 and the subsequent Law 14,446, established a temporary increase from 31 August 2022 to 31 December 2022 in 2022 in the rate of contribution on net income (CSLL) of banks from 20% to 21% and for other financial institutions, from 15% to 16%. In addition, Law 14,467/2022, with effect from 2025, amends the rules on the tax deductibility of credit provisions in financial institutions, bringing those rules closer to the accounting recognition criterion. In the tax on financial operations (IOF) in 2021, the applicable rate was 0,38% for credit transactions, increasing temporally to 2.04% for legal persons and to 4.08% for natural persons. Decree 10.997/2022 established the reduction to 0% of the IOF applicable to foreign financing and lending transactions, and a gradual reduction in the rates applicable to foreign exchange transactions until their reduction to 0% as from 2 January 2029.

In December 2023, Congress approved Constitutional Amendment 132/2023 on indirect taxation reform.  This reform replaces the various existing indirect taxes in Brazil, (applicable at the federal, regional and municipal levels), with two taxes administered at federal level (contribution on goods and services and selective tax) and other administered at the regional and municipal levels (tax on goods and services). The reform will be implemented through Complementary Laws to be approved during 2024. The new system will be gradually implemented over a transitional period of 8 years (from 2026 to 2033).

In Argentina, Law n.º 27630 (National Bulletin of 16 June 2021) amended, with retroactive effect to 1 January 2021, the rate applicable to the corporate income tax, establishing a progressive rate scale which for Banco Santander Argentina S.A. represents an increase from 30% to 35%. In addition, the 7% withholding on dividend distribution was maintained (however, the distribution of pre-2018 reserves is not subject to withholding tax). In addition, during the first quarter of the year 2021, there was an increase in the tax on gross income to financial institutions in both, the City of Buenos Aires (from 7% to 8%) and the Province of Buenos Aires (from 7% to 9%) and also reducing certain exemptions. Finally, since 2019, different laws on the adjustment for tax inflation have been approved in order to partially defer the adjustment.

In the United States, during 2022, the Inflation Reduction Act (IRA) was approved, which, among other measures, imposed a minimum taxation on the accounting performance of certain large companies, through the introduction of a new Alternative Minimum Tax (AMT) as of 2023, as well as relevant tax credits related with investments in clean energies.

In Chile, Law n.º 21,210 on modernization of Chilean tax law was enacted in 2020. It includes several modifications to different tax laws in force in Chile. Among the aspects included, it is worth highlighting the substitute tax that on a temporary basis until 30 April 2022 allows taxing at 30% (instead of the generally applicable 35%) with a credit of the first category tax paid, the tax profits generated up to the 31 December 2016, reducing the fiscal cost of its distribution and other measures about asset depreciation and indirect taxes.

## h) Other information

In compliance with the disclosure requirement established in the listing rules instrument 2005 published by the UK Financial Conduct Authority, it is hereby stated that shareholders of the Bank resident in the United Kingdom will be entitled to a tax credit for taxes paid abroad in respect of withholdings that the Bank has to pay on the dividends to be paid to such shareholders if the total income of the dividend exceeds the amount of exempt dividends of GBP 1,000  for the year 2023/24 (GBP 2,000 for the year 2022/2023). The shareholders of the Bank resident in the United Kingdom who hold their ownership interest in the Bank through Santander Nominee Service will be informed directly of the amount thus withheld and of any other data they may require to complete their tax returns in the United Kingdom. The other shareholders of the Bank resident in the United Kingdom should contact their bank or securities broker.

On 18 January 2024, the Spanish Constitutional Court annulled the mandatory reversal of impairment losses that were deducted in previous years and the application of additional limits on the offsetting of tax losses and double taxation deductions introduced in the corporate income tax Law by Royal Decree-Law 3/2016. The application of the Court resolution to previous tax years will not have an impact on results, and the impact on the corporate income tax return that will be filled in 2024 is not expected to be relevant.

Banco Santander, S.A., is part of the Large Business Forum and has adhered since 2010 to the Code of Good Tax Practices in Spain. Also Santander UK is a member of the HMRC's (His Majesty's Revenue and Customs) Code of Practice on Taxation in the United Kingdom and Santander Portugal has adhered to the Code of Good Tax Practices in Portugal, actively participating in the cooperative compliance programs being developed by these Tax Administrations.

# 28. Non-controlling interests

Non-controlling interests include the net amount of the equity of subsidiaries attributable to equity instruments that do not belong, directly or indirectly, to the Bank, including the portion attributed to them of profit for the year.

## a) Breakdown

The detail, by Group company, of 'Equity - Non-controlling interests' is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Santander Bank Polska S.A. | 1,934 | 1,603 | 1,559 |
| Grupo PSA | 1,590 | 1,728 | 1,543 |
| Santander Consumer USA Holdings Inc. | — | — | 1,255 |
| Banco Santander - Chile | 1,379 | 1,317 | 1,042 |
| Banco Santander (Brasil) S.A. | 1,493 | 1,210 | 1,023 |
| Banco Santander México, S.A. Institución de Banca Múltiple, Grupo Financiero Santander México | 4 | 251 | 202 |
| Other companies[A] | 1,311 | 1,213 | 1,970 |
| | **7,711** | **7,322** | **8,594** |
| | | | |
| Profit/(Loss) for the year attributable to non-controlling interests | 1,107 | 1,159 | 1,529 |
| *Of which:* | | | |
| *Santander Consumer USA Holdings Inc.* | *—* | *—* | *494* |
| *Grupo PSA* | *285* | *323* | *311* |
| *Banco Santander - Chile* | *235* | *280* | *292* |
| *Banco Santander (Brasil) S.A.* | *182* | *259* | *251* |
| *Santander Bank Polska S.A.* | *347* | *196* | *75* |
| *Banco Santander México, S.A. Institución de Banca Múltiple, Grupo Financiero Santander México* | *13* | *42* | *62* |
| *Other companies* | *45* | *59* | *44* |
| **TOTAL** | **8,818** | **8,481** | **10,123** |

A. Includes perpetual Santander UK plc equity instruments convertible at the option of Santander UK plc into preferred shares of Santander UK plc. During 2022, three issues were redeemed early for a nominal amount of GBP 1,700 million (EUR 1,977 million) of which the Group had repurchased GBP 1,050 million (EUR 1,221 million). At 2023 year-end, the outstanding balance on these equity instruments amounted to GBP 500 million (EUR 576 million) (EUR 564 million and EUR 1,363 million in 2022 and 2021, respectively).

## b) Changes

The changes in Non-controlling interests are summarised as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Balance at the end of the previous year | 8,481 | 10,123 | 9,846 |
| Balance at beginning of year | 8,481 | 10,123 | 9,846 |
| Other comprehensive income | 297 | 248 | (304) |
| Other | 40 | (1,890) | 581 |
| *Profit attributable to non-controlling interests* | *1,107* | *1,159* | *1,529* |
| *Modification of participation rates*[A] | *(258)* | *(1,811)* | *(390)* |
| *Change of perimeter* | *(364)* | *31* | *(5)* |
| *Dividends paid to minority shareholders* | *(748)* | *(500)* | *(648)* |
| *Changes in capital and other concepts*[B] | *303* | *(769)* | *95* |
| **Balance at end of year** | **8,818** | **8,481** | **10,123** |

A. Include the effects of the public offer for the acquisition of shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México that occurred in 2023, purchase of shares of Santander Holdings USA, Inc. on Santander Consumer USA Holdings Inc. that occurred in 2022 and of the public offer for the acquisition of shares of Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México that occurred in 2021 (see note 3.b).

B. Includes the effect of the amortization of AT1 UK by EUR 756 million at closing of fiscal year 2022.

The foregoing changes are shown in the consolidated statement of changes in total equity.

## c) Other information

The financial information on the subsidiaries with significant non-controlling interests at 31 December 2023 is summarised below:

EUR million[A]

| | Santander Bank Polska S.A. | Banco Santander (Brasil) S.A. | Banco Santander - Chile | Grupo Financiero Santander México, S.A.B. de C.V. |
|---|---|---|---|---|
| Total assets | 60,916 | 220,093 | 77,167 | 102,496 |
| Total liabilities | 54,462 | 203,035 | 71,518 | 93,592 |
| **Net assets** | **6,454** | **17,058** | **5,648** | **8,904** |
| Total income | 3,182 | 13,104 | 2,285 | 5,899 |
| **Total profit** | **1,015** | **2,135** | **816** | **1,577** |

A. Information prepared in accordance with the segment reporting criteria described in note 52 and, therefore, it may not coincide with the information published separately by each entity.

## 29. Other comprehensive income

The balances of 'Other comprehensive income' include the amounts, net of the related tax effect, of the adjustments to assets and liabilities recognised in equity through the consolidated statement of recognised income and expense. The amounts arising from subsidiaries are presented, on a line by line basis, in the appropriate items according to their nature.

Respect to items that may be reclassified to profit or loss, the consolidated statement of recognised income and expense includes changes in other comprehensive income as follows:

- Revaluation gains (losses): includes the amount of the income, net of the expenses incurred in the year, recognised directly in equity. The amounts recognised in equity in the year remain under this item, even if in the same year they are transferred to the income statement or to the initial carrying amount of the assets or liabilities or are reclassified to another line item.

- Amounts transferred to income statement: includes the amount of the revaluation gains and losses previously recognised in equity, even in the same year, which are recognised in the income statement.

- Amounts transferred to initial carrying amount of hedged items: includes the amount of the revaluation gains and losses previously recognised in equity, even in the same year, which are recognised in the initial carrying amount of assets or liabilities as a result of cash flow hedges.

- Other reclassifications: includes the amount of the transfers made in the year between the various valuation adjustment items.

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

EUR million[A]

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Other comprehensive income** | **(35,020)** | **(35,628)** | **(32,719)** |
| **Items that will not be reclassified to profit or loss** | **(5,212)** | **(4,635)** | **(4,241)** |
| Actuarial gains and losses on defined benefit pension plans | (4,324) | (3,945) | (3,986) |
| Non-current assets held for sale | — | — | — |
| Share in other income and expenses recognised in investments, joint ventures and associates | 1 | 10 | (8) |
| Other valuation adjustments | — | — | — |
| Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income | (776) | (672) | (157) |
| Inefficiency of fair value hedges of equity instruments measured at fair value with changes in other comprehensive income | — | — | — |
| Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income (hedged item) | 264 | 293 | 275 |
| Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income (hedging instrument) | (264) | (293) | (275) |
| Changes in the fair value of financial liabilities measured at fair value through profit or loss attributable to changes in credit risk | (113) | (28) | (90) |
| **Items that may be reclassified to profit or loss** | **(29,808)** | **(30,993)** | **(28,478)** |
| Hedges of net investments in foreign operations (Effective portion) | (8,684) | (6,750) | (4,283) |
| Exchange differences | (19,510) | (20,420) | (23,887) |
| Hedging derivatives. Cash flow hedges (Effective portion) | (740) | (2,437) | (276) |
| Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income | (555) | (1,002) | 436 |
| Hedging instruments (items not designated) | — | — | — |
| Non-current assets classified as held for sale | — | — | — |
| Share in other income and expenses recognised in investments, joint ventures and associates | (319) | (384) | (468) |

A. Net amount of taxes and minorities

## b) Other comprehensive income- Items not reclassified to profit or loss – Actuarial gains or (-) losses on defined benefit pension plans

'Other comprehensive income —Items not reclassified to profit or loss— Actuarial gains or (-) losses on defined benefit pension plans' include the actuarial gains and losses and the return on plan assets, less the administrative expenses and taxes inherent to the plan, and any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

Its variation (increase of EUR 1,038 million in the year) is shown in the consolidated statement of recognised income.

The endowment against equity in 2023 amounts to EUR 944 million - see note 25.b -, with the following breakdown:

- Increase of EUR 687 million in the cumulative actuarial losses relating to the Group´s businesses in the UK, mainly due to the evolution of the asset portfolio and the evolution of the discount rate– reduction from 4.88% to 4.63%.
- Increase of EUR 184 million in accumulated actuarial losses corresponding to the Group's business in Brazil, mainly due to the evolution experienced by the discount rate -reduction from 9.44% to 8.65% in the main pension benefits and 9.46% to 8.70% in medical benefits.
- Increase of EUR 34 million in the accumulates actuarial losses relating to the Group's entities in Germany, mainly due to the evolution experienced by the discount rate -reduction from 4.21% to 3.57%.
- Increase of EUR 10 million in the accumulates actuarial losses relating to the Group´s entities in Spain, mainly due to the evolution experienced by the discount rate -reduction from 3.80% to 3.35%.
- Increase of EUR 9 million in the accumulates actuarial losses relating to the Group's entities in Portugal, mainly due to the evolution experienced by the discount rate -reduction from 3.70% to 3.50%.
- Increase of EUR 20 million in the accumulated actuarial losses corresponding to the Group's businesses in other geographical areas.

The other modification in accumulated actuarial profit or losses is an Increase of EUR 94 million as a result of the evolution of exchange rates and other movements.

## c) Other comprehensive income - Items that will not be reclassified in results - Changes in the fair value of equity instruments measured at fair value with changes in other comprehensive income

Since the entry into force of IFRS 9, no impairment analysis is performed of equity instruments recognised under 'Other comprehensive income'. IFRS 9 eliminates the need to carry out the impairment estimate on this class of equity instruments and the reclassification to profit and loss on the disposal of these assets, being recognised at fair value with changes in equity.

The following is a breakdown of the composition of the balance as of 31 December 2023, 2022 and 2021 under 'Other comprehensive income - Items that will not be reclassified to profit or loss - Changes in the fair value of equity instruments measured at fair value with changes in other global result' depending on the geographical origin of the issuer:

EUR million

| | 2023 | | | |
|---|---|---|---|---|
| | **Capital gains by valuation** | **Capital losses by valuation** | **Net gains/losses by valuation** | **Fair Value** |
| Equity instruments | | | | |
| *Domestic* | | | | |
| *Spain* | *32* | *(1,173)* | *(1,141)* | *252* |
| *International* | | | | |
| *Rest of Europe* | *117* | *(71)* | *46* | *267* |
| *United States* | *16* | *—* | *16* | *19* |
| *Latin America and rest* | *370* | *(67)* | *303* | *1,223* |
| | **535** | **(1,311)** | **(776)** | **1,761** |
| *Of which:* | | | | |
| *Publicly listed* | *316* | *(118)* | *198* | *1,225* |
| *Non publicly listed* | *219* | *(1,193)* | *(974)* | *536* |

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| | **Capital gains by valuation** | **Capital losses by valuation** | **Net gains/losses by valuation** | **Fair Value** |
| Equity instruments | | | | |
| *Domestic* | | | | |
| *Spain* | *30* | *(926)* | *(896)* | *500* |
| *International* | | | | |
| *Rest of Europe* | *84* | *(60)* | *24* | *225* |
| *United States* | *15* | *—* | *15* | *29* |
| *Latin America and rest* | *244* | *(59)* | *185* | *1,187* |
| | **373** | **(1,045)** | **(672)** | **1,941** |
| *Of which:* | | | | |
| *Publicly listed* | *246* | *(113)* | *133* | *1,200* |
| *Non publicly listed* | *127* | *(932)* | *(805)* | *741* |

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| | **Capital gains by valuation** | **Capital losses by valuation** | **Net gains/losses by valuation** | **Fair Value** |
| Equity instruments | | | | |
| *Domestic* | | | | |
| *Spain* | 25 | (663) | (638) | 759 |
| *International* | | | | |
| *Rest of Europe* | 39 | (58) | (19) | 170 |
| *United States* | 13 | (4) | 9 | 31 |
| *Latin America and rest* | 496 | (5) | 491 | 1,493 |
| | **573** | **(730)** | **(157)** | **2,453** |
| *Of which:* | | | | |
| *Publicly listed* | 500 | (44) | 456 | 1,521 |
| *Non publicly listed* | 73 | (686) | (613) | 932 |

## d) Other comprehensive income - Items that may be reclassified to profit or loss - Hedge of net investments in foreign operations (effective portion) and exchange differences

The change in 2023 reflects the positive effect of the appreciation of the Brazilian real, the pound sterling, Polish zloty and Mexican peso and the negative effect of the depreciation of the US dollar, Argentine peso and Chilean peso, whereas the change in 2022 reflected positive effect of the appreciation of the Brazilian real, the US dollar and the Mexican peso and the negative effect of the depreciation of the pound sterling. The change in 2021 reflected  the positive effect of the generalized appreciation of the main currencies, especially the Brazilian real, the pound sterling, the US dollar and the Mexican peso.

Of the change in the balance in these years, a profit of EUR 249 million, a profit of EUR 496 million and EUR 167 million in 2023, 2022 and 2021, respectively relate to the measurement of goodwill.

The detail, by country is as follows:

EUR million

| | **2023** | **2022** | **2021** |
|---|---|---|---|
| Net balance at end of year | (28,194) | (27,170) | (28,170) |
| *Of which:* | | | |
| *Brazilian real* | (16,340) | (16,735) | (17,440) |
| *Pound sterling* | (3,964) | (4,219) | (3,415) |
| *Mexican peso* | (2,942) | (3,010) | (3,088) |
| *Argentine peso* | (2,655) | (1,755) | (2,109) |
| *Chilean peso* | (2,531) | (2,081) | (2,039) |
| *US dollar* | 1,819 | 2,384 | 1,536 |
| *Polish zloty* | (786) | (999) | (809) |
| *Other* | (795) | (755) | (806) |

The breakdown of translation differences by currency is as follows:

EUR million

| 2023 | | | | Of which: | | |
|---|---|---|---|---|---|---|
| **Currency** | **Balance at the beginning of the year** | **Balance at the end of the year** | **Movement** | **From goodwill** | **From results[A]** | **From net assets** |
| Brazilian real | (14,199) | (13,287) | 912 | 191 | 11 | 710 |
| Pound sterling | (4,446) | (4,064) | 382 | 20 | 4 | 358 |
| Mexican peso | (1,132) | (64) | 1,068 | 62 | 41 | 965 |
| Argentine peso | (1,754) | (2,658) | (904) | (4) | — | (900) |
| Chilean peso | (1,605) | (1,890) | (285) | (32) | (34) | (219) |
| US dollar | 4,062 | 3,433 | (629) | (64) | (16) | (549) |
| Polish zloty | (776) | (325) | 451 | 87 | 32 | 332 |
| Other | (570) | (655) | (85) | (11) | (1) | (73) |
| **Total Group** | **(20,420)** | **(19,510)** | **910** | **249** | **37** | **624** |

A. Profit and loss items are translated into euros at the average exchange rate for the year as described in note 2 a) ii.

EUR million

| 2022 | | | | Of which: | | |
|---|---|---|---|---|---|---|
| **Currency** | **Balance at the beginning of the year** | **Balance at the end of the year** | **Movement** | **From goodwill** | **From results[A]** | **From net assets** |
| Brazilian real | (15,913) | (14,199) | 1,714 | 376 | (98) | 1,436 |
| Pound sterling | (3,504) | (4,446) | (942) | (51) | (67) | (824) |
| Mexican peso | (2,012) | (1,132) | 880 | 56 | 18 | 806 |
| Argentine peso | (2,109) | (1,754) | 355 | — | — | 355 |
| Chilean peso | (1,852) | (1,605) | 247 | 31 | 5 | 211 |
| US dollar | 2,775 | 4,062 | 1,287 | 102 | (24) | 1,209 |
| Polish zloty | (678) | (776) | (98) | (21) | — | (77) |
| Other | (594) | (570) | 24 | 3 | (7) | 28 |
| **Total Group** | **(23,887)** | **(20,420)** | **3,467** | **496** | **(173)** | **3,144** |

A. Profit and loss items are translated into euros at the average exchange rate for the year as described in note 2 a) ii.

EUR million

| 2021 | | | | Of which: | | |
|---|---|---|---|---|---|---|
| **Currency** | **Balance at the beginning of the year** | **Balance at the end of the year** | **Movement** | **From goodwill** | **From results[A]** | **From net assets** |
| Brazilian real | (16,032) | (15,913) | 119 | 30 | 19 | 70 |
| Pound sterling | (4,602) | (3,504) | 1,098 | 41 | 38 | 1,019 |
| Mexican peso | (2,393) | (2,012) | 381 | 26 | 29 | 326 |
| Argentine peso | (2,287) | (2,109) | 178 | — | — | 178 |
| Chilean peso | (1,450) | (1,852) | (402) | (55) | (43) | (304) |
| US dollar | 1,253 | 2,775 | 1,522 | 125 | 102 | 1,295 |
| Polish zloty | (638) | (678) | (40) | (9) | (1) | (30) |
| Other | (762) | (594) | 168 | 9 | 11 | 148 |
| **Total Group** | **(26,911)** | **(23,887)** | **3,024** | **167** | **155** | **2,702** |

A. Profit and loss items are translated into euros at the average exchange rate for the year as described in note 2 a) ii.

## e) Other comprehensive income -Items that may be reclassified to profit or loss - Hedging derivatives – Cash flow hedges (Effective portion)

Other comprehensive income – Items that may be reclassified to profit or loss - Cash flow hedges includes the gains or losses attributable to hedging instruments that qualify as effective hedges. These amounts will remain under this heading until they are recognised in the consolidated income statement in the periods in which the hedged items affect it.

## f) Other comprehensive income - Items that may be reclassified to profit or loss – Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income

Includes the net amount of unrealised changes in the fair value of assets classified as Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income (see note 7).

The breakdown, by type of instrument and geographical origin of the issuer, of 'Other comprehensive income – Items that may be reclassified to profit or loss - Changes in the fair value of debt instruments measured at fair value with changes in other comprehensive income' at 31 December 2023, 2022 and 2021 is as follows:

EUR million

| | 31 December 2023 | | | |
|---|---|---|---|---|
| | **Revaluation gains** | **Revaluation losses** | **Net revaluation gains/ (losses)** | **Fair value** |
| Debt instruments | | | | |
| Issued by Public-sector | | | | |
| *Spain* | *17* | *—* | *17* | *9,867* |
| *Rest of Europe* | *333* | *(96)* | *237* | *18,258* |
| *Latin America and rest of the world* | *194* | *(820)* | *(626)* | *38,169* |
| Issued by Private-sector | | | | |
| *Spain* | *98* | *(9)* | *89* | *5,129* |
| *Rest of Europe* | *19* | *(30)* | *(11)* | *5,018* |
| *Latin America and rest of the world* | *6* | *(267)* | *(261)* | *5,106* |
| | **667** | **(1,222)** | **(555)** | **81,547** |

EUR million

| | 31 December 2022 | | | |
|---|---|---|---|---|
| | **Revaluation gains** | **Revaluation losses** | **Net revaluation gains/ (losses)** | **Fair value** |
| Debt instruments | | | | |
| Issued by Public-sector | | | | |
| *Spain* | *26* | *(1)* | *25* | *9,312* |
| *Rest of Europe* | *268* | *(199)* | *69* | *17,593* |
| *Latin America and rest of the world* | *196* | *(937)* | *(741)* | *40,873* |
| Issued by Private-sector | | | | |
| *Spain* | *—* | *(24)* | *(24)* | *5,727* |
| *Rest of Europe* | *11* | *(68)* | *(57)* | *5,203* |
| *Latin America and rest of the world* | *16* | *(290)* | *(274)* | *4,590* |
| | **517** | **(1,519)** | **(1,002)** | **83,298** |

EUR million

| | 31 December 2021 | | | |
|---|---|---|---|---|
| | Revaluation gains | Revaluation losses | Net revaluation gains/ (losses) | Fair value |
| Debt instruments | | | | |
| Issued by Public-sector | | | | |
| *Spain* | *271* | *—* | *271* | *12,917* |
| *Rest of Europe* | *544* | *(118)* | *426* | *20,397* |
| *Latin America and rest of the world* | *334* | *(438)* | *(104)* | *49,847* |
| Issued by Private-sector | | | | |
| *Spain* | *2* | *(20)* | *(18)* | *4,759* |
| *Rest of Europe* | *47* | *(171)* | *(124)* | *11,708* |
| *Latin America and rest of the world* | *31* | *(46)* | *(15)* | *5,957* |
| | **1,229** | **(793)** | **436** | **105,585** |

Since the entry into force of IFRS 9, the Group estimates the expected losses on debt instruments measured at fair value with changes in other comprehensive income. These losses are recorded with a charge to the consolidated income statement for the period.

At the end of the years 2023, 2022 and 2021, the Group recorded under 'Impairment or reversal of impairment on financial assets not measured at fair value through profit or loss', net due to modification of the consolidated income statement, in the line of financial assets at fair value with changes in other comprehensive income a provision of EUR 44 million, EUR 7 million and EUR 19 million in 2023, 2022 and 2021, respectively.

### g) Other comprehensive income - Items that may be reclassified to profit or loss and Items not reclassified to profit or loss - Other recognised income and expense of investments in subsidiaries, joint ventures and associates

At 31 December 2023, the heading includes a negative amount of EUR 318 million (EUR 374 million and EUR 376 million in 2022 and 2021, respectively). Of the variation in the balance of said years, a gain of EUR 44 million and EUR 15 million has been transferred to results, and a loss of EUR 6 million in the years 2023, 2022 and 2021, respectively.

## 30. Shareholders' equity

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

## 31. Issued capital

### a) Changes

At 31 December 2020, Banco Santander's share capital 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.

Likewise, at 31 December 2021, Banco Santander's share capital 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.

On 1 April 2022, there was a capital reduction amounting to EUR 129,965,136.50 through the redemption of 259,930,273 shares, corresponding to the share buyback program carried out in 2021.

Likewise, on 28 June 2022, Banco Santander decreased its capital by an amount of EUR 143,154,722.50 through the redemption of 286,309,445 shares, corresponding to the share buyback program carried out during the first half of 2022.

Therefore, at 31 December 2022, Banco Santander's share capital consisted of EUR 8,397 million, represented by 16,794,401,584 shares of EUR 0.50 of nominal value each and all of them of a unique class and series. It includes 340,406,572 shares corresponding to the first 2022 share buyback program.

On 21 March 2023, there was a capital reduction amounting EUR 170,203,286 through the redemption of 340,406,572 shares, corresponding to the share buyback program carried out in 2022 and ended in January 2023.

Likewise, on 30 June 2023, there was a capital reduction of EUR 134,924,476.50 through the redemption of 269,848,953 shares, corresponding to the share buyback program during the first half of 2023.

Aforementioned operations have not entailed the return of contributions to the shareholders as Banco Santander was the owner of the redeemed shares.

Therefore, Banco Santander's share capital at 31 December 2023 consisted of EUR 8,092 million, represented by 16,184,146,059 shares of EUR 0.50 of nominal value each and all of them of a unique class and series; including 286,842,316 shares corresponding to the first buyback program of 2023. (See note 1.g.).

Banco Santander’s shares are listed on the Spanish Stock Market Interconnection System and on the New York, London 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 Shares (ADS), each ADS representing one share. Additionally, Banco Santander's shares were listed on the traditional listing of the Mexican Stock Exchange (BMV) and since 29 December 2023, they were listed only in the International Quotation System of said stock exchange.

As of 31 December 2023, no Banco Santander shareholder individually held more than 3% of its total share capital (which is the threshold generally provided for in Spanish regulations for mandatory notification of a significant participation in a listed company). Even though at 31 December 2023, 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 (14.97%),Chase Nominees Limited (6.89%), The Bank of New York Mellon Corporation (5.98%), Citibank New York (3.87%), BNP (3.09%).

At 31 December 2023, neither Banco Santander's shareholder registry nor the CNMV's registry showed any shareholder residing in a non-cooperative jurisdiction with a shareholding equal to, or greater than, 1% of our share capital (which is the other threshold applicable under Spanish regulations).

### b) Other considerations

Under Spanish law, only shareholders at the general meeting have the authority to increase share capital. However, they may delegate the authority to approve or execute capital increases to the board of directors. Banco Santander´s Bylaws are fully aligned with Spanish law and do not establish any different conditions for share capital increases.

At 31 December 2023 the shares of the following companies were listed on official stock markets: Banco Santander Argentina S.A.; Banco Santander - Chile; Banco Santander (Brasil) S.A. and Santander Bank Polska S.A.

At 31 December 2023 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 36 million shares, which represented 0.22% of Banco Santander’s share capital (50 and 45 million shares, representing 0.30% and 0.26% of the share capital in 2022 and 2021, respectively). In addition, the number of Banco Santander shares owned by third parties and received as security was 159 million shares (equal to 0.98% of the Bank’s share capital).

At 31 December 2023 the capital increases in progress at Group companies and the additional capital authorised by their shareholders at the respective general meetings were not material at Group level (see appendix V).

## 32. Share premium

Share premium includes the amount paid up by the Bank’s shareholders in capital issues in excess of the par value.

The Corporate Enterprises Act expressly permits the use of the share premium account balance to increase capital at the entities at which it is recognised and does not establish any specific restrictions as to its use.

The change in the balance of share premium corresponds to the capital increases detailed in note 31.a).

The decreased produced in 2021 for an amount of EUR 4,034 million was 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 31).

The decreased produced in 2022 by an amount of EUR 1,433 million was the consequence of the difference between the purchase value of the redeemed shares (EUR 1,706 million) and the par value of said shares (EUR 273 million) as a consequence of the capital decreases described in note 31.a.

Likewise, in accordance with applicable legislation, a reserve for redeemed capital has been allocated with a charge to the share premium in an amount equal to the nominal value of said redeemed shares (273 million euros).

The decrease produced in 2023 by an amount of EUR 1,595 million has been the consequence of the difference between the purchase value of the redeemed shares (EUR 1,900 million) and the par value of said shares (EUR 305 million) (see note 4.a and consolidated statements of changes in total equity) as a consequence of the capital decreases described in note 31.a.

Likewise, in accordance with the applicable legislation, a reserve has been provided for amortized capital charged to the issue premium for an amount equal to the nominal value of said amortized shares (EUR 305 million).

# 33. Accumulated retained earnings

## a) Definitions

The balance of 'Equity - Accumulated gains and Other reserves' includes the net amount of the accumulated results (profits or losses) recognised in previous years through the consolidated income statement which in the profit distribution were allocated in equity, the expenses of own equity instrument issues, the differences between the amount for which the treasury shares are sold and their acquisition price, as well as the net amount of the results accumulated in previous years, generated by the result of non-current assets held for sale, recognised through the consolidated income statement.

## b) Breakdown

The detail of Accumulated retained earnings and Reserves of entities accounted for using the equity method is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Restricted reserves** | **2,899** | **2,798** | **2,543** |
| Legal reserve[A] | 1,618 | 1,734 | 1,734 |
| Own shares | 649 | 737 | 755 |
| Revaluation reserve Royal Decree-Law 7/1996 | 43 | 43 | 43 |
| Reserve for retired capital | 589 | 284 | 11 |
| **Unrestricted reserves** | **16,033** | **7,701** | **4,243** |
| Voluntary reserves[B] | 14,284 | 7,917 | 6,123 |
| Consolidation reserves attributable to the Bank | 1,749 | (216) | (1,880) |
| **Reserves of subsidiaries** | **47,669** | **49,196** | **47,438** |
| **Reserves of entities accounted for using the equity method** | **1,762** | **1,553** | **1,572** |
| | **68,363** | **61,248** | **55,796** |

A. The board of directors has proposed to the general shareholders' meeting the reclassification of the excess that the amount of the balance of the legal reserve account shows over the figure that is equivalent to 20% of the resulting share capital after the executed capital reductions, to be included in the voluntary reserves account.

B. In accordance with the commercial regulations in force in Spain.

### i. Legal reserve

Under the Consolidated Spanish Corporate Enterprises Act, 10% of net profit for each year must be transferred to the legal reserve. These transfers must be made until the balance of this reserve reaches 20% of the share capital. The legal reserve can be used to increase capital provided that the remaining reserve balance does not fall below 10% of the increased share capital amount.

Consequently, once again, after the capital increases described in note 31 had been carried out, the balance of the legal reserve met the percentage of 20% of the share capital, and at 31 December 2023 the Legal reserve was at the stipulated level.

### ii. Reserve for treasury shares

According to the Corporate Enterprises Act, an unavailable reserve equivalent to the amount for which Banco Santander's shares owned by subsidiaries are recorded. This reservation shall be freely available when the circumstances which have obliged its constitution disappear. In addition, this reserve covers the outstanding balance of loans granted by the Group with Banco Santander's share guarantee and the amount equivalent to the credits granted by the Group companies to third parties for the acquisition of own shares.

### iii. Revaluation reserve Royal Decree Law 7/1996, of 7 June

The balance of Revaluation reserve Royal Decree-Law 7/1996 can be used, free of tax, to increase share capital. From 1 January 2007, the balance of this account can be taken to unrestricted reserves, provided that the monetary surplus has been realised. The surplus will be deemed to have been realised in respect of the portion on which depreciation has been taken for accounting purposes or when the revalued assets have been transferred or derecognised.

If the balance of this reserve were used in a manner other than that provided for in Royal Decree law 7/1996, of 7 June, it would be subject to taxation.

### iv. Reserves of subsidiaries

The detail, by company, of Reserves of subsidiaries, based on the companies' contribution to the Group (considering the effect of consolidation adjustments) is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Banco Santander (Brasil) S.A. (Consolidated Group) | 14,512 | 14,663 | 14,325 |
| Santander UK Group | 8,700 | 8,358 | 8,558 |
| Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México | 5,684 | 5,437 | 4,753 |
| Santander Consumer Finance Group | 4,344 | 3,858 | 3,502 |
| Banco Santander - Chile | 4,112 | 3,875 | 3,194 |
| Banco Santander Argentina S.A. | 2,813 | 2,527 | 2,318 |
| Banco Santander Totta, S.A. (Consolidated Group) | 2,626 | 3,297 | 2,940 |
| Santander Bank Polska S.A. | 2,535 | 2,140 | 1,990 |
| Grupo Santander Holdings USA | 1,893 | 4,324 | 4,913 |
| Santander Investment, S.A. | 1,215 | 1,316 | 1,307 |
| Santander Seguros y Reaseguros, Compañía Aseguradora, S.A. | 1,044 | 1,050 | 869 |
| Banco Santander International SA (former Banco Santander (Suisse) S.A) | 346 | 310 | 277 |
| Other companies and consolidation adjustments | (2,155) | (1,959) | (1,508) |
| | **47,669** | **49,196** | **47,438** |
| *Of which, restricted* | *3,870* | *3,614* | *3,392* |

# 34. Other equity instruments and own shares

## a) Equity instruments issued not capital and other equity instruments

Other equity instruments includes the equity component of compound financial instruments, the increase in equity due to personnel remuneration, and other items not recognised in other “Shareholders’ equity” items.

On 8 September 2017, Banco Santander, S.A. issued contingent redeemable perpetual bonds (the fidelity bonds) amounting to EUR 981 million nominal value EUR -686 million fair value. On 31 December 2023 amounted to EUR 720 million.

Additionally, at 31 December 2023 the Group had other equity instruments amounting to EUR 195 million.

## b) Own shares

'Shareholders’ equity - Own shares' includes the amount of own equity instruments held by all the Group entities.

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

At 31 December 2021, the number of treasury shares held by the Group was 277,591,940 (1.60% of the issued share capital).

During 2022, 713,359,786 shares of the Bank were acquired at an average price of EUR 2.87 per share, of which 286,309,445 relate to the Share Buyback Program carried out during the first half of 2022, and 220,942,806 relate to the Share Buyback Program started on November 22. Likewise, 546,239,718 shares were amortised (note 31) and 201,022,983 shares at an average price of EUR 2.85 per share were transferred, of which 36,700,000 shares correspond to two donations made by Banco Santander to Fundación Banco Santander with extraordinary character.

At 31 December 2022, the number of treasury shares held by the Group was 243,689,025 (1.45% of the issued share capital).

During 2023, 911,293,677 shares of the Bank were acquired at an average price of EUR 3.41 per share, of which 389,312,719 relate to the Share Buyback Program carried out during the first half of 2023, and 286,842,316 relate to the new Share Buyback Program started on September. Likewise, 610,255,525 shares were amortised (note 31) and 246,911,504 shares at an average price of EUR 3.34 per share have been transferred, of which 6,617,008 shares correspond to the donation made by Banco Santander to Fundación Banco Santander with extraordinary character.

At 31 December 2023, the Group holds 297,815,673 shares of the Bank's issued share capital (1.84%).

The effect on equity, net of tax, arising from the purchase and sale of Bank shares is of EUR 13 million profit in 2023 (EUR 7 million and EUR 23 million profit in 2022 and 2021, respectively).

# 35. Memorandum items

Memorandum items relates to balances representing rights, obligations and other legal situations that in the future may have an impact on net assets, as well as any other balances needed to reflect all transactions performed by the consolidated entities although they may not impinge on their net assets.

## a) Guarantees and contingent commitments granted

Contingent liabilities includes all transactions under which an entity guarantees the obligations of a third party and which result from financial guarantees granted by the entity or from other types of contracts. The detail is as follows:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Loans commitment granted | 279,589 | 274,075 | 262,737 |
| *Of which impaired* | *406* | *653* | *615* |
| **Financial guarantees granted** | **15,435** | **12,856** | **10,758** |
| *Of which impaired* | *578* | *521* | *188* |
| Financial guarantees | 15,400 | 12,813 | 10,715 |
| Credit derivatives sold | 35 | 43 | 43 |
| **Other commitments granted** | **113,273** | **92,672** | **75,733** |
| *Of which impaired* | *542* | *608* | *781* |
| Technical guarantees | 57,363 | 50,508 | 40,158 |
| Other | 55,910 | 42,164 | 35,575 |

The breakdown as at 31 December 2023 of the exposures and the provision fund out of balance sheet by impairment stage is EUR 398,243 million and EUR 302 million (EUR 370,729 million and EUR 331 million in 2022 and EUR 337,113 million and EUR 372 million in 2021) in stage 1, EUR 8,528 million and EUR 174 million (EUR 7,092 million and EUR 191 million in 2022 and EUR 10,531 million and EUR 200 million in 2021) in stage 2 and EUR 1,526 million and EUR 226 million (EUR 1,782 million and EUR 212 million in 2022 and EUR 1,584 million and EUR 161 million in 2021) in stage 3, respectively.

Income from guarantee instruments is recognised under 'Fee and commission income' in the consolidated income statements and is calculated by applying the rate established in the related contract to the nominal amount of the guarantee.

### i. Loan commitments granted

Loan commitments granted: firm commitments of grating of credit under predefined terms and conditions, except for those that comply with the definition of derivatives as these can be settled in cash or through the delivery of issuance of another financial instrument. They include stand-by credit lines and long-term deposits.

### ii. Financial guarantees granted

Financial guarantees includes, inter alia, financial guarantee contracts such as financial bank guarantees, credit derivatives sold, and risks arising from derivatives arranged for the account of third parties.

### iii. Other commitments granted

Other contingent liabilities include all commitments that could give rise to the recognition of financial assets not included in the above items, such as technical guarantees and guarantees for the import and export of goods and services.

## b) Memorandum items

### i. Off-balance-sheet funds under management

The detail of off-balance-sheet funds managed by the Group and by joint ventures is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Investment funds | 165,174 | 142,189 | 145,987 |
| Pension funds | 14,831 | 14,021 | 16,078 |
| Assets under management | 29,732 | 25,670 | 24,862 |
| | **209,737** | **181,880** | **186,927** |

### ii. Non-managed marketed funds

Additionally, at 31 December 2023 there are non-managed marketed funds totalling EUR 50,036 million (EUR 48,379 million and EUR 48,385 million at 31 December 2022 and 2021, respectively).

## c) Third-party securities held in custody

At 31 December 2023 the Group held in custody debt securities and equity instruments totalling EUR 268,338 million (EUR 231,263 million and EUR 236,153 million at 31 December 2022 and 2021, respectively) entrusted to it by third parties.

# 36. Hedging derivatives

Grupo Santander, within its financial risk management strategy, and in order to reduce asymmetries in the accounting treatment of its operations, enters into hedging derivatives on interest, exchange rate, credit risk or variation of stock prices, depending on the nature of the risk covered.

Based on its objective, Grupo Santander classifies its hedges in the following categories:

- Cash flow hedges: cover the exposure to the variation of the cash flows associated with an asset, liability or a highly probable forecast transaction. This 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 Group.

The following tables contains the detail of the hedging derivatives according to the type of hedging, the hedge risk and the main products used as of 31 December 2023, 2022 and 2021:

EUR million

| | 2023 | | | | |
|---|---|---|---|---|---|
| | | Carrying amount | | | |
| | Nominal value | Assets | Liabilities | Changes in fair value used for calculating hedge ineffectiveness | Balance sheet line items |
| **Fair value hedges** | **241,792** | **2,661** | **4,231** | **(1,869)** | |
| **Interest rate risk** | **225,377** | **2,280** | **3,644** | **(1,684)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Interest rate swap* | *92,491* | *1,671* | *2,236* | *(47)* | |
| *Call money swap* | *122,891* | *344* | *1,226* | *(1,824)* | |
| **Exchange rate risk** | **4,331** | **15** | **24** | **(98)** | **Hedging derivatives** |
| *Fx forward* | *1,913* | *15* | *24* | *(11)* | |
| *Future interest rate* | *2,418* | *—* | *—* | *(87)* | |
| **Interest rate and exchange rate risk** | **12,084** | **366** | **563** | **(87)** | **Hedging derivatives** |
| *Interest rate swap* | *1,218* | *6* | *82* | *59* | |
| *Call money swap* | *1,093* | *3* | *97* | *(39)* | |
| *Currency swap* | *9,773* | *357* | *384* | *(107)* | |
| | | | | | |
| **Cash flow hedges** | **157,796** | **2,575** | **2,889** | **1,828** | |
| **Interest rate risk** | **97,780** | **913** | **1,246** | **2,181** | |
| *Of which:* | | | | | |
| *Future interest rate* | *3,020* | *—* | *—* | *6* | |
| *Interest rate swap* | *37,864* | *403* | *948* | *1,188* | |
| *Call money swap* | *53,705* | *469* | *266* | *1,000* | |
| **Exchange rate risk** | **34,823** | **1,001** | **663** | **(498)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *FX forward* | *11,160* | *502* | *241* | *43* | |
| *Currency swap* | *20,043* | *446* | *397* | *(537)* | |
| **Interest rate and exchange rate risk** | **12,217** | **484** | **74** | **(98)** | **Hedging derivatives** |
| *Interest rate swap* | *2,847* | *—* | *(45)* | *227* | |
| *Currency swap* | *9,370* | *484* | *119* | *(325)* | |
| **Inflation risk** | **12,908** | **155** | **906** | **234** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Currency swap* | *12,495* | *153* | *906* | *240* | |
| **Equity risk** | **68** | **22** | **—** | **9** | **Hedging derivatives** |
| *Option* | *68* | *22* | *—* | *9* | |
| | | | | | |
| **Hedges of net investments in foreign operations** | **18,706** | **61** | **536** | **(1,888)** | |
| **Exchange rate risk** | **18,706** | **61** | **536** | **(1,888)** | **Hedging derivatives** |
| *FX forward* | *18,706* | *61* | *536* | *(1,888)* | |
| | **418,294** | **5,297** | **7,656** | **(1,929)** | |

EUR million

| | 2022 | | | | |
|---|---|---|---|---|---|
| | | Carrying amount | | | |
| | Nominal value | Assets | Liabilities | Changes in fair value used for calculating hedge ineffectiveness | Balance sheet line items |
| **Fair value hedges** | **214,473** | **5,095** | **4,630** | **3,351** | |
| **Interest rate risk** | **190,513** | **4,405** | **4,239** | **2,554** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Interest rate swap* | *87,477* | *2,950* | *3,203* | *(716)* | |
| *Call money swap* | *88,059* | *1,367* | *623* | *3,468* | |
| **Exchange rate risk** | **4,492** | **147** | **25** | **(9)** | **Hedging derivatives** |
| *FX forward* | *3,745* | *147* | *25* | *(36)* | |
| *Future interest rate* | *747* | *—* | *—* | *27* | |
| **Interest rate and exchange rate risk** | **19,412** | **543** | **366** | **805** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Currency swap* | *9,522* | *266* | *286* | *(61)* | |
| *Future interest rate* | *8,679* | *261* | *—* | *922* | |
| *Interest rate swap* | *905* | *4* | *80* | *(79)* | |
| **Credit risk** | **56** | **—** | **—** | **1** | **Hedging derivatives** |
| *CDS* | *56* | *—* | *—* | *1* | |
| | | | | | |
| **Cash flow hedges** | **149,756** | **2,730** | **3,767** | **(519)** | |
| **Interest rate risk** | **81,626** | **137** | **1,325** | **(2,461)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Future interest rate* | *2,027* | *—* | *—* | *51* | |
| *Interest rate swap* | *55,886* | *59* | *1,494* | *(1,439)* | |
| *Call money swap* | *20,784* | *49* | *(184)* | *(1,151)* | |
| **Exchange rate risk** | **34,973** | **1,358** | **746** | **1,760** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *FX forward* | *10,754* | *267* | *172* | *773* | |
| *Currency swap* | *20,005* | *951* | *455* | *982* | |
| **Interest rate and exchange rate risk** | **16,175** | **1,046** | **292** | **(80)** | **Hedging derivatives** |
| *Interest rate swap* | *3,361* | *—* | *161* | *(333)* | |
| *Currency swap* | *12,814* | *1,046* | *131* | *249* | |
| **Inflation risk** | **16,924** | **180** | **1,403** | **261** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Currency swap* | *14,096* | *179* | *1,364* | *241* | |
| **Equity risk** | **58** | **9** | **1** | **—** | **Hedging derivatives** |
| *Option* | *58* | *9* | *1* | *—* | |
| | | | | | |
| **Hedges of net investments in foreign operations** | **22,614** | **244** | **831** | **(2,467)** | |
| **Exchange rate risk** | **22,614** | **244** | **831** | **(2,467)** | **Hedging derivatives** |
| *FX forward* | *22,614* | *244* | *831* | *(2,467)* | |
| | **386,843** | **8,069** | **9,228** | **364** | |

EUR million

| | 2021 | | | | |
|---|---|---|---|---|---|
| | | Carrying amount | | | |
| | Nominal value | Assets | Liabilities | Changes in fair value used for calculating hedge ineffectiveness | Balance sheet line items |
| **Fair value hedges** | **206,957** | **2,528** | **2,656** | **1,079** | |
| **Interest rate risk** | **176,176** | **2,227** | **1,778** | **591** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Interest rate swap* | *66,904* | *1,668* | *920* | *(377)* | |
| *Call money swap* | *97,321* | *1* | *734* | *714* | |
| **Exchange rate risk** | **21,238** | **7** | **423** | **287** | **Hedging derivatives** |
| *Fx forward* | *13,909* | *7* | *423* | *22* | |
| *Future interest rate* | *7,329* | *—* | *—* | *265* | |
| **Interest rate and exchange rate risk** | **9,326** | **294** | **452** | **200** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Currency swap* | *7,397* | *281* | *443* | *192* | |
| *Interest rate swap* | *1,650* | *12* | *9* | *(7)* | |
| **Credit risk** | **173** | **—** | **2** | **1** | **Hedging derivatives** |
| **Inflation risk** | **44** | **—** | **1** | **—** | **Hedging derivatives** |
| | | | | | |
| **Cash flow hedges** | **160,397** | **2,034** | **2,157** | **(1,703)** | |
| **Interest rate risk** | **99,648** | **156** | **420** | **(526)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Futures* | *7,652* | *—* | *—* | *(155)* | |
| *Interest rate swap* | *69,471* | *70* | *155* | *(212)* | |
| *Call money swap* | *16,846* | *20* | *182* | *(409)* | |
| **Exchange rate risk** | **27,343** | **396** | **657** | **(112)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *FX forward* | *8,381* | *280* | *42* | *26* | |
| *Currency swap* | *15,004* | *100* | *606* | *(133)* | |
| **Interest rate and exchange rate risk** | **21,609** | **1,425** | **400** | **(815)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Interest rate swap* | *3,604* | *95* | *2* | *(112)* | |
| *Currency swap* | *17,005* | *1,330* | *393* | *(702)* | |
| **Inflation risk** | **11,741** | **52** | **679** | **(247)** | **Hedging derivatives** |
| *Of which:* | | | | | |
| *Currency swap* | *10,503* | *51* | *678* | *(232)* | |
| **Equity risk** | **56** | **5** | **1** | **(3)** | **Hedging derivatives** |
| | | | | | |
| **Hedges of net investments in foreign operations** | **25,594** | **199** | **650** | **(1,159)** | |
| **Exchange rate risk** | **25,594** | **199** | **650** | **(1,159)** | **Hedging derivatives** |
| *FX forward* | *25,594* | *199* | *650* | *(1,159)* | |
| | **392,948** | **4,761** | **5,463** | **(1,783)** | |

Considering the main entities or groups within the Group by the weight of their hedging, the main types of hedging that are being carried out in Santander UK Group Holdings plc group and Banco Santander, S.A.

Santander UK Group Holdings plc group enters into fair value and cash flow hedging derivatives depending on the exposure of the underlying. Only designated risks are hedged and therefore other risks, such as credit risk, are managed but not hedged.

Within fair value hedges, Santander UK Group Holdings plc group has portfolios of assets and liabilities at fixed rate that are exposed to changes in fair value due to changes in market interest rates. These positions are managed by contracting mainly interest rate swaps. Effectiveness is assessed by comparing the changes in the fair value of these portfolios generated by the hedged risk with the changes in the fair value of the derivatives contracted.

Santander UK Group Holdings plc group also has access to international markets to obtain financing by issuing fixed-rate debt or investing in fixed rate debt of other issuers, in its functional currency and other currencies. As such, they are exposed to changes in interest rates and exchange rates, mainly in EUR and USD. This risk is mitigated with cross currency swaps e interest rate swaps in which they pay a fixed rate and receive a variable rate. Effectiveness is evaluated using linear regression techniques to compare changes in the fair value of the debt at interest and exchange rates with changes in the fair value of interest rate swaps or cross currency swaps.

Within the cash flow hedges, Santander UK Group Holdings plc group has portfolios of assets and liabilities at variable rates, normally at SONIA or BoE base rate. To mitigate this market rate variability risk, it contracts interest rate swaps.

As Santander UK Group Holdings plc group obtains financing in the international markets, it assumes a significant exposure to currency risk mainly USD and EUR. In addition, it also holds debt securities for liquidity purposes which assume exposure mainly in JPY and CHF.  To manage this exchange rate risk, Spot, Forward y Cross Currency Swap are contracted to match the cash flow profile and the maturity of the estimated interest and principal repayments of the hedged item.

Effectiveness is assessed by comparing changes in the fair value of the derivatives with changes in the fair value of the hedged item attributable to the hedged risk by applying a hypothetical derivative method using linear regression techniques.

In addition, within the hedges that cover equity risk, Santander UK Group Holdings plc group offers employees the opportunity to purchase shares of the Bank at a discount under the Sharesave Scheme, exposing the Bank to share price risk. As such, options are purchased allowing them to purchase shares at a pre-set price.

Banco Santander, S.A. covers the risks of its balance sheet in a variety of ways. On the one hand, documented as fair value hedges, it covers the interest rate and foreign exchange risk of fixed-income portfolios at a fixed rate (REPOs are included in this category). Resulting, in an exposure to changes in their fair value due to variations in market conditions based on the various risks hedged, which has an impact on Banco Santander's income statement.

To mitigate these risks, Banco Santander contracts derivatives, mainly Interest Rate Swaps, Cross Currency Swaps, Cap&floors and Forex Forward.

