CONSOLIDATED FINANCIAL STATEMENTS

Year ended 31 December 2022

BNP PARIBAS

The bank
for a changing
world

CONTENTS

CONSOLIDATED FINANCIAL STATEMENTS

Prepared in accordance with IFRS as adopted by the European Union

The Board of Directors of BNP Paribas approved the Group consolidated financial statements on 6 February 2023.
The consolidated financial statements of the BNP Paribas Group are presented for the years ended 31 December 2022 and 31 December 2021. In accordance with Article 20.1 of Annex I of European Commission Regulation (EC) 809/2004, the consolidated financial statements for the year ended 31 December 2020 are provided in the Universal Registration Document filed with the Autorité des Marchés Financiers on 25 March 2022 under number D.22-0156.

On 18 December 2021, the Group concluded an agreement with BMO Financial Group for the sale of 100% of its retail and commercial banking activities in the United States operated by the BancWest cash-generating unit. The terms of this transaction fall within the scope of application of IFRS 5 relating to groups of assets and liabilities held for sale (see note 7.d *Discontinued activities*) leading to isolate the "Net income from discontinued activities" on a separate line. A similar reclassification is made in the statement of net income and changes in assets and liabilities recognised directly in equity and in the cash flow statement. The effect of this reclassification on the aggregates of the profit and loss statement is presented in note 3 *Segment Information.*
Following the receipt of regulatory approvals, the transaction was finalised on 1 February 2023.

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2022

In millions of euros	Notes	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Interest income	2.a	41,082	29,518
Interest expense	2.a	(20,251)	(10,280)
Commission income	2.b	14,622	15,037
Commission expense	2.b	(4,444)	(4,675)
Net gain on financial instruments at fair value through profit or loss	2.c	9,358	7,615
Net gain on financial instruments at fair value through equity	2.d	138	164
Net gain on derecognised financial assets at amortised cost		(41)	(2)
Net income from insurance activities	2.e	4,296	4,332
Income from other activities	2.f	15,701	15,482
Expense on other activities	2.f	(12,830)	(13,429)
REVENUES FROM CONTINUING ACTIVITIES		**47,631**	**43,762**
Salary and employee benefit expense	6.a	(17,605)	(16,417)
Other operating expenses	2.g	(11,696)	(10,705)
Depreciation, amortisation and impairment of property, plant and equipment and intangible assets	4.n	(2,394)	(2,344)
GROSS OPERATING INCOME FROM CONTINUING ACTIVITIES		**15,936**	**14,296**
Cost of risk	2.h	(3,004)	(2,971)
OPERATING INCOME FROM CONTINUING ACTIVITIES		**12,932**	**11,325**
Share of earnings of equity-method entities	4.m	699	494
Net gain on non-current assets	2.i	(253)	834
Goodwill	4.o	249	91
PRE-TAX INCOME FROM CONTINUING ACTIVITIES		**13,627**	**12,744**
Corporate income tax from continuing activities	2.j	(3,716)	(3,584)
NET INCOME FROM CONTINUING ACTIVITIES		**9,911**	**9,160**
Net income from discontinued activities	7.d	686	720
NET INCOME		**10,597**	**9,880**
Net income attributable to minority interests		401	392
NET INCOME ATTRIBUTABLE TO EQUITY HOLDERS		**10,196**	**9,488**
Basic earnings per share	7.a	7.80	7.26
Diluted earnings per share	7.a	7.80	7.26

STATEMENT OF NET INCOME AND CHANGES IN ASSETS AND LIABILITIES RECOGNISED DIRECTLY IN EQUITY

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Net income for the period	**10,597**	**9,880**
Changes in assets and liabilities recognised directly in equity	**(3,593)**	**712**
Items that are or may be reclassified to profit or loss	**(3,953)**	**26**
- Changes in exchange differences	1,041	481
- Changes in fair value of financial assets at fair value through equity		
Changes in fair value recognised in equity	*(754)*	*(379)*
Changes in fair value reported in net income	*(120)*	*(115)*
- Changes in fair value of investments of insurance activities		
Changes in fair value recognised in equity	*(2,513)*	*(387)*
Changes in fair value reported in net income	*(45)*	*(191)*
- Changes in fair value of hedging instruments		
Changes in fair value recognised in equity	*(1,468)*	*(620)*
Changes in fair value reported in net income	*14*	*(31)*
- Income tax	1,249	402
- Changes in equity-method investments, after tax	(917)	295
- Changes in discontinued activities, after tax	(440)	571
Items that will not be reclassified to profit or loss	**360**	**686**
- Changes in fair value of equity instruments designated as at fair value through equity	(20)	413
- Debt remeasurement effect arising from BNP Paribas Group issuer risk	515	25
- Remeasurement gains (losses) related to post-employment benefit plans	(102)	347
- Income tax	(96)	(125)
- Changes in equity-method investments, after tax	57	17
- Changes in discontinued activities, after tax	6	9
Total	**7,004**	**10,592**
- Attributable to equity shareholders	6,519	10,200
- Attributable to minority interests	485	392

BALANCE SHEET AT 31 DECEMBER 2022

In millions of euros	Notes	31 December 2022	31 December 2021
ASSETS			
Cash and balances at central banks		318,560	347,883
Financial instruments at fair value through profit or loss			
Securities	4.a	166,077	191,507
Loans and repurchase agreements	4.a	191,125	249,808
Derivative financial instruments	4.a	327,932	240,423
Derivatives used for hedging purposes	4.b	25,401	8,680
Financial assets at fair value through equity			
Debt securities	4.c	35,878	38,906
Equity securities	4.c	2,188	2,558
Financial assets at amortised cost			
Loans and advances to credit institutions	4.e	32,616	21,751
Loans and advances to customers	4.e	857,020	814,000
Debt securities	4.e	114,014	108,510
Remeasurement adjustment on interest-rate risk hedged portfolios		(7,477)	3,005
Financial investments and other assets related to insurance activities	4.i	247,403	280,766
Current and deferred tax assets	4.k	5,893	5,866
Accrued income and other assets	4.l	209,092	179,123
Equity-method investments	4.m	6,263	6,528
Property, plant and equipment and investment property	4.n	38,468	35,083
Intangible assets	4.n	3,790	3,659
Goodwill	4.o	5,294	5,121
Assets held for sale	7.d	86,839	91,267
TOTAL ASSETS		**2,666,376**	**2,634,444**
LIABILITIES			
Deposits from central banks		3,054	1,244
Financial instruments at fair value through profit or loss			
Securities	4.a	99,155	112,338
Deposits and repurchase agreements	4.a	234,076	293,456
Issued debt securities	4.a	70,460	70,383
Derivative financial instruments	4.a	300,121	237,397
Derivatives used for hedging purposes	4.b	40,001	10,076
Financial liabilities at amortised cost			
Deposits from credit institutions	4.g	124,718	165,699
Deposits from customers	4.g	1,008,054	957,684
Debt securities	4.h	154,143	149,723
Subordinated debt	4.h	24,156	24,720
Remeasurement adjustment on interest-rate risk hedged portfolios		(20,201)	1,367
Current and deferred tax liabilities	4.k	3,054	3,103
Accrued expenses and other liabilities	4.l	185,456	145,399
Technical reserves and other insurance liabilities	4.j	226,532	254,795
Provisions for contingencies and charges	4.p	10,040	10,187
Liabilities associated with assets held for sale	7.d	77,002	74,366
TOTAL LIABILITIES		**2,539,821**	**2,511,937**
EQUITY			
Share capital, additional paid-in capital and retained earnings		*115,149*	*108,176*
Net income for the period attributable to shareholders		*10,196*	*9,488*
Total capital, retained earnings and net income for the period attributable to shareholders		**125,345**	**117,664**
Changes in assets and liabilities recognised directly in equity		(3,553)	222
Shareholders' equity		**121,792**	**117,886**
Minority interests	7.f	**4,763**	**4,621**
TOTAL EQUITY		**126,555**	**122,507**
TOTAL LIABILITIES AND EQUITY		**2,666,376**	**2,634,444**

CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2022

In millions of euros	Notes	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Pre-tax income from continuing activities		**13,627**	**12,744**
Pre-tax income from discontinued activities		**823**	**893**
Non-monetary items included in pre-tax net income and other adjustments		**21,425**	**26,336**
Net depreciation/amortisation expense on property, plant and equipment and intangible assets		6,516	6,781
Impairment of goodwill and other non-current assets		91	22
Net addition to provisions		2,743	13,150
Share of earnings of equity-method entities		(699)	(494)
Net expense (income) from investing activities		265	(923)
Net (income) from financing activities		(1,192)	(1,105)
Other movements		13,701	8,905
Net decrease (increase) related to assets and liabilities generated by operating activities		**(88,712)**	**2,403**
Net decrease (increase) related to transactions with customers and credit institutions		(46,852)	39,029
Net decrease related to transactions involving other financial assets and liabilities		(29,798)	(24,497)
Net decrease related to transactions involving non-financial assets and liabilities		(10,063)	(9,773)
Taxes paid		(1,999)	(2,356)
NET DECREASE (INCREASE) IN CASH AND CASH EQUIVALENTS GENERATED BY OPERATING ACTIVITIES		**(52,837)**	**42,376**
Net increase related to acquisitions and disposals of consolidated entities		366	482
Net decrease related to property, plant and equipment and intangible assets		(2,529)	(1,664)
NET DECREASE IN CASH AND CASH EQUIVALENTS RELATED TO INVESTING ACTIVITIES		**(2,163)**	**(1,182)**
Decrease in cash and cash equivalents related to transactions with shareholders		(2,578)	(5,699)
Increase in cash and cash equivalents generated by other financing activities		11,828	20,215
NET INCREASE IN CASH AND CASH EQUIVALENTS RELATED TO FINANCING ACTIVITIES		**9,250**	**14,516**
EFFECT OF MOVEMENT IN EXCHANGE RATES ON CASH AND CASH EQUIVALENTS		**1,030**	**107**
NET DECREASE (INCREASE) IN CASH AND CASH EQUIVALENTS		**(44,720)**	**55,817**
of which net decrease (increase) in cash and cash equivalents from discontinued activities	7.d	**(11,935)**	**10,739**
Balance of cash and cash equivalent accounts at the start of the period		**362,418**	**306,601**
Cash and amounts due from central banks		347,901	308,721
Due to central banks		(1,244)	(1,594)
On demand deposits with credit institutions		10,156	8,380
On demand loans from credit institutions	4.g	(9,105)	(8,995)
Deduction of receivables and accrued interest on cash and cash equivalents		156	89
Cash and cash equivalent accounts classified as "Assets held for sale"		14,554	
Balance of cash and cash equivalent accounts at the end of the period		**317,698**	**362,418**
Cash and amounts due from central banks		318,581	347,901
Due to central banks		(3,054)	(1,244)
On demand deposits with credit institutions	4.g	11,927	10,156
On demand loans from credit institutions		(12,538)	(9,105)
Deduction of receivables and accrued interest on cash and cash equivalents		163	156
Cash and cash equivalent accounts classified as "Assets held for sale"		2,619	14,554
NET DECREASE (INCREASE) IN CASH AND CASH EQUIVALENTS		**(44,720)**	**55,817**

STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

	Capital and retained earnings				Changes in assets and liabilities recognised directly in equity that will not be reclassified to profit or loss				
In millions of euros	Share capital and additional paid-in-capital	Undated Super Subordinated Notes	Non-distributed reserves	Total	Financial assets designated as at fair value through equity	Own-credit valuation adjustment of debt securities designated as at fair value through profit or loss	Remeasurement gains (losses) related to post-employment benefit plans	Discontinued activities	Total
Balance at 1 January 2021	**27,053**	**9,948**	**76,294**	**113,295**	**461**	**(303)**	**154**		**312**
Retrospective application of the change in method related to social commitments (note 6.b)			**74**	**74**					**-**
Appropriation of net income for 2020			**(3,323)**	**(3,323)**					**-**
Increases in capital and issues		1,026	(1)	1,025					-
Reduction or redemption of capital	(897)	(1,768)	(26)	(2,691)					-
Movements in own equity instruments	191	1	18	210					-
Remuneration on preferred shares and undated super subordinated notes			(412)	(412)					-
Movements in consolidation scope impacting minority shareholders (note 7.f)				-					-
Acquisitions of additional interests or partial sales of interests (note 7.f)			8	8					-
Change in commitments to repurchase minority shareholders' interests			5	5					-
Other movements			(9)	(9)					-
Realised gains or losses reclassified to retained earnings			(6)	(6)	(11)	17			6
Changes in assets and liabilities recognised directly in equity				-	390	19	270		679
Net income for 2021			**9,488**	**9,488**					-
Reclassification of discontinued activities				-			125	(125)	-
Balance at 31 December 2021	**26,347**	**9,207**	**82,110**	**117,664**	**840**	**(267)**	**549**	**(125)**	**997**
Impact of IAS 29 first time application in Türkiye			**(39)**	**(39)**					**-**
Balance at 1 January 2022	**26,347**	**9,207**	**82,071**	**117,625**	**840**	**(267)**	**549**	**(125)**	**997**
Appropriation of net income for 2021			**(4,527)**	**(4,527)**					-
Increases in capital and issues		5,024	(4)	5,020					-
Reduction or redemption of capital		(2,430)	(123)	(2,553)					-
Movements in own equity instruments	(157)	(1)	(151)	(309)					-
Remuneration on preferred shares and undated super subordinated notes			(374)	(374)					-
Movements in consolidation scope impacting minority shareholders (note 7.f)				-					-
Change in commitments to repurchase minority shareholders' interests			1	1					-
Other movements			2	2					-
Realised gains or losses reclassified to retained earnings			263	263	(267)	3	1		(263)
Changes in assets and liabilities recognised directly in equity				-	(25)	383	(10)	6	354
Net income for 2022			**10,196**	**10,196**					**-**
Balance at 31 December 2022	**26,190**	**11,800**	**87,355**	**125,345**	**548**	**119**	**540**	**(119)**	**1,088**

BETWEEN 1 JANUARY 2021 AND 31 December 2022

Changes in assets and liabilities recognised directly in equity that may be reclassified to profit or loss						Total shareholders ' equity	Minority interests *(note 7.f)*	Total equity
Exchange differences	Financial assets at fair value through equity	Financial investments of insurance activities	Derivatives used for hedging purposes	Discontinued activities	Total			
(5,033)	557	2,234	1,434		(808)	112,799	4,550	117,349
					-	74		74.00
					-	(3,323)	(221)	(3,544)
					-	1,025	10	1,035
					-	(2,691)	(73)	(2,764)
					-	210		210
					-	(412)		(412)
					-		(139)	(139)
					-	8	55	63
					-	5	38	43
					-	(9)	9	-
1,385	(476)	(423)	(453)		33	712		712
					-	9,488	392	9,880
(687)	41		38	608	-	-		-
(4,335)	122	1,811	1,019	608	(775)	117,886	4,621	122,507
165					165	126	48	174
(4,170)	122	1,811	1,019	608	(610)	118,012	4,669	122,681
					-	(4,527)	(133)	(4,660)
					-	5,020	34	5,054
					-	(2,553)		(2,553)
					-	(309)		(309)
					-	(374)		(374)
					-	-	(136)	(136)
					-	1	(157)	(156)
					-	2	(1)	1
					-	-		-
976	(633)	(3,165)	(769)	(440)	(4,031)	(3,677)	84	(3,593)
					-	10,196	401	10,597
(3,194)	(511)	(1,354)	250	168	(4,641)	121,792	4,763	126,555

NOTES TO THE FINANCIAL STATEMENTS

Prepared in accordance with IFRS as adopted by the European Union

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES APPLIED BY THE GROUP

1.a ACCOUNTING STANDARDS

1.a.1 APPLICABLE ACCOUNTING STANDARDS

The consolidated financial statements of the BNP Paribas Group have been prepared in accordance with international accounting standards (International Financial Reporting Standards – IFRS), as adopted for use in the European Union[1]. Accordingly, certain provisions of IAS 39 on hedge accounting have been excluded.

Information on the nature and extent of risks relating to financial instruments as required by IFRS 7 "Financial Instruments: Disclosures" and to insurance contracts as required by IFRS 4 "Insurance Contracts", along with information on regulatory capital required by IAS 1 "Presentation of Financial Statements" are presented in chapter 5 of the Universal Registration Document. This information, which is an integral part of the notes to the consolidated financial statements of the BNP Paribas Group at 31 December 2022, is covered by the opinion of the Statutory Auditors on the financial statements, and is identified in the management report by the word "Audited". Section 4 of chapter 5, paragraph Exposures, provisions and cost of risk provides, in particular, IFRS 7 information on credit risk exposures and related impairment broken down according to whether the underlying loans are performing or non-performing, by geographic area and by industry, as well as details of loans and advances subject to moratoria or to public guarantee schemes in response to the health crisis.

- In relation to the IBOR and Eonia rates reform, at the end of 2018 the Group launched a global programme, involving all business lines and functions. The aim of the programme is to manage and implement the transition from the old benchmark interest rates to the new ones in major jurisdictions and currencies (euro, pound sterling, US dollar, Swiss franc and Japanese yen), while reducing the risks associated with this transition and meeting the deadlines set by the competent authorities. The Group contributed to market-wide workshops with central banks and financial regulators.

  The announcements by public authorities in the United Kingdom and the United States and by the Libor rates administrator (ICE BA) at the end of November 2020 changed the transition phase, which was initially scheduled to be completed by the end of 2021. For the GBP and JPY Libor, synthetic Libor have been published beyond the end of 2021 for use in certain contracts known as "tough legacy" contracts, i.e. contracts that have not switched from Libor to a replacement index. Publication of GBP and JPY synthetic Libor was discontinued at the end of 2022. In the United States, the decision was taken to continue publishing the USD Libor until mid-2023, and a legislative solution was passed at the Federal level in the first quarter of 2022 to address legacy contracts. In addition, the United Kingdom's Financial Conduct Authority (FCA) launched a consultation during summer 2022 regarding a potential publication of synthetic USD Libor, which would be applicable for contracts governed by UK law.

  For contracts referencing the CHF Libor which could not be renegotiated before it was phased out at the end of 2021, the European Commission has provided a legislative solution replacing this rate with a daily capitalised Swiss Average Rate Overnight (SARON) rate, plus a spread aimed at ensuring the economic neutrality of this change.

  In Europe, the Eonia-€STR transition, which is purely technical given the fixed link between these two indices, was finalised at the end of December 2021 while the maintenance of Euribor on a sine die basis was confirmed.

[1] The full set of standards adopted for use in the European Union can be found on the website of the European Commission at: https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting_en

Based on the progress made to date, notably with the definition of a detailed plan and its execution, the Bank is confident in its operational capacity to manage the transition process of large volumes of transactions to the new benchmark rates.

The reform of IBOR rates exposes the Bank to various risks that the programme aims to manage closely, including in particular:

- change management risks, but also litigation and conduct risks linked to negotiations with customers and market counterparties to amend existing contracts;
- operational risks related to changes in the Bank's IT systems and processes;
- economic risks in the event of financial market disturbances linked to the various transitions brought about by the IBOR reform;
- valuation risks in a scenario of reduced liquidity during the transition in certain derivative market segments.

In September 2019, the IASB published "Phase 1" amendments to IAS 39 and IFRS 7, amending the hedge accounting requirements so that hedges affected by the benchmark interest rate reform could continue despite the uncertainty during the transition of the hedged items or hedging instruments to the reformed benchmark rates. These amendments, endorsed by the European Commission on 15 January 2020, have been applied by the Group since 31 December 2019.

In August 2020, the IASB published "Phase 2" amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 introducing several changes applicable during the effective transition to the new benchmark interest rates. These amendments allow for changes in the contractual cash flows of financial instruments resulting from the IBOR rates reform to be treated as a simple reset of their variable interest rate, provided, however, that such changes are made on an economically equivalent basis. They also allow the continuation of hedging relationships, subject to amendments to their documentation to reflect changes in hedged instruments, hedging instruments, hedged risk, and/or the method for measuring effectiveness during the transition to the new benchmark rates. The measures introduced in this framework also include:

- the possibility of documenting an interest rate as a hedged risk component even if this rate is not immediately separately identifiable, provided that it can reasonably be expected to become so within 24 months;
- the possibility of resetting cumulative fair value changes to zero in the hedge ineffectiveness test; and
- the obligation in the framework of portfolio hedges to isolate in subgroups instruments referring to the new risk-free rates (RFR).

These amendments, adopted by the European Commission in December 2020, have been applied by the Group since 31 December 2020 to maintain its existing hedging relationships which have been modified as a result of the transition to the new RFRs.

The Group has documented hedging relationships in respect of the benchmark interest rates in the scope of the reform, mainly Eonia and Libor. For these hedging relationships, the hedged items and hedging instruments are progressively amended, where necessary, to incorporate the new rates. The "Phase 1" amendments to IAS 39 and IFRS 7 are applicable when the contractual terms of the hedged instruments or of the hedging instruments have not yet been amended (i.e. with the inclusion of a "fallback" clause), or, if they have been amended, when the terms and the date of the transition to the new benchmark interest rates have not been clearly stipulated. Conversely, the "Phase 2" amendments are applicable when the contractual terms of the hedged instruments or of the hedging instruments have been amended, and the terms and date of transition to the new benchmark interest rates have been clearly stipulated.

The notional amounts of hedging instruments documented in the hedging relationships impacted by the benchmark interest rate reform are presented in note 4.b *Derivative instruments used for hedging purposes*.

At 31 December 2022, 56,808 contracts remain backed by USD Libor, including 50,478 derivative contracts.

At 31 December 2021, 112,405 contracts remain backed by USD Libor, including 72,867 contracts with a maturity date beyond 30 June 2023, including 54,628 derivative contracts.

- On 16 March 2022, the International Practices Task Force (IPTF) of the Center for Audit Quality (CAQ) included Türkiye in its list of hyperinflationary economies, the cumulative inflation rate over three years having reached 100.6% at the end of February 2022. Consequently, the Group applies IAS 29 "Financial Reporting in Hyperinflationary Economies" for the presentation of the financial statements of its consolidated subsidiaries in Türkiye.

  Accordingly, for these subsidiaries, all non-monetary assets and liabilities, including shareholders' equity, and all line items in the income statement, are revalued according to the change in of the Consumer Price Index (CPI). This revaluation between 1 January and the closing date resulted in the recognition of a gain or loss on the net monetary position, recorded under “Net gains on non-current assets” (see note 2.i). The financial statements of these subsidiaries were converted into euros at the closing rate, in accordance with the specific provisions of IAS 21 "The Effects of Changes in Foreign Exchange Rates" applicable to the translation of the financial statements of entities located in hyperinflationary economies.

  In accordance with the provisions of the IFRIC decision of March 2020 on the classification of the effects of the indexation and conversion of the financial statements of subsidiaries in hyperinflationary economies, the Group has opted to present these effects (including the effect on the net monetary position of the date of first application of IAS 29) as changes in assets and liabilities recognised directly in equity relative to exchange differences.

  At 1 January 2022, the first-time application of IAS 29 resulted in a EUR 174 million increase in equity, of which EUR 227 million was recorded in “Changes in assets and liabilities recognised directly in equity – exchange differences”.

The introduction of other standards, amendments and interpretations that are mandatory as from 1 January 2022 had no effect on the Group’s financial statements at 31 December 2022.

The Group did not early adopt any of the new standards, amendments, and interpretations adopted by the European Union, when the application in 2022 was optional.

1.a.2 NEW MAJOR ACCOUNTING STANDARDS, PUBLISHED BUT NOT YET APPLICABLE

IFRS 17 “Insurance Contracts”, issued in May 2017 and amended in June 2020 will replace IFRS 4 “Insurance Contracts”. It was adopted by the European Union in November 2021, accompanied by an optional exemption from the application of the annual cohort grouping requirement for participating contracts based on intergenerational mutualisation of returns on the underlying assets of the technical commitments. It will be mandatory for financial periods beginning on or after 1 January 2023. The transition date for IFRS 17 will therefore be 1 January 2022 for the purposes of the opening balance sheet of the comparative period required by the standard.

As the Group has deferred the application of IFRS 9 for its insurance entities until the entry into force of IFRS 17, it will apply this standard from 1 January 2023.

The amendment to IFRS 17 relating to the presentation of the IFRS 9 and IFRS 17 comparative information, published by the IASB in December 2021, was adopted by the European union on 8 September 2022[2] and will also be applied by the Group.

Scope

IFRS 17 applies to insurance contracts issued, reinsurance contracts issued and held and investment contracts with discretionary participation features issued (if the entity also issues insurance contracts). The definition of an insurance contract is unchanged from IFRS 4, with the exception of the assessment of the risk of loss for the insurer which must be performed on a present value basis.

Accounting and measurement

Insurance contracts are accounted and measured by groups of contracts within portfolios of contracts covering similar risks and managed together. Groups of contracts are determined according to their expected profitability at inception: onerous contracts, profitable contracts with a low risk of becoming onerous, and others. A group of

[2] EU Regulation n°2022/1491 of 8 September 2022

contracts may contain only contracts issued no more than one year apart (corresponding to an annual “cohort”), except where the optional exemption provided for in the European regulation applies.

- **General measurement model (Building Block Approach – BBA)**

The general model for the measurement of insurance contracts is the best estimate of the future cash flows to be paid or received necessary to meet contractual obligations. This estimate should reflect the different possible scenarios and the effect of the options and guarantees included in the contracts on the limit or “contract boundary” determined according to the standard. Cash flows are discounted to reflect the time value of money. They correspond only to cash flows attributable to insurance contracts either directly or through allocation methods: premiums, acquisition and contract management costs, claims and benefits, indirect costs, taxes and depreciation of tangible and intangible assets. The cash flows estimate is supplemented by an explicit risk adjustment to cover the uncertainty for non-financial risk. These two elements constitute the fulfilment cash flows of the contracts. A contractual service margin is added representing the expected gain or loss on future services related to a group of contracts.

If the contractual service margin is positive, it is shown on the balance sheet within the insurance contract’s measurement and amortised as the services are rendered; if negative, it is recognised immediately in the income statement and then reversed over the life of the contracts or when the contracts become profitable again. Acquisition costs paid prior to the initial recognition of a group of contracts are initially recognised in the balance sheet (and presented as a decrease in insurance liabilities or increase in insurance assets depending on the overall position of the portfolio) and then deducted from the contractual service margin of the group of contracts to which they relate at the time of initial recognition.

At each reporting date, the carrying amount of a group of insurance contracts is the sum of the liabilities for the remaining coverage (which include the fulfilment cash flows related to future services and the contractual service margin remaining at that date) and liabilities for incurred claims (which include only the fulfilment cash flows for claims incurred, without any contractual service margin). The assumptions used to estimate future cash flows and the non-financial risk adjustment are updated, as well as the discount rate, to reflect the situation at the reporting date. The contractual service margin is adjusted for changes in the estimates of non-financial assumptions related to future services and then amortised in the income statement for services rendered over the period. The release of the expected contractual cash flows for the period and changes in the estimates for past services are recorded in the income statement. The effect of unwinding the discount on the liabilities related to the passage of time is recorded in the income statement as well as the effect of the change in the discount rate. The latter effect may, however, be recognised in equity as an option.

- **Measurement model for contracts with direct participation features (Variable Fee Approach – VFA)**

In the case of direct participating contracts, where the insurer has to pay the policyholder an amount corresponding to the market or model value of clearly identified underlying assets, less a variable compensation, a specific model (called the “Variable Fee Approach”) has been developed by adapting the general model.

At each reporting date, the liabilities related to these contracts are adjusted for the return earned and changes in the market or model value of the underlying assets: the policyholders’ share is recorded in the contract fulfilment cash flows against the profit or loss and the insurer’s share is included in the contractual service margin. The gain or loss of these contracts is therefore essentially represented by the release of the fulfilment cash flows and the amortisation of the contractual service margin. When the underlying assets fully match the liabilities and are measured at market value through profit or loss, the financial gain or loss of these contracts should be zero. If certain underlying assets are not measured at market value through profit or loss, the insurer may choose to reclassify the change in liabilities related to these assets to equity.