On the other hand, the interest and exchange rate risk of loans granted to corporate clients at a fixed rate or variable rate is covered. These hedges, are carried out through interest rate swaps, cross currency swaps and exchange rate derivatives (forex swaps and forex forward).

In addition, Banco Santander, S.A. manages the interest and exchange risk of debt issues in its various categories (issuing covered bonds, perpetual, subordinated and senior bond) and in different currencies, denominated at fixed rates, and therefore subject to changes in their fair value. These issues are covered through interest rate swaps and cross currency swaps.

The methodology used by Banco Santander, S.A. to measure the effectiveness of fair value hedges is based on comparing the market values of the hedged items (based on the objective risk of the hedge) and of the hedging instruments in order to analyse whether the changes in the market value of the hedged items are offset by the market value of the hedging instruments, thereby mitigating the hedged risk and minimizing volatility in the income statement.

Prospectively, the same analysis is performed, measuring the theoretical market values in the event of parallel variations in the market curves of a positive basis point.

There is a macro hedge of structured loans in which the interest rate risk of fixed-rate loans (mortgage, personal or with other guarantees) granted to legal entities in commercial or corporate banking and wealth clients in the medium-long term is hedged. This hedge is instrumented as a macro hedge of fair value, the main hedging instruments being Interest Rate Swap and Cap&floors. In case of total or partial cancellation or early repayment, the customer is obliged to pay/receive the cost/ income of the cancellation of the interest rate risk hedge managed by the Bank.

Regarding cash flow hedges, the objective is to hedge the cash flow exposure to changes in interest rates and exchange rates.

For retrospective purposes, the hypothetical derivative methodology is used to measure effectiveness. By means of this methodology, the hedged risk is modelled as a derivative instrument -not real-, created exclusively for the purpose of measuring the effectiveness of the hedge, and which must comply with the fact that its main characteristics coincide with the critical terms of the hedged item throughout the period for which the hedging relationship is designated. This hypothetical derivative does not incorporate characteristics that are exclusive to the hedging instrument. Additionally, it is worth mentioning that any risk component not associated with the hedged objective risk and effectively documented at the beginning of the hedge is excluded for the purpose of calculating the effectiveness. The market value of the hypothetical derivative that replicates the hedged item is compared with the market value of the hedging instrument, verifying that the hedged risk is effectively mitigated and that the impact on the income statement due to potential ineffectiveness is residual.

Prospectively, the variations in the market values of the hedging instrument and the hedged item (represented by the hypothetical derivative) are measured in the event of parallel shifts of a positive basis point in the affected market curves.

There is another macro-hedge, this time of cash flows, the purpose of which is to actively manage the risk-free interest rate risk (excluding credit risk) of a portion of the floating rate assets of Banco Santander, S.A., through the arrangement of interest rate derivatives whereby the bank exchanges floating rate interest flows for others at a fixed rate agreed at the time the transactions are arranged. The items affected by the Macro-hedging have been designated as those in which their cash flows are exposed to interest rate risk, specifically the floating rate mortgages of the Banco Santander, S.A. network referenced to Euribor 12 Months or Euribor Mortgage, with annual renewal of rates, classified as sound risk and which do not have a contractual floor (or, if not, this floor is not activated). The hedged position affecting the Macro Cash Flow Hedge at the present time is near to EUR 10,000 million.

Regarding net foreign investments hedges, basically, they are allocated in Banco Santander, S.A. and Santander Consumer Finance Group. Grupo Santander assumes as a priority risk management objective to minimize -to the limit determined by the Group's Financial Management- the impact on the calculation of the capital ratio of its permanent investments included within the Group's consolidation perimeter, and whose shares or equity interests are legally denominated in a currency other than that of the Group's parent company. For this purpose, financial instruments (generally derivatives) are contracted to hedge the impact on the capital ratio of changes in forward exchange rates. Grupo Santander mainly hedges the risk for the following currencies: BRL, CLP, MXN, CAD, COP, CNY, GBP, CHF, NOK, USD, PLN, UYU and PEN. The instruments used to hedge the risk of these investments are forex swaps, forex forward and spot currency purchases/sales.

For this type of hedges, ineffectiveness scenarios are considered to be of low probability, given that the hedging instrument is designated considering the position determined and the spot rate at which the position is located.

The following table sets out the maturity profile of the hedging instruments used in Grupo Santander non-dynamic hedging strategies:

EUR million

| | 31 December 2023 | | | | | |
|---|---|---|---|---|---|---|
| | 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** | **6,862** | **14,535** | **59,170** | **139,486** | **21,739** | **241,792** |
| **Interest rate risk** | **6,266** | **13,749** | **56,860** | **131,323** | **17,179** | **225,377** |
| *Of which:* | | | | | | |
| *Interest rate swap* | *2,013* | *2,104* | *16,045* | *59,952* | *12,377* | *92,491* |
| *Call money swap* | *4,163* | *11,421* | *39,873* | *65,453* | *1,981* | *122,891* |
| **Exchange rate risk** | **566** | **678** | **619** | **50** | **2,418** | **4,331** |
| *Fx forward* | *566* | *678* | *619* | *50* | *—* | *1,913* |
| *Future interest rate* | *—* | *—* | *—* | *—* | *2,418* | *2,418* |
| **Interest rate and exchange rate risk** | **30** | **108** | **1,691** | **8,113** | **2,142** | **12,084** |
| *Of which:* | | | | | | |
| *Interest rate swap* | *—* | *—* | *321* | *535* | *362* | *1,218* |
| *Call Money Swap* | *—* | *21* | *—* | *973* | *99* | *1,093* |
| *Currency swap* | *30* | *87* | *1,370* | *6,605* | *1,681* | *9,773* |
| | | | | | | |
| **Cash flow hedges** | **7,873** | **16,149** | **43,913** | **83,291** | **6,570** | **157,796** |
| **Interest rate risk** | **4,467** | **6,859** | **30,846** | **53,038** | **2,570** | **97,780** |
| *Of which:* | | | | | | |
| *Future interest rate* | *—* | *—* | *—* | *3,020* | *—* | *3,020* |
| *Interest rate swap* | *3,191* | *2,876* | *14,108* | *16,793* | *896* | *37,864* |
| *Call money swap* | *1,050* | *3,553* | *15,755* | *31,942* | *1,405* | *53,705* |
| **Exchange rate risk** | **2,655** | **7,087** | **6,607** | **16,711** | **1,763** | **34,823** |
| *Of which:* | | | | | | |
| *FX forward* | *2,013* | *2,344* | *4,617* | *2,186* | *—* | *11,160* |
| *Currency swap* | *642* | *2,209* | *1,990* | *14,525* | *677* | *20,043* |
| **Interest rate and exchange rate risk** | **407** | **1,547** | **2,270** | **7,187** | **806** | **12,217** |
| *Of which:* | | | | | | |
| *Interest rate swap* | *—* | *80* | *—* | *2,575* | *192* | *2,847* |
| *Currency swap* | *407* | *1,467* | *2,270* | *4,612* | *614* | *9,370* |
| **Inflation risk** | **344** | **656** | **4,182** | **6,296** | **1,430** | **12,908** |
| *Of which:* | | | | | | |
| *Currency swap* | *318* | *618* | *3,833* | *6,296* | *1,430* | *12,495* |
| ***Equity risk*** | **—** | **—** | **8** | **59** | **1** | **68** |
| *Option* | — | — | 8 | 59 | 1 | 68 |
| | | | | | | |
| **Hedges of net investments in foreign operations:** | **4,303** | **4,940** | **9,463** | **—** | **—** | **18,706** |
| **Exchange rate risk** | **4,303** | **4,940** | **9,463** | **—** | **—** | **18,706** |
| *FX forward* | *4,303* | *4,940* | *9,463* | *—* | *—* | *18,706* |
| | **19,038** | **35,624** | **112,546** | **222,777** | **28,309** | **418,294** |

EUR million

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | 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** | **6,588** | **9,811** | **37,723** | **136,223** | **24,128** | **214,473** |
| **Interest rate risk** | **5,120** | **8,822** | **34,074** | **120,829** | **21,668** | **190,513** |
| *Of which:* | | | | | | |
| *Interest rate swap* | *2,535* | *3,005* | *8,854* | *56,868* | *16,215* | *87,477* |
| *Call money swap* | *2,492* | *5,039* | *23,511* | *54,786* | *2,231* | *88,059* |
| **Exchange rate risk** | **556** | **741** | **2,448** | **—** | **747** | **4,492** |
| *Fx forward* | *556* | *741* | *2,448* | *—* | *—* | *3,745* |
| *Future interest rate* | *—* | *—* | *—* | *—* | *747* | *747* |
| **Interest rate and exchange rate risk** | **912** | **238** | **1,193** | **15,356** | **1,713** | **19,412** |
| *Of which:* | | | | | | |
| *Currency swap* | *912* | *238* | *788* | *6,188* | *1,396* | *9,522* |
| *Interest rate swap* | *—* | *—* | *405* | *192* | *308* | *905* |
| *Future interest rate* | *—* | *—* | *—* | *8,679* | *—* | *8,679* |
| **Credit risk** | **—** | **10** | **8** | **38** | **—** | **56** |
| *CDS* | *—* | *10* | *8* | *38* | *—* | *56* |
| | | | | | | |
| **Cash flow hedges** | **10,182** | **15,202** | **41,514** | **75,653** | **7,205** | **149,756** |
| **Interest rate risk** | **5,546** | **7,424** | **30,568** | **36,501** | **1,587** | **81,626** |
| *Of which:* | | | | | | |
| *Future interest rate* | *2,027* | *—* | *—* | *—* | *—* | *2,027* |
| *Interest rate swap* | *2,292* | *4,877* | *28,103* | *20,568* | *46* | *55,886* |
| *Call money swap* | *1,175* | *2,471* | *1,196* | *14,728* | *1,214* | *20,784* |
| **Exchange rate risk** | **3,777** | **4,295** | **4,452** | **19,940** | **2,509** | **34,973** |
| *Of which:* | | | | | | |
| *FX forward* | *1,996* | *2,487* | *1,982* | *4,289* | *—* | *10,754* |
| *Currency swap* | *1,313* | *1,809* | *2,470* | *13,028* | *1,385* | *20,005* |
| **Interest rate and exchange rate risk** | **182** | **509** | **3,982** | **10,294** | **1,208** | **16,175** |
| *Interest rate swap* | *—* | *—* | *659* | *2,468* | *234* | *3,361* |
| *Currency swap* | *182* | *509* | *3,323* | *7,826* | *974* | *12,814* |
| **Inflation risk** | **677** | **2,974** | **2,505** | **8,870** | **1,898** | **16,924** |
| *Of which:* | | | | | | |
| *Currency swap* | *483* | *951* | *1,895* | *8,869* | *1,898* | *14,096* |
| **Equity risk** | **—** | **—** | **7** | **48** | **3** | **58** |
| *Option* | *—* | *—* | *7* | *48* | *3* | *58* |
| | | | | | | |
| **Hedges of net investments in foreign operations:** | **2,249** | **5,393** | **14,972** | **—** | **—** | **22,614** |
| **Exchange rate risk** | **2,249** | **5,393** | **14,972** | **—** | **—** | **22,614** |
| *FX forward* | *2,249* | *5,393* | *14,972* | *—* | *—* | *22,614* |
| | **19,019** | **30,406** | **94,209** | **211,876** | **31,333** | **386,843** |

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** | **5,546** | **11,786** | **45,119** | **114,828** | **29,678** | **206,957** |
| **Interest rate risk** | **4,324** | **9,978** | **33,873** | **103,216** | **24,785** | **176,176** |
| *Of which:* | | | | | | |
| *Interest rate swap* | *267* | *2,138* | *4,189* | *42,398* | *17,912* | *66,904* |
| *Call money swap* | *3,716* | *7,527* | *25,588* | *56,120* | *4,370* | *97,321* |
| **Exchange rate risk** | **598** | **1,712** | **11,013** | **5,550** | **2,365** | **21,238** |
| *Future interest rate* | — | — | — | *4,964* | *2,365* | *7,329* |
| *Fx forward* | *598* | *1,712* | *11,013* | *586* | — | *13,909* |
| **Interest rate and exchange rate risk** | **624** | **77** | **199** | **5,898** | **2,528** | **9,326** |
| *Of which:* | | | | | | |
| *Interest rate swap* | — | — | — | *1,232* | *418* | *1,650* |
| *Currency swap* | *624* | *72* | *198* | *4,437* | *2,066* | *7,397* |
| **Credit risk** | **—** | **19** | **34** | **120** | **—** | **173** |
| **Inflation risk** | **—** | **—** | **—** | **44** | **—** | **44** |
| | | | | | | |
| **Cash flow hedges** | **17,674** | **3,208** | **20,459** | **102,833** | **16,223** | **160,397** |
| **Interest rate risk** | **13,047** | **1,061** | **9,875** | **68,867** | **6,798** | **99,648** |
| *Of which:* | | | | | | |
| *Future interest rate* | *7,097* | — | *244* | *311* | — | *7,652* |
| *Interest rate swap* | *2,336* | *310* | *7,759* | *58,930* | *136* | *69,471* |
| *Call money swap* | *1,202* | *751* | *858* | *7,920* | *6,115* | *16,846* |
| **Exchange rate risk** | **3,438** | **1,348** | **3,195** | **15,506** | **3,856** | **27,343** |
| *Of which:* | | | | | | |
| *FX forward* | *2,406* | *1,309* | *1,947* | *2,719* | — | *8,381* |
| *Currency swap* | *1,032* | *39* | *1,248* | *9,885* | *2,800* | *15,004* |
| **Interest rate and exchange rate risk** | **860** | **336** | **5,924** | **11,165** | **3,324** | **21,609** |
| *Of which:* | | | | | | |
| *Interest rate swap* | — | — | — | *2,505* | *1,099* | *3,604* |
| *Currency swap* | *860* | *336* | *5,924* | *7,660* | *2,225* | *17,005* |
| **Inflation risk** | **329** | **463** | **1,463** | **7,246** | **2,240** | **11,741** |
| *Of which:* | | | | | | |
| *Currency swap* | *82* | *339* | *597* | *7,245* | *2,240* | *10,503* |
| **Equity risk** | **—** | **—** | **2** | **49** | **5** | **56** |
| | | | | | | |
| **Hedges of net investments in foreign operations** | **4,097** | **5,346** | **13,235** | **2,916** | **—** | **25,594** |
| **Exchange rate risk** | **4,097** | **5,346** | **13,235** | **2,916** | **—** | **25,594** |
| *FX forward* | *4,097* | *5,346* | *13,235* | *2,916* | — | *25,594* |
| | **27,317** | **20,340** | **78,813** | **220,577** | **45,901** | **392,948** |

Additionally, for Santander UK Group Holdings plc and Banco Santander, S.A., both the maturity profile, the average interest and exchange rate of hedging instruments by maturity buckets are shown:

Santander UK Group Holdings plc group

| | 31 December 2023 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | **Up to one month** | **One to three months** | **Three months to one year** | **One year to five years** | **More than five years** | **Total** |
| **Fair value hedges** | | | | | | |
| Interest rate risk | | | | | | |
| Interest rate instruments | | | | | | |
| *Nominal* | *4,163* | *8,230* | *37,158* | *70,075* | *3,467* | *123,093* |
| *Average fixed interest rate (%) GBP* | *2.380* | *3.190* | *3.420* | *3.890* | *3.990* | |
| *Average fixed interest rate (%) EUR* | *1.140* | *0.180* | *0.450* | *0.210* | *3.920* | |
| *Average fixed interest rate (%) USD* | *2.600* | *2.460* | *4.230* | *1.360* | *4.910* | |
| Interest rate and foreign exchange rate risk | | | | | | |
| Exchange and interest rate instruments | | | | | | |
| *Nominal* | — | *41* | — | *2,172* | *198* | *2,411* |
| *Average GBP/EUR exchange rate* | — | *1.113* | — | *1.156* | *1.148* | |
| *Average GBP/USD exchange rate* | — | — | — | *1.318* | — | |
| *Average fixed interest rate (%) EUR* | — | — | — | *2.770* | *3.480* | |
| *Average fixed interest rate (%) USD* | — | — | — | *4.830* | — | |
| **Cash flow hedges** | | | | | | |
| Interest rate risk | | | | | | |
| *Interest rate instruments* | | | | | | |
| *Nominal* | *1,050* | *3,553* | *15,756* | *31,941* | *1,405* | *53,705* |
| *Average fixed interest rate (%) GBP* | *5.060* | *3.050* | *5.380* | *3.840* | *3.450* | |
| Foreign exchange risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | *1,068* | *6,266* | *3,104* | *10,888* | *1,763* | *23,089* |
| *Average GBP/JPY exchange rate* | *154.135* | *153.954* | *167.846* | — | — | |
| *Average GBP/CHF exchange rate* | *1.092* | *1.093* | *1.089* | *1.121* | *1.121* | |
| *Average GBP/EUR exchange rate* | — | *1.197* | *1.167* | *1.179* | — | |
| *Average GBP/USD exchange rate* | — | *1.392* | — | *1.277* | *1.388* | |
| Equity risk | | | | | | |
| *Equity instruments* | | | | | | |
| *Nominal* | — | — | *8* | *58* | *2* | *68* |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | *100* | *905* | *576* | *5,614* | *719* | *7,914* |
| *Average GBP/EUR exchange rate* | *1.183* | — | *1.254* | *1.198* | *1.189* | |
| *Average GBP/USD exchange rate* | — | *1.663* | — | *1.383* | *1.537* | |
| *Average fixed interest rate (%) GBP* | *2.570* | *2.540* | *2.960* | *2.420* | *4.810* | |

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| **Fair value hedges** | | | | | | |
| Interest rate risk | | | | | | |
| Interest rate instruments | | | | | | |
| *Nominal* | *2,492* | *5,039* | *24,447* | *51,257* | *4,294* | *87,529* |
| *Average fixed interest rate (%) GBP* | *2.580* | *0.880* | *0.560* | *2.070* | *3.780* | |
| *Average fixed interest rate (%) EUR* | *1.770* | *1.600* | *0.770* | *0.280* | *3.090* | |
| *Average fixed interest rate (%) USD* | *1.350* | *3.470* | *3.510* | *2.000* | *4.920* | |
| Interest rate and foreign exchange rate risk | | | | | | |
| Exchange and interest rate instruments | | | | | | |
| *Nominal* | — | — | *74* | *821* | *16* | *911* |
| *Average GBP/EUR exchange rate* | — | — | *1.212* | *1.157* | *1.100* | |
| *Average GBP/USD exchange rate* | — | — | — | *1.186* | — | |
| *Average fixed interest rate (%) EUR* | — | — | *3.420* | *2.060* | — | |
| *Average fixed interest rate (%) USD* | — | — | — | *4.630* | — | |
| **Cash flow hedges** | | | | | | |
| Interest rate risk | | | | | | |
| Interest rate instruments | | | | | | |
| *Nominal* | *1,175* | *2,471* | *2,188* | *14,728* | *1,213* | *21,775* |
| *Average fixed interest rate (%) GBP* | *1.770* | *2.290* | *1.980* | *2.350* | *1.840* | |
| Foreign exchange risk | | | | | | |
| Exchange and interest rate instruments | | | | | | |
| *Nominal* | *3,063* | *3,536* | *2,685* | *14,583* | *2,436* | *26,303* |
| *Average GBP/JPY exchange rate* | — | *157.450* | *160.039* | — | — | |
| *Average GBP/CHF exchange rate* | — | *1.131* | — | — | — | |
| *Average GBP/EUR exchange rate* | — | — | *1.123* | *1.181* | *1.165* | |
| *Average GBP/USD exchange rate* | *1.224* | *1.253* | *1.171* | *1.314* | *1.388* | |
| Equity risk | | | | | | |
| *Equity instruments* | | | | | | |
| *Nominal* | — | — | *7* | *48* | *2* | *57* |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | — | — | *1,983* | *7,621* | *968* | *10,572* |
| *Average GBP/EUR exchange rate* | — | — | *1.185* | *1.210* | *1.196* | |
| *Average GBP/USD exchange rate* | — | — | *1.604* | *1.503* | *1.537* | |
| *Average fixed interest rate (%) GBP* | — | — | *3.270* | *2.580* | *4.590* | |

| | 31 December 2021 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| **Fair value hedges** | | | | | | |
| Interest rate risk | | | | | | |
| *Interest rate instruments* | | | | | | |
| *Nominal* | *3,716* | *7,408* | *25,525* | *53,427* | *5,942* | *96,018* |
| *Average fixed interest rate (%) GBP* | *0.590* | *0.420* | *0.090* | *0.910* | *3.130* | |
| *Average fixed interest rate (%) EUR* | *0.510* | *1.740* | *1.080* | *0.810* | *2.610* | |
| *Average fixed interest rate (%) USD* | *1.910* | *0.960* | *1.440* | *2.760* | *4.050* | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | — | — | *127* | *683* | *165* | *975* |
| *Average GBP/EUR exchange rate* | — | — | *1.205* | *1.159* | *1.171* | |
| *Average fixed interest rate (%) EUR* | — | — | *3.290* | *2.030* | *2.620* | |
| **Cash flow hedges** | | | | | | |
| Interest rate risk | | | | | | |
| *Interest rate instruments* | | | | | | |
| *Nominal* | *1,203* | *572* | *1,036* | *8,967* | *6,115* | *17,893* |
| *Average fixed interest rate (%) GBP* | *1.970* | *0.440* | *0.080* | *1.290* | *0.970* | |
| Foreign exchange risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | *3,218* | *1,114* | *2,448* | *10,897* | *3,584* | *21,261* |
| *Average GBP/JPY exchange rate* | — | *142.905* | *148.856* | — | — | |
| *Average GBP/EUR exchange rate* | *1.165* | — | *1.185* | *1.159* | *1.174* | |
| *Average GBP/USD exchange rate* | *1.344* | *1.342* | *1.332* | *1.339* | *1.388* | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | *739* | — | *1,000* | *8,112* | *2,860* | *12,711* |
| *Average GBP/EUR exchange rate* | *1.277* | — | *1.386* | *1.202* | *1.200* | |
| *Average GBP/USD exchange rate* | — | — | — | *1.609* | *1.381* | |
| *Average fixed interest rate (%) GBP* | *2.260* | — | *1.170* | *2.720* | *3.410* | |

Banco Santander, S.A.

| | 31 December 2023 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| **Fair value hedges** | | | | | | |
| Interest rate risk | | | | | | |
| Interest rate instruments | | | | | | |
| *Nominal* | 1,532 | 194 | 7,880 | 22,714 | 8,775 | 41,095 |
| *Average fixed interest rate (%) GBP* | — | — | 1.38 | 4.48 | 2.04 | |
| *Average fixed interest rate (%) EUR* | 0.096 | 0.014 | 2.085 | 2.422 | 3.421 | |
| *Average fixed interest rate (%) CHF* | — | — | 1.010 | — | — | |
| *Average fixed interest rate (%) USD* | 0.015 | 3.688 | 2.603 | 3.801 | 4.446 | |
| Foreign exchange risk | | | | | | |
| Exchange and interest rate instruments | | | | | | |
| *Nominal* | 278 | 634 | 524 | 50 | — | 1,486 |
| *Average PEN/USD exchange rate* | 3.784 | 3.751 | — | — | — | |
| *Average CNY/EUR exchange rate* | — | 7.323 | 7.732 | 7.716 | — | |
| *Average AUD/EUR exchange rate* | 1.648 | 1.665 | — | — | — | |
| *Average MXN/EUR exchange rate* | — | 19.363 | — | — | — | |
| *Average COP/USD exchange rate* | 4,159 | 3,998 | — | — | — | |
| *Average MAD/EUR exchange rate* | 10.929 | 11.057 | — | — | — | |
| *Average PEN/EUR exchange rate* | 4.095 | 4.110 | — | — | — | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | 30 | 66 | 1,450 | 4,321 | 1,150 | 7,017 |
| *Average fixed interest rate (%) AUD/EUR* | — | — | — | 4.800 | 3.615 | |
| *Average fixed interest rate (%) CZK/EUR* | — | — | — | 2.000 | — | |
| *Average fixed interest rate (%) RON/EUR* | 5.130 | — | — | 3.967 | — | |
| *Average fixed interest rate (%) HKD/EUR* | — | — | 2.580 | 5.270 | — | |
| *Average fixed interest rate (%) JPY/EUR* | — | — | 0.465 | 1.298 | 1.407 | |
| *Average fixed interest rate (%) NOK/EUR* | — | — | — | 3.441 | 4.501 | |
| *Average fixed interest rate (%) CHF/EUR* | — | — | — | 1.243 | — | |
| *Average fixed interest rate (%) USD/MXN* | — | — | 14.250 | — | — | |
| *Average fixed interest rate (%) USD/COP* | — | 17.980 | 6.152 | 13.207 | 7.149 | |
| *Average fixed interest rate (%) EUR/USD* | — | — | (0.140) | — | — | |
| *Average fixed interest rate (%) USD/CLP* | — | — | 3.450 | — | — | |
| *Average AUD/EUR exchange rate* | — | — | — | 1.499 | 1.545 | |
| *Average CZK/EUR exchange rate* | — | — | — | 25.831 | — | |
| *Average EUR/USD exchange rate* | — | — | 0.891 | 0.961 | — | |
| *Average HKD/EUR exchange rate* | — | — | 8.782 | 8.666 | — | |
| *Average JPY/EUR exchange rate* | — | — | 120.568 | 134.151 | 129.229 | |
| *Average NOK/EUR exchange rate* | — | — | — | 9.519 | 10.429 | |
| *Average RON/EUR exchange rate* | 4.711 | — | — | 4.887 | — | |
| *Average CHF/EUR exchange rate* | — | — | — | 1.104 | — | |
| *Average MXN/EUR exchange rate* | — | — | — | — | 19.083 | |
| *Average USD/CLP exchange rate* | — | — | 0.001 | — | — | |
| *Average NZD/EUR exchange rate* | — | — | — | — | 1.666 | |
| *Average USD/MXN exchange rate* | — | — | 0.058 | — | — | |
| **Cash flow hedges** | | | | | | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Interest rate and foreign exchange rate instruments* | | | | | | |

| | 31 December 2023 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| *Nominal* | — | — | 414 | 1,075 | 86 | 1,575 |
| *Average fixed interest rate (%) CHF/EUR* | — | — | — | 3.106 | — | |
| *Average fixed interest rate (%) AUD/EUR* | — | — | — | 3.521 | — | |
| *Average EUR/GBP exchange rate* | — | — | 1.173 | — | — | |
| *Average AUD/EUR exchange rate* | — | — | 1.625 | 1.584 | 1.562 | |
| *Average RON/EUR exchange rate* | — | — | — | 4.940 | — | |
| *Average CHF/EUR exchange rate* | — | — | — | 1.002 | — | |
| Interest rate risk | | | | | | |
| *Bond Forward instruments* | | | | | | |
| *Nominal* | 750 | 1,500 | 7,750 | — | — | 10,000 |
| *Average fixed interest rate (%) EUR* | (0.124) | (0.889) | 0.016 | — | — | |
| Exchange rate risk | | | | | | |
| *Exchange instruments* | | | | | | |
| *Nominal* | 13 | 25 | 111 | — | — | 149 |
| *Average exchange rate GBP/EUR* | 1.148 | 1.146 | 1.138 | — | — | |
| **Hedges of net investments in foreign operations** | | | | | | |
| Exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | 3,593 | 4,870 | 8,034 | — | — | 16,497 |
| *Average BRL/EUR exchange rate* | 5.569 | 5.505 | 5.481 | — | — | |
| *Average CLP/EUR exchange rate* | 916.724 | 936.166 | 987.202 | — | — | |
| *Average COP/EUR exchange rate* | — | 4,526 | — | — | — | |
| *Average GBP/EUR exchange rate* | 0.866 | 0.867 | 0.876 | — | — | |
| *Average MXN/EUR exchange rate* | 20.078 | 20.589 | 20.210 | — | — | |
| *Average USD/EUR exchange rate* | — | 1.129 | 1.081 | — | — | |
| *Average PLN/EUR exchange rate* | 4.664 | 4.752 | 4.580 | — | — | |
| *Average CAD/EUR exchange rate* | — | 1.461 | — | — | — | |
| *Average CHF/EUR exchange rate* | — | 0.940 | — | — | — | |
| *Average UYU/EUR exchange rate* | 43.235 | 43.521 | 44.400 | — | — | |

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| **Fair value hedges** | | | | | | |
| Interest rate risk | | | | | | |
| *Interest rate instruments* | | | | | | |
| *Nominal* | *1,032* | *1,248* | *2,348* | *24,115* | *8,809* | *37,552* |
| *Average fixed interest rate (%) GBP* | — | *2.036* | *2.036* | *1.856* | *2.036* | |
| *Average fixed interest rate (%) EUR* | *0.569* | *(0.406)* | *0.278* | *2.396* | *1.674* | |
| *Average fixed interest rate (%) CHF* | — | — | — | *0.530* | — | |
| *Average fixed interest rate (%) JPY* | — | — | — | *0.465* | — | |
| *Average fixed interest rate (%) CZK* | — | — | — | *1.650* | — | |
| *Average fixed interest rate (%) NOK* | — | — | — | — | *2.327* | |
| *Average fixed interest rate (%) AUD* | — | *1.073* | — | — | — | |
| *Average fixed interest rate (%) USD* | *2.892* | *3.123* | *3.835* | *3.181* | *3.374* | |
| *Average fixed interest rate (%) RON* | — | — | — | *3.610* | — | |
| Foreign exchange risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | *250* | *899* | *2,064* | — | — | *3,213* |
| *Average GBP/EUR exchange rate* | — | — | *0.877* | — | — | |
| *Average USD/EUR exchange rate* | *1.040* | — | *0.992* | — | — | |
| *Average CNY/EUR exchange rate* | *7.172* | *7.252* | *7.159* | — | — | |
| *Average AUD/EUR exchange rate* | — | *1.587* | — | — | — | |
| *Average MXN/EUR exchange rate* | — | *21.529* | — | — | — | |
| *Average JPY/EUR exchange rate* | | | | | | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | *912* | *38* | *1,101* | *3,767* | *988* | *6,806* |
| *Average fixed interest rate (%) AUD/EUR* | *4.000* | — | — | *4.800* | *3.824* | |
| *Average fixed interest rate (%) CZK/EUR* | — | — | *0.860* | — | — | |
| *Average fixed interest rate (%) RON/EUR* | — | *4.520* | — | *5.130* | — | |
| *Average fixed interest rate (%) HKD/EUR* | — | — | — | *2.580* | — | |
| *Average fixed interest rate (%) JPY/EUR* | *0.568* | — | — | *1.442* | *1.360* | |
| *Average fixed interest rate (%) NOK/EUR* | — | — | — | *3.010* | *3.762* | |
| *Average fixed interest rate (%) CHF/EUR* | — | — | — | *1.243* | — | |
| *Average fixed interest rate (%) EUR/GBP* | — | *5.170* | — | — | — | |
| *Average fixed interest rate (%) NZD/EUR* | — | — | — | — | — | |
| *Average fixed interest rate (%) USD/MXN* | — | — | *12.982* | — | — | |
| *Average fixed interest rate (%) USD/COP* | — | — | *15.452* | *13.614* | *7.150* | |
| *Average fixed interest rate (%) EUR/USD* | — | — | — | *(0.140)* | — | |
| *Average fixed interest rate (%) USD/CLP* | — | — | — | *3.450* | — | |
| *Average AUD/EUR exchange rate* | *1.499* | — | — | *1.499* | *1.545* | |
| *Average CZK/EUR exchange rate* | — | — | *25.407* | *25.677* | — | |
| *Average EUR/GBP exchange rate* | — | *1.162* | — | — | — | |
| *Average EUR/USD exchange rate* | — | — | — | *0.945* | — | |
| *Average HKD/EUR exchange rate* | — | — | — | *8.851* | — | |
| *Average JPY/EUR exchange rate* | *133.840* | — | — | *130.227* | *118.180* | |
| *Average NOK/EUR exchange rate* | — | — | — | *9.492* | *9.685* | |
| *Average RON/EUR exchange rate* | — | *4.746* | — | *4.842* | *4.927* | |
| *Average CHF/EUR exchange rate* | — | — | *1.092* | *1.105* | — | |
| *Average USD/CLP exchange rate* | — | — | — | *0.001* | — | |

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| *Average NZD/EUR exchange rate* | — | — | — | — | 1.666 | |
| *Average USD/MXN exchange rate* | — | — | 0.051 | — | — | |
| Credit risk | | | | | | |
| *Credit risk instruments* | | | | | | |
| *Nominal* | — | 9 | 8 | 38 | — | 55 |
| **Cash flow hedges** | | | | | | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Interest rate and foreign exchange rate instruments* | | | | | | |
| *Nominal* | — | 3 | 597 | 1,451 | 184 | 2,235 |
| *Average fixed interest rate (%) EUR/PEN* | — | — | 6.496 | — | — | |
| *Average fixed rate (%) USD/COP* | — | | 15.398 | — | — | |
| *Average fixed interest rate (%) EUR/AUD* | — | 3.207 | — | — | — | |
| *Average fixed interest rate (%) AUD/EUR* | — | — | — | 0.305 | — | |
| *Average EUR/GBP exchange rate* | — | — | 1.084 | 1.173 | — | |
| *Average AUD/EUR exchange rate* | — | — | — | 1.604 | 1.562 | |
| *Average RON/EUR exchange rate* | — | — | — | 4.885 | — | |
| *Average JPY/EUR exchange rate* | — | — | — | 120.568 | — | |
| *Average CHF/EUR exchange rate* | — | — | — | 1.102 | — | |
| *Average NOK/EUR exchange rate* | — | — | — | — | 10.242 | |
| *Average CZK/EUR exchange rate* | — | — | — | 26.131 | — | |
| *Average EUR/PEN exchange rate* | — | — | 0.252 | — | — | |
| *Average EUR/AUD exchange rate* | — | 0.654 | — | — | — | |
| Interest rate risk | | | | | | |
| *Bond Forward instruments* | | | | | | |
| *Nominal* | 2,250 | 4,500 | 11,453 | 10,000 | 0 | 28,203 |
| *Average fixed interest rate (%) EUR* | (0.431) | (0.404) | (0.348) | (0.010) | — | |
| Inflation risk | | | | | | |
| *Bond Forward instruments* | | | | | | |
| *Nominal* | — | — | 700 | — | — | 700 |
| *Average fixed interest rate (%) EUR* | — | — | 0.322 | — | — | |
| Exchange rate risk | | | | | | |
| *Exchange instruments* | | | | | | |
| *Nominal* | 11 | 22 | 99 | — | — | |
| *Average exchange rate GBP/EUR* | 1.156 | 1.153 | 1.142 | — | — | |
| **Hedges of net investments in foreign operations** | | | | | | |
| Exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | 2,020 | 4,711 | 13,839 | — | — | 20,570 |
| *Average BRL/EUR exchange rate* | 6.554 | 5.797 | 5.866 | — | — | |
| *Average CLP/EUR exchange rate* | 953.549 | 955.790 | 944.113 | — | — | |
| *Average COP/EUR exchange rate* | — | 4,935.121 | — | — | — | |
| *Average GBP/EUR exchange rate* | 0.869 | 0.873 | 0.876 | — | — | |
| *Average MXN/EUR exchange rate* | 25.130 | 23.968 | 22.156 | — | — | |
| *Average USD/EUR exchange rate* | — | — | 1.158 | — | — | |
| *Average PLN/EUR exchange rate* | 4.832 | 4.837 | 4.991 | — | — | |

| | 31 December 2021 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| **Fair value hedges** | | | | | | |
| Interest rate risk | | | | | | |
| *Interest rate instruments* | | | | | | |
| *Nominal* | *14* | *1,822* | *3,038* | *21,507* | *10,031* | *36,412* |
| *Average fixed interest rate (%) GBP* | — | — | — | 2.139 | 1.750 | |
| *Average fixed interest rate (%) EUR* | 3.859 | 0.989 | (0.031) | 1.212 | 1.532 | |
| *Average fixed interest rate (%) CHF* | — | — | — | 0.828 | 0.403 | |
| *Average fixed interest rate (%) JPY* | — | — | — | 0.465 | — | |
| *Average fixed interest rate (%) USD* | 4.746 | 1.449 | 3.459 | 2.737 | 3.374 | |
| *Average fixed interest rate (%) RON* | — | — | — | 4.211 | 3.200 | |
| Foreign exchange risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | 503 | 1,634 | 10,350 | 586 | — | 13,073 |
| *Average GBP/EUR exchange rate* | — | 0.882 | 0.865 | 0.876 | — | |
| *Average USD/EUR exchange rate* | 1.187 | 1.172 | 1.180 | — | — | |
| *Average CNY/EUR exchange rate* | 7.859 | 7.717 | 7.412 | — | — | |
| *Average PEN/USD exchange rate* | — | 4.003 | — | — | — | |
| *Average JPY/EUR exchange rate* | 132.688 | 130.741 | — | — | — | |
| *Interest rate and foreign exchange rate risk* | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | 116 | 1,109 | 53 | 3,255 | 1,279 | 5,812 |
| *Average fixed interest rate (%) AUD/EUR* | — | — | — | 4.000 | 4.661 | |
| *Average fixed interest rate (%) CZK/EUR* | — | — | — | 0.860 | — | |
| *Average fixed interest rate (%) RON/EUR* | — | — | — | 4.849 | — | |
| *Average fixed interest rate (%) HKD/EUR* | — | — | — | 2.580 | — | |
| *Average fixed interest rate (%) JPY/EUR* | — | — | — | 0.730 | 1.144 | |
| *Average fixed interest rate (%) NOK/EUR* | — | — | — | — | 3.605 | |
| *Average fixed interest rate (%) CHF/EUR* | — | — | — | 0.760 | 1.243 | |
| *Average fixed interest rate (%) USD/COP* | — | 5.140 | 9.470 | 6.789 | 7.153 | |
| *Average fixed interest rate (%) COP/USD* | — | — | — | (0.140) | — | |
| *Average fixed interest rate (%) USD/CLP* | — | — | — | 3.450 | — | |
| *Average AUD/EUR exchange rate* | — | — | — | 1.499 | 1.529 | |
| *Average CZK/EUR exchange rate* | — | — | — | 25.506 | — | |
| *Average EUR/GBP exchange rate* | — | 1.176 | — | — | — | |
| *Average EUR/USD exchange rate* | — | — | — | 0.891 | — | |
| *Average HKD/EUR exchange rate* | — | — | — | 8.782 | — | |
| *Average JPY/EUR exchange rate* | — | — | — | 132.966 | 126.605 | |
| *Average MXN/EUR exchange rate* | — | — | 14.696 | — | — | |
| *Average NOK/EUR exchange rate* | — | — | — | — | 9.606 | |
| *Average RON/EUR exchange rate* | — | — | — | 4.815 | 4.927 | |
| *Average CHF/EUR exchange rate* | — | — | — | 1.092 | 1.105 | |
| *Average USD/CLP exchange rate* | — | — | — | 0.001 | — | |
| *Average NZD/EUR exchange rate* | — | — | — | — | 1.666 | |
| *Average USD/MXN exchange rate* | — | — | — | 0.050 | — | |

| | 31 December 2021 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Up to one month | One to three months | Three months to one year | One year to five years | More than five years | Total |
| Credit risk | | | | | | |
| *Credit risk instruments* | | | | | | |
| *Nominal* | — | 19 | 34 | 120 | — | 173 |
| **Cash flow hedges** | | | | | | |
| Interest rate and foreign exchange rate risk | | | | | | |
| *Interest rate and foreign exchange rate instruments* | | | | | | |
| *Nominal* | — | 9 | 1,169 | 1,848 | 408 | 3,434 |
| *Average fixed interest rate (%) EUR/PEN* | — | — | 3.441 | — | — | |
| *Average fixed interest rate (%) EUR/AUD* | — | 1.632 | — | — | — | |
| *Average fixed interest rate (%) AUD/EUR* | — | — | — | 0.305 | — | |
| *Average EUR/GBP exchange rate* | — | — | 1.102 | 1.113 | — | |
| *Average EUR/USD exchange rate* | — | — | — | 0.882 | — | |
| *Average AUD/EUR exchange rate* | — | — | — | 1.604 | 1.562 | |
| *Average RON/EUR exchange rate* | — | — | — | 4.885 | — | |
| *Average JPY/EUR exchange rate* | — | — | — | 120.568 | — | |
| *Average CHF/EUR exchange rate* | — | — | — | — | 1.102 | |
| *Average NOK/EUR exchange rate* | — | — | — | — | 10.242 | |
| *Average CZK/EUR exchange rate* | — | — | — | 26.131 | — | |
| *Average EUR/PEN exchange rate* | — | — | 0.208 | — | — | |
| *Average EUR/AUD exchange rate* | — | 0.624 | — | — | — | |
| Interest rate risk | | | | | | |
| *Bond Forward instruments* | | | | | | |
| *Nominal* | 4,279 | — | 5,191 | 38,314 | — | 47,784 |
| *Average fixed interest rate (%) EUR* | — | — | (0.465) | (0.258) | — | |
| *Average fixed interest rate (%) USD* | — | — | 1.765 | — | — | |
| *Average fixed interest rate (%) AUD* | — | — | — | 1.650 | — | |
| **Hedges of net investments in foreign operations** | | | | | | |
| Exchange rate risk | | | | | | |
| *Exchange and interest rate instruments* | | | | | | |
| *Nominal* | 3,778 | 4,848 | 11,815 | 2,916 | — | 23,357 |
| *Average BRL/EUR exchange rate* | 6.663 | 6.758 | 6.841 | — | — | |
| *Average CLP/EUR exchange rate* | 943.354 | 929.690 | 949.615 | — | — | |
| *Average COP/EUR exchange rate* | — | — | 4,538.997 | — | — | |
| *Average GBP/EUR exchange rate* | 0.854 | 0.857 | 0.855 | 0.875 | — | |
| *Average MXN/EUR exchange rate* | 25.541 | 25.335 | 25.192 | — | — | |
| *Average PLN/EUR exchange rate* | 4.592 | 4.582 | 4.634 | — | — | |
| *Average USD/EUR exchange rate* | — | — | 1.167 | 1.233 | — | |

## Other geographies

Consumer Group entities mainly have loans portfolios at fixed interest rates and are therefore, exposed to changes in fair value due to movements in market interest rates. The entities manage this risk by contracting interest rate swaps in which they pay a fixed rate and receive a variable rate. Interest rate risk is the only one hedged and, therefore, other risks, such as credit risk, are managed but not hedged by the entities. The interest rate risk component is determined as the change in fair value of fixed rate loans arising solely from changes in a reference rate. This strategy is designated as a fair value hedge and its effectiveness is assessed by comparing changes in the fair value of loans attributable to changes in reference interest rates with changes in the fair value of interest rate swaps.

In addition, in order to access international markets with the aim of obtaining sources of financing, some Consumer Group´s entities issue fixed rate debt in their own currency and in other currencies that differ from their functional currency. Therefore, they are exposed to changes in both interest rates and exchange rates, which they mitigate with derivatives (interest rate swaps, fx forward and cross currency swaps) in which they receive a fixed interest rate and pay a variable interest rate, implemented with a fair value hedge.

The cash flow hedges of the Grupo Santander´s entities hedge the foreign currency risk of loans and financing.

Finally, it has hedges of net investments abroad to hedge the foreign exchange risk of the shareholding in NOK, CNY, PLN, CAD and CHF currencies.

Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México has mainly long-term loan portfolios at fixed interest rates, portfolios of short-term deposits in local currency, portfolios of Mexican Government bonds and corporate bonds in currencies other than the local currency and are therefore exposed to changes in fair value due to movements in market interest rates, as well as these latter portfolios also to variations in exchange rates. The entity manages this risk by contracting derivatives (interest rate swaps or cross currency swaps) in which they pay a fixed rate and receive a variable rate. Only the interest rate and exchange rate risk is hedged, if applicable, and therefore other risks, such as credit risk, are managed but not hedged by the entity.

The interest rate risk component is determined as the change in the fair value of fixed rate loans arising solely from changes in a reference rate. This strategy is designated as a fair value hedge and its effectiveness is assessed by comparing changes in the fair value of loans attributable to changes in benchmark interest rates with changes in the fair value of interest rate swaps.

Regarding cash flow hedges, Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México has a portfolio of unsecured bonds issued at a variable rate in its local currency, which it manages with an interest rate swap in which it receives a variable rate and pays a fixed rate. On the other hand, it also has different items in currencies other than the local currency: unsecured fixed rate bonds, commercial bank loans at variable rates, fixed rate issues, Mexican and Brazilian government bonds at fixed rates. In all these portfolios, the Bank is exposed to exchange rate variations, which it mitigates by contracting cross currency swaps or fx forward.

Banco Santander (Brasil) S.A. has, on the one hand, fair value hedges to protect both assets and liabilities from fluctuations in market rates. The market risk coverage management methodology adopted by the Bank segregates transactions by risk factor (BRL/USD exchange rate risk, pre-set interest rate risk in BRL, USD interest rate risk, inflation….). The entity manages this risk by contracting derivatives (interest rate swaps or interest rate futures) to hedge assets or liabilities at a fixed rate.

Brasil has corporate loans in different currencies than the local one and is therefore exposed to changes in fair value due to exchange rates. This risk is mitigated by contracting cross currency swaps or futures.

It also holds a portfolio of long-term corporate bonds with inflation-indexed rates, thus exposed to changes in market value due to changes in market inflation rates. In order to achieve its mitigation, they contract futures in which they pay the indexed inflation and receive variable interest rates.

In the hedge of cash flows, Banco Santander (Brasil) S.A. has portfolios of loans and government bonds in different currency than the entity's functional currency and, therefore, it is subject to the risk of changes in currency rates. This exposure will be mitigated by hiring Cross Currency Swaps and futures.

Finally, they have a portfolio of variable rate government bonds, so they are exposed to changes in the value due to changes in interest rates. In order to mitigate these changes, a future is hired in which a variable rate is paid and a fixed rate is received.

Additionally, Banco Santander - Chile uses fair value hedges with cross currency swaps, interest rate swaps and call money swaps to hedge its exposure to changes in the fair value of the hedged item attributable to interest rates. The aforementioned hedging instruments modify the effective cost of long-term issues, from a fixed interest rate to a variable interest rate.

In addition, it also makes cash flow hedges in which it uses cross currency swaps to cover the risk of variability of flows attributable to changes in the interest rate of bonds and interbank loans issued at variable rates, as well as to cover the variation of foreign currency, mainly in United States dollars. To hedge the inflation risk present in certain items, it uses both forwards and cross currency swaps.

At Santander Bank National Association, Interest Rate Swaps are used to leave commercial loans at a fixed rate at a variable rate in USD indexed to 1-month Libor or SOFR, under cash flow hedges.

Regarding the hedged items, the following table shows the detail of the type of hedging, the risk that is hedged and which products are being hedged at 31 December 2023, 2022 and 2021. The products that are being hedged are mainly borrowed deposits, financial deposits, loans, government bonds as assets and financial bonds as liabilities:

| | EUR million | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31 December 2023 | | | | | | | |
| | Carrying amount of hedged items | | Accumulated amount of fair value adjustments on the hedged item | | | | Cash flow reserves or conversion reserves | |
| | Assets | Liabilities | Assets | Liabilities | Balance sheet line item | Change in fair value of hedged item for ineffectiveness assessment | Continuing hedges | Discontinued hedges |
| **Fair value hedges** | **134,095** | **26,946** | **(1,798)** | **(1,652)** | | **1,928** | | **—** |
| Interest rate risk | 130,672 | 19,176 | (1,682) | (1,546) | | 1,757 | — | — |
| Exchange rate risk | 637 | 1,365 | (1) | (3) | | 60 | — | — |
| Interest and Exchange rate risk | 2,786 | 6,405 | (115) | (103) | | 111 | — | — |
| Inflation risk | — | — | — | — | | — | — | — |
| Credit risk | — | — | — | — | | — | — | — |
| **Cash flow hedges** | | | | | | **(1,824)** | **(813)** | **(173)** |
| Interest rate risk | | | | | | (2,182) | (797) | (77) |
| Exchange rate risk | | | | | | 500 | (80) | — |
| Interest and Exchange rate risk | | | | | | 100 | (144) | — |
| Inflation risk | | | | | | (233) | 196 | (96) |
| Equity risk | | | | | | (9) | 12 | — |
| **Net foreign investments hedges** | **18,706** | **—** | | | | **1,888** | **(8,684)** | **—** |
| Exchange rate risk | 18,706 | — | | | | 1,888 | (8,684) | — |
| | **152,801** | **26,946** | **(1,798)** | **(1,652)** | | **1,992** | **(9,497)** | **(173)** |

| | EUR million | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31 December 2022 | | | | | | | |
| | Carrying amount of hedged items | | Accumulated amount of fair value adjustments on the hedged item | | | | Cash flow reserves or conversion reserves | |
| | Assets | Liabilities | Assets | Liabilities | Balance sheet line item | Change in fair value of hedged item for ineffectiveness assessment | Continuing hedges | Discontinued hedges |
| **Fair value hedges** | **126,665** | **59,837** | **(5,487)** | **(3,581)** | **Loans and advances / Deposits and Debt securities / Debt securities issued** | **(3,232)** | **—** | **—** |
| Interest rate risk | 121,605 | 53,239 | (5,069) | (3,428) | | (2,397) | — | — |
| Exchange rate risk | 2,792 | 1,040 | (284) | — | | (7) | — | — |
| Interest and Exchange rate risk | 2,126 | 5,558 | (134) | (153) | | (826) | — | — |
| Inflation risk | — | — | — | — | | — | — | — |
| Credit risk | 142 | — | — | — | | (2) | — | — |
| **Cash flow hedges** | | | | | | **475** | **(3,353)** | **(225)** |
| Interest rate risk | | | | | | 2,458 | (2,973) | (75) |
| Exchange rate risk | | | | | | (1,764) | (88) | (2) |
| Interest and Exchange rate risk | | | | | | 39 | (309) | 1 |
| Inflation risk | | | | | | (258) | 14 | (149) |
| Equity risk | | | | | | — | 3 | — |
| **Net foreign investments hedges** | **22,614** | **—** | | | | **2,467** | **(6,750)** | **—** |
| Exchange rate risk | 22,614 | — | | | | 2,467 | (6,750) | — |
| | **149,279** | **59,837** | **(5,487)** | **(3,581)** | | **(290)** | **(10,103)** | **(225)** |

| | EUR million | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31 December 2021 | | | | | | | |
| | Carrying amount of hedged items | | Accumulated amount of fair value adjustments on the hedged item | | | Change in fair value of hedged item for ineffectiveness assessment | Cash flow reserves or conversion reserves | |
| | Assets | Liabilities | Assets | Liabilities | Balance sheet line item | | Continuing hedges | Discontinued hedges |
| **Fair value hedges** | **193,949** | **51,395** | **462** | **453** | **Loans and advances / Deposits and Debt securities / Debt securities issued** | **(1,061)** | **—** | **—** |
| Interest rate risk | 125,479 | 47,347 | 727 | 366 | | (543) | — | — |
| Exchange rate risk | 64,531 | — | (282) | — | | (343) | — | — |
| Interest and Exchange rate risk | 3,714 | 4,048 | 15 | 87 | | (173) | — | — |
| Inflation risk | 46 | — | — | — | | — | — | — |
| Credit risk | 179 | — | 2 | — | | (2) | — | — |
| **Cash flow hedges** | | | | | | **1,639** | **(414)** | **(148)** |
| Interest rate risk | | | | | | 494 | (540) | (52) |
| Exchange rate risk | | | | | | 115 | 81 | 8 |
| Interest and Exchange rate risk | | | | | | 778 | 330 | — |
| Inflation risk | | | | | | 249 | (289) | (104) |
| Equity risk | | | | | | 3 | 4 | — |
| **Net foreign investments hedges** | **25,594** | **—** | | | | **1,159** | **(4,283)** | **—** |
| Exchange rate risk | 25,594 | — | | | | 1,159 | (4,283) | — |
| | **219,543** | **51,395** | **462** | **453** | | **1,737** | **(4,697)** | **(148)** |

The cumulative amount of adjustments of the fair value hedging instruments that remain in the balance for hedges items that are no longer adjusted by profit and loss of coverage as at 31 December 2023 is EUR 1,006 million losses (EUR 756 million loss and EUR 460 million profit in 2022 and 2021, respectively).

The net impact of the hedges are shown in the following table:

| | EUR million | | | | |
|---|---|---|---|---|---|
| | 31 December 2023 | | | | |
| | | | Line of the income statement that includes the ineffectiveness of cash flows | Reclassified amount of reserves to the income statement due to: | |
| | Earnings/ (losses) recognised in another cumulative overall result | Ineffective recognised in the income statement | Gains or losses financial assets/liabilities | Cover transaction affecting the income statement | Line of the income statement that includes reclassified items |
| **Fair value hedges** | | **59** | | | |
| Interest rate risk | | 72 | | | |
| Exchange rate risk | | (38) | | | |
| Interest rate and exchange rate risk | | 25 | | | |
| **Cash flow hedges** | **2,592** | **4** | **Gains or losses financial assets/liabilities** | **(2,622)** | **Interest margin/Gains or losses financial assets/liabilities** |
| Interest rate risk | 2,179 | 2 | | (1,647) | |
| Exchange rate risk | 7 | (1) | | (416) | |
| Interest rate and exchange rate risk | 164 | 2 | | (431) | |
| Inflation risk | 233 | 1 | | (128) | |
| Equity risk | 9 | — | | — | |
| **Net foreign investments hedges** | **(1,888)** | **—** | | **—** | |
| Exchange rate risk | (1,888) | — | | — | |
| | **704** | **63** | | **(2,622)** | |

| | EUR million | | | | |
|---|---|---|---|---|---|
| | 31 December 2022 | | | | |
| | | | Line of the income statement that includes the ineffectiveness of cash flows | Reclassified amount of reserves to the income statement due to: | |
| | Earnings/ (losses) recognised in another cumulative overall result | Ineffective coverage recognised in the income statement | Gains or losses financial assets/liabilities | Cover transaction affecting the income statement | Line of the income statement that includes reclassified items |
| **Fair value hedges** | | **119** | | | |
| Interest rate risk | | 155 | | | |
| Exchange rate risk | | (16) | | | |
| Interest rate and exchange rate risk | | (20) | | | |
| **Cash flow hedges** | **(3,016)** | **(45)** | **Gains or losses financial assets/liabilities** | **1,254** | **Interest margin/Gains or losses financial assets/liabilities** |
| Interest rate risk | (2,458) | 1 | | (370) | |
| Exchange rate risk | (178) | (10) | | 2,130 | |
| Interest rate and exchange rate risk | (638) | (39) | | 587 | |
| Inflation risk | 258 | 3 | | (1,093) | |
| Equity risk | — | — | | — | |
| **Net foreign investments hedges hedges** | **(2,467)** | **—** | | **—** | |
| Exchange rate risk | (2,467) | — | | — | |
| | **(5,483)** | **74** | | **1,254** | |

| | EUR million | | | | |
|---|---|---|---|---|---|
| | 31 December 2021 | | | | |
| | Earnings/ (losses) recognised in another cumulative overall result | Ineffective coverage recognised in the income statement | Line of the income statement that includes the ineffectiveness of cash flows | Reclassified amount of reserves to the income statement due to: | |
| | | | Gains or losses financial assets/liabilities | Cover transaction affecting the income statement | Line of the income statement that includes reclassified items |
| **Fair value hedges** | | **18** | | | |
| Interest rate risk | | 46 | | | |
| Risk of Exchange rate | | (55) | | | |
| Risk of interest rate and exchange rate | | 27 | | | |
| Credit risk | | | | | |
| **Cash flow hedges** | **(938)** | **(64)** | **Gains or losses financial assets/liabilities** | **(801)** | **Interest margin/Gains or losses financial assets/liabilities** |
| Interest rate risk | (491) | (34) | | 269 | |
| Exchange rate risk | 155 | 2 | | (262) | |
| Interest rate and exchange rate risk | (350) | (35) | | (350) | |
| Inflation risk | (249) | 3 | | (458) | |
| Equity risk | (3) | — | | — | |
| **Net foreign investments hedges** | **(1,159)** | **—** | | **—** | |
| Exchange rate risk | (1,159) | — | | — | |
| | **(2,097)** | **(46)** | | **(801)** | |

The following table shows the movement in the impact of equity for the year:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Balance at beginning of year** | **(9,187)** | **(4,559)** | **(2,829)** |
| **Cash flow hedges** | | | |
| **Interest rate risk** | **2,179** | **(2,458)** | **(491)** |
| *Amounts transferred to income statements* | *1,647* | *370* | *(269)* |
| *Gain or loss in value CFE - recognized in equity* | *532* | *(2,828)* | *(222)* |
| **Exchange rate risk** | **7** | **(178)** | **155** |
| *Amounts transferred to income statements* | *416* | *(2,130)* | *262* |
| *Gain or loss in value CFE - recognized in equity* | *(409)* | *1,952* | *(107)* |
| **Interest rate and exchange rate risk** | **164** | **(638)** | **(350)** |
| *Amounts transferred to income statements* | *431* | *(587)* | *350* |
| *Gain or loss in value CFE - recognized in equity* | *(267)* | *(51)* | *(700)* |
| **Inflation risk** | **233** | **258** | **(249)** |
| *Amounts transferred to income statements* | *128* | *1,093* | *458* |
| *Gain or loss in value CFE - recognized in equity* | *105* | *(835)* | *(707)* |
| **Equity risk** | **9** | **—** | **(3)** |
| *Amounts transferred to income statements* | *—* | *—* | *—* |
| *Gain or loss in value CFE - recognized in equity* | *9* | *—* | *(3)* |
| **Net foreign investments hedges** | | | |
| **Exchange rate risk** | **(1,888)** | **(2,467)** | **(1,159)** |
| *Amounts transferred to income statements* | *—* | *—* | *—* |
| *Gain or loss in value CFE - recognized in equity* | *(1,888)* | *(2,467)* | *(1,159)* |
| Minorities, taxes and others | (941) | 855 | 367 |
| **Balance at end of year** | **(9,424)** | **(9,187)** | **(4,559)** |

# 37. Discontinued operations

No operations were discontinued in 2023, 2022 or 2021.

# 38. Interest income

Interest and similar income in the consolidated income statement comprises the interest accruing in the year on all financial assets with an implicit or explicit return, calculated by applying the effective interest method, irrespective of measurement at fair value; and the rectifications of income as a result of hedge accounting. Interest is recognised gross, without deducting any tax withheld at source.

The detail of the main interest and similar income items earned in 2023, 2022 and 2021 is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Loans and advances, central banks | 1,959 | 1,606 | 476 |
| Loans and advances, credit institutions | 5,361 | 2,186 | 916 |
| Debt instruments | 14,501 | 10,416 | 5,724 |
| Loans and advances, customers | 70,619 | 54,110 | 38,649 |
| Other interest[A] | 12,812 | 3,112 | 698 |
| | **105,252** | **71,430** | **46,463** |

A. Mainly include the rectification of income originating from accounting hedges as well as interest on balances in central banks and on demand credit institutions.

Most of the interest and similar income was generated by the Group's financial assets that are measured either at amortised cost or at fair value through other comprehensive income.

# 39. Interest expense

Interest expense and similar charges in the consolidated income statement includes the interest accruing in the year on all financial liabilities with an implicit or explicit return, including remuneration in kind, calculated by applying the effective interest method, irrespective of measurement at fair value; the rectifications of cost as a result of hedge accounting; and the interest cost attributable to provisions recorded for pensions.

The detail of the main items of interest expense and similar charges accrued in 2023, 2022 and 2021 is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Central banks deposits | 2,178 | 706 | 338 |
| Credit institution deposits | 7,172 | 2,784 | 1,140 |
| Customer deposits | 33,238 | 16,994 | 5,452 |
| Debt securities issued and subordinated liabilities | 12,751 | 8,464 | 4,838 |
| *Marketable debt securities* | *11,702* | *7,472* | *4,190* |
| *Subordinated liabilities (note 23)* | *1,049* | *992* | *648* |
| Provisions for pensions (note 25) | 94 | 100 | 91 |
| Lease Liabilities | 130 | 116 | 125 |
| Other interest expense | 6,428 | 3,647 | 1,109 |
| | **61,991** | **32,811** | **13,093** |

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

## 40. Dividend income

Dividend income includes the dividends and payments on equity instruments out of profits generated by investees after the acquisition of the equity interest.

The detail of income from dividends as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Dividend income classified as:** | | | |
| Financial assets held for trading | 415 | 366 | 369 |
| Non-trading financial assets mandatorily at fair value through profit or loss | 68 | 35 | 32 |
| Financial assets at fair value through other comprehensive income | 88 | 87 | 112 |
| | **571** | **488** | **513** |

## 41. Commission income

Commission income comprises the amount of all fees and commissions accruing in favour of the Group in the year, except those that form an integral part of the effective interest rate on financial instruments.

The detail of fee and commission income is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Coming from collection and payment services** | | | |
| Bills | 232 | 245 | 214 |
| Demand accounts | 1,457 | 1,526 | 1,408 |
| Cards | 4,278 | 4,012 | 3,138 |
| Orders | 698 | 625 | 503 |
| Cheques and other | 128 | 172 | 139 |
| | **6,793** | **6,580** | **5,402** |
| **Coming from non-banking financial products** | | | |
| Investment funds | 1,092 | 1,017 | 992 |
| Pension funds | 178 | 167 | 161 |
| Insurance | 2,715 | 2,743 | 2,467 |
| | **3,985** | **3,927** | **3,620** |
| **Coming from Securities services** | | | |
| Securities underwriting and placement | 511 | 438 | 431 |
| Securities trading | 348 | 339 | 319 |
| Administration and custody | 354 | 321 | 402 |
| Asset management | 341 | 446 | 369 |
| | **1,554** | **1,544** | **1,521** |
| **Other** | | | |
| Foreign exchange | 846 | 822 | 522 |
| Financial guarantees | 486 | 433 | 415 |
| Commitment fees | 549 | 506 | 442 |
| Other fees and commissions | 2,108 | 2,055 | 1,890 |
| | **3,989** | **3,816** | **3,269** |
| | **16,321** | **15,867** | **13,812** |

## 42. Commission expense

Commission expense shows the amount of all fees and commissions paid or payable by the Group in the year, except those that form an integral part of the effective interest rate on financial instruments.

The detail of commission expense is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Commissions assigned to third parties** | **2,644** | **2,554** | **1,993** |
| Cards | 1,891 | 1,872 | 1,355 |
| By collection and return of effects | 24 | 18 | 16 |
| Other fees assigned | 729 | 664 | 622 |
| **Other commissions paid** | **1,620** | **1,523** | **1,317** |
| Brokerage fees on lending and deposit transactions | 105 | 77 | 60 |
| Sales of insurance and pension funds | 358 | 340 | 341 |
| Other fees and commissions | 1,157 | 1,106 | 916 |
| | **4,264** | **4,077** | **3,310** |

## 43. Gains or losses on financial assets and liabilities

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

### a) Breakdown

The detail, by origin, of Gains/losses on financial assets and liabilities:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Gains or losses on financial assets and liabilities not measured at fair value through profit or loss, net | 96 | 149 | 628 |
| Financial assets at amortized cost | (3) | 34 | 89 |
| Other financial assets and liabilities | 99 | 115 | 539 |
| *Of which debt instruments* | *51* | *122* | *567* |
| Gains or losses on financial assets and liabilities held for trading, net[A] | 2,322 | 842 | 1,141 |
| Gains or losses on non-trading financial assets and liabilities mandatory at fair value through profit or loss | 204 | 162 | 132 |
| Gains or losses on financial assets and liabilities measured at fair value through profit or loss, net[A] | (93) | 968 | 270 |
| Gains or losses from hedge accounting, net | 63 | 74 | (46) |
| | **2,592** | **2,195** | **2,125** |

A. Includes the net result obtained by transactions with debt securities, equity instruments, derivatives and short positions included in this portfolio when the Group jointly manages its risk in these instruments.

As explained in note 44, the above breakdown should be analysed in conjunction with the 'Exchange differences, net':

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Exchange differences, net | 41 | (542) | (562) |

## 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

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Loans and receivables: | 51,072 | 44,962 | 34,812 |
| Central banks | 17,717 | 11,595 | 3,608 |
| Credit institutions | 14,520 | 17,175 | 13,549 |
| Customers | 18,835 | 16,192 | 17,655 |
| Debt instruments | 66,079 | 45,079 | 30,223 |
| Equity instruments | 19,125 | 13,777 | 19,119 |
| Derivatives | 56,328 | 67,002 | 54,292 |
| | **192,604** | **170,820** | **138,446** |

Grupo Santander mitigates and reduces this exposure as follows:

- With respect to derivatives, the Group has entered into framework agreements with a large number of credit institutions and customers for the netting-off of asset positions and the provision of collateral for non-payment.

  At 31 December 2023 the exposure to credit risk of the derivatives presented in the balance sheet is not significant because they are subject to netting and collateral agreements (see note 2.f).

- Loans and advances to credit institutions and Loans and advances includes reverse repos amounting to EUR 44,567 million at 31 December 2023.

  Also, mortgage-backed assets totalled EUR 788 million.

- Debt instruments include EUR 51,251 million of Spanish and foreign government securities.

  At 31 December 2023 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

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Deposits | 80,503 | 62,620 | 23,156 |
| Central banks | 9,017 | 7,497 | 1,645 |
| Credit institutions | 19,597 | 11,754 | 7,552 |
| Customer | 51,889 | 43,369 | 13,959 |
| Marketable debt securities | 5,371 | 5,427 | 5,454 |
| Short positions | 26,174 | 22,515 | 12,236 |
| Derivatives | 50,589 | 64,891 | 53,566 |
| Other financial liabilities | — | — | — |
| | **162,637** | **155,453** | **94,412** |

At 31 December 2023, the amount of the change in the fair value of financial liabilities at fair value through profit or loss attributable to changes in their credit risk during the year is not material.

In relation to liabilities designated at fair value through profit or loss where it has been determined at initial recognition that the credit risk is recorded in accumulated 'Other comprehensive income' (see 'Statement of recognised income and expense') the amount that the Group would be contractually obliged to pay on maturity of these liabilities at 31 December 2023 is EUR 866 million higher than their carrying amount (EUR 1,044 million higher at 31 December 2022 and EUR 81 million lower at 31 December 2021).

Within Deposits, there are repurchase agreements amounting to EUR 45,956 million at 31 December 2023.

# 44. Exchange differences, net

Exchange differences shows basically the gains or losses on currency dealings, the differences that arise on translations of monetary items in foreign currencies to the functional currency.

Grupo Santander manages the currencies to which it is exposed together with the arrangement of derivative instruments and, accordingly, the changes in this line item should be analysed together with those recognised under 'Gains/losses on financial assets and liabilities' (see note 43).

# 45. Other operating income and expenses

Other operating income and Other operating expenses in the consolidated income statements include:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Other operating income** | **1,104** | **1,510** | **2,255** |
| Non- financial services | 752 | 770 | 291 |
| Other operating income | 352 | 740 | 1,964 |
| **Other operating expense** | **(2,827)** | **(2,803)** | **(2,442)** |
| Non-financial services | (674) | (661) | (283) |
| Other operating expense: | (2,153) | (2,142) | (2,159) |
| *Of which, credit institutions deposit guarantee fund and single resolution fund* | *(1,119)* | *(1,258)* | *(1,016)* |
| | **(1,723)** | **(1,293)** | **(187)** |

The amount of the Group recognises in relation to income from sub-leases of rights of use is not material.

# 46. Staff costs

## a) Breakdown

The detail of Staff costs is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Wages and salaries | 10,351 | 9,563 | 8,466 |
| Social Security costs | 1,637 | 1,441 | 1,323 |
| Additions to provisions for defined benefit pension plans (note 25) | 42 | 65 | 73 |
| Contributions to defined contribution pension funds | 310 | 296 | 286 |
| Other Staff costs | 1,386 | 1,182 | 1,068 |
| | **13,726** | **12,547** | **11,216** |

## b) Headcount

The number of employees of Grupo Santander at 31 December 2023, 2022 and 2021 is 212,764, 206,462 and 199,177, respectively. For the years 2023, 2022 and 2021 the average number of employees of the Group is 211,514, 201,516 and 194,589, respectively, being the average number of employees of Banco Santander, S.A. 24,061, 23,410 and 24,512, of which 16, 17 and 19 are executive directors and Senior management, respectively.

The functional breakdown (final employment), by gender, at 31 December 2023 is as follows:

**Functional breakdown by gender**

| | Senior executives[A] | | Other executives | | Other employees | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Europe | 1,073 | 500 | 10,704 | 7,629 | 31,413 | 38,062 |
| North America | 202 | 82 | 3,778 | 2,522 | 16,387 | 21,111 |
| South America | 305 | 141 | 3,878 | 2,708 | 32,709 | 39,560 |
| | **1,580** | **723** | **18,360** | **12,859** | **80,509** | **98,733** |

The same information, expressed in percentage terms at 31 December 2023 is as follows:

**Functional breakdown by gender**

| | Senior executives[A] | | Other executives | | Other employees | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Europe | 68% | 32% | 58% | 42% | 45% | 55% |
| North America | 71% | 29% | 60% | 40% | 44% | 56% |
| South America | 68% | 32% | 59% | 41% | 45% | 55% |
| | **69%** | **31%** | **59%** | **41%** | **45%** | **55%** |

A. Includes Group Senior Executive VP, Executive VP y VP.

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

The number of employees in the Group with disabilities, distributed by professional categories, at 31 December 2023, is as follows:

**Number of employees[A]**

| | 2023 |
|---|---|
| Senior executives | 18 |
| Other executives | 281 |
| Other employees | 4,402 |
| | **4,701** |

A. An employee with disabilities is considered to be a person who is recognised by the State or the company in each jurisdiction where the Group operates and that entitles them to receive direct monetary assistance, or other types of aid such as, for example, reduction of their taxes. In the case of Spain, employees with disabilities have been considered to be those with a degree of disabilities greater than or equal to 33%.

The number of Group employees with disabilities at 2022 and 2021, was 4,114 and 3,703, respectively.

Likewise, the average number of employees of Banco Santander, S.A. with disabilities, equal to or greater than 33%, during 2023 was 428 (331 and 288 employees during 2022 and 2021). At the end of fiscal year 2023, there were 436 employees (444 and 307 employees at 31 December, 2022 and 2021, respectively).

## c) Share-based payments

The main share-based payments granted by the Group in force at 31 December, 2023, 2022 and 2021 are described below.

### i. Bank

The variable remuneration policy for the Bank's executive directors and certain executive personnel of the Bank and of other Group companies includes Bank share-based payments, the implementation of which requires, in conformity with the law and the Bank's Bylaws, specific resolutions to be adopted by the general meeting.

Were it necessary or advisable for legal, regulatory or other similar reasons, the delivery mechanisms described below may be adapted in specific cases without altering the maximum number of shares linked to the plan or the essential conditions to which the delivery thereof is subject.

These adaptations may involve replacing the delivery of shares with the delivery of cash amounts of an equal value.

The plans that include share-based payments are as follows: (i) Deferred and Conditional Variable Remuneration Plan; (ii) Deferred Multiyear Objectives Variable Remuneration Plan; (iii) Digital Transformation Award, (iv) Digital Transformation Award 2022 and (v) Digital Transformation Award 2023. 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, 2021, 2022 and 2023)** | 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, over three or five years for the fifth, seventh, eighth, ninth, tenth and eleventh cycles, and over four or five years for the twelfth cycle, 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.<br><br>Beneficiaries:<br>• 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 executives and employees who assume risks (fifth cycle)<br><br>• In the case of the sixth, seventh, eighth, ninth, tenth, eleventh twelfth and thirteenth 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 the 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 on none of the following circumstances existing during the period prior to each delivery, pursuant to the provisions set forth in each case in the plan regulations:<br>• Poor financial performance of the Group.<br>• Breach by the beneficiary of internal regulations, including, in particular, those relating to risks.<br>• Material restatement of the Group's consolidated financial statements, except when it is required pursuant to a change in accounting standards.<br>• Significant changes in the Group's economic capital or risk profile<br>In the case of the seventh, eighth, ninth, tenth, eleventh, twelfth and thirteenth cycles (2017 to 2022), 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 non-occurrence of 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:<br>i. significant failures in risk management by the entity , or by a business unit or risk control unit.<br>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.<br>iii. 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.<br>iv. 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 cycle (2015):<br>• Executive directors and members of the Identified Staff with total variable remuneration higher than 2.6 million euros: 40% paid immediately and 60% deferred over 5 years deferral period.<br>• Division managers, country heads (of countries which represent at least 1% of Group's economic capital), 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 5 years (fifth cycle)<br>• Other beneficiaries: 60% paid immediately and 40% deferred over 3 years.<br><br>Sixth cycle (2016):<br>• 60% of bonus will be paid immediately and 40% deferred over a three years period.<br><br>Seventh, eighth, ninth, tenth and eleventh cycle (2017, 2018, 2019, 2020 and 2021):<br>• 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<br>• 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<br>• Other beneficiaries of these plans: 60% paid immediately and 40% deferred over 3 years.<br><br>Twelfth (2022) and thirteenth (2023) cycle:<br>• 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<br>• 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<br>• Other beneficiaries of these plans: 60% paid immediately and 40% deferred over 4 years . |

| Deferred variable remuneration systems | Description and plan beneficiaries | Conditions | Calculation Base |
|---|---|---|---|
| **(ii)Deferred Multiyear Objectives Variable Remuneration Plan (2016, 2017, 2018, 2019, 2020, 2021, 2022 and 2023)** | 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 (four or five years for the seventh cycle) 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 (regarding the instruments part, executive directors in the seventh cycle have the opportunity to choose all in share options or half in share options and half in 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), the last 2 fourths (in the case of 4 years deferral) and the last three fifths (in the case of 5 years deferral) is also subject to long-term objectives.<br><br>**Beneficiaries**<br>Executive directors, senior management 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, to non-occurrence 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:<br>i. Poor performance of the Group.<br>ii. Breach by the beneficiary of the internal regulations, including in particular that relating to risks.<br>iii. Material restatement of the Group's consolidated financial statements, except when appropriate under a change in accounting regulations.<br>iv. Significant changes in the Group's economic capital or risk profile.<br>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 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, taking into account the following factors:<br>v. Significant failures in risk management committed by the entity, or by a business unit or risk control unit.<br>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.<br>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.<br>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.<br><br>Paid half in cash and half in shares. In the seventh cycle, and only for executive directors: half in cash and 25% in share options and 25% in shares (unless the director chooses to receive options only). 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.<br><br>In the eighth cycle, and for all Identified Staff: half in cash and 25% in shares and 25% in share options, or half in cash and half in shares, according to each executive´s choice. | First cycle (2016):<br>• 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.<br>• 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.<br>• Other beneficiaries: 60% paid immediately and 40% deferred over a 3 years period.<br><br>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.<br><br>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:<br>• Earnings per share (EPS) growth in 2018 over 2015.<br>• Relative Total Shareholder Return (TSR) in the 2016-2018 period measured against a group of credit institutions.<br>• Compliance with the fully-loaded common equity tier 1 ("CET1") ratio target for financial year 2018.<br>• Compliance with Grupo Santander's underlying return on risk-weighted assets ("RoRWA") growth target for financial year 2018 compared to financial year 2015.<br><br>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:<br>• EPS growth in 2019, 2020, 2021, 2022 and 2023 (over 2016, 2017, 2018, 2019 and 2020, for each respective cycle)<br>• 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.<br>• Compliance with the fully-loaded common equity tier 1 ("CET1") ratio target for financial years 2019, 2020, 2021,2022 and 2023, respectively.<br><br>In the seventh (2022) and eighth cycle (2023), the metrics for the deferred portion subject to long-term objectives (two last fourths and last three fifths, for the cases of four years and five years deferrals) are:<br>• Banco Santander's consolidated Return on tangible equity (RoTE) target in 2024 (7th cycle) and 2025 (8th cycle).<br>• Relative Total Shareholder Return (TSR) measured against a group of 9 credit institutions for the period 2022-2024 (7th cycle) and 2023-2025 (8th cycle).<br>• Five ESG metrics linked to our public targets of our Responsible Banking agenda. |

| 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.<br><br>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.<br><br>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.<br><br>Performance of 2019 incentive was measured based on achievement of the following milestones: (i) Launch of a Global Trade Services (GTS) platform; (ii) launch of a Global Merchant Services (GMS) platform; (iii) migration of our fully digital bank, OpenBank, to a "next generation" platform and launch in 3 markets; (iv) extension of SuperDigital in Brazil to at least one other country; (v) and launch of our international payments app based on blockchain Pago FX to non-Santander customers.<br><br>The milestones for the 2020 Digital Transformation Award were: (i) rolling out the global merchant services (GMS) platform in 3 new geographies, enhancing the platform functionality and achieving volume targets for transactions and participating merchants; (ii) doing the commercial rollout of the global trade services (GTS) platform in 8 new geographies, enhancing platform functionality, and achieving volume targets for on-boarded clients and monthly active users; (iii) launching OpenBank in a new market and migrating the retail banking infrastructure to "new-mode" bank; (iv) launch the global platform SuperDigital in at least 4 countries, driving target active user growth; (v) deploying machine learning across pre-defined markets for 4 priority use cases, rolling out Conversion Rate Optimization (Digital marketing) for at least 40 sales programs, delivering profit targets, and driving reduction of agent handled calls in contact centers; (vi) successfully implementing initiatives related to on-board and identity services, common API (application programming interface) layer, payment hubs, mobile app for SMEs and virtual assistant services; and (vii) launching the PagoFX global platform in at least 4 countries.<br><br>The milestones for 2021 were: (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.<br><br>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 Grupo Santander. In this regard, the board may define specific rules for non-Identified Staff.<br><br>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).<br><br>The total achievement for 2021 Digital Incentive was 77.5% (85% en 2020 and 83% en 2019). |

| Deferred variable remuneration systems | Description and plan beneficiaries | Conditions | Calculation base |
|---|---|---|---|
| **(iv) Digital Transformation Award (2022)** | The board of directors approved the 2022 Digital Transformation Incentive. It is a variable remuneration scheme splits in two different blocks:<br><br>• The first one, with the same mechanism than previous years, that delivers Santander shares and share options if the group hits major milestones on its digital roadmap. This is aimed at a group of up to 250 (is limited to 30 million euros)employees whose functions are deemed essential to Santander's growth.<br><br>• And the second one, which delivers PagoNxt, S.L. RSUs and premium prices options (PPOs), and is aimed at up to 50 employees (and limited to 15 million euros) whose roles are considered key to PagoNxt's success.<br><br>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. | Performance of the first block of the incentive shall be measured based on achievement of the following milestones:<br><br>i. Edelweiss: Our Santander future retail architecture EDELWEISS will mean moving from our current Core centric banking architecture towards a Customer and Data-Centric Core supported by lean Record Processing engines.<br><br>ii. Simplification: Speed up the simplification of our technology platform and business model by Reducing the total number of applications in production and reducing number of products in the regions.<br><br>iii. Agile: Agile ways of working enable a better and faster reaction to customers' needs and is based on a value-driven delivery that increases efficiency by reducing time-to-market and development costs, and increasing quality. People working in Agile are more collaborative, engaged, empowered and creative.<br><br>iv. In Digital Consumer Bank:<br>a) To create the BNPL platform connected to at least one merchant in Netherlands and Germany, and to make sure the platform is ready to connect in Spain.<br>b) To support the definition of Openbank US's IT digital strategy and achieve 2022 milestones in it.<br>c) To have the new leasing platform connected to dealers in Italy.<br>d) To expand the Wabi B2B online business to Germany. To execute the first B2B deal with an Original Equipment Manufacturer or mobility player in at least one country. To expand coches.com business and platform to Portugal.<br><br>And in regard to the second block of digital incentive: the consolidation of PagoNxt Core Perimeter. | The first block of thee 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.<br><br>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 Grupo Santander. In this regard, the board may define specific rules for non-Identified Staff.<br><br>Vested share options can be exercised until maturity, with all options lapsing after ten years.<br><br>The total achievement for 2022 Digital Incentive was 96.5%.<br><br>The second block of Digital Incentive is structures in restricted stock units (RSUs) and premium priced Options (PPOs) of PagoNxt S.L. in a percentage determined by the internal category of the beneficiary. The total achievement for 2022 was 100%. |

| | | | |
|---|---|---|---|
| **(iv) Digital Transformation Award (2023)** | The board of directors approved the 2022 Digital Transformation Incentive. It is a variable remuneration scheme which delivers PagoNxt, S.L. RSUs and premium prices options (PPOs), and is aimed at up to 50 employees (and limited to 15 million euros) whose roles are considered key to PagoNxt's success.<br><br>With 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. | And the performance conditions were focus on key digital projects related with PagoNxt's main businesses (Trade, Merchant and Payments) in its core geographies. | This incentive is structures in restricted stock units (RSUs) and premium priced Options (PPOs) of PagoNxt S.L. in a percentage determined by the internal category of the beneficiary. The average achievement for 2023 was 88%. |

## ii. Santander UK plc

The long-term incentive plans on shares of the Bank granted by management of Santander UK plc to its employees are as follows:

| | Number of shares (in thousand) | Exercise price in pounds sterling[A] | Year granted | Employee group | Number of persons[B] | Date of commencement of exercise period | Date of expiry of exercise period |
|---|---|---|---|---|---|---|---|
| **Plans outstanding at 01/01/2021** | **21,162** | | | | | | |
| Options granted (sharesave) | 9,414 | 2.43 | 2021 | Employees | 4,142 | 01/11/21 | 01/11/24 |
| | | | | | | 01/11/21 | 01/11/26 |
| Options exercised | (48) | 1.86 | | | | | |
| Options cancelled (net) or not exercised | (4,592) | 2.95 | | | | | |
| **Plans outstanding at 31/12/2021** | **25,936** | | | | | | |
| Options granted (sharesave) | 13,068 | 1.89 | 2022 | Employees | 4,362 | 01/11/22 | 01/11/25 |
| | | | | | | 01/11/22 | 01/11/27 |
| Options exercised | (242) | 1.69 | | | | | |
| Options cancelled (net) or not exercised | (8,774) | 2.59 | | | | | |
| **Plans outstanding at 31/12/2022** | **29,988** | | | | | | |
| Options granted (sharesave) | 7,175 | 2.78 | 2023 | Employees | 4,752 | 01/11/23 | 01/11/26 |
| | | | | | | 01/11/23 | 01/11/28 |
| Options exercised | (5,980) | 1.7 | | | | | |
| Options cancelled (net) or not exercised | (4,044) | 2.53 | | | | | |
| **Plans outstanding at 31/12/2023** | **27,139** | | | | | | |

A. At 31 December, 2023, 2022 and 2021, the euro/pound sterling exchange rate was 1.1525, 1.1277 and 1.1904 , respectively.
B. Number of accounts/contracts. A single employee may have more than one account/contract.

In 2008 the Group launched a voluntary savings scheme for Santander UK employees (Sharesave Scheme) whereby employees who join the scheme see deducted between GBP 5 and GBP 500 from their net monthly pay over a period of three or five years. At the end of the chosen period, the employee may choose between collecting the amount contributed, the interest accrued and a bonus (tax-exempt in the United Kingdom) or exercising options on shares of the Bank in an amount equal to the sum of such three amounts at a fixed price. The exercise price will be the result of reducing by up to 20% the average purchase and sale prices of the Bank shares in the three trading sessions prior to the approval of the scheme by the UK tax authorities (HMRC). This approval must be received within 21 to 41 days following the publication of the Group's results for the first half of the year. This scheme was approved by the Board of Directors, at the proposal of the appointments and remuneration committee, and, since it involved the delivery of Bank shares, its application was authorized by the Annual General Meeting held on June 21, 2008. Also, the scheme was authorized by the UK tax authorities (HMRC) and commenced in September 2008. In subsequent years, at the Annual General Meetings held on June 19, 2009, June 11, 2010, June 17, 2011, March 30, 2012, March 22, 2013, March 28, 2014, March 27, 2015, March 18, 2016, April 7, 2017, March 23, 2018, April 12, 2019, April 3, 2020 and March 26, 2021, respectively, the shareholders approved the application of schemes previously approved by the board and with similar features to the scheme approved in 2008.

## iii. Fair value

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

**a) Deferred variable compensation plan linked to multi-year objectives 2021, 2022 and 2023:**

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 2021, 2022 and 2023 and the levels of achievement of similar plans in comparable entities, it has been considered that the fair value is 70%.

**b) Santander UK sharesave plans:**

The fair value of each option at the date of grant is estimated using an analytical model that also reflects the correlation between EUR and GBP. This model uses assumptions on the share price, the EUR/GBP FX rate, the EUR/GBP risk-free interest rate, dividend yields, the expected volatilities of both the underlying shares and EUR/GBP for the expected lives of options granted. The weighted average grant-date fair value of options granted during the year was GBP 0.33 (GBP 0.23 and GBP 0.20 reported in 2022 and 2021, respectively).

# 47. Other general administrative expenses

## a) Breakdown

The detail of Other general administrative expenses is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Technology and systems | 2,471 | 2,473 | 2,182 |
| Property, fixtures and supplies (note 2.k) | 818 | 804 | 789 |
| Technical reports | 809 | 785 | 689 |
| Advertising | 603 | 559 | 510 |
| Taxes other than income tax | 570 | 559 | 558 |
| Communications | 414 | 410 | 401 |
| Surveillance and cash courier services | 337 | 336 | 306 |
| Per diems and travel expenses | 218 | 163 | 69 |
| Insurance premiums | 95 | 108 | 109 |
| Other administrative expenses | 2,180 | 2,174 | 1,830 |
| | **8,515** | **8,371** | **7,443** |

The payments associated with short-term leases (leases less than or equal to 12 months) and leases of low-value assets, that the Group recognises as an expense in the income statement is not material.

## b) Technical reports and other

Technical reports includes the fees from the various Group companies (detailed in the accompanying appendices) for the services provided by their respective auditors, the detail being as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Audit | 116.8 | 115.4 | 106.0 |
| Audit-related services | 8.6 | 6.4 | 6.0 |
| Tax services | 1.6 | 0.5 | 0.7 |
| All other | 5.9 | 4.8 | 2.4 |
| **Total** | **132.9** | **127.1** | **115.1** |

The audit services and main non-audit services included for each item in the above breakdown are detailed as follows:

- Audit services: audit of the individual and consolidated financial statements of Banco Santander and its subsidiaries (of which PwC or another firm in its network is the statutory auditor); audit of the interim consolidated financial statements of Banco Santander; audit of the integrated audits prepared in order to file Form 20-F for the annual report with the SEC in the US and the internal control audit (SOx) for required Grupo Santander's entities; the limited review of the financial statements; and the regulatory auditor's reports on Grupo Santander's entities.

- Audit-related services: comfort letters; verification of the financial and non-financial information (as required by regulators); and other reviews of documents that, due to their nature, the external auditor provides for submission to domestic or foreign authorities.

- Tax services: tax compliance and advisory services provided to Group companies outside Spain, which have no direct effect on the audited financial statements and are permitted in accordance with independence regulations.

- Other services: agreed-upon procedure reports, assurance reports and special reports performed under the accepted profession's standards; as well as other reports required by the regulator.

The 'Audit' heading includes the fees for the year's audit, regardless of the date the audit was completed. Any subsequent adjustments, which are not significant, and for purposes of comparison, are shown in this note for each year. The fees corresponding to the rest of the services are shown by reference to when the audit committee approved them.

The services commissioned from the Group's auditors meet the independence requirements under applicable European and Spanish law, the 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 auditor's role.

Lastly, the Group commissioned services from audit firms other than PwC amounting to EUR 174.1 million in 2023 (EUR 185.5 million and EUR 263.8 million in 2022 and 2021, respectively).

## c) Number of branches

The number of offices at 31 December 2023, 2022 and 2021 is as follows:

Number of branches

| | Group | | |
|---|---|---|---|
| | 2023 | 2022 | 2021 |
| Spain | 1,924 | 1,966 | 1,998 |
| Group | 6,594 | 7,053 | 7,231 |
| | **8,518** | **9,019** | **9,229** |

# 48. Gains or losses on non financial assets, net

The detail of Gains/ (losses) on disposal of assets not classified as non-current assets held for sale is as follows:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Gains** | | | |
| Tangible and intangible assets | 53 | 56 | 87 |
| Investments | 285 | 5 | 2 |
| | **338** | **61** | **89** |
| **Losses** | | | |
| Tangible and intangible assets | (25) | (49) | (36) |
| Investments | — | — | — |
| | **(25)** | **(49)** | **(36)** |
| | **313** | **12** | **53** |

# 49. Gains or losses on non-current assets held for sale not classified as discontinued operations

The detail of Gains/(losses) on non-current assets held for sale not classified as discontinued operations is as follows:

EUR million

| **Net balance** | **2023** | **2022** | **2021** |
|---|---|---|---|
| Tangible assets | (20) | 7 | (52) |
| *Impairment (note 12)* | *(51)* | *(94)* | *(141)* |
| *Gain (loss) on sale (note 12)* | *31* | *101* | *89* |
| Other gains and other losses | — | — | 9 |
| | **(20)** | **7** | **(43)** |

# 50. Fair value of financial instruments

## a) Detail

The following table summarises the fair values, at the end of each of the years indicated, of the financial assets and liabilities listed below, classified according to the different valuation methodologies used by the Group to determine their fair value:

EUR million

| | 2023 | | | 2022 | | | 2021 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Published price quotations in active markets (level 1) | Internal Models (level 2 and 3) | Total | Published price quotations in active markets (level 1) | Internal Models (level 2 and 3) | Total | Published price quotations in active markets (level 1) | Internal Models (level 2 and 3) | Total |
| Financial assets held for trading | 67,842 | 109,079 | 176,921 | 45,014 | 111,104 | 156,118 | 39,678 | 77,275 | 116,953 |
| Non-trading financial assets mandatorily at fair value through profit or loss | 1,765 | 4,145 | 5,910 | 1,800 | 3,913 | 5,713 | 2,398 | 3,138 | 5,536 |
| Financial assets designated at fair value through profit or loss | 2,746 | 7,027 | 9,773 | 1,976 | 7,013 | 8,989 | 2,113 | 13,844 | 15,957 |
| Financial assets at fair value through other comprehensive income | 64,631 | 18,677 | 83,308 | 64,216 | 21,023 | 85,239 | 77,749 | 30,289 | 108,038 |
| Hedging derivatives (assets) | — | 5,297 | 5,297 | — | 8,069 | 8,069 | — | 4,761 | 4,761 |
| Financial liabilities held for trading | 20,298 | 101,972 | 122,270 | 16,237 | 98,948 | 115,185 | 10,379 | 69,090 | 79,469 |
| Financial liabilities designated at fair value through profit or loss[A] | 25 | 40,342 | 40,367 | 212 | 40,056 | 40,268 | 3,620 | 11,323 | 14,943 |
| Hedging derivatives (liabilities) | — | 7,656 | 7,656 | — | 9,228 | 9,228 | — | 5,463 | 5,463 |
| Liabilities under insurance contracts[A] | — | 17,799 | 17,799 | — | 16,426 | 16,426 | — | 18,560 | 18,560 |

A. See impact of IFRS 17 at 31 December 2022 and 2021 (see Note 1.d).

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

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

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

**Fixed income and inflation**

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

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

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

**Equity and foreign exchange**

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

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

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

**Credit**

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

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

**Valuation adjustment for counterparty risk or default risk**

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

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

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

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

The CVA at 31 December 2023 amounted to EUR 293 million (resulting in a decrease of 16.5% compared to 31 December 2022) and DVA amounted to EUR 330 million (resulting in a decrease of 9.3% compared to 31 December 2022). These decreases are mainly due to movements in credit markets whose spread levels have reduced moderately compared to those of December 2022, partially offset by the upward movement in interest rates.

The CVA at 31 December 2022 amounted to EUR 351 million (resulting in an increase of 48% compared to 31 December 2021) and DVA amounted to EUR 364 million (resulting in an increase of 125% compared to 31 December 2021). The increase is mainly due to movements in credit markets whose spread levels have increased substantially compared to those at the end of 2021.

The CVA at 31 December 2021 amounted to EUR 237 million (decrease of 41.9% compared to 31 December 2020) and DVA amounted EUR 162 million (decrease of 30.4% compared to 31 December 2020). These impacts were 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.

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 annual accounts as of 31 December 2023, 2022 and 2021.

During fiscal year 2023 there have been relevant reclassifications of instruments as Level 3, especially during the last quarter of the year. These changes have been motivated by the implementation of improvements in the classification criteria of financial instruments within the levels of the fair value hierarchy, to comply with regulatory expectations. Thus, the use of expert judgment to determine the observability of valuation inputs has been significantly reduced and objective criteria have been established based on access to price contributors and real market transactions. On the other hand, it has been strengthened the measurement of the significance of unobservable valuation inputs considering all the inputs that impact the valuation, including both market factors and others associated with credit risk.

As a consequence of these improvements, certain instruments have been classified as Level 3 as they are considered to use unobservable and significant inputs in their assessment. Among them, some long-term derivatives may be highlighted, others that incorporate optionality at unobservable terms or operations that include adjustments for credit risk in their valuation in which some of their components turn out to be unobservable and material. Likewise, some debt instruments that are not considered observable have been reclassified based on the new and stricter criteria currently used.

The effects on the consolidated financial statements resulting from the implementation of this new framework have been recognized prospectively in accordance with the provisions of IAS 8.

The rest of the changes in the instruments classified as Level 3 in the year have been due to movements in the volume of the positions of these instruments in the portfolio due to purchases/ sales, with no significant variations having been detected in the market observability conditions of their inputs. of valuation.

**Valuation adjustments due to model risk**

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

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

- 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 the financial instruments at fair value whose measurement was based on internal models (levels 2 and 3) at 31 December 2023, 2022 and 2021:

EUR million

| | Fair values calculated using internal models at 2023[A] | | | |
|---|---|---|---|---|
| | Level 2 | Level 3 | Valuation techniques | Main assumptions |
| **ASSETS** | **133,874** | **10,351** | | |
| **Financial assets held for trading** | **106,993** | **2,086** | | |
| Central banks[B] | 17,717 | — | Present value method | Yield curves, FX market prices |
| Credit institutions[B] | 14,061 | — | Present value method | Yield curves, FX market prices |
| Customers[B] | 11,418 | 24 | Present value method | Yield curves, FX market prices |
| Debt and equity instruments | 8,683 | 915 | Present value method | Yield curves, FX market prices |
| Derivatives | 55,114 | 1,147 | | |
| *Swaps* | *44,987* | *577* | Present value method, Gaussian Copula[C] | Yield curves, FX market prices, HPI, Basis, Liquidity |
| *Exchange rate options* | *836* | *9* | Black-Scholes Model | Yield curves, Volatility surfaces, FX market prices, Liquidity |
| *Interest rate options* | *2,210* | *153* | Black's Model, multifactorial advanced models interest rate | Yield curves, Volatility surfaces, FX market prices, Liquidity |
| *Interest rate futures* | *33* | — | Present value method | Yield curves, FX market prices |
| *Index and securities options* | *126* | *235* | Black's Model, multifactorial advanced models interest rate | Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Liquidity |
| *Other* | *6,922* | *173* | 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** | **5,297** | **—** | | |
| *Swaps* | *4,665* | — | Present value method | Yield curves, FX market prices, Basis |
| *Interest rate options* | *2* | — | Black's Model | Yield curves, FX market prices, Volatility surfaces |
| *Other* | *630* | — | 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** | **2,050** | **2,095** | | |
| Equity instruments | 815 | 1,495 | Present value method | Market price, Interest rates curves, Dividends and Others |
| Debt securities | 539 | 313 | Present value method | Yield curves |
| Loans and receivables | 696 | 287 | Present value method, swap asset model & CDS | Yield curves and Credit curves |
| **Financial assets designated at fair value through profit or loss** | **6,846** | **181** | | |
| Credit institutions | 459 | — | Present value method | Yield curves, FX market prices |
| Customers[C] | 6,189 | 31 | Present value method | Yield curves, FX market prices, HPI |
| Debt securities | 198 | 150 | Present value method | Yield curves, FX market prices |
| **Financial assets at fair value through other comprehensive income** | **12,688** | **5,989** | | |
| Equity instruments | 5 | 492 | Present value method | Market price, Yield curves, Dividends and Others |
| Debt securities | 9,638 | 559 | Present value method | Yield curves, FX market prices |
| Loans and receivables | 3,045 | 4,938 | Present value method | Yield curves, FX market prices and Credit curves |

EUR million

| | Fair values calculated using internal models at 2023[A] | | | |
|---|---|---|---|---|
| | Level 2 | Level 3 | Valuation techniques | Main assumptions |
| **LIABILITIES** | **166,542** | **1,227** | | |
| **Financial liabilities held for trading** | **101,103** | **869** | | |
| Central banks[B] | 7,808 | — | Present value method | FX market prices, Yield curves |
| Credit institutions[B] | 17,862 | — | Present value method | FX market prices, Yield curves |
| Customers | 19,837 | — | Present value method | FX market prices, Yield curves |
| Derivatives | 49,380 | 869 | | |
| *Swaps* | *39,395* | *388* | Present value method, Gaussian Copula[C] | Yield curves, FX market prices, Basis, Liquidity, HPI |
| *Interest rate options* | *2,207* | *139* | Black's Model, multifactorial advanced models interest rate | Yield curves, Volatility surfaces, FX market prices, Liquidity |
| *Exchange rate options* | *549* | *8* | Black-Scholes Model | Yield curves, Volatility surfaces, FX market prices, Liquidity |
| *Index and securities options* | *466* | *187* | Black-Scholes model | Yield curves, FX market prices |
| *Futures on interest rate and variable income* | *101* | — | Present value method | Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI |
| *Other* | *6,662* | *147* | Present value method, Advanced stochastic volatility models | Yield curves, Volatility surfaces, FX & EQ market prices, Dividends, Correlation, Liquidity, HPI, Credit, Others |
| Short positions | 6,216 | — | Present value method | Yield curves ,FX & EQ market prices, Equity |
| **Hedging derivatives** | **7,650** | **6** | | |
| *Swaps* | *6,866* | *6* | Present value method | Yield curves ,FX & EQ market prices, Basis |
| *Interest rate options* | *1* | — | Black's Model | Yield curves , Volatility surfaces, FX market prices and Liquidity |
| *Other* | *783* | — | 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** | **40,313** | **29** | Present value method | Yield curves, FX market prices |
| **Liabilities under insurance contracts[D]** | **17,476** | **323** | Present Value Method with actuarial techniques | Mortality tables and interest rate curves |

A. Level 2 internal models use data based on observable market parameters, while level 3 internal models use significant non-observable inputs in market data.
B. Includes mainly short-term loans/deposits and repurchase/reverse repurchase agreements with corporate customers (mainly brokerage and investment companies).
C. Includes, mainly, structured loans to corporate clients.
D. See impact of IFRS 17 at 31 December 2022 and 2021 (see Note 1.d)

EUR million

| | Fair values calculated using internal models at 2022[A] | | Fair values calculated using internal models at 2021[A] | | |
|---|---|---|---|---|---|
| | **Level 2** | **Level 3** | **Level 2** | **Level 3** | **Valuation techniques** |
| **ASSETS** | **142,832** | **8,290** | **121,640** | **7,667** | |
| **Financial assets held for trading** | **110,721** | **383** | **76,738** | **537** | |
| Central banks[B] | 11,595 | — | 3,608 | — | Present value method |
| Credit institutions[B] | 16,502 | — | 10,397 | — | Present Value method |
| Customers[B] | 9,550 | — | 6,829 | — | Present Value method |
| Debt and equity instruments | 6,537 | 43 | 2,312 | 24 | Present Value method |
| Derivatives | 66,537 | 340 | 53,592 | 513 | |
| *Swaps* | *54,367* | *139* | *43,700* | *224* | Present Value method, Gaussian Copula |
| *Exchange rate options* | *916* | *4* | *539* | *12* | Black-Scholes Model |
| *Interest rate options* | *2,681* | *39* | *2,112* | *182* | Black's Model, advanced multifactor interest rate models |
| *Interest rate futures* | *113* | — | *409* | — | Present Value method |
| *Index and securities options* | *354* | *48* | *439* | *41* | Black's Model, advanced multifactor interest rate models |
| *Other* | *8,106* | *110* | *6,393* | *54* | Present Value method, Advanced stochastic volatility models and other |
| **Hedging derivatives** | **8,069** | **—** | **4,761** | **—** | |
| *Swaps* | *6,687* | — | *4,204* | — | Present Value method |
| *Interest rate options* | *2* | — | *9* | — | Black's Model |
| *Other* | *1,380* | — | *548* | — | Present Value method, Advanced stochastic volatility models and other |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | **2,080** | **1,833** | **1,273** | **1,865** | |
| Equity instruments | 643 | 1,269 | 415 | 1,231 | Present Value method |
| Debt securities issued | 809 | 325 | 589 | 366 | Present Value method |
| Loans and receivables | 628 | 239 | 269 | 268 | Present Value method, swap asset model & CDS |
| **Financial assets designated at fair value through profit or loss** | **6,586** | **427** | **13,426** | **418** | |
| Credit institutions | 673 | — | 3,152 | — | Present Value method |
| Customers[C] | 5,769 | 5 | 10,270 | 18 | Present Value method |
| Debt securities | 144 | 422 | 4 | 400 | Present Value method |
| **Financial assets at fair value through other comprehensive income** | **15,376** | **5,647** | **25,442** | **4,847** | |
| Equity instruments | 9 | 700 | 74 | 821 | Present Value method |
| Debt securities | 11,869 | 229 | 21,585 | 146 | Present Value method |
| Loans and receivables | 3,498 | 4,718 | 3,783 | 3,880 | Present Value method |

EUR million

| | Fair values calculated using internal models at 2022[A] | | Fair values calculated using internal models at 2021[A] | | |
|---|---|---|---|---|---|
| | Level 2 | Level 3 | Level 2 | Level 3 | Valuation techniques |
| **LIABILITIES** | **163,733** | **925** | **103,807** | **629** | |
| **Financial liabilities held for trading** | **98,533** | **415** | **68,930** | **160** | |
| Central banks[B] | 5,759 | — | *1,038* | — | Present Value method |
| Credit institutions[B] | 9,796 | — | *6,488* | — | Present Value method |
| Customers | 12,226 | — | *6,141* | — | Present Value method |
| Derivatives | 64,147 | 415 | *53,234* | 160 | |
| *Swaps* | *51,191* | *235* | *42,438* | *44* | Present Value method, Gaussian Copula |
| *Interest rate options* | *3,268* | *19* | *2,720* | *26* | Black's Model, advanced multifactor interest rate models |
| *Exchange rate options* | *769* | — | *658* | *7* | Black-Scholes Model |
| *Index and securities options* | *591* | *42* | *446* | *67* | Black's Model, advanced multifactor interest rate models |
| *Interest rate and equity futures* | *807* | — | *184* | — | Present Value method |
| *Other* | *7,521* | *119* | *6,788* | *16* | Present Value method, Advanced stochastic volatility models and other |
| Short positions | 6,605 | — | *2,029* | — | Present Value method |
| **Hedging derivatives** | **9,214** | **14** | **5,463** | **—** | |
| *Swaps* | *8,142* | *14* | *4,149* | — | Present Value method |
| *Other* | *1,072* | — | *1,314* | — | Present Value method, Advanced stochastic volatility models and other |
| **Financial liabilities designated at fair value through profit or loss**[D] | **39,905** | **151** | **11,172** | **151** | Present Value method |
| **Liabilities under insurance contracts** | **16,081** | **345** | **18,242** | **318** | Present Value method with actuarial techniques |

A. Level 2 internal models use data based on observable market parameters, while level 3 internal models use significant non-observable inputs in market data.
B. Includes mainly short-term loans/deposits and repurchase/reverse repurchase with corporate customers (mainly brokerage and investment companies).
C. Includes, mainly, structured loans to corporate clients.
D. Includes, mainly, short-term deposits that are managed based on their fair value.