- **Simplified measurement model (Premium Allocation Approach – PAA)**

Short-term contracts (less than one year) may be measured using a simplified approach known as the Premium Allocation Approach, also applicable to longer-term contracts if it leads to results similar to those of the general model in terms of liability for the remaining coverage. For profitable contracts, the liability for the remaining coverage is measured based on the deferral of premiums collected according to a logic similar to that used under IFRS 4. Onerous contracts and liabilities for incurred claims are valued according to the general model. Liabilities for incurred claims are discounted if the expected settlement of claims takes place one year after the date of occurrence. In this case, the option of classifying the effect of changes in the discount rate in equity is also applicable.

At each reporting date, the adjustment of liabilities for remaining coverage and for incurred claims is recognised in profit or loss.

- **Treatment of the reinsurance**

Accepted reinsurance is treated as insurance contracts issued, either in the general model or in simplified model. The reinsurance ceded is also treated under the general model or simplified model, but the contractual service margin representing the expected reinsurance profit or loss may be negative, and the fulfilment cash flows includes the reinsurer's non-performance risk.

Presentation in the balance sheet and in the profit and loss

Pursuant to changes in IAS 1 resulting from IFRS 17:

- Insurance (and reinsurance) contracts issued, and reinsurance contracts held are shown in the balance sheet as assets or liabilities according to the overall position of the portfolios to which they belong;
- The various income and expenses of insurance and reinsurance contracts are broken down in the profit and loss into:
  - Insurance revenues: release of fulfilment cash flows for the expected amount over the period (excluding investment components[3]), change in the risk adjustment, amortisation of the contractual service margin for services rendered, amount allocated for the amortisation of acquisition cost, adjustments arising from premiums received;
  - Insurance service expenses: actual charges attributable to insurance contracts incurred over the period (excluding repayments of investment components) and changes related to past service, amortisation of acquisition costs, and loss component on the initial recognition of onerous contracts as well as its amortisation;
  - Insurance financial income or expenses: change in the carrying amount of insurance contracts resulting from the effect of the time value of money and the financial risk including changes in financial assumptions (except for those adjusting the contractual service margin in the case of direct participating contracts), for the portion that the Group has chosen not to include directly in equity.
- Regarding the elements recognised in equity:
  - For contracts valued according to the general model or the simplified approach, the effects of changes in financial variables (in particular the discount rate) can be presented separately between the profit and loss account and changes in fair value recognised directly in equity that may be reclassified in profit or loss. This option can be exercised by portfolio;
  - For contracts valued using the variable fee method, the option to present separately financial income or expense between the income statement and shareholders' equity may be used to avoid an accounting mismatch with the income or expense recognised in the profit and loss account in respect of the underlying assets held.

Terms of application and main accounting options used by the Group for the transition

The main contracts in the scope of IFRS 17 issued by the Group are contracts covering risks related to persons or property and life savings contracts.

Creditor protection insurance (CPI), personal protection insurance and other non-life risks will be measured either, according to the general model or, if the conditions are met, using the simplified approach. For the constitution of portfolios of similar contracts, BNP Paribas takes into account the following discriminatory criteria: legal entity, nature of risks and distribution partner. The discount rate is based on the risk-free rate adjusted for the illiquidity of the liabilities. The risk adjustment is determined using the quantile method. The coverage unit used to amortise the contractual service margin is derived from the risk premium earned during the period.

Life and savings contracts consist of single and "multi-supports" contracts, with or without insurance risk, including a discretionary participation component backed by euro or foreign currency funds (generally financial and real estate assets), and unit-linked contracts with a minimum coverage in the event of death. These different types of contracts meet the definition of direct participating contracts and will therefore be valued using the variable fee approach. Where such contracts include a surrender value, this meets the definition of a non-distinct investment component. BNP Paribas takes into account the following criteria for life and savings portfolios: legal entity, product, and underlying asset. Savings and retirement activities have been classified in separate portfolios (including for the period prior to transition). The discount rate is based on the risk-free rate, extrapolated over a

[3] A non-distinct investment component corresponds to the amount that would be paid to the policyholder in all cases, whether the covered event occurs.

period exceeding the observable data and adjusted by a liquidity premium based on the underlying assets. The risk adjustment is determined using the cost of capital method. The coverage unit used to amortise the contractual service margin is the change in savings due to policyholders (determined at present value), adjusted to take into account the impact of the real return on financial assets compared to the actuarial neutral risk projection. The Group has chosen to apply the option introduced by the European Regulation not to divide by annual cohort the portfolios of participating contracts based on intergenerational mutualisation. This option should apply to insurance contracts and investment contracts with discretionary participation eligible for the variable fee approach, euro single or “multi-supports” including a euro fund, for which the policyholders’ participation in the returns is pooled among the different generations of policyholders in France, Italy and Luxembourg.

Financial income or expense from issued insurance contracts will be presented separately between the profit and loss account and shareholders’ equity for portfolios for which this breakdown has been deemed relevant, as allowed by the standard. For the Protection contracts measured under the general model and for the liabilities for incurred claims arising from contracts measured under the simplified model, the choice of portfolios was made by taking into account both the effects in the profit and loss account of the discount of the liabilities and the accounting treatment of the assets backing them. For contracts measured using the Variable Fee Approach, the choice was made to offset any accounting mismatch that may exist in the profit and loss account between the effect of changes in fair value on insurance or investment liabilities and that on the underlying assets when these are not recognised at fair value through profit or loss.

The Group has chosen to present its financial statements in the format proposed by the *Autorité des Normes Comptables* recommendation n°2022-01 of 8 April 2022, as follows. Under the option introduced by the recommendation, the Group intends to present the insurance activity investments and the related income separately from the banking activity financial assets and liabilities.

Insurance contracts may be distributed and managed by non-insurance entities of the Group that are remunerated as such by commissions paid by insurance entities. The new model for valuing insurance contracts requires projecting into the contract fulfilment cash flows the acquisition and management costs that will be paid in the future and presenting in the profit and loss account, the release of the estimated costs for the period on the one hand, and on the other, the actual costs. For commissions between consolidated companies of the Group, in accordance with the recommendations of ESMA (32-63-1320) and the AMF (DOC-2022-06), the Group will restate the internal margin on the balance sheet[4] and profit and loss account (in the breakdown of insurance liabilities and the related results between the fulfilment cash flows and contract services margin) by presenting as insurance service expenses the portion of the general expenses of banking entities that can be attributable to insurance activity. The restated internal margin is determined from normalised management data of each of the distribution networks.

Expected transition impacts

- **IFRS 17**

Launched in 2017, the IFRS 17 implementation project comes to an end with the date of first application of the standard. The deployment of the new modelling and reporting tools took place according to the defined timetable. Some options remain likely to evolve in the future, depending on the normative interpretations that may occur, in particular at the level of IFRIC.

The transition from IFRS 4 to IFRS 17 will result in the offsetting in equity of assets and liabilities of insurance contracts recognised in accordance with the previous standard net of deferred taxes effects: insurance liabilities and reinsurance assets held, deferred policyholders’ participation arising from “shadow accounting” and intangible assets specific to insurance contracts when recognised. Receivables and liabilities related to insurance or reinsurance contracts must be included in the new valuation of insurance asset and liabilities.

IFRS 17 applies retroactively to all contracts outstanding at the transition date, i.e. 1 January 2022 due to the mandatory comparative period. Three transition methods may be used: a full retrospective approach and, if this cannot be implemented, a modified retrospective approach or an approach based on the market or model value of the contracts at the transition date.

The majority of entities controlled by the Group applied the modified retrospective approach and, more marginally, for some portfolios, an approach based on the market or model value of contracts at the transition date.

[4] This restatement was taken into account for the balance sheet at the transition date at 1 January 2022.

As a matter of fact, all the necessary information was not available or was not sufficiently granular, in particular due to systems migration and data retention requirements, to allow a full retrospective approach. This is the case for historical cash flows, discount rates and changes in assumptions and estimates that would have occurred in the period prior to the transition, especially changes in projection models occurred during this period. Moreover, the full retrospective approach would have required reconstituting management's assumptions or intentions in previous periods.

The objective of the modified retrospective approach is to achieve a result that is as close as possible to the result that would have been obtained by the retrospective application of the standard, based on reasonable and justifiable information that can be obtained without incurring excessive costs or effort. The transitional provisions of IFRS 17 under this approach allow for different simplifications in the grouping of contracts, the reconstitution of contract valuations at initial recognition, the measurement of the contractual service margin (or loss element) and for financial products or insurance charges (for the part recorded in equity).

Thus, the concerned entities applied the modified retrospective approach to most portfolios of existing contracts, whether in Protection or Life/Savings. Simplifications used depended on the valuation models and the availability of the necessary information on the related portfolios.

For protection contracts valued according to the general model, the principle of the modified retrospective approach consists in reconstituting liabilities at the initial recognition date from their valuation at the transition date, by retroactively reconstituting movements between the two dates with simplifications:

- cash flows at inception are estimated by adding to the amount at the transition date the effective cash flows recorded between the two dates;
- the original discount rate can be determined with interest rate curves simulating those at the date of first recognition;
- the changes in the adjustment for non-financial risk between the inception date and the transition date can be estimated based on release pattern observed on similar contracts.

For liabilities for remaining coverage that are reconstituted in this way at the inception date, the contractual service margin at inception (if any), less any acquisition costs paid in the interim period, is amortised based on the services provided in the period prior to the transition, in order to determine the amount of the remaining contractual service margin at that date, less any remaining acquisition costs.

When contracts are grouped into a single group on the transition date, the discount rate on that date can be used.

When the option to disaggregate financial changes between profit and loss and shareholders' equity has been elected, it requires the amount taken to shareholders' equity at the transition date to be recalculated from the inception rate for the liability for remaining coverage and from the rate at the date of claims occurrence for the liability for incurred claims. Where such reconstitution is not possible, the amount shown in equity shall be zero.

For the purposes of this reconstitution, the simplifications mainly covered the following:

- reconstitution of the annual cohorts or consolidation into a single group of contracts at the transition date according to available data;
- the reconstitution of fulfilment cash flows and unamortised acquisition costs;
- the release of the risk adjustment between the date of issuance of the contracts and the transition date;
- discount rates (the rate at inception in the case of a reconstitution by annual cohorts or an average rate in the case of a consolidation into a single group of contracts at the transition date);
- the amount transferred to changes in equity that may be reclassified to profit or loss at the transition date in respect of changes in the discount rate, that has been reconstituted based on historical rates or reset to zero if such a reconstitution is not achievable.

For protection contracts valued according to the simplified method, the reserves for remaining coverage were generally determined at transition from the previous reserves for unearned premiums, net of acquisition costs. The incurred claims reserves arising from these contracts consist of expected cash flows and risk adjustments for non-financial risks at the transition date. When cash flows were discounted and for portfolios for which the disaggregation option of financial changes between profit and loss account and shareholders' equity has been chosen, the amount carried in changes in equity that may be reclassified to profit or loss at the transition date in relation to changes in the discount rate was reconstituted based on the historical rates or set to zero if such a reconstitution was not achievable.

For Life/Savings contracts valued under the variable fees model, the modified retrospective approach consists in reconstituting the liability at the original date from the liability at the transition date. However, for these contracts, the standard provides that the contractual services margin at the transition date is determined using the following approach:

- the realisable value of the underlying assets at the transition date is first diminished by the fulfilment cash flows (discounted cash flows and risk adjustment) at that date;
- to this amount are added the income paid by the policyholders, changes in the risk adjustment and are deducted the acquisition costs paid during the interim period,
- the contractual service margin net of the acquisition costs initially reconstituted in this way is then amortised until the transition date to reflect the services provided on that date, as well as the remaining acquisition costs to be amortised.

The main simplifications in implementing this approach were as follows:

- existing contracts have been grouped according to the planned post-transition segmentation, without annual cohorts breakdown, in line with the election of the exception provided for by the European regulation;
- for general funds common to participating and non-participating contracts and to equity, the underlying assets have been defined on the basis of the breakdown used in the statutory accounts to calculate policyholders' participation;
- the contractual services margin at the transition date has been reconstituted:
    - from the realisable value of the underlying assets (see above) less fulfilment cash flows on the transition date;
    - by adding the historical margins (obtained from accounting or management information), the total being amortised up to the transition date (using the same approach, taking into account the "over-performance on assets", as used after the transition) and;
    - deducting any remaining acquisition costs;
- the amount recorded in changes in equity that may be reclassified to profit or loss at the transition date as an adjustment for accounting mismatch was determined using the realisable value of the underlying assets recognised in equity at the transition date, in accordance with the standard.

Finally, under the market value method, the contractual service margin at the transition date is determined as the difference at the transition date between the realisable value ("fair value, determined without taking into account the amount payable on demand") and the fulfilment cash flows. This approach was used on some non-material portfolios when the modified retrospective approach could not be implemented. For these portfolios, the fair value has been estimated based on a Solvency 2 valuation and, in the particular case of a recent business combination dating from 2018, based on the amount allocated to the contracts during the acquisition price allocation process.

- **IFRS 9**

The IFRS 9 implementation project at the level of the Insurance activity built widely on the experience of other business lines in the Group already applying this standard, in particular to ensure consistency in classification.

Financial assets and liabilities of insurance entities are managed by portfolios corresponding to the insurance liabilities they back up or to the own funds. The business models were therefore determined according to these portfolios at the transition date to IFRS 9.

In accordance with the criteria of the business model and of the contractual cash flows, debt instruments will largely be classified under the "held to collect and sell" model, with the exception of those representing unit-linked contracts and debt instruments held by consolidated UCITS and managed at net asset value, which will be classified at fair value through profit or loss. Certain specific assets will be classified as at fair value on option. The majority of equity instruments will be measured at fair value through profit or loss, except in the case of certain assets backing up own funds and non-participating contracts portfolios, which will be measured at fair value through equity. Non-consolidated funds classified as available for sale under IAS 39 will be reclassified at fair value through profit or loss. The treatment of derivatives remains unchanged, including hedge accounting as IAS 39 rules have been maintained by the Group.

Since the beginning of 2022, financial assets have been monitored according to both IAS 39 and IFRS 9. The Group is planning to use the optional "overlay classification" approach introduced by the amendment to IFRS 17 relating to the presentation of IFRS 9 - IFRS 17 comparisons, which allows financial assets to be presented in the 2022 comparative as if IFRS 9 had been applicable at that date. This choice would apply to all financial instruments, including those derecognised in 2022, in terms of both classification and valuation (including impairment).

- **Amendments to other standards**

The Group is also planning to apply the amendments to IAS 40 and IAS 16 resulting from IFRS 17, leading to the valuation at fair value through profit or loss of the buildings held as underlying components of direct participating contracts. The amendments to IAS 32 and IFRS 9 are expected to be applied, enabling the financial assets issued by the Group that are held as underlying items of direct participating contracts and are measured at fair value through profit or loss to be maintained in the balance sheet.

- **Impacts estimated at 1 January 2022**

Regarding insurance contracts, a full valuation exercise was realised during 2022 to establish the opening balance sheet at 1 January 2022 and prepare the 2022 comparative period.

Based on this work, at 1 January 2022, the estimated impact on Group's shareholders' equity[5] of the application of IFRS 17 and IFRS 9 and of the various amendments to other standards amounted to - EUR 1.6 billion. This impact consists of EUR 0.5 billion related to the transition from IAS 39 to IFRS 9 and - EUR 2.1 billion related to the transition from IFRS 4 to IFRS 17[6].

At 1 January 2022, for controlled entities, liabilities related to insurance contracts, net of insurance portfolios in assets, amounted to EUR 239.3 billion, and consist of the following:

- EUR 219.2 billion for the best estimate of future cash flows;
- EUR 1.5 billion for the risk adjustment;
- EUR 18.6 billion for the contractual service margin.

1.b CONSOLIDATION

1.b.1 SCOPE OF CONSOLIDATION

The consolidated financial statements of BNP Paribas include entities that are controlled by the Group, jointly controlled, and under significant influence, with the exception of those entities whose consolidation is regarded as immaterial to the Group. Companies that hold shares in consolidated companies are also consolidated.

Subsidiaries are consolidated from the date on which the Group obtains effective control. Entities under temporary control are included in the consolidated financial statements until the date of disposal.

1.b.2 CONSOLIDATION METHODS

Exclusive control

Controlled enterprises are fully consolidated. The Group controls a subsidiary when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

[5] Including change in assets and liabilities recognised in changes in equity that may be reclassified to profit or loss.
[6] Including amendments to other standards related to the application of IFRS 17, of which the impact of the EUR 1.5 billion in relation to the revaluation of buildings at fair value, offset by the corresponding revaluation of liabilities in direct participating contracts.

For entities governed by voting rights, the Group generally controls the entity if it holds, directly or indirectly, the majority of the voting rights (and if there are no contractual provisions that alter the power of these voting rights) or if the power to direct the relevant activities of the entity is conferred on it by contractual agreements.

Structured entities are entities established so that they are not governed by voting rights, for instance when those voting rights relate to administrative tasks only, whereas the relevant activities are directed by means of contractual arrangements. They often have the following features or attributes: restricted activities, a narrow and well-defined objective and insufficient equity to permit them to finance their activities without subordinated financial support.

For these entities, the analysis of control shall consider the purpose and design of the entity, the risks to which the entity is designed to be exposed and to what extent the Group absorbs the related variability. The assessment of control shall consider all facts and circumstances able to determine the Group's practical ability to make decisions that could significantly affect its returns, even if such decisions are contingent on uncertain future events or circumstances.

In assessing whether it has power, the Group considers only substantive rights which it holds or which are held by third parties. For a right to be substantive, the holder must have the practical ability to exercise that right when decisions about the relevant activities of the entity need to be made.

Control is reassessed if facts and circumstances indicate that there are changes to one or more of the elements of control.

Where the Group contractually holds the decision-making power, for instance where the Group acts as fund manager, it shall determine whether it is acting as agent or principal. Indeed, when associated with a certain level of exposure to the variability of returns, this decision-making power may indicate that the Group is acting on its own account and that it thus has control over those entities.

Minority interests are presented separately in the consolidated profit and loss account and balance sheet within consolidated equity. The calculation of minority interests takes into account the outstanding cumulative preferred shares classified as equity instruments issued by subsidiaries, when such shares are held outside the Group.

As regards fully consolidated funds, units held by third-party investors are recognised as debts at fair value through profit or loss, inasmuch as they are redeemable at fair value at the subscriber's initiative.

For transactions resulting in a loss of control, any equity interest retained by the Group is remeasured at its fair value through profit or loss.

Joint control

Where the Group carries out an activity with one or more partners, sharing control by virtue of a contractual agreement which requires unanimous consent on relevant activities (those that significantly affect the entity's returns), the Group exercises joint control over the activity. Where the jointly controlled activity is structured through a separate vehicle in which the partners have rights to the net assets, this joint venture is accounted for using the equity method. Where the jointly controlled activity is not structured through a separate vehicle or where the partners have rights to the assets and obligations for the liabilities of the jointly controlled activity, the Group accounts for its share of the assets, liabilities, revenues and expenses in accordance with the applicable IFRS.

Significant influence

Companies over which the Group exercises significant influence or associates are accounted for by the equity method. Significant influence is the power to participate in the financial and operating policy decisions of a company without exercising control. Significant influence is presumed to exist when the Group holds, directly or indirectly, 20% or more of the voting rights of a company. Interests of less than 20% can be included in the consolidation scope if the Group effectively exercises significant influence. This is the case for example for entities developed in partnership with other associates, where the BNP Paribas Group participates in strategic decisions of the enterprise through representation on the Board of Directors or equivalent governing body, or exercises influence over the enterprise's operational management by supplying management systems or senior managers, or provides technical assistance to support the enterprise's development.

Changes in the net assets of associates (companies accounted for under the equity method) are recognised on the assets side of the balance sheet under "Investments in equity-method entities" and in the relevant component of shareholders' equity. Goodwill recorded on associates is also included under "Equity-method investments".

Whenever there is an indication of impairment, the carrying amount of the investment consolidated under the equity method (including goodwill) is subjected to an impairment test, by comparing its recoverable value (the higher of value-in-use and market value less costs to sell) to its carrying amount. Where appropriate, impairment is recognised under "Share of earnings of equity-method entities" in the consolidated income statement and can be reversed at a later date.

If the Group's share of losses of an equity-method entity equals or exceeds the carrying amount of its investment in this entity, the Group discontinues including its share of further losses. The investment is reported at nil value. Additional losses of the equity-method entity are provided for only to the extent that the Group has contracted a legal or constructive obligation or has made payments on behalf of this entity.

Where the Group holds an interest in an associate, directly or indirectly through an entity that is a venture capital organisation, a mutual fund, an open-ended investment company or similar entity such as an investment-related insurance fund, it may elect to measure that interest at fair value through profit or loss.

Realised gains and losses on investments in consolidated undertakings are recognised in the profit and loss account under "Net gain on non-current assets".

The consolidated financial statements are prepared using uniform accounting policies for similar transactions and other events occurring in similar circumstances.

1.b.3 CONSOLIDATION RULES

- **Elimination of intragroup balances and transactions**

Intragroup balances arising from transactions between consolidated enterprises, and the transactions themselves (including income, expenses and dividends), are eliminated. Profits and losses arising from intragroup sales of assets are eliminated, except where there is an indication that the asset sold is impaired. Unrealised gains and losses included in the value of financial instruments at fair value through equity and available-for-sale assets are maintained in the consolidated financial statements.

- **Translation of accounts expressed in foreign currencies**

The consolidated financial statements of BNP Paribas are prepared in euros.

The financial statements of enterprises whose functional currency is not the euro are translated using the closing rate method. Under this method, all assets and liabilities, both monetary and non-monetary, are translated using the spot exchange rate at the balance sheet date. Income and expense items are translated at the average rate for the period.

Financial statements of the Group's subsidiaries located in hyperinflationary economies, previously adjusted for inflation by applying a general price index, are translated using the closing rate. This rate applies to the translation of assets and liabilities as well as income and expenses.

Differences arising from the translation of balance sheet items and profit and loss items are recorded in shareholders' equity under "Exchange differences", and in "Minority interests" for the portion attributable to outside investors. Under the optional treatment permitted by IFRS 1, the Group has reset to zero all translation differences, by booking all cumulative translation differences attributable to shareholders and to minority interests in the opening balance sheet at 1 January 2004 to retained earnings.

On liquidation or disposal of some or all of an interest held in a foreign enterprise located outside the eurozone, leading to a change in the nature of the investment (loss of control, loss of significant influence or loss of joint control without keeping a significant influence), the cumulative exchange difference at the date of liquidation or sale is recognised in the profit and loss account.

Should the percentage of interest change without leading to a modification in the nature of the investment, the exchange difference is reallocated between the portion attributable to shareholders and that attributable to minority interests if the entity is fully consolidated; if the entity is consolidated under the equity method, it is recorded in profit or loss for the portion related to the interest sold.

1.b.4 BUSINESS COMBINATION AND MEASUREMENT OF GOODWILL

- **Business combinations**

Business combinations are accounted for using the purchase method.

Under this method, the acquiree's identifiable assets and liabilities assumed are measured at fair value at the acquisition date except for non-current assets classified as assets held for sale which are accounted for at fair value less costs to sell.

The acquiree's contingent liabilities are not recognised in the consolidated balance sheet unless they represent a present obligation on the acquisition date and their fair value can be measured reliably.

The cost of a business combination is the fair value, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued to obtain control of the acquiree. Costs directly attributable to the business combination are treated as a separate transaction and recognised through profit or loss.

Any contingent consideration is included in the cost, as soon as control is obtained, at fair value on the date when control was acquired. Subsequent changes in the value of any contingent consideration recognised as a financial liability are recognised through profit or loss.

The Group may recognise any adjustments to the provisional accounting within 12 months of the acquisition date.

Goodwill represents the difference between the cost of the combination and the acquirer's interest in the net fair value of the identifiable assets and liabilities of the acquiree at the acquisition date. Positive goodwill is recognised in the acquirer's balance sheet, while negative goodwill is recognised immediately in profit or loss, on the acquisition date. Minority interests are measured at their share of the fair value of the acquiree's identifiable assets and liabilities. However, for each business combination, the Group can elect to measure minority interests at fair value, in which case a proportion of goodwill is allocated to them. To date, the Group has never used this latter option.

Goodwill is recognised in the functional currency of the acquiree and translated at the closing exchange rate.

On the acquisition date, any previously held equity interest in the acquiree is remeasured at its fair value through profit or loss. In the case of a step acquisition, the goodwill is therefore determined by reference to the acquisition-date fair value.

Since the revised IFRS 3 has been applied prospectively, business combinations completed prior to 1 January 2010 were not restated for the effects of changes to IFRS 3.

As permitted under IFRS 1, business combinations that took place before 1 January 2004 and were recorded in accordance with the previously applicable accounting standards (French GAAP), had not been restated in accordance with the principles of IFRS 3.

- **Measurement of goodwill**

The BNP Paribas Group tests goodwill for impairment on a regular basis.

- Cash-generating units

The BNP Paribas Group has split all its activities into cash-generating units[7] representing major business lines. This split is consistent with the Group's organisational structure and management methods, and reflects the independence of each unit in terms of results and management approach. It is reviewed on a regular basis in order to take account of events likely to affect the composition of cash-generating units, such as acquisitions, disposals and major reorganisations.

[7] As defined by IAS 36.

- Testing cash-generating units for impairment

Goodwill allocated to cash-generating units is tested for impairment annually and whenever there is an indication that a unit may be impaired, by comparing the carrying amount of the unit with its recoverable amount. If the recoverable amount is less than the carrying amount, an irreversible impairment loss is recognised, and the goodwill is written down by the excess of the carrying amount of the unit over its recoverable amount.

- Recoverable amount of a cash-generating unit

The recoverable amount of a cash-generating unit is the higher of the fair value of the unit less costs to sell, and its value in use.

Fair value is the price that would be obtained from selling the unit at the market conditions prevailing at the date of measurement, as determined mainly by reference to actual prices of recent transactions involving similar entities or on the basis of stock market multiples for comparable companies.

Value in use is based on an estimate of the future cash flows to be generated by the cash-generating unit, derived from the annual forecasts prepared by the unit's management and approved by Group Executive Management, and from analyses of changes in the relative positioning of the unit's activities on their market. These cash flows are discounted at a rate that reflects the return that investors would require from an investment in the business sector and region involved.

1.c TRANSLATION OF FOREIGN CURRENCY TRANSACTIONS

The methods used to account for assets and liabilities relating to foreign currency transactions entered into by the Group, and to measure the foreign exchange risk arising on such transactions, depend on whether the asset or liability in question is classified as a monetary or a non-monetary item.

- **Monetary assets and liabilities[8] expressed in foreign currencies**

Monetary assets and liabilities expressed in foreign currencies are translated into the functional currency of the relevant Group entity at the closing rate. Foreign exchange differences are recognised in the profit and loss account, except for those arising from financial instruments designated as a cash flow hedge or a net foreign investment hedge, which are recognised in shareholders' equity.

- **Non-monetary assets and liabilities expressed in foreign currencies**

Non-monetary assets may be measured either at historical cost or at fair value. Non-monetary assets expressed in foreign currencies are translated using the exchange rate at the date of the transaction (i.e. date of initial recognition of the non-monetary asset) if they are measured at historical cost, and at the closing rate if they are measured at fair value.

Foreign exchange differences relating to non-monetary assets denominated in foreign currencies and recognised at fair value (equity instruments) are recognised in profit or loss when the asset is classified in "Financial assets at fair value through profit or loss" and in equity when the asset is classified under "Financial assets at fair value through equity".

[8] Monetary assets and liabilities are assets and liabilities to be received or paid in fixed or determinable amounts of cash.

1.d NET INTEREST INCOME, COMMISSIONS AND INCOME FROM OTHER ACTIVITIES

1.d.1 NET INTEREST INCOME

Income and expenses relating to debt instruments measured at amortised cost and at fair value through shareholders' equity are recognised in the income statement using the effective interest rate method.

The effective interest rate is the rate that ensures the discounted value of estimated future cash flows through the expected life of the financial instrument or, when appropriate, a shorter period, is equal to the carrying amount of the asset or liability in the balance sheet. The effective interest rate measurement takes into account all fees received or paid that are an integral part of the effective interest rate of the contract, transaction costs, and premiums and discounts.

Commissions considered as an additional component of interest are included in the effective interest rate and are recognised in the profit and loss account in “Net interest income”. This category includes notably commissions on financing commitments when it is considered that the setting up of a loan is more likely than unlikely. Commissions received in respect of financing commitments are deferred until they are drawn and then included in the effective interest rate calculation and amortised over the life of the loan. Syndication commissions are also included in this category for the portion of the commission equivalent to the remuneration of other syndication participants.

1.d.2 COMMISSIONS AND INCOME FROM OTHER ACTIVITIES

Commissions received with regards to banking and similar services provided (except for those that are integral part of the effective interest rate), revenues from property development and revenues from services provided in connection with lease contracts fall within the scope of IFRS 15 “Revenue from Contracts with Customers”.

This standard defines a single model for recognising revenue based on five-step principles. These five steps enable to identify the distinct performance obligations included in the contracts and allocate the transaction price among them. The income related to those performance obligations is recognised as revenue when the latter are satisfied, namely when the control of the promised goods or services has been transferred.

The price of a service may contain a variable component. Variable amounts may be recognised in the income statement only if it is highly probable that the amounts recorded will not result in a significant downward adjustment.

Commission

The Group records commission income and expense in profit or loss:

- either over time as the service is rendered when the client receives continuous service. These include, for example, certain commissions on transactions with customers when services are rendered on a continuous basis, commissions on financing commitments that are not included in the interest margin, because the probability that they give rise to the drawing up of a loan is low, commissions on financial collateral, clearing commissions on financial instruments, commissions related to trust and similar activities, securities custody fees, *etc*.

  Commissions received under financial guarantee commitments are deemed to represent the initial fair value of the commitment. The resulting liability is subsequently amortised over the term of the commitment, in Commission income;

- or at a point in time when the service is rendered, in other cases. These include, for example, distribution fees received, loan syndication fees remunerating the arrangement service, advisory fees, *etc*.

Income from other activities

Income from property development as well as income from services provided in connection with lease contracts is recorded under ‘income from other activities’ in the income statement.

As regards property development income, the Group records it in profit or loss:

- over time, when the performance obligation creates or enhances an asset on which the customer obtains control as it is created or enhanced (e.g. work in progress controlled by the client on the land in which the asset is located, *etc.*), or where the service performed does not create an asset that the entity could otherwise use and gives it enforceable right to payment for performance completed to date. This is the case for contracts such as VEFA (sale in the future state of completion) in France.
- at completion in other cases.

Regarding income from services provided in connection with lease contracts, the Group records them in profit or loss as the service is rendered, i.e. in proportion to the costs incurred for maintenance contracts.

1.e FINANCIAL ASSETS AND LIABILITIES

Financial assets, except those relating to insurance activities (see note 1.f) are classified at amortised cost, at fair value through shareholders' equity or at fair value through profit or loss depending on the business model and the contractual features of the instruments at initial recognition.

Financial liabilities are classified at amortised cost or at fair value through profit or loss at initial recognition.

Financial assets and liabilities are recognised in the balance sheet when the Group becomes a party to the contractual provisions of the instrument. Purchases and sales of financial assets made within a period established by the regulations or by a convention in the relevant marketplace are recognised in the balance sheet at the settlement date.

1.e.1 FINANCIAL ASSETS AT AMORTISED COST

Financial assets are classified at amortised cost if the following two criteria are met: the business model objective is to hold the instrument in order to collect the contractual cash flows and the cash flows consist solely of payments relating to principal and interest on the principal.

Business model criterion

Financial assets are managed within a business model whose objective is to hold financial assets in order to collect cash flows through the collection of contractual payments over the life of the instrument.

The realisation of disposals close to the maturity of the instrument and for an amount close to the remaining contractual cash-flows, or due to an increase in the counterparty's credit risk is consistent with a business model whose objective is to collect the contractual cash flows (“collect”). Sales imposed by regulatory requirements or to manage the concentration of credit risk (without an increase in the asset’s credit risk) are also consistent with this business model when they are infrequent or insignificant in value.

Cash flow criterion

The cash flow criterion is satisfied if the contractual terms of the debt instrument give rise, on specified dates, to cash flows that are solely repayments of principal and interest on the principal amount outstanding.

The criterion is not met in the event of a contractual characteristic that exposes the holder to risks or to the volatility of contractual cash flows that are inconsistent with those of a non-structured or “basic lending” arrangement. It is also not satisfied in the event of leverage that increases the variability of the contractual cash flows.

Interest consists of consideration for the time value of money, for the credit risk, and for the remuneration of other risks (e.g. liquidity risk), costs (e.g. administration fees), and a profit margin consistent with that of a basic lending arrangement. The existence of negative interest does not call into question the cash flow criterion.

The time value of money is the component of interest - usually referred to as the “rate” component - which provides consideration for only the passage of time. The relationship between the interest rate and the passage of time must not be modified by specific characteristics that could call into question the respect of the cash flow criterion.

Thus, when the variable interest rate of the financial asset is periodically reset at a frequency that does not match the duration for which the interest rate is established, the time value of money may be considered as modified and, depending on the significance of that modification, the cash flow criterion may not be met. Some financial assets held by the Group present a mismatch between the interest rate reset frequency and the maturity of the index, or interest rates indexed to an average of benchmark rate. The Group has developed a consistent methodology for analysing this alteration of the time value of money.

Regulated rates meet the cash flow criterion when they provide consideration that is broadly consistent with the passage of time and does not expose to risks or volatility in the contractual cash flows that would be inconsistent with those of a basic lending arrangement (example: loans granted in the context of *Livret A* savings accounts).

Some contractual clauses may change the timing or the amount of cash flows. Early redemption options do not call into question the cash flow criterion if the prepayment amount substantially represents the principal amount outstanding and the interest thereon, which may include reasonable compensation for the early termination of the contract. For example, as regards loans to retail customers, the compensation limited to 6 months of interest or 3% of the capital outstanding is considered reasonable. Actuarial penalties, corresponding to the discounted value of the difference between the residual contractual cash-flows of the loan, and their reinvestment in a loan to a similar counterparty or in the interbank market for a similar residual maturity are also considered as reasonable, even when the compensation can be positive or negative (i.e. “symmetric” compensation). An option that permits the issuer or the holder of a financial instrument to change the interest rate from floating to fixed rate does not breach the cash flow criterion if the fixed rate is determined at origination, or if it represents the time value of money for the residual maturity of the instrument at the date of exercise of the option. Clauses included in financing granted to encourage the sustainable development of companies which adjust the interest margin depending on the achievement of environmental, social or governance (ESG) objectives do not call into question the cash flow criterion when such an adjustment is considered to be minimal. Structured instruments indexed to ESG market indices do not meet the cash flow criterion.

In the particular case of financial assets contractually linked to payments received on a portfolio of underlying assets and which include a priority order for payment of cash flows between investors (“tranches”), thereby creating concentrations of credit risk, a specific analysis is carried out. The contractual characteristics of the tranche and those of the underlying financial instrument portfolios must meet the cash flow criterion and the credit risk exposure of the tranche must be equal to or lower than the exposure to credit risk of the underlying pool of financial instruments.

Certain loans may be “non-recourse”, either contractually, or in substance when they are granted to a special purpose entity. That is in particular the case of numerous project financing or asset financing loans. The cash-flow criterion is met as long as these loans do not represent a direct exposure on the assets acting as collateral. In practice, the sole fact that the financial asset explicitly gives rise to cash flows that are consistent with payments of principal and interest is not sufficient to conclude that the instrument meets the cash flow criterion. In that case, the particular underlying assets to which there is limited recourse shall be analysed using the “look-through” approach. If those assets do not themselves meet the cash flow criterion, the existing credit enhancement is assessed. The following aspects are considered: structuring and sizing of the transaction, own funds level of the structure, expected source of repayment, price volatility of the underlying assets. This analysis is applied to “non-recourse” loans granted by the Group.

The “financial assets at amortised cost” category includes, in particular, loans granted by the Group, as well as reverse repurchase agreements and securities held by the Group ALM Treasury in order to collect contractual flows and meeting the cash flow criterion.

Recognition

On initial recognition, financial assets are recognised at fair value, including transaction costs directly attributable to the transaction as well as commissions related to the origination of the loans.

They are subsequently measured at amortised cost, including accrued interest and net of repayments of principal and interest during the past period. These financial assets are also subject from their initial recognition, to the measurement of a loss allowance for expected credit losses (note 1.e.5).

Interest is calculated using the effective interest method determined at inception of the contract.

1.e.2 FINANCIAL ASSETS AT FAIR VALUE THROUGH SHAREHOLDERS' EQUITY

Debt instruments

Debt instruments are classified at fair value through shareholders' equity if the following two criteria are met:

- business model criterion: Financial assets are held in a business model whose objective is achieved by both holding the financial assets in order to collect contractual cash flows and selling the financial assets ("collect and sale"). The latter is not incidental but is an integral part of the business model.
- cash flow criterion: The principles are identical to those applicable to financial assets at amortised cost.

The securities held by the Group ALM Treasury in order to collect contractual flows or to be sold and meeting the cash flow criterion are in particular classified in this category.

On initial recognition, financial assets are recognised at their fair value, including transaction costs directly attributable to the transaction. They are subsequently measured at fair value and changes in fair value are recognised, under a specific line of shareholders' equity entitled "Changes in assets and liabilities recognised directly in equity that may be reclassified to profit or loss". These financial assets are also subject to the measurement of a loss allowance for expected credit losses on the same approach as for debt instruments at amortised cost. The counterparty of the related impact in cost of risk is recognised in the same specific line of shareholders' equity. On disposal, changes in fair value previously recognised in shareholders' equity are reclassified to profit or loss.

In addition, interest is recognised in the income statement using the effective interest method determined at the inception of the contract.

Equity instruments

Investments in equity instruments such as shares are classified on option, and on a case by case basis, at fair value through shareholders' equity (under a specific line). On disposal of the shares, changes in fair value previously recognised in equity are not recognised in profit or loss. Only dividends, if they represent remuneration for the investment and not repayment of capital, are recognised in profit or loss. These instruments are not subject to impairment.

Investments in mutual funds puttable to the issuer do not meet the definition of equity instruments. They do not meet the cash flow criterion either, and thus are recognised at fair value through profit or loss.

1.e.3 FINANCING AND GUARANTEE COMMITMENTS

Financing and financial guarantee commitments that are not recognised at fair value through profit or loss are presented in the note relating to financing and guarantee commitments. They are subject to the measurement of a loss allowance for expected credit losses. These loss allowances are presented under “Provisions for contingencies and charges”.

1.e.4 REGULATED SAVINGS AND LOAN CONTRACTS

Home savings accounts (*Comptes Épargne-Logement* – “CEL”) and home savings plans *(Plans d’Épargne Logement* – “PEL”) are government-regulated retail products sold in France. They combine a savings phase and a loan phase which are inseparable, with the loan phase contingent upon the savings phase.

These products contain two types of obligations for BNP Paribas: an obligation to pay interest on the savings for an indefinite period, at a rate set by the government at the inception of the contract (in the case of PEL products) or at a rate reset every six months using an indexation formula set by law (in the case of CEL products); and an obligation to lend to the customer (at the customer’s option) an amount contingent upon the rights acquired during the savings phase, at a rate set at the inception of the contract (in the case of PEL products) or at a rate contingent upon the savings phase (in the case of CEL products).

The Group’s future obligations with respect to each generation (in the case of PEL products, a generation comprises all products with the same interest rate at inception; in the case of CEL products, all such products constitute a single generation) are measured by discounting potential future earnings from at-risk outstandings for that generation.

At-risk outstandings are estimated on the basis of a historical analysis of customer behaviour, and are equivalent to:

- for the loan phase: statistically probable loans outstanding and actual loans outstanding;
- for the savings phase: the difference between statistically probable outstandings and minimum expected outstandings, with minimum expected outstandings being deemed equivalent to unconditional term deposits.

Earnings for future periods from the savings phase are estimated as the difference between the reinvestment rate and the fixed savings interest rate on at-risk savings outstanding for the period in question. Earnings for future periods from the loan phase are estimated as the difference between the refinancing rate and the fixed loan interest rate on at-risk loans outstanding for the period in question.

The reinvestment rate for savings and the refinancing rate for loans are derived from the swap yield curve and from the spreads expected on financial instruments of similar type and maturity. Spreads are determined on the basis of actual spreads on fixed-rate home loans in the case of the loan phase and products offered to individual clients in the case of the savings phase. In order to reflect the uncertainty of future interest rate trends, and the impact of such trends on customer behaviour models and on at-risk outstandings, the obligations are estimated using the Monte-Carlo method.

Where the sum of the Group’s estimated future obligations with respect to the savings and loan phases of any generation of contracts indicates a potentially unfavourable situation for the Group, a provision is recognised (with no offset between generations) in the balance sheet in “Provisions for contingencies and charges”. Movements in this provision are recognised as interest income in the profit and loss account.

1.e.5 IMPAIRMENT OF FINANCIAL ASSETS MEASURED AT AMORTISED COST AND DEBT INSTRUMENTS MEASURED AT FAIR VALUE THROUGH SHAREHOLDERS' EQUITY

The impairment model for credit risk is based on expected losses.

This model applies to loans and debt instruments measured at amortised cost or at fair value through equity, to loan commitments and financial guarantee contracts that are not recognised at fair value, as well as to lease receivables, trade receivables and contract assets.

General model

The Group identifies three “stages” that each correspond to a specific status with regards to the evolution of counterparty credit risk since the initial recognition of the asset.

- 12-month expected credit losses (“stage 1”): If at the reporting date, the credit risk of the financial instrument has not increased significantly since its initial recognition, this instrument is impaired at an amount equal to 12-month expected credit losses (resulting from the risk of default within the next 12 months).
- Lifetime expected credit losses for non-impaired assets (“stage 2”): The loss allowance is measured at an amount equal to the lifetime expected credit losses if the credit risk of the financial instrument has increased significantly since initial recognition, but the financial asset is not considered credit-impaired or doubtful.
- Lifetime expected credit losses for credit-impaired or doubtful financial assets (“stage 3”): The loss allowance is also measured for an amount equal to the lifetime expected credit losses.

This general model is applied to all instruments within the scope of IFRS 9 impairment, except for purchased or originated credit-impaired financial assets and instruments for which a simplified model is used (see below).

The IFRS 9 expected credit loss approach is symmetrical, i.e. if lifetime expected credit losses have been recognised in a previous reporting period, and if it is assessed in the current reporting period that there is no longer any significant increase in credit risk since initial recognition, the loss allowance reverts to a 12-months expected credit loss.

As regards interest income, under “stages” 1 and 2, it is calculated on the gross carrying amount. Under “stage 3”, interest income is calculated on the amortised cost (i.e. the gross carrying amount adjusted for the loss allowance).

Definition of default

The definition of default is aligned with the Basel regulatory default definition, with a rebuttable presumption that the default occurs no later than 90 days past due. This definition takes into account the EBA guidelines of 28 September 2016, notably those regarding the thresholds applicable for the counting of past-due and probation periods.

The definition of default is used consistently for assessing the increase in credit risk and measuring expected credit losses.

Credit-impaired or doubtful financial assets

Definition

A financial asset is considered credit-impaired or doubtful and classified in “stage 3” when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred.

At an individual level, objective evidence that a financial asset is credit-impaired includes observable data regarding the following events: the existence of accounts that are more than 90 days past due; knowledge or indications that the borrower is experiencing significant financial difficulties, such that a risk can be considered to have arisen regardless of whether the borrower has missed any payments; concessions with respect to the credit terms granted to the borrower that the lender would not have considered had the borrower not been in financial difficulty (see section *Restructuring of financial assets for financial difficulties*).

Specific cases of purchased or originated credit-impaired assets

In some cases, financial assets are credit-impaired at initial recognition.

For these assets, no loss allowance is recorded on initial recognition. The effective interest rate is calculated taking into account the lifetime expected credit losses in the initial estimated cash flows. Any change in lifetime expected credit losses since initial recognition, positive or negative, is recognised as a loss allowance adjustment in profit or loss.

Simplified model

The simplified approach consists in accounting for a loss allowance corresponding to lifetime expected credit losses since initial recognition, and at each reporting date.

The group applies this model to trade receivables with a maturity shorter than 12 months.

Significant increase in credit risk

A significant increase in credit risk may be assessed on an individual basis or on a collective basis (by grouping financial instruments according to common credit risk characteristics), taking into account all reasonable and supportable information and comparing the risk of default of the financial instrument at the reporting date with the risk of default of the financial instrument at the date of initial recognition.

Assessment of deterioration is based on the comparison of the probabilities of default derived from the ratings on the date of initial recognition with those existing at the reporting date.

There is also, according to the standard, a rebuttable presumption that the credit risk of an instrument has significantly increased since initial recognition when the contractual payments are more than 30 days past due.

In the consumer credit specialist business, a significant increase in credit risk is also considered when a past due event has occurred within the last 12 months, even if it has since been regularised.

In the context of the health crisis, the granting of moratoria that meet the criteria defined in the EBA guidelines published on 2 April 2020, and amended on 2 December 2020, has not been considered, in isolation, as an indicator of a significant increase in credit risk leading to an automatic transfer to stage 2. The granting of “private” moratoria that meet equivalent criteria to those defined in the EBA guidelines has followed the same treatment. Moratoria do not trigger the counting of past-due days as long as the new payment schedule is respected.

The principles applied to assess the significant increase in credit risk are detailed in note 2.h *Cost of risk*.

Measurement of expected credit losses

Expected credit losses are defined as an estimate of credit losses (i.e. the present value of all cash shortfalls) weighted by the probability of occurrence of these losses over the expected life of the financial instruments. They are measured on an individual basis, for all exposures.

In practice, for exposures classified in stage 1 and stage 2, expected credit losses are measured as the product of the probability of default (“PD”), loss given default (“LGD”) and exposure at default (“EAD”), discounted at the effective interest rate of the exposure (EIR). They result from the risk of default within the next 12 months (stage 1), or from the risk of default over the maturity of the facility (stage 2). In the consumer credit specialist business, because of the specificity of credit exposures, the methodology used is based on the probability of transition to term forfeiture, and on discounted loss rates after term forfeiture. These parameters are measured on a statistical basis for homogeneous populations.

For exposures classified in stage 3, expected credit losses are measured as the value, discounted at the effective interest rate, of all cash shortfalls over the life of the financial instrument. Cash shortfalls represent the difference between the cash-flows that are due in accordance with the contract, and the cash-flows that are expected to be received. Where appropriate, the estimate of expected cash flows takes into account a cash flow scenario arising from the sale of the defaulted loans or groups of loans. Proceeds from the sale are recorded net of costs to sell.

The methodology developed is based on existing concepts and methods (in particular the Basel framework) on exposures for which capital requirement for credit risk is measured according to the IRBA methodology. This method is also applied to portfolios for which capital requirement for credit risk is measured according to the standardised approach. Besides, the Basel framework has been adjusted in order to be compliant with IFRS 9 requirements, in particular the use of forward-looking information.

Maturity

All contractual terms of the financial instrument are taken into account, including prepayment, extension and similar options. In the rare cases where the expected life of the financial instrument cannot be estimated reliably, the residual contractual term is used. The standard specifies that the maximum period to consider when measuring expected credit losses is the maximum contractual period. However, for revolving credit cards and overdrafts, in accordance with the exception provided by IFRS 9 for these products, the maturity considered for measuring expected credit losses is the period over which the entity is exposed to credit risk, which may extend beyond the contractual maturity (notice period). For revolving credits and overdrafts to non-retail counterparties, the contractual maturity can be used, for example if the next review date is the contractual maturity as they are individually managed.

Probabilities of Default (PD)

Probability of Default is an estimate of the likelihood of default over a given time horizon.

The determination of the PD is based on the Group's internal rating system, which is described in chapter 5 of the Universal Registration Document (section 5.4 Credit risk – Credit risk management policy). This section describes how environmental, social and governance (ESG) risks are taken into account in credit and rating policies, notably with the introduction of a new tool: the *ESG Assessment*.

The measurement of expected credit losses requires the estimation of both 1-year probabilities of default and lifetime probabilities of default.

1-year PDs are derived from long term average regulatory "through the cycle" PDs to reflect the current situation ("Point in Time" or "PIT").

Lifetime PDs are determined based on the rating migration matrices reflecting the expected changes in the rating of the exposure until maturity, and the associated probabilities of default.

Loss Given Default (LGD)

Loss Given Default is the difference between contractual cash-flows and expected cash-flows, discounted using the effective interest rate (or an approximation thereof) at the default date. LGD is expressed as a percentage of the Exposure At Default (EAD).

The estimate of expected cash flows takes into account cash flows resulting from the sale of collateral held or other credit enhancements if they are part of the contractual terms and are not accounted for separately by the entity (for example, a mortgage associated with a residential loan), net of the costs of obtaining and selling the collateral.

For guaranteed loans, the guarantee is considered as integral to the loan agreement if it is embedded in the contractual clauses of the loan, or if it was granted concomitantly to the loan, and if the expected reimbursement amount can be attached to a loan in particular (i.e. absence of pooling effect by means of a tranching mechanism, or the existence of a global cap for a whole portfolio). In such case, the guarantee is taken into account when measuring the expected credit losses. Otherwise, it is accounted for as a separate reimbursement asset.

The LGD used for IFRS 9 purposes is derived from the Basel LGD parameters. It is adjusted for downturn and conservatism margins (in particular regulatory margins), except for margins for model uncertainties.

Exposure At Default (EAD)

Exposure At Default (EAD) of an instrument is the anticipated outstanding amount owed by the obligor at the time of default. It is determined by the expected payment profile taking into account, depending on the product type: the contractual repayment schedule, expected early repayments and expected future drawings for revolving facilities.

Forward looking information

The amount of expected credit losses is measured on the basis of probability-weighted scenarios, in view of past events, current conditions and reasonable and supportable economic forecasts.

The principles applied to take into account forward looking information when measuring expected credit losses are detailed in note 2.h *Cost of risk*.

Write-offs

A write-off consists in reducing the gross carrying amount of a financial asset when there are no longer reasonable expectations of recovering that financial asset in its entirety or a portion thereof, or when it has been fully or partially forgiven. The write-off is recorded when all other means available to the Bank for recovering the receivables or guarantees have failed, and also generally depends on the context specific to each jurisdiction.

If the amount of loss on write-off is greater than the accumulated loss allowance, the difference is recognised as an additional impairment loss in “Cost of risk”. For any recovery once the financial asset (or part thereof) is no longer recognised on the balance sheet, the amount received is recorded as a gain in “Cost of risk”.

Recoveries through the repossession of the collateral

When a loan is secured by a financial or a non-financial asset serving as a guarantee and the counterparty is in default, the Group may decide to exercise the guarantee and, depending on the jurisdiction, it may then become owner of the asset. In such a situation, the loan is written-off against the asset received as collateral.

Once ownership of the asset is effective, it is recognised at fair value and classified according to the intent of use.

Restructuring of financial assets for financial difficulties

A restructuring due to the borrower's financial difficulties is defined as a change in the terms and conditions of the initial transaction that the Group is considering only for economic or legal reasons related to the borrower's financial difficulties.

For restructurings not resulting in derecognition of the financial asset, the restructured asset’s gross carrying amount is reduced to the discounted amount, using the original effective interest rate of the asset, of the new expected future flows. The change in the gross carrying amount of the asset is recorded in the income statement in “Cost of risk”.

The existence of a significant increase in credit risk for the financial instrument is then assessed by comparing the risk of default after the restructuring (under the revised contractual terms) and the risk of default at the initial recognition date (under the original contractual terms). In order to demonstrate that the criteria for recognising lifetime expected credit losses are no longer met, good payment behaviour will have to be observed over a certain period of time.

When the restructuring consists of a partial or total exchange against other substantially different assets (for example, the exchange of a debt instrument against an equity instrument), it results in the extinction of the original asset and the recognition of the assets remitted in exchange, measured at their fair value at the date of exchange. The difference in value is recorded in the income statement in “Cost of risk”.

As a reminder, in response to the health crisis, several moratoria have been granted to clients. These moratoria mostly consisted in payment suspension of a few months, with additional interest that may or not continue to accrue during the suspension period. Accordingly, the modification was generally considered as not substantial. The associated discount (linked to the absence of interest accruing, or interest accruing at a rate that was lower than the EIR of the loan) was therefore recognised in NBI, subject to meeting certain criteria[9]. In such cases, the moratorium was considered as not being granted in response to the borrower’s financial difficulties, but in response to a temporary liquidity crisis and the credit risk was not considered to have significantly increased.

Modifications to financial assets that are not due to a borrower’s financial difficulties, or granted in the context of a moratorium (i.e. commercial renegotiations) are generally analysed as the early repayment of the former loan, which is then derecognised, followed by the set-up of a new loan at market conditions. They consist in resetting the interest rate of the loan at market conditions, with the client being in a position to change lender and not encountering any financial difficulties.

[9] Moratoria qualified as “COVID-19 General moratorium Measure” (i.e. meeting the criteria defined in EBA Guidelines published on 2 April 2020 and amended on 2 December 2020) or similar measures that do not lead to a transfer to stage 3.

Probation periods

The Group applies observation periods to assess the possible return to a better stage. Accordingly, a 3-month probation period is observed for the transition from stage 3 to stage 2 which is extended to 12 months in the event of restructuring due to financial difficulties.

For the transition from stage 2 to stage 1, a probation period of two years is observed for loans that have been restructured due to financial difficulties.

1.e.6 COST OF RISK

Cost of risk includes the following items of profit or loss:

- impairment gains and losses resulting from the accounting of loss allowances for 12-month expected credit losses and lifetime expected credit losses ("stage 1" and "stage 2") relating to debt instruments measured at amortised cost or at fair value through shareholders' equity, loan commitments and financial guarantee contracts that are not recognised at fair value as well as lease receivables, contract assets and trade receivables;
- impairment gains and losses resulting from the accounting of loss allowances relating to financial assets (including those at fair value through profit or loss) for which there is objective evidence of impairment ("stage 3"), write-offs on irrecoverable loans and amounts recovered on loans written-off;
- impairment gains and losses relating to fixed-income securities of insurance entities that are individually impaired (which fall under IAS 39).

It also includes expenses relating to fraud and to disputes inherent to the financing activity.

1.e.7 FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

Trading portfolio and other financial assets measured at fair value through profit or loss

The trading portfolio includes instruments held for trading (trading transactions), including derivatives.

Other financial assets measured at fair value through profit or loss include debt instruments that do not meet the "collect" or "collect and sale" business model criterion or that do not meet the cash flow criterion, as well as equity instruments for which the fair value through shareholders' equity option has not been retained.

All those financial instruments are measured at fair value at initial recognition, with transaction costs directly posted in profit or loss. At the reporting date, they are measured at fair value, with changes presented in "Net gain/loss on financial instruments at fair value through profit or loss". Income, dividends, and realised gains and losses on disposal related to held-for-trading transactions are accounted for in the same profit or loss account.

Financial liabilities designated as at fair value through profit or loss

Financial liabilities are recognised under option in this category in the two following situations:

- for hybrid financial instruments containing one or more embedded derivatives which otherwise would have been separated and accounted for separately. An embedded derivative is such that its economic characteristics and risks are not closely related to those of the host contract;
- when using the option enables the entity to eliminate or significantly reduce a mismatch in the measurement and accounting treatment of assets and liabilities that would otherwise arise if they were to be classified in separate categories.

Changes in fair value due to the own credit risk are recognised under a specific heading of shareholders' equity.

1.e.8 FINANCIAL LIABILITIES AND EQUITY INSTRUMENTS

A financial instrument issued or its various components are classified as a financial liability or equity instrument, in accordance with the economic substance of the legal contract.

Financial instruments issued by the Group are qualified as debt instruments if the entity in the Group issuing the instruments has a contractual obligation to deliver cash or another financial asset to the holder of the instrument. The same applies if the Group is required to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the Group, or to deliver a variable number of the Group’s own equity instruments.