## b) Financial Instruments (level 3)

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

- HTC&S (Held 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 securities 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 securities, and the Black-Scholes model for derivatives), the main factors used in the valuation of these instruments are the HPI spot rate, the growth and volatility thereof, and the mortality rates, which are not always observable in the market and, accordingly, these instruments are considered illiquid.
- Callable interest rate derivatives (Bermudan-style options) where the main unobservable input is mean reversion of interest rates.
- Trading derivatives on interest rates, taking as an underlying asset titling and with the amortization rate (CPR, Conditional prepayment rate) as unobservable main entry.
- Derivatives from trading on inflation in Spain, where volatility is not observable in the market.
- Equity volatility derivatives, specifically indices and equities, where volatility is not observable in the long term.
- Derivatives on long-term interest rate and FX in some units (mainly South America) where for certain underlyings it is not possible to demonstrate observability to these terms.
- Debt instruments referenced to certain illiquid interest rates, for which there is no reasonable market observability.

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

The net amount recognised in profit and loss in 2023 arising from models whose significant inputs are unobservable market data (level 3) amounted to EUR 404 profit (EUR 90 million loss in 2022 and EUR 73 million profit in 2021, respectively).

## 1. Valuation techniques

The table below shows the effect, at 31 December 2023, 2022 and 2021 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:

**2023**

| Portfolio/Instrument | | | | | Impacts (EUR million) | |
|---|---|---|---|---|---|---|
| (Level 3) | Valuation technique | Main unobservable inputs | Range | Weighted average | Unfavourable scenario | Favourable scenario |
| **Financial assets held for trading** | | | | | | |
| **Loans and advances to customers** | | | | | | |
| Repos/Reverse repos | Other | Long-term repo spread | n.a. | n.a. | (0.08) | — |
| **Debt securities** | | | | | | |
| Corporate debt | Discounted Cash Flows | Credit spread | 0% - 10% | 5.01% | (1.90) | 1.90 |
| Government debt | Discounted Cash Flows | Discount curve | 0% - 8% | 3.99% | (7.77) | 7.72 |
| **Derivatives** | | | | | | |
| CCS | Forward estimation | Interest rate | (6)bps - 6bps | 0.40bps | (0.90) | 1.03 |
| CDS | Credit default models | Illiquid credit default spread curves | 100bps - 200bps | 149.14bps | (0.14) | 0.14 |
| EQ Options | EQ option pricing model | Volatility | 0% - 70% | 44.39% | (0.51) | 0.89 |
| EQ Options | Local volatility | Volatility | 10% - 90% | 50.00% | (1.26) | 1.26 |
| FX Options | FX option pricing model | Volatility | 0% - 40% | 20.81% | (0.55) | 0.59 |
| Inflation Derivatives | Asset Swap model | Inflation Swap Rate | 2% - 8% | 4.18% | (0.28) | 0.16 |
| IR Options | IR option pricing model | Volatility | 0.4% - 32.2% | 18.86% | (0.29) | 0.41 |
| IRS | Others | Others | 5% - n.a. | n.a. | (1.25) | — |
| IRS | Discounted Cash Flows | Credit spread | 2.6% - 8.3% | 5.60% | (1.97) | 2.18 |
| IRS | Discounted Cash Flows | Swap rate | 9.4% - 9.8% | 9.60% | (1.01) | 0.95 |
| IRS | Forward estimation | Interest rate | (5.2)bps - 5.2bps | 0.09bps | (0.03) | 0.03 |
| IRS | Prepayment modelling | Prepayment rate | 2.5% - 9.0% | 8.92% | — | 0.05 |
| Property derivatives | Option pricing model | Growth rate | (5)% - 5% | 0.00% | (3.92) | 3.92 |
| Securitisation Swap | Discounted Cash Flows | Constant prepayment rates | (22.30)% - 27.20% | 2.47% | (4.95) | 4.95 |
| Structured notes | Price based | Price | (10)% - 10% | 0.00% | (1.53) | 1.53 |
| **Financial assets designated at fair value through profit or loss** | | | | | | |
| **Loans and advances to customers** | | | | | | |
| Loans | Discounted Cash Flows | Credit spreads | 0.1% - 3% | 1.55% | (0.21) | 0.21 |
| Mortgage portfolio | Black Scholes model | Growth rate | (5)%- 5% | 0.00% | (0.23) | 0.23 |
| **Debt securities** | | | | | | |
| Other debt securities | Others | Inflation Swap Rate | 0% - 8% | 3.89% | (4.48) | 4.25 |

**2023**

| Portfolio/Instrument | | | | | Impacts (EUR million) | |
|---|---|---|---|---|---|---|
| **(Level 3)** | **Valuation technique** | **Main unobservable inputs** | **Range** | **Weighted average** | **Unfavourable scenario** | **Favourable scenario** |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | | | | | | |
| **Debt securities** | | | | | | |
| Property securities | Probability weighting | Growth rate | (5)% - 5% | 0.00% | (0.35) | 0.35 |
| **Equity instruments** | | | | | | |
| Equities | Price Based | Price | 90% - 110% | 100.00% | (149.49) | 149.49 |
| **Financial assets at fair value through other comprehensive income** | | | | | | |
| **Loans and advances to customers** | | | | | | |
| Loans | Discounted Cash Flows | Credit spread | n.a. | n.a. | (20.8) | — |
| Loans | Discounted Cash Flows | Interest rate curve | 4.6% - 9.0% | 6.80% | (0.68) | 0.68 |
| Loans | Discounted Cash Flows | Margin of a reference portfolio | (1)bp - 1bp | 0bp | (20.3) | 20.30 |
| Loans | Forward estimation | Credit spread | 167.7bps - 365.8bps | 167.74bps | (3.46) | — |
| Loans | Market price | Market price | (10)% - 20% | 0.00% | (5.02) | 2.51 |
| **Debt securities** | | | | | | |
| Corporate debt | Discounted Cash Flows | Margin of a reference portfolio | (1)% - 1% | 0.00% | (0.09) | 0.09 |
| Government debt | Discounted Cash Flows | Interest rate | 0% - 2% | 0.99% | — | — |
| **Equity instruments** | | | | | | |
| Equities | Price Based | Price | 90% - 110% | 100.00% | (49.24) | 49.24 |
| **Financial liabilities held for trading** | | | | | | |
| **Derivatives** | | | | | | |
| Cap&Floor | Volatility option model | Volatility | 10% - 90% | 39.03% | (0.45) | 0.25 |
| CMS | Discounted Cash Flows | Volatility | 10% - 90% | 47.66% | — | — |
| FX Options | Volatility option model | Volatility | 10% - 90% | 28.09% | (0.45) | 0.13 |
| IRS | Discounted Cash Flows | Inflation Swap Rate | 10% - 90% | 39.03% | (0.45) | 0.25 |
| Swaptions | Volatility option model | Volatility | 10% - 90% | 35.55% | (0.21) | 0.10 |

A. For each instrument, the valuation technique, the unobservable inputs are shown in the "Main observable inputs" column under probable scenarios, variation range, average value and impact resulting from valuing the position in the established maximum and minimum range.
B. The breakdown of impacts is shown by type of instrument and unobservable inputs.
C. The estimation of the range of variation of the unobservable inputs has been carried out taking into account plausible movements of said parameters depending on the type of instrument.
D. Zero impacts from fully hedged or back-to-back transactions have not been included in this exercise.

**2022**

| Portfolio/Instrument | | | | | Impacts (EUR million) | |
|---|---|---|---|---|---|---|
| **(Level 3)** | **Valuation technique** | **Main unobservable inputs** | **Range** | **Weighted average** | **Unfavourable scenario** | **Favourable scenario** |
| **Financial assets held for trading** | | | | | | |
| **Debt securities** | | | | | | |
| Corporate debt | Discounted Cash Flows | Credit spread | 0% - 20% | 10.07% | (1.38) | 1.40 |
| Corporate debt | Price based | Market price | 85% - 115% | 100.00% | — | — |
| Government debt | Discounted Cash Flows | Discount curve | 0% - 10% | 4.92% | (8.34) | 8.07 |
| **Derivatives** | | | | | | |
| CCS | Discounted Cash Flows | Interest rate | (0.7)% - 0.7% | 0.00% | — | — |
| CCS | Forward estimation | Interest rate | (4)bps - 4bps | 0.42bps | (0.06) | 0.07 |
| CDS | Discounted Cash flows | Credit Spread | 14.9bps - 42.1bps | 21.99bps | (0.05) | 0.02 |
| EQ Options | EQ option pricing model | Volatility | 0% - 90% | 61.30% | (0.23) | 0.48 |
| EQ Options | Local volatility | Volatility | 10% - 90% | 50.00% | (1.05) | 1.05 |
| FRAs | Asset Swap model | Interest rate | 0% - 6% | 2.71% | (1.16) | 0.95 |
| Fx Swap | Others | Others | n.a. | n.a | (1.37) | 1.37 |
| Inflation Derivatives | Asset Swap model | Inflation Swap Rate | 0% - 10% | 3.41% | (0.21) | 0.11 |
| Inflation Derivatives | Volatility option model | Volatility | 0% - 40% | 17.37% | (0.14) | 0.11 |
| IR Options | IR option pricing model | Volatility | 0% -60% | 35.82% | (0.30) | 0.44 |
| IRS | Asset Swap model | Interest rate | 0% - 15% | 9.20% | (0.05) | 0.08 |
| IRS | Discounted Cash Flows | Credit spread | 1.25% - 6.29% | 3.89% | (2.25) | 2.47 |
| IRS | Discounted Cash Flows | Swap rate | 8.6% - 9.1% | 8.84% | (0.02) | 0.03 |
| IRS | Forward estimation | Interest rate | (6)bps - 6bps | 0.13bps | (0.04) | 0.04 |
| IRS | Others | Others | 5% - n.a. | n.a | (11.58) | — |
| IRS | Prepayment modelling | Prepayment rate | 2.5% - 6.2% | 4.17% | (0.06) | 0.05 |
| Others | Forward estimation | Price | 0% -2% | 0.62% | (0.53) | 0.24 |
| Property derivatives | Option pricing model | Growth rate | (5)% - 5% | 0.00% | (5.75) | 5.75 |
| **Financial assets designated at fair value through profit or loss** | | | | | | |
| **Loans and advances to customers** | | | | | | |
| Loans | Discounted Cash Flows | Credit spreads | 0.1% - 2% | 1.05% | (0.18) | 0.18 |
| Mortgage portfolio | Black Scholes model | Growth rate | (5)% - 5% | 0.00% | (0.79) | 0.79 |
| **Debt securities** | | | | | | |
| Other debt securities | Others | Inflation Swap Rate | 0% - 10% | 4.74% | (4.25) | 3.83 |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | | | | | | |
| **Debt securities** | | | | | | |
| Corporate debt | Discounted Cash Flows | Margin of a reference portfolio | (1)bp - 1bp | 0.01pbs | (0.33) | 0.33 |
| Property securities | Probability weighting | Growth rate | (5)% - 5% | 0.00% | (0.68) | 0.68 |
| **Equity instruments** | | | | | | |
| Equities | Price Based | Price | 90% - 110% | 100.00% | (126.87) | 126.87 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Financial assets at fair value through other comprehensive income** | | | | | | |
| **Loans and advances to customers** | | | | | | |
| Loans | Discounted Cash Flows | Credit spread | n.a. | n.a | (24.10) | — |
| Loans | Discounted Cash Flows | Interest rate curve | 0.8% - 1.0% | 0.88% | (0.08) | 0.08 |
| Loans | Discounted Cash Flows | Margin of a reference portfolio | (1)bp - 1bp | 0bp | (17.51) | 17.51 |
| Loans | Forward estimation | Credit spread | 2.56% - 3.4% | 2.56% | (0.49) | — |
| **Debt securities** | | | | | | |
| Government debt | Discounted Cash Flows | Interest rate | (0.4)% - 1.6% | 0.63% | (0.01) | 0.01 |
| **Equity instruments** | | | | | | |
| Equities | Price Based | Price | 90% - 110% | 100.00% | (70.04) | 70.04 |
| **Financial liabilities held for trading** | | | | | | |
| **Derivatives** | | | | | | |
| Cap&Floor | Volatility option model | Volatility | 10% - 90% | 40.73% | (0.29) | 0.18 |
| **Financial liabilities designated at fair value through profit or loss** | | | | | | |
| **Loans and advances to customers** | | | | | | |
| Repos/Reverse repos | Others | Long-term repo spread | n.a. | n.a. | (0.13) | — |

A. For each instrument, the valuation technique, the unobservable inputs are shown in the "Main observable inputs" column under probable scenarios, variation range, average value and impact resulting from valuing the position in the established maximum and minimum range.

B. The breakdown of impacts is shown by type of instrument and unobservable inputs.

C. The estimation of the range of variation of the unobservable inputs has been carried out taking into account plausible movements of said parameters depending on the type of instrument.

D. Zero impacts from fully hedged or back-to-back transactions have not been included in this exercise.

**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** | | | | | | |
| CCS | Discounted Cash Flows | Interest rate | (0.7)% - 0.7% | 0.73% | (0.11) | 0.11 |
| CCS | Forward estimation | Interest rate | (4)bps - 4bps | (0.09)bps | (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 | 1.03% - 3.75% | 2.02% | (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% | 100% | — | — |
| **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 |
| **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 | 1bp | (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% | 100.00% | (123.10) | 123.10 |

**2021**

| 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. | (19.84) | — |
| Loans | Discounted Cash Flows | Interest rate curve | (0.1)% - 1.0% | 0.12% | (0.07) | 0.07 |
| Loans | Discounted Cash Flows | Margin of a reference portfolio | (1)bp - 1bp | 1bp | (13.12) | 13.04 |
| Loans | Forward estimation | Credit spread | 0.77% - 2.42% | 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% | 100.00% | (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) | — |

A. For each instrument, the valuation technique, the unobservable inputs are shown in the "Main observable inputs" column under probable scenarios, variation range, average value and impact resulting from valuing the position in the established maximum and minimum range.

B. The breakdown of impacts is shown by type of instrument and unobservable inputs.

C. The estimation of the range of variation of the unobservable inputs has been carried out taking into account plausible movements of said parameters depending on the type of instrument.

D. Zero impacts from fully hedged or back-to-back transactions have not been included in this exercise.

## 2. Movement of financial instruments classified as Level 3

Lastly, the changes in the financial instruments classified as Level 3 in 2023, 2022 and 2021 were as follows:

| | 01/01/2023 | Changes | | | | | | 31/12/2023 |
|---|---|---|---|---|---|---|---|---|
| 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** | **383** | **496** | **(149)** | **194** | **—** | **1,162** | **—** | **2,086** |
| Customers | — | 23 | — | 1 | — | — | — | 24 |
| Debt securities | 42 | 126 | (63) | 30 | — | 773 | 6 | 914 |
| Equity instruments | 1 | — | — | — | — | — | — | 1 |
| Trading derivatives | 340 | 347 | (86) | 163 | — | 389 | (6) | 1,147 |
| *Swaps* | *139* | *90* | *(4)* | *179* | — | *191* | *(18)* | *577* |
| *Exchange rate options* | *4* | *1* | — | *4* | — | — | — | *9* |
| *Interest rate options* | *39* | — | — | *2* | — | *112* | — | *153* |
| *Index and securities options* | *48* | *132* | *(4)* | *(20)* | — | *76* | *3* | *235* |
| *Other* | *110* | *124* | *(78)* | *(2)* | — | *10* | *9* | *173* |
| **Financial assets at fair value through profit or loss** | **427** | **51** | **—** | **(21)** | **—** | **22** | **(298)** | **181** |
| Loans and advances to customers | 5 | — | — | 4 | — | 22 | — | 31 |
| Debt securities | 422 | 51 | — | (25) | — | — | (298) | 150 |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | **1,833** | **345** | **(238)** | **107** | **—** | **(6)** | **54** | **2,095** |
| Customers | 239 | 99 | (73) | 13 | — | — | 9 | 287 |
| Debt instruments | 325 | 38 | (48) | (5) | — | — | 3 | 313 |
| Equity instruments | 1,269 | 208 | (117) | 99 | — | (6) | 42 | 1,495 |
| **Financial assets at fair value through other comprehensive income** | **5,647** | **3,322** | **(3,411)** | **—** | **(204)** | **231** | **404** | **5,989** |
| Loans and advances | 4,718 | 3,322 | (3,408) | — | 36 | 160 | 110 | 4,938 |
| Debt securities | 229 | — | — | — | 5 | 71 | 254 | 559 |
| Equity instruments | 700 | — | (3) | — | (245) | — | 40 | 492 |
| **TOTAL ASSETS** | **8,290** | **4,214** | **(3,798)** | **280** | **(204)** | **1,409** | **160** | **10,351** |
| **Financial liabilities held for trading** | **415** | **276** | **(167)** | **(118)** | **—** | **476** | **(13)** | **869** |
| Trading derivatives | 415 | 276 | (167) | (118) | — | 476 | (13) | 869 |
| *Swaps* | *235* | *53* | *(83)* | *(58)* | — | *257* | *(16)* | *388* |
| *Exchange rate options* | — | *6* | — | *2* | — | — | — | *8* |
| *Interest rate options* | *19* | *4* | *(5)* | *(16)* | — | *137* | — | *139* |
| *Index and securities options* | *42* | *88* | *(13)* | *(15)* | — | *82* | *3* | *187* |
| *Others* | *119* | *125* | *(66)* | *(31)* | — | — | — | *147* |
| **Hedging derivatives (Liabilities)** | **14** | **—** | **—** | **(3)** | **—** | **(5)** | **—** | **6** |
| *Swaps* | *14* | — | — | *(3)* | — | *(5)* | — | *6* |
| **Financial liabilities designated at fair value through profit or loss** | **151** | **32** | **(151)** | **(3)** | **—** | **—** | **—** | **29** |
| **Liabilities under insurance contracts** | **345** | **—** | **—** | **—** | **(40)** | **—** | **18** | **323** |
| **TOTAL LIABILITIES** | **925** | **308** | **(318)** | **(124)** | **(40)** | **471** | **5** | **1,227** |

| | 01/01/2022 | Changes | | | | | | 31/12/2022 |
|---|---|---|---|---|---|---|---|---|
| EUR million | Fair value calculated using internal models (level 3) | Purchases /Issuances | Sales/ Settlements | Changes in fair value recognized in profit or loss | Changes in fair value recognized in equity | Level reclassifications | Other | Fair value calculated using internal models (level 3) |
| **Financial assets held for trading** | **537** | **91** | **(99)** | **(116)** | **—** | **(15)** | **(15)** | **383** |
| Debt securities | 22 | 2 | (2) | 15 | — | 2 | 3 | 42 |
| Equity instruments | 2 | — | — | — | — | (1) | — | 1 |
| Trading derivatives | 513 | 89 | (97) | (131) | — | (16) | (18) | 340 |
| *Swaps* | *224* | *1* | *(47)* | *(20)* | — | *4* | *(23)* | *139* |
| *Exchange rate options* | *12* | — | *(9)* | *2* | — | — | *(1)* | *4* |
| *Interest rate options* | *182* | — | — | *(142)* | — | *(1)* | — | *39* |
| *Index and securities options* | *41* | *27* | *(28)* | *29* | — | *(26)* | *5* | *48* |
| *Other* | *54* | *61* | *(13)* | — | — | *7* | *1* | *110* |
| **Financial assets at fair value through profit or loss** | **418** | **—** | **(9)** | **(31)** | **—** | **—** | **49** | **427** |
| Loans and advances to customers | 18 | — | (9) | (5) | — | — | 1 | 5 |
| Debt securities | 400 | — | — | (26) | — | — | 48 | 422 |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | **1,865** | **521** | **(579)** | **98** | **—** | **(22)** | **(50)** | **1,833** |
| Customers | 268 | 276 | (280) | (25) | — | — | — | 239 |
| Debt securities | 366 | 51 | (33) | (31) | — | (27) | (1) | 325 |
| Equity instruments | 1,231 | 194 | (266) | 154 | — | 5 | (49) | 1,269 |
| **Financial assets at fair value through other comprehensive income** | **4,847** | **8,564** | **(8,029)** | **—** | **(172)** | **417** | **20** | **5,647** |
| Loans and advances | 3,880 | 8,471 | (7,988) | — | 1 | 349 | 5 | 4,718 |
| Debt securities | 146 | 91 | (23) | — | — | — | 15 | 229 |
| Equity instruments | 821 | 2 | (18) | — | (173) | 68 | — | 700 |
| **TOTAL ASSETS** | **7,667** | **9,176** | **(8,716)** | **(49)** | **(172)** | **380** | **4** | **8,290** |
| **Financial liabilities held for trading** | **160** | **328** | **(97)** | **35** | **—** | **(2)** | **(9)** | **415** |
| Trading derivatives | 160 | 328 | (97) | 35 | — | (2) | (9) | 415 |
| *Swaps* | *44* | *32* | *(16)* | *189* | — | *9* | *(23)* | *235* |
| *Exchange rate options* | *7* | *6* | *(14)* | *1* | — | — | — | — |
| *Interest rate options* | *26* | *56* | *(44)* | *(19)* | — | — | — | *19* |
| *Index and securities options* | *67* | *23* | *(19)* | *(32)* | — | *(11)* | *14* | *42* |
| *Others* | *16* | *211* | *(4)* | *(104)* | — | — | — | *119* |
| **Hedging derivatives (Liabilities)** | **—** | **—** | **—** | **14** | **—** | **—** | **—** | **14** |
| Swaps | — | — | — | 14 | — | — | — | 14 |
| **Financial liabilities designated at fair value through profit or loss** | **151** | **0** | **(3)** | **3** | **—** | **0** | **0** | **151** |
| **Liabilities under insurance contracts** | **318** | **0** | **0** | **(11)** | **—** | **0** | **38** | **345** |
| **TOTAL LIABILITIES** | **629** | **328** | **(100)** | **41** | **—** | **(2)** | **29** | **925** |

| 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** | **740** | **136** | **(124)** | **(181)** | **—** | **(15)** | **(19)** | **537** |
| Debt securities | 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 securities | 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** |
| Loans and advances to customers | 295 | 122 | (149) | — | — | (3) | 3 | 268 |
| Debt securities | 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 securities | 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** | **301** | **143** | **—** | **(6)** | **—** | **(289)** | **2** | **151** |
| **Liabilities under insurance contracts** | **309** | **—** | **—** | **6** | **—** | **—** | **3** | **318** |
| **TOTAL LIABILITIES** | **905** | **228** | **(42)** | **(138)** | **—** | **(310)** | **(14)** | **629** |

# 51. Other disclosures

## a) Residual maturity periods

The detail, by maturity, of the balances of certain items in the consolidated balance sheet at 31 December 2023, 2022 and 2021 is presented below:

| | 31 December 2023 | | | | | | |
|---|---|---|---|---|---|---|---|
| | EUR million | | | | | | |
| | On demand | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **Assets** | | | | | | | |
| Cash, cash balances at Central Banks and other deposits on demand | 220,342 | — | — | — | — | — | 220,342 |
| Financial assets at fair value through other comprehensive income | — | 13,544 | 9,234 | 19,372 | 14,162 | 25,235 | 81,547 |
| Debt securities | — | 13,078 | 8,433 | 18,432 | 12,764 | 20,858 | 73,565 |
| Loans and advances | — | 466 | 801 | 940 | 1,398 | 4,377 | 7,982 |
| Customers | — | 466 | 801 | 940 | 1,085 | 4,377 | 7,669 |
| Financial assets at amortized cost | 40,687 | 202,066 | 171,494 | 232,190 | 158,556 | 386,410 | 1,191,403 |
| Debt securities | — | 12,281 | 14,114 | 18,608 | 11,281 | 47,275 | 103,559 |
| Loans and advances | 40,687 | 189,785 | 157,380 | 213,582 | 147,275 | 339,135 | 1,087,844 |
| Central banks | — | 18,730 | — | — | — | 1,352 | 20,082 |
| Credits institutions | 6,783 | 26,671 | 6,313 | 7,151 | 1,521 | 9,478 | 57,917 |
| Customers | 33,904 | 144,384 | 151,067 | 206,431 | 145,754 | 328,305 | 1,009,845 |
| | **261,029** | **215,610** | **180,728** | **251,562** | **172,718** | **411,645** | **1,493,292** |
| **Liabilities** | | | | | | | |
| Financial liabilities at amortized cost | 711,093 | 246,898 | 182,516 | 161,784 | 88,527 | 77,885 | 1,468,703 |
| Deposits | 697,339 | 210,538 | 118,035 | 61,332 | 22,161 | 15,903 | 1,125,308 |
| Central banks | 168 | 20,224 | 6,941 | 16,846 | 4,581 | 22 | 48,782 |
| Credit institutions | 6,572 | 25,990 | 21,390 | 13,434 | 5,963 | 7,897 | 81,246 |
| Customer deposits | 690,599 | 164,324 | 89,704 | 31,052 | 11,617 | 7,984 | 995,280 |
| Marketable debt securities[A] | — | 28,371 | 63,440 | 92,554 | 57,639 | 61,204 | 303,208 |
| Other financial liabilities | 13,754 | 7,989 | 1,041 | 7,898 | 8,727 | 778 | 40,187 |
| | **711,093** | **246,898** | **182,516** | **161,784** | **88,527** | **77,885** | **1,468,703** |
| **Difference (assets less liabilities)** | **(450,064)** | **(31,288)** | **(1,788)** | **89,778** | **84,191** | **333,760** | **24,589** |

A. Includes promissory notes, certificates of deposit and other short-term debt issues.
See breakdown by type of debt (subordinated debt, senior unsecured debt, senior secured debt, notes and other securities) (see note 22).

| | 31 December 2022 | | | | | | |
|---|---|---|---|---|---|---|---|
| | EUR million | | | | | | |
| | On demand | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **Assets** | | | | | | | |
| Cash, cash balances at Central Banks and other deposits on demand | 223,073 | — | — | — | — | — | 223,073 |
| Financial assets at fair value through other comprehensive income | — | 19,215 | 5,425 | 15,377 | 17,693 | 25,588 | 83,298 |
| Debt securities | — | 19,011 | 4,528 | 13,884 | 16,631 | 21,029 | 75,083 |
| Loans and advances | — | 204 | 897 | 1,493 | 1,062 | 4,559 | 8,215 |
| Customers | — | 204 | 897 | 1,493 | 1,062 | 4,559 | 8,215 |
| Financial assets at amortized cost | 45,322 | 194,757 | 137,632 | 196,939 | 135,156 | 437,238 | 1,147,044 |
| Debt securities | — | 7,956 | 7,417 | 21,459 | 6,715 | 30,007 | 73,554 |
| Loans and advances | 45,322 | 186,801 | 130,215 | 175,480 | 128,441 | 407,231 | 1,073,490 |
| Central banks | — | 14,139 | — | — | — | 1,236 | 15,375 |
| Credits institutions | 7,565 | 22,578 | 2,756 | 3,580 | 139 | 9,900 | 46,518 |
| Customers | 37,757 | 150,084 | 127,459 | 171,900 | 128,302 | 396,095 | 1,011,597 |
| | **268,395** | **213,972** | **143,057** | **212,316** | **152,849** | **462,826** | **1,453,415** |
| **Liabilities** | | | | | | | |
| Financial liabilities at amortized cost | 731,837 | 236,565 | 144,666 | 168,984 | 81,808 | 59,998 | 1,423,858 |
| Deposits | 718,366 | 193,092 | 96,667 | 82,663 | 19,343 | 1,756 | 1,111,887 |
| Central banks | 117 | 6,991 | 18,311 | 47,018 | 4,506 | 9 | 76,952 |
| Credit institutions | 7,172 | 30,557 | 15,901 | 9,670 | 3,925 | 1,357 | 68,582 |
| Customer deposits | 711,077 | 155,544 | 62,455 | 25,975 | 10,912 | 390 | 966,353 |
| Marketable debt securities[A] | — | 34,408 | 46,480 | 81,051 | 55,359 | 57,614 | 274,912 |
| Other financial liabilities | 13,471 | 9,065 | 1,519 | 5,270 | 7,106 | 628 | 37,059 |
| | **731,837** | **236,565** | **144,666** | **168,984** | **81,808** | **59,998** | **1,423,858** |
| **Difference (assets less liabilities)** | **(463,442)** | **(22,593)** | **(1,609)** | **43,332** | **71,041** | **402,828** | **29,557** |

A. Includes promissory notes, certificates of deposit and other short-term debt issues.

| | 31 December 2021 | | | | | | |
|---|---|---|---|---|---|---|---|
| | EUR million | | | | | | |
| | On demand | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **Assets** | | | | | | | |
| Cash, cash balances at Central Banks and other deposits on demand | 210,689 | — | — | — | — | — | 210,689 |
| Financial assets at fair value through other comprehensive income | — | 19,885 | 10,447 | 20,001 | 17,745 | 37,507 | 105,585 |
| Debt securities | — | 19,598 | 9,609 | 19,133 | 16,494 | 33,088 | 97,922 |
| Loans and advances | — | 287 | 838 | 868 | 1,251 | 4,419 | 7,663 |
| Customers | — | 287 | 838 | 868 | 1,251 | 4,419 | 7,663 |
| Financial assets at amortized cost | 35,520 | 161,837 | 121,272 | 154,345 | 130,456 | 434,468 | 1,037,898 |
| Debt securities | — | 4,212 | 4,171 | 2,205 | 15,388 | 9,732 | 35,708 |
| Loans and advances | 35,520 | 157,625 | 117,101 | 152,140 | 115,068 | 424,736 | 1,002,190 |
| Central banks | — | 14,544 | — | — | — | 1,113 | 15,657 |
| Credit institutions | 11,849 | 20,802 | 4,542 | 93 | 150 | 1,733 | 39,169 |
| Customers | 23,671 | 122,279 | 112,559 | 152,047 | 114,918 | 421,890 | 947,364 |
| | **246,209** | **181,722** | **131,719** | **174,346** | **148,201** | **471,975** | **1,354,172** |
| **Liabilities** | | | | | | | |
| Financial liabilities at amortized cost | 718,435 | 169,013 | 99,223 | 194,879 | 98,210 | 69,409 | 1,349,169 |
| Deposits | 711,377 | 126,956 | 64,096 | 117,585 | 52,658 | 5,915 | 1,078,587 |
| Central banks | 92 | 5,861 | 2,130 | 91,651 | 40,013 | 10 | 139,757 |
| Credit institutions | 12,854 | 16,208 | 12,507 | 4,712 | 1,981 | 3,973 | 52,235 |
| Customer deposits | 698,431 | 104,887 | 49,459 | 21,222 | 10,664 | 1,932 | 886,595 |
| Marketable debt securities[A] | — | 31,550 | 29,798 | 71,333 | 45,198 | 62,830 | 240,709 |
| Other financial liabilities | 7,058 | 10,507 | 5,329 | 5,961 | 354 | 664 | 29,873 |
| | **718,435** | **169,013** | **99,223** | **194,879** | **98,210** | **69,409** | **1,349,169** |
| **Difference (assets less liabilities)** | **(472,226)** | **12,709** | **32,496** | **(20,533)** | **49,991** | **402,566** | **5,003** |

A. Includes promissory notes, certificates of deposit and other short-term debt issues.

The detail of the remaining contractual maturities of the existing financial liabilities at amortised cost at 31 December 2023, 2022 and 2021 is as follows:

| | 31 December 2023 | | | | | | |
|---|---|---|---|---|---|---|---|
| | EUR million | | | | | | |
| | **On demand** | **Within 3 months** | **3 to 12 months** | **1 to 3 years** | **3 to 5 years** | **More than 5 years** | **Total** |
| Financial liabilities at amortized cost | | | | | | | |
| Deposits | 698,595 | 204,001 | 109,311 | 51,191 | 20,761 | 15,585 | 1,099,444 |
| Central banks | 168 | 20,334 | 6,853 | 16,846 | 4,581 | 35 | 48,817 |
| Credit institutions | 6,884 | 25,642 | 21,334 | 13,079 | 5,924 | 7,685 | 80,548 |
| Customer | 691,543 | 158,025 | 81,124 | 21,266 | 10,256 | 7,865 | 970,079 |
| Marketable debt securities | — | 28,258 | 62,935 | 91,492 | 56,944 | 60,166 | 299,795 |
| Other financial liabilities | 13,666 | 8,078 | 1,041 | 7,898 | 8,727 | 777 | 40,187 |
| | **712,261** | **240,337** | **173,287** | **150,581** | **86,432** | **76,528** | **1,439,426** |

| | 31 December 2022 | | | | | | |
|---|---|---|---|---|---|---|---|
| | EUR million | | | | | | |
| | **On demand** | **Within 3 months** | **3 to 12 months** | **1 to 3 years** | **3 to 5 years** | **More than 5 years** | **Total** |
| Financial liabilities at amortized cost | | | | | | | |
| Deposits | 718,366 | 192,609 | 96,482 | 82,618 | 19,354 | 1,595 | 1,111,024 |
| Central banks | 117 | 7,003 | 18,210 | 46,933 | 4,506 | 9 | 76,778 |
| Credit institutions | 7,172 | 30,548 | 15,808 | 9,722 | 3,924 | 1,190 | 68,364 |
| Customer | 711,077 | 155,058 | 62,464 | 25,963 | 10,924 | 396 | 965,882 |
| Marketable debt securities | — | 34,312 | 46,396 | 81,059 | 55,357 | 57,576 | 274,700 |
| Other financial liabilities | 13,471 | 9,065 | 1,519 | 5,270 | 7,106 | 626 | 37,057 |
| | **731,837** | **235,986** | **144,397** | **168,947** | **81,817** | **59,797** | **1,422,781** |

.

| | 31 December 2021 | | | | | | |
|---|---|---|---|---|---|---|---|
| | EUR million | | | | | | |
| | **On demand** | **Within 3 months** | **3 to 12 months** | **1 to 3 years** | **3 to 5 years** | **More than 5 years** | **Total** |
| Financial liabilities at amortized cost | | | | | | | |
| Deposits | 705,129 | 120,654 | 62,896 | 116,343 | 52,031 | 5,884 | 1,062,937 |
| Central banks | 83 | 5,862 | 2,131 | 91,327 | 39,579 | 10 | 138,992 |
| Credit institutions | 12,683 | 16,184 | 11,867 | 4,504 | 1,945 | 3,950 | 51,133 |
| Customer | 692,363 | 98,608 | 48,898 | 20,512 | 10,507 | 1,924 | 872,812 |
| Marketable debt securities | — | 32,575 | 30,618 | 73,131 | 46,367 | 64,318 | 247,009 |
| Other financial liabilities | 7,059 | 10,507 | 5,329 | 5,961 | 354 | 663 | 29,873 |
| | **712,188** | **163,736** | **98,843** | **195,435** | **98,752** | **70,865** | **1,339,819** |

Below is a breakdown of contractual maturities for the rest of financial assets and liabilities as of 31 December 2023, 2022 and 2021:

| | 31 December 2023 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **FINANCIAL ASSETS** | | | | | | |
| **Financial assets held for trading** | **36,120** | **49,668** | **30,602** | **17,912** | **42,619** | **176,921** |
| Derivatives | 8,777 | 10,551 | 17,775 | 9,532 | 9,693 | 56,328 |
| Equity instruments | — | — | — | — | 15,057 | 15,057 |
| Debt securities | 7,598 | 18,315 | 10,274 | 8,137 | 17,800 | 62,124 |
| Loans and advances | 19,745 | 20,802 | 2,553 | 243 | 69 | 43,412 |
| Central banks | 1,146 | 16,571 | — | — | — | 17,717 |
| Credits institutions | 10,861 | 2,076 | 1,079 | 45 | — | 14,061 |
| Customers | 7,738 | 2,155 | 1,474 | 198 | 69 | 11,634 |
| **Financial assets designated at fair value through profit or loss** | **1,657** | **557** | **2,529** | **1,350** | **3,680** | **9,773** |
| Debt securities | 252 | 77 | 1,269 | 690 | 807 | 3,095 |
| Loans and advances | 1,405 | 480 | 1,260 | 660 | 2,873 | 6,678 |
| Credit institutions | 26 | 22 | 3 | 15 | 393 | 459 |
| Customers | 1,379 | 458 | 1,257 | 645 | 2,480 | 6,219 |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | **591** | **153** | **71** | **80** | **5,015** | **5,910** |
| Equity instruments | — | — | — | — | 4,068 | 4,068 |
| Debt securities | 41 | — | 57 | 3 | 759 | 860 |
| Loans and advances | 550 | 153 | 14 | 77 | 188 | 982 |
| Customers | 550 | 153 | 14 | 77 | 188 | 982 |
| **Financial assets at fair value through other comprehensive income** | **—** | **—** | **—** | **—** | **1,761** | **1,761** |
| Equity instruments | — | — | — | — | 1,761 | 1,761 |
| **Hedging derivatives** | **1,188** | **412** | **1,535** | **937** | **1,225** | **5,297** |
| **Changes in the fair value of hedged items in portfolio hedges of interest rate risk** | **(237)** | **(225)** | **156** | **(402)** | **(80)** | **(788)** |
| **TOTAL FINANCIAL ASSETS** | **39,319** | **50,565** | **34,893** | **19,877** | **54,220** | **198,874** |

| | 31 December 2023 EUR million | | | | | |
|---|---|---|---|---|---|---|
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **FINANCIAL LIABILITIES** | | | | | | |
| **Financial liabilities held for trading** | **73,257** | **12,127** | **19,180** | **10,591** | **7,115** | **122,270** |
| Derivatives | 8,147 | 9,486 | 17,990 | 10,060 | 4,906 | 50,589 |
| Shorts positions | 21,381 | 1,288 | 765 | 531 | 2,209 | 26,174 |
| Deposits | 43,729 | 1,353 | 425 | — | — | 45,507 |
| Central banks | 7,808 | — | — | — | — | 7,808 |
| Credits institutions | 17,228 | 209 | 425 | — | — | 17,862 |
| Customers | 18,693 | 1,144 | — | — | — | 19,837 |
| **Financial liabilities designated at fair value through profit or loss** | **23,190** | **7,583** | **4,863** | **1,359** | **3,372** | **40,367** |
| Deposits | 22,688 | 6,459 | 3,223 | 338 | 2,288 | 34,996 |
| Central banks | 1,158 | 51 | — | — | — | 1,209 |
| Credits institutions | 1,161 | 57 | 84 | 61 | 372 | 1,735 |
| Customers | 20,369 | 6,351 | 3,139 | 277 | 1,916 | 32,052 |
| Marketable debt securities[A] | 502 | 1,124 | 1,640 | 1,021 | 1,084 | 5,371 |
| **Hedging derivatives** | **1,525** | **2,064** | **1,577** | **878** | **1,612** | **7,656** |
| Changes in the fair value of hedged items in portfolio hedges of interest rate risk | (1) | (4) | 36 | (5) | 29 | 55 |
| **TOTAL FINANCIAL LIABILITIES** | **97,971** | **21,770** | **25,656** | **12,823** | **12,128** | **170,348** |

A. Includes promissory notes, certificates of deposit and other short-term debt issues (see note 22).

| | 31 December 2023 EUR million | | | | | |
|---|---|---|---|---|---|---|
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **Memorandum items** | | | | | | |
| Loans commitment granted | 125,083 | 31,658 | 55,344 | 47,204 | 20,300 | 279,589 |
| Financial guarantees granted | 7,870 | 4,734 | 1,654 | 686 | 491 | 15,435 |
| Other commitments granted | 81,146 | 17,448 | 9,699 | 3,386 | 1,594 | 113,273 |
| **MEMORANDUM ITEMS** | **214,099** | **53,840** | **66,697** | **51,276** | **22,385** | **408,297** |

In the Group's experience, no outflows of cash or other financial assets take place prior to the contractual maturity date that might affect the information broken down above.

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **FINANCIAL ASSETS** | | | | | | |
| **Financial assets held for trading** | **44,770** | **27,562** | **29,753** | **20,177** | **33,856** | **156,118** |
| Derivatives | 7,631 | 9,983 | 23,156 | 15,533 | 10,699 | 67,002 |
| Equity instruments | — | — | — | — | 10,066 | 10,066 |
| Debt securities | 5,160 | 13,357 | 5,667 | 4,193 | 13,026 | 41,403 |
| Loans and advances | 31,979 | 4,222 | 930 | 451 | 65 | 37,647 |
| Central banks | 11,595 | — | — | — | — | 11,595 |
| Credits institutions | 13,650 | 2,852 | — | — | — | 16,502 |
| Customers | 6,734 | 1,370 | 930 | 451 | 65 | 9,550 |
| **Financial assets designated at fair value through profit or loss** | **236** | **756** | **2,732** | **1,691** | **3,574** | **8,989** |
| Debt securities | 68 | 77 | 1,026 | 599 | 772 | 2,542 |
| Loans and advances | 168 | 679 | 1,706 | 1,092 | 2,802 | 6,447 |
| Central banks | — | — | — | — | — | — |
| Credit institutions | 6 | 181 | 23 | 4 | 459 | 673 |
| Customers | 162 | 498 | 1,683 | 1,088 | 2,343 | 5,774 |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | **164** | **214** | **265** | **70** | **5,000** | **5,713** |
| Equity instruments | — | — | — | — | 3,711 | 3,711 |
| Debt instruments | 6 | 52 | 52 | — | 1,024 | 1,134 |
| Loans and advances | 158 | 162 | 213 | 70 | 265 | 868 |
| Central banks | — | — | — | — | — | — |
| Credits institutions | — | — | — | — | — | — |
| Customers | 158 | 162 | 213 | 70 | 265 | 868 |
| **Financial assets at fair value through other comprehensive income** | **—** | **—** | **—** | **—** | **1,941** | **1,941** |
| Equity instruments | — | — | — | — | 1,941 | 1,941 |
| **Hedging derivatives** | **2,200** | **1,076** | **1,356** | **1,451** | **1,986** | **8,069** |
| **Changes in the fair value of hedged items in portfolio hedges of interest rate risk** | **(734)** | **(498)** | **(1,178)** | **(1,036)** | **(303)** | **(3,749)** |
| **TOTAL FINANCIAL ASSETS** | **46,636** | **29,110** | **32,928** | **22,353** | **46,054** | **177,081** |

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **FINANCIAL LIABILITIES** | | | | | | |
| **Financial liabilities held for trading** | **51,621** | **12,012** | **23,669** | **18,273** | **9,610** | **115,185** |
| Derivatives | 7,749 | 9,671 | 22,479 | 16,955 | 8,037 | 64,891 |
| Shorts positions | 17,952 | 888 | 1,031 | 1,071 | 1,573 | 22,515 |
| Deposits | 25,920 | 1,453 | 159 | 247 | — | 27,779 |
| Central banks | 5,757 | — | — | — | — | 5,757 |
| Credits institutions | 7,963 | 1,435 | 151 | 247 | — | 9,796 |
| Customers | 12,200 | 18 | 8 | — | — | 12,226 |
| Marketable debt securities | — | — | — | — | — | — |
| Other financial liabilities | — | — | — | — | — | — |
| **Financial liabilities designated at fair value through profit or loss** | **25,180** | **3,984** | **4,389** | **1,796** | **4,918** | **40,268** |
| Deposits | 25,017 | 3,183 | 3,278 | 699 | 2,663 | 34,841 |
| Central banks | 1,702 | 38 | — | — | — | 1,740 |
| Credits institutions | 1,284 | 129 | 54 | 87 | 404 | 1,958 |
| Customers | 22,031 | 3,016 | 3,224 | 612 | 2,259 | 31,143 |
| Marketable debt securities[A] | 163 | 801 | 1,111 | 1,097 | 2,255 | 5,427 |
| **Hedging derivatives** | **947** | **1,469** | **3,650** | **1,159** | **2,003** | **9,228** |
| Changes in the fair value of hedged items in portfolio hedges of interest rate risk | 11 | (52) | (140) | 20 | 44 | (117) |
| **TOTAL FINANCIAL LIABILITIES** | **77,759** | **17,413** | **31,568** | **21,248** | **16,575** | **164,564** |

A. Includes promissory notes, certificates of deposit and other short-term debt issues (see note 22).

| | 31 December 2022 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **Memorandum items** | | | | | | |
| Loans commitment granted | 120,962 | 32,538 | 50,875 | 54,033 | 15,667 | 274,075 |
| Financial guarantees granted | 7,023 | 3,586 | 1,427 | 441 | 379 | 12,856 |
| Other commitments granted | 66,716 | 16,152 | 7,119 | 1,517 | 1,168 | 92,672 |
| **MEMORANDUM ITEMS** | **194,701** | **52,276** | **59,421** | **55,991** | **17,214** | **379,603** |

| | 31 December 2021 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **FINANCIAL ASSETS** | | | | | | |
| **Financial assets held for trading** | **21,887** | **20,627** | **20,047** | **15,105** | **39,287** | **116,953** |
| Derivatives | 4,943 | 7,426 | 12,285 | 11,980 | 17,658 | 54,292 |
| Equity instruments | — | — | — | — | 15,077 | 15,077 |
| Debt securities | 2,978 | 8,585 | 5,766 | 2,869 | 6,552 | 26,750 |
| Loans and advances | 13,966 | 4,616 | 1,996 | 256 | — | 20,834 |
| Central banks | 3,608 | — | — | — | — | 3,608 |
| Credits institutions | 5,607 | 3,982 | 808 | — | — | 10,397 |
| Customers | 4,751 | 634 | 1,188 | 256 | — | 6,829 |
| **Financial assets designated at fair value through profit or loss** | **2,451** | **2,928** | **3,686** | **2,334** | **4,558** | **15,957** |
| Debt securities | 64 | 142 | 699 | 700 | 911 | 2,516 |
| Loans and advances | 2,387 | 2,786 | 2,987 | 1,634 | 3,647 | 13,441 |
| Credit institutions | 1,138 | 1,476 | 205 | 10 | 323 | 3,152 |
| Customers | 1,249 | 1,310 | 2,782 | 1,624 | 3,324 | 10,289 |
| **Non-trading financial assets mandatorily at fair value through profit or loss** | **116** | 49 | 127 | 67 | **5,177** | **5,536** |
| Equity instruments | — | | | | 4,042 | 4,042 |
| Debt instruments | 4 | 40 | 4 | 6 | 903 | 957 |
| Loans and advances | 112 | 9 | 123 | 61 | 232 | 537 |
| Customers | 112 | 9 | 123 | 61 | 232 | 537 |
| **Financial assets at fair value through other comprehensive income** | **—** | **—** | **—** | **—** | **2,453** | **2,453** |
| Equity instruments | — | — | — | — | 2,453 | 2,453 |
| **Hedging derivatives** | **368** | **857** | **748** | **1,270** | **1,518** | **4,761** |
| **Changes in the fair value of hedged items in portfolio hedges of interest rate risk** | **429** | **(11)** | **(304)** | **19** | **277** | **410** |
| **TOTAL FINANCIAL ASSETS** | **25,251** | **24,450** | **24,304** | **18,795** | **53,270** | **146,070** |

| | 31 December 2021 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **FINANCIAL LIABILITIES** | | | | | | |
| **Financial liabilities held for trading** | **26,142** | **9,234** | **15,709** | **12,750** | **15,634** | **79,469** |
| Derivatives | 4,485 | 7,583 | 14,868 | 11,912 | 14,718 | 53,566 |
| Shorts positions | 8,559 | 1,290 | 728 | 743 | 916 | 12,236 |
| Deposits | 13,098 | 361 | 113 | 95 | — | 13,667 |
| Central banks | 1,038 | — | — | — | — | 1,038 |
| Credits institutions | 5,919 | 361 | 113 | 95 | — | 6,488 |
| Customers | 6,141 | — | — | — | — | 6,141 |
| **Financial liabilities designated at fair value through profit or loss** | **4,809** | **1,187** | **2,621** | **1,085** | **5,241** | **14,943** |
| Deposits | 4,683 | 748 | 753 | 624 | 2,681 | 9,489 |
| Central banks | 569 | 38 | — | — | — | 607 |
| Credits institutions | 237 | 487 | 30 | 178 | 132 | 1,064 |
| Customers | 3,877 | 223 | 723 | 446 | 2,549 | 7,818 |
| Marketable debt securities[A] | 126 | 439 | 1,868 | 461 | 2,560 | 5,454 |
| **Hedging derivatives** | **613** | **930** | **1,667** | **824** | **1,429** | **5,463** |
| Changes in the fair value of hedged items in portfolio hedges of interest rate risk | 45 | 16 | 58 | 49 | 80 | 248 |
| **TOTAL FINANCIAL LIABILITIES** | **31,609** | **11,367** | **20,055** | **14,708** | **22,384** | **100,123** |

A. Includes promissory notes, certificates of deposit and other short-term debt issues (see note 22).

| | 31 December 2021 | | | | | |
|---|---|---|---|---|---|---|
| | EUR million | | | | | |
| | Within 3 months | 3 to 12 months | 1 to 3 years | 3 to 5 years | More than 5 years | Total |
| **Memorandum items** | | | | | | |
| Loans commitment granted | 123,529 | 27,587 | 51,999 | 49,781 | 9,841 | 262,737 |
| Financial guarantees granted | 3,617 | 4,251 | 1,749 | 687 | 454 | 10,758 |
| Other commitments granted | 52,359 | 12,008 | 7,297 | 1,539 | 2,530 | 75,733 |
| **MEMORANDUM ITEMS** | **179,505** | **43,846** | **61,045** | **52,007** | **12,825** | **349,228** |

## b) Equivalent euro value of assets and liabilities

The detail of the main foreign currency balances in the consolidated balance sheet, based on the nature of the related items, is as follows:

Equivalent value in EUR million

| | 2023 | | 2022 | | 2021 | |
|---|---|---|---|---|---|---|
| | **Assets** | **Liabilities** | **Assets** | **Liabilities** | **Assets** | **Liabilities** |
| Cash, cash balances at central banks and other deposits on demand | 114,410 | — | 122,391 | — | 105,457 | — |
| Financial assets/liabilities held for trading | 106,011 | 60,581 | 94,256 | 60,105 | 65,345 | 49,314 |
| Non-trading financial assets mandatorily at fair value through profit or loss | 3,291 | — | 3,210 | — | 2,460 | — |
| Other financial assets/liabilities at fair value through profit or loss | 1,721 | 12,699 | 1,085 | 19,929 | 1,230 | 8,785 |
| Financial assets at fair value through other comprehensive income | 60,516 | — | 62,046 | — | 78,086 | — |
| Financial assets at amortized cost | 773,504 | — | 747,138 | — | 680,774 | — |
| Investments | 1,689 | — | 1,296 | — | 1,666 | — |
| Tangible assets | 20,797 | — | 21,834 | — | 22,350 | — |
| Intangible assets | 12,772 | — | 11,881 | — | 10,066 | — |
| Financial liabilities at amortized cost | — | 937,917 | — | 893,531 | — | 796,395 |
| Liabilities under insurance contracts | — | 330 | — | 349 | — | 328 |
| Other | 26,236 | 25,740 | 23,886 | 24,372 | 22,631 | 20,420 |
| | **1,120,947** | **1,037,267** | **1,089,023** | **998,286** | **990,065** | **875,242** |

## c) Fair value of financial assets and liabilities not measured at fair value

The financial assets owned by the Group are measured at fair value in the accompanying consolidated balance sheet, except for cash, cash balances at central banks and other deposits on demand, loans and advances at amortised cost.