Equity instruments result from contracts evidencing a residual interest in an entity's assets after deducting all of its liabilities.

Debt securities and subordinated debt

Debt securities and subordinated debt are measured at amortised cost unless they are recognised at fair value through profit or loss.

Debt securities are initially recognised at the issue value including transaction costs and are subsequently measured at amortised cost using the effective interest method.

Bonds redeemable or convertible into own equity are hybrid instruments that may contain a debt component and an equity component, determined upon initial recognition of the transaction.

Equity instruments

The term “own equity instruments” refers to shares issued by the parent company (BNP Paribas SA) and by its fully consolidated subsidiaries. External costs that are directly attributable to an issue of new shares are deducted from equity net of all related taxes.

Own equity instruments held by the Group, also known as treasury shares, are deducted from consolidated shareholders’ equity irrespective of the purpose for which they are held. Gains and losses arising on such instruments are eliminated from the consolidated profit and loss account.

When the Group acquires equity instruments issued by subsidiaries under the exclusive control of BNP Paribas, the difference between the acquisition price and the share of net assets acquired is recorded in retained earnings attributable to BNP Paribas shareholders. Similarly, the liability corresponding to put options granted to minority shareholders in such subsidiaries, and changes in the value of that liability, are offset against minority interests, with any surplus offset against retained earnings attributable to BNP Paribas shareholders. Until these options have been exercised, the portion of net income attributable to minority interests is allocated to minority interests in the profit and loss account. A decrease in the Group’s interest in a fully consolidated subsidiary is recognised in the Group's accounts as a change in shareholders' equity.

Financial instruments issued by the Group and classified as equity instruments (e.g. Undated Super Subordinated Notes) are presented in the balance sheet in “Capital and retained earnings”.

Distributions from a financial instrument classified as an equity instrument are recognised directly as a deduction from equity. Similarly, the transaction costs of an instrument classified as equity are recognised as a deduction from shareholders’ equity.

Own equity instrument derivatives are treated as follows, depending on the method of settlement:

- as equity instruments if they are settled by physical delivery of a fixed number of own equity instruments for a fixed amount of cash or other financial asset. Such instruments are not revalued;
- as derivatives if they are settled in cash or by choice by physical delivery of the shares or in cash. Changes in value of such instruments are taken to the profit and loss account.

If the contract includes an obligation, whether contingent or not, for the bank to repurchase its own shares, the bank recognises the debt at its present value with an offsetting entry in shareholders’ equity.

1.e.9 HEDGE ACCOUNTING

The Group retained the option provided by the standard to maintain the hedge accounting requirements of IAS 39 until the future standard on macro-hedging is entered into force. Furthermore, IFRS 9 does not explicitly address the fair value hedge of the interest rate risk on a portfolio of financial assets or liabilities. The provisions in IAS 39 for these portfolio hedges, as adopted by the European Union, continue to apply.

Derivatives contracted as part of a hedging relationship are designated according to the purpose of the hedge.

Fair value hedges are particularly used to hedge interest rate risk on fixed-rate assets and liabilities, both for identified financial instruments (securities, debt issues, loans, borrowings) and for portfolios of financial instruments (in particular, demand deposits and fixed-rate loans).

Cash flow hedges are particularly used to hedge interest rate risk on floating-rate assets and liabilities, including rollovers, and foreign exchange risks on highly probable forecast foreign currency revenues.

At the inception of the hedge, the Group prepares formal documentation which details the hedging relationship, identifying the instrument, or portion of the instrument, or portion of risk that is being hedged, the hedging strategy and the type of risk hedged, the hedging instrument, and the methods used to assess the effectiveness of the hedging relationship.

On inception and at least quarterly, the Group assesses, in consistency with the original documentation, the actual (retrospective) and expected (prospective) effectiveness of the hedging relationship. Retrospective effectiveness tests are designed to assess whether the ratio of actual changes in the fair value or cash flows of the hedging instrument to those in the hedged item is within a range of 80% to 125%. Prospective effectiveness tests are designed to ensure that expected changes in the fair value or cash flows of the derivative over the residual life of the hedge adequately offset those of the hedged item. For highly probable forecast transactions, effectiveness is assessed largely on the basis of historical data for similar transactions.

Under IAS 39 as adopted by the European Union, which excludes certain provisions on portfolio hedging, interest rate risk hedging relationships based on portfolios of assets or liabilities qualify for fair value hedge accounting as follows:

- the risk designated as being hedged is the interest rate risk associated with the interbank rate component of interest rates on commercial banking transactions (loans to customers, savings accounts and demand deposits);
- the instruments designated as being hedged correspond, for each maturity band, to a portion of the interest rate gap associated with the hedged underlying;
- the hedging instruments used consist exclusively of “plain vanilla” swaps;
- prospective hedge effectiveness is established by the fact that all derivatives must, on inception, have the effect of reducing interest rate risk in the portfolio of hedged underlying. Retrospectively, a hedge will be disqualified from hedge accounting once a shortfall arises in the underlying specifically associated with that hedge for each maturity band (due to prepayment of loans or withdrawals of deposits).

The accounting treatment of derivatives and hedged items depends on the hedging strategy.

In a fair value hedging relationship, the derivative instrument is remeasured at fair value in the balance sheet, with changes in fair value recognised in profit or loss in “Net gain/loss on financial instruments at fair value through profit or loss”, symmetrically with the remeasurement of the hedged item to reflect the hedged risk. In the balance sheet, the fair value remeasurement of the hedged component is recognised in accordance with the classification of the hedged item in the case of a hedge of identified assets and liabilities, or under “Remeasurement adjustment on interest rate risk hedged portfolios” in the case of a portfolio hedging relationship.

If a hedging relationship ceases or no longer fulfils the effectiveness criteria, the hedging instrument is transferred to the trading book and accounted for using the treatment applied to this category. In the case of identified fixed-income instruments, the remeasurement adjustment recognised in the balance sheet is amortised at the effective interest rate over the remaining life of the instrument. In the case of interest rate risk hedged fixed-income portfolios, the adjustment is amortised on a straight-line basis over the remainder of the original term of the hedge. If the hedged item no longer appears in the balance sheet, in particular due to prepayments, the adjustment is taken to the profit and loss account immediately.

In a cash flow hedging relationship, the derivative is measured at fair value in the balance sheet, with changes in fair value taken to shareholders’ equity on a separate line, “Changes in fair value recognised directly in equity”. The amounts taken to shareholders’ equity over the life of the hedge are transferred to the profit and loss account under “Net interest income” as and when the cash flows from the hedged item impact profit or loss. The hedged items continue to be accounted for using the treatment specific to the category to which they belong.

If the hedging relationship ceases or no longer fulfils the effectiveness criteria, the cumulative amounts recognised in shareholders' equity as a result of the remeasurement of the hedging instrument remain in equity until the hedged transaction itself impacts profit or loss, or until it becomes clear that the transaction will not occur, at which point they are transferred to the profit and loss account.

If the hedged item ceases to exist, the cumulative amounts recognised in shareholders' equity are immediately taken to the profit and loss account.

Whatever the hedging strategy used, any ineffective portion of the hedge is recognised in the profit and loss account under "Net gain/loss on financial instruments at fair value through profit or loss".

Hedges of net foreign currency investments in subsidiaries and branches are accounted for in the same way as cash flow hedges. Hedging instruments may be foreign exchange derivatives or any other non-derivative financial instrument.

1.e.10 DETERMINATION OF FAIR VALUE

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market or most advantageous market, at the measurement date.

The Group determines the fair value of financial instruments either by using prices obtained directly from external data or by using valuation techniques. These valuation techniques are primarily market and income approaches encompassing generally accepted models (e.g. discounted cash flows, Black-Scholes model, and interpolation techniques). They maximise the use of observable inputs and minimise the use of unobservable inputs. They are calibrated to reflect current market conditions and valuation adjustments are applied as appropriate, when some factors such as model, liquidity and credit risks are not captured by the models or their underlying inputs but are nevertheless considered by market participants when setting the exit price.

The unit of measurement is the individual financial asset or financial liability but a portfolio-based measurement can be elected, subject to certain conditions. Accordingly, the Group retains this portfolio-based measurement exception to determine the fair value when some group of financial assets and financial liabilities and other contracts within the scope of the standard relating to financial instruments with substantially similar and offsetting market risks or credit risks are managed on the basis of a net exposure, in accordance with the documented risk management strategy.

Assets and liabilities measured or disclosed at fair value are categorised into the three following levels of the fair value hierarchy:

- Level 1: fair values are determined using directly quoted prices in active markets for identical assets and liabilities. Characteristics of an active market include the existence of a sufficient frequency and volume of activity and of readily available prices;

- Level 2: fair values are determined based on valuation techniques for which significant inputs are observable market data, either directly or indirectly. These techniques are regularly calibrated and the inputs are corroborated with information from active markets;

- Level 3: fair values are determined using valuation techniques for which significant inputs are unobservable or cannot be corroborated by market-based observations, due for instance to illiquidity of the instrument and significant model risk. An unobservable input is a parameter for which there are no market data available and that is therefore derived from proprietary assumptions about what other market participants would consider when assessing fair value. The assessment of whether a product is illiquid or subject to significant model risks is a matter of judgment.

The level in the fair value hierarchy within which the asset or liability is categorised in its entirety is based upon the lowest level input that is significant to the entire fair value.

For financial instruments disclosed in Level 3 of the fair value hierarchy, and marginally some instruments disclosed in Level 2, a difference between the transaction price and the fair value may arise at initial recognition. This "Day One Profit" is deferred and released to the profit and loss account over the period during which the valuation parameters are expected to remain non-observable. When parameters that were originally non-observable become observable, or when the valuation can be substantiated in comparison with recent similar transactions in an active market, the unrecognised portion of the day one profit is released to the profit and loss account.

1.e.11 Derecognition of financial assets and financial liabilities

Derecognition of financial assets

The Group derecognises all or part of a financial asset when the contractual rights to the cash flows of the asset expire, or when the Group transfers the asset – either on the basis of a transfer of the contractual rights to its cash flows, or by retaining the contractual rights to receive the cash flows of the asset while assuming an obligation to pay the cash flows of the asset under an eligible pass-through arrangement – as well as substantially all the risks and rewards of the asset.

Where the Group has transferred the cash flows of a financial asset but has neither transferred nor retained substantially all the risks and rewards of ownership of the financial asset and has not in practice retained control of the financial asset, the Group derecognises the financial asset and then records separately, if necessary, an asset or liability representing the rights and obligations created or held as part of the transfer of the asset. If the Group has retained control of the financial asset, it maintains it on its balance sheet to the extent of its continuing involvement in that asset.

Upon the derecognition of a financial asset in its entirety, a gain or loss on disposal is recognised in the profit and loss account for an amount equal to the difference between the carrying amount of the asset and the value of the consideration received, adjusted where appropriate for any unrealised gain or loss previously recognised directly in equity.

If all these conditions are not met, the Group retains the asset in its balance sheet and recognises a liability for the obligations arising on the transfer of the asset.

Derecognition of financial liabilities

The Group derecognises all or part of a financial liability when the liability is extinguished, i.e. when the obligation specified in the contract is extinguished, cancelled or expired. A financial liability may also be derecognised in the event of a substantial change in its contractual terms or if exchanged with the lender for an instrument with substantially different contractual terms.

Repurchase agreements and securities lending/borrowing

Securities temporarily sold under repurchase agreements continue to be recognised in the Group’s balance sheet in the category of securities to which they belong. The corresponding liability is recognised at amortised cost under the appropriate “Financial liabilities at amortised cost” category on the balance sheet, except in the case of repurchase agreements contracted for trading purposes, for which the corresponding liability is recognised in “Financial liabilities at fair value through profit or loss”.

Securities temporarily acquired under reverse repurchase agreements are not recognised in the Group’s balance sheet. The corresponding receivable is recognised at amortised cost under the appropriate “Financial assets at amortised cost” category in the balance sheet, except in the case of reverse repurchase agreements contracted for trading purposes, for which the corresponding receivable is recognised in “Financial assets at fair value through profit or loss”.

Securities lending transactions do not result in derecognition of the lent securities, and securities borrowing transactions do not result in recognition of the borrowed securities on the balance sheet. In cases where the borrowed securities are subsequently sold by the Group, the obligation to deliver the borrowed securities on maturity is recognised on the balance sheet under “Financial liabilities at fair value through profit or loss”.

1.e.12 OFFSETTING FINANCIAL ASSETS AND FINANCIAL LIABILITIES

A financial asset and a financial liability are offset and the net amount presented in the balance sheet if, and only if, the Group has a legally enforceable right to set off the recognised amounts, and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Repurchase agreements and derivatives that meet the two criteria set out in the accounting standard are offset in the balance sheet.

1.f ACCOUNTING STANDARDS SPECIFIC TO INSURANCE ACTIVITIES

The specific accounting policies and valuation rules relating to assets and liabilities generated by insurance contracts and financial contracts with a discretionary participation feature written by fully consolidated insurance companies are retained for the purposes of the consolidated financial statements. These policies comply with IFRS 4.

The amendment to IFRS 4 “Insurance Contracts” published by the IASB on 25 June 2020 provides the option for entities that predominantly undertake insurance activities to defer the effective date of IFRS 9 application until 1 January 2023 in line with the deferral of the mandatory application date for IFRS 17 “Insurance Contracts”.

The effect of such a deferral is that those entities may continue to report their financial statements under the existing standard IAS 39.

This temporary exemption from IFRS 9, limited to groups that predominantly undertake insurance activities according to the IASB amendment, has been extended to the insurance segment of financial conglomerates as defined by the Directive 2002/87/EC as adopted by the European Union. This exemption is subject to certain conditions, notably the absence of internal transfers of financial instruments, other than financial instruments that are measured at fair value through profit or loss, between insurance entities and other entities of the financial conglomerate.

BNP Paribas Group applies this amendment to all its insurance entities, including funds related to this activity, which will apply IAS 39 “Financial instruments: Recognition and Measurement” until 31 December 2022.

All other insurance company assets and liabilities are accounted for using the policies applied to the Group’s assets and liabilities generally and are included in the relevant balance sheet and profit and loss account headings in the consolidated financial statements.

1.f.1 PROFIT AND LOSS ACCOUNT

Income and expenses recognised under insurance contracts issued by the Group are presented in the income statement under “Net income from insurance activities”.

This heading in the income statement includes premiums earned, net gain in investment contracts with no discretionary participation feature and other services, net investment income (including income on investment property and impairment on shares and other equity instruments), technical charges related to contracts; (including policyholders surplus reserve), net charges from ceded reinsurance and external charges related to contracts (including commissions).

Other income and expenses relating to insurance activities (i.e. recorded by insurance entities) are presented in the other income statement headings according to their nature.

1.f.2 FINANCIAL INVESTMENTS AND OTHER ASSETS RELATED TO INSURANCE ACTIVITIES

Financial investments and other assets related to insurance activities mainly include:

- investments by insurance entities in financial instruments that are recognised in accordance with the principles of IAS 39, which include investments representing technical reserves of insurance activities and notably unit-linked contracts;
- derivative instruments with a positive fair value. Group insurance entities underwrite derivative instruments for hedging purposes;
- investment properties;
- equity method investments;
- reinsurers' share in liabilities arising from insurance and investment contracts;
- and policyholders’ surplus reserve.

Investments in financial instruments

Financial investments held by the Group's insurance entities are classified in one of the four categories provided for in IAS 39: Financial assets at fair value through profit or loss, held-to-maturity financial assets, loans and receivables and available-for-sale financial assets.

- Financial assets at fair value through profit or loss

The category ‘Financial assets at fair value through profit or loss’ includes derivatives and financial assets that the Group has elected to recognise and measure at fair value through profit or loss at inception, in accordance with the option offered by IAS 39.

Financial assets may be designated at fair value through profit or loss in the following cases (in accordance with IAS 39):

- hybrid financial instruments containing one or more embedded derivatives which otherwise would have been separated and accounted for separately. An embedded derivative is such that its economic characteristics and risks are not closely related to those of the host contract;
- where using the option enables the entity to eliminate or significantly reduce a mismatch in the measurement and accounting treatment of assets and liabilities that would arise if they were to be classified in separate accounting categories;
- when the group of financial assets and/or financial liabilities is managed and measured on the basis of fair value, in accordance with a documented risk management and investment strategy.

Investments held in respect of insurance or investment contracts where the financial risk is borne by policyholders (unit-linked contracts) are recognised at fair value option through profit or loss.

When the Group measures at fair value through profit or loss investments made in respect of its insurance activities in entities over which it exercises significant influence or joint control, these investments are presented under the line “Financial assets at fair value through profit or loss” (see §1.b.2).

Financial instruments classified in this category are initially recognised at their fair value, with transaction costs being directly recognised in the income statement.
At the closing date, they are valued at their fair value.
Changes in value compared to the last valuation, income, dividends and realised gains and losses are presented under “Net income from insurance activities” and under “Net gain on financial instruments at fair value through profit or loss”.

- Loans and advances

Fixed or determinable -income securities, which are not quoted in an active market, other than those for which the holder may not recover substantially all of its initial investment for reasons other than credit deterioration, are classified as “Loans and receivables” when they do not meet the conditions for classification as financial assets at fair value through profit or loss.

Loans and receivables are initially recognised at their fair value or equivalent, which generally corresponds to the net amount originally paid.
Loans and receivables are subsequently measured at amortised cost using the effective interest method and net of repayments of principal and interest.
Interest is calculated using the effective interest method, which includes interest, transaction costs and commissions included in their initial value and is presented under “Net income from insurance activities” and under sub-heading “Net gain on financial instruments at amortised cost”.

Impairment losses recognised when there is objective evidence of impairment related to an event subsequent to the acquisition of the asset are presented under “Cost of risk”.

- Held-to-maturity financial assets

“Held-to-maturity financial assets” include debt securities, with fixed maturity, that the Group has the intention and ability to hold until maturity.

Securities classified in this category are recognised at amortised cost using the effective interest method.

Income received on these securities is presented under “Net income from insurance activities” and under sub-heading “Net gain on financial instruments at amortised cost”. Impairment losses recognised when there is objective evidence of impairment related to an event subsequent to the acquisition of the asset are presented under “Cost of risk”.

- Available-for-sale financial assets

The category “Available-for-sale financial assets” includes debt or equity securities that do not fall within the previous three categories.

Assets included in the available-for-sale category are initially recorded at fair value, plus transaction costs where material. At the end of the reporting period, they are valued at their fair value and the changes in the latter, excluding accrued income, are presented under a specific heading of equity. On disposal of the securities, these unrealised gains or losses previously recognised in equity are reclassified in the income statement under the heading “Net income from insurance activities”.

Income recognised using the effective interest method on debt securities, dividends received and impairment (in the event of a significant or lasting decline in the value of the securities) of equity securities are presented under “Net income from insurance activities” and under section “Net gain on available-for-sale financial assets”. Impairment losses on debt securities are presented under “Cost of risk”.

Investment property

Investment property corresponds to buildings held directly by insurance companies and property companies controlled.

Investment property, except for those used for unit-linked contracts, is recognised at cost and follows the accounting methods of the assets described elsewhere.

Investment property, held in respect of unit-linked contracts, is valued at fair value or equivalent, with changes in value recognised in the income statement.

Equity method investments

Investments in entities or real estate funds over which the Group exercises significant influence or joint control and for which the equity method is applied are recognised in the line “Equity method investments”.

1.f.3 TECHNICAL RESERVES AND OTHER INSURANCE LIABILITIES

The item “Technical reserves and other insurance liabilities” includes:

- commitments to policyholders and beneficiaries of contracts, which include technical reserves for insurance contracts subject to significant insurance hazard (mortality, longevity, disability, incapacity, etc.) and technical liabilities of investment contracts with a discretionary profit-sharing feature, falling within IFRS 4. The discretionary participation clause grants life insurance policyholders the right to receive, in addition to the guaranteed remuneration, a share of the financial results achieved;
- other insurance liabilities related to unit-linked contracts that fall within the scope of IAS 39 (i.e. investment contracts with no discretionary participating features);
- policyholders’ surplus reserve;
- liabilities arising from insurance and reinsurance operations, including liabilities due to policyholders;
- financial derivative instruments of insurance activities carried at fair value through profit or loss, the fair value of which is negative. Group insurance entities underwrite derivative instruments for hedging purposes.

Financial liabilities that are not insurance liabilities (e.g. subordinated debt) fall under IAS 39. They are presented in “Financial liabilities at amortised cost”.

Insurance and reinsurance contracts and investment contracts with discretionary participating features

Life insurance guarantees cover mainly death risk (term life insurance, annuities, repayment of loans or guaranteed minimum on unit-linked contracts) and, regarding borrowers’ insurance, to disability, incapacity and unemployment risks.

For life insurance, technical reserves consist mainly of mathematical reserves that corresponds as a minimum, to the surrender value of contracts and surplus reserve.

The policyholders’ surplus reserve also includes amounts resulting from the application of shadow accounting representing the interest of policyholders, mainly within French life insurance subsidiaries, in unrealised gains and losses on assets where the benefit paid under the policy is linked to the return on those assets. This interest is an average derived from stochastic analyses of unrealised gains and losses attributable to policyholders in various scenarios.

A capitalisation reserve is set up in individual statutory accounts of French life-insurance companies on the sale of amortisable securities in order to defer part of the net realised gain and hence maintain the yield to maturity on the portfolio of admissible assets. In the consolidated financial statements, this reserve is reclassified into “Policyholders’ surplus” on the liabilities side of the consolidated balance sheet, to the extent that it is highly probable it will be used.

Non-life technical reserves consist of unearned premium reserves (corresponding to the portion of written premiums relating to future periods) and outstanding claims reserves, inclusive of claims handling costs.

At the reporting date, a liability adequacy test is performed: The level of technical reserves (net of acquisition costs outstanding) is compared to the average value of future cash flows resulting from stochastic calculations. Related adjustment to technical reserves, if any, is taken to the profit and loss account for the period.

In the event of an unrealised loss on shadow accounted assets, a policyholders' loss reserve is recognised on the assets side of the consolidated balance sheet in an amount equal to the probable deduction from the policyholders' future profit share. This policyholders’ loss reserve is presented with the other assets of insurance activities under “Financial investments and other assets related to insurance activities”. The recoverability of the policyholders' loss reserve is assessed prospectively, taking into account policyholders' surplus reserves recognised elsewhere, capital gains on financial assets that are not shadow accounted due to accounting elections made (held-to-maturity financial assets and property investments measured at cost) and the company's ability and intention to hold the assets carrying the unrealised loss.

Investment contracts with no discretionary participating features

Investment contracts with no discretionary participating features correspond mainly to unit-linked contracts that do not meet the definition of insurance and investment contracts with discretionary participating features.

Liabilities arising from unit-linked contracts are measured by reference to the fair value of the assets backing these contracts at the closing date.

1.g PROPERTY, PLANT, EQUIPMENT AND INTANGIBLE ASSETS

Property, plant and equipment and intangible assets shown in the consolidated balance sheet are composed of assets used in operations and investment property. Rights-of-use related to leased assets (see note 1.h.2) are presented by the lessee within fixed assets in the same category as similar assets held.

Assets used in operations are those used in the provision of services or for administrative purposes, and include non-property assets leased by the Group as lessor under operating leases.

Investment property comprises property assets held to generate rental income and capital gains.

Investment property is recognised at cost, with the exception of those representing insurance or investment contracts whose risk is borne by policyholders (unit-linked contracts), which are measured at fair value through profit or loss and presented in the balance sheet under "Financial investments and other assets related to insurance activities" (note 1.f.2).

Property, plant and equipment and intangible assets are initially recognised at purchase price plus directly attributable costs, together with borrowing costs where a long period of construction or adaptation is required before the asset can be brought into service.

Software developed internally by the BNP Paribas Group that fulfils the criteria for capitalisation is capitalised at direct development cost, which includes external costs and the labour costs of employees directly attributable to the project.

Subsequent to initial recognition, property, plant and equipment and intangible assets are measured at cost less accumulated depreciation or amortisation and any impairment losses.

The depreciable amount of property, plant and equipment and intangible assets is calculated after deducting the residual value of the asset. Only assets leased by the Group as the lessor under operating leases are presumed to have a residual value, as the useful life of property, plant and equipment and intangible assets used in operations is generally the same as their economic life.

Property, plant and equipment and intangible assets are depreciated or amortised using the straight-line method over the useful life of the asset. Depreciation and amortisation expense is recognised in the profit and loss account under "Depreciation, amortisation and impairment of property, plant and equipment and intangible assets".

Where an asset consists of a number of components which may require replacement at regular intervals, or which have different uses or generate economic benefits at different rates, each component is recognised separately and depreciated using a method appropriate to that component. The BNP Paribas Group has adopted the component-based approach for property used in operations and for investment property.

The depreciation periods used for office property are as follows: 80 years or 60 years for the shell (for prime and other property respectively); 30 years for facades; 20 years for general and technical installations; and 10 years for fixtures and fittings.

Software is amortised, depending on its type, over periods of no more than 8 years in the case of infrastructure developments and 3 years or 5 years in the case of software developed primarily for the purpose of providing services to customers.

Software maintenance costs are expensed as incurred. However, expenditure that is regarded as upgrading the software or extending its useful life is included in the initial acquisition or production cost.

Depreciable property, plant and equipment and intangible assets are tested for impairment if there is an indication of potential impairment at the balance sheet date. Non-depreciable assets are tested for impairment at least annually, using the same method as for goodwill allocated to cash-generating units.

If there is an indication of impairment, the new recoverable amount of the asset is compared with the carrying amount. If the asset is found to be impaired, an impairment loss is recognised in the profit and loss account. This loss is reversed in the event of a change in the estimated recoverable amount or if there is no longer an indication of impairment. Impairment losses are taken to the profit and loss account in “Depreciation, amortisation and impairment of property, plant and equipment and intangible assets”.

Gains and losses on disposals of property, plant and equipment and intangible assets used in operations are recognised in the profit and loss account in “Net gain on non-current assets”.

Gains and losses on disposals of investment property are recognised in the profit and loss account in “Income from other activities” or “Expense on other activities”.

1.h LEASES

Group companies may either be the lessee or the lessor in a lease agreement.

1.h.1 GROUP COMPANY AS LESSOR

Leases contracted by the Group as lessor are categorised as either finance leases or operating leases.

- **Finance leases**

In a finance lease, the lessor transfers substantially all the risks and rewards of ownership of an asset to the lessee. It is treated as a loan made to the lessee to finance the purchase of the asset.

The present value of the lease payments, plus any residual value, is recognised as a receivable. The net income earned from the lease by the lessor is equal to the amount of interest on the loan, and is taken to the profit and loss account under “Interest income”. The lease payments are spread over the lease term, and are allocated to reduction of the principal and to interest such that the net income reflects a constant rate of return on the net investment outstanding in the lease. The rate of interest used is the rate implicit in the lease.

Impairments of lease receivables are determined using the same principles as applied to financial assets measured at amortised cost.

- **Operating leases**

An operating lease is a lease under which substantially all the risks and rewards of ownership of an asset are not transferred to the lessee.

The asset is recognised under property, plant and equipment in the lessor’s balance sheet and depreciated on a straight-line basis over its useful life. The depreciable amount excludes the residual value of the asset. The lease payments are taken to the profit and loss account in full on a straight-line basis over the lease term. Lease payments and depreciation expenses are taken to the profit and loss account under “Income from other activities” and “Expense on other activities”.

1.h.2 GROUP COMPANY AS LESSEE

Lease contracts concluded by the Group, with the exception of contracts whose term is shorter than or equal to 12 months and low-value contracts, are recognised in the balance-sheet in the form of a right-of-use on the leased asset presented under fixed assets, along with the recognition of a financial liability for the rent and other payments to be made over the leasing period. The right of use assets is amortised on a straight-line basis and the financial liabilities are amortised on an actuarial basis over the lease period. Dismantling costs corresponding to specific and significant fittings and fixtures are included in the initial right-of-use estimation, in counterparty of a provision liability.

The key hypothesis used by the Group for the measurement of rights of use and lease liabilities are the following:

- the lease term corresponds to the non-cancellable period of the contract, together with periods covered by an extension option if the Group is reasonably certain to exercise this option. In France, the standard commercial lease contract is the so-called “three, six, nine” contract for which the maximum period of use is nine years, with a first non-cancellable period of three years followed by two optional extension periods of three years each; hence, depending on the assessment, the lease term can be of three, six or nine years. When investments like fittings or fixtures are performed under the contract, the lease term is aligned with their useful lives. For tacitly renewable contracts, with or without an enforceable period, related right of use and lease liabilities are recognised based on an estimate of the reasonably foreseeable economic life of the contracts, minimal occupation period included.

- the discount rate used to measure the right of use and the lease liability is assessed for each contract as the interest rate implicit in the lease, if that rate can be readily determined, or more generally based on the incremental borrowing rate of the lessee at the date of signature. The incremental borrowing rate is determined considering the average term (duration) of the contract.

- when the contract is modified, a new assessment of the lease liability is made taking into account the new residual term of the contract, and therefore a new assessment of the right of use and the lease liability is established.

1.i ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Where the Group decides to sell assets or a group of assets and liabilities and it is highly probable that the sale will occur within 12 months, these assets are shown separately in the balance sheet, on the line “Assets held for sale”. Any liabilities associated with these assets are also shown separately in the balance sheet, on the line “Liabilities associated with assets held for sale”. When the Group is committed to a sale plan involving loss of control of a subsidiary and the sale is highly probable within 12 months, all the assets and liabilities of that subsidiary are classified as held for sale.

Once classified in this category, assets and the group of assets and liabilities are measured at the lower of carrying amount or fair value less costs to sell.

Such assets are no longer depreciated. If an asset or group of assets and liabilities becomes impaired, an impairment loss is recognised in the profit and loss account. Impairment losses may be reversed.

Where a group of assets and liabilities held for sale represents a cash generating unit, it is categorised as a “discontinued operation”. Discontinued operations include operations that are held for sale, operations that have been shut down, and subsidiaries acquired exclusively with a view to resell.

In this case, gains and losses related to discontinued operations are shown separately in the profit and loss account, on the line “Net income from discontinued activities”. This line includes after tax profits or losses of discontinued operations, after tax gain or loss arising from remeasurement at fair value less costs to sell, and after tax gain or loss on disposal of the operation.

1.j EMPLOYEE BENEFITS

Employee benefits are classified in one of four following categories:

- short-term benefits, such as salary, annual leave, incentive plans, profit-sharing and additional payments;
- long-term benefits, including compensated absences, long-service awards, and other types of cash-based deferred compensation;
- termination benefits;
- post-employment benefits, including top-up banking industry pensions and retirement bonuses in France and pension plans in other countries, some of which are operated through pension funds.

- **Short-term benefits**

The Group recognises an expense when it has used services rendered by employees in exchange for employee benefits.

- **Long-term benefits**

These are benefits, other than short-term benefits, post-employment benefits and termination benefits. This relates, in particular, to compensation deferred for more than 12 months and not linked to the BNP Paribas share price, which is accrued in the financial statements for the period in which it is earned.

The actuarial techniques used are similar to those used for defined-benefit post-employment benefits, except that the revaluation items are recognised in the profit and loss account and not in equity.

- **Termination benefits**

Termination benefits are employee benefits payable in exchange for the termination of an employee’s contract as a result of either a decision by the Group to terminate a contract of employment before the legal retirement age, or a decision by an employee to accept voluntary redundancy in exchange for these benefits. Termination benefits due more than 12 months after the balance sheet date are discounted.

- **Post-employment benefits**

In accordance with IFRS, the BNP Paribas Group draws a distinction between defined-contribution plans and defined-benefit plans.

Defined-contribution plans do not give rise to an obligation for the Group and do not require a provision. The amount of the employer’s contributions payable during the period is recognised as an expense.

Only defined-benefit schemes give rise to an obligation for the Group. This obligation must be measured and recognised as a liability by means of a provision.

The classification of plans into these two categories is based on the economic substance of the plan, which is reviewed to determine whether the Group has a legal or constructive obligation to pay the agreed benefits to employees.

Post-employment benefit obligations under defined-benefit plans are measured using actuarial techniques that take demographic and financial assumptions into account.

The net liability recognised with respect to post-employment benefit plans is the difference between the present value of the defined-benefit obligation and the fair value of any plan assets.

The present value of the defined-benefit obligation is measured on the basis of the actuarial assumptions applied by the Group, using the projected unit credit method. This method takes into account various parameters, specific to each country or Group entity, such as demographic assumptions, the probability that employees will leave before retirement age, salary inflation, a discount rate, and the general inflation rate.

When the value of the plan assets exceeds the amount of the obligation, an asset is recognised if it represents a future economic benefit for the Group in the form of a reduction in future contributions or a future partial refund of amounts paid into the plan.

The annual expense recognised in the profit and loss account under “Salaries and employee benefits”, with respect to defined-benefit plans includes the current service cost (the rights vested by each employee during the period in return for service rendered), the net interests linked to the effect of discounting the net defined-benefit liability (asset), the past service cost arising from plan amendments or curtailments, and the effect of any plan settlements.

Remeasurements of the net defined-benefit liability (asset) are recognised in shareholders’ equity and are never reclassified to profit or loss. They include actuarial gains and losses, the return on plan assets and any change in the effect of the asset ceiling (excluding amounts included in net interest on the defined-benefit liability or asset).

1.k SHARE-BASED PAYMENTS

Share-based payment transactions are payments based on shares issued by the Group, whether the transaction is settled in the form of equity or cash of which the amount is based on trends in the value of BNP Paribas shares.

- **Stock option and share award plans**

The expense related to stock option and share award plans is recognised over the vesting period, if the benefit is conditional upon the grantee’s continued employment.

Stock options and share award expenses are recorded under salary and employee benefits expenses, with a corresponding adjustment to shareholders' equity. They are calculated on the basis of the overall plan value, determined at the date of grant by the Board of Directors.

In the absence of any market for these instruments, financial valuation models are used that take into account any performance conditions related to the BNP Paribas share price. The total expense of a plan is determined by multiplying the unit value per option or share awarded by the estimated number of options or shares awarded vested at the end of the vesting period, taking into account the conditions regarding the grantee’s continued employment.

The only assumptions revised during the vesting period, and hence resulting in a remeasurement of the expense, are those relating to the probability that employees will leave the Group and those relating to performance conditions that are not linked to the price value of BNP Paribas shares.

- **Share price-linked cash-settled deferred compensation plans**

The expense related to these plans is recognised in the year during which the employee rendered the corresponding services.

If the payment of share-based variable compensation is explicitly subject to the employee's continued presence at the vesting date, the services are presumed to have been rendered during the vesting period and the corresponding compensation expense is recognised on a pro rata basis over that period. The expense is recognised under salary and employee benefits expenses with a corresponding liability in the balance sheet. It is revised to take into account any non-fulfilment of the continued presence or performance conditions and the change in BNP Paribas share price.

If there is no continued presence condition, the expense is not deferred, but recognised immediately with a corresponding liability in the balance sheet. This is then revised on each reporting date until settlement to take into account any performance conditions and the change in the BNP Paribas share price.

1.l PROVISIONS RECORDED UNDER LIABILITIES

Provisions recorded under liabilities (other than those relating to financial instruments, employee benefits and insurance contracts) mainly relate to restructuring, claims and litigation, fines and penalties.

A provision is recognised when it is probable that an outflow of resources embodying economic benefits will be required to settle an obligation arising from a past event, and a reliable estimate can be made of the amount of the obligation. The amount of such obligations is discounted, where the impact of discounting is material, in order to determine the amount of the provision.

1.m CURRENT AND DEFERRED TAX

The current income tax charge is determined on the basis of the tax laws and tax rates in force in each country in which the Group operates during the period in which the income is generated.

Deferred taxes are recognised when temporary differences arise between the carrying amount of an asset or liability in the balance sheet and its tax base.

Deferred tax liabilities are recognised for all taxable temporary differences other than:

- taxable temporary differences on initial recognition of goodwill;
- taxable temporary differences on investments in enterprises under the exclusive or joint control of the Group, where the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences and unused carryforwards of tax losses only to the extent that it is probable that the entity in question will generate future taxable profits against which these temporary differences and tax losses can be offset.

Deferred tax assets and liabilities are measured using the liability method, using the tax rate which is expected to apply to the period when the asset is realised or the liability is settled, based on tax rates and tax laws that have been or will have been enacted by the balance sheet date of that period. They are not discounted.

Deferred tax assets and liabilities are offset when they arise within the same tax group, they fall under the jurisdiction of a single tax authority, and there is a legal right to offset.

As regards the assessment of uncertainty over income tax treatments, the Group adopts the following approach:

- the Group assesses whether it is probable that a taxation authority will accept an uncertain tax treatment;
- any uncertainty shall be reflected when determining the taxable profit (loss) by considering either the most likely amount (having the higher probability of occurrence), or the expected value (sum of the probability-weighted amounts).

Current and deferred taxes are recognised as tax income or expenses in the profit and loss account, except for those relating to a transaction or an event directly recognised in shareholders' equity, which are also recognised in shareholders' equity. This concerns in particular the tax effect of coupons paid on financial instruments issued by the Group and qualified as equity instruments, such as Undated Super Subordinated Notes.

When tax credits on revenues from receivables and securities are used to settle corporate income tax payable for the period, the tax credits are recognised on the same line as the income to which they relate. The corresponding tax expense continues to be carried in the profit and loss account under "Corporate income tax".

1.n CASH FLOW STATEMENT

The cash and cash equivalents balance is composed of the net balance of cash accounts and accounts with central banks, and the net balance of interbank demand loans and deposits.

Changes in cash and cash equivalents related to operating activities reflect cash flows generated by the Group's operations, including those relating to financial investments of insurance activities and negotiable certificates of deposit.

Changes in cash and cash equivalents related to investing activities reflect cash flows resulting from acquisitions and disposals of subsidiaries, associates or joint ventures included in the consolidated Group, as well as acquisitions and disposals of property, plant and equipment excluding investment property and property held under operating leases.

Changes in cash and cash equivalents related to financing activities reflect the cash inflows and outflows resulting from transactions with shareholders, cash flows related to bonds and subordinated debt, and debt securities (excluding negotiable certificates of deposit).

1.o USE OF ESTIMATES IN THE PREPARATION OF THE FINANCIAL STATEMENTS

Preparation of the financial statements requires managers of core businesses and corporate functions to make assumptions and estimates that are reflected in the measurement of income and expense in the profit and loss account and of assets and liabilities in the balance sheet, and in the disclosure of information in the notes to the financial statements. This requires the managers in question to exercise their judgement and to make use of information available at the date of the preparation of the financial statements when making their estimates. The actual future results from operations where managers have made use of estimates may in reality differ significantly from those estimates, mainly according to market conditions. This may have a material effect on the financial statements.

This applies in particular to:

- the analysis of the cash flow criterion for specific financial assets;
- the measurement of expected credit losses. This applies in particular to the assessment of significant increase in credit risk, the models and assumptions used to measure expected credit losses, the determination of the different economic scenarios and their weighting;
- the analysis of renegotiated loans, in order to assess whether they should be maintained on the balance-sheet or derecognised;
- the assessment of an active market, and the use of internally developed models for the measurement of the fair value of financial instruments not quoted in an active market classified in “Financial assets at fair value through equity”, or in “Financial instruments at fair value through profit or loss”, whether as assets or liabilities, and more generally calculations of the fair value of financial instruments subject to a fair value disclosure requirement;
- the assumptions applied to assess the sensitivity to each type of market risk of the market value of financial instruments and the sensitivity of these valuations to the main unobservable inputs as disclosed in the notes to the financial statements;
- the appropriateness of the designation of certain derivative instruments such as cash flow hedges, and the measurement of hedge effectiveness;
- impairment tests performed on intangible assets;
- the estimation of residual assets values under simple lease agreements. These values are used as a basis for the determination of depreciation as well as any impairment, notably in relation to the effect of environmental considerations on the evaluation of future prices of second-hand vehicles;
- the deferred tax assets;
- the estimation of insurance technical reserves and policyholders’ surplus reserves;
- the measurement of uncertainty over income tax treatments and other provisions for contingencies and charges. In particular, while investigations and litigations are ongoing, it is difficult to foresee their outcome and potential impact. Provision estimation is established by taking into account all available information at the date of the preparation of the financial statements, in particular the nature of the dispute, the underlying facts, the ongoing legal proceedings and court decisions, including those related to similar cases. The Group may also use the opinion of experts and independent legal advisers to exercise its judgement.

2. NOTES TO THE PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2022

2.a NET INTEREST INCOME

The BNP Paribas Group includes in “Interest income” and “Interest expense” all income and expense calculated using the effective interest method (interest, fees and transaction costs) from financial instruments measured at amortised cost and financial instruments measured at fair value through equity.

These items also include the interest income and expense of non-trading financial instruments the characteristics of which do not allow for recognition at amortised cost or at fair value through equity, as well as of financial instruments that the Group has designated as at fair value through profit or loss. The change in fair value on financial instruments at fair value through profit or loss (excluding accrued interest) is recognised under “Net gain on financial instruments at fair value through profit or loss”.

Interest income and expense on derivatives accounted for as fair value hedges are included with the revenues generated by the hedged item. Similarly, interest income and expense arising from derivatives used to hedge transactions designated as at fair value through profit or loss is allocated to the same accounts as the interest income and expense relating to the underlying transactions.

In the case of a negative interest rates related to loans and receivables or deposits from customers and credit institutions, they are accounted for in interest expense or interest income respectively.

	Year to 31 Dec. 2022			Year to 31 Dec. 2021		
In millions of euros	Income	Expense	Net	Income	Expense	Net
Financial instruments at amortised cost	**34,794**	**(15,507)**	**19,287**	**24,122**	**(7,032)**	**17,090**
Deposits, loans and borrowings	30,749	(11,714)	19,035	21,423	(5,024)	16,399
Repurchase agreements	274	(83)	191	199	(56)	143
Finance leases	1,762	(102)	1,660	1,626	(101)	1,525
Debt securities	2,009		2,009	874		874
Issued debt securities and subordinated debt		(3,608)	(3,608)		(1,851)	(1,851)
Financial instruments at fair value through equity	**738**	**-**	**738**	**851**	**-**	**851**
Financial instruments at fair value through profit or loss (Trading securities excluded)	**59**	**(279)**	**(220)**	**36**	**(163)**	**(127)**
Cash flow hedge instruments	**3,025**	**(1,449)**	**1,576**	**1,982**	**(1,010)**	**972**
Interest rate portfolio hedge instruments	**2,466**	**(2,966)**	**(500)**	**2,527**	**(2,031)**	**496**
Lease liabilities	**-**	**(50)**	**(50)**		**(44)**	**(44)**
Total interest income/(expense)	**41,082**	**(20,251)**	**20,831**	**29,518**	**(10,280)**	**19,238**

Interest income on individually impaired loans amounted to EUR 287 million for the year ended 2022, compared to EUR 331 million for the year ended 2021.

The Group subscribed to the TLTRO III (*Targeted Longer-Term Refinancing Operations*) programme, as modified by the Governing Council of the European Central Bank in March 2020, in December 2020 and in October 2022 (see note 4.g). The Group achieved the lending performance thresholds that enabled it to benefit from favourable interest rate conditions applicable for each of the reference period, namely:

- over the two special interest periods (i.e. from June 2020 to June 2022): the average deposit facility rate ("DFR") -50 basis points, or -1%;

- over the next period (i.e. from June 2022 to November 2022): the average of the DFR between the TLTRO III initial date of subscription and 22 November 2022, i.e., for the main draws, -0.36% for the June 2020 tranche and -0.29% for the March 2021 tranche;

- over the last period (since 23 November 2022): the average of the DFR between 23 November 2022 and the redemption date. The average effective interest rate for the latter period was 1.64% at 31 December 2022.

This floating interest rate is considered as a market rate as it is applicable to all financial institutions meeting the lending criteria defined by the European Central Bank. The effective interest rate of these financial liabilities is determined for each reference period, its two components (reference rate and margin) being adjustable; it corresponds to the nominal interest rate. The addition of the last interest period in October 2022 is part of the European Central Bank's monetary policy and is therefore not considered a contractual amendment according to IFRS 9 but a revision of the market rate.

2.b COMMISSION INCOME AND EXPENSE

In millions of euros	Year to 31 Dec. 2022			Year to 31 Dec. 2021		
	Income	Expense	Net	Income	Expense	Net
Customer transactions	4,772	(1,172)	3,600	4,489	(1,024)	3,465
Securities and derivatives transactions	2,051	(1,578)	473	2,363	(1,628)	735
Financing and guarantee commitments	1,181	(100)	1,081	1,152	(55)	1,097
Asset management and other services	5,425	(337)	5,088	5,912	(748)	5,164
Others	1,193	(1,257)	(64)	1,121	(1,220)	(99)
Commission income/expense	**14,622**	**(4,444)**	**10,178**	**15,037**	**(4,675)**	**10,362**
- of which net commission income related to trust and similar activities through which the Group holds or invests assets on behalf of clients, trusts, pension and personal risk funds or other institutions	*3,248*	*(268)*	*2,980*	*3,333*	*(357)*	*2,976*
- of which commission income and expense on financial instruments not measured at fair value through profit or loss	*3,048*	*(370)*	*2,678*	*3,129*	*(337)*	*2,792*

2.c NET GAIN ON FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

Net gain on financial instruments measured at fair value through profit or loss includes all profit and loss items relating to financial instruments held for trading, financial instruments that the Group has designated as at fair value through profit or loss, non-trading equity instruments that the Group did not choose to measure at fair value through equity, as well as debt instruments whose cash flows are not solely repayments of principal and interest on the principal or whose business model is not to collect cash flows nor to collect cash flows and sell the assets.

These income items include dividends on these instruments and exclude interest income and expense from financial instruments designated as at fair value through profit or loss and instruments whose cash flows are not only repayments of principal and interest on the principal or whose business model is not to collect cash flows nor to collect cash flows and sell the assets, which are presented in “Net interest income” (note 2.a).

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Financial instruments held for trading	(2,017)	6,293
Interest rate and credit instruments	(6,014)	(2,633)
Equity financial instruments	(3,268)	5,641
Foreign exchange financial instruments	5,898	2,317
Loans and repurchase agreements	(1,320)	(116)
Other financial instruments	2,687	1,084
Financial instruments designated as at fair value through profit or loss	11,328	281
Other financial instruments at fair value through profit or loss	143	956
Impact of hedge accounting	(96)	85
Fair value hedging derivatives	(9,123)	(2,445)
Hedged items in fair value hedge	9,027	2,530
Net gain on financial instruments at fair value through profit or loss	**9,358**	**7,615**

Gains and losses on financial instruments designated as at fair value through profit or loss are mainly related to instruments which changes in value may be compensated by changes in the value of economic hedging derivative financial instruments held for trading.

Net gain on financial instruments held for trading in 2022 and 2021 include a non-material amount related to the ineffective portion of cash flow hedges.

Potential sources of ineffectiveness can be the differences between hedging instruments and hedged items, notably generated by mismatches in the terms of hedged and hedging instruments, such as the frequency and timing of interest rates resetting, the frequency of payments and the discounting factors, or when hedging derivatives have a non-zero fair value at inception date of the hedging relationship. Credit valuation adjustments applied to hedging derivatives are also sources of ineffectiveness.

Cumulated changes in fair value related to discontinued cash flow hedge relationships, previously recognised in equity and included in 2022 in profit and loss accounts are not material, whether the hedged item ceased to exist or not.

2.d NET GAIN ON FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH EQUITY

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Net gain on debt instruments	9	58
Dividend income on equity instruments	129	106
Net gain on financial instruments at fair value through equity	**138**	**164**

Interest income from debt instruments is included in note 2.a *Net interest income*, and impairment losses related to potential issuer default are included in note 2.h *Cost of risk*.

2.e NET INCOME FROM INSURANCE ACTIVITIES

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Premiums earned	25,810	27,619
Net gain from investment contracts with discretionary participation feature and other services	30	12
Net income from financial investments	(9,280)	14,503
Technical charges related to contracts	(10,008)	(35,848)
Net charges from ceded reinsurance	(405)	(215)
External services expenses	(1,851)	(1,739)
Net income from insurance activities	**4,296**	**4,332**

- **Net income from financial investments**

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Net gain on available-for-sale financial assets	1,975	3,082
Interest income and dividends	*2,770*	*2,634*
Additions to impairment provisions	*(57)*	*(10)*
Net disposal gains	*(738)*	*458*
Net gain on financial instruments at fair value through profit or loss	(11,359)	11,163
Net gain on financial instruments at amortised cost	78	118
Investment property income	45	142
Share of earnings of equity-method investments	(4)	1
Other expense	(15)	(3)
Net income from financial investments	**(9,280)**	**14,503**

2.f NET INCOME FROM OTHER ACTIVITIES

In millions of euros	Year to 31 Dec. 2022			Year to 31 Dec. 2021		
	Income	Expense	Net	Income	Expense	Net
Net income from investment property	58	(30)	28	103	(43)	60
Net income from assets held under operating leases	13,134	(10,365)	2,769	12,426	(10,525)	1,901
Net income from property development activities	773	(653)	120	988	(777)	211
Other net income	1,736	(1,782)	(46)	1,965	(2,084)	(119)
Total net income from other activities	**15,701**	**(12,830)**	**2,871**	**15,482**	**(13,429)**	**2,053**

2.g OTHER OPERATING EXPENSES

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
External services and other operating expenses	(9,191)	(8,712)
Taxes and contributions [1]	(2,505)	(1,993)
Total other operating expenses	**(11,696)**	**(10,705)**

[1] Contributions to European resolution fund, including exceptional contributions, amount to EUR 1,256 million for the year ended 2022 compared with EUR 967 million for the year ended 2021.

2.h COST OF RISK

The general model for impairment described in note 1.e.5 used by the Group relies on the following two steps:

- assessing whether there has been a significant increase in credit risk since initial recognition, and
- measuring impairment allowance as either 12-month expected credit losses or lifetime expected credit loss (i.e. loss expected at maturity).

Both steps rely on forward looking information.

Significant increase in credit risk

At 31 December 2022, BNP Paribas revised its criteria for assessing the significant increase in credit risk in line with the recommendations issued by the European Banking Authority and the European Central Bank.

Previously, except for the consumer credit specialist business, the credit risk deterioration was mainly evaluated based on changes in the internal credit rating, an indicator of the average 1-year probability of default through the cycle. In order to fully consider forward looking information, the new criteria use the probability of default to maturity, which is derived from the internal rating, incorporating the expected consequences of changes in macroeconomic scenarios, as the main indicator.

Under these new criteria, credit risk is assumed to have significantly increased, and the asset is classified in stage 2, if the probability of default to maturity of the instrument has increased at least threefold since its origination. This relative variation criterion is supplemented by an absolute variation criterion of the default probability of 400 basis points.

Furthermore, for all portfolios (except for the consumer credit specialist business):

- the facility is assumed to be in stage 1 when its 1-year “Point in Time” probability of default (PiT PD) is below 0.3% at the reporting date, since changes in probability of default due to credit downgrades in this zone are not material, and therefore not considered “significant”;
- when the 1-year PiT PD is greater than 20% at the reporting date, given the Group’s credit issuance practices, the deterioration is considered significant, and the facility is classified in stage 2 (as long as the facility is not credit-impaired).

In the consumer credit specialist business, the existence of a potentially regularised payment incident during the last 12 months is considered to be an indication of significant increase in credit risk and the facility is therefore classified in stage 2.

The table below shows a comparison between the previous and the new criteria for assessing the significant increase in credit risk:

<table>
<tr><th colspan="2"></th><th>Stage 1 presumption</th><th>Deterioration from origination leading to transfer to stage 2</th><th>Stage 2 presumption</th></tr>
<tr><td rowspan="3">Previous criteria</td><td>Retail</td><td>$One\ year\ probability\ of\ default^{*} < 0{,}25\%$</td><td>$\frac{One\ year\ probability\ of\ default}{One\ year\ probability\ of\ default\ at\ origination} > 4$
or
$Rating\ downgrade \geq 6\ notches$</td><td>$One\ year\ probability\ of\ default\ > 10\%$</td></tr>
<tr><td>Small and Medium Entreprises</td><td rowspan="2">$Rating \leq 4\text{-}$</td><td>$Rating\ downgrade \geq 6\ notches$</td><td rowspan="2">$Rating \geq 9+$</td></tr>
<tr><td>Large Corporates</td><td>$Rating\ downgrade \geq 3\ notches$</td></tr>
<tr><td colspan="2">New criteria</td><td>$One\ year\ PiT\ probability\ of\ default^{**} < 0{,}3\%$</td><td>$\frac{Lifetime\ PiT\ probability\ of\ default}{Lifetime\ PiT\ probability\ of\ default\ at\ origination} > 3$
or
$Variation\ of\ lifetime\ PiT\ probability\ of\ default\ since\ origination\ > 400\ bps$</td><td>$One\ year\ PiT\ probability\ of\ defaut > 20\%$</td></tr>
</table>

* Probability of default through the cycle.

** "Point in Time" (PiT) probability of default including forward looking.

Credit risk is assumed to have increased significantly since initial recognition and the asset is classified in stage 2, in the event of late payment of more than 30 days or restructuring due to financial difficulties (as long as the facility is not credit-impaired).

In the first half of 2022, the internal ratings of the Russian counterparties (including the sovereign rating) were systematically downgraded to take into account recent events, thus leading to the transfer of their outstandings to stage 2. However, given the Group's limited level of exposure to this country, this deterioration had no significant effect on the cost of risk for the period.

Forward Looking Information

The Group considers forward-looking information both when assessing significant increase in credit risk and when measuring Expected Credit Losses (ECL).

Regarding the measurement of expected credit losses, the Group has chosen to use 3 macroeconomic scenarios by geographic area covering a wide range of potential future economic conditions:

- a baseline scenario, consistent with the scenario used for budgeting;
- an adverse scenario, corresponding to the scenario used for the Group's quarterly stress tests;
- a favourable scenario, capturing situations where the economy performs better than anticipated.

The link between the macroeconomic scenarios and the ECL measurement is mainly achieved through a modelling of the probabilities of default and deformation of migration matrices based on internal rating (or risk parameter). The probabilities of default determined according to these scenarios are used to measure expected credit losses in each of these scenarios.

The Group's setup is broken down by sector to take into account the heterogeneity of sectoral dynamics when assessing the probability of default for corporates.

Forward-looking information is also considered when determining the significant deterioration in credit risk, since the probabilities of default used as the basis for this assessment include forward-looking multi-scenario information in the same way as for the calculation of the ECL.

The weight to be attributed to the expected credit losses calculated in each of the scenarios is defined as 50% for the baseline scenario and:

- the weight of the two alternative scenarios is defined according to the position in the credit cycle. In this approach, the adverse scenario carries more weight in situations at the upper end of the cycle than those at the lower end of the cycle, in anticipation of a potential downturn in the economy.
- the minimum weight of each the alternative scenarios is 10% and therefore the maximum weight is 40%.

When appropriate, the ECL measurement can take into account asset sale scenarios.

Macroeconomic scenarios

The three macroeconomic scenarios are defined over a three-year projection horizon. They correspond to:

- a baseline scenario, which describes the most likely path of the economy over the projection horizon. This scenario is updated on a quarterly basis and is prepared by the Group Economic Research department in collaboration with various experts within the Group. Projections are designed for each key market of the Group (France, Belgium, Italy, the United States and the eurozone) using key macroeconomic variables (Gross Domestic Product - GDP - and its components, unemployment rate, consumer prices, interest rates, foreign exchange rates, oil prices, real estate prices, *etc*.) which are key drivers for modeling risk parameters used in the stress test process;
- an adverse scenario, which describes the impact of the materialisation of some of the risks weighing on the baseline scenario, resulting in a much less favourable economic path than in the baseline scenario. The GDP shock is applied with varying magnitudes, but simultaneously, to the economies under consideration. Generally, these assumptions are broadly consistent with those proposed by the regulators. The calibration of shocks on other variables (e.g. unemployment, consumer prices, interest rates, etc.) is based on models and expert judgment;
- a favourable scenario, which reflects the impact of the materialisation of some of the upside risks for the economy, resulting in a more favourable economic path. The favourable shock on GDP is deducted from the adverse shock on GDP in such a way that the probabilities of the two shocks are equal on average over the cycle. Other variables (e.g. unemployment, inflation, interest rates, *etc.*) are defined in the same way as in the adverse scenario.
  Since June 2021, the favourable shocks applied have been substantially reduced, as any stronger path than in the baseline scenario could be limited by supply side constraints.