Similarly, the Group's financial liabilities -except for financial liabilities held for trading, those measured at fair value and derivatives other than those having as their underlying equity instruments whose market value cannot be estimated reliably- are measured at amortised cost in the accompanying consolidated balance sheet.

Following is a comparison of the carrying amounts of the Group's financial instruments measured at other than fair value and their respective fair values at year-end:

### i) Financial assets measured at other than fair value

EUR million

| | 2023 | | | | | 2022 | | | | | 2021 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Assets** | **Carrying amount** | **Fair value** | **Level 1** | **Level 2** | **Level 3** | **Carrying amount** | **Fair value** | **Level 1** | **Level 2** | **Level 3** | **Carrying amount** | **Fair value** | **Level 1** | **Level 2** | **Level 3** |
| Loans and advances | 1,087,844 | 1,077,543 | — | 103,414 | 974,129 | 1,073,490 | 1,053,703 | — | 64,968 | 988,735 | 1,002,190 | 1,006,711 | — | 69,840 | 936,871 |
| Debt securities | 103,559 | 102,888 | 67,951 | 11,057 | 23,880 | 73,554 | 70,373 | 37,805 | 19,254 | 13,314 | 35,708 | 35,378 | 13,558 | 12,158 | 9,662 |
| | **1,191,403** | **1,180,431** | **67,951** | **114,471** | **998,009** | **1,147,044** | **1,124,076** | **37,805** | **84,222** | **1,002,049** | **1,037,898** | **1,042,089** | **13,558** | **81,998** | **946,533** |

## ii) Financial liabilities measured at other than fair value

EUR million

| Liabilities[A] | 2023 Carrying amount | 2023 Fair value | 2023 Level 1 | 2023 Level 2 | 2023 Level 3 | 2022 Carrying amount | 2022 Fair value | 2022 Level 1 | 2022 Level 2 | 2022 Level 3 | 2021 Carrying amount | 2021 Fair value | 2021 Level 1 | 2021 Level 2 | 2021 Level 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Deposits | 1,125,308 | 1,124,373 | — | 263,428 | 860,945 | 1,111,887 | 1,108,918 | — | 258,701 | 850,217 | 1,078,587 | 1,076,876 | — | 286,613 | 790,263 |
| Debt securities | 303,208 | 298,792 | 136,109 | 125,575 | 37,108 | 274,912 | 263,191 | 106,169 | 124,939 | 32,083 | 240,709 | 246,697 | 109,346 | 115,034 | 22,317 |
| | **1,428,516** | **1,423,165** | **136,109** | **389,003** | **898,053** | **1,386,799** | **1,372,109** | **106,169** | **383,640** | **882,300** | **1,319,296** | **1,323,573** | **109,346** | **401,647** | **812,580** |

A. At 31 December 2023, Grupo Santander had other financial liabilities that amounted to EUR 40,187 million, EUR 37,059 million in 2022 and EUR 29,873 million in 2021.

The main valuation methods and inputs used in the estimates at 31 December 2023 of the fair values of the financial assets and liabilities in the foregoing table were as follows:

- Financial assets at amortised cost: the fair value was estimated using the present value method. The estimates were made considering factors such as the expected maturity of the portfolio, market interest rates, spreads on newly approved transactions or market spreads -when available-.
- Financial liabilities at amortised cost:

i) Deposits: the fair value of short term deposits was taken to be their carrying amount. Factors such as the expected maturity of the transactions and the Group's current cost of funding in similar transactions are consider for the estimation of long term deposits fair value. It had been used also current rates offered for deposits of similar remaining maturities.

ii) Marketable debt securities and subordinated liabilities: the fair value was calculated based on market prices for these instruments -when available- or by the present value method using market interest rates and spreads, as well as using any significant input which is not observable with market data if applicable.

iii) The fair value of cash, cash balances at central banks and other deposits on demand was taken to be their carrying amount since they are mainly short-term balances.

## d) Offsetting of financial instruments

Following is the detail of financial assets and liabilities that were offset in the consolidated balance sheets as of 31 December 2023, 2022 and 2021:

| | 31 December 2023 | | |
|---|---|---|---|
| | EUR million | | |
| **Assets** | **Gross amount of financial assets** | **Gross amount of financial assets offset in the balance sheet** | **Net amount of financial assets presented in the balance sheet** |
| Derivatives | 149,508 | (87,883) | 61,625 |
| Reverse repurchase agreements | 179,580 | (79,500) | 100,080 |
| **Total** | **329,088** | **(167,383)** | **161,705** |

| | 31 December 2022 | | |
|---|---|---|---|
| | EUR million | | |
| **Assets** | **Gross amount of financial assets** | **Gross amount of financial assets offset in the balance sheet** | **Net amount of financial assets presented in the balance sheet** |
| Derivatives | 176,814 | (101,743) | 75,071 |
| Reverse repurchase agreements | 127,561 | (48,949) | 78,612 |
| **Total** | **304,375** | **(150,692)** | **153,683** |

| | 31 December 2021 | | |
|---|---|---|---|
| | EUR million | | |
| **Assets** | **Gross amount of financial assets** | **Gross amount of financial assets offset in the balance sheet** | **Net amount of financial assets presented in the balance sheet** |
| Derivatives | 101,486 | (42,432) | 59,054 |
| Reverse repurchase agreements | 72,023 | (13,917) | 58,106 |
| **Total** | **173,509** | **(56,349)** | **117,160** |

| | 31 December 2023 | | |
|---|---|---|---|
| | EUR million | | |
| **Liabilities** | **Gross amount of financial liabilities** | **Gross amount of financial liabilities offset in the balance sheet** | **Net amount of financial liabilities presented in the balance sheet** |
| Derivatives | 146,128 | (87,883) | 58,245 |
| Reverse repurchase agreements | 212,840 | (79,500) | 133,340 |
| **Total** | **358,968** | **(167,383)** | **191,585** |

| | 31 December 2022 | | |
|---|---|---|---|
| | EUR million | | |
| **Liabilities** | **Gross amount of financial liabilities** | **Gross amount of financial liabilities offset in the balance sheet** | **Net amount of financial liabilities presented in the balance sheet** |
| Derivatives | 175,862 | (101,743) | 74,119 |
| Reverse repurchase agreements | 148,715 | (48,949) | 99,766 |
| **Total** | **324,577** | **(150,692)** | **173,885** |

| | 31 December 2021 | | |
|---|---|---|---|
| | EUR million | | |
| **Liabilities** | **Gross amount of financial liabilities** | **Gross amount of financial liabilities offset in the balance sheet** | **Net amount of financial liabilities presented in the balance sheet** |
| Derivatives | 101,462 | (42,432) | 59,029 |
| Reverse repurchase agreements | 73,424 | (13,916) | 59,508 |
| **Total** | **174,886** | **(56,348)** | **118,537** |

At 31 December 2023, Grupo Santander has offset other items amounting to EUR 910 million (EUR 1,024 million and EUR 1,188 million at 31 December 2022 and 2021, respectively).

At 31 December 2023 the balance sheet shows the amounts EUR 151,044 million (EUR 141,529 million and EUR 106,430 million at 31 December 2022 and 2021) on derivatives and repos as assets and EUR 180,539 million (EUR 157,572 million and EUR 104,130 million at 31 December 2022 and 2021, respectively) on derivatives and repos as liabilities that are subject to netting and collateral arrangements.

# 52. Primary and secondary segments reporting

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

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

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

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

We completed the usual annual adjustment of the perimeter of the Global Customer Relationship Model between Retail Banking and Santander Corporate & Investment Banking and between Retail Banking and Wealth Management & Insurance.

Grupo Santander announced at 4 April 2022 changes in the reportable segments to reflect the new reporting structure effective from the first quarter financial information of 2022.

The main changes, which have been applied to management information for all periods included in the annual accounts, relate to the following:

1. Reallocation of certain financial costs of the Corporate Centre as follows:

    a. Further clarity in the minimum requirement for own funds and eligible liabilities (MREL) and total loss absorbing capacity (TLAC) regulation makes it possible to allocate the cost of eligible debt issuances to the country units.

    b. Other financial costs, primarily associated with the cost of funding the excess capital held by the units above the Group's CET1 ratio, have been reassigned accordingly.

2. Downsizing of 'Other Europe':

    a. The Corporate & Investment Banking branches of Banco Santander, S.A. in Europe and other business lines previously reported under 'Other Europe' have been now integrated into the Spain unit to reflect how the business will be managed and supervised, in line with other regions.

Grupo Santander recasted the corresponding information of earlier periods considering the changes included in this section to facilitate a homogeneous comparison.

The above-mentioned changes have no impact on the Group's reported consolidated financial statements.

## a) Primary segments

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

- Europe: which comprises all business activity carried out in the region, except that included in Digital Consumer Bank.
- North America: which comprises all the business activities carried out in Mexico and the US, which includes the holding company (SHUSA) and the businesses of Santander Bank, Santander Consumer USA, the specialized business unit Banco Santander International, Santander Investment Securities (SIS), Santander's New York branch and Santander US Capital Markets LLC (previously Amherst Pierpont Securities (APS)).
- South America: includes all the financial activities carried out by Grupo Santander through its banks and subsidiary banks in the region.
- Digital Consumer Bank: includes Santander Consumer Finance, which incorporates the entire consumer finance business in Europe, Openbank and ODS.

In addition to these operating units, which report by geographic area and businesses, Grupo Santander continues to maintain the area of Corporate Centre, that includes the centralized activities relating to equity stakes in financial companies, financial management of the structural exchange rate position, assumed within the sphere of Grupo Santander's assets and liabilities committee, as well as management of liquidity and of shareholders' equity via issuances.

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

With regard to the balance sheet, due to the required segregation of the various business units (included in a single consolidated balance sheet), the amounts lent and borrowed between the units are shown as increases in the assets and liabilities of each business. These amounts relating to intra-Group liquidity are eliminated and are shown in the Intra-Group eliminations column in the table below in order to reconcile the amounts contributed by each business unit to the consolidated Grupo Santander's balance sheet.

There are no customers located in any of the areas that generate income exceeding 10% of Total income.

The condensed balance sheets and income statements of the various primary segments are as follows:

EUR million

| | 2023 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Balance sheet (condensed)** | **Europe** | **North America** | **South America** | **Digital Consumer Bank** | **Corporate Centre** | **Intra-Group eliminations** | **Total** |
| Total assets | 955,344 | 294,827 | 325,049 | 166,796 | 254,705 | (199,660) | **1,797,062** |
| Total liabilities | 911,173 | 271,183 | 299,155 | 153,355 | 166,809 | (108,854) | **1,692,821** |
| Total equity | 44,171 | 23,644 | 25,894 | 13,441 | 87,896 | (90,806) | **104,241** |
| Other customer funds under management | 111,933 | 18,733 | 78,076 | 996 | — | — | **209,737** |
| Other non-managed marketed customer funds | 26,390 | 18,503 | 1,087 | 4,057 | — | — | **50,036** |

EUR million

| | 2022 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Balance sheet (condensed)** | **Europe** | **North America** | **South America** | **Digital Consumer Bank** | **Corporate Centre** | **Intra-Group eliminations** | **Total** |
| Total assets | 958,207 | 288,595 | 292,925 | 151,015 | 262,218 | (218,301) | **1,734,659** |
| Total liabilities | 915,167 | 262,931 | 268,417 | 137,986 | 178,651 | (126,078) | **1,637,074** |
| Total equity | 43,040 | 25,664 | 24,508 | 13,029 | 83,567 | (92,223) | **97,585** |
| Other customer funds under management | 100,178 | 15,571 | 65,251 | 880 | — | — | **181,880** |
| Other non-managed marketed customer funds | 23,305 | 20,908 | 1,077 | 3,089 | — | — | **48,379** |

EUR million

| | 2021 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Balance sheet (condensed)** | **Europe** | **North America** | **South America** | **Digital Consumer Bank** | **Corporate Centre** | **Intra-Group eliminations** | **Total** |
| Total assets | 943,875 | 244,734 | 257,805 | 148,005 | 215,467 | (214,051) | **1,595,835** |
| Total liabilities | 899,007 | 216,048 | 237,375 | 135,599 | 135,950 | (125,197) | **1,498,782** |
| Total equity | 44,868 | 28,686 | 20,430 | 12,406 | 79,517 | (88,854) | **97,053** |
| Other customer funds under management | 114,698 | 13,949 | 57,428 | 852 | — | — | **186,927** |
| Other non-managed marketed customer funds | 25,572 | 20,213 | 103 | 2,497 | — | — | **48,385** |

The condensed income statements for the primary segments are as follows:

EUR million

| | 2023 | | | | | |
|---|---|---|---|---|---|---|
| **Underlying income statement (condensed)** | **Europe** | **North America** | **South America** | **Digital Consumer Bank** | **Corporate centre** | **Total** |
| **Net interest income**[A] | **15,910** | **10,159** | **13,040** | **4,193** | **(41)** | **43,261** |
| Net fee income | 4,399 | 2,192 | 4,684 | 796 | (13) | 12,057 |
| Gains (losses) on financial transactions[B] | 1,033 | 505 | 1,280 | 117 | (302) | 2,633 |
| Other operating income[C] | 97 | 318 | (1,033) | 396 | (83) | (304) |
| **Total income** | **21,439** | **13,174** | **17,971** | **5,502** | **(439)** | **57,647** |
| Administrative expenses, depreciation and amortisation | (9,030) | (6,465) | (6,920) | (2,618) | (391) | (25,425) |
| **Net operating income**[D] | **12,409** | **6,708** | **11,050** | **2,884** | **(829)** | **32,222** |
| Net loan-loss provisions[E] | (2,533) | (3,733) | (5,401) | (792) | 2 | (12,458) |
| Other gains (losses) and provisions[F] | (1,681) | (138) | (1,041) | (72) | (134) | (3,066) |
| **Operating profit/(loss) before tax** | **8,195** | **2,837** | **4,608** | **2,019** | **(961)** | **16,698** |
| Tax on profit | (2,371) | (468) | (1,121) | (493) | (36) | (4,489) |
| **Profit from continuing operations** | **5,824** | **2,369** | **3,487** | **1,526** | **(998)** | **12,209** |
| Net profit from discontinued operations | — | — | — | — | — | — |
| **Consolidated profit** | **5,824** | **2,369** | **3,487** | **1,526** | **(998)** | **12,209** |
| Non-controlling interests | (342) | (15) | (449) | (327) | — | (1,133) |
| **Attributable profit to the parent** | **5,482** | **2,354** | **3,038** | **1,199** | **(998)** | **11,076** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. 'Net Operating Income' is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. 'Net loan-loss provisions' refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 24 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release EUR 24 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognised in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

| | 2022 | | | | | |
|---|---|---|---|---|---|---|
| **Underlying income statement (condensed)** | **Europe** | **North America** | **South America** | **Digital Consumer Bank** | **Corporate Centre** | **Total** |
| **Net interest income**[A] | **12,565** | **9,705** | **12,979** | **4,022** | **(652)** | **38,619** |
| Net fee income | 4,493 | 1,958 | 4,515 | 843 | (19) | 11,790 |
| Gains (losses) on financial transactions[B] | 821 | 204 | 1,291 | 60 | (723) | 1,653 |
| Other operating income[C] | 151 | 449 | (761) | 344 | (91) | 92 |
| **Total income** | **18,030** | **12,316** | **18,024** | **5,269** | **(1,485)** | **52,154** |
| Administrative expenses, depreciation and amortisation | (8,523) | (5,871) | (6,675) | (2,462) | (372) | (23,903) |
| **Net operating income**[D] | **9,507** | **6,445** | **11,349** | **2,807** | **(1,857)** | **28,251** |
| Net loan-loss provisions[E] | (2,396) | (2,538) | (5,041) | (544) | 10 | (10,509) |
| Other gains (losses) and provisionsF | (1,629) | (118) | (544) | (27) | (174) | (2,492) |
| **Operating profit/(loss) before tax** | **5,482** | **3,789** | **5,764** | **2,236** | **(2,021)** | **15,250** |
| Tax on profit | (1,492) | (869) | (1,549) | (549) | (27) | (4,486) |
| **Profit from continuing operations** | **3,990** | **2,920** | **4,215** | **1,687** | **(2,048)** | **10,764** |
| Net profit from discontinued operations | — | — | — | — | — | — |
| **Consolidated profit** | **3,990** | **2,920** | **4,215** | **1,687** | **(2,048)** | **10,764** |
| Non-controlling interests | 179 | 43 | 557 | 379 | 1 | 1,159 |
| **Attributable profit to the parent** | **3,811** | **2,877** | **3,658** | **1,308** | **(2,049)** | **9,605** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. 'Net Operating Income' is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. 'Loan loss provisions' refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 27 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 27 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognised in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

| | 2021 | | | | | |
|---|---|---|---|---|---|---|
| **Underlying income statement (condensed)** | **Europe** | **North America** | **South America** | **Digital Consumer Bank** | **Corporate Centre** | **Total** |
| **Net interest income**[A] | **10,574** | **8,072** | **11,307** | **4,041** | **(624)** | **33,370** |
| Net fee income | 4,344 | 1,644 | 3,721 | 821 | (28) | 10,502 |
| Gains (losses) on financial transactions[B] | 756 | 224 | 716 | 8 | (141) | 1,563 |
| Other operating income[C] | 260 | 914 | (407) | 229 | (27) | 969 |
| **Total income** | **15,934** | **10,854** | **15,337** | **5,099** | **(820)** | **46,404** |
| Administrative expenses, depreciation and amortisation | (8,318) | (4,967) | (5,379) | (2,405) | (346) | (21,415) |
| **Net operating income**[D] | **7,616** | **5,887** | **9,958** | **2,694** | **(1,166)** | **24,989** |
| Net loan-loss provisions[E] | (2,293) | (1,210) | (3,251) | (527) | (155) | (7,436) |
| Other gains (losses) and provisions[F] | (1,290) | (145) | (474) | (194) | (190) | (2,293) |
| **Operating profit/(loss) before tax** | **4,033** | **4,532** | **6,233** | **1,973** | **(1,511)** | **15,260** |
| Tax on profit | (1,212) | (1,016) | (2,360) | (464) | (24) | (5,076) |
| **Profit from continuing operations** | **2,821** | **3,516** | **3,873** | **1,509** | **(1,535)** | **10,184** |
| Net profit from discontinued operations | — | — | — | — | — | — |
| **Consolidated profit** | **2,821** | **3,516** | **3,873** | **1,509** | **(1,535)** | **10,184** |
| Non-controlling interests | 71 | 556 | 556 | 345 | 2 | 1,530 |
| **Attributable profit to the parent** | **2,750** | **2,960** | **3,317** | **1,164** | **(1,537)** | **8,654** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. 'Net Operating Income' is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. 'Net loan-loss provisions' refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognised in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

## b) Secondary segments

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

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

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

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

- PagoNxt: this includes digital payment solutions, providing global technology solutions for Grupo Santander's banks and new customers in the open market. It is structured in four businesses: Merchant, International Trade, Payments and Consumer.

Although WM&I and PagoNxt do not meet the quantitative thresholds defined in IFRS 8, these segments are considered reportable by Grupo Santander and are disclosed separately because Grupo Santander's management believes that information about these segments are useful to users of the financial statements.

There are no customers located in a place different from the location of the Group's assets that generate revenues in excess of 10% of ordinary revenues.

The condensed income statements are as follows:

EUR million

| | 2023 | | | | | |
|---|---|---|---|---|---|---|
| **Underlying income statement (condensed)** | **Retail Banking** | **Santander Corporate & Investment Banking** | **Wealth Managemen t & Insurance** | **PagoNxt** | **Corporate centre** | **Total** |
| **Net interest income**[A] | **37,985** | **3,485** | **1,739** | **93** | **(41)** | **43,261** |
| Net fee income | 7,661 | 2,190 | 1,265 | 954 | (13) | 12,057 |
| Gains (losses) on financial transactions[B] | 214 | 2,581 | 149 | (10) | (302) | 2,633 |
| Other operating income[C] | (606) | 41 | 241 | 102 | (83) | (304) |
| **Total income** | **45,254** | **8,296** | **3,396** | **1,140** | **(439)** | **57,647** |
| Administrative expenses, depreciation and amortisation | (19,396) | (3,391) | (1,156) | (1,091) | (391) | (25,425) |
| **Net operating income**[D] | **25,858** | **4,905** | **2,240** | **49** | **(829)** | **32,222** |
| Net loan-loss provisions[E] | (12,295) | (162) | 21 | (24) | 2 | (12,458) |
| Other gains (losses) and provisions[F] | (2,691) | (174) | (26) | (42) | (134) | (3,066) |
| **Operating profit/(loss) before tax** | **10,872** | **4,570** | **2,235** | **(17)** | **(961)** | **16,698** |
| Tax on profit | (2,586) | (1,280) | (528) | (59) | (36) | (4,489) |
| **Profit/(loss) from continuing operations** | **8,286** | **3,290** | **1,707** | **(76)** | **(998)** | **12,209** |
| Net profit/(loss) from discontinued operations | — | — | — | — | — | — |
| **Consolidated profit/(loss)** | **8,286** | **3,290** | **1,707** | **(76)** | **(998)** | **12,209** |
| Non-controlling interests | (849) | (212) | (71) | (1) | — | (1,133) |
| **Attributable profit/(loss) to the parent** | **7,436** | **3,078** | **1,637** | **(77)** | **(998)** | **11,076** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 24 million mainly corresponding to the results by commitments and contingent risks included in the line provisions or reversal of provisions, net of the statutory income statement.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 24 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

| | 2022 | | | | | |
|---|---|---|---|---|---|---|
| **Underlying income statement (condensed)** | **Retail Banking** | **Santander Corporate & Investment Banking (SCIB)** | **Wealth Management & Insurance** | **PagoNxt** | **Corporate Centre** | **Total** |
| **Net interest income**[A] | **34,880** | **3,544** | **825** | **22** | **(652)** | **38,619** |
| Net fee income | 7,650 | 1,988 | 1,291 | 881 | (19) | 11,790 |
| Gains (losses) on financial transactions[B] | 435 | 1,833 | 123 | (14) | (723) | 1,653 |
| Other operating income[C] | (280) | 31 | 369 | 64 | (91) | 92 |
| **Total income** | **42,685** | **7,396** | **2,608** | **953** | **(1,485)** | **52,154** |
| Administrative expenses, depreciation and amortisation | (18,568) | (2,898) | (1,041) | (1,024) | (372) | (23,903) |
| **Net operating income**[D] | **24,117** | **4,498** | **1,567** | **(71)** | **(1,857)** | **28,251** |
| Net loan-loss provisions[E] | (10,210) | (251) | (14) | (44) | 10 | (10,509) |
| Other gains (losses) and provisions[F] | (2,135) | (131) | (26) | (26) | (174) | (2,492) |
| **Operating profit/(loss) before tax** | **11,772** | **4,116** | **1,527** | **(141)** | **(2,021)** | **15,250** |
| Tax on profit | (2,931) | (1,119) | (347) | (63) | (27) | (4,486) |
| **Profit/(loss) from continuing operations** | **8,841** | **2,997** | **1,180** | **(204)** | **(2,048)** | **10,764** |
| Net profit/(loss) from discontinued operations | — | — | — | — | — | — |
| **Consolidated profit/(loss)** | **8,841** | **2,997** | **1,180** | **(204)** | **(2,048)** | **10,764** |
| Non-controlling interests | 895 | 192 | 60 | 12 | 1 | 1,159 |
| **Attributable profit/(loss) to the parent** | **7,946** | **2,805** | **1,120** | **(216)** | **(2,049)** | **9,605** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 27 million mainly corresponding to the results by commitments and contingent risks included in the line provisions or reversal of provisions, net of the statutory income statement.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except a release of EUR 27 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

EUR million

| Underlying income statement (condensed) | 2021 | | | | | |
|---|---|---|---|---|---|---|
| | Retail Banking | Santander Corporate & Investment Banking (SCIB) | Wealth Management & Insurance | PagoNxt | Corporate Centre | Total |
| **Net interest income[A]** | **30,595** | **2,921** | **477** | **1** | **(624)** | **33,370** |
| Net fee income | 7,045 | 1,744 | 1,248 | 493 | (28) | 10,502 |
| Gains (losses) on financial transactions[B] | 839 | 766 | 100 | (1) | (141) | 1,563 |
| Other operating income[C] | 390 | 188 | 416 | 2 | (27) | 969 |
| **Total income** | **38,869** | **5,619** | **2,241** | **495** | **(820)** | **46,404** |
| Administrative expenses, depreciation and amortisation | (17,102) | (2,380) | (914) | (673) | (346) | (21,415) |
| **Net operating income[D]** | **21,767** | **3,239** | **1,327** | **(178)** | **(1,166)** | **24,989** |
| Net loan-loss provisions[E] | (7,082) | (151) | (38) | (10) | (155) | (7,436) |
| Other gains (losses) and provisions[F] | (2,053) | (17) | 6 | (39) | (190) | (2,293) |
| **Operating profit/(loss) before tax** | **12,632** | **3,071** | **1,295** | **(227)** | **(1,511)** | **15,260** |
| Tax on profit | (3,898) | (821) | (309) | (24) | (24) | (5,076) |
| **Profit/(loss) from continuing operations** | **8,734** | **2,250** | **986** | **(251)** | **(1,535)** | **10,184** |
| Net profit/(loss) from discontinued operations | — | — | — | — | — | — |
| **Consolidated profit/(loss)** | **8,734** | **2,250** | **986** | **(251)** | **(1,535)** | **10,184** |
| Non-controlling interests | 1,345 | 137 | 44 | 2 | 2 | 1,530 |
| **Attributable profit/(loss) to the parent** | **7,389** | **2,113** | **942** | **(253)** | **(1,537)** | **8,654** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks included in the line provisions or reversal of provisions, net of the statutory income statement.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

## c) Reconciliations of reportable segment results

The tables below reconcile the statutory basis results to the underlying results for each of the periods presented as required by IFRS 8. For the purposes of these reconciliations, all material reconciling items are separately identified and described.

Grupo Santander assets and liabilities for management reporting purposes do not differ from the statutory reported figures and therefore are not reconciled.

EUR million

| 2023 | | | |
|---|---|---|---|
| **Reconciliation of statutory results to underlying results** | **Statutory results** | **Adjustments** | **Underlying results** |
| **Net interest income**[A] | **43,261** | **—** | **43,261** |
| Net fee income | 12,057 | — | 12,057 |
| Gains (losses) on financial transactions[B] | 2,633 | — | 2,633 |
| Other operating income[C] | (528) | 224 | (304) |
| **Total income** | **57,423** | **224** | **57,647** |
| Administrative expenses, depreciation and amortisation | (25,425) | — | (25,425) |
| **Net operating income**[D] | **31,998** | **224** | **32,222** |
| Net loan-loss provisions[E] | (12,932) | 474 | (12,458) |
| Other gains (losses) and provisions[F] | (2,607) | (459) | (3,066) |
| **Operating profit/(loss) before tax** | **16,459** | **239** | **16,698** |
| Tax on profit | (4,276) | (213) | (4,489) |
| **Adjusted profit for the year from continuing operations** | **12,183** | **26** | **12,209** |
| Profit from discontinued operations (net) | — | — | — |
| **Consolidated profit/(loss)** | **12,183** | **26** | **12,209** |
| Non-controlling interests | (1,107) | (26) | (1,133) |
| **Attributable profit/(loss) to the parent** | **11,076** | **—** | **11,076** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 24 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except for a release of EUR 24 million mainly corresponding to results from commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

Explanation of adjustments:

- Temporary levy on revenue in Spain in the first quarter, totalling EUR 224 million, which was moved from total income to other gains (losses) and provisions.
- Additional provisions for specific cases in the wholesale portfolio of Brazil for an amount of EUR 235 million, net of tax and non-controlling interests (EUR 474 million recorded in net loan-loss provisions, EUR 213 million positive impact in tax and EUR 26 million in non-controlling interests).

EUR million

| 2022 | | | |
|---|---|---|---|
| **Reconciliation of statutory results to underlying results** | **Statutory results** | **Adjustments** | **Underlying results** |
| **Net interest income**[A] | **38,619** | **—** | **38,619** |
| Net fee income | 11,790 | — | 11,790 |
| Gains (losses) on financial transactions[B] | 1,653 | — | 1,653 |
| Other operating income[C] | 55 | 37 | 92 |
| **Total income** | **52,117** | **37** | **52,154** |
| Administrative expenses, depreciation and amortisation | (23,903) | — | (23,903) |
| **Net operating income**[D] | **28,214** | **37** | **28,251** |
| Net loan-loss provisions[E] | (10,836) | 327 | (10,509) |
| Other gains (losses) and provisions[F] | (2,128) | (364) | (2,492) |
| **Operating profit/(loss) before tax** | **15,250** | **—** | **15,250** |
| Tax on profit | (4,486) | — | (4,486) |
| **Adjusted profit for the year from continuing operations** | **10,764** | **—** | **10,764** |
| Profit from discontinued operations (net) | — | — | — |
| **Consolidated profit/(loss)** | **10,764** | **—** | **10,764** |
| Non-controlling interests | (1,159) | — | (1,159) |
| **Attributable profit/(loss) to the parent** | **9,605** | **—** | **9,605** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes a release of EUR 27 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except for a release of EUR 27 million mainly corresponding to results from commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations

Explanation of adjustments:

- Mainly, payment holidays in Poland.

EUR million

| 2021 | | | |
|---|---|---|---|
| **Reconciliation of statutory results to underlying results** | **Statutory results** | **Adjustments** | **Underlying results** |
| **Net interest income[A]** | **33,370** | **—** | **33,370** |
| Net fee income | 10,502 | — | 10,502 |
| Gains (losses) on financial transactions[B] | 1,563 | — | 1,563 |
| Other operating income[C] | 969 | — | 969 |
| **Total income** | **46,404** | **—** | **46,404** |
| Administrative expenses, depreciation and amortisation | (21,415) | — | (21,415) |
| **Net operating income[D]** | **24,989** | **—** | **24,989** |
| Net loan-loss provisions[E] | (7,436) | — | (7,436) |
| Other gains (losses) and provisions[F] | (3,006) | 713 | (2,293) |
| **Operating profit/(loss) before tax** | **14,547** | **713** | **15,260** |
| Tax on profit | (4,894) | (182) | (5,076) |
| **Adjusted profit for the year from continuing operations** | **9,653** | **531** | **10,184** |
| Profit from discontinued operations (net) | — | — | — |
| **Consolidated profit/(loss)** | **9,653** | **531** | **10,184** |
| Non-controlling interests | (1,529) | (1) | (1,530) |
| **Attributable profit/(loss) to the parent** | **8,124** | **530** | **8,654** |

A. Net interest income includes the net amount of the profit and loss account items 'Interest income' and 'Interest expense'. It is presented this way because it is how it is presented to the main operational decision maker.
B. Gains (losses) on financial transactions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Gain or losses on financial assets and liabilities not measured at fair value through profit or loss, net, Gain or losses on financial assets and liabilities held for trading, net, Gains or losses on non-trading financial assets and liabilities mandatorily at fair value through profit or loss, net, Gain or losses on financial assets and liabilities measured at fair value through profit or loss, net, Gain or losses from hedge accounting, net and Exchange differences, net.
C. Other operating income includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Dividend income; Income from companies accounted for using the equity method, Other operating income, Other operating expenses, Income from assets under insurance or reinsurance contracts and Expenses from liabilities under insurance or reinsurance contracts.
D. Net Operating Income is used for the Group's internal reporting and management reporting purposes but is not a line item in the statutory consolidated income statement.
E. Net loan-loss provisions refers to Impairment or reversal of impairment at financial assets not measured at fair value through profit or loss and net gains and losses from changes line item in the statutory income statement. Additionally, includes an addition of EUR 29 million mainly corresponding to the results by commitments and contingent risks includes in the line of the statutory income statement of provisions or reversal of provisions.
F. Other gains (losses) and provisions includes the following line items in the statutory income statement, which are presented net for internal reporting and management reporting purposes: Provisions or reversal of provisions except an addition of EUR 29 million mainly corresponding to results from commitments and contingent risks; Impairment of investments in joint ventures and associates, net; Impairment on non-financial assets, net; Gains or losses on non-financial assets, net; Negative goodwill recognized in results and Gains or losses on non-current assets held for sale not classified as discontinued operations.

Explanation of adjustments:

- Restructuring costs for net impact of EUR -530 million, mainly in the United Kingdom and Portugal.

# 53. Related parties

The parties related to the Group are deemed to include, in addition to its subsidiaries, associates and joint ventures, the Bank's key management personnel (the members of its board of directors and the executive vice presidents, together with their close family members) and the entities over which the key management personnel may exercise significant influence or control.

Following below is the balance sheet balances and amounts of the Group's income statement corresponding to operations with the parties related to it, distinguishing between associates and joint ventures, members of the Bank's board of directors, the Bank's senior management, 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

| | 2023 | | | |
|---|---|---|---|---|
| | **Associates and joint ventures** | **Members of the board of directors** | **Senior Management** | **Other related parties** |
| **Assets** | **10,497** | **—** | **12** | **186** |
| Cash, cash balances at central banks and other deposits on demand | 154 | — | — | — |
| Loans and advances: credit institutions | 405 | — | — | — |
| Loans and advances: customers | 9,275 | — | 12 | 185 |
| Debt securities | 391 | — | — | 1 |
| Others | 272 | — | — | — |
| | | | | |
| **Liabilities** | **2,480** | **14** | **5** | **150** |
| Financial liabilities: credit institutions | 463 | — | — | — |
| Financial liabilities: customers | 1,727 | 14 | 5 | 150 |
| Marketable debt securities | — | — | — | — |
| Others | 290 | — | — | — |
| | | | | |
| **Income statement** | **1,698** | **—** | **—** | **11** |
| Interest income | 427 | — | — | 9 |
| Interest expense | (149) | — | — | (1) |
| Gains/losses on financial assets and liabilities and others | 43 | — | — | — |
| Commission income | 1,499 | — | — | 3 |
| Commission expense | (122) | — | — | — |
| | | | | |
| **Other** | **4,189** | **3** | **2** | **1,094** |
| Financial guarantees granted and Others | 10 | 2 | 1 | 861 |
| Loan commitments and Other commitments granted | 274 | 1 | 1 | 9 |
| Derivative financial instruments | 3,905 | — | — | 224 |

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| | **Associates and joint ventures** | **Members of the board of directors** | **Senior Management** | **Other related parties** |
| **Assets** | **10,257** | **—** | **13** | **455** |
| Cash, cash balances at central banks and other deposits on demand | 227 | — | — | — |
| Loans and advances: credit institutions | 489 | — | — | — |
| Loans and advances: customers | 8,822 | — | 13 | 455 |
| Debt securities | 463 | — | — | — |
| Others | 256 | — | — | — |
| | | | | |
| **Liabilities** | **3,611** | **11** | **11** | **109** |
| Financial liabilities: credit institutions | 938 | — | — | — |
| Financial liabilities: customers | 2,301 | 11 | 11 | 109 |
| Marketable debt securities | — | — | — | — |
| Others | 372 | — | — | — |
| | | | | |
| **Income statement** | **1,357** | **—** | **—** | **2** |
| Interest income | 189 | — | — | 1 |
| Interest expense | (60) | — | — | — |
| Gains/losses on financial assets and liabilities and others | (225) | — | — | — |
| Commission income | 1,541 | — | — | 1 |
| Commission expense | (88) | — | — | — |
| | | | | |
| **Other** | **3,535** | **2** | **2** | **79** |
| Financial guarantees granted and Others | 11 | 1 | 1 | 23 |
| Loan commitments and Other commitments granted | 201 | 1 | 1 | 13 |
| Derivative financial instruments | 3,323 | — | — | 43 |

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| | Associates and joint ventures | Members of the board of directors | Senior Management | Other related parties |
| **Assets** | **9,386** | **—** | **14** | **384** |
| Cash, cash balances at central banks and other deposits on demand | 131 | — | — | — |
| Loans and advances: credit institutions | 437 | — | — | — |
| Loans and advances: customers | 8,148 | — | 14 | 384 |
| Debt securities | 496 | — | — | — |
| Others | 174 | — | — | — |
| **Liabilities** | **3,405** | **8** | **11** | **197** |
| Financial liabilities: credit institutions | 867 | — | — | — |
| Financial liabilities: customers | 2,464 | 8 | 11 | 197 |
| Marketable debt securities | — | — | — | — |
| Others | 74 | — | — | — |
| **Income statement** | **1,265** | **—** | **—** | **1** |
| Interest income | 90 | — | — | 1 |
| Interest expense | (13) | — | — | — |
| Gains/losses on financial assets and liabilities and others | (32) | — | — | — |
| Commission income | 1,268 | — | — | — |
| Commission expense | (48) | — | — | — |
| **Other** | **3,965** | **2** | **2** | **76** |
| Financial guarantees granted and Others | 11 | 1 | 1 | 17 |
| Loan commitments and Other commitments granted | 314 | 1 | 1 | 13 |
| Derivative financial instruments | 3,640 | — | — | 46 |

The remaining required information is detailed in notes 5 and 46.c.

# 54. Risk management

## a) Risk principles and culture

The principles on which Grupo Santander's risk management and control are based are detailed below. They take into account regulatory requirements, best market practices and are mandatory:

1. **All employees are risk managers** who must understand the risks associated with their functions and not assume risks that will exceed the Group's risk appetite or have an unknown impact.
2. **Senior managers** must make sure Grupo Santander keeps its risk profile within risk appetite, with consistent risk conduct, action, communications, and oversight of our risk culture.
3. **Independent risk management and control functions**, according to the three lines of defence model of Grupo Santander.
4. **Grupo Santander takes a forward-looking, comprehensive approach** towards all businesses and risk types.
5. **Effective information management** to identify, assess, manage and disclose risks at appropriate levels.

### 1. Key risk types

Grupo Santander's risks categorization ensures effective risk management, control and reporting. The risk framework distinguishes these risk types:

- **Credit risk** relates to financial loss arising from the default or credit quality deterioration of a customer or counterparty, to which Santander has directly provided credit or assumed a contractual obligation.
- **Market risk** results from changes in interest rates, exchange rates, equities, commodities and other market factors, and from their effect on profit or capital. It includes the structural risk relates to market movements or balance sheets behaviour will change the value or profit generation of assets or liabilities in the banking book.
- **Liquidity risk** occurs if liquid financial resources are insufficient or too costly to obtain in order to meet liabilities when they fall due.
- **Capital risk** is the risk that arises from the possibility of having an inadequate quantity or quality of capital to meet internal business objectives, regulatory requirements or market expectations in the area of structural risk.

Grupo Santander also takes into account, on an ongoing basis in its management of the risk function, operational (includes fraud, technological, cyber, legal and conduct risks), financial crime (includes, among others, money laundering, terrorism financing, violation of international sanctions, corruption, bribery and tax evasion), model, structural (includes risks associated with insurance and pensions), 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.

Given the nature of its operations, the Group has no environment-related liabilities, expenses, assets or contingencies of a material relevance to its consolidated equity, financial situation and results.

Most exposures in sectors potentially affected by climate change risk, according to market consensus and to the execution of our materiality assessment, are with wholesale clients, whose preliminary reviews, credit approval and credit ratings take such risk into account. Customers' ratings determine the parameters for calculating loan loss (typically in terms of probability of default or "PD"). Thus, when climate factors are relevant, in conjunction with other elements of analysis, they have an impact on the loan loss calculations which support capital and provisions.

Additionally, Grupo Santander has participated in the various climate stress regulatory exercises carried out recently, which have been classified as learning exercises in the industry. Results showed that the Group's coverage for potential losses would be sufficient in view of portfolio maturity over time.

Therefore, based on the best information available at the time these consolidated annual financial statements were prepared, the Group sees no additional environmental or climate change risk having a substantial impact on its equity, financial situation and results in 2023.

Still, this matter is constantly changing, and, like other banks, the Group is working on developing more methodologies to better measure potential loan loss in line with new management needs, best practice, and regulators' and supervisors' requirements. In particular, we monitor progress in this regard both in the prudential area (mandate of the European Banking Authority in article 501c of Regulation (EU) 575/2013), and that resulting from the plan for the second phase of the post-review implementation of IAS 9 by the IASB regarding the calculation of expected losses, planned during 2024.

## 2. Risk and compliance governance

Grupo 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 Santander model of three lines of defence effectively manages and controls risks:

- **First line**: formed by business and support areas that take or originate risks are primarily responsible for managing them. The first line detects, measures, controls, monitors and reports on the risks it originates according to internal risk management policies, models and procedures. Risk management must be consistent with the approved risk appetite and related limits.
- **Second line:** formed by risk and compliance & conduct functions, independently oversees and challenges risk management at the first line of defence. Its duties include ensuring that risks will be managed according to the risk appetite approved by senior management and strengthening our risk culture across the Group.
- **Third line:** internal audit function, is fully independent to give the board and senior managers assurance of high-quality and efficient risk governance and management to preserve our value, solvency and reputation.

Risk, compliance & conduct, and internal audit are sufficiently separate and autonomous functions, with direct access to the board and its committees.

### 2.2 Risk committee structure

The **board of directors** has final oversight of risk management and compliance promoting a sound risk culture and reviewing and approving risk appetite and frameworks, with support from its risk, regulation and compliance committee and its executive committee. The Group's risk governance keeps risk control and risk-taking areas separate.

The **Group chief risk officer (Group CRO)**, who leads the application and execution of 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 handles compliance risk and leads the application and execution of the compliance and conduct risk strategy and provides the Group CRO with a complete overview on the situation of risks being monitored.

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

The executive risk, risk control and compliance and conduct committees are executive committees with powers delegated from 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:

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

Besides, Grupo Santander, in order to establish an adequate control environment for the management of each risk types, the Risk and Compliance and Conduct functions have effective internal regulation to create the right environment to manage and control all risks.

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

### 2.3 The Group's relationship with subsidiaries

Grupo Santander subsidiaries have a model for managing risk, compliance and conduct that is consistent with the frameworks approved by the group's board of directors, which they adhere to through their own boards and can only adapt to higher standards according to local law and regulation.

Furthermore, the Group's aggregate oversight area advises and validates subsidiaries on internal regulation and operations. This reinforces a common risk management model across Grupo Santander.

The risk and compliance functions will continue to support global businesses and control at a global and local level. In 2023, Grupo Santander continued to build on our group-subsidiary relations model by leveraging our global scale to uncover synergy under a common operating model and platform. The model promotes process simplification and more enhanced control to help grow the business.

The Group CRO, the Group CCO and regional heads of risk are involved in appointing, setting objectives for, reviewing and compensating their country-unit counterparts to promote proper risk management.

Each local CRO/CCO interacts regularly with its regional risk leader and with the Group CRO and the Group CCO, through periodic follow-up meetings, either business or country. There are also meetings between local and global risk and compliance functions to discuss issues specific to each function.

Local and global risk and compliance areas also meet to address special matters. Country and regional units work closely to effectively strengthen group-subsidiary relations through these common initiatives:

- Restructuring based on subsidiary benchmarks, strategic vision, and advanced risk management infrastructures and practices.
- Exchange of best practices that will strengthen processes, drive innovation and result in a quantitative impact.
- Search for talent in risk and compliance teams with internal mobility through the global risk talent programme and strong succession plans.

## 3. Management processes and tools

Grupo Santander has these effective risk management processes and tools:

### 3.1 Risk appetite and structure of limits

Risk appetite is the aggregate level and types of risk that Grupo Santander deems prudent for our business strategy, even in unforeseen circumstances. In Grupo Santander, these principles influence risk appetite:

- Risk appetite is part of the **board's duties**. It prepares the risk appetite statement (RAS) for the whole Group every year. In a cascading down process, each subsidiary's board also sets its own risk appetite.
- **Comprehensiveness and forward-looking** approach. Our appetite includes of all material risks that Santander are exposed to and defines our target risk profile for the current and medium term with a forward-looking view considering stress scenarios.
- **Common standards and embedding in the day-to-day risk management**. The Group shares the same risk appetite model, which sets common requirements for processes, metrics, governance bodies, controls and standards.. It also ensures an effective and traceable embedding of our appetite into more granular management policies and limits across our subsidiaries.
- **Continuous adaptation** to market best practices, regulatory requirements and supervisors' expectations.
- **Aligning with business plans and strategy**. The risk appetite is a key point of reference for strategic and business planning. Grupo Santander verifies that the three-year strategic plans, the annual budget and capital and liquidity planning are within the limits set in the RAS before Santander approves them.

Grupo Santander's risk appetite and business model rest on the following elements:

- A medium-low, predictable target risk profile, centred on retail and commercial banking, internationally diversified operations and a strong market share;
- Stable, recurrent earnings and shareholder remuneration, sustained by a sound base of capital, liquidity and sources of funding;
- Autonomous subsidiaries that are self-sufficient in terms of capital and liquidity to ensure their risk profiles won't compromise the Group's solvency;
- An independent Risk function and a senior management actively engaged in supporting a robust control environment and risk culture; and
- A conduct model that protects our customers and our Simple, Personal and Fair culture.

The risk appetite is expressed through qualitative statements and limits on metrics representative of the bank's risk profile at present and under stress. Those metrics cover all risk types according to our corporate risk framework. Grupo Santander articulates them in five axes that provide the Bank with a holistic view of all risks it incurs in the development of its business model. These five axes are applicable to all Santander's key risk types, and comprise:

- P&L volatility: Control of P&L volatility of business plan under baseline and stressed conditions (aligned with ICAAP stress test).
- Solvency: Control of capital ratios under baseline and stressed scenarios (aligned with ICAAP).
- Liquidity: Control of liquidity ratios under base and stress scenarios (aligned with ILAAP).
- Concentration: Control of credit concentration on top clients, portfolios and industries.
- Non financial: Control on non financial risks aimed to minimize events which could lead to financial loss, operative, technological, legal and regulatory breaches, conduct issues or reputational damage.

# b) Credit risk

## 1. Introduction to the credit risk treatment

Credit risk is the risk of financial loss due to the failure to pay or impaired credit of a customer or counterparty Grupo Santander has financed or maintains a contractual obligation with. It includes counterparty risk, country risk and sovereign risk. It is our most significant risk in terms of exposure and capital consumption.

### Credit risk management

Grupo Santander takes a holistic view of the credit risk cycle, including the transaction, the customer and the portfolio, in order to identify, analyse, control and decide on credit risk.

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

#### 1.1. Planning

Grupo Santander´s planning helps to set business targets and draw up action plans within our risk appetite statement.

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 portfolio credit quality to measure credit risk, run internal controls to regularly monitor credit strategy detect significant risk deviation and potential impacts, and take corrective action.

They are suited to the Grupo Santander's risk appetite and subsidiaries' capital targets, having been reviewed and pre-approved by senior managers before Group management revises and validates them.

### 1.2. Risk assessment and credit rating

Risk approval generally depends on the applicant's ability to repay the debt, regardless of any collateral or personal guarantees the Bank requires. Grupo Santander reviews their regular sources of income, including funds and net cash flows from any businesses.

Grupo Santander monitors credit rating drivers to calibrate the decisions and ratings that Group credit quality assessment models determine. Risk management uses these ratings for many things like applying approval limits, pre-approvals, monitoring risk, and policies on pricing credit.

Grupo Santander then uses rating models to measure ability to pay. Depending on each segment, credit rating 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: system of automatic evaluation of loan applications. It automatically assigns customers an individual score retail on which the subsequent decision is based. It is used for SME segments without an assigned analyst.

Grupo Santander's parameter estimation models, based on econometric models of past defaults and losses, calculate economic and regulatory capital as well as IFRS 9 provisions for each customer portfolio.

Grupo Santander regularly monitors and evaluates models' suitability, predictive capacity, performance, granularity, and compliance with policy, among other factors. Grupo Santander reviews ratings with the latest financial and other relevant information to assess credit risk due to depreciation caused by customers' lower creditworthiness and manage credit portfolios according to the risk appetite and profile target set out in SCPs, with exposure limits adjusted to an acceptable level for each portfolio and counterparty and for new loan originations.

Grupo Santander uses SCPs to manage credit portfolios, defining limits for each of them and for new originations, in line with the Group´s credit risk appetite and its target risk profile. Transposing the risk appetite to portfolio management strengthens controls over our credit portfolios.

Grupo Santander´s limits, pre-classifications and pre-approvals processes, which are highly automated and digitalized, determine the risk Grupo Santander 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. Santander also uses risk-based pricing tools to make sure portfolio growth is sustainable.

Grupo Santander applies various limits models to each segment:

- Large corporate groups are subject to a pre-classification model based on a system for measuring and monitoring economic capital. Pre-classification models express the level of risk Grupo Santander is willing to assume in transactions with customers/groups.

- Corporates and institutions that meet certain requirements (strong relationships, rating, etc.) are subject to a simpler pre-classification model that sets a recommended risk level for each customer. Transactions above certain limits or with special characteristics could require approval from a senior credit analyst or a committee.

  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.

### 1.3. Scenario analysis

Grupo Santander´s scenario analyses determine the potential risks in its credit portfolios and provide a better understanding of our portfolios' performance under various macroeconomic conditions. They allow us to anticipate management strategies that will avoid future deviations from defined plans and targets. They simulate the impact of alternative scenarios in portfolios' credit parameters (PD, LGD) and expected credit losses. Grupo Santander compares 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.

### 1.4. Monitoring

Regularly monitoring business performance and comparing it to pre-defined plans is key to our management of risk. Grupo Santander's holistic monitoring of customers helps detect impacts on risk performance and credit quality early.

The monitoring process considers projections on the performance of the operations and their characteristics, in addition to any variation in their classification. Anticipation and preventive monitoring uses transactional data sources and advanced analytics (early warning engine) which determines specific actions at the client level, based on the assigned monitoring classification.

Monitoring is performed by local and global risk teams and is based on customer segmentation:

- For SCIB, monitoring is initially a function of business managers and risk analysts which provide an up-to-date view of customers' credit quality to predict a potential customer's deterioration.
- For commercial banking, institutions and SMEs assigned a credit analyst, Grupo Santander tracks customers requiring closer monitoring and review their ratings based on relevant indicators.
- Monitoring of individual customers, businesses and smaller SMEs follows a system of automatic alerts to detect shifts in portfolios' performance.

Monitoring uses the Santander Customer Assessment Note (SCAN) tool. It helps set individual monitoring levels and frequencies, policies, and actions for customers based on credit quality and particular circumstances. In addition to monitoring customer credit quality, Grupo Santander defines control procedures to analyse portfolios and performance, as well as any deviations from planning or approved alert levels.