The link between the macroeconomic scenarios and the measurement of the ECL is complemented by an approach allowing to take into account anticipation aspects not captured by the models in the generic approach. This is particularly the case when unprecedented events in the historical chronicle taken into account to build the models occur or are anticipated, or when the nature or amplitude of change in macroeconomic parameter calls into question past correlations. Thus, the situation of high inflation and the current and projected increase in interest rates correspond to aspects not observed in the reference history. In this context, the Group has developed an approach to take into account the future economic outlook when assessing the financial strength of counterparties. This approach consists in simulating the impact of rate hikes on their financial ratios and the effect on their ratings.

In addition, post-model adjustments are considered to take into account, where applicable, the consequences of climatic events on expected credit losses.

Baseline scenario

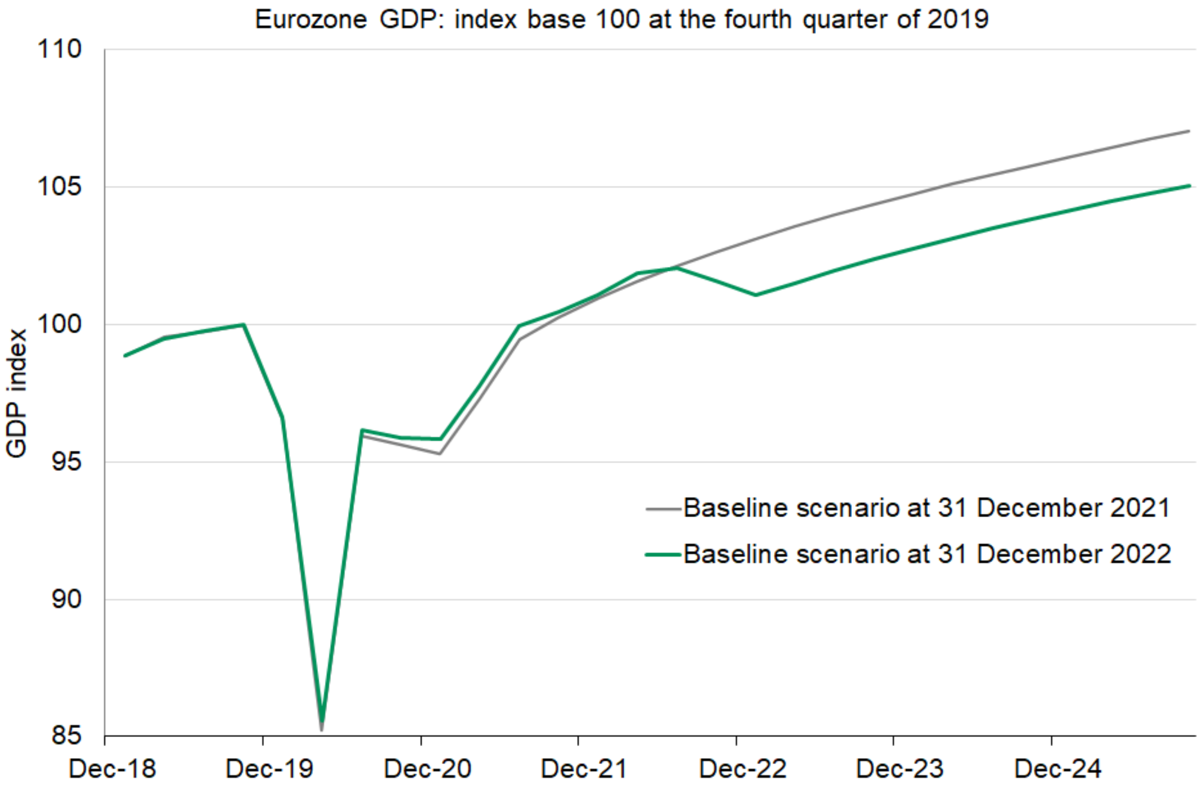
Several major developments have contributed to a more marked deterioration than anticipated (after a rebound year in 2021), in both Europe and the United States. Beyond the humanitarian aspects, the consequences of the invasion of Ukraine have had a number of adverse economic effects, the first of which is to contribute to raising inflation to very high levels due to severe disruptions in energy and food markets. European countries have been particularly affected from this point of view. In response to expected inflation levels, central banks have carried out the most severe monetary tightening in decades, leading to a sharp tightening of financial conditions, which in turn penalise activity. Finally, the health crisis has continued to strongly disrupt activity in some countries, particularly in Asia, where there is less vaccine protection or stricter measures to contain the health crisis.

Faced with these combined energy and monetary shocks, activity is expected to contract in a number of economies (including the eurozone and the United States) in late 2022 and early 2023, leading to substantial downward revisions to growth projections for 2023. Activity is expected to stagnate in both the eurozone and the United States in 2023 (while, at 30 June 2022, GDP was expected to grow by around 1.5% in both regions). Activity growth is generally expected to rebound in 2024 and 2025.

After reaching very high levels in late 2022, inflation is expected to moderate in the course of 2023, mainly due to lower energy inflation and to the consequences of the slowdown in activity (e.g. higher unemployment, more limited supply chain disruptions). However, on an annual average, inflation will remain very high in 2023 in many countries, significantly exceeding central bank targets in most cases (notably in Europe and in the United States). Inflation is expected to come down to more usual levels in 2024 and 2025.

In this context, major central banks have so far prioritised the fight against inflation by tightening monetary policy. By the end of 2022, both short-term and long-term interest rates were at much higher levels than those observed in the past ten years, even though the central banks have not yet completed their tightening cycle. Key interest rates are expected to peak in 2023, before moderating in 2024 and 2025 (when the central banks are expected to lower policy rates in line with more moderate inflation).

The graph below presents a comparison of eurozone GDP projections used in the baseline scenario for the calculation of ECLs at 31 December 2021 and 2022.



- **Macroeconomic variables, baseline scenario at 31 December 2022**

(annual averages)	2022	2023	2024	2025
GDP growth rate				
Eurozone	3.2%	0.1%	1.6%	1.3%
France	2.5%	0.1%	1.4%	1.2%
Italy	3.7%	-0.2%	1.1%	0.9%
Belgium	2.3%	0.0%	1.5%	1.2%
United States	1.7%	0.0%	1.7%	1.6%
Unemployment rate				
Eurozone	6.8%	7.5%	7.6%	7.3%
France	7.5%	8.0%	8.1%	7.9%
Italy	8.1%	8.6%	8.4%	8.3%
Belgium	5.8%	6.4%	6.3%	6.1%
United States	3.7%	4.7%	4.6%	4.5%
Inflation rate				
Eurozone	8.5%	6.3%	2.4%	2.0%
France	6.0%	5.4%	2.5%	2.0%
Italy	8.7%	7.3%	2.1%	1.7%
Belgium	10.6%	7.5%	2.7%	2.2%
United States	8.1%	3.9%	2.3%	2.2%
10-year sovereign bond yields				
Germany	1.22%	2.64%	2.19%	2.00%
France	1.76%	3.19%	2.74%	2.55%
Italy	3.18%	4.94%	4.49%	4.30%
Belgium	1.76%	3.24%	2.79%	2.60%
United States	3.02%	4.24%	3.44%	3.25%

Adverse Scenario

The adverse scenario is based on the assumption that certain downside risks will materialise, resulting in a much less favourable economic path than in the baseline scenario.

The following risks are identified:

- **A dominant risk, the invasion of Ukraine and its implications** (especially higher inflation): the impacts mentioned in the baseline scenario could worsen due to additional negative developments. In particular, the adverse scenario assumes a more pronounced shock on commodity prices, further fueling inflation and leading to more severe disruptions in activity. Higher inflation would have a direct negative effect on consumption and production. In addition, governments of the most exposed economies could take rationing measures targeting the most energy-intensive sectors (with potential indirect consequences for other sectors). Activity can also be negatively affected by other channels (e.g. supply chain disruptions, trade, financial stress, uncertainty and confidence effects).
- **The remaining risk related to the health crisis:** although the link between health challenges and economic disruptions has eased markedly in many economies, particularly thanks to vaccination, health crisis-related challenges remain a significant risk, at least in some countries.
- **Less favourable public finances:** public debt-to-GDP ratios are high and central banks are tightening their monetary policy, leading to a rise in bond yields that could generate tensions in some countries due to the widening of spreads between sovereign bonds.
- **China's economy-related risks:** additional difficulties in China (e.g. sanitary measures, real estate) could affect global markets and activity in other countries through trade and supply-chain channels.
- **Geopolitical risks:** geopolitical tensions can weigh on the global economy through shocks to commodity prices, financial markets and business confidence. Beyond the invasion of Ukraine, other regions are also worth to be monitored (Asia and the Middle East).
- **Developments in trade and globalisation:** the invasion of Ukraine creates additional obstacles to trade and globalisation, adding to already negative developments of recent years (trade disagreements between the United States and China, willingness of some western governments to become more self-sufficient in certain strategic areas).

The adverse scenario assumes the materialisation of these identified latent risks from the first quarter of 2023.

The risks related to the invasion of Ukraine are taken into account in the adverse scenario through some specificities. First, an additional activity shock is applied to the different economies, depending on their perceived exposure to this situation. This shock reflects the countries' dependence on Russian gas as well as their vulnerability to other transmission channels (exports, dependence on the supply chain, weight of food and energy in inflation, investment links, political ties with Russia). Second, inflation is higher in the adverse scenario than in the baseline scenario in the first year of the projection horizon, in order to materialise the specific effects of this crisis in this area (reflecting more upward pressure on commodity prices and supply chain disruptions).

Among the countries considered, GDP levels in the adverse scenario stand between 5.8% and 12.2% lower than in the baseline scenario at the end of the shock period (three years). In particular, this deviation reaches 10.2% on average in the eurozone and 5.8% in the United States.

Scenario weighting and cost of risk sensitivity

At 31 December 2022, the weight of the adverse scenario considered by the Group was 16% and 34% for the favourable scenario. At 31 December 2021, the weight of the adverse scenario was on average equivalent to that of the favourable scenario.

The sensitivity of the amount of expected credit losses for all financial assets at amortised cost or at fair value through equity and credit commitments is assessed by comparing the estimated expected credit losses resulting from the weighting of the above scenarios with that resulting from each of the two alternative scenarios:

- an increase in ECL of 22%, or EUR 1,250 million according to the adverse scenario (18% at 31 December 2021);
- a decrease in ECL of 7%, or EUR 400 million according to the favourable scenario (12% at 31 December 2021).

Adaptation of the ECL assessment process to factor in the specific nature of the health crisis:

Macroeconomic scenarios provisioning the models:

The measurement of the impact of macroeconomic scenarios on expected credit losses was adjusted to reflect the specificities of the current health crisis. Given the exceptional nature of the shock linked to the temporary lockdown measures and strong support provided by governments and central banks, macroeconomic parameters for each country or geographic area included in the pre-existing models (calibrated on past crises) were adapted in order to extract information on the medium-term impacts on the macroeconomic environment and thus minimise excessive short-term volatility.

In 2020, the medium-term perspective adopted for the baseline scenario reduced the loss of income for the eurozone by an amount much lower than that of governments and European Central Bank support measures. Conversely, it moderated the favourable impacts of the economic rebounds observed in 2021. This adaptation ended in 2021.

Moratoria and state guarantees:

For the loans secured by a state guarantee (mainly in France and Italy), the calculation of expected credit losses is adjusted accordingly.

The absence of a general maturity extension scheme for individuals, notably in France, led to classify as forborne the loans that benefited from accompanying measures that were not initially provided for under the contract. However, these measures were not considered as an automatic criterion for transfer to stage 2.

Post-model adjustments:

Conservative adjustments were taken into account when the models used were based on indicators that show unusual levels in the context of the health crisis and the support programmes, such as the increase in deposits and the decrease in past due events for retail customers and entrepreneurs.

For the consumer credit specialist business, a conservative adjustment had been considered in 2020 for loans that benefitted from a moratorium. In 2021, this adjustment was reversed in connection with the satisfactory return to payment observed on these loans. However, a conservative adjustment was made to compensate for the atypical level of late payments.

These post-model adjustments were reversed in 2022.

Adaptation of the ECL assessment process to factor in the significant rise in inflation and in interest rates:

Additional adjustments were made in 2022 to take into account the effects of inflation and interest rate hikes when this effect is not directly estimated by the models. For example, within the consumer credit specialist business, adjustments were considered for the categories of customers most sensitive to the gradual decline in the level of their net income.

All of these adjustments represent 6.1% of the total amount of expected credit losses at 31 December 2022, compared to 4.8% at 31 December 2021.

Cost of credit risk for the period

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Net allowances to impairment	(2,444)	(2,591)
Recoveries on loans and receivables previously written off	343	321
Losses on irrecoverable loans	(714)	(701)
Act on assistance to borrowers in Poland	(189)	
Total cost of risk for the period	**(3,004)**	**(2,971)**

Cost of risk for the period by accounting category and asset type

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Cash and balances at central banks	(6)	(8)
Financial instruments at fair value through profit or loss	(28)	6
Financial assets at fair value through equity	14	(6)
Financial assets at amortised cost	(2,853)	(2,779)
Loans and receivables	*(2,845)*	*(2,763)*
Debt securities	*(8)*	*(16)*
Other assets	(17)	12
Financing and guarantee commitments and other items	(114)	(196)
Total cost of risk for the period	**(3,004)**	**(2,971)**
Cost of risk on unimpaired assets and commitments	*(570)*	*(17)*
of which stage 1	*(511)*	*268*
of which stage 2	*(59)*	*(285)*
Cost of risk on impaired assets and commitments - stage 3	*(2,434)*	*(2,954)*

Credit risk impairment

Changes in impairment by accounting category and asset type during the period

In millions of euros	31 December 2021	Net allowance to impairment	Impairment provisions used	Changes in scope, exchange rates and other items	31 December 2022
Assets impairment					
Amounts due from central banks	18	5		(2)	21
Financial instruments at fair value through profit or loss	121	15		(28)	108
Financial assets at fair value through equity	140	(14)		4	130
Financial assets at amortised cost	20,196	2,374	(4,187)	128	18,511
Loans and receivables	*20,028*	*2,329*	*(4,106)*	*130*	*18,381*
Debt securities	*168*	*45*	*(81)*	*(2)*	*130*
Other assets	59	(6)	(3)	(5)	45
Total impairment of financial assets	**20,534**	**2,374**	**(4,190)**	**97**	**18,815**
of which stage 1	*1,891*	*223*	*(4)*	*(36)*	*2,074*
of which stage 2	*2,748*	*87*	*(3)*	*49*	*2,881*
of which stage 3	*15,895*	*2,064*	*(4,183)*	*84*	*13,860*
Provisions recognised as liabilities					
Provisions for commitments	958	32	(15)	5	980
Other provisions	467	38	(56)	1	450
Total provisions recognised for credit commitments	**1,425**	**70**	**(71)**	**6**	**1,430**
of which stage 1	*230*	*94*		*2*	*326*
of which stage 2	*374*	*(33)*		*(3)*	*338*
of which stage 3	*821*	*9*	*(71)*	*7*	*766*
Total impairment and provisions	**21,959**	**2,444**	**(4,261)**	**103**	**20,245**

Change in impairment by accounting category and asset type during the previous period

In millions of euros	31 December 2020	Net allowance to impairment	Impairment provisions used	Changes in scope, exchange rates and other items	31 December 2021
Assets impairment					
Amounts due from central banks	17	9		(8)	18
Financial instruments at fair value through profit or loss	148	(20)		(7)	121
Financial assets at fair value through equity	132	6		2	140
Financial assets at amortised cost	21,704	2,438	(3,867)	(79)	20,196
Loans and receivables	*21,546*	*2,421*	*(3,867)*	*(72)*	*20,028*
Debt securities	*158*	*17*		*(7)*	*168*
Other assets	104	(15)	(29)	(1)	59
Total impairment of financial assets	**22,105**	**2,418**	**(3,896)**	**(93)**	**20,534**
of which stage 1	*2,379*	*(219)*	*(8)*	*(261)*	*1,891*
of which stage 2	*3,166*	*176*	*(6)*	*(588)*	*2,748*
of which stage 3	*16,560*	*2,461*	*(3,882)*	*756*	*15,895*
Provisions recognised as liabilities					
Provisions for commitments	964	60	(1)	(65)	958
Other provisions	383	113	(52)	23	467
Total provisions recognised for credit commitments	**1,347**	**173**	**(53)**	**(42)**	**1,425**
of which stage 1	*319*	*(55)*		*(34)*	*230*
of which stage 2	*297*	*100*		*(23)*	*374*
of which stage 3	*731*	*128*	*(53)*	*15*	*821*
Total impairment and provisions	**23,452**	**2,591**	**(3,949)**	**(135)**	**21,959**

Changes in impairment of financial assets at amortised cost during the period

In millions of euros	Impairment on assets subject to 12-month Expected Credit Losses (Stage 1)	Impairment on assets subject to lifetime Expected Credit Losses (Stage 2)	Impairment on doubtful assets (Stage 3)	Total
At 31 December 2021	**1,867**	**2,714**	**15,615**	**20,196**
Net allowance to impairment	**211**	**102**	**2,061**	**2,374**
Financial assets purchased or originated during the period	682	234		916
Financial assets derecognised during the period [1]	(390)	(388)	(822)	(1,600)
Transfer to stage 2	(133)	1,773	(212)	1,428
Transfer to stage 3	(65)	(665)	1,806	1,076
Transfer to stage 1	63	(502)	(36)	(475)
Change in the significant increase in credit risk assessment criteria	29	(280)		(251)
Other allowances / reversals without stage transfer [2]	25	(70)	1,325	1,280
Impairment provisions used	**(3)**	**(3)**	**(4,181)**	**(4,187)**
Changes in exchange rates	**(6)**	**(30)**	**104**	**68**
Changes in scope of consolidation and other items	**(34)**	**77**	**17**	**60**
At 31 December 2022	**2,035**	**2,860**	**13,616**	**18,511**

[1] including disposals

[2] including amortisation

In 2022, the increase in financial assets subject to impairment relates mainly to outstandings classified in stage 1. Thus, the gross value of loans and advances to customers classified in stage 1 increased by EUR 61 billion compared to 31 December 2021 (see note 4.e Financial assets at amortised cost). This change includes transfers of outstandings from stage 2 to stage 1 for a net amount of EUR 27 billion as a result of the change in the criteria used to assess the significant increase in credit risk, mainly within the French and Belgian Commercial & Personal Banking activities. This transfer mainly concerns the least risky outstandings among those previously classified in stage 2 (see section 5.4 Credit risk of the Universal Registration Document, Table n° 52: *Breakdown of financial assets subject to impairment by stage and internal rating)*. The impact of this transfer on the amount of expected credit losses is a net reversal of provision of EUR 251 million.

Excluding the effect of this change in estimate, outstandings in stage 2 increased by EUR 10 billion during the year ended 31 December 2022. This development is closely linked to the deterioration of the economic environment that weighed on the assessment of the significant increase in credit risk criterion.

These combined effects led to net additions to impairment in stages 1 and 2 in 2022. The provisioning rate for loans and advances to customers classified in stage 2 increased to 3.2% at 31 December 2022, compared with 2.6% at 31 December 2021.

Changes in impairment of financial assets at amortised cost during the previous period

In millions of euros	Impairment on assets subject to 12-month Expected Credit Losses (Stage 1)	Impairment on assets subject to lifetime Expected Credit Losses (Stage 2)	Impairment on doubtful assets (Stage 3)	Total
At 31 December 2020	**2,343**	**3,142**	**16,219**	**21,704**
Net allowance to impairment	**(216)**	**168**	**2,486**	**2,438**
Financial assets purchased or originated during the period	608	242		850
Financial assets derecognised during the period [(1)]	(353)	(295)	(896)	(1,544)
Transfer to stage 2	(190)	1,726	(393)	1,143
Transfer to stage 3	(22)	(598)	1,837	1,217
Transfer to stage 1	117	(724)	(45)	(652)
Other allowances / reversals without stage transfer [(2)]	(376)	(183)	1,983	1,424
Impairment provisions used	**(8)**	**(6)**	**(3,853)**	**(3,867)**
Changes in exchange rates	**(1)**	**(32)**	**95**	**62**
Changes in scope of consolidation and other items	**(28)**	**(355)**	**739**	**356**
Reclassification of assets held for sale	**(223)**	**(203)**	**(71)**	**(497)**
At 31 December 2021	**1,867**	**2,714**	**15,615**	**20,196**

[(1)] including disposals

[(2)] including amortisation

2.i NET GAIN ON NON-CURRENT ASSETS

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Gain or loss on investments in consolidated undertakings (note 6.c)	(257)	355
Gain or loss on tangible and intangible assets	7	479
Results from net monetary position	(3)	
Net gain on non-current assets	**(253)**	**834**

According to IAS 29 in connection with the hyperinflation situation of the economy in Türkiye, the line "Results from net monetary positions" mainly includes the effect of the evolution of the consumer price index in Türkiye on the valuation of non-monetary assets and liabilities (- EUR 434 million) and on accrued income from the Turkish government bonds portfolio indexed to inflation and held by Turk Ekonomi Bankasi AS (+ EUR 431 million, reclassified from interest margin).

2.j CORPORATE INCOME TAX

Reconciliation of the effective tax expense to the theoretical tax expense at standard tax rate in France	Year to 31 Dec. 2022		Year to 31 Dec. 2021	
	in millions of euros	tax rate	in millions of euros	tax rate
Corporate income tax expense on pre-tax income at standard tax rate in France [(1)]	**(3,275)**	**25.8%**	**(3,454)**	**28.4%**
Impact of differently taxed foreign profits	(61)	0.5%	201	-1.7%
Impact of dividends and disposals taxed at reduced rate	54	-0.4%	153	-1.3%
Impact of the non-deductibility of taxes and bank levies [(2)]	(300)	2.4%	(253)	2.1%
Other items	(134)	1.0%	(231)	2.0%
Corporate income tax expense from continuing activities	**(3,716)**	**29.3%**	**(3,584)**	**29.5%**
Current tax expense for the year to 31 December	*(2,844)*		*(2,806)*	
Deferred tax expense for the year to 31 December (note 4.k)	*(872)*		*(778)*	

(1) Restated for the share of profits in equity-method entities and goodwill impairment.

(2) Contribution to the Single Resolution Fund and other non-deductible banking taxes.

3. SEGMENT INFORMATION

The Group is composed of three operating divisions:

- **Corporate & Institutional Banking (CIB)** which covers Global Banking, Global Markets and Securities Services;

- **Commercial, Personal Banking & Services (CPBS)** which covers Commercial & Personal banking in the euro zone, with Commercial & Personal Banking in France (CPBF), Commercial & Personal Banking in Italy (BNL bc), Commercial & Personal Banking in Belgium (CPBB) and Commercial & Personal Banking in Luxembourg (CPBL); Commercial banking outside the euro zone, which are organised around Europe-Mediterranean, to cover Central and Eastern Europe and Türkiye, and BancWest in the United States. Lastly, it also covers specialised businesses, (Arval, BNP Paribas Leasing Solutions, BNP Paribas Personal Finance, BNP Paribas Personal Investors and New digital business lines like Nickel, Floa, Lyf);

- **Investment & Protection Services (IPS)** which covers Insurance (BNP Paribas Cardif), Wealth and Asset Management (BNP Paribas Asset Management, BNP Paribas Wealth Management and BNP Paribas Real Estate), Management of the BNP Paribas Group's portfolio of unlisted and listed industrial and commercial investments (BNP Paribas Principal Investments).

Other activities mainly include activities related to the Group's central treasury function, some costs related to cross-business projects, the residential mortgage lending business of Personal Finance (a significant part of which is managed in run-off), and certain investments.

They also include non-recurring items resulting from applying the rules on business combinations. In order to provide consistent and relevant economic information for each core business, the impact of amortising fair value adjustments recognised in the net equity of entities acquired and restructuring costs incurred in respect to the integration of entities, have been allocated to the "Other Activities" segment. The same applies to transformation, adaptation and IT reinforcement costs relating to the Group's savings programmes.

Inter-segment transactions are conducted at arm's length. The segment information presented comprises agreed inter-segment transfer prices.

The capital allocation is carried out on the basis of risk exposure, taking into account various conventions relating primarily to the capital requirement of the business as derived from the risk-weighted asset calculations required under capital adequacy rules. Normalised equity income by segment is determined by attributing to each segment the income of its allocated equity. The equity allocation to segments is based on a minimum of 11 % of weighted assets. The breakdown of balance sheet by core business follows the same rules as the breakdown of the profit or loss by core business.

To provide a consistent reference with the presentation of the 2022 financial statements, the year ended 31 December 2021 of this note was restated for the following effects as if they had occurred on 1 January 2021:

- the new organisation of the Group;
- the change in method of internal allocation of the contribution to the Single Resolution Fund (SRF), impacting the breakdown among business lines of the banking taxes and contributions submitted to IFRIC 21. The Group has defined a new allocation key for the SRF between the businesses to better reflect the increased liquidity resources generated by commercial activity and the changing regulatory environment;
- limited internal transfers of activities and results, having marginal impact on the vision with 2/3 of Private Banking in the Commercial, Personal Banking in France and in Belgium.

These effects do not change the results for the Group as a whole but only the analytical breakdown.

The information and financial elements contained in this note reflect an operational view and include BancWest's activity within the various income statement aggregates. A separate line reconciles the operational view with the one impacted by the application of IFRS 5.