### 1.5. Credit risk mitigation techniques

Grupo Santander generally approves risk according to a borrower's ability to make due payment, regardless of any additional collateral or personal guarantees Santander may require to modulate exposure.

To determine ability to pay, the Group analyse funds or cash flows from businesses or other regular income, not including guarantors or loan collateral which are always considered as a secondary means of recourse.

In general, guarantees are to reinforce a credit transaction and mitigate a loss if the borrower defaults. Our techniques to mitigate credit risk cover various types of customer and product. Some are for specific transactions (e.g. property) or a series of transactions (e.g. derivatives netting and collateral). Santander groups them by personal guarantees (with a solvent guarantor), collateral (mainly in primary residence mortgages) and hedges with credit derivatives.

The correct acceptance of these mitigation techniques is established by ensuring their legal enforceability in all jurisdictions. The entire process is subject to internal control and effective monitoring of the valuation of the guarantees, especially mortgages.

### 1.6. Collections & recoveries management

Collections & recoveries, an important area in risk management, develops a global management strategy based on local economic conditions, business models and other recovery-related particulars, with a full approach and general action lines for our subsidiaries. Recovery management follows regulatory requirements set out in the EBA Guidelines on the management of non-performing and forborne exposures.

For effective and efficient recoveries management, the area segments customers based on certain aspects, using new digital channels that help create value in Collections & Recoveries. It follows hi-tech, digital procedures to handle large groups of similar customer profiles and products; but it also adapts management for customers who need an assigned manager and tailored approach.

Collections & Recoveries splits recoveries into four phases: arrears/early delinquency, default, write-offs and foreclosed assets. To recover debt, the Group always seeks alternatives to court action, like forbearance and other arrears management techniques.

Grupo Santander also reviews debt instruments individually and treat them as write-offs (even when they're not past due) if the Group sees signs of irreversible impairment that suggest recovery to be remote. Though this may lead us to cancel all or part of the gross carrying amount, the Group never interrupt negotiations and legal proceedings to recover debt.

In markets where the real estate risk exposure is high, Grupo Santander can take action to quickly dispose of assets, like selling off portfolios or foreclosed assets with efficient sales instruments to recover as many on-balance-sheet assets as possible.

## 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[A]**

December data

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

A. Management perimeter according to the reported segments
B. Includes gross lending to customers, guarantees and documentary credits.

Key figures by geographic region are described below at 31 December 2023:

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

In the case of delinquent operations with ICO guarantee, the transfer of the overdue guaranteed amounts will take place as the guarantee is executed, regardless of whether the guarantor is subrogated to the right to receive said amounts, according to the regulation of these guarantees. The derecognition of the transferred guaranteed amounts will entail the recognition, at its fair value, of a collection right against the guarantor.

In addition, the Group is following the measures launched by the governments of Spain, United Kingdom, Portugal and Poland, aimed at relieving the mortgage payment burden for vulnerable customers after the increase in interest rates.

**Information on the estimation of impairment losses**

The calculation of credit risk provisions is performed at financial asset level, estimating potential credit losses through the difference between the expected cash flows and the contractual cash flows, ensuring that the results are adequate considering the status of the transaction, economic conditions and available forward-looking information.

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

The portfolio of financial instruments subject to IFRS 9 has three credit risk categories (or stages) according to the status of each instrument in relation to its level of credit risk:

- Stage 1: financial instruments with no significant increase in risk since initial recognition – the impairment provision reflects expected credit losses from defaults over the twelve months from the reporting date.
- Stage 2: financial instruments with a significant credit risk increase since initial recognition but no materialized impairment event – the impairment provision reflects expected losses from defaults over the financial instrument's residual life.

- Stage 3: financial instruments with true signs of impairment as a result of one or more events resulting in a loss – the impairment provision reflects expected losses for credit risk over the instrument's expected residual life.

The classification of financial instrument in the IFRS 9 stages is carried out in accordance with the guidelines through the  risk management policies of the subsidiaries, which are consistent with the Group's policies.

**Estimation of expected loss**

Grupo Santander calculates impairment losses using parameters (mainly EAD, PD, LGD and discount rate) based on internal models, the stage in which each financial asset is classified, and regulatory and management expertise. Far from being a simple adaptation, Santander defined and validated them according to specific requirements of IFRS 9 and other guidelines by regulators, supervisors and other international organizations (EBA, NCAs, BIS, GPPC, etc.), such as forward-looking information, point-in-time (PiT) vision, multiple scenarios, calculation of losses for the entire life of the transaction through lifetime PD, etc.

**Determination of significant increase in credit risk**

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 and implemented according to the approved governance.

The criteria thresholds used by the Group are based on a series of principles, and develop a set of techniques. The principles are as follows:

- Universality: all financial instruments subject to a credit rating must be assessed for their possible SICR.
- Proportionality: the definition of the SICR must take into account the particularities of each portfolio.
- Materiality: its implementation must be also consistent with the relevance of each portfolio so as not to incur in unnecessary costs or efforts.
- Holistic vision: the approach selected must be a combination of the most relevant credit risk aspects (e.g. quantitative and qualitative).
- Application of IFRS 9: the approach must take into consideration IFRS 9 characteristics, focusing on a comparison with credit risk at initial recognition, as well as considering forward-looking information.
- Risk management integration: the criteria must be consistent with those metrics considered in the day-to-day risk management.
- Documentation: Appropriate documentation must be prepared.

The techniques are summarised below:

- Stability of stage 2: in the absence of significant changes in the portfolios credit quality, the volume of assets in stage 2 should maintain a certain stability as a whole.
- Economic reasonableness: at transaction level, stage 2 is expected to be a transitional rating for exposures that could eventually move to a deteriorating credit status at some point or stage 3, as well as for exposures that have suffered credit deterioration and whose credit quality is improving and returns to stage 1.
- 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.

Identifying a significant increase in credit risk: when classifying financial instruments under stage 2, Santander considers:

- Quantitative criteria: Grupo Santander reviews and quantifies changes in the risk of default during their expected life based on their credit risk level on initial recognition.

  In order to consider significant changes when financial instruments are classified in stage 2, each subsidiary has defined the quantitative thresholds of its portfolios in accordance with the Group's guidelines, ensuring a consistent interpretation in all our geographies. These thresholds can be expressed as an absolute or relative increase in the probability of default.

  Within the aforementioned quantitative thresholds we consider two types: we understand a relative threshold as one that compares the current credit quality with the credit quality at the time of granting the operation in percentage terms of variation. For its part, an absolute threshold compares both references in total terms, calculating the difference between them. These absolute/relative concepts are used homogeneously (with different values) in all geographies. The calibration of these two thresholds will depend on the type of portfolio and characteristics such as the starting point of the average credit quality of the portfolio.

- Qualitative criteria: Several indicators aligned with ordinary credit risk management indicators (e.g. past due for over 30 days, forbearance, etc.). Each subsidiary defined these criteria for its portfolios. Santander supplements these qualitative criteria with expert opinions.

  When the presumption of a significant deterioration of credit risk is removed, due to a sufficient improvement of the credit quality, the obligor can be re-classified to Stage 1, without any probationary period in Stage 2.

- Definition of default: Santander incorporated the new definition to provisions calculation according to the EBA's guidelines; the Group is also considering applying it to prudential framework. In addition, the default definition and stage 3 have been aligned.

  This definition considers the following criteria to classify exposures as stage 3: financial instruments with one or more payments more than 90 consecutive days past due, representing at least 1% of the client's total exposure or the identification of other criteria demonstrating, even in the absence of defaults, that it is unlikely that the counterparty is unlikely to meet all of its financial obligations.

  Grupo Santander applies the default criteria to all exposures of the impaired client. Where an obligor belongs to a group, the default criteria may also be applied to all exposures of the Group.

  The default classification is maintained during the 3-month test period following the disappearance of all default indicators described above, and this period is extended to one year for forbearances that have been classified as default.

- Expected life of financial instruments: Santander estimates the expected life of financial instruments according to their contractual terms (e.g. prepayments, duration, purchase options, etc.).

  The contractual period (including extension options) is the maximum time frame for measuring the expected credit loss. If financial instruments have an undefined maturity period and available balance (e.g. credit cards), Santander estimates its expected life based on the total exposure period and effective management practices to mitigate exposure.

1. Forward-looking vision

To estimate expected losses, Grupo Santander requires a great deal of expert analysis as well as past, present and future data. Santander quantifies expected losses from credit events using an unbiased, weighted consideration of up to five future scenarios that could affect our ability to collect contractual cash flows. These scenarios take into account the time value of money, the relevant information available about past events and current conditions, and projections of macroeconomic factors that are considered important to estimate this amount (e.g. GDP, house prices, rate of unemployment, among others).

Santander uses forward-looking information in internal management and regulatory processes under several scenarios. The Group's guidelines and governance ensure synergy and consistency between these different processes.

2. 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 if their impacts are not sufficiently captured by the macroeconomic scenarios. Also collective analysis techniques, when the potential impairment in a group of clients cannot be identified individually.

With the elements indicated above, Grupo Santander has evaluated in each of the geographical areas the evolution of the credit quality of its customers, for the purposes of their classification in Grupo Santander financial statements.

**Management overlays**

During fiscal year 2023, the Group has significantly reduced its amount of overlays, homogeneously among its different concepts, mainly due to adjustments associated with uncertainties resulting from the war in Ukraine and the current macroeconomic context, as said adjustments were included in the expected loss models or are no longer required. The amount of overlays at the end of the 2023 financial year is not material.

**Exposure and impaired losses**

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 2023, 2022 and 2021. In addition, depending on the transactions credit quality, the exposure is divided into four categories according to Standard & Poor's rating scale:

**Exposure and impairment losses by stage**

EUR million

| | 2023 | | | |
|---|---|---|---|---|
| **Credit quality** [A] | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 147,065 | 2,261 | — | 149,326 |
| From A+ to BB | 421,449 | 13,910 | — | 435,359 |
| From BB- to B- | 262,954 | 41,237 | — | 304,191 |
| CCC and below | 11,829 | 19,376 | 33,838 | 65,043 |
| **Total exposure** [B] | **843,297** | **76,784** | **33,838** | **953,919** |
| **Impairment losses** [C] | **3,592** | **5,055** | **14,131** | **22,778** |

**Exposure and impairment losses by stage**

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| **Credit quality** [A] | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 172,440 | 1,506 | — | 173,946 |
| From A+ to BB | 394,084 | 10,601 | — | 404,685 |
| From BB- to B- | 272,456 | 32,653 | — | 305,109 |
| CCC and below | 11,799 | 21,436 | 32,608 | 65,843 |
| **Total exposure** [B] | **850,779** | **66,196** | **32,608** | **949,583** |
| **Impairment losses** [C] | **3,807** | **5,195** | **13,852** | **22,854** |

### Exposure and impairment losses by stage

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| Credit quality [A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 188,434 | 1,844 | — | 190,278 |
| From A+ to BB | 377,008 | 11,954 | — | 388,962 |
| From BB- to B- | 233,779 | 44,292 | — | 278,071 |
| CCC and below | 3,746 | 11,878 | 30,711 | 46,335 |
| **Total exposure [B]** | **802,967** | **69,968** | **30,711** | **903,646** |
| **Impairment losses [C]** | **4,149** | **5,103** | **12,873** | **22,125** |

A. Detail of credit quality ratings calculated for Group management purposes.
B. Total exposure includes loan balances (drawn amounts) and off balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.
C. Includes provisions for undrawn authorized lines (loan commitments).

The remaining units that form the totality of the Group exposure, contributed EUR 68,788 million in stage 1; EUR 1,504 million in stage 2, and EUR 658 million in stage 3 (in 2022 EUR 123,796 million in stage 1; EUR 2,902 million in stage 2, and EUR 2,064 million in stage 3. In 2021, EUR 102,631 million in stage 1; EUR 1,870 million in stage 2, and EUR 2,522 million in stage 3), and impairment losses of EUR 199 million in stage 1; EUR 73 million for stage 2, and EUR 161 million in stage 3 (in 2022, EUR 147 million, EUR 123 million and EUR 294 million and in 2021, EUR 408 million, EUR 322 million and EUR 841 million in stage 1, stage 2 and stage 3, respectively).

The remaining exposure, including all financial instruments not included before, amounts to EUR 598,385 million (EUR 538,364 million in 2022 and EUR 349,228 million in 2021), and it includes all undrawn authorized lines (loan commitments).

As of 31 December 2023, the Group had EUR 743 million net of provisions (EUR 322 million and EUR 420 million at 31 December 2022 and 2021, respectively) of purchased credit-impaired assets, which relate mainly to the business combinations carried out by the Group.

Regarding the evolution of credit risk provisions, the Group, in collaboration with the main geographical areas, monitors them by carrying out sensitivity analyses considering changes in macroeconomic scenarios and main variables that have an impact on the financial assets distribution in the different stages and calculating credit risk provisions.

Additionally, based on consistent macroeconomic scenarios, the Group also performs stress tests and sensitivity analysis in a regular basis, such as ICAAP, strategic plans, budgets and recovery and resolution plans. In this sense, a prospective view of the sensitivity of each of the Group's loan portfolio is created in relation to the possible deviation from the base scenario, considering both the macroeconomic developments in different scenarios and the three year evolution of the business. These tests include potentially adverse and favourable scenarios.

## 3.Detail of the main geographical areas

Following is the risk information related to the most relevant geographies in exposure and credit risk allowances.

This information includes sensitivity analysis, consisting on simulations of +/-100 bp in the main macroeconomic variables. A set of specific and complete scenarios is used in each geography, where different shocks that affect both the reference variable as well as the rest of the parameters is simulated. These shocks collect mainly the most relevant risks and 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 movement of +/-100 bp. Following a conservative approach, the negative movements take into account one additional standard deviation in order to reflect  the potential higher variability of losses.

### 3.1. United Kingdom

#### Portfolio overview

Credit risk with customers in the UK (excluding Santander Consumer UK and Santander London Branch) decreased year-on-year by 2.4% to EUR 247,360 million. This credit risk represents 22% of  Santander's loan portfolio is in the UK.

At 1.42%, the NPL ratio increased 21 bps in comparison to the year end of 2022, due to the increase in the default stock in companies and individuals, as well as the reduction in the total portfolio.

#### Mortgage portfolio

Because of its size, Grupo Santander closely monitor Santander UK's mortgage portfolio for the entity itself and the Group.

As of 31 December 2023, the mortgage portfolio of Santander UK decreased by 5.7% in local currency to EUR 200,173 million. It comprises residential mortgages granted to new and existing customers which are first lien mortgages. There are no second or more liens on mortgaged properties.

Originations fell year on year in 2023 compared to 2022, a sign of a less active housing market on the back of interest rate hikes and a squeeze on households' purchasing power. House prices continued to fall in 2023 as they had started to in late 2022.

Higher instalments are being mitigated, in part, by our conservative assessments of customers' ability to pay when approving them for a mortgage. We implemented measures to help customers who were current on their payments, including those under the UK Government's "Mortgage Carter" in June.

Under Santander's risk management principles, a property must be appraised independently before we can approve a new mortgage. In line with market practices and the law, we get updated values of properties used as mortgage collateral from an independent agency's automatic appraisal system.

Santander UK's wide range of mortgages include:

- Interest-only loans (22%): Customers pay interest every month and repay the principal at maturity. These mortgages, which are common in the UK, require borrowers to have an appropriate repayment vehicle, such as a pension plan or an investment fund. To mitigate inherent risk, Santander UK has restrictive approval requirements, such a maximum loan-to-value (LTV) ratio of 50% and an assessment of the ability to pay both interest and capital.
- Flexible loans (3%): Loan agreements allow borrowers to modify monthly payments or draw down additional funds up to a set limit under various conditions.
- Buy-to-let (9%): Buy-to-let mortgages account for a small portion of the total portfolio and are subject to strict risk approval policies.

Despite the challenging economic environment, the NPL ratio reflects the strength of the mortgage portfolio, which was stable at 1.16% at the end of December 2023 (+18 bps YoY).

At 31 December 2023, 85% of the mortgage portfolio had an LTV lower than 70%.

#### Information on the estimation of impairment losses

The detail of Santander's UK exposure and impairment losses associated with each of the stages at 31 December, 2023, 2022 and 2021, is shown below.

In addition, the exposure is divided in four tranches of the Standard & Poor's rating scale, according to their current credit quality:

### Exposure and impairment losses by stage

EUR million

| | 2023 | | | |
|---|---|---|---|---|
| Credit quality[A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 46,236 | 1,273 | — | 47,509 |
| From A+ to BB | 145,884 | 10,850 | — | 156,734 |
| From BB- to B- | 13,588 | 13,995 | — | 27,583 |
| CCC and below | 0 | — | 3,518 | 3,518 |
| **Total exposure[B]** | **205,708** | **26,118** | **3,518** | **235,344** |
| **Impairment losses[C]** | **172** | **498** | **396** | **1,066** |

### Exposure and impairment losses by stage

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| Credit quality[A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 85,930 | 827 | — | 86,757 |
| From A+ to BB | 118,585 | 7,547 | — | 126,132 |
| From BB- to B- | 16,831 | 11,093 | — | 27,924 |
| CCC and below | 220 | 978 | 3,059 | 4,257 |
| **Total exposure[B]** | **221,566** | **20,445** | **3,059** | **245,070** |
| **Impairment losses[C]** | **166** | **529** | **337** | **1,032** |

### Exposure and impairment losses by stage

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| Credit quality[A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 97,388 | 1,015 | — | 98,403 |
| From A+ to BB | 113,030 | 8,074 | — | 121,104 |
| From BB- to B- | 13,063 | 10,657 | — | 23,720 |
| CCC and below | — | 943 | 3,508 | 4,451 |
| **Total exposure[B]** | **223,481** | **20,689** | **3,508** | **247,678** |
| **Impairment losses[C]** | **135** | **372** | **460** | **967** |

A. Detail of credit quality ratings calculated for Group management purposes.
B. Total exposure includes loan balances (drawn amounts) and off balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.
C. Includes provisions for undrawn authorized lines (loan commitments).

For the estimation of expected losses, prospective information is taken into account. Specifically, Santander UK considers five macroeconomic scenarios, which are updated periodically. The evolution forecasted in 2023 for the next five years of the main macroeconomic indicators used by Santander UK to estimate expected losses is presented below:

| | 2024 - 2028 | | | | |
|---|---|---|---|---|---|
| Variables | Pessimistic scenario 3 | Pessimistic scenario 2 | Pessimistic scenario 1 | Base scenario | Optimistic scenario 1 |
| Interest rate | 4.4% | 2.8% | 3.9% | 3.7% | 3.3% |
| Unemployment rate | 5.8% | 7.3% | 5.1% | 4.4% | 3.6% |
| Housing price change | -3.1% | -4.8% | -0.9% | 1.7% | 3.8% |
| GDP growth | -0.2% | 0.2% | 0.3% | 1.2% | 2.1% |

Each of the macroeconomic scenarios is associated with a given weight. In terms of allocation, Santander UK associates the highest weighting to the base scenario, while it associates the lowest weightings to the most extreme or severe scenarios. In addition, at 31 December 2023, 2022 and 2021, the weights used by Santander UK reflect the future prospects of the British economy in relation to its current political and economic position so that higher weights are assigned for negative scenarios:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Pessimistic scenario 3 | 20% | 20% | 5 % |
| Pessimistic scenario 2 | 10% | 10% | 20 % |
| Pessimistic scenario 1 | 10% | 15% | 25 % |
| Base scenario | 50% | 50% | 45 % |
| Optimistic scenario 1 | 10% | 5% | 5 % |

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios, as of December 2023, is as follows:

| | Change in Provision | |
|---|---|---|
| | Mortgages | Corporates |
| **GDP Growth** | | |
| -100 bp | 9.5% | 3.0% |
| 100 bp | -5.9% | -2.0% |
| **Housing price change** | | |
| -100 bp | 6.7% | 4.6% |
| 100 bp | -4.2% | -2.6% |
| **Unemployment rate** | | |
| -100 bp | -8.6% | -4.4% |
| 100 bp | 25.7% | 7.8% |

With regards to the determination of classification in stage 2, the quantitative criteria applied by Santander UK are based on identifying whether any increase in PD for the expected life of the transaction is greater than both an absolute and a relative threshold (the PD used in that assessment are adjusted to the transaction's remaining term and also annualised in order to facilitate that the thresholds defined cover the whole range of the transactions maturity dates). The relative threshold established is common to all portfolios and a transaction is considered to exceed this threshold when the PD for the entire life of the transaction increases by 100% with respect to the PD at the time of initial recognition. The absolute threshold, on the other hand, is different for each portfolio depending on the characteristics of the transactions, ranging between 360 bps and 30 bps.

In addition, for each portfolio, a series of specific qualitative criteria is defined to indicate that the exposure has experienced a significant increase in credit risk, regardless of the evolution of its PD since the time of initial recognition. Santander UK, among other criteria, considers that an operation presents a significant increase in credit risk when it presents irregular positions for more than 30 days. These criteria depend on the risk management practices of each portfolio.

### 3.2. Spain

#### Portfolio overview

Santander España's credit risk totalled EUR 278,569 million (25%% of Grupo Santander's total). It is appropriately diversified among products and customer segments.

The macroeconomic outlook continues to be marked by an environment of high uncertainty, both domestic and international. Economic forecasts for 2024 are being cut due to persistently high inflation, a weaker global scenario and tightening monetary conditions. The Spanish economy has been sustained largely by greater domestic demand in the face of a weaker than expected foreign sector.

In a context of growing economic weakness and increasing financing costs, bank credit remained weak during 2023. It decreased significantly in the mortgage portfolio due to the rise in interest rates, which has led to a decrease in demand for credit and an increase in the early amortization of the portfolio, and in the SME segment due to lower demand for financing and the progressive amortization of support and liquidity programs (financing lines of the Official Credit Institute - ICO). On the contrary, the portfolios of larger companies and consumption showed greater resilience despite the environment.

Total credit risk decreased 5% from December 2022. The ICO loans that were granted as a result of the pandemic (EUR 25,428 million) for which the majority of the grace periods have expired, standing at EUR 18,997 million, representing approx. 7% of Santander España total portfolio.

The credit portfolio's NPL ratio was 3.06%, 21 bps lower than in December 2022. This decrease was due to the good performance of the portfolio motivated by the management of specific cases and portfolio sales.

The NPL coverage ratio remained at 49% (-2 bps year-on-year). The cost of credit remained stable at 0.62% (+1 bps vs. December 2022).

**Residential mortgage portfolio**

Residential mortgages in Spain, including Santander Consumer Finance business, amounted to EUR 61,097 million in 2023 (EUR 63,688 million and EUR 62,324 million in 2022 and 2021, respectively), 99.65% of which have a mortgage guarantee (99.55% and 99.33% in 2022 and 2021, respectively).

| | 2023 | |
|---|---|---|
| EUR Million | Gross amount | Of which: impaired |
| Home purchase loans to families | 61,097 | 924 |
| Without mortgage guarantee | 215 | 16 |
| With mortgage guarantee | 60,882 | 908 |

| | 2022 | |
|---|---|---|
| EUR Million | Gross amount | Of which: impaired |
| Home purchase loans to families | 63,688 | 1,088 |
| Without mortgage guarantee | 288 | 24 |
| With mortgage guarantee | 63,400 | 1,064 |

| | 2021 | |
|---|---|---|
| EUR Million | Gross amount | Of which: impaired |
| Home purchase loans to families | 62,324 | 1,860 |
| Without mortgage guarantee | 419 | 115 |
| With mortgage guarantee | 61,905 | 1,745 |

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 24% (26% and 27% in 2022 and 2021, respectively).
- The 95% of the portfolio has a LTV below 80% calculated as total risk/latest available house appraisal.
- All customers applying for a residential mortgage are subject to a rigorous credit risk and viability assessment, analysing whether their income is sufficient to meet all repayments and will remain stable over the term of the loan.

The NPL ratio for the residential mortgages portfolio stood at 1.49%, with a reduction of 19 bps, compared to 31 December 2022, mainly due to by portfolio sales.

Starting in mid-2022, the rise in the EURIBOR translated into increases in the instalments paid by clients with variable mortgages (approximately 75% of the portfolio). This increase is partially mitigated by the conservative evaluation of payment capacity made at the time of admission.

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):

| | 2023 | | | | | |
|---|---|---|---|---|---|---|
| | Loan to value ratio | | | | | |
| EUR Million | 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 |
| Gross amount | 18,728 | 20,720 | 18,083 | 2,294 | 1,057 | 60,882 |
| Of which impaired | 131 | 192 | 199 | 151 | 235 | 908 |

In November 2022, Royal Decree-Law 19/2022 was published, which establishes a Code of Good Practices in response to the rise in interest rates on mortgage loans for primary residences and Royal Decree-Law 6/2012 of protection measures for mortgage debtors without resources. The code of good practices is focused on granting capital grace periods and extending the term of the operations. At 31 December 2023, the requests made have not been significant.

### Corporate & SME financing

Credit risk with SME and corporates in commercial banking amounted to EUR 107,613 million, 4.7% lower than in December 2022, mainly due to the fall in the portfolio of SMEs of 6.1%. This is Santander Spain's main lending segment, accounting for 39% of the total, compared to 35% of CIB's portfolio, which from 2022 includes branches in Europe.

Most of the portfolio corresponds to clients who have been assigned a credit analyst, who performs continuous management of said clients during all phases of the risk cycle.

The portfolio is broadly diversified and not concentrated by sector of activity.

Santander Spain has continued to rely on its support and proximity to SMEs and the self-employed and has positioned itself as the leading entity in ICO Loans in 2023 with a share of 39%. The majority of this financing was allocated to the ICO Companies and Entrepreneurs Lines and the ICO International Line. ICO financing represents around 35% of the SME portfolio, and its performance is as expected thanks to our robust risk management policies.

The portfolio's NPL ratio stood at 5.27% in December 2023. The NPL ratio decreased by 45 bps compared to December 2022, due to a reduction in the delinquency stock in SMEs, due to the proactive management of delinquent positions with the support of portfolio sales.

### Real estate activity

Santander has specialized teams that are in charge of managing real estate business production and risk areas that cover the entire life cycle of these operations.

The changes in gross property development loans to customers were as follows:

| EUR million | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Balance at beginning of year** | **2,327** | **2,625** | **2,871** |
| Foreclosed assets | (1) | — | (1) |
| Net variation | 115 | (295) | (230) |
| Written-off assets | (8) | (3) | (15) |
| **Balance at end of year** | **2,433** | **2,327** | **2,625** |

The NPL ratio of this portfolio ended the year at 3.04% (compared with 4.04% and 5.07% at December 2022 and 2021, respectively) due to the decrease of non-performing assets in the troubled loan portfolio and, in particular, to the sharp reduction in lending in this segment. The table below shows the distribution of the portfolio. The coverage ratio of the real estate doubtful exposure in Spain stands at 39.19% (35.11% and 30.08% in 2022 and 2021, respectively).

| | 2023 | | |
|---|---|---|---|
| EUR Million | Gross amount | Excess of gross exposure over maximum recoverable amount of effective collateral | Specific allowance |
| Financing for construction and property development (including land) (business in Spain) | 2,433 | 259 | 40 |
| Of which impaired | 74 | 5 | 29 |
| Memorandum items written-off assets | 346 | — | — |

**Memorandum items: Data from the public consolidated balance sheet**

| EUR Million | 2023<br>Carrying amount |
|---|---|
| Total loans and advances to customers excluding the Public sector (business in Spain) (Book value) | 241,695 |
| Total consolidated assets (Total business) (Book value) | 1,797,062 |
| Impairment losses and credit risk allowances. Coverage for unimpaired assets (business in Spain) | 1,230 |

At year-end, the distribution of this portfolio was as follows:

| EUR Million | 2023<br>Loans: gross amount |
|---|---|
| 1. Without mortgage guarantee | 16 |
| 2. With mortgage guarantee | 2,417 |
| 2.1 Completed buildings | 1,032 |
| 2.1.1 Residential | 642 |
| 2.1.2 Other | 390 |
| 2.2 Buildings and other constructions under construction | 1,364 |
| 2.2.1 Residential | 1,292 |
| 2.2.2 Other | 72 |
| 2.3 Land | 21 |
| 2.3.1 Developed consolidated land | 14 |
| 2.3.2 Other land | 7 |
| **Total** | **2,433** |

### Policies and strategies in place for the management of these risks

The policies in force for the management of this portfolio are periodically reviewed and approved on a regular basis by Santander's senior management.

As has already been disclosed in this section, the Group's anticipatory management of these risks enabled it to significantly reduce its exposure, and it has a granular, geographically diversified portfolio in which the financing of second residences accounts for a very small proportion of the total.

Mortgage lending on non-urban land represents a low percentage of mortgage exposure to land, while the remainder relates to land already classified as urban or approved for development.

The significant reduction of exposure in the case of residential financing projects in which the construction work has already been completed was based on various actions. As well as the specialised marketing channels already in existence, campaigns were carried out with the support of specific teams of managers for this function who, in the case of the Santander network, were directly supervised by the recoveries business area. These campaigns, which involved the direct management of the projects with property developers and purchasers, reducing sale prices and adapting the lending conditions to the buyers' needs, enabled loans already in force to be subrogated. These subrogations enable 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 complete 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 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 2023, the net balance of these assets amounted to EUR 2,448 million (EUR 2,971 million and EUR 3,591 million at 31 December 2022 and 2021, respectively), gross amount of EUR 5,506 million (EUR 6,422 million and EUR 7,364 million at 31 December 2022 and 2021, respectively); recognised allowance of EUR 3,058 million (EUR 3,451 million and EUR 3,773 million at 31 December 2022 and 2021, respectively).

The following table shows the detail of the assets foreclosed by the businesses in Spain at the end of 2023:

| EUR Million | 2023 | | | |
|---|---|---|---|---|
| | Gross carrying amount | Valuation adjustments | Of which impairment losses on assets since time of foreclosure | Net Carrying amount |
| **Property assets arising from financing provided to construction and property development companies** | **4,901** | **2,801** | **2,072** | **2,100** |
| *Of which:* | | | | |
| *Completed buildings* | *1,054* | *615* | *519* | *439* |
| *Residential* | *224* | *111* | *89* | *113* |
| *Other* | *830* | *504* | *430* | *326* |
| *Buildings under construction* | *101* | *45* | *36* | *56* |
| *Residential* | *12* | *9* | *6* | *3* |
| *Other* | *89* | *36* | *30* | *53* |
| *Land* | *3,746* | *2,141* | *1,517* | *1,605* |
| *Developed land* | *1,107* | *589* | *366* | *518* |
| *Other land* | *2,639* | *1,552* | *1,151* | *1,087* |
| **Property assets from home purchase mortgage loans to households** | **473** | **197** | **131** | **276** |
| **Other foreclosed property assets** | **132** | **60** | **46** | **72** |
| **Total property assets** | **5,506** | **3,058** | **2,249** | **2,448** |

In addition, the Group has shareholdings in entities holding foreclosed assets amounting to EUR 179 million (mainly Project Quasar Investment 2017, S.L. with EUR 155 million), and equity instruments foreclosed or received in payment of debts amounting to EUR 14 million.

In recent years, the Group has considered foreclosure to be a more efficient method for resolving cases of default than legal proceedings. The Group initially recognises foreclosed assets at the lower of the carrying amount of the debt (net of provisions) and the fair value of the foreclosed asset (less estimated costs to sell). Subsequent to initial recognition, the assets are measured at the lower of fair value (less costs to sell) and the amount initially recognised.

The fair value of this type of assets is determined by the market value (appraisal) adjusted with discounts obtained according to internal valuation methodologies based on the entity's sales experience in goods with similar characteristics.

The management of real estate assets on the balance sheet is carried out through companies specializing in the sale of real estate that is complemented by the structure of the commercial network. The sale is realised with at prices in accordance with the market situation and the offer of wholesale buyers.

The gross movement in foreclosed properties were as follows (EUR billion):

| | EUR Billion | | |
|---|---|---|---|
| | 2023 | 2022 | 2021 |
| Gross additions | 0.3 | 0.2 | 0.4 |
| Disposals | (1.2) | (1.3) | (1.1) |
| Difference | (0.9) | (1.1) | (0.7) |

### 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, 2023, 2022 and 2021, is shown below. In addition, the exposure is divided in four tranches of the Standard & Poor's rating scale, according to their current credit quality:

**Exposure and impairment losses by stage**

EUR million

| | 2023 | | | |
|---|---|---|---|---|
| **Credit quality** [A] | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 46,827 | 48 | — | 46,875 |
| From A+ to BB | 101,079 | 780 | — | 101,859 |
| From BB- to B- | 33,905 | 9,789 | — | 43,694 |
| CCC and below | 1,513 | 4,517 | 7,536 | 13,566 |
| **Total exposure** [B] | **183,324** | **15,134** | **7,536** | **205,994** |
| **Impairment losses** [C] | **300** | **663** | **2,959** | **3,922** |

## Exposure and impairment losses by stage

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| Credit quality [A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 37,133 | 447 | — | 37,580 |
| From A+ to BB | 107,667 | 282 | — | 107,949 |
| From BB- to B- | 46,296 | 6,388 | — | 52,684 |
| CCC and below | 253 | 5,234 | 8,893 | 14,380 |
| **Total exposure [B]** | **191,349** | **12,351** | **8,893** | **212,593** |
| **Impairment losses [C]** | **507** | **666** | **3,472** | **4,645** |

## Exposure and impairment losses by stage

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| Credit quality [A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 43,978 | 352 | — | 44,330 |
| From A+ to BB | 109,142 | 555 | — | 109,697 |
| From BB- to B- | 33,104 | 11,716 | — | 44,820 |
| CCC and below | 336 | 5,008 | 13,762 | 19,106 |
| **Total exposure [B]** | **186,353** | **15,647** | **12,761** | **214,761** |
| **Impairment losses [C]** | **422** | **580** | **5,005** | **6,007** |

A. Detail of credit quality ratings calculated for Group management purposes. Excluding the SCIB branches business

B. Total exposure includes loan balances (drawn amounts) and off balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.

C. Includes provisions for undrawn authorized lines (loan commitments).

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 2023, is presented below:

| | 2024-2028 | | |
|---|---|---|---|
| Variables | Pessimistic scenario | Base scenario | Optimistic scenario |
| Interest rate | 3.6% | 3.1% | 3.0% |
| Unemployment rate | 14.3% | 11.0% | 9.5% |
| Housing price change | 0.5% | 2.1% | 2.6% |
| GDP growth | 0.0% | 1.5% | 2.7% |

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:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Pessimistic scenario | 30% | 30% | 30% |
| Base scenario | 40% | 40% | 40% |
| Optimistic scenario 1 | 30% | 30% | 30% |

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios, at December 31 2023, is as follows:

| | Change in Provision | | |
|---|---|---|---|
| | Mortgages | Corporates | Others |
| **GDP Growth** | | | |
| -100 bp | 4.1% | 3.3% | 3.7% |
| 100 bp | -1.9% | -1.2% | -2.2% |
| **Housing price change** | | | |
| -100 bp | 3.1% | 2.5% | 4.2% |
| 100 bp | -2.1% | -1.2% | -2.1% |

Regarding the stage 2 classification determination, the quantitative criteria applied in Santander Spain are based on identifying whether any increase in the PD for the entire expected life of the operation is greater than a relative or absolute threshold. The established threshold is different for each portfolio depending on the characteristics of the operations, and an operation is considered to exceed said threshold when the PD for the entire life of the operation increases a certain amount over the PD it had at the time of initial recognition. The values of these thresholds depend on their calibration, carried out periodically, as indicated in previous paragraphs. Additionally, Santander Spain has implemented a backstop to the relative threshold in all portfolios. Consequently, contracts whose current PD has increased more than twice with respect to its PD at the time of its origination will be classified in phase 2.

In addition, a series of specific qualitative criteria are defined that indicate that the exposure has had a significant increase in credit risk, regardless of the evolution of its PD since the moment of initial recognition. Santander Spain, among other criteria, considers that an operation presents a significant increase in risk when it presents irregular positions for more than 30 days or if it is determined based on a system of Early Warning Indicators (EWIs).

### 3.3. United States

#### Portfolio overview

Santander US's credit risk increased to EUR 137,893 million at the end of December 2023. It makes up 12.2% of Grupo Santander's total credit risk.

As of December 2023, Santander US credit investment dropped 1.8% compared to 2022, mainly due to SCUSA and SBNA Individuals portfolios..

Once the fiscal stimuli were withdrawn and after several increases in interest rates, the NPL rate grew to 4.57% (+132 bps in the year) due to a higher stock of delinquencies in SC USA, and the cost of risk increased up to 1.92% (+57 bp in the year).

Santander US includes the following business units:

#### Santander Bank, National Association (SBNA)

In 2023 lending amounted 58,826 million euros (representing 5% of the Group's credit risk) and presents a reduction of 9.1% in 2023, mainly due to the transfer of the CIB portfolio to the New York branch. Excluding the exchange rate effect, the portfolio decreased by 6.0%.

Its activity is focused on commercial banking with 88% of the portfolio distributed in individuals (51%), and approximately 49% in corporates. To optimize profitability and growth opportunities, the retail segment focuses on the financing of consumer loans, as well as automobile financing and leasing, leaving aside the origination of mortgage loans and loans and lines of credit associated with mortgage guarantees. .

The NPL ratio increased to 1.64% (+56 bp in the year) as of December 2023 the cost of credit increased to 0.98% once the provisions were normalized after the extraordinary releases of 2022 that were favoured by the fiscal support and stimulus programs still in force at that time.

#### Information on the estimation of impairment losses

The detail of Santander Bank, National Association exposure and impairment losses associated with each of the stages at 31 December, 2023, 2022 and 2021, is shown below. In addition, the exposure is divided in four tranches of the Standard & Poor's rating scale, according to their current credit quality:

**Exposure and impairment losses by stage**

EUR million

| | 2023 | | | |
|---|---|---|---|---|
| **Credit quality [A]** | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 4,834 | 76 | — | 4,910 |
| From A+ to BB | 20,468 | 459 | — | 20,926 |
| From BB- to B- | 25,312 | 3,439 | — | 28,751 |
| CCC and below | 52 | 450 | 894 | 1,396 |
| Total exposure [B] | **50,665** | **4,424** | **894** | **55,983** |
| **Impairment losses [C]** | **409** | **335** | **141** | **885** |

**Exposure and impairment losses by stage**

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| **Credit quality [A]** | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 6,884 | 145 | — | 7,029 |
| From A+ to BB | 20,768 | 366 | — | 21,134 |
| From BB- to B- | 30,359 | 2,225 | — | 32,584 |
| CCC and below | 308 | 558 | 459 | 1,325 |
| **Total exposure [B]** | **58,319** | **3,294** | **459** | **62,072** |
| **Impairment losses [C]** | **392** | **241** | **74** | **707** |

**Exposure and impairment losses by stage**

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| **Credit quality [A]** | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 8,811 | 124 | — | 8,935 |
| From A+ to BB | 29,379 | 1,033 | — | 30,412 |
| From BB- to B- | 12,193 | 2,756 | — | 14,949 |
| CCC and below | 19 | 361 | 477 | 857 |
| **Total exposure [B]** | **50,402** | **4,274** | **477** | **55,153** |
| **Impairment losses [C]** | **263** | **314** | **45** | **622** |

A. Detail of credit quality ratings calculated for Group management purposes.
B. Total exposure includes loan balances (drawn amounts) and off-balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.
C. Includes provisions for undrawn authorized lines (loan commitments).

For the estimation of expected losses, prospective information is taken into account. Specifically, Santander Bank, National Association considers four macroeconomic scenarios, which are updated periodically. The evolution projected in 2023 for a period of five years of the main macroeconomic indicators used Santander Bank, National Association to estimate expected losses is presented below:

| | 2024 - 2028 | | | |
|---|---|---|---|---|
| Variables | Pessimistic scenario 2 | Pessimistic scenario 1 | Base scenario | Optimistic scenario |
| Interest rate (annual averaged) | 2.4% | 3.1% | 3.4% | 3.7% |
| Unemployment rate | 5.9% | 4.6% | 4.1% | 3.3% |
| House price change | -0.7% | -0.2% | 0.3% | 1.0% |
| GDP growth | 1.6% | 2.0% | 1.8% | 2.6% |
| Manheim growth[A] | -1.6% | -1.5% | -1.6% | -1.3% |

A. US used vehicle price car index.

Each of the macroeconomic scenarios is associated with a given weight. As for its allocation, Santander Bank, National Association associates the highest weighting to the Base scenario, while associates the lowest weightings to the most extreme scenarios:

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Pessimistic scenario 2 | 18% | 18% | 18% |
| Pessimistic scenario 1 | 20% | 20% | 20% |
| Base scenario | 33% | 33% | 33% |
| Optimistic scenario | 30% | 30% | 30% |

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios as of 2023 is as follows:

| | Change in Provision | |
|---|---|---|
| | Mortgages | Corporates |
| **GDP Growth** | | |
| -100 bp | 9.9% | 8.7% |
| 100 bp | -7.5% | -6.4% |
| **Housing price change** | | |
| -100 bp | 11.3% | 10.7% |
| 100 bp | -7.4% | -6.9% |
| **Unemployment rate** | | |
| -100 bp | -30.3% | -23.8% |
| 100 bp | 35.9% | 30.1% |

In relation to the Stage 2 classification determination, the quantitative criteria applied at SBNA for retail portfolios uses the FICO (Fair Isaac Corporation) score at the time of origination and its current value, establishing different absolute threshold for each portfolio according to their characteristics. A SICR implies changes in that score ranging from 120 bp to 20 bp.

In the case of wholesale portfolios, SBNA uses the transaction's rating as a reference for its PD, taking into account its rating at the time of origination and its current rating, setting absolute thresholds for the different rating bands that depend on each portfolio characteristics.

Additionally, for each portfolio, a series of specific qualitative criteria are defined, which indicate that the exposure has experienced a significant increase in credit risk, regardless of the evolution of its PD since the initial recognition. Santander Bank, National Association, among other criteria, considers that a transaction presents a significant increase in credit risk when it has arrears positions for more than 30 days or if it is determined based on a system of Early Warning Indicators (EWIs).

### Santander Consumer USA Inc.

Santander Consumer USA Inc. (SC USA) presents higher risk indicators than other Santander US units due to the nature of its business, which focuses on auto finance via loans and leasing.

At 31 December 2023, lending amounted to EUR 28,876 million (representing 3% of the Group) and presents a reduction of 9.6% in 2023. Excluding the exchange rate effect, the portfolio decreased by 6.5%.

The focus continues to be on managing the relationship between profitability and risk, via management of prices adjusted to the credit quality of the customer/transaction, while improving the dealers' experience. Originations in the auto portfolio did not grow compared to the previous year, as a reflection of the restriction in the supply of new vehicles and the revaluation of used vehicles compared to the levels of previous years.

As of December 2023, the cost of credit is following a normalization trend, from the artificially good situation of previous years, due to government support and stimulus programs. Regarding the NPL ratio, it increased to 18.26% (+615 bp in the year); and the cost of credit stood at 6.41% (+173 bp YoY). Non-performing coverage ratio fell to 63% (-24 pp in the year), in line with the percentages of transfers from default to bad debts, which are at historically low levels.

### Information on the estimation of impairment losses

The detail of Santander Consumer USA Holding Inc. exposure and impairment losses associated with each of the stages at 31 December 2023, 2022 and 2021, is shown below. In addition, the exposure is divided in four tranches of the Standard & Poor's rating scale, according to their current credit quality:

**Exposure and impairment losses by stage**

EUR million

| | 2023 | | | |
|---|---|---|---|---|
| Credit quality [A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | — | — | — | — |
| From A+ to BB | 99 | — | — | 99 |
| From BB- to B- | 12,120 | 395 | — | 12,515 |
| CCC and below | 6,754 | 4,237 | 5,272 | 16,263 |
| **Total exposure [B]** | **18,973** | **4,632** | **5,272** | **28,877** |
| **Impairment losses [C]** | **597** | **1,019** | **1,712** | **3,327** |

**Exposure and impairment losses by stage**

EUR million

| | 2022 | | | |
|---|---|---|---|---|
| Credit quality [A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | — | — | — | — |
| From A+ to BB | 171 | — | — | 171 |
| From BB- to B- | 14,564 | 512 | — | 15,076 |
| CCC and below | 7,735 | 5,108 | 3,870 | 16,713 |
| **Total exposure [B]** | **22,470** | **5,620** | **3,870** | **31,960** |
| **Impairment losses [C]** | **672** | **1,232** | **1,452** | **3,356** |

**Exposure and impairment losses by stage**

EUR million

| | 2021 | | | |
|---|---|---|---|---|
| Credit quality [A] | Stage 1 | Stage 2 | Stage 3 | Total |
| From AAA to AA- | 417 | 4 | — | 421 |
| From A+ to BB | 800 | 35 | — | 835 |
| From BB- to B- | 18,655 | 5,930 | — | 24,585 |
| CCC and below | 222 | 1,931 | 1,658 | 3,811 |
| **Total exposure [B]** | **20,094** | **7,900** | **1,658** | **29,652** |
| **Impairment losses [C]** | **524** | **1,741** | **572** | **2,837** |

A. Detail of credit quality ratings calculated for Group management purposes.
B. Total exposure includes loan balances (drawn amounts) and off-balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.
C. Includes provisions for undrawn authorized lines (loan commitments).

For the expected losses estimation, prospective information should be taken into account. Specifically, Santander Consumer USA Holdings Inc. considers four macroeconomic scenarios, periodically updated over a 5-year time horizon.

The evolution forecasted in 2023 for a period of five years of the main macroeconomic indicators used by in Santander Consumer USA Holdings Inc in the estimation of expected losses is shown below:

| | 2024 - 2028 | | | |
|---|---|---|---|---|
| Variables | Pessimistic scenario 2 | Pessimistic scenario 1 | Base scenario | Optimistic scenario |
| Interest rate (annual averaged) | 2.4% | 3.1% | 3.4% | 3.7% |
| Unemployment rate | 5.9% | 4.6% | 4.1% | 3.3% |
| House price change | -0.7% | -0.2% | 0.3% | 1.0% |
| GDP growth | 1.6% | 2.0% | 1.8% | 2.6% |
| Manheim[A] index | -1.6% | -1.5% | -1.6% | -1.3% |

A. US used vehicle price car index.

Each of the macroeconomic scenarios is associated with a given weight. Santander Consumer USA Inc. associates the highest weighting to the Base scenario, whereas it associates the lowest weightings to the most extreme or acid scenarios:

| | 2023 | 2022 | 2020 |
|---|---|---|---|
| Pessimistic scenario 2 | 18% | 18% | 18% |
| Pessimistic scenario 1 | 20% | 20% | 20% |
| Base scenario | 33% | 33% | 33% |
| Optimistic scenario | 30% | 30% | 30% |

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios at the end of 2023 is as follows:

| | Change in provision |
|---|---|
| | SC Auto |
| Manheim index | |
| -100 bp | 0.8% |
| 100 bp | -0.7% |
| Unemployment Rate | |
| -100 bp | -3.7% |
| 100 bp | 4.0% |
| House Price Change | |
| -100 bp | 1.6% |
| 100 bp | -1.2% |
| GDP growth | |
| -100 bp | 1.4% |
| 100 bp | -1.1% |

In relation to the stage 2 classification determination, the quantitative criteria applied at SC USA uses the FICO (Fair Isaac Corporation) score at the time of origination and its current value, establishing different absolute threshold for each portfolio according to their characteristics.

Additionally, for each portfolio, a series of specific qualitative criteria are defined, which indicate that the exposure has had a significant increase in credit risk, regardless of the evolution of its PD since the initial recognition. Santander Consumer USA Holdings Inc. among other criteria, considers that a transaction presents a significant increase in credit risk when it has irregular positions for more than 30 days. These criteria depend on the risk management practices of each portfolio.

### 3.4. Banco Santander (Brasil) S.A.

#### Portfolio overview

Santander Brasil's credit risk amounted to EUR 113,937 million. It increased by 11.9% from 2022. Minus the exchange rate effect, it grew by 6.3%. As of December 2023, Santander Brasil accounts for 10% of Grupo Santander's loan book.

The Brazilian economy has experienced a slow but continuous recovery, which has slowed down, although the labour market continued to show great resilience as did exports.

Lending to individual observed moderate growth, with a focus on guaranteed portfolios, despite the restrictive measures implemented due to the deterioration of the macroeconomic situation since the second half of 2021. At Santander Auto, the alliance with Stellantis is expected to represent a relevant accelerator of vehicle production given that it is the main brand in Brazil, with 32% market share. The improvement observed in new production is already beginning to be reflected in metrics at the portfolio level, through the earliest irregularity indicators.

SME lending, which represents 10% of the total risk, the restrictive admission measures adopted since the end of 2021 were maintained, also incorporating some additional ones, especially in the risk profiles with the worst behaviour, reviewing the strategies to ensure quality credit at budgeted levels, which was achieved during the year, avoiding deterioration in risk metrics.

Regarding lending to corporates, the volume has grown above expectations (as of December 23), showing robust and constant growth. This portfolio growth has been achieved by maintaining stable credit profile and profitability.

The NPL rate went from 7.57% in December 2022 to 6.56% in December 2023, and the coverage ratio increased from 80% to 85%.

As of 31 December 2023 loan-loss provisions reached EUR 4,701 million, a 6.4% year-on-year increase (excluding the effect of the exchange rate, the increase would remain at 6%) Cost of risk rose from 4.79% in 2022 to 4.77% in 2023.

### Information on the estimation of impairment losses

The detail of Banco Santander (Brasil) S.A. exposure and impairment losses associated with each of the stages at 31 December 2023, 2022 and 2021, is shown below. In addition, the exposure is divided in four tranches of the Standard & Poor's rating scale, according to their current credit quality:

**Exposure and impairment losses**

| EUR million | 2023 | | | |
|---|---|---|---|---|
| **Credit quality [A]** | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 20,670 | 468 | — | 21,138 |
| From A+ to BB | 38,869 | 751 | — | 39,620 |
| From BB- to B- | 36,107 | 4,177 | — | 40,284 |
| CCC and below | 1,153 | 3,735 | 7,479 | 12,367 |
| **Total exposure [B]** | **96,799** | **9,131** | **7,479** | **113,409** |
| **Impairment losses [C]** | **722** | **1,078** | **4,538** | **6,338** |

**Exposure and impairment losses**

| EUR million | 2022 | | | |
|---|---|---|---|---|
| **Credit quality [A]** | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 18,033 | 41 | — | 18,074 |
| From A+ to BB | 35,902 | 342 | — | 36,244 |
| From BB- to B- | 31,269 | 3,195 | — | 34,464 |
| CCC and below | 432 | 4,547 | 7,705 | 12,684 |
| **Total exposure [B]** | **85,636** | **8,125** | **7,705** | **101,466** |
| **Impairment losses [C]** | **575** | **1,219** | **4,334** | **6,128** |

**Exposure and impairment losses**

| EUR million | 2021 | | | |
|---|---|---|---|---|
| **Credit quality [A]** | **Stage 1** | **Stage 2** | **Stage 3** | **Total** |
| From AAA to AA- | 22,555 | 296 | — | 22,851 |
| From A+ to BB | 24,003 | 280 | — | 24,283 |
| From BB- to B- | 27,040 | 2,241 | — | 29,281 |
| CCC and below | 1,542 | 2,544 | 4,182 | 8,268 |
| **Total exposure [B]** | **75,140** | **5,361** | **4,182** | **84,683** |
| **Impairment losses [C]** | **1,232** | **909** | **2,510** | **4,651** |

A. Detail of credit quality ratings calculated for Group management purposes.
B. Total exposure includes loan balances (drawn amounts) and off-balance (letters of credit + guarantees) and excludes REPOs, FV portfolio, trading portfolio and undrawn commitments.
C. Includes provisions for undrawn authorized lines (loan commitments).

For the expected losses estimation, prospective information is taken into account. Particularly, Santander Brazil considers three macroeconomic scenarios, periodically updated. The evolution for a period of five years of the main macroeconomic indicators used to estimate the expected losses in Santander Brazil is as follows:

| | 2024-2028 | | |
|---|---|---|---|
| **Variables** | **Pessimistic scenario** | **Base scenario** | **Optimistic scenario** |
| Interest rate (annual averaged) | 10.8% | 8.4% | 6.6% |
| Unemployment rate | 10.6% | 8.4% | 6.2% |
| House price change | 1.8% | 3.8% | 5.6% |
| GDP growth | 0.0% | 1.8% | 3.0% |
| Burden income | 26.6% | 24.3% | 23.0% |

Each macroeconomic scenario is associated with a given weight. Regarding its assignation, Brazil links the highest weight to the base scenario whilst links the lowest weights to the most extreme scenarios:

| | **2023** | **2022** | **2021** |
|---|---|---|---|
| Pessimistic scenario | 10% | 10% | 10% |
| Base scenario | 80% | 80% | 80% |
| Optimistic scenario | 10% | 10% | 10% |

The sensitivity analysis of the main portfolios expected loss to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios is at the end of 2023 as follows:

| | Change in provision | | |
|---|---|---|---|
| | **Consumer** | **Corporate** | **Other** |
| **GDP growth** | | | |
| -100 bp | 1.1% | 3.2% | 1.8% |
| 100 bp | -0.6% | -1.8% | -0.8% |
| **Unemployment rate** | | | |
| -100 bp | -0.3% | -0.6% | -0.5% |
| 100 bp | 1.4% | 3.7% | 2.3% |
| **Interest rate (SELIC)** | | | |
| -100 bp | -1.4% | -5.2% | -1.8% |
| 100 bp | 2.7% | 6.2% | 4.1% |

Regarding the stage 2 classification determination, Santander Brazil analyses whether any increase in the PD for the expected entire life of the operation is greater than the combination of an absolute and a relative threshold. The established threshold is different for each portfolio depending on the characteristics of the operations, and an operation is considered to exceed said threshold when the PD for the entire life of the operation increases a certain amount over the PD it had at the time of initial recognition. The values of these absolute and relative thresholds depend on their calibration, carried out periodically, as well as the type of portfolio they affect. Additionally, Santander Brasil plans to introduce in February 2024 a backstop of 200% to the relative threshold of all portfolios

In addition, for every portfolio, a set of specific qualitative criteria are defined to indicate that the exposure to credit risk has significantly risen, regardless of the evolution of its PD since the initial recognition. Santander Brazil, among other criteria, considers that an operation involves a significant increase in credit risk when it presents irregular positions for more than 30 days or if it is determined based on a system of Early Warning Indicators (EWI).

## 4. Other credit risk aspects

### 4.1. Credit risk by activity in the financial markets

This section covers credit risk from treasury, with money market financing and counterparty risk products to satisfy the needs of customers (especially credit institutions) and the Group.

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

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

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

To measure exposure, Santander uses two methods: "Mark-to-market" (MtM) (replacement cost of derivatives), plus potential future exposure ("add-on"); and the Monte Carlo simulation for certain countries and products. In addition, Santander calculates capital at risk and unexpected loss (e.g. economic capital, net of collateral and recoveries, after deducting expected loss).

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

As part of the exposure to counterparty credit risk, an additional risk known as wrong-way risk may arise. This risk is the one that arises in the event that the exposure with a portfolio or with a counterparty increases when its credit quality deteriorates. That is, wrong-way risk exists when there is an increase in the risk of default and, as a consequence, the exposure we have with the counterparty increases. Santander has specific models to measure this risk.

Regarding settlement risk, this occurs when the settlement of a transaction involves a bilateral exchange of flows or assets between two counterparties, and there is a risk that one of the parties will fail to comply with their settlement commitments. To measure this risk, Santander has developed a global infrastructure and specific models.

### 4.2. Concentration risk

Concentration risk control is a vital part of our management. The Group continuously monitors the degree of concentration of its credit risk portfolios using various criteria: geographic areas and countries, economic sectors and groups of customers.

The board, via the risk appetite framework, determines the maximum levels of concentration.

In line with these maximum levels and limits, the executive risk committee establishes the risk policies and reviews the appropriate exposure levels for the effective management of the degree of concentration in Santander's credit risk portfolios.

Grupo Santander must adhere to the regulation on large risks contained in the CRR, according to which the exposure contracted by an entity with a customer or group of associated customers will be considered a large exposure when its value is equal to or greater than 10% of eligible capital.

In addition, in order to limit large exposures, no entity may assume exposures exceeding 25% of its eligible capital with a single customer or group of associated customers, having factored in the credit risk mitigation effect contained in the regulation.

At the end of December, after applying risk mitigation techniques, no group reaches the above-mentioned thresholds.

Regulatory credit exposure with the 20 largest groups within the scope of large risks represented 5.6% of the outstanding credit risk with customers (lending to customers plus off-balance sheet risks) as of December 2023. While the regulatory credit exposure with the 40 largest groups represents 8.5% of the credit risk.

The detail, by activity and geographical area of the Group's risk concentration at 31 December 2023 is as follows:

EUR million

| | 2023[A] | | | | |
|---|---|---|---|---|---|
| | Total | Spain | Other EU countries | America | Rest of the world |
| Central banks and Credit institutions | 379,533 | 99,186 | 69,692 | 132,573 | 78,082 |
| Public sector | 215,038 | 56,158 | 51,160 | 96,477 | 11,243 |
| Of which: | | | | | |
| Central government | 186,872 | 43,442 | 45,469 | 87,217 | 10,744 |
| Other central government | 28,166 | 12,716 | 5,691 | 9,260 | 499 |
| Other financial institutions (financial business activity) | 158,730 | 15,578 | 44,480 | 60,321 | 38,351 |
| Non-financial companies and individual entrepreneurs (non-financial business activity) (broken down by purpose) | 455,926 | 109,246 | 106,328 | 179,349 | 61,003 |
| Of which: | | | | | |
| Construction and property development | 20,621 | 3,318 | 4,189 | 7,561 | 5,553 |
| Civil engineering construction | 5,538 | 2,354 | 1,740 | 1,257 | 187 |
| Large companies | 282,357 | 48,777 | 61,506 | 126,207 | 45,867 |
| SMEs and individual entrepreneurs | 147,410 | 54,797 | 38,893 | 44,324 | 9,396 |
| Households – other (broken down by purpose) | 564,425 | 88,660 | 103,380 | 148,026 | 224,359 |
| Of which: | | | | | |
| Residential | 352,478 | 63,294 | 36,480 | 47,347 | 205,357 |
| Consumer loans | 192,960 | 17,428 | 64,084 | 94,805 | 16,643 |
| Other purposes | 18,987 | 7,938 | 2,816 | 5,874 | 2,359 |
| **Total** | **1,773,652** | **368,828** | **375,040** | **616,746** | **413,038** |

A. 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 securities', 'Equity Instruments', 'Trading Derivatives', 'Hedging derivatives', 'Investments and financial guarantees given'.

### 4.3 Sectors identification and management

Grupo Santander conducts a quarterly review of exposure to customers operating in sectors that could be more affected by macroeconomic conditions (energy consumption, commodity prices, and key macroeconomic variables). This monitoring is complemented by the use of internal tools that allow projecting the behaviour and evolution of clients in each sector under different macroeconomic scenarios. Additionally, this process considers, among other things, the following information at the sector level:

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

### 4.4. 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.

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

Santander continues to track and manage transactions with sovereign risk based on available information, such as reports by rating agencies and international organizations. Grupo Santander monitors each country where the Group has cross-border[1] and sovereign risk. Santander analyses events that could affect the country's political or institutional stability and assign its government or central bank a credit rating. This helps us set limits for transactions with sovereign risk.

At the end of December, Grupo Santander´s local sovereign exposure, in currencies other than the official currency of the country of issuance, is not significant (EUR 4,404 million, 1.1% 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 11,085 million, 2.7% 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[A]:

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

A. Internal ratings are applied.

Sovereign exposure at the end of 31 December 2023 is shown in the table below (data in million euros):

| | 2023 | | | | | 2022 |
|---|---|---|---|---|---|---|
| | 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 | 4,996 | 97 | 34,534 | — | 39,627 | 29,095 |
| Portugal | 462 | 1,247 | 5,150 | — | 6,859 | 5,456 |
| Italy | (2,187) | 415 | 7,366 | — | 5,594 | 7,415 |
| Greece | — | — | — | — | — | — |
| Ireland | — | — | — | — | — | — |
| Rest Eurozone | 2,899 | 604 | 4,621 | — | 8,124 | 5,651 |
| UK | 1,261 | 607 | 1,919 | — | 3,787 | 2,106 |
| Poland | 194 | 6,340 | 4,733 | — | 11,267 | 8,715 |
| Rest of Europe | 16 | 2,467 | 310 | — | 2,793 | 132 |
| US | 2,049 | 5,253 | 14,002 | — | 21,304 | 23,298 |
| Brazil | 11,715 | 10,273 | 5,745 | — | 27,733 | 23,728 |
| Mexico | 3,311 | 12,075 | 5,439 | — | 20,825 | 17,306 |
| Chile | 97 | 1,040 | 5,148 | — | 6,285 | 6,485 |
| Rest of America | 277 | 543 | 1,430 | — | 2,250 | 1,964 |
| Rest of the World | 229 | 2,843 | 1,455 | — | 4,527 | 3,542 |
| **TOTAL** | **25,319** | **43,804** | **91,852** | **—** | **160,975** | **134,893** |

## 5. Forborne loan portfolio

The customer debt redirection policy incorporates the regulatory requirements of the EBA guidelines on the management of non-performing exposures, refinancing and restructuring. This policy acts as a reference for the transposition in our subsidiaries and shares the applicable supervisory expectations.

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 Santander must adapt payment obligations to customers' current circumstances. Our forbearance policy also defines classification criteria to ensure Grupo Santander recognizes risks appropriately. They must remain classified as non-performing or in watch-list for a prudential period for reasonable certainty of repayment. In no case will repayments be used to delay the immediate recognition of losses or so that their use distorts the timely recognition of the risk of non-payment.

At 31 December 2023, forbearance stock fell again and stood at EUR 31,963 million, due to the good payment behaviour in the main geographies. In terms of credit quality, 47% of the loans is classified as credit impaired, with a coverage ratio of 44%. In addition, 53% of the portfolio is classified as performing.

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

| | 2023 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total | | | | | | |
| | Without real guarantee | | With real guarantee | | | | |
| | | | | | Maximum amount of the actual collateral that can be considered | | |
| | Number of transactions | Gross amount | Number of transactions | Gross amount | Real estate guarantee | Rest of real guarantees | Impairment of accumulated value or accumulated losses in fair value due to credit risk |
| Credit entities | — | — | — | — | — | — | — |
| Public sector | 12,851 | 437 | 37 | 5 | 2 | — | 4 |
| Other financial institutions and: individual shareholder | 1,011 | 258 | 833 | 285 | 38 | 182 | 58 |
| Non-financial institutions and individual shareholder | 728,123 | 7,709 | 61,110 | 6,977 | 4,079 | 1,461 | 3,543 |
| *Of which financing for constructions and property development* | 14,236 | 106 | 2,035 | 506 | 415 | 41 | 134 |
| Other warehouses | 4,400,346 | 6,107 | 507,378 | 10,185 | 4,602 | 4,043 | 4,484 |
| **Total** | **5,142,331** | **14,511** | **569,358** | **17,452** | **8,721** | **5,686** | **8,089** |
| Financing classified as non-current assets and disposable groups of items that have been classified as held for sale | — | — | — | — | — | — | — |

**Current refinancing and restructuring balances**

Amounts in EUR million, except number of transactions that are in units

| | 2023 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Of which, non-performing/Doubtful | | | | | | |
| | Without real guarantee | | With real guarantee | | | | |
| | | | | | Maximum amount of the actual collateral that can be considered | | |
| | Number of transactions | Gross amount | Number of transactions | Gross amount | Real estate guarantee | Rest of real guarantees | Impairment of accumulated value or accumulated losses in fair value due to credit risk |
| Credit entities | — | — | — | — | — | — | — |
| Public sector | 7 | 3 | 7 | 1 | 1 | — | 3 |
| Other financial institutions and: individual shareholder | 472 | 25 | 428 | 107 | 21 | 51 | 50 |
| Non-financial institutions and individual shareholder | 385,859 | 3,307 | 37,225 | 3,751 | 2,134 | 709 | 3,078 |
| Of which financing for constructions and property development | 7,759 | 56 | 1,155 | 235 | 183 | 18 | 112 |
| Other warehouses | 2,092,099 | 2,593 | 293,433 | 5,257 | 1,744 | 2,394 | 3,415 |
| **Total** | **2,478,437** | **5,928** | **331,093** | **9,116** | **3,900** | **3,154** | **6,546** |
| Financing classified as non-current assets and disposable groups of items that have been classified as held for sale | — | — | — | — | — | — | — |

In 2023, the amortised cost of financial assets whose contractual cash flows were modified during the year when the corresponding loss adjustment was valued at an amount equal to the expected credit losses over the life of the asset amounted to EUR 2,902 million (2,379 million in 2022), without these modifications having a material impact on the income statement. Also, during 2023, 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 2,804 million (1,677 million in 2022).

The transactions presented in the foregoing tables were classified at 31 December 2023 by nature, as follows:

- Credit impaired: 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 consecutive days of material delay on the date of the reclassification to the normal risk category.

Attending to the credit attention 53% of the forborne loan transactions are classified as other than non-performing. Particularly noteworthy are the level of existing guarantees (45% of transactions are secured by collateral) and the coverage provided by specific allowances (representing 25% of the total forborne loan portfolio and 44% of the non-performing portfolio).

## c) Market, structural and liquidity risk

### 1. Activities subject to market risk and types of market risk

Activities exposed to market risk encompass transactions where risk is assumed as a consequence of potential changes in interest rates, inflation rates, exchange rates, stock prices, credit spreads, commodity prices, volatility and other market factors; the liquidity risk from our products and markets, and the balance-sheet liquidity risk. Therefore, they include trading risks and structural risks.

- **Interest rate risk** arises from movements in interest rates that reduce the value of a financial instrument, a portfolio or the Grupo Santander. It can affect loans, deposits, debt securities, most assets and liabilities held for trading, and derivatives.
- **Inflation rate risk** arises from movements in inflation that can reduce the value of a financial instrument, a portfolio or the entire group. It can affect loans, debt securities and derivatives (e.g. inflation swaps and futures) whose profitability is linked to inflation.
- **Exchange rate risk** is the possibility of loss because the currency of a long or open position will depreciate against the base currency. It can affect debt in subsidiaries whose local currency is not the euro, as well as loans denominated in a foreign currency.
- **Equity risk** is the possibility of loss from open positions in securities if their market price or expected future dividends fall. It affects shares, stock market indices, convertible bonds and derivatives with shares as the underlying asset (put, call, equity swaps, etc.).
- **Credit spread risk** is the possibility of loss from open positions in fixed-income securities or credit derivatives if their yield curve, or the recovery rate of their issuer or type change. A spread is the yield difference between financial instruments against a benchmark (e.g. the internal rate of return (IRR) of government bonds and interbank interest rates).
- **Commodity price risk** is the possibility of loss from movements in commodity prices. Grupo Santander's commodity exposure is minor and stems mainly from commodity derivatives.
- **Volatility risk** is the possibility of loss caused by movements in interest rates, exchange rates, the stock market, credit spreads and other risk factors affecting portfolio value. It is inherent to all financial instruments whose value considers volatility (especially options contracts).

Derivative contracts (such as options, futures, forwards and swaps) can mitigate market risks partially or fully.

Additionally, other more complex coverage market risks are considered, such as correlation risk, market liquidity risk, prepayment or cancellation risk and subscription risk.

- Correlation risk is the possibility of loss due to an adverse correlation between risk variables that affect portfolio value. Risk variables could be the same (e.g. two FX rates) or different (e.g. an interest rate and a commodity price).
- Market liquidity risk is the possibility that fewer market makers or institutional investors, a large number of transactions, market instability and other factors will cause the Group or a subsidiary to exit a position at a worse market price or trade cost. Exposure to different products and currencies can also increase this risk.
- Pre-payment or cancellation risk originates when mortgages, deposits and other on-balance-sheet instruments give holders the option to buy or sell them, thus altering future cash flows. Potential mismatches on the balance sheet pose a risk since cash flows may have to be reinvested at an interest rate that is potentially lower (assets) or higher (liabilities).
- Underwriting risk is the possibility that the bank will have to hold part of a debt issue it has underwritten or agreed to place if it cannot all be placed among potential buyers.

Balance sheet liquidity risk (unlike market liquidity risk) is the possibility of loss caused by forced disposal of assets or cash flow imbalance if the bank meets its payment obligations late or at excessive cost. It can cause losses by forced asset sales or impacts on margins due to the mismatch between expected cash inflows and outflows.

Pension and actuarial risks (explained at the end of this section) also depend on market variables.

Grupo Santander aim to comply with the *Basel Committee's Fundamental Review of the Trading Book* (FRTB) and the EBA's Guidelines on the management of interest rate risk arising from non-trading book activities. The purpose of several projects Grupo Santander runs is to provide risk control managers and teams with the best market risk management tools under the right governance framework for the models Grupo Santander uses for metric reporting; and to comply with regulation on the risks mentioned above.

## 2. Trading market risk management

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

The standard methodology for risk management and control in trading, measures the maximum expected loss with a specific level of confidence and time frame. The standard for historical simulation is a confidence level of 99% over one day.

Grupo Santander applies 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:

### Risk metric values on the consolidated balance sheet

EUR million

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

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 2023 and 97.5% ES at the end of December 2023:

**VaR statistics and expected shortfall by risk factor[A]**

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

| | 2023 | | | | | 2022 | | 2021 | |
|---|---|---|---|---|---|---|---|---|---|
| | VaR (99%) | | | | ES (97.5%) | VaR | | VaR | |
| | Min | Average | Max | Latest | Latest | Average | Latest | Average | Latest |
| **Total Trading** | **7.5** | **11.7** | **19.3** | **13.5** | **12.5** | **14.1** | **11.6** | **10.5** | **12.3** |
| Diversification effect | (8.5) | (14.9) | (27.3) | (17.1) | (18.9) | (14.6) | (15.5) | (12.9) | (13.4) |
| Interest rate | 8.9 | 12.2 | 20.3 | 11.1 | 11.5 | 12.6 | 9.9 | 9.6 | 9.1 |
| Equities | 1.4 | 3.2 | 7.3 | 6.0 | 6.1 | 4.2 | 5.5 | 3.5 | 5.1 |
| Exchange rate | 2.3 | 5.3 | 9.4 | 4.8 | 4.9 | 4.8 | 3.6 | 4.2 | 5.7 |
| Credit spread | 2.7 | 4.3 | 6.4 | 6.1 | 5.9 | 5.4 | 5.8 | 4.8 | 5.1 |
| Commodities | 0.7 | 1.6 | 3.2 | 2.6 | 3.0 | 1.7 | 2.3 | 1.3 | 0.7 |
| **Total Europe** | **6.6** | **9.4** | **14.7** | **11.8** | **11.1** | **12.2** | **10.5** | **9.3** | **9.9** |
| Diversification effect | (5.3) | (10.5) | (21.6) | (13.8) | (14.9) | (10.4) | (14.2) | (9.3) | (12.6) |
| Interest rate | 5.6 | 9.1 | 16.5 | 8.2 | 9.3 | 10.2 | 10.1 | 7.7 | 7.1 |
| Equities | 1.5 | 2.8 | 7.1 | 5.8 | 5.3 | 3.6 | 5.5 | 3.3 | 5.8 |
| Exchange rate | 2.1 | 3.5 | 5.7 | 5.2 | 5.2 | 3.4 | 3.3 | 2.8 | 4.5 |
| Credit spread | 2.7 | 4.3 | 6.4 | 6.1 | 5.9 | 5.4 | 5.8 | 4.8 | 5.1 |
| Commodities | — | 0.2 | 0.6 | 0.3 | 0.3 | — | — | — | — |
| **Total North America** | **1.8** | **4.0** | **6.4** | **5.0** | **5.0** | **2.3** | **2.7** | **2.5** | **2.7** |
| Diversification effect | (0.3) | (0.7) | (2.6) | (0.5) | (0.5) | (0.8) | (1.1) | (0.7) | (0.6) |
| Interest rate | 1.8 | 3.7 | 6.3 | 5.0 | 5.0 | 2.2 | 2.7 | 2.5 | 2.7 |
| Equities | — | 0.2 | 0.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 |
| Exchange rate | 0.3 | 0.8 | 2.2 | 0.5 | 0.5 | 0.8 | 1.0 | 0.6 | 0.6 |
| **Total South America** | **4.2** | **7.3** | **13.3** | **7.0** | **6.2** | **8.0** | **6.2** | **5.9** | **6.3** |
| Diversification effect | (1.3) | (6.2) | (14.2) | (6.6) | (7.6) | (5.0) | (4.2) | (4.9) | (5.1) |
| Interest rate | 4.3 | 7.3 | 12.6 | 5.6 | 5.4 | 7.0 | 5.5 | 5.5 | 5.8 |
| Equities | 0.0 | 1.4 | 3.7 | 2.4 | 2.5 | 1.6 | 1.7 | 1.2 | 1.1 |
| Exchange rate | 0.5 | 3.2 | 8.0 | 3.0 | 2.9 | 2.7 | 0.9 | 2.8 | 3.8 |
| Commodities | 0.7 | 1.6 | 3.2 | 2.6 | 3.0 | 1.7 | 2.3 | 1.3 | 0.7 |

A. In South and North America, VaR levels of credit spreads and commodities are not shown separately due to their low or null materiality.

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

In 2023, average VaR (EUR 11.7 million) was lower than 2022 for all risk factors except exchange rate, which was slightly higher. Temporary VaR increases owe more to short-term price volatility than to significant changes in positions.

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

**Backtesting**

Actual losses can differ from predicted losses because of 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 an exception was observed (daily loss greater than the VaR) on 13 of March, as a consequence of market volatility coinciding with events related to some regional American banks. Regarding to 99% VaE, an exception (daily profit higher than VaE) was observed on 13 of December as a result of the devaluation of the Argentine peso.
- The exceptions observed in the past year are consistent with the assumptions of the VaR calculation model.

**IBOR reform**

Since 2013, different supranational organizations and authorities (IOSCO and FSB) have promoted and monitored initiatives aimed at carrying out reforms to strengthen interest rate indices. The main objective was to facilitate the transition to the risk-free indices identified in different jurisdictions, highlighting the SONIA index as a replacement for the LIBOR references in pounds, the SOFR for the LIBOR in dollars, and the €STR for the LIBOR in euros.

In this sense and as a result of the joint effort of authorities and market participants, this transition process has been materialized in different milestones during the period between 2019 and 2023, pending, according to the regulatory milestones of the transition, the terms of the 3-month pound LIBOR, and the 1-month, 3-month and 6-month dollar LIBOR, which will continue to be published under a synthetic methodology until the end of March and September 2024, respectively, dates from which publication will cease permanently.

The Group has carried out the operational and technological changes necessary to undertake the transition of these reference indices, with the book amount of financial assets and liabilities as of December 31, 2023 that continue to be referenced to the benchmarks being non-significant. pending transition indices.

## 3. Structural balance sheet risks

### 3.1. Main aggregates and variations

Consistent with previous years, the market risk profile of Grupo Santander's balance sheet remained moderate in 2022 in terms of asset, shareholders' equity and NII volumes.

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

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

The NII and EVE sensitivities below are based on scenarios of parallel interest rate movements from -100 to +100 basis points.

#### Structural VaR

With such a homogeneous metric as VaR, Grupo Santander can fully monitor market risk in the banking book (excluding SCIB trading activity). The Bank differentiates fixed income based on interest rates and credit spreads in ALCO portfolios, FX rates and shares.

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

**Structural VaR**

EUR million. Structural VaR 99% with a temporary horizon of one day.

| | 2023 | | | | 2022 | | 2021 | |
|---|---|---|---|---|---|---|---|---|
| | Min | Average | Max | Latest | Average | Latest | Average | Latest |
| **Structural VaR** | **552.7** | **705.0** | **914.5** | **749.5** | **664.0** | **538.5** | **993.7** | **1,011.9** |
| Diversification effect | (368.7) | (416.6) | (422.2) | (444.7) | (417.1) | (422.4) | (327.3) | (240.2) |
| VaR Interest Rate[A] | 273.3 | 348.4 | 478.0 | 380.2 | 350.8 | 304.5 | 400.7 | 287.8 |
| VaR Exchange Rate | 477.0 | 580.4 | 661.1 | 642.9 | 493.4 | 461.0 | 600.6 | 655.2 |
| VaR Equities | 171.1 | 192.8 | 197.6 | 171.1 | 236.9 | 195.4 | 319.7 | 309.1 |

A. Includes credit spread VaR on ALCO portfolios.

### Structural interest rate risk

- Europe

At the end of December, the net interest income (NII) of our main balance sheets showed positive sensitivities to increases in interest rates. On the same date, in the case of the economic value of equity (EVE), it showed negative sensitivity to increases in interest rates in the case of the UK and positive sensitivity in the case of Spain in the same scenario.

At the end of December, under the scenarios previously described, significant risk of NII sensitivity to the euro amounted to EUR 886.2 million; to the pound sterling, EUR 245.8 million; to the US dollar, EUR 99.4 million; and to the Polish złoty, EUR 24 million, all with risk of rate cuts.

Significant risk of EVE sensitivity to yield curves of the euro was EUR 391.9 million; of the pound sterling, EUR 392.1 million; of the US dollar, EUR 364.3 million euros; and of the Polish złoty, EUR 176.4 million euros, mostly with risk of rate cuts.

Exposure was moderate in relation to annual budget and capital levels in 2023.

- North America

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

Exposure was moderate in relation to annual budget and capital levels in 2023.

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

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

- South America

EVE and NII on our main 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 2023.

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

Most significant risk to EVE was recorded in Chile (EUR 255 million) and in Brazil (EUR 360 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 2023, the hedged of the different currencies that have an impact on our core capital ratio was close to 100%.

In December 2023, our permanent exposures (with potential impact on shareholders' equity) were, from largest to smallest, in US dollars, Brazilian reais, British pounds sterling, 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.

At the end of December 2023, 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. The Group calculates its VaR with a set of market prices and proxies. At the end of the year 2023, VaR at a 99% confidence level over a one-day horizon was EUR 171 million (EUR 195 million and EUR 309 million in 2022 and 2021, respectively.

### 3.2. Methodologies

**Structural interest rate 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 Grupo Santander markets).

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. The sensitivity of the economic value of own funds is obtained as the difference between said economic value calculated with a selected scenario and that calculated with a base scenario.

Because EVE sensitivity is the difference in EVE between a selected scenario and the base scenario, it can have as many values as considered scenarios. It enables us to see long-term risks and supplement NII sensitivity.

**Structural exchange-rate risk/hedging of results**

Every day, Grupo Santander measures FX positions, VaR and P/L.

**Structural equity risk**

Grupo Santander measures equity positions, VaR and P/L.

## 4. Liquidity risk

Structural **liquidity management** aims to fund the Group's recurring activity optimising maturities and costs, while avoiding taking on undesired liquidity risks.

Santander's liquidity management is based on the following principles:

- Define liquidity risk and provide detailed assessments of current and emerging material liquidity risks.
- Define liquidity risk metrics, review and challenge liquidity risk appetite and limits on first line of defence proposals.
- Evaluates and challenges commercial/business proposals; It provides senior management and business units with the necessary elements to understand the liquidity risk of Santander's businesses and operations.
- Supervise the liquidity risk management of the first line of defence and assess the permanence of businesses within the limits of liquidity risk.
- Reports on compliance with risk appetite limits and exceptions, if any, to governing bodies.
- Provides a consolidated view of liquidity risk exposures and liquidity risk profile.
- Confirms the existence of adequate liquidity procedures to manage the business within the limits of risk appetite.

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 Group objective is to maintains adequate liquidity levels necessary to cover its short- and long-term needs with stable funding sources, optimising the impact of their costs on the income statement. Grupo Santander's liquidity risk management processes are contained within a conservative risk appetite framework established in each geographic area in accordance with its commercial strategy. This risk appetite establishes the limits within which the subsidiaries can operate in order to achieve their strategic objectives.

- Management adapted in practice to the liquidity needs of each business. Every year, based on business needs, a liquidity plan is developed which seeks to achieve:

  - a solid balance sheet structure, with a diversified presence in the wholesale markets;
  - the use of liquidity buffers and limited encumbrance of assets;
  - compliance with both regulatory metrics and other metrics included in each entity's risk appetite statement.

Over the course of the year, all dimensions of the plan are monitored.

Grupo Santander continues to develop the ILAAP (Internal Liquidity Adequacy Assessment Process), an internal self-assessment of liquidity adequacy which must be integrated into the Group's other risk management and strategic processes. It focuses on both quantitative and qualitative matters and is used as an input to the SREP (Supervisory Review and Evaluation Process). The ILAAP evaluates the liquidity position both in ordinary and stressed scenarios.

**i. Liquidity risk measurement**

Grupo Santander uses the Basel regulatory definition and calculates a set of metrics and stress scenarios in relation to intraday liquidity risk to maintain a high level of management and control. On the one hand, the regulatory liquidity metrics (LCR, NSFR) are prepared following the regulatory criteria established in the CRR-II and CRD IV. Regarding internal metrics, liquidity scenarios are determined using a combination of behavioral observation in actual liquidity crises occurred at other banks, regulatory assumptions and expert judgment.

**a) 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.

**b) 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.

**c) 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.

**d) Wholesale liquidity metric**

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

**e) Asset Encumbrance metrics**

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

**f) Other additional liquidity indicators**

In addition to traditional tools to measure short and long-term liquidity and funding risk, Grupo Santander has a set of additional liquidity indicators to complement those and to measure other non-covered liquidity risk factors. These include concentration metrics, such as the main and the five largest funding counterparties, or the distribution of funding by maturity.

In this sense, deposits do not show a tendency towards concentration, maintaining a stable structure at 31 December 2023, where approximately 75% are transactional and more than 80% of retail deposits are insured by deposit guarantee systems of the different countries.

**g) Liquidity scenario analysis**

As liquidity stress tests, four standard scenarios have been defined:

i. An idiosyncratic scenario of events detrimental only to Santander;

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.

v. climate scenarios where different stress cases derived from the effects that climate change could have on the economy are collected.

Grupo Santander uses these stress test outcomes as tools to determine risk appetite and support business decision-making.

**h) Liquidity early warning indicators**

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

**i) Intraday liquidity metrics**

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

**ii. Liquidity coverage ratio and net stable financing ratio**

As regards the liquidity coverage ratio (LCR), the regulatory requirement for this ratio, set at 100%, has been at its maximum level since 2018.

Below is a breakdown of the composition of the Group's liquid assets under the criteria set out in the supervisory prudential reporting (Commission Implementing Regulation (EU) 2017/2114 of 9 November 2017) for the determination of high quality liquid assets for the calculation of the LCR ratio (HQLA):

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| | **Amount weighted applicable** | **Amount weighted applicable** | **Amount weighted applicable** |
| High-quality liquid assets-HQLAs | | | |
| *Cash and reserves available at central banks* | *217,935* | *127,285* | *206,507* |
| *Marketable assets Level 1* | *119,043* | *177,887* | *81,925* |
| *Marketable assets Level 2A* | *4,236* | *3,308* | *3,422* |
| *Marketable assets Level 2B* | *6,814* | *3,562* | *5,446* |
| **Total high-quality liquid assets** | **348,028** | **312,042** | **297,300** |

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 20 May 2019. The Regulation establishes that entities must have a net stable financing ratio, as defined in the Regulation, higher 100% from June 2021. The liquidity coverage ratio, broken down by component, and the net stable funding ratio for the Group at year-ends 2023, 2022 and 2021are presented below:

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| High-quality liquid assets-HQLAs (numerator) | 348,028 | 312,042 | 297,300 |
| Total net cash outflows (denominator) | 209,892 | 204,759 | 181,953 |
| *Cash outflows* | *282,982* | *270,748* | *233,294* |
| *Cash inflows* | *73,090* | *65,989* | *51,341* |
| **LCR ratio (%)** | **166%** | **152%** | **163%** |
| **NSFR ratio (%)** | **123%** | **121%** | **126%** |

As regards the funding structure, given the predominantly commercial nature of the Group's balance sheet, the loan portfolio is mainly financed by customer deposits. Note 22, 'Debt securities', shows the composition of these liabilities based 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 wholesale markets.

The movement in the composition of the buffer between "Level 1 marketable assets" to "Cash and reserves available at central banks" corresponds to a change in criteria in the classification of deposits with the Central Bank, at the request of the regulator.

In the last quarter of 2022, Grupo Santander began to repay in advance a significant part of the financing received under the TLTRO-III program launched by the European Central Bank, which originally matured in 2023. The replacement of these funds has been carried out after having strengthened the balance sheet through a combination of growth in customer deposits, an increase in short-term instruments and greater activity in medium and long-term issuances, which has allowed Grupo Santander to maintain liquidity coverage ratios (LCR ) and net stable funding (NSFR) at prudent levels after the repayment.

**iii. Asset encumbrance**

Finally, the moderate use of assets by Grupo Santander as collateral in the sources of structural financing of the balance sheet should be highlighted.

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 2023 (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 | 40.8 | 49.3 | 21.6 | 39.7 | 40.8 | 27.9 | 55.0 | 17.4 | 13.8 | 306.3 |
| Guarantees received committed | 31.6 | 72.3 | 17.6 | 11.0 | 3.2 | 2.5 | 0.6 | — | — | 138.8 |

The reported Group information as required by the EBA at 2023 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 | 186.4 | | 1,172.2 | |
| Equity instruments | 9.4 | 9.4 | 11.5 | 11.5 |
| Debt securities | 86.8 | 87.6 | 156.4 | 156.1 |
| Other assets | 23.7 | | 150.6 | |
| **Total assets** | **306.3** | | **1,490.7** | |

**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** | 138.8 | 51.3 |
| Loans and advances | 1.1 | — |
| Equity instruments | 5.5 | 8.7 |
| Debt securities | 132.2 | 42.5 |
| Other collateral received | — | 0.1 |
| **Own debt securities issued other than own covered bonds or ABSs** | **—** | **1.9** |

**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)** | **330.6** | **445.2** |

On-balance-sheet encumbered assets amounted to EUR 306,300 million, of which 61% are loans (mortgage loans, corporate loans, etc.). Guarantees received committed amounted to EUR 138,800 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 445,200 million of encumbered assets, which give rise to EUR 330,600 million matching liabilities.

As of December 2023, total asset encumbrance in funding operations represented 22.4% of the Group's extended balance sheet under EBA criteria (total assets plus guarantees received: EUR 1,987,100 million), as of December 2022.

## 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 2024, at a consolidated level, the Group must maintain a minimum capital ratio of 9.60% of CET1 (4.50% being the requirement for Pillar I, 0.98% being the requirement for Pillar 2R (requirement), 2.50% being the requirement for capital conservation buffer, 1.25% being the requirement for global systemically entity (G-SIB) and 0.37% being the requirement for anti-cyclical capital buffer).

Grupo Santander must also maintain a minimum capital ratio of 11.42% of tier 1 and a minimum total ratio of 13.86%.

In 2023, the solvency target set was achieved. Santander's CET1 ratio stood at 12.30%[1] at the close of the year, demonstrating its organic capacity to generate capital. The key regulatory capital figures are indicated below:

### Reconciliation of accounting capital with regulatory capital

EUR million

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Subscribed capital | 8,092 | 8,397 | 8,670 |
| Share premium account | 44,373 | 46,273 | 47,979 |
| Reserves | 69,278 | 62,111 | 56,606 |
| Treasury shares | (1,078) | (675) | (894) |
| Attributable profit | 11,076 | 9,605 | 8,124 |
| Approved dividend[C] | (1,298) | (979) | (836) |
| **Shareholders' equity on public balance sheet** | **130,443** | **124,732** | **119,649** |
| Valuation adjustments | (35,020) | (35,628) | (32,719) |
| Non-controlling interests | 8,818 | 8,481 | 10,123 |
| **Total Equity on public balance sheet** | **104,241** | **97,585** | **97,053** |
| Goodwill and intangible assets | (17,313) | (17,272) | (16,132) |
| Eligible preference shares and participating securities | 9,002 | 8,831 | 10,050 |
| Accrued dividend[C] | (1,471) | (942) | (895) |
| Other adjustments[A] | (8,717) | (5,169) | (7,624) |
| **Tier 1[B]** | **85,742** | **83,033** | **82,452** |

A. Fundamentally for non-computable non-controlling interests and deductions and reasonable filters in compliance with CRR.
B. Figures calculated by applying the transitional provisions of IFRS 9.
C. Assumes 25% of ordinary profit, see note 4.a for proposed distribution of results.

Note: Certain figures presented in this capital note have been rounded for ease of presentation. Consequently, the amounts corresponding to the rows or columns of totals in the tables presented in this note may not coincide with the arithmetic sum of the concepts or items that make up the total.

The following table shows the capital coefficients and a detail of the eligible internal resources of the Group:

### Capital coefficients

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| Level 1 ordinary eligible capital (EUR million) | 76,741 | 74,202 | 72,402 |
| Level 1 additional eligible capital (EUR million) | 9,002 | 8,831 | 10,050 |
| Level 2 eligible capital (EUR million) | 16,497 | 14,359 | 14,865 |
| Risk-weighted assets (EUR million) | 623,731 | 609,266 | 578,930 |
| Level 1 ordinary capital coefficient (CET 1) | 12.30% | 12.18% | 12.51% |
| Level 1 additional capital coefficient (AT1) | 1.45% | 1.45% | 1.73% |
| Level 1 capital coefficient (TIER1) | 13.75% | 13.63% | 14.24% |
| Level 2 capital coefficient (TIER 2) | 2.64% | 2.36% | 2.57% |
| **Total capital coefficient** | **16.39%** | **15.99%** | **16.81%** |

### Eligible capital

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Eligible capital** | | | |
| **Common Equity Tier I** | **76,741** | **74,202** | **72,402** |
| Capital | 8,092 | 8,397 | 8,670 |
| (-) Treasury shares and own shares financed | (2,847) | (60) | (966) |
| Share Premium | 44,373 | 46,273 | 47,979 |
| Reserves | 68,721 | 62,246 | 58,157 |
| Other retained earnings | (35,038) | (37,439) | (34,784) |
| Minority interests | 6,899 | 7,416 | 6,736 |
| Profit net of dividends | 8,307 | 7,684 | 6,394 |
| Deductions | (21,766) | (20,315) | (19,784) |
| *Goodwill and intangible assets* | *(17,220)* | *(17,182)* | *(16,064)* |
| *Others* | *(4,546)* | *(3,133)* | *(3,720)* |
| **Additional Tier I** | **9,002** | **8,831** | **10,050** |
| Eligible instruments AT1 | 8,461 | 8,344 | 10,102 |
| AT1-excesses-subsidiaries | 541 | 487 | (52) |
| **Tier II** | **16,497** | **14,359** | **14,865** |
| Eligible instruments T2 | 17,101 | 14,770 | 15,424 |
| Excess IRB provision on PE | 76 | — | 75 |
| T2-excesses - subsidiaries | (680) | (411) | (634) |
| **Total eligible capital** | **102,240** | **97,392** | **97,317** |

Note: Banco Santander, S.A. and its affiliates had not taken part in any State aid programmes.

[1] Data calculated applying the transitional provisions of IFRS 9

### 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 429.a (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, is established an additional surcharge which will be 50% of the cushion ratio applicable to the EISM, applicable from January 2023. In addition, modifications are included in its calculation, including the exclusion of certain exposures from the total exposure measure: public loans when exceptional circumstances arise, public loans, transfer loans and officially guaranteed export credits, transfer loans and officially guaranteed export credits.

EUR million

| | 2023 | 2022 | 2021 |
|---|---|---|---|
| **Leverage** | | | |
| Level 1 Capital | 85,742 | 83,033 | 82,452 |
| Exposure | 1,826,922 | 1,750,626 | 1,536,516 |
| **Leverage Ratio** | 4.69% | 4.74% | 5.37% |

### Global systemically important banks

Grupo Santander is one of 29 banks designated as global systemically important banks (G-SIBs).

The designation as a globally systemic entity comes from a measurement established by the regulators (FSB and BCBS) that they have implemented based on five indicators (size, interjurisdictional activity, interconnection with other financial entities, substitutability and complexity). The application methodology has been modified in December 2021, incorporating, among other things, an additional score considering the Member States of the SRM as a single jurisdiction.

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 Grupo Santander has 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.

Additionally, Grupo Santander appears both on the list of global systemic entities and on the list of domestic systemic entities. Bank of Spain, based on rule 23 of Circular 2/2016, requires the application of the highest of the two corresponding buffers, in the case of Grupo Santander being the domestic one, 1.25%, a surcharge payable by 2024.

The fact that Grupo Santander has to comply with these requirements makes it a more solid bank than its domestic rivals.

## 55. Explanation added for translation to English

These accompanying Consolidated Financial Statements, translation of the Consolidated Financial Statements originally issued in Spanish, are presented on the basis of the regulatory financial reporting framework applicable to the Group in Spain (see note 1.b).

# Appendix

# Appendix I

## 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 2023 | Year 2022 | | Capital + reserves | Net results | Carrying amount |
| 2 & 3 Triton Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Real estate | 19 | 1 | 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) (j) | 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 | 0 | 0 | 0 |
| A & L CF March (5) Limited (d) (j) | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| A & L CF September (4) Limited (f) | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 20 | 0 | 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 | 399 | 84 | 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 | 3 | 0 | 4 |
| 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 | 243 | 10 | 159 |
| 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% | Inactive | 0 | 0 | 0 |
| Abbey National UK Investments | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 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% | Inactive | 0 | 0 | 0 |
| Abent 3T, S.A.P.I de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Electricity production | (36) | (69) | 0 |
| Ablasa Participaciones, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 281 | 130 | 894 |
| Aduro S.A. | Uruguay | 0.00% | 100.00% | 100.00% | 100.00% | Payments and collection services | 2 | (1) | 4 |
| 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 | 30 | 0 |
| Afisa S.A. | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 4 | 0 | 4 |
| 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 | 17 | 4 | 0 |
| Allane Mobility Consulting AG | Switzerland | 0.00% | 46.95% | 100.00% | 100.00% | Consulting services | 1 | (1) | 0 |
| Allane Mobility Consulting B.V. | Netherlands | 0.00% | 46.95% | 100.00% | 100.00% | Consulting services | (3) | 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 2023 | Year 2022 | | Capital + reserves | Net results | Carrying amount |
| Allane Mobility Consulting GmbH | Germany | 0.00% | 46.95% | 100.00% | 100.00% | Consulting services | 11 | 1 | 5 |
| Allane Mobility Consulting Österreich GmbH | Austria | 0.00% | 46.95% | 100.00% | 100.00% | Consulting services | (1) | 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 | 14 | 0 | 0 |
| Allane SE | Germany | 0.00% | 46.95% | 92.07% | 92.07% | Renting | 195 | 9 | 150 |
| Allane Services GmbH & co. KG | Germany | 0.00% | 46.95% | 100.00% | 100.00% | Services | 2 | 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% | Inactive | 0 | 0 | 0 |
| Alliance & Leicester Investments (No.2) Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Alliance & Leicester Investments Limited (j) | 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% | Inactive | 0 | 0 | 0 |
| Alliance & Leicester Personal Finance Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (233) | (11) | 0 |
| Altamira Santander Real Estate, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 282 | (152) | 219 |
| Alternative Leasing, FIL (Compartimento B) | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Investment fund | 131 | 8 | 123 |
| Amazonia Trade Limited | United Kingdom | 100.00% | 0.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Amherst Pierpont Commercial Mortgage Securities LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Securitization | 0 | 0 | 0 |
| Amherst Pierpont International Ltd. | Hong-Kong | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 3 | 0 | 3 |
| AMS Auto Markt Am Schieferstein GmbH (d) | Germany | 0.00% | 90.01% | 100.00% | — | Vehicle sales | 0 | 0 | 0 |
| AN (123) Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Andaluza de Inversiones, S.A. Unipersonal | 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 |
| AP Acquisition Trust I | United States | 0.00% | 100.00% | 100.00% | 100.00% | Trust company | 0 | 0 | 0 |
| AP Acquisition Trust II | United States | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| AP Asset Acquisition LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 1 | 0 | 1 |
| Apê11 Tecnologia e Negócios Imobiliários S.A. | Brazil | 0.00% | 81.17% | 90.00% | 90.00% | Real estate | 6 | (2) | 3 |
| APSG GP LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 0 | 0 | 0 |
| Aquanima Brasil Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | E-commerce | 3 | 0 | 3 |
| Aquanima Chile S.A. | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Services | 3 | 1 | 3 |
| Aquanima México S. de R.L. de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | E-commerce | 4 | 0 | 4 |
| Aquanima S.A. | Argentine | 0.00% | 100.00% | 100.00% | 100.00% | Services | 2 | (1) | 4 |
| Artarien S.A. | Uruguay | 100.00% | 0.00% | 100.00% | 100.00% | Insurance intermediary | 1 | 7 | 2 |
| Athena Corporation Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | (9) | 0 | 0 |
| Atlantes Mortgage No. 2 | Portugal | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Atlantes Mortgage No. 3 | Portugal | — | (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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Atlantes Mortgage No. 4 | Portugal | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Atual - Fundo de Invest Multimercado Crédito Privado Investimento no Exterior | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Investment fund | 529 | 106 | 573 |
| 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 2021 | France | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Auto ABS French Leases 2023 | France | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Auto ABS French Leases Master Compartment 2016 | France | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| 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 Rainbow Loans S.r.l. | Italy | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Auto ABS Italian Stella Loans 2023-1 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 Spanish Loans 2022-1, Fondo de Titulización | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Autodescuento, S.L. | Spain | 0.00% | 93.89% | 93.89% | 93.89% | Vehicles purchased by internet | 3 | 0 | 18 |
| Autohaus24 GmbH | Germany | 0.00% | 46.95% | 100.00% | 100.00% | Internet | (2) | 0 | 0 |
| Auttar HUT Processamento de Dados Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 7 | 1 | 8 |
| Aviación Antares, A.I.E. | Spain | 99.99% | 0.01% | 100.00% | 100.00% | Renting | 59 | 6 | 28 |
| Aviación Británica, A.I.E. | Spain | 99.99% | 0.01% | 100.00% | 100.00% | Renting | 30 | (7) | 6 |
| Aviación Comillas, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Renting | 8 | (1) | 7 |
| 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 | 3 | 0 | 0 |
| Aviación Santillana, S.L. | Spain | 99.00% | 1.00% | 100.00% | 100.00% | Renting | 5 | 1 | 2 |
| Aviación Suances, S.L. | Spain | 99.00% | 1.00% | 100.00% | 100.00% | Air transport | 7 | 1 | 3 |
| Aymoré Crédito, Financiamento e Investimento S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Finance company | 3,813 | 444 | 3,839 |
| Banco Bandepe S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Banking | 977 | 88 | 960 |
| Banco de Albacete, S.A. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Banking | 14 | 0 | 9 |
| Banco Hyundai Capital Brasil S.A. | Brazil | 0.00% | 45.09% | 50.00% | 50.00% | Banking | 81 | 17 | 44 |
| Banco Santander - Chile | Chile | 0.00% | 67.13% | 67.18% | 67.18% | Banking | 4,165 | 514 | 3,927 |
| Banco Santander (Brasil) S.A. | Brazil | 0.04% | 90.15% | 90.80% | 90.90% | Banking | 14,362 | 1,652 | 10,795 |
| Banco Santander (México), S.A., Institución de Banca Múltiple, Grupo Financiero Santander México como Fiduciaria del Fideicomiso 100740 | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Finance company | 180 | 23 | 130 |
| Banco Santander (México), S.A., Institución de Banca Múltiple, Grupo Financiero Santander México como Fiduciaria del Fideicomiso 2002114 | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Finance company | 5 | 0 | 5 |
| Banco Santander (México), S.A., Institución de Banca Múltiple, Grupo Financiero Santander México como Fiduciaria del Fideicomiso GFSSLPT | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Finance company | 16 | 2 | 18 |
| Banco Santander Argentina S.A. | Argentina | 0.00% | 99.82% | 99.78% | 99.77% | Banking | 1,355 | 320 | 537 |
| Banco Santander de Negocios Colombia S.A. | Colombia | 94.90% | 5.10% | 100.00% | 100.00% | Banking | 187 | 1 | 178 |
| Banco Santander International | United States | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 942 | 163 | 1,105 |
| Banco Santander International SA | Switzerland | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 1,332 | 9 | 869 |