- **Income by business segment**

In millions of euros	Year to 31 Dec. 2022						Year to 31 Dec. 2021					
	Revenues	Operating expenses	Cost of risk	Operating income	Non-operating items	Pre-tax income	Revenues	Operating expenses	Cost of risk	Operating income	Non-operating items	Pre-tax income
Corporate & Institutional Banking	**16,465**	**(10,753)**	**(325)**	**5,387**	**10**	**5,398**	**14,236**	**(9,467)**	**(173)**	**4,596**	**58**	**4,654**
Global Banking	5,218	(2,878)	(336)	2,004	4	2,009	5,087	(2,652)	(201)	2,234	11	2,246
Global Markets	8,660	(5,806)	11	2,866	4	2,870	6,820	(4,924)	27	1,923	19	1,942
Securities Services	2,587	(2,069)		517	2	519	2,329	(1,892)	1	439	27	466
Commercial, Personal Banking & Services	**27,563**	**(17,518)**	**(2,458)**	**7,586**	**414**	**8,000**	**25,216**	**(16,523)**	**(2,586)**	**6,106**	**340**	**6,447**
Commercial & Personal Banking in the eurozone	***12,948***	***(8,976)***	***(726)***	***3,246***	***42***	***3,288***	***12,303***	***(8,659)***	***(1,018)***	***2,626***	***56***	***2,682***
Commercial & Personal Banking in France[1]	6,361	(4,530)	(245)	1,587	26	1,613	5,966	(4,395)	(428)	1,144	37	1,181
BNL banca commerciale[1]	2,548	(1,676)	(464)	408	3	410	2,591	(1,726)	(488)	377		377
Commercial & Personal Banking in Belgium[1]	3,577	(2,502)	(36)	1,039	10	1,049	3,332	(2,277)	(100)	954	19	973
Commercial & Personal Banking in Luxembourg[1]	461	(268)	19	213	3	216	414	(262)	(2)	150		150
Commercial & Personal Banking in the rest of the world	***4,953***	***(3,655)***	***(113)***	***1,185***	***292***	***1,477***	***4,286***	***(3,255)***	***(99)***	***932***	***201***	***1,133***
Europe-Mediterranean[1]	2,321	(1,641)	(152)	528	289	817	1,926	(1,598)	(145)	182	181	364
BancWest[1]	2,632	(2,014)	39	657	4	660	2,361	(1,656)	45	750	19	769
Specialised businesses	***9,662***	***(4,888)***	***(1,619)***	***3,155***	***80***	***3,235***	***8,627***	***(4,609)***	***(1,469)***	***2,549***	***84***	***2,632***
Personal Finance	5,387	(2,922)	(1,373)	1,092	28	1,121	5,216	(2,804)	(1,314)	1,097	78	1,175
Arval & Leasing Solutions	3,438	(1,395)	(146)	1,897	60	1,957	2,675	(1,298)	(150)	1,227	8	1,235
New Digital Businesses & Personal Investors[1]	837	(571)	(100)	166	(9)	157	735	(506)	(5)	224	(2)	222
Investment & Protections Services	**6,670**	**(4,363)**	**3**	**2,309**	**310**	**2,620**	**6,476**	**(4,218)**	**(7)**	**2,251**	**249**	**2,499**
Insurance	2,774	(1,558)	(2)	1,214	161	1,376	2,827	(1,536)	(1)	1,289	79	1,368
Wealth Management	1,612	(1,230)	3	385	39	424	1,476	(1,134)	(10)	332	1	333
Asset Management[2]	2,284	(1,576)	2	710	110	820	2,173	(1,548)	5	630	168	798
Other Activities	**(279)**	**(1,067)**	**(185)**	**(1,531)**	**(36)**	**(1,567)**	**308**	**(903)**	**(159)**	**(754)**	**792**	**38**
Total Group	**50,419**	**(33,702)**	**(2,965)**	**13,752**	**698**	**14,450**	**46,235**	**(31,111)**	**(2,925)**	**12,199**	**1,438**	**13,637**
Reclassification of discontinued activities (note 7.d)	(2,788)	2,007	(39)	(820)	(3)	(823)	(2,473)	1,645	(46)	(874)	(19)	(893)
Total continuing activities[3]	**47,631**	**(31,695)**	**(3,004)**	**12,932**	**695**	**13,627**	**43,762**	**(29,466)**	**(2,971)**	**11,325**	**1,419**	**12,744**

[1] Commercial & Personal Banking in France, BNL banca commerciale, Commercial & Personal Banking in Belgium, Commercial & Personal Banking in Luxembourg, Europe-Mediterranean, BancWest and Personal Investors after the reallocation within Wealth and Asset Management of one-third of the Wealth Management activities in France, Italy, Belgium, Luxembourg, Germany, Türkiye, Poland and the United States.

[2] including Real Estate and Principal Investments.

- **Net commission income by business segment, including fees accounted for under « Net income from insurance activities »**

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Corporate & Institutional Banking	**2,310**	**2,766**
Global Banking	2,037	2,199
Global Markets	(1,223)	(891)
Securities Services	1,497	1,458
Commercial, Personal Banking & Services	**7,220**	**6,930**
Commercial & Personal Banking in the eurozone	***5,059***	***4,795***
Commercial & Personal Banking in France [1]	2,896	2,664
BNL banca commerciale [1]	1,047	1,071
Commercial & Personal Banking in Belgium [1]	1,028	981
Commercial & Personal Banking in Luxembourg [1]	88	79
Commercial & Personal Banking in the rest of the world	***876***	***849***
Europe-Mediterranean [1]	448	467
BancWest [1]	428	382
Specialised businesses	***1,285***	***1,286***
Personal Finance	743	750
Arval & Leasing Solutions	41	40
New Digital Businesses & Personal Investors[1]	501	495
Investment & Protections Services	**(893)**	**(607)**
Insurance	(3,288)	(3,072)
Wealth Management	789	836
Asset Management[2]	1,606	1,630
Other activities	**58**	**(55)**
Total Group	**8,696**	**9,034**

[1] Commercial & Personal Banking in France, BNL banca commerciale, Commercial & Personal Banking in Belgium, Commercial & Personal Banking in Luxembourg, Europe-Mediterranean, BancWest and Personal Investors after the reallocation within Wealth and Asset Management of one-third of the Wealth Management activities in France, Italy, Belgium, Luxembourg, Germany, Türkiye, Poland and the United States.

[2] including Real Estate and Principal Investments.

- **Assets and liabilities by business segment**

In millions of euros, at	31 December 2022		31 December 2021	
	Asset	Liability	Asset	Liability
Corporate & Institutional Banking	**1,136,501**	**1,302,279**	**1,098,288**	**1,232,312**
Global Banking	183,096	239,352	165,082	202,807
Global Markets	913,848	908,354	871,532	872,645
Securities Services	39,557	154,573	61,674	156,860
Commercial, Personal Banking & Services	**843,216**	**793,620**	**818,842**	**774,956**
Commercial & Personal Banking in the eurozone	***546,268***	***584,747***	***529,698***	***578,604***
Commercial & Personal Banking in France	235,614	255,334	218,249	250,094
BNL banca commerciale	94,230	93,880	94,229	92,427
Commercial & Personal Banking in Belgium	189,119	204,538	188,732	204,867
Commercial & Personal Banking in Luxembourg	27,305	30,995	28,488	31,216
Commercial & Personal Banking in the rest of the world	***141,356***	***138,231***	***145,625***	***131,837***
Europe-Mediterranean	59,132	55,360	57,323	51,206
BancWest	82,224	82,871	88,302	80,631
Specialised businesses	***155,592***	***70,642***	***143,519***	***64,515***
Personal Finance	94,906	24,412	90,753	23,507
Arval & Leasing Solutions	56,668	12,443	50,654	9,439
New Digital Businesses & Personal Investors	4,019	33,787	2,112	31,569
Investment & Protections Services	**283,029**	**312,142**	**318,241**	**336,654**
Insurance	247,403	234,129	280,766	262,238
Wealth Management	28,242	74,563	29,583	70,686
Asset Management	7,384	3,450	7,892	3,730
Other activities	**403,630**	**258,335**	**399,073**	**290,522**
Total Group	**2,666,376**	**2,666,376**	**2,634,444**	**2,634,444**

Information by business segment relating to goodwill is presented in note 4.o Goodwill.

- **Information by geographic area**

The geographic split of segment results, assets and liabilities is based on the region in which they are recognised for accounting purposes, adjusted as per the managerial origin of the business activity. It does not necessarily reflect the counterparty's nationality or the location of operational businesses.

Revenues by geographic area including net income from discontinued activities

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
EMEA	39,770	36,506
Americas (North and South)	6,650	6,153
APAC	3,999	3,576
Total Group	**50,419**	**46,235**

Assets and liabilities, in contribution to the consolidated accounts, by geographic area

In millions of euros	31 December 2022	31 December 2021
EMEA	2,190,667	2,173,683
Americas (North and South)	305,141	294,601
APAC	170,568	166,160
Total Group	**2,666,376**	**2,634,444**

4. NOTES TO THE BALANCE SHEET AT 31 DECEMBER 2022

4.a FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

Financial assets and financial liabilities at fair value through profit or loss consist of held-for-trading transactions - including derivatives -, of certain liabilities designated by the Group as at fair value through profit or loss at the time of issuance and of non-trading instruments whose characteristics prevent their accounting at amortised cost or at fair value through equity.

In millions of euros	31 December 2022				31 December 2021			
	Financial instruments held for trading	Financial instruments designated as at fair value through profit or loss	Other financial assets at fair value through profit or loss	Total	Financial instruments held for trading	Financial instruments designated as at fair value through profit or loss	Other financial assets at fair value through profit or loss	Total
Securities	157,138	1,273	7,666	166,077	181,079	2,898	7,530	191,507
Loans and repurchase agreements	186,968		4,157	191,125	247,507		2,301	249,808
FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS	**344,106**	**1,273**	**11,823**	**357,202**	**428,586**	**2,898**	**9,831**	**441,315**
Securities	99,155			99,155	112,338			112,338
Deposits and repurchase agreements	232,351	1,725		234,076	291,577	1,879		293,456
Issued debt securities (note 4.h)		70,460		70,460		70,383		70,383
of which subordinated debt		*675*		*675*		*947*		*947*
of which non subordinated debt		*64,110*		*64,110*		*62,334*		*62,334*
of which debt representative of shares of consolidated funds held by third parties		*5,675*		*5,675*		*7,102*		*7,102*
FINANCIAL LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS	**331,506**	**72,185**		**403,691**	**403,915**	**72,262**		**476,177**

Detail of these assets and liabilities is provided in note 4.d.

- **Financial liabilities designated as at fair value through profit or loss**

Financial liabilities at fair value through profit or loss mainly consist of issued debt securities, originated and structured on behalf of customers, where the risk exposure is managed in combination with the hedging strategy. These types of issued debt securities contain significant embedded derivatives, which changes in value may be compensated by changes in the value of economic hedging derivatives.

The redemption value of debt issued and designated as at fair value through profit or loss at 31 December 2022 was EUR 70,940 million (EUR 59,958 million at 31 December 2021).

- **Other financial assets measured at fair value through profit or loss**

Other financial assets at fair value through profit or loss are financial assets not held for trading:
- Debt instruments that do not meet the criteria defined by IFRS 9 to be classified as financial instruments at "fair value through equity" or at "amortised cost":
  - Their business model is not to "collect contractual cash flows" nor "collect contractual cash flows and sell the instruments"; and/or
  - Their cash flows are not solely repayments of principal and interest on the principal amount outstanding.
- Equity instruments that the Group did not choose to classify as at "fair value through equity".

DERIVATIVE FINANCIAL INSTRUMENTS

The majority of derivative financial instruments held for trading are related to transactions initiated for trading purposes. They may result from market-making or arbitrage activities. BNP Paribas actively trades in derivatives. Transactions include trades in "ordinary" instruments such as credit default swaps, and structured transactions with complex risk profiles tailored to meet the needs of its customers. The net position is in all cases subject to limits.

Some derivative instruments are also contracted to hedge financial assets or financial liabilities for which the Group has not documented a hedging relationship, or which do not qualify for hedge accounting under IFRS.

In millions of euros	31 December 2022		31 December 2021	
	Positive market value	Negative market value	Positive market value	Negative market value
Interest rate derivatives	150,122	125,215	119,219	107,490
Foreign exchange derivatives	134,382	129,274	75,314	75,694
Credit derivatives	7,294	7,731	8,371	8,451
Equity derivatives	22,602	27,291	24,217	35,071
Other derivatives	13,532	10,610	13,302	10,691
Derivative financial instruments	**327,932**	**300,121**	**240,423**	**237,397**

The table below shows the total notional amount of trading derivatives. The notional amounts of derivative instruments are merely an indication of the volume of the Group's activities in financial instruments markets, and do not reflect the market risks associated with such instruments.

In millions of euros	31 December 2022				31 December 2021			
	Exchange-traded	Over-the-counter, cleared through central clearing houses	Over-the-counter	Total	Exchange-traded	Over-the-counter, cleared through central clearing houses	Over-the-counter	Total
Interest rate derivatives	1,442,663	12,349,703	5,254,166	19,046,532	1,319,006	9,761,179	4,846,327	15,926,512
Foreign exchange derivatives	40,292	130,148	7,610,392	7,780,832	56,415	133,330	6,873,623	7,063,368
Credit derivatives		464,228	518,926	983,154		392,338	545,919	938,257
Equity derivatives	1,177,728		535,465	1,713,193	799,005		506,164	1,305,169
Other derivatives	133,820		95,722	229,542	107,162		92,077	199,239
Derivative financial instruments	**2,794,503**	**12,944,079**	**14,014,671**	**29,753,253**	**2,281,588**	**10,286,847**	**12,864,110**	**25,432,545**

As part of its *Client Clearing* activity, the Group guarantees the risk of default of its clients to central counterparties. The corresponding notional amount is EUR 1,187 billion at 31 December 2022 (EUR 1,050 billion at 31 December 2021).

4.b DERIVATIVES USED FOR HEDGING PURPOSES

The table below shows the notional amounts and the fair value of derivatives used for hedging purposes.

In millions of euros	31 December 2022			31 December 2021		
	Notional amounts	Positive fair value	Negative fair value	Notional amounts	Positive fair value	Negative fair value
Fair value hedges	**1,103,455**	**24,213**	**36,872**	**755,989**	**7,010**	**9,593**
Interest rate derivatives	1,094,689	23,955	36,525	746,253	6,689	9,512
Foreign exchange derivatives	8,766	258	347	9,736	321	81
Cash flow hedges	**213,866**	**1,126**	**3,070**	**213,743**	**1,606**	**481**
Interest rate derivatives	59,641	429	1,602	50,509	1,085	254
Foreign exchange derivatives	153,811	664	1,416	162,827	442	209
Other derivatives	414	33	52	407	79	18
Net foreign investment hedges	**1,719**	**62**	**59**	**2,659**	**64**	**2**
Foreign exchange derivatives	1,719	62	59	2,659	64	2
Derivatives used for hedging purposes	**1,319,040**	**25,401**	**40,001**	**972,391**	**8,680**	**10,076**

Interest rate risk and foreign exchange risk management strategies are described in Chapter 5 – Pillar 3 of the Universal Registration Document (section 5.7 – *Market risk – Market risk related to banking activities*). Quantitative information related to foreign currency borrowings used for net investment hedges is also mentioned in this chapter.

The table below presents the detail of fair value hedge relationships for identified financial instruments and portfolios of financial instruments that are continuing at 31 December 2022:

In millions of euros, at 31 December 2022	Hedging instruments				Hedged instruments			
	Notional amounts	Positive fair value	Negative fair value	Cumulated changes in fair value used as the basis for recognising ineffective-ness	Carrying amount - asset	Cumulated changes in fair value - asset	Carrying amount - liability	Cumulated changes in fair value - liability
Fair value hedges of identified instruments	**332,749**	**11,155**	**12,711**	**1,500**	**114,741**	**(12,204)**	**122,280**	**(10,588)**
Interest rate derivatives hedging the interest rate risk related to	**325,470**	**10,992**	**12,376**	**1,487**	**110,376**	**(12,128)**	**119,694**	**(10,540)**
Loans and receivables	19,827	613	171	527	18,394	(541)		
Securities	131,460	10,297	1,258	11,521	91,982	(11,587)		
Deposits	8,081	31	291	(375)			7,878	(388)
Debt securities	166,102	51	10,656	(10,186)			111,816	(10,152)
Foreign exchange derivatives hedging the interest rate and foreign exchange risks related to	**7,279**	**163**	**335**	**13**	**4,365**	**(76)**	**2,586**	**(48)**
Loans and receivables	2,619	95	64	35	2,410	(42)		
Securities	1,957	55	12	34	1,955	(34)		
Deposits	64		30	2			76	2
Debt securities	2,639	13	229	(58)			2,510	(50)
Interest rate risk hedged portfolios	**770,706**	**13,058**	**24,161**	**(11,240)**	**204,827**	**(8,877)**	**310,192**	**(20,063)**
Interest rate derivatives hedging the interest rate risk related to (1)	**769,218**	**12,963**	**24,149**	**(11,292)**	**203,490**	**(8,830)**	**310,192**	**(20,063)**
Loans and receivables	346,924	9,243	162	9,680	203,490	(8,830)		
Deposits	422,294	3,720	23,987	(20,972)			310,192	(20,063)
Foreign exchange derivatives hedging the interest rate and foreign exchange risks related to	**1,488**	**95**	**12**	**52**	**1,337**	**(47)**		
Loans and receivables	1,488	95	12	52	1,337	(47)		
Total fair value hedge	**1,103,455**	**24,213**	**36,872**	**(9,740)**	**319,568**	**(21,081)**	**432,472**	**(30,651)**

(1) Are included in this section the notional amounts of hedging derivatives and of swaps that reverse the interest rate positions, thus reducing the hedge relationship, when the hedged item still exists, for respectively EUR 121,183 million for derivatives hedging loans and receivables and EUR 103,261 million for derivatives hedging deposits.

The table below presents the detail of fair value hedge relationships for identified financial instruments and portfolios of financial instruments that are continuing at 31 December 2021:

In millions of euros, at 31 December 2021	Hedging instruments				Hedged instruments			
	Notional amounts	Positive fair value	Negative fair value	Cumulated changes in fair value used as the basis for recognising ineffective-ness	Carrying amount - asset	Cumulated changes in fair value - asset	Carrying amount - liability	Cumulated changes in fair value - liability
Fair value hedges of identified instruments	**302,733**	**3,013**	**6,008**	**(643)**	**110,232**	**1,530**	**116,360**	**1,131**
Interest rate derivatives hedging the interest rate risk related to	**294,121**	**2,818**	**5,939**	**(741)**	**105,419**	**1,601**	**112,726**	**1,099**
Loans and receivables	20,854	213	518	(278)	19,242	276		
Securities	112,596	1,179	5,399	(1,531)	86,177	1,325		
Deposits	6,725	351	17	274			6,644	271
Debt securities	153,946	1,075	5	794			106,082	828
Foreign exchange derivatives hedging the interest rate and foreign exchange risks related to	**8,612**	**195**	**69**	**98**	**4,813**	**(71)**	**3,634**	**32**
Loans and receivables	2,433	140	2	48	2,308	(51)		
Securities	2,518	28	12	20	2,505	(20)		
Deposits	181	3	21	9			197	9
Debt securities	3,480	24	34	21			3,437	23
Interest rate risk hedged portfolios	**453,256**	**3,997**	**3,585**	**(16)**	**109,933**	**1,463**	**178,771**	**1,320**
Interest rate derivatives hedging the interest rate risk related to (1)	**452,132**	**3,871**	**3,573**	**(58)**	**108,893**	**1,504**	**178,771**	**1,320**
Loans and receivables	183,765	606	2,574	(1,603)	108,893	1,504		
Deposits	268,367	3,265	999	1,545			178,771	1,320
Foreign exchange derivatives hedging the interest rate and foreign exchange risks related to	**1,124**	**126**	**12**	**42**	**1,040**	**(41)**		
Loans and receivables	1,124	126	12	42	1,040	(41)		
Total fair value hedge	**755,989**	**7,010**	**9,593**	**(659)**	**220,165**	**2,993**	**295,131**	**2,451**

(1) Are included in this section the notional amounts of hedging derivatives and of swaps that reverse the interest rate positions, thus reducing the hedge relationship, when the hedged item still exists, for respectively EUR 55,414 million for derivatives hedging loans and receivables and EUR 86,139 million for derivatives hedging deposits.

An asset or a liability or set of assets and liabilities, can be hedged over several periods of time with different derivative financial instruments. Besides, some hedges are achieved by the combination of two derivative instruments. In this case, the notional amounts add up and their total amount is higher than the hedged amount. The first situation is observed more particularly for interest rate risk hedged portfolios and the second for hedges of issued debt securities.

As regards discontinued fair value hedge relationships where the derivative contract was terminated, the cumulated amount of revaluation remaining to be amortised over the residual life of the hedged instruments amounts to EUR 1,399 million in assets at 31 December 2022, and to EUR -138 million in liabilities, for hedges of portfolios of financial instruments. At 31 December 2021, these amounts were EUR 1,509 million in assets and 14 million in liabilities.

Regarding hedges of identified instruments, the cumulated amount of revaluation remaining to be amortised over the residual life of the hedged instruments amounts to EUR 111 million in assets at 31 December 2022. At 31 December 2021, this amount was EUR 117 million in assets.

The notional amount of cash flow hedge derivatives is EUR 213,866 million at 31 December 2022. Changes in assets and liabilities recognised directly in equity amount to EUR -245 million. At 31 December 2021, the notional amount of cash flow hedge derivatives was EUR 213,743 million and changes in assets and liabilities recognised directly in equity amounted to EUR 1,329 million.

The tables below present the notional amounts of hedging derivatives by maturity at 31 December 2022 and at 31 December 2021:

In millions of euros, at 31 December 2022	Maturity date			
	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
Fair value hedges	**382,063**	**430,968**	**290,424**	**1,103,455**
Interest rate derivatives	378,055	426,364	290,270	1,094,689
Foreign exchange derivatives	4,008	4,604	154	8,766
Cash flow hedges	**142,568**	**51,041**	**20,257**	**213,866**
Interest rate derivatives	18,178	30,041	11,422	59,641
Foreign exchange derivatives	124,223	20,753	8,835	153,811
Other derivatives	167	247		414
Net foreign investment hedges	**1,719**	**-**	**-**	**1,719**
Foreign exchange derivatives	1,719	-		1,719

In millions of euros, at 31 December 2021	Maturity date			
	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
Fair value hedges	**149,613**	**340,799**	**265,577**	**755,989**
Interest rate derivatives	146,649	334,411	265,193	746,253
Foreign exchange derivatives	2,964	6,388	384	9,736
Cash flow hedges	**146,392**	**43,108**	**24,243**	**213,743**
Interest rate derivatives	10,350	27,777	12,382	50,509
Foreign exchange derivatives	135,867	15,099	11,861	162,827
Other derivatives	175	232		407
Net foreign investment hedges	**2,559**	**100**	**-**	**2,659**
Foreign exchange derivatives	2,559	100		2,659

4.c Financial assets at fair value through equity

In millions of euros	31 December 2022		31 December 2021	
	Fair value	of which changes in value recognised directly to equity	Fair value	of which changes in value recognised directly to equity
Debt securities	**35,878**	**(866)**	**38,906**	**(1)**
Governments	18,682	(350)	19,980	117
Other public administrations	9,921	(197)	13,000	51
Credit institutions	3,816	(302)	4,138	(169)
Others	3,459	(17)	1,788	
Equity securities	**2,188**	**623**	**2,558**	**933**
Total financial assets at fair value through equity	**38,066**	**(243)**	**41,464**	**932**

Debt securities at fair value through equity include EUR 108 million classified as stage 3 at 31 December 2022 (EUR 105 million at 31 December 2021). For these securities, the credit impairment recognised in the profit and loss account has been charged to the negative changes in value recognised in equity for EUR 100 million at 31 December 2022 (EUR 104 million at 31 December 2021).

The option to recognise certain equity instruments at fair value through equity was retained in particular for shares held through strategic partnerships and shares that the Group is required to hold in order to carry out certain activities.

During the year ended 31 December 2022, the Group sold two of these investments and an unrealised gain of EUR 267 million was transferred to “retained earnings” (EUR 12 million at 31 December 2021).

4.d MEASUREMENT OF THE FAIR VALUE OF FINANCIAL INSTRUMENTS

VALUATION PROCESS

BNP Paribas has retained the fundamental principle that it should have a unique and integrated processing chain for producing and controlling the valuations of financial instruments that are used for the purpose of daily risk management and financial reporting. All these processes are based on a common economic valuation which is a core component of business decisions and risk management strategies.

Economic value is composed of mid-market value, to which add valuation adjustments.

Mid-market value is derived from external data or valuation techniques that maximise the use of observable and market-based data. Mid-market value is a theoretical additive value which does not take account of i) the direction of the transaction or its impact on the existing risks in the portfolio, ii) the nature of the counterparties, and iii) the aversion of a market participant to particular risks inherent in the instrument, the market in which it is traded, or the risk management strategy.

Valuation adjustments take into account valuation uncertainty and include market and credit risk premiums to reflect costs that could be incurred in case of an exit transaction in the principal market.

Fair value generally equals the economic value, subject to limited adjustments, such as own credit adjustments, which are specifically required by IFRS standards.

The main valuation adjustments are presented in the section below.

VALUATION ADJUSTMENTS

Valuation adjustments retained by BNP Paribas for determining fair values are as follows:

Bid/offer adjustments: the bid/offer range reflects the additional exit cost for a price taker and symmetrically the compensation sought by dealers to bear the risk of holding the position or closing it out by accepting another dealer’s price.

BNP Paribas assumes that the best estimate of an exit price is the bid or offer price, unless there is evidence that another point in the bid/offer range would provide a more representative exit price.

Input uncertainty adjustments: when the observation of prices or data inputs required by valuation techniques is difficult or irregular, an uncertainty exists on the exit price. There are several ways to gauge the degree of uncertainty on the exit price such as measuring the dispersion of the available price indications or estimating the possible ranges of the inputs to a valuation technique.

Model uncertainty adjustments: these relate to situations where valuation uncertainty is due to the valuation technique used, even though observable inputs might be available. This situation arises when the risks inherent in the instruments are different from those available in the observable data, and therefore the valuation technique involves assumptions that cannot be easily corroborated.

Future Hedging Costs adjustments (FHC): this adjustment applies to positions classified in Level 3 that require dynamic hedging throughout their lifetime leading to additional bid/offer costs. Calculation methods capture these expected costs in particular based on the optimal hedging frequency.

Credit valuation adjustment (CVA): the CVA adjustment applies to valuations and market quotations whereby the credit worthiness of the counterparty is not reflected. It aims to account for the possibility that the counterparty may default and that BNP Paribas may not receive the full fair value of the transactions.

In determining the cost of exiting or transferring counterparty risk exposures, the relevant market is deemed to be an inter-dealer market. However, the determination of CVA remains judgemental due to i) the possible absence or lack of price discovery in the inter-dealer market, ii) the influence of the regulatory landscape relating to counterparty risk on the market participants' pricing behaviour and iii) the absence of a dominant business model for managing counterparty risk.

The CVA model is grounded on the same exposures as those used for regulatory purposes. The model attempts to estimate the cost of an optimal risk management strategy based on i) implicit incentives and constraints inherent in the regulations in force and their evolutions, ii) market perception of the probability of default and iii) default parameters used for regulatory purposes.

Funding valuation adjustment (FVA): when valuation techniques are used for the purpose of deriving fair value, funding assumptions related to the future expected cash flows are an integral part of the mid-market valuation, notably through the use of appropriate discount rates. These assumptions reflect what the Bank anticipates as being the effective funding conditions of the instrument that a market participant would consider. This notably takes into account the existence and terms of any collateral agreement. In particular, for non- or imperfectly collateralised derivative instruments, they include an explicit adjustment to the interbank interest rate.

Own-credit valuation adjustment for debts (OCA) and for derivatives (debit valuation adjustment - DVA): OCA and DVA are adjustments reflecting the effect of credit worthiness of BNP Paribas, on respectively the value of debt securities designated as at fair value through profit or loss and derivatives. Both adjustments are based on the expected future liability profiles of such instruments. The own credit worthiness is inferred from the market-based observation of the relevant bond issuance levels. The DVA adjustment is determined after taking into account the Funding Valuation Adjustment (FVA).

Thus, the carrying value of debt securities designated as at fair value though profit or loss is decreased by EUR 160 million at 31 December 2022, compared with an increase in value of EUR 359 million at 31 December 2021, i.e. a - EUR 519 million variation recognised directly in equity that will not be reclassified to profit or loss.

INSTRUMENT CLASSES AND CLASSIFICATION WITHIN THE FAIR VALUE HIERARCHY FOR ASSETS AND LIABILITIES MEASURED AT FAIR VALUE

As explained in the summary of significant accounting policies (note 1.e.10), financial instruments measured at fair value are categorised into a fair value hierarchy consisting of three levels.