## 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 2023** | **Year 2022** | **Activity** | **Capital + reserves** | **Net results** | **Carrying amount** |
| Banco Santander México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México | Mexico | 24.93% | 75.05% | 99.97% | 96.24% | Banking | 7,007 | 1,570 | 9,085 |
| Banco Santander Perú S.A. | Peru | 99.90% | 0.10% | 100.00% | 100.00% | Banking | 257 | 54 | 122 |
| Banco Santander S.A. | Uruguay | 97.75% | 2.25% | 100.00% | 100.00% | Banking | 525 | 159 | 191 |
| Banco Santander Totta, S.A. | Portugal | 0.00% | 99.87% | 99.96% | 99.96% | Banking | 3,110 | 943 | 3,815 |
| Banque Stellantis France | France | 0.00% | 50.00% | 50.00% | 50.00% | Banking | 1,060 | 129 | 881 |
| Bansa Santander S.A. | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Real estate | 25 | 4 | 29 |
| BEN Benefícios e Serviços Instituição de Pagamento S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Payment services | 11 | 1 | 10 |
| BEXs Banco de Cambio S/A | Brazil | 0.00% | 66.54% | 100.00% | — | Payment services | 15 | 1 | 11 |
| BEXs Tech Participacoes Ltda. | Brazil | 0.00% | 66.54% | 100.00% | — | Holding company | 4 | 0 | 5 |
| BEXs Tecnología da Informacao Ltda. | Brazil | 0.00% | 66.54% | 100.00% | — | IT services | 4 | (1) | 4 |
| Bilkreditt 7 Designated Activity Company (j) | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Blecno Investments, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 176 | 4 | 183 |
| BRS Investments S.A. | Argentine | 5.10% | 94.90% | 100.00% | 100.00% | Finance company | 60 | (6) | 50 |
| Camine D - Services, Unipessoal Lda. | Portugal | 0.00% | 100.00% | 100.00% | — | Software | 0 | 0 | 3 |
| Cántabra de Inversiones, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 127 | (5) | 103 |
| Cántabro Catalana de Inversiones, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 274 | 7 | 267 |
| 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 | 11 | 0 | 11 |
| Capital Street REIT Holdings, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 953 | 46 | 999 |
| Capital Street S.A. | Luxembourg | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 0 | 0 | 0 |
| Cartasur Cards S.A. | Argentine | 0.00% | 99.82% | 100.00% | — | Finance company | 11 | (4) | 7 |
| Casa de Bolsa Santander, S.A. de C.V., Grupo Financiero Santander México | Mexico | 0.00% | 99.97% | 99.97% | 99.97% | Securities company | 71 | 22 | 93 |
| 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 | 293 | 141 | 256 |
| Cater Allen Lloyd's Holdings Limited (j) | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 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% | 100.00% | 100.00% | 100.00% | Leasing | 393 | 44 | 437 |
| Centro de Capacitación Santander, A.C. | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Non-profit institute | 1 | 0 | 1 |
| Certidesa, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Aircraft rental | (67) | (8) | 0 |
| Charlotte 2023 Funding Plc | United Kingdom | 0.00% | 100.00% | 100.00% | — | Securitization | 0 | 0 | 0 |
| Charlotte 2023 Holdings Limited | United Kingdom | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Chrysler Capital Auto Funding II LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 36 | 1 | 0 |
| Chrysler Capital Master Auto Receivables Funding 2 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (250) | (22) | 0 |
| Cianite New Energy, S.r.l. | Italy | 0.00% | 49.00% | 70.00% | — | Renewable energies | 0 | 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 2023 | Year 2022 | | Capital + reserves | Net results | Carrying amount |
| CIMA Finance DAC Series 2022-1 | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| CiMA Finance Designated Activity Company Loan Series 2023-11 | Ireland | — | (b) | — | — | Finance company | 0 | 0 | 0 |
| CiMA Finance Designated Activity Company Series 2023-15 | Ireland | — | (b) | — | — | Finance company | 0 | 0 | 0 |
| Cobranza Amigable, S.A.P.I. de C.V. | Mexico | 0.00% | 85.00% | 100.00% | 100.00% | Collection services | 5 | 0 | 3 |
| Community Development and Affordable Housing Fund LLC (c) | United States | 0.00% | 96.00% | 96.00% | 96.00% | Asset management | 34 | (1) | 9 |
| Compagnie Generale de Credit Aux Particuliers - Credipar S.A. | France | 0.00% | 50.00% | 100.00% | 100.00% | Banking | 363 | 41 | 428 |
| Compagnie Pour la Location de Vehicules - CLV | France | 0.00% | 50.00% | 100.00% | 100.00% | Banking | 22 | 2 | 26 |
| Consulteam Consultores de Gestão, Unipessoal, Lda. | Portugal | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 0 | 0 | 0 |
| Consumer Totta 1 | Portugal | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Credileads S.A. | Uruguay | 0.00% | 100.00% | 100.00% | 100.00% | Advertising | 0 | 0 | 4 |
| Cyber Guardian Solutions, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | — | IT consulting | 5 | (1) | 4 |
| Darep Designated Activity Company | Ireland | 100.00% | 0.00% | 100.00% | 100.00% | Reinsurances | 7 | (1) | 7 |
| Decarome, S.A.P.I. de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 59 | 3 | 58 |
| Decarope S.A.C. | Peru | 0.00% | 100.00% | 100.00% | — | Investment Company | 14 | 2 | 14 |
| Deva Capital Advisory Company, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Advisory services | 2 | 1 | 2 |
| Deva Capital Holding Company, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 273 | (18) | 290 |
| Deva Capital Investment Company, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 193 | 21 | 182 |
| Deva Capital Management Company, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Advisory services | 22 | (13) | 10 |
| Deva Capital Servicer Company, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 67 | (5) | 61 |
| Diglo Servicer Company 2021, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Real estate management | 21 | 3 | 19 |
| Diners Club Spain, S.A. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Cards | 9 | 0 | 10 |
| Dirección Estratega, S.C. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Services | 0 | 0 | 0 |
| Drive Auto Receivables Trust 2020-1 | United States | — | (b) | — | — | Securitization | 111 | 32 | 0 |
| Drive Auto Receivables Trust 2020-2 | United States | — | (b) | — | — | Securitization | 125 | 37 | 0 |
| Drive Auto Receivables Trust 2021-1 | United States | — | (b) | — | — | Securitization | 60 | 87 | 0 |
| Drive Auto Receivables Trust 2021-2 | United States | — | (b) | — | — | Securitization | (64) | 111 | 0 |
| Drive Auto Receivables Trust 2021-3 | United States | — | (b) | — | — | Securitization | (117) | 84 | 0 |
| Drive Auto Receivables Trust 2023-1 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Drive Auto Receivables Trust 2023-2 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Drive Auto Receivables Trust 2023-3 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Drive Auto Receivables Trust 2024-1 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Drive S.r.l. | Italy | 0.00% | 75.00% | 75.00% | 100.00% | Renting | 7 | (1) | 6 |
| Ductor Real Estate, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 26 | 2 | 24 |
| Ebury Brasil Consultoria S.A. | Brazil | 0.00% | 66.54% | 100.00% | 100.00% | Consulting services | 106 | (2) | 104 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Ebury Brasil Participacões S.A. | Brazil | 0.00% | 66.54% | 100.00% | 100.00% | Holding company | 105 | 0 | 104 |
| Ebury Facilitadora De Pagamentos Ltda. | Brazil | 0.00% | 66.54% | 100.00% | 100.00% | Software | 0 | 0 | 0 |
| Ebury Finance Belgium NV (g) (j) | Belgium | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | 0 | 0 | 0 |
| Ebury Mass Payments Holdco Limited (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Holding company | 0 | 0 | 18 |
| Ebury Mass Payments Limited (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Payment services | 8 | 2 | 0 |
| Ebury Partners (DIFC) Limited (o) | Arab United Emirates | 0.00% | 66.54% | 100.00% | — | Finance company | 0 | 0 | 0 |
| Ebury Partners Australia Pty Ltd. (o) | Australia | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | 2 | 0 | 2 |
| Ebury Partners Belgium NV (o) | Belgium | 0.00% | 66.54% | 100.00% | 100.00% | Payment services | 16 | 4 | 18 |
| Ebury Partners Canada Limited (o) | Canada | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | 3 | 0 | 7 |
| Ebury Partners Chile S.p.A. | Chile | 0.00% | 66.54% | 100.00% | — | Finance company | 0 | 0 | 0 |
| Ebury Partners China Limited | China | 0.00% | 66.54% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Ebury Partners Finance Limited (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | (11) | 0 | 0 |
| Ebury Partners Holdings Limited (g) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Holding company | 0 | 0 | 0 |
| Ebury Partners Hong Kong Limited (o) | Hong-Kong | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | 2 | 0 | 3 |
| Ebury Partners Limited (o) | United Kingdom | 0.00% | 66.54% | 66.54% | 66.54% | Holding company | 249 | (10) | 503 |
| Ebury Partners Markets Cyprus Limited (o) | Cyprus | 0.00% | 66.54% | 100.00% | — | Finance company | 0 | 0 | 0 |
| Ebury Partners Markets Limited (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | 22 | 1 | 18 |
| Ebury Partners SA (Pty) Ltd. (o) | Republic of South Africa | 0.00% | 66.54% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Ebury Partners South Africa (Pty) Ltd | Republic of South Africa | 0.00% | 66.54% | 100.00% | — | Finance company | 0 | 0 | 0 |
| Ebury Partners Switzerland AG (o) | Switzerland | 0.00% | 66.54% | 100.00% | 100.00% | Finance company | 6 | 0 | 5 |
| Ebury Partners UK Limited (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Electronic money | 25 | (8) | 159 |
| Ebury Payments PTE Ltd. (o) | Singapur | 0.00% | 66.54% | 100.00% | 100.00% | Payment services | 0 | 0 | 2 |
| Ebury Technology Limited (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | Software | (54) | 1 | 0 |
| EDT FTPYME Pastor 3, Fondo de Titulización de Activos | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Elcano Renovables, S.L. | Spain | 0.00% | 70.00% | 70.00% | 70.00% | Holding company | 0 | 0 | 0 |
| Electrolyser, S.A. de C.V. | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Services | 0 | 0 | 0 |
| Elevate Tech Platforms, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 50 | (3) | 50 |
| Em Dia Serviços Especializados em Cobranças Ltda. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Collection services | 49 | (5) | 36 |
| Empresa de Créditos Santander Consumo Perú S.A. | Peru | 100.00% | 0.00% | 100.00% | 100.00% | Finance company | 49 | 2 | 48 |
| Erestone S.A.S. (j) | France | 0.00% | 90.00% | 90.00% | 90.00% | Inactive | 1 | 0 | 1 |
| Esfera Fidelidade S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Services | 25 | 145 | 153 |
| Evidence Previdência S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Insurance | 144 | 11 | 139 |
| Eyemobile Tecnologia S.A. | Brazil | 0.00% | 100.00% | 100.00% | 60.00% | IT services | 1 | (1) | 0 |
| F1rst Tecnologia e Inovação Ltda. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | IT services | 61 | 18 | 71 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Financeira El Corte Inglés, Portugal, S.F.C., S.A. | Portugal | 0.00% | 51.00% | 100.00% | 100.00% | Finance company | 8 | 1 | 4 |
| Financiera El Corte Inglés, E.F.C., S.A. | Spain | 0.00% | 51.00% | 51.00% | 51.00% | Finance company | 267 | 41 | 140 |
| Finsantusa, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 1,255 | 30 | 1,020 |
| 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% | Inactive | 6 | 0 | 6 |
| Fondation Holding Auto ABS Belgium Loans | Belgium | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Fondo de Titulización PYMES Santander 15 | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Fondo de Titulización Santander Consumer Spain Auto 2016-2 | 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 | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 0 | 0 | 0 |
| Foreign Exchange Solutions (UK) Limited (j) (o) | United Kingdom | 0.00% | 66.54% | 100.00% | 100.00% | IT services | 0 | 0 | 0 |
| Foreign Exchange Solutions S.L. (o) | Spain | 0.00% | 66.54% | 100.00% | 100.00% | IT services | 1 | 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 | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Fosse Funding (No.1) Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Securitization | 84 | (59) | 0 |
| Fosse Master Issuer PLC | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Securitization | (1) | 0 | 0 |
| Fosse Trustee (UK) Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Securitization | 0 | 0 | 0 |
| Freedom Depository Holdings, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 0 | 0 | 0 |
| Freedom Depository, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Securitization | 0 | 0 | 0 |
| Fundo de Investimento em Direitos Creditórios Atacado - Não Padronizado | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Investment fund | 120 | 42 | 147 |
| Fundo de Investimento em Direitos Creditórios Tellus | Brazil | 0.00% | 90.19% | 100.00% | — | Investment fund | 0 | 0 | 0 |
| Fundo de Investimentos em Direitos Creditórios Multisegmentos NPL Ipanema VI – Não padronizado | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Investment fund | 409 | 64 | 427 |
| Gamma, Sociedade Financeira de Titularização de Créditos, S.A. | Portugal | 0.00% | 99.87% | 100.00% | 100.00% | Securitization | 7 | 0 | 8 |
| GC FTPYME Pastor 4, Fondo de Titulización de Activos | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Gesban México Servicios Administrativos Globales, S.A. de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Services | 2 | 0 | 0 |
| Gesban Santander Servicios Profesionales Contables Limitada | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Accounting services | 0 | 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 | 2 | 0 | 0 |
| Gestión de Inversiones JILT, S.A. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Services | 15 | 0 | 15 |
| Gestora de Procesos S.A. en liquidación (j) | Peru | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | (1) | 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Getnet Adquirência e Serviços para Meios de Pagamento S.A. - Instituição de Pagamento | Brazil | 0.00% | 100.00% | 100.00% | 97.10% | Payment services | 477 | 156 | 354 |
| Getnet Argentina S.A.U. | Argentine | 0.00% | 100.00% | 100.00% | 100.00% | Payment methods | 20 | (3) | 17 |
| Getnet Europe, Entidad de Pago, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Payment services | 185 | 18 | 177 |
| Getnet Fundo de Investimento em Direitos Creditórios | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Investment fund | 2 | (1) | 2 |
| Getnet Merchant Solutions UK Ltd | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 6 | (1) | 6 |
| Getnet Sociedade de Credito Direto S.A. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 22 | 13 | 35 |
| Getnet Uruguay S.A. | Uruguay | 0.00% | 100.00% | 100.00% | 100.00% | Payment methods | 8 | (2) | 6 |
| Gira, Gestão Integrada de Recebíveis do Agronegócio S.A. (p) | Brazil | 0.00% | 72.15% | 80.00% | 80.00% | Consulting services | 1 | (5) | 0 |
| GNXT Serviços de Atendimento Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | Telemarketing | 3 | 2 | 5 |
| Golden Bar (Securitisation) S.r.l. | 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 |
| Golden Bar Stand Alone 2022-1 | Italy | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Golden Bar Stand Alone 2023-1 | Italy | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Golden Bar Stand Alone 2023-2 | Italy | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Grafite New Energy, S.r.l. | Italy | 0.00% | 49.00% | 70.00% | — | Renewable energies | 0 | 0 | 1 |
| Gravity Cloud Technology, S.L. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | IT services | 33 | 0 | 27 |
| Grupo Empresarial Santander, S.L. | Spain | 99.62% | 0.38% | 100.00% | 100.00% | Holding company | 4,556 | 364 | 3,089 |
| Grupo Financiero Santander México, S.A. de C.V. | Mexico | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 5,380 | 1,193 | 5,980 |
| Guaranty Car, S.A. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Automotive | 3 | 0 | 2 |
| Hipototta No. 13 | Portugal | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Hipototta No. 4 FTC | Portugal | — | (b) | — | — | Securitization | (53) | (1) | 0 |
| Hipototta No. 4 plc | Ireland | — | (b) | — | — | Securitization | (2) | (4) | 0 |
| Hipototta No. 5 FTC | Portugal | — | (b) | — | — | Securitization | (46) | 0 | 0 |
| Hipototta No. 5 plc | Ireland | — | (b) | — | — | Securitization | (11) | (5) | 0 |
| Holbah Santander, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 484 | 86 | 871 |
| Holding BEXs Banco Participacoes Ltda. | Brazil | 0.00% | 66.54% | 100.00% | — | Holding company | 3 | 0 | 0 |
| Holmes Funding Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Securitization | 67 | (100) | 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 | (12) | 2 | 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 | 868 | 4 | 445 |
| Ibérica de Compras Corporativas, S.L. | Spain | 97.17% | 2.83% | 100.00% | 100.00% | E-commerce | 26 | 0 | 6 |
| Independence Community Bank Corp. | United States | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 3,566 | 46 | 3,612 |
| Innohub, S.A.P.I. de C.V. | Mexico | 0.00% | 62.01% | 62.01% | 40.84% | IT services | 2 | (1) | 1 |
| Insurance Funding Solutions Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Inversiones Capital Global, S.A. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 97 | (1) | 106 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Inversiones Marítimas del Mediterráneo, S.A. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 2 | (1) | 0 |
| Isar Valley S.A. | Luxembourg | — | (b) | — | — | Securitization | 4 | 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 intermediary | 1 | (3) | 0 |
| Landcompany 2020, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate management | 1,679 | (21) | 1,670 |
| Laparanza, S.A. | Spain | 61.59% | 0.00% | 61.59% | 61.59% | Agricultural holding | 29 | 0 | 16 |
| Lerma Investments 2018, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 10 | 1 | 11 |
| Liquetine, S.L. Unipersonal | Spain | 0.00% | 70.00% | 100.00% | 100.00% | Renewable energies | 1 | 0 | 3 |
| Liquidity Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Factoring | (1) | 0 | 0 |
| Lynx Financial Crime Tech, S.A. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 48 | (2) | 46 |
| 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. Unipersonal | Spain | 0.00% | 61.59% | 100.00% | 100.00% | Agricultural holding | 1 | 0 | 0 |
| MCE Bank GmbH (d) | Germany | 0.00% | 90.01% | 90.01% | — | Banking | 125 | 8 | 86 |
| MCE Verwaltung GmbH (d) | Germany | 0.00% | 90.01% | 100.00% | — | Real estate rental | 10 | 0 | 9 |
| Mercadotecnia, Ideas y Tecnología, S.A. de C.V. | Mexico | 0.00% | 70.00% | 70.00% | 70.00% | Payment methods | 1 | 12 | 14 |
| Merciver, S.L. | Spain | 99.90% | 0.10% | 100.00% | 100.00% | Financial advisory | 0 | 0 | 0 |
| Mercury Trade Finance Solutions S.A.S. | Colombia | 0.00% | 50.10% | 100.00% | 100.00% | IT services | 0 | 0 | 0 |
| Mercury Trade Finance Solutions SpA | Chile | 0.00% | 50.10% | 100.00% | 100.00% | Inactive | 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 | 11 | (4) | 6 |
| Merlion Aviation One Designated Activity Company | Ireland | — | (b) | — | — | Renting | 23 | (1) | 0 |
| Midata Service GmbH (d) | Germany | 0.00% | 90.01% | 100.00% | — | IT services | 0 | 0 | 0 |
| Mobills Corretora de Seguros Ltda. | Brazil | 0.00% | 56.48% | 100.00% | 100.00% | Insurance intermediary | 0 | 0 | 0 |
| Mobills Labs Soluções em Tecnologia Ltda. - EPP | Brazil | 0.00% | 56.48% | 100.00% | 100.00% | IT services | 3 | 1 | 2 |
| 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 Securities 2018-1 Designated Activity Company (j) | Ireland | — | (b) | — | — | Securitization | (2) | 2 | 0 |
| Mouro Capital I LP | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Investment fund | 722 | 43 | 316 |
| Multiplica SpA | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Payment services | 3 | (1) | 3 |
| Munduspar Participações S.A. | Brazil | 80.00% | 0.00% | 80.00% | 80.00% | Holding company | 29 | (1) | 66 |

## 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 2023** | **Year 2022** | **Activity** | **Capital + reserves** | **Net results** | **Carrying amount** |
| Navegante Américo Vespucio SpA | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Real estate | 68 | (1) | 98 |
| Naviera Mirambel, S.L. Unipersonal | 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 | 33 | 18 | 57 |
| Naviera Trans Ore, A.I.E. | Spain | 99.99% | 0.01% | 100.00% | 100.00% | Renting | 38 | 12 | 17 |
| Naviera Transcantábrica, S.L. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Leasing | 5 | 0 | 4 |
| 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% | 100.00% | 100.00% | 55.00% | Vehicles purchased by internet | 1 | 0 | 2 |
| Newco Didier Holding Ltda. | Brazil | 0.00% | 66.54% | 100.00% | — | Holding company | 13 | (8) | 102 |
| Newcomar, S.L., en liquidación (j) | Spain | 40.00% | 40.00% | 80.00% | 80.00% | Real estate | 0 | 0 | 0 |
| Novimovest – Fundo de Investimento Imobiliário | Portugal | 0.00% | 78.64% | 78.74% | 78.74% | Investment fund | 172 | 3 | 138 |
| NW Services CO. | United States | 0.00% | 100.00% | 100.00% | 100.00% | E-commerce | 8 | 1 | 8 |
| One Mobility Management GmbH | Germany | 0.00% | 46.95% | 100.00% | 100.00% | Services | 0 | 0 | 0 |
| Open Bank Argentina S.A. | Argentine | 0.00% | 99.91% | 100.00% | 100.00% | Banking | 33 | (20) | 13 |
| Open Bank, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Banking | 563 | 126 | 630 |
| Open Digital Market, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Commerce | 0 | 0 | 0 |
| Open Digital Services, S.L. | Spain | 99.97% | 0.03% | 100.00% | 100.00% | Services | 82 | (52) | 0 |
| Openbank México, S.A., Institución de Banca Múltiple, Grupo Financiero Santander México | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 48 | (4) | 44 |
| Operadora de Carteras Gamma, S.A.P.I. de C.V. | Mexico | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 11 | 1 | 11 |
| Optimal Investment Services SA | Switzerland | 100.00% | 0.00% | 100.00% | 100.00% | Fund management company | 46 | (3) | 30 |
| Optimal Multiadvisors Ireland Plc / Optimal Strategic US Equity Ireland Euro Fund (i) (m) | Ireland | 0.00% | 0.00% | 0.00% | 0.00% | Fund management company | 0 | 0 | 0 |
| Optimal Multiadvisors Ireland Plc / Optimal Strategic US Equity Ireland US Dollar Fund (i) (m) | Ireland | 0.00% | 0.00% | 0.00% | 0.00% | Fund management company | 0 | 0 | 0 |
| Paga Después, S.A. de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 4 | 0 | 4 |
| PagoFX UK Ltd | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Payment services | 4 | (2) | 2 |
| PagoNxt Emoney, E.D.E., S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 3 | (1) | 4 |
| PagoNxt Ltd | United Kingdom | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 4 | 2 | 0 |
| PagoNxt Merchant SoluçõesTecnológicas Brasil Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 142 | (30) | 112 |
| PagoNxt Merchant Solutions FZ-LLC | Arab United Emirates | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 0 | 0 | 1 |
| PagoNxt Merchant Solutions India Private Limited | India | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 1 | 0 | 1 |
| PagoNxt Merchant Solutions, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 1,147 | (21) | 1,323 |
| PagoNxt One Trade UK Ltd | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| PagoNxt Payments Platform México, S.A. de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 0 | (1) | 0 |
| PagoNxt Solutions, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Payment services | 20 | (2) | 14 |
| PagoNxt Trade Brasil Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 1 | 0 | 1 |
| PagoNxt Trade Chile SpA | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Services | 1 | 0 | 1 |
| PagoNxt Trade Services, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Services | 305 | (72) | 232 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| PagoNxt Trade, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 343 | (93) | 250 |
| PagoNxt US, LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| PagoNxt, S.L. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 2,390 | (135) | 2,558 |
| Parasant SA | Switzerland | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 1,284 | (1) | 1,013 |
| Partners Ebury México, S.A. de C.V. | Mexico | 0.00% | 66.54% | 100.00% | — | Payment services | 0 | 0 | 0 |
| Paytec Logística e Armazém Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | Logistics services | 0 | 0 | 0 |
| Paytec Tecnologia em Pagamentos Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | Commerce | 5 | 0 | 5 |
| PBE Companies, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Real estate | 112 | (1) | 112 |
| Pereda Gestión, S.A. | Spain | 99.99% | 0.01% | 100.00% | 100.00% | Securities brokerage | 52 | 25 | 4 |
| Phoenix C1 Aviation Designated Activity Company | Ireland | — | (b) | — | — | Renting | 18 | (1) | 0 |
| Phoenix S.A. | Uruguay | 0.00% | 100.00% | 100.00% | 100.00% | Payment methods | 0 | 0 | 3 |
| Pingham International, S.A. (j) | Uruguay | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Pony S.A. | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Pony S.A., Compartment German Auto Loans 2021-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Pony S.A., Compartment German Auto Loans 2023-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Portal Universia Argentina S.A. | Argentine | 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 |
| Precato IV Fundo de Investimento em Direitos Creditórios - Não Padronizados | Brazil | 0.00% | 90.19% | 100.00% | — | Investment fund | 9 | 0 | 8 |
| Prime 16 – Fundo de Investimentos Imobiliário | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Investment fund | 19 | (2) | 13 |
| Punta Lima Wind Farm, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Renewable energies | 38 | (4) | 34 |
| Punta Lima, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 38 | (4) | 34 |
| Repton 2023-1 Limited | United Kingdom | — | (b) | — | — | Securitization | 0 | (3) | 0 |
| Retailcompany 2021, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 305 | (8) | 296 |
| Retop S.A. (f) | Uruguay | 100.00% | 0.00% | 100.00% | 100.00% | Finance company | 20 | 12 | 61 |
| Return Capital S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Collection services | 1,244 | 152 | 1,258 |
| Roc Aviation One Designated Activity Company | Ireland | — | (b) | — | — | Renting | (5) | (3) | 0 |
| Roc Shipping One Designated Activity Company | Ireland | — | (b) | — | — | Renting | (4) | 1 | 0 |
| Rojo Entretenimento S.A. | Brazil | 0.00% | 85.32% | 94.60% | 94.60% | Real estate | 26 | 2 | 24 |
| SAFO Alternative Lending, S.L. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 1 | 0 | 1 |
| SALCO, Servicios de Seguridad Santander, S.A. | Spain | 99.99% | 0.01% | 100.00% | 100.00% | Security | 2 | 0 | 1 |
| SAM Argentina Sociedad Gerente de Fondos Comunes de Inversión S.A. | Argentine | 0.00% | 100.00% | 100.00% | — | Investment fund management | 1 | 0 | 1 |
| 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 | 34 | 28 | 188 |
| SAM Inversiones Argentina S.A. | Argentine | 0.00% | 100.00% | 100.00% | — | Pension fund management company | 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 2023 | Year 2022 | | Capital + reserves | Net results | Carrying amount |
| SAM Investment Holdings, S.L. | Spain | 92.37% | 7.63% | 100.00% | 100.00% | Holding company | 1,464 | 132 | 1,597 |
| San Créditos Estruturados i Fundo de Investimento em Direitos Creditórios Não Padronizados | Brazil | 0.00% | 90.19% | 100.00% | — | Investment fund | 257 | 46 | 273 |
| San Pietro Solar PV, S.r.l. | Italy | 0.00% | 56.00% | 80.00% | — | Renewable energies | 2 | 0 | 10 |
| SANB Promotora de Vendas e Cobrança S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Finance company | 3 | (4) | 0 |
| Sancap Investimentos e Participações S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Holding company | 129 | 124 | 206 |
| 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 Alternative Investments, S.G.I.I.C., S.A. Unipersonal | Spain | 0.00% | 100.00% | 100.00% | — | Fund management company | 19 | (9) | 19 |
| Santander AM Global Working Capital Fund I | Luxembourg | 100.00% | 0.00% | 100.00% | — | Investment fund | 55 | 1 | 55 |
| Santander Asesorías Financieras Limitada | Chile | 0.00% | 67.45% | 100.00% | 100.00% | Financial advisory | 0 | 3 | 3 |
| Santander Asset Finance (December) Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 80 | (1) | 0 |
| Santander Asset Finance Opportunities | Luxembourg | 100.00% | 0.00% | 100.00% | 100.00% | Investment fund | 66 | 3 | 67 |
| Santander Asset Finance plc | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 77 | 14 | 167 |
| Santander Asset Management - SGOIC, S.A. | Portugal | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 6 | 3 | 12 |
| Santander Asset Management Chile S.A. | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Securities Investment | 0 | 0 | 0 |
| Santander Asset Management Gerente de Fondos Comunes de Inversión S.A. | Argentine | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 16 | 12 | 3 |
| Santander Asset Management Luxembourg, S.A. | Luxembourg | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 4 | 1 | 0 |
| Santander Asset Management S.A. Administradora General de Fondos | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 4 | 12 | 132 |
| Santander Asset Management UK Holdings Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 223 | 68 | 186 |
| Santander Asset Management UK Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Management of funds and portfolios | 35 | 7 | 150 |
| Santander Asset Management, S.A., SGIIC | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 253 | 49 | 393 |
| Santander Auto Lease Titling Ltd. | United States | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 0 | 0 | 0 |
| Santander Back-Offices Globales Mayoristas, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Services | 3 | 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 | 377 | 14 | 332 |
| Santander Bank Polska S.A. | Poland | 67.41% | 0.00% | 67.41% | 67.41% | Banking | 5,713 | 1,076 | 4,570 |
| Santander Bank, National Association | United States | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 10,336 | 238 | 10,565 |
| Santander Brasil Administradora de Consórcio Ltda. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Services | 84 | 108 | 173 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Santander Brasil Gestão de Recursos Ltda. | Brazil | 0.08% | 99.92% | 100.00% | 100.00% | Securities Investment | 461 | 41 | 488 |
| Santander Capital Holdings LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 1,039 | (86) | 953 |
| Santander Capital Structuring, S.A. de C.V. | Mexico | 0.00% | 100.00% | 100.00% | 100.00% | Investment Company | 8 | (2) | 0 |
| Santander Capitalização S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Insurance | (30) | 107 | 69 |
| Santander Cards Ireland Limited (n) | 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 | 97 | 0 | 97 |
| Santander Cards UK Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 159 | 0 | 111 |
| Santander Chile Holding S.A. | Chile | 22.11% | 77.75% | 99.86% | 99.86% | Holding company | 1,878 | 181 | 1,712 |
| Santander Consulting (Beijing) Co., Ltd. | China | 0.00% | 100.00% | 100.00% | 100.00% | Advisory services | 9 | 1 | 4 |
| Santander Consumer (UK) plc | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 1,042 | 178 | 300 |
| Santander Consumer Auto Receivables Funding 2018-L1 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 286 | (5) | 0 |
| Santander Consumer Auto Receivables Funding 2018-L3 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 134 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2018-L5 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 186 | (4) | 0 |
| Santander Consumer Auto Receivables Funding 2020-L1 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 122 | (6) | 0 |
| Santander Consumer Auto Receivables Funding 2022-B1 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (130) | 47 | 0 |
| Santander Consumer Auto Receivables Funding 2022-B2 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (157) | 60 | 0 |
| Santander Consumer Auto Receivables Funding 2022-B3 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (259) | 102 | 0 |
| Santander Consumer Auto Receivables Funding 2022-B4 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (178) | 76 | 0 |
| Santander Consumer Auto Receivables Funding 2023-B1 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 0 | (125) | 0 |
| Santander Consumer Auto Receivables Funding 2023-B2 LLC | United States | 0.00% | 100.00% | 100.00% | — | Finance company | 0 | (79) | 0 |
| Santander Consumer Auto Receivables Funding 2023-B3 LLC | United States | 0.00% | 100.00% | 100.00% | — | Finance company | 0 | (70) | 0 |
| Santander Consumer Auto Receivables Funding 2023-B4 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 0 | (82) | 0 |
| Santander Consumer Auto Receivables Funding 2023-B5 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2023-B6 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2023-L1 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2024-B1 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2024-B2 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2024-B3 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2024-L1 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2024-L2 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Funding 2024-L3 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Grantor Trust 2021-D | United States | — | (b) | — | — | 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 2023 | Year 2022 | | Capital + reserves | Net results | Carrying amount |
| Santander Consumer Auto Receivables Grantor Trust 2023-A | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Grantor Trust 2023-B | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Trust 2021-D | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Trust 2023-A | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Auto Receivables Trust 2023-B | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Bank AG | Germany | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 3,388 | 273 | 5,145 |
| Santander Consumer Bank AS | Norway | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 2,103 | 209 | 2,139 |
| Santander Consumer Bank GmbH | Austria | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 482 | 61 | 363 |
| Santander Consumer Bank S.A. | Poland | 0.00% | 80.44% | 100.00% | 100.00% | Banking | 911 | 15 | 517 |
| Santander Consumer Bank S.p.A. | Italy | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 925 | 43 | 603 |
| Santander Consumer Credit Services Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (38) | (1) | 0 |
| Santander Consumer Finance Global Services, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | IT | 6 | 3 | 5 |
| Santander Consumer Finance Inc. | Canada | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 91 | 0 | 149 |
| Santander Consumer Finance Limitada | Chile | 49.00% | 34.24% | 100.00% | 100.00% | Finance company | 104 | 17 | 57 |
| Santander Consumer Finance México, S.A. de C.V., S.O.F.O.M., E.R., Grupo Financiero Santander México | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Inactive | 3 | 0 | 3 |
| Santander Consumer Finance Oy | Finland | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 416 | 42 | 161 |
| Santander Consumer Finance Schweiz AG | Switzerland | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 70 | 6 | 61 |
| Santander Consumer Finance, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Banking | 8,886 | 917 | 10,037 |
| Santander Consumer Financial Solutions Sp. z o.o. | Poland | 0.00% | 80.44% | 100.00% | 100.00% | Leasing | 1 | (2) | 2 |
| Santander Consumer Holding Austria GmbH | Austria | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 364 | 0 | 518 |
| Santander Consumer Holding GmbH | Germany | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 5,564 | 179 | 6,077 |
| Santander Consumer Inc. | Canada | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 89 | 3 | 47 |
| Santander Consumer Leasing B.V. | Netherlands | 0.00% | 100.00% | 100.00% | 100.00% | Renting | 10 | 3 | 21 |
| Santander Consumer Leasing GmbH | Germany | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 70 | 35 | 151 |
| Santander Consumer Leasing S.A. | France | 0.00% | 100.00% | 100.00% | — | Renting | 3 | 0 | 3 |
| Santander Consumer Mobility Services, S.A. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Renting | 16 | (5) | 20 |
| Santander Consumer Multirent Sp. z o.o. | Poland | 0.00% | 80.44% | 100.00% | 100.00% | Leasing | 68 | 9 | 28 |
| Santander Consumer Operations Services GmbH | Germany | 0.00% | 100.00% | 100.00% | 100.00% | Services | 13 | 1 | 18 |
| Santander Consumer Receivables 10 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 1,074 | (173) | 0 |
| Santander Consumer Receivables 11 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 538 | 95 | 0 |
| Santander Consumer Receivables 15 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (69) | 81 | 0 |
| Santander Consumer Receivables 16 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | (47) | 4 | 0 |
| Santander Consumer Receivables 20 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 0 | 0 | 0 |
| Santander Consumer Receivables 21 LLC | United States | 0.00% | 100.00% | 100.00% | — | Inactive | 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Santander Consumer Receivables 7 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 484 | 219 | 0 |
| Santander Consumer Receivables Funding LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 5 | 2 | 0 |
| Santander Consumer Renting S.r.l. | Italy | 0.00% | 100.00% | 100.00% | 100.00% | Renting | 8 | (2) | 9 |
| Santander Consumer Renting, S.L. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Renting | 41 | 2 | 38 |
| Santander Consumer S.A. | Argentine | 0.00% | 99.82% | 100.00% | 100.00% | Finance company | 10 | (1) | 9 |
| Santander Consumer S.A. Compañía de Financiamiento | Colombia | 79.02% | 20.98% | 100.00% | 100.00% | Finance company | 26 | 0 | 26 |
| 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 | 13 | 1 | 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 |
| Santander Consumer Spain Auto 2021-1, Fondo de Titulización | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander Consumer Spain Auto 2022-1, Fondo de Titulización | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander Consumer Spain Auto 2023-1, 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 | 27 | 2 | 22 |
| Santander Consumer USA Holdings Inc. | United States | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 3,262 | 722 | 5,016 |
| Santander Consumer USA Inc. | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 5,697 | 722 | 6,419 |
| Santander Consumo 4, F.T. | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander Consumo 5, F.T. | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander Corredora de Seguros Limitada | Chile | 0.00% | 67.21% | 100.00% | 100.00% | Insurance intermediary | 13 | 9 | 12 |
| Santander Corredores de Bolsa Limitada | Chile | 0.00% | 83.24% | 100.00% | 100.00% | Securities company | 54 | 4 | 48 |
| Santander Corretora de Câmbio e Valores Mobiliários S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Securities company | 172 | 9 | 164 |
| Santander Corretora de Seguros, Investimentos e Serviços S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Insurance intermediary | 821 | 386 | 1,086 |
| Santander Customer Voice, S.A. | Spain | 99.50% | 0.50% | 100.00% | 100.00% | Services | 2 | (3) | 2 |
| 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 Distribuidora de Títulos e Valores Mobiliários S.A. | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Securities company | 87 | (2) | 77 |
| Santander Drive Auto Receivables Grantor Trust 2023-A | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2020-1 | United States | — | (b) | — | — | Securitization | 78 | 22 | 0 |
| Santander Drive Auto Receivables Trust 2020-2 | United States | — | (b) | — | — | Securitization | 118 | 34 | 0 |
| Santander Drive Auto Receivables Trust 2020-3 | United States | — | (b) | — | — | Securitization | 140 | 54 | 0 |
| Santander Drive Auto Receivables Trust 2020-4 | United States | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2021-1 | United States | — | (b) | — | — | Securitization | 89 | 68 | 0 |
| Santander Drive Auto Receivables Trust 2021-2 | United States | — | (b) | — | — | Securitization | 23 | 87 | 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 2023 | Year 2022 | | Capital + reserves | Net results | Carrying amount |
| Santander Drive Auto Receivables Trust 2021-3 | United States | — | (b) | — | — | Securitization | (21) | 119 | 0 |
| Santander Drive Auto Receivables Trust 2021-4 | United States | — | (b) | — | — | Securitization | (87) | 90 | 0 |
| Santander Drive Auto Receivables Trust 2022-1 | United States | — | (b) | — | — | Securitization | (135) | 77 | 0 |
| Santander Drive Auto Receivables Trust 2022-2 | United States | — | (b) | — | — | Securitization | (187) | 100 | 0 |
| Santander Drive Auto Receivables Trust 2022-3 | United States | — | (b) | — | — | Securitization | (189) | 93 | 0 |
| Santander Drive Auto Receivables Trust 2022-4 | United States | — | (b) | — | — | Securitization | (259) | 117 | 0 |
| Santander Drive Auto Receivables Trust 2022-5 | United States | — | (b) | — | — | Securitization | (304) | 130 | 0 |
| Santander Drive Auto Receivables Trust 2022-6 | United States | — | (b) | — | — | Securitization | (312) | 143 | 0 |
| Santander Drive Auto Receivables Trust 2022-7 | United States | — | (b) | — | — | Securitization | (151) | 66 | 0 |
| Santander Drive Auto Receivables Trust 2023-1 | United States | — | (b) | — | — | Securitization | (1) | (89) | 0 |
| Santander Drive Auto Receivables Trust 2023-2 | United States | — | (b) | — | — | Securitization | 0 | (152) | 0 |
| Santander Drive Auto Receivables Trust 2023-3 | United States | — | (b) | — | — | Securitization | 0 | (195) | 0 |
| Santander Drive Auto Receivables Trust 2023-4 | United States | — | (b) | — | — | Securitization | 0 | (175) | 0 |
| Santander Drive Auto Receivables Trust 2023-5 | United States | — | (b) | — | — | Securitization | 0 | (176) | 0 |
| Santander Drive Auto Receivables Trust 2023-6 | United States | — | (b) | — | — | Securitization | 0 | (144) | 0 |
| Santander Drive Auto Receivables Trust 2023-A | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2023-S1 | United States | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-1 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-2 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-3 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-4 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-5 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-6 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Drive Auto Receivables Trust 2024-7 | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Equity Investments Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 14 | 54 | 34 |
| Santander España Servicios Legales y de Cumplimiento, S.L. | Spain | 99.97% | 0.03% | 100.00% | 100.00% | Services | 9 | 1 | 7 |
| Santander Estates Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Real estate | (7) | 0 | 0 |
| Santander European Hospitality Opportunities | Luxembourg | 100.00% | 0.00% | 100.00% | 100.00% | Investment fund | 22 | 4 | 27 |
| Santander F24 S.A. | Poland | 0.00% | 67.41% | 100.00% | 100.00% | Finance company | 2 | 0 | 2 |
| Santander Facility Management España, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 414 | (2) | 393 |
| Santander Factoring S.A. | Chile | 0.00% | 99.86% | 100.00% | 100.00% | Factoring | 9 | 1 | 10 |
| Santander Factoring Sp. z o.o. | Poland | 0.00% | 67.41% | 100.00% | 100.00% | Financial services | 52 | 14 | 1 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Santander Factoring y Confirming, S.A. Unipersonal, E.F.C. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Factoring | 208 | 32 | 126 |
| Santander Finance 2012-1 LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Financial services | 3 | 0 | 3 |
| 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 | 396 | 14 | 446 |
| Santander Financiamientos S.A. | Peru | 100.00% | 0.00% | 100.00% | 100.00% | Finance company | 23 | (6) | 18 |
| Santander Financing S.A.S. | Colombia | 100.00% | 0.00% | 100.00% | 100.00% | Financial advisory | (1) | 2 | 0 |
| Santander Finanse Sp. z o.o. | Poland | 0.00% | 67.41% | 100.00% | 100.00% | Financial services | 60 | 9 | 20 |
| Santander Fintech Holdings, S.L. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 323 | 6 | 366 |
| Santander Fintech Limited (j) | United Kingdom | 100.00% | 0.00% | 100.00% | 100.00% | Finance company | 0 | 0 | 0 |
| Santander Flex Fundo de Investimento Direitos Creditórios | Brazil | 0.00% | 90.19% | 100.00% | — | Investment fund | 330 | 55 | 347 |
| Santander Fundo de Investimento SBAC Referenciado di Crédito Privado (h) | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Investment fund | 1,514 | 259 | 1,225 |
| Santander Gestión de Recaudación y Cobranzas Ltda. | Chile | 0.00% | 99.86% | 100.00% | 100.00% | Financial services | 8 | 2 | 9 |
| Santander Global Cards & Digital Solutions Brasil S.A. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | IT consulting | 92 | (1) | 91 |
| Santander Global Cards & Digital Solutions, S.L. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | IT services | 220 | 0 | 216 |
| 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% | Services | 166 | 11 | 176 |
| Santander Global Services S.A. (j) | Uruguay | 0.00% | 100.00% | 100.00% | 100.00% | Services | 0 | 0 | 0 |
| Santander Global Services, S.L. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Real estate | 392 | 0 | 391 |
| Santander Global Sport, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Sports activity | 17 | (1) | 16 |
| Santander Global Technology and Operations Brasil Ltda. | Brazil | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 4 | 0 | 1 |
| Santander Global Technology and Operations Chile Limitada | Chile | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 6 | 0 | 7 |
| Santander Global Technology and Operations, S.L. Unipersonal | Spain | 100.00% | 0.00% | 100.00% | 100.00% | IT services | 469 | 22 | 438 |
| Santander Green Investment, S.L. | Spain | 99.97% | 0.03% | 100.00% | 100.00% | Holding company | 82 | 1 | 83 |
| Santander Guarantee Company | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 5 | 0 | 3 |
| 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% | 90.19% | 100.00% | 100.00% | Real estate | 90 | 2 | 82 |
| Santander Holding Internacional, S.A. | Spain | 99.95% | 0.05% | 100.00% | 100.00% | Holding company | 4,125 | 83 | 2,530 |
| Santander Holdings USA, Inc. | United States | 100.00% | 0.00% | 100.00% | 100.00% | Holding company | 14,990 | 844 | 14,743 |
| Santander Inclusión Financiera, S.A. de C.V., S.O.F.O.M., E.R., Grupo Financiero Santander México | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Finance company | 18 | (9) | 8 |
| Santander Insurance Agency, U.S., LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Insurance intermediary | 1 | 0 | 1 |
| Santander Insurance Services UK Limited | United Kingdom | 100.00% | 0.00% | 100.00% | 100.00% | Wealth management | 43 | 2 | 46 |
| Santander Insurance, S.L. | Spain | 100.00% | 0.00% | 100.00% | — | Holding company | 3,139 | (1) | 3,140 |

## 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 2023 | Year 2022 | Activity | Capital + reserves | Net results | Carrying amount |
| Santander Intermediación Correduría de Seguros, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Insurance intermediary | 28 | 4 | 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 | 1,507 | 142 | 1,032 |
| Santander Investment Chile Limitada | Chile | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 517 | 43 | 321 |
| Santander Investment, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Banking | 1,316 | 2 | 245 |
| Santander Investments GP 1 S.à.r.l. | Luxembourg | 0.00% | 100.00% | 100.00% | 100.00% | Fund management company | 1 | 0 | 1 |
| Santander Inwestycje Sp. z o.o. | Poland | 0.00% | 67.41% | 100.00% | 100.00% | Securities company | 14 | 0 | 7 |
| Santander ISA Managers Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Management of funds and portfolios | 49 | 7 | 6 |
| Santander Lease, S.A., E.F.C. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Leasing | 61 | (1) | 51 |
| Santander Leasing S.A. | Poland | 0.00% | 67.41% | 100.00% | 100.00% | Leasing | 180 | 17 | 39 |
| Santander Leasing S.A. Arrendamento Mercantil | Brazil | 0.00% | 90.19% | 100.00% | 100.00% | Leasing | 1,998 | 136 | 1,924 |
| Santander Leasing, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Leasing | 1 | (2) | 0 |
| Santander Lending Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Mortgage credit company | 252 | 13 | 239 |
| Santander Mediación Operador de Banca-Seguros Vinculado, S.A. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Insurance intermediary | 52 | 0 | 3 |
| Santander Merchant S.A. | Argentine | 5.10% | 94.90% | 100.00% | 100.00% | Finance company | 0 | 0 | 2 |
| Santander Mortgage Holdings Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | (23) | 0 | 0 |
| Santander New Business, S.A. | Spain | 99.00% | 1.00% | 100.00% | — | Trade intermediary | 1 | 0 | 1 |
| Santander Paraty Qif PLC | Ireland | 0.00% | 90.19% | 100.00% | 100.00% | Investment Company | 283 | 215 | 500 |
| Santander Pensiones, S.A., E.G.F.P. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Pension fund management company | 85 | 14 | 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) | — | — | Inactive | 0 | 0 | 0 |
| Santander Prime Auto Issuance Notes 2018-B Designated Activity Company | Ireland | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Prime Auto Issuance Notes 2018-C Designated Activity Company | Ireland | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Prime Auto Issuance Notes 2018-D Designated Activity Company | Ireland | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Prime Auto Issuance Notes 2018-E Designated Activity Company | Ireland | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander Private Banking Gestión, S.A., S.G.I.I.C. | Spain | 100.00% | 0.00% | 100.00% | 100.00% | Fund management company | 74 | 9 | 35 |
| Santander Private Banking s.p.a. in Liquidazione (j) | Italy | 100.00% | 0.00% | 100.00% | 100.00% | Finance company | 14 | 0 | 8 |
| Santander Private Banking UK Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Holding company | 294 | 117 | 401 |
| 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 | 16 | 1 | 16 |

## 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 2023** | **Year 2022** | **Activity** | **Capital + reserves** | **Net results** | **Carrying amount** |
| Santander Real Estate Debt 1 sub-fund | Luxembourg | 100.00% | 0.00% | 100.00% | — | Investment fund | 0 | 1 | 0 |
| 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% | 100.00% | 100.00% | 100.00% | Finance company | 0 | 0 | 0 |
| Santander Retail Auto Lease Trust 2021-A | United States | — | (b) | — | — | Securitization | 116 | 50 | 0 |
| Santander Retail Auto Lease Trust 2021-B | United States | — | (b) | — | — | Securitization | 115 | 45 | 0 |
| Santander Retail Auto Lease Trust 2021-C | United States | — | (b) | — | — | Securitization | 136 | 36 | 0 |
| Santander Retail Auto Lease Trust 2022-A | United States | — | (b) | — | — | Securitization | 14 | 4 | 0 |
| Santander Retail Auto Lease Trust 2022-B | United States | — | (b) | — | — | Securitization | 21 | (8) | 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 | 29 | 40 | 0 |
| Santander Revolving Auto Loan Trust 2021-A | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| Santander RMBS 6, Fondo de Titulización | Spain | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| Santander S.A. Sociedad Securitizadora | Chile | 0.00% | 67.25% | 100.00% | 100.00% | Fund management company | 1 | 0 | 0 |
| Santander Secretariat Services Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 0 | 0 | 0 |
| Santander Securities LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Securities company | 25 | 12 | 37 |
| Santander Seguros y Reaseguros, Compañía Aseguradora, S.A. | Spain | 0.00% | 100.00% | 100.00% | 100.00% | Insurance | 1,221 | 167 | 1,536 |
| Santander Servicios Corporativos, S.A. de C.V. | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | Services | 14 | 1 | 16 |
| Santander Technology USA, LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 59 | (10) | 50 |
| Santander Tecnología Argentina S.A. | Argentine | 0.00% | 99.83% | 100.00% | 100.00% | IT services | 8 | 12 | 16 |
| Santander Tecnología México, S.A. de C.V. | Mexico | 0.00% | 99.97% | 100.00% | 100.00% | IT services | 58 | 1 | 58 |
| Santander Totta Seguros, Companhia de Seguros de Vida, S.A. | Portugal | 0.00% | 100.00% | 100.00% | 100.00% | Insurance | 98 | 25 | 281 |
| Santander Totta, SGPS, S.A. | Portugal | 99.91% | 0.00% | 99.91% | 99.91% | Holding company | 3,442 | 795 | 5,352 |
| Santander Towarzystwo Funduszy Inwestycyjnych S.A. | Poland | 50.00% | 33.70% | 100.00% | 100.00% | Fund management company | 4 | 21 | 12 |
| Santander Trade Services Limited | Hong-Kong | 0.00% | 100.00% | 100.00% | 100.00% | Inactive | 25 | 0 | 16 |
| Santander Trust S.A. | Argentine | 0.00% | 99.99% | 100.00% | 100.00% | Services | 0 | 0 | 0 |
| Santander UK Group Holdings plc | United Kingdom | 77.67% | 22.33% | 100.00% | 100.00% | Holding company | 13,703 | 1,934 | 16,825 |
| Santander UK Investments | United Kingdom | 100.00% | 0.00% | 100.00% | 100.00% | Finance company | 117 | (4) | 115 |
| Santander UK Operations Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Finance company | 7 | 0 | 0 |
| Santander UK plc | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | Banking | 12,610 | 2,204 | 15,240 |
| Santander UK Technology Limited | United Kingdom | 0.00% | 100.00% | 100.00% | 100.00% | IT services | 43 | 0 | 7 |

## 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 2023** | **Year 2022** | **Activity** | **Capital + reserves** | **Net results** | **Carrying amount** |
| Santander US Capital Markets LLC | United States | 0.00% | 100.00% | 100.00% | 100.00% | Real Estate investment | 1,123 | (93) | 1,030 |
| Santander Valores S.A. | Argentine | 5.10% | 94.73% | 100.00% | 100.00% | Securities company | 3 | 5 | 8 |
| Santusa Holding, S.L. | Spain | 69.76% | 30.24% | 100.00% | 100.00% | Holding company | 9,289 | 512 | 6,524 |
| SBNA Auto Lease Funding LLC | United States | 0.00% | 100.00% | 100.00% | — | Finance company | 0 | (2) | 0 |
| SBNA Auto Lease Trust 2023-A | United States | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SBNA Auto Lease Trust 2024-A | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| SBNA Auto Lease Trust 2024-B | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| SBNA Auto Lease Trust 2024-C | United States | — | (b) | — | — | Inactive | 0 | 0 | 0 |
| SBNA Investor LLC | United States | 0.00% | 100.00% | 100.00% | — | Holding company | 1,016 | 3 | 1,019 |
| SC Austria Auto Finance 2020-1 Designated Activity Company | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Austria Consumer Loan 2021 Designated Activity Company | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Canada Asset Securitization Trust | Canada | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany Auto 2014-2 UG (haftungsbeschränkt) (j) | Germany | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany Auto 2016-2 UG (haftungsbeschränkt) (j) | Germany | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany Auto 2018-1 UG (haftungsbeschränkt) (j) | Germany | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany Auto 2019-1 UG (haftungsbeschränkt) | Germany | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany Consumer 2018-1 UG (haftungsbeschränkt) (j) | Germany | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany Mobility 2019-1 UG (haftungsbeschränkt) (j) | 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 Consumer 2022-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany S.A., Compartment Consumer 2023-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany S.A., Compartment Consumer Private 2023-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany S.A., Compartment Leasing 2023-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Germany S.A., Compartment Mobility 2020-1 | Luxembourg | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SC Mobility AB | Sweden | 0.00% | 100.00% | 100.00% | — | Renting | 0 | 0 | 0 |
| SC Mobility AS | Norway | 0.00% | 100.00% | 100.00% | — | Renting | 10 | 0 | 10 |
| SC Poland Consumer 23-1 Designated Activity Company | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SCF Ajoneuvohallinto IX Limited | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SCF Ajoneuvohallinto VII Limited (j) | 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 Ajoneuvohallinto XI Limited | Ireland | — | (b) | — | — | Securitization | 0 | 0 | 0 |
| SCF Ajoneuvohallinto XII 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 |