In millions of euros	31 December 2022											
	Financial instruments held for trading				Instruments at fair value through profit or loss not held for trading				Financial assets at fair value through equity			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Securities	**130,589**	**25,744**	**805**	**157,138**	**1,643**	**1,495**	**5,801**	**8,939**	**32,727**	**4,395**	**944**	**38,066**
Governments	59,860	10,136	28	70,024				-	16,783	1,770	127	18,680
Other debt securities	16,454	14,695	630	31,779	1,152	500	333	1,985	14,497	2,412	288	17,197
Equities and other equity securities	54,275	913	147	55,335	491	995	5,468	6,954	1,447	213	529	2,189
Loans and repurchase agreements	**-**	**186,170**	**798**	**186,968**	**-**	**1,274**	**2,883**	**4,157**	**-**	**-**	**-**	**-**
Loans		6,428	5	6,433		1,274	2,883	4,157				
Repurchase agreements		179,742	793	180,535				-				
FINANCIAL ASSETS AT FAIR VALUE	**130,589**	**211,914**	**1,603**	**344,106**	**1,643**	**2,769**	**8,684**	**13,096**	**32,727**	**4,395**	**944**	**38,066**
Securities	**97,367**	**1,716**	**72**	**99,155**	**-**	**-**	**-**	**-**				
Governments	57,949	92	16	58,057				-				
Other debt securities	13,183	1,581	47	14,811				-				
Equities and other equity securities	26,235	43	9	26,287				-				
Borrowings and repurchase agreements	**-**	**230,303**	**2,048**	**232,351**	**-**	**1,472**	**253**	**1,725**				
Borrowings		6,952		6,952		1,472	253	1,725				
Repurchase agreements		223,351	2,048	225,399				-				
Issued debt securities *(note 4.h)*	**-**	**-**	**-**	**-**	**1,885**	**49,630**	**18,945**	**70,460**				
Subordinated debt *(note 4.h)*				-		675		675				
Non subordinated debt (note 4.h)				-	4	45,161	18,945	64,110				
Debt representative of shares of consolidated funds held by third parties				-	1,881	3,794		5,675				
FINANCIAL LIABILITIES AT FAIR VALUE	**97,367**	**232,019**	**2,120**	**331,506**	**1,885**	**51,102**	**19,198**	**72,185**				

In millions of euros	31 December 2021											
	Financial instruments held for trading				Instruments at fair value through profit or loss not held for trading				Financial assets at fair value through equity			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Securities	**152,215**	**28,234**	**630**	**181,079**	**3,520**	**1,865**	**5,043**	**10,428**	**33,356**	**6,987**	**1,121**	**41,464**
Governments	82,556	10,962	36	93,554				-	16,263	3,717		19,980
Other debt securities	20,921	15,697	404	37,022	2,867	696	404	3,967	15,551	3,057	318	18,926
Equities and other equity securities	48,738	1,575	190	50,503	653	1,169	4,639	6,461	1,542	213	803	2,558
Loans and repurchase agreements	**-**	**246,895**	**612**	**247,507**	**-**	**1,398**	**903**	**2,301**	**-**	**-**	**-**	**-**
Loans		6,525	13	6,538		1,398	903	2,301				
Repurchase agreements		240,370	599	240,969				-				
FINANCIAL ASSETS AT FAIR VALUE	**152,215**	**275,129**	**1,242**	**428,586**	**3,520**	**3,263**	**5,946**	**12,729**	**33,356**	**6,987**	**1,121**	**41,464**
Securities	**110,117**	**2,064**	**157**	**112,338**	**-**	**-**	**-**	**-**				
Governments	76,019	267		76,286								
Other debt securities	14,382	1,683	117	16,182								
Equities and other equity securities	19,716	114	40	19,870								
Borrowings and repurchase agreements	**-**	**290,659**	**918**	**291,577**	**-**	**1,556**	**323**	**1,879**				
Borrowings		1,758		1,758		1,556	323	1,879				
Repurchase agreements		288,901	918	289,819								
Issued debt securities *(note 4.h)*	**-**	**-**	**-**	**-**	**2,716**	**47,409**	**20,258**	**70,383**				
Subordinated debt *(note 4.h)*						947		947				
Non subordinated debt *(note 4.h)*						42,076	20,258	62,334				
Debt representative of shares of consolidated funds held by third parties					2,716	4,386		7,102				
FINANCIAL LIABILITIES AT FAIR VALUE	**110,117**	**292,723**	**1,075**	**403,915**	**2,716**	**48,965**	**20,581**	**72,262**				

Fair values of derivatives are broken down by dominant risk factor, namely interest rate, foreign exchange, credit and equity. Derivatives used for hedging purposes are mainly interest rate derivatives.

In millions of euros	31 December 2022							
	Positive market value				Negative market value			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Interest rate derivatives	873	147,853	1,396	150,122	503	122,659	2,053	125,215
Foreign exchange derivatives	33	133,628	721	134,382	35	129,204	35	129,274
Credit derivatives		6,382	912	7,294		6,822	909	7,731
Equity derivatives	6,760	13,512	2,330	22,602	9,177	13,290	4,824	27,291
Other derivatives	1,295	12,158	79	13,532	843	9,629	138	10,610
Derivative financial instruments not used for hedging purposes	**8,961**	**313,533**	**5,438**	**327,932**	**10,558**	**281,604**	**7,959**	**300,121**
Derivative financial instruments used for hedging purposes	**-**	**25,401**	**-**	**25,401**	**-**	**40,001**	**-**	**40,001**

In millions of euros	31 December 2021							
	Positive market value				Negative market value			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Interest rate derivatives	331	117,854	1,034	119,219	318	105,988	1,184	107,490
Foreign exchange derivatives	40	74,827	447	75,314	36	75,388	270	75,694
Credit derivatives		7,532	839	8,371		7,562	889	8,451
Equity derivatives	9,770	12,741	1,706	24,217	12,593	15,795	6,683	35,071
Other derivatives	1,284	11,962	56	13,302	1,179	9,359	153	10,691
Derivative financial instruments not used for hedging purposes	**11,425**	**224,916**	**4,082**	**240,423**	**14,126**	**214,092**	**9,179**	**237,397**
Derivative financial instruments used for hedging purposes	**-**	**8,680**	**-**	**8,680**	**-**	**10,076**	**-**	**10,076**

Transfers between levels may occur when an instrument fulfils the criteria defined, which are generally market and product dependent. The main factors influencing transfers are changes in the observation capabilities, passage of time, and events during the transaction lifetime. The timing of recognising transfers is determined at the beginning of the reporting period.

During the year ended 2022, transfers between Level 1 and Level 2 were not significant.

DESCRIPTION OF MAIN INSTRUMENTS IN EACH LEVEL

The following section provides a description of the instruments in each level in the hierarchy. It describes notably instruments classified in Level 3 and the associated valuation methodologies.
For main trading book instruments and derivatives classified in Level 3, further quantitative information is provided about the inputs used to derive fair value.

Level 1

This level encompasses all derivatives and securities that are listed on exchanges or quoted continuously in other active markets.

Level 1 includes notably equity securities and liquid bonds, shortselling of these instruments, derivative instruments traded on organised markets (futures, options, *etc.*). It includes shares of funds and UCITS, for which the net asset value is calculated on a daily basis, as well as debt representative of shares of consolidated funds held by third parties.

Level 2

The Level 2 stock of securities is composed of securities which are less liquid than the Level 1 bonds. They are predominantly corporate debt securities, government bonds, mortgage backed securities, fund shares and short-term securities such as certificates of deposit. They are classified in Level 2 notably when external prices for the same security can be regularly observed from a reasonable number of market makers that are active in this security, but these prices do not represent directly tradable prices. This comprises amongst other, consensus pricing services with a reasonable number of contributors that are active market makers as well as indicative runs from active brokers and/or dealers. Other sources such as primary issuance market, may also be used where relevant.

Repurchase agreements are classified predominantly in Level 2. The classification is primarily based on the observability and liquidity of the repo market, depending on the underlying collateral and the maturity of the repo transaction.

Debts issued designated as at fair value through profit and loss, are classified in the same level as the one that would apply to the embedded derivative taken individually. The issuance spread is considered observable.

Derivatives classified in Level 2 comprise mainly the following instruments:

- vanilla instruments such as interest rate swaps, caps, floors and swaptions, credit default swaps, equity/foreign exchange (FX)/commodities forwards and options;
- structured derivatives for which model uncertainty is not significant such as exotic FX options, mono- and multi-underlying equity/funds derivatives, single curve exotic interest rate derivatives and derivatives based on structured rates.

The above derivatives are classified in Level 2 when there is a documented stream of evidence supporting one of the following:

- fair value is predominantly derived from prices or quotations of other Level 1 and Level 2 instruments, through standard market interpolation or stripping techniques whose results are regularly corroborated by real transactions;
- fair value is derived from other standard techniques such as replication or discounted cash flows that are calibrated to observable prices, that bear limited model risk and enable an effective offset of the risks of the instrument through trading Level 1 or Level 2 instruments;
- fair value is derived from more sophisticated or proprietary valuation techniques but is directly evidenced through regular back-testing using external market-based data.

Determining whether an over-the-counter (OTC) derivative is eligible for Level 2 classification involves judgement. Consideration is given to the origin, transparency and reliability of external data used, and the amount of uncertainty associated with the use of models. It follows that the Level 2 classification criteria involve multiple analysis axis within an “observability zone” whose limits are determined by i) a predetermined list of product categories and ii) the underlying and maturity bands. These criteria are regularly reviewed and updated, together with the applicable valuation adjustments, so that the classification by level remains consistent with the valuation adjustment policy.

Level 3

Level 3 securities of the trading book mainly comprise units of funds and unlisted equity shares measured at fair value through profit or loss or through equity.

Unlisted private equities are systematically classified as Level 3, with the exception of UCITS with a daily net asset value which are classified in the Level 1 of the fair value hierarchy.

Shares and other unlisted variable income securities in Level 3 are valued using one of the following methods: a share of revalued net book value, multiples of comparable companies, future cash flows method, multi-criteria approach.

Some repurchase agreements*: *mainly long-term or structured repurchase agreements on corporate bonds and ABSs when the valuation of these transactions requires proprietary methodologies given the bespoke nature of the transactions and the lack of activity and price discovery in the long-term repo market. The curves used in the valuation are corroborated using available data such as recent long-term repo trade data and price enquiry data. Valuation adjustments applicable to these exposures are commensurate with the degree of uncertainty inherent in the modelling choices and amount of data available.

Debts issued designated as at fair value through profit or loss, are classified in the same level as the one that would apply to the embedded derivative taken individually. The issuance spread is considered observable.

Derivatives

Vanilla derivatives are classified in Level 3 when the exposure is beyond the observation zone for rate curves or volatility surfaces, or relates to less liquid markets such as tranches on old credit index series or emerging markets interest rates markets. The main instruments are:

- ***Interest rate derivatives***: exposures mainly comprise swap products in less liquid currencies. Classification is driven by the lower liquidity of some maturities, while observation capabilities through consensus may be available. The valuation technique is standard, and uses external market information and extrapolation techniques.
- ***Credit derivatives (CDS)***: exposures mainly comprise CDSs beyond the maximum observable maturity and, to a much lesser extent, CDSs on illiquid or distressed names and CDSs on loan indices. Classification is driven by the lack of liquidity while observation capabilities may be available notably through consensus. Level 3 exposures also comprise CDS and Total Return Swaps (TRS) positions on securitised assets. These are priced along the same modelling techniques as the underlying bonds, taking into consideration the funding basis and specific risk premium.
- ***Equity derivatives***: exposures essentially comprise long dated forward or volatility products or exposures where there is a limited market for optional products. The marking of the forward curves and volatility surfaces beyond the maximum observable maturity relies on extrapolation techniques. However, when there is no market for model input, volatility or forward is generally determined on the basis of proxy or historical analysis.

  Similarly, long-term transactions on equity baskets are also classified in Level 3, based on the absence of equity correlation observability on long maturities.

These vanilla derivatives are subject to valuation adjustments linked to uncertainty on liquidity, specialised by nature of underlying and liquidity bands.

Structured derivatives classified in Level 3 predominantly comprise structured derivatives of which hybrid products (FX/Interest Rates hybrids, Equity hybrids), credit correlation products, prepayment-sensitive products, some stock basket optional products and some interest rate optional instruments. The main exposures are described below, with insight into the related valuation techniques and on the source of uncertainty:

- ***Structured interest rate options*** are classified in Level 3 when they involve currencies where there is not sufficient observation or when they include a quanto feature where the pay-off is measured with a forex forward fixed rate (except for the main currencies). Long term structured derivatives are also classified in Level 3.

- ***Hybrid FX/Interest rate products*** essentially comprise a specific product family known as Power Reverse Dual Currency (PRDC) when there is material valuation uncertainty. When valuation of PRDCs requires sophisticated modelling of joint behaviour of FX and interest rate, and is notably sensitive to the unobservable FX/ interest rate correlations, such products are classified as Level 3. PRDCs valuations are corroborated with recent trade data and consensus data.

- ***Securitisation swaps*** mainly comprise fixed-rate swaps, cross-currency or basis swaps whose notional is indexed to the prepayment behaviour of some underlying portfolio. The estimation of the maturity profile of securitisation swaps is corroborated by statistical estimates using external historical data.

- ***Forward volatility options*** are generally products whose pay-off is indexed to the future variability of a rate index such as volatility swaps. These products involve material model risk as it is difficult to infer forward volatility information from the market-traded instruments. The valuation adjustment framework is calibrated to the uncertainty inherent in the product, and to the range of uncertainty from the existing external consensus data.

- ***Inflation derivatives*** classified in Level 3 mainly comprise swap products on inflation indices that are not associated with a liquid indexed bond market, optional products on inflation indices (such as caps and floors) and other forms of inflation indices involving optionality on the inflation indices or on the inflation annual rate. Valuation techniques used for inflation derivatives are predominantly standard market models. Proxy techniques are used for a few limited exposures. Although the valuations are corroborated through monthly consensus data, these products are classified as Level 3 due to their lack of liquidity and some uncertainties inherent in the calibration.

- The valuation of ***bespoke CDOs*** requires correlation of default events when there is material valuation uncertainty. This information is inferred from the active index tranche market through a proprietary projection technique and involves proprietary extrapolation and interpolation techniques. Multi-geography CDOs further require an additional correlation assumption. Finally, the bespoke CDO model also involves proprietary assumptions and parameters related to the dynamic of the recovery factor. CDO modelling, is calibrated on the observable index tranche markets, and is regularly back-tested against consensus data on standardised pools. The uncertainty arises from the model risk associated with the projection and geography mixing technique, and the uncertainty of associated parameters, together with the recovery modelling.

- ***N to Default baskets*** are other forms of credit correlation products, modelled through standard copula techniques. The main inputs required are the pair-wise correlations between the basket components which can be observed in the consensus and the transactions. Linear baskets are considered observable.

- ***Equity and equity-hybrid correlation products*** are instruments whose pay-off is dependent on the joint behaviour of a basket of equities/indices leading to a sensitivity of the fair value measurement to the correlation amongst the basket components. Hybrid versions of these instruments involve baskets that mix equity and non-equity underlyings such as commodity indices, or foreign exchange rates. Only a subset of the Equity/index correlation matrix is regularly observable and traded, while most cross-asset correlations are not active. Therefore, classification in Level 3 depends on the composition of the basket, the maturity, and the hybrid nature of the product. The correlation input is derived from a proprietary model combining historical estimators, and other adjustment factors, that are corroborated by reference to recent trades or external data. The correlation matrix is essentially available from consensus services, and when a correlation between two underlying instruments is not available, it might be obtained from extrapolation or proxy techniques.

These structured derivatives are subject to specific valuation adjustments to cover uncertainties linked to liquidity, parameters and model risk.

Valuation adjustments (CVA, DVA and FVA)

The valuation adjustment for counterparty credit risk (CVA), own-credit risk for derivatives (DVA) and the explicit funding valuation adjustment (FVA) are deemed to be unobservable components of the valuation framework and therefore classified in Level 3. This does not impact, in general cases, the classification of individual transactions into the fair value hierarchy. However, a specific process allows to identify individual deals for which the marginal contribution of these adjustments and related uncertainty is significant and justifies classifying these transactions in Level 3.

The table below provides the range of values of main unobservable inputs for the valuation of Level 3 financial instruments. The ranges displayed correspond to a variety of different underlying instruments and are meaningful only in the context of the valuation technique implemented by BNP Paribas. The weighted averages, where relevant and available, are based on fair values, nominal amounts or sensitivities.

The main unobservable parameters used for the valuation of debt issued in Level 3 are equivalent to those of their economic hedge derivative. Information on those derivatives, displayed in the following table, is also applicable to these debts.

Risk classes	Balance Sheet valuation (in millions of euros)		Main product types composing the Level 3 stock within the risk class	Valuation technique used for the product types considered	Main unobservable inputs for the product types considered	Range of unobservable input across Level 3 population considered	Weighted average
	Asset	Liability					
Repurchase agreements	793	2,048	Long-term repo and reverse-repo agreements	Proxy techniques, based amongst other on the funding basis of a benchmark bond pool, that is actively traded and representative of the repo underlying	Long-term repo spread on private bonds (High Yield, High Grade) and on ABSs	0 bp to 80 bp	21 bp (a)
Interest rate derivatives	1,396	2,053	Hybrid Forex / Interest rates derivatives	Hybrid Forex interest rate option pricing model	Correlation between FX rate and interest rates. Main currency pairs are EUR/JPY, USD/JPY, AUD/JPY	-13% to 53%	17% (a)
			Hybrid inflation rates / Interest rates derivatives	Hybrid inflation interest rate option pricing model	Correlation between interest rates and inflation rates mainly in Europe.	3% to 14%	12%
			Floors and caps on inflation rate or on the cumulative inflation (such as redemption floors), predominantly on European and French inflation	Inflation pricing model	Volatility of cumulative inflation	1% to 11.7%	(b)
					Volatility of the year on year inflation rate	0.4% to 3.3%	
			Forward Volatility products such as volatility swaps, mainly in euro	Interest rates option pricing model	Forward volatility of interest rates	0.6% to 1.2%	(b)
			Balance-guaranteed fixed rate, basis or cross currency swaps, predominantly on European collateral pools	Prepayment modelling Discounted cash flows	Constant prepayment rates	0% to 18%	1% (a)
Credit derivatives	912	909	Collateralised Debt Obligations and index tranches for inactive index series	Base correlation projection technique and recovery modelling	Base correlation curve for bespoke portfolios	17% to 85%	(b)
					Recovery rate variance for single name underlyings	0 to 25 %	(b)
			N-to-default baskets	Credit default model	Default correlation	48% to 73%	53% (a)
			Single name Credit Default Swaps (other than CDS on ABSs and loans indices)	Stripping, extrapolation and interpolation	Credit default spreads beyond observation limit (10 years)	45 bp to 535 bp (1)	435 bp (c)
					Illiquid credit default spread curves (across main tenors)	8 bp to 610 bp (2)	99 bp (c)
Equity derivatives	2,330	4,824	Simple and complex derivatives on multi-underlying baskets on stocks	Various volatility option models	Unobservable equity volatility	0% to 124% (3)	33% (d)
					Unobservable equity correlation	25% to 100%	73% (c)

[1] The upper part of the range relates to a significant balance sheet position on an issuer belonging to the European telecommunication sector. The remaining positions relate mainly to sovereign and financial issuers.
[2] The upper bound of the range relates to distribution, consumer and transportation sector issuers that represent an insignificant portion of the balance sheet (CDSs with illiquid underlying instruments).
[3] The upper part of the range relates to 6 equities representing a non-material portion of the balance sheet on options with equity underlying instruments. Including these inputs, the upper bound of the range would be around 289%.
[a] Weights based on relevant risk axis at portfolio level
[b] No weighting, since no explicit sensitivity is attributed to these inputs
[c] Weighting is not based on risks, but on an alternative methodology in relation with the Level 3 instruments (present value or notional)
[d] Simple averaging

TABLE OF MOVEMENTS IN LEVEL 3 FINANCIAL INSTRUMENTS

For Level 3 financial instruments, the following movements occurred during the year ended 2022:

	Financial assets				Financial liabilities		
In millions of euros	Financial instruments at fair value through profit or loss held for trading	Financial instruments at fair value through profit or loss not held for trading	Financial assets at fair value through equity	TOTAL	Financial instruments at fair value through profit or loss held for trading	Financial instruments designated as at fair value through profit or loss	TOTAL
At 31 December 2021	**5,324**	**5,946**	**1,121**	**12,391**	**(10,254)**	**(20,581)**	**(30,835)**
Purchases	1,507	1,497	257	**3,261**			**-**
Issues				**-**		(6,810)	**(6,810)**
Sales	(1,591)	(1,219)	(502)	**(3,312)**	(24)		**(24)**
Settlements [(1)]	2,682	1,824	135	**4,641**	2,905	7,904	**10,809**
Transfers to Level 3	1,657	26	36	**1,719**	(733)	(1,760)	**(2,493)**
Transfers from Level 3	(2,126)	(34)		**(2,160)**	1,391	1,007	**2,398**
Gains (or losses) recognised in profit or loss with respect to transactions expired or terminated during the period	(434)	651	(41)	**176**	(2,983)	2,800	**(183)**
Gains (or losses) recognised in profit or loss with respect to unexpired instruments at the end of the period	20	1		**21**	(383)	(1,758)	**(2,141)**
Changes in fair value of assets and liabilities recognised directly in equity				**-**			**-**
- Items related to exchange rate movements	2	(8)	(3)	**(9)**	2		**2**
- Changes in fair value of assets and liabilities recognised in equity			(59)	**(59)**			**-**
At 31 December 2022	**7,041**	**8,684**	**944**	**16,669**	**(10,079)**	**(19,198)**	**(29,277)**

(1) For the assets, includes redemptions of principal, interest payments as well as cash inflows and outflows relating to derivatives. For the liabilities, includes principal redemptions, interest payments as well as cash inflows and outflows relating to derivatives the fair value of which is negative.

Transfers out of Level 3 of derivatives at fair value include mainly the update of the observability tenor of certain yield curves, and of market parameters related to repurchase agreements and credit transactions but also the effect of derivatives becoming only or mainly sensitive to observable inputs due to the shortening of their lifetime.

Transfers into Level 3 of instruments at fair value reflect the effect of the regular update of the observability zones.

Transfers have been reflected as if they had taken place at the beginning of the reporting period.

The Level 3 financial instruments may be hedged by other Level 1 and Level 2 instruments, the gains and losses of which are not shown in this table. Consequently, the gains and losses shown in this table are not representative of the gains and losses arising from management of the net risk on all these instruments.

SENSITIVITY OF FAIR VALUE TO REASONABLY POSSIBLE CHANGES IN LEVEL 3 ASSUMPTIONS

The following table summarises those financial assets and financial liabilities classified as Level 3 for which alternative assumptions in one or more of the unobservable inputs would change fair value significantly.

The amounts disclosed are intended to illustrate the range of possible uncertainty inherent to the judgement applied when estimating Level 3 parameters, or when selecting valuation techniques. These amounts reflect valuation uncertainties that prevail at the measurement date, and even though such uncertainties predominantly derive from the portfolio sensitivities that prevailed at that measurement date, they are not predictive or indicative of future movements in fair value, nor do they represent the effect of market stress on the portfolio value.

In estimating sensitivities, BNP Paribas either remeasured the financial instruments using reasonably possible inputs, or applied assumptions based on the valuation adjustment policy.

For the sake of simplicity, the sensitivity on cash instruments that are not relating to securitised instruments was based on a uniform 1% shift in the price. More specific shifts were however calibrated for each class of the Level 3 securitised exposures, based on the possible ranges of the unobservable inputs.

For derivative exposures, the sensitivity measurement is based on the credit valuation adjustment (CVA), the explicit funding valuation adjustment (FVA) and the parameter and model uncertainty adjustments related to Level 3.

Regarding the credit valuation adjustment (CVA) and the explicit funding valuation adjustment (FVA), the uncertainty was calibrated based on prudent valuation adjustments described in the technical standard "Prudent Valuation" published by the European Banking Authority. For other valuation adjustments, two scenarios were considered: a favourable scenario where all or portion of the valuation adjustment is not considered by market participants, and an unfavourable scenario where market participants would require twice the amount of valuation adjustments considered by BNP Paribas for entering into a transaction.

In millions of euros	31 December 2022		31 December 2021	
	Potential impact on income	Potential impact on equity	Potential impact on income	Potential impact on equity
Debt securities	+/-8	+/-3	+/-7	+/-3
Equities and other equity securities	+/-56	+/-5	+/-48	+/-8
Loans and repurchase agreements	+/-42		+/-12	
Derivative financial instruments	+/-576		+/-588	
Interest rate and foreign exchange derivatives	*+/-227*		*+/-322*	
Credit derivatives	*+/-98*		*+/-35*	
Equity derivatives	*+/-245*		*+/-227*	
Other derivatives	*+/-6*		*+/-4*	
Sensitivity of Level 3 financial instruments	**+/-682**	**+/-8**	**+/-655**	**+/-11**

DEFERRED MARGIN ON FINANCIAL INSTRUMENTS MEASURED USING TECHNIQUES DEVELOPED INTERNALLY AND BASED ON INPUTS PARTLY UNOBSERVABLE IN ACTIVE MARKETS

Deferred margin on financial instruments ("Day One Profit") primarily concerns the scope of financial instruments eligible for Level 3 and to a lesser extent some financial instruments eligible for Level 2 where valuation adjustments for uncertainties regarding parameters or models are not negligible compared to the initial margin.

The Day One Profit is calculated after setting aside valuation adjustments for uncertainties as described previously and released to profit or loss over the expected period for which the inputs will be unobservable. The unamortised amount is included under "Financial instruments at fair value through profit or loss" as a reduction in the fair value of the relevant transactions.

In millions of euros	Deferred margin at 31 December 2021	Deferred margin on transactions during the period	Margin taken to the profit and loss account during the period	Deferred margin at 31 December 2022
Interest rate and foreign exchange derivatives	204	142	(152)	194
Credit derivatives	164	150	(140)	174
Equity derivatives	401	449	(424)	426
Other instruments	9	31	(30)	10
Financial instruments	**778**	**772**	**(746)**	**804**

4.e FINANCIAL ASSETS AT AMORTISED COST

- **Detail of loans and advances by nature**

In millions of euros	31 December 2022			31 December 2021		
	Gross value	Impairment (note 2.h)	Carrying amount	Gross value	Impairment (note 2.h)	Carrying amount
Loans and advances to credit institutions	**32,716**	**(100)**	**32,616**	**21,844**	**(93)**	**21,751**
On demand accounts	11,000	(8)	10,992	9,009	(8)	9,001
Loans[1]	15,767	(92)	15,675	10,635	(85)	10,550
Repurchase agreements	5,949		5,949	2,200		2,200
Loans and advances to customers	**875,301**	**(18,281)**	**857,020**	**833,935**	**(19,935)**	**814,000**
On demand accounts	42,963	(2,844)	40,119	52,488	(3,157)	49,331
Loans to customers	788,971	(14,354)	774,617	740,080	(15,658)	724,422
Finance leases	42,574	(1,083)	41,491	41,026	(1,120)	39,906
Repurchase agreements	793		793	341		341
Total loans and advances at amortised cost	**908,017**	**(18,381)**	**889,636**	**855,779**	**(20,028)**	**835,751**

[1] Loans and advances to credit institutions include term deposits made with central banks.

Contractual maturities of finance leases

In millions of euros	31 December 2022	31 December 2021
Gross investment	**45,602**	**43,823**
Receivable within 1 year	*13,278*	*12,276*
Receivable after 1 year but within 5 years	*28,068*	*27,399*
Receivable beyond 5 years	*4,256*	*4,148*
Unearned interest income	**(3,028)**	**(2,797)**
Net investment before impairment	**42,574**	**41,026**
Receivable within 1 year	*12,176*	*11,289*
Receivable after 1 year but within 5 years	*26,396*	*25,845*
Receivable beyond 5 years	*4,002*	*3,892*
Impairment provisions	**(1,083)**	**(1,120)**
Net investment after impairment	**41,491**	**39,906**

- **Detail of debt securities by type of issuer**

In millions of euros	31 December 2022 Gross value	31 December 2022 Impairment (note 2.h)	31 December 2022 Carrying amount	31 December 2021 Gross value	31 December 2021 Impairment (note 2.h)	31 December 2021 Carrying amount
Governments	59,961	(23)	59,938	57,221	(20)	57,201
Other public administration	15,686	(2)	15,684	17,317	(2)	17,315
Credit institutions	9,062	(2)	9,060	10,593	(2)	10,591
Others	29,435	(103)	29,332	23,547	(144)	23,403
Total debt securities at amortised cost	**114,144**	**(130)**	**114,014**	**108,678**	**(168)**	**108,510**

- **Detail of financial assets at amortised cost by stage**

In millions of euros	31 December 2022 Gross Value	31 December 2022 Impairment (note 2.h)	31 December 2022 Carrying amount	31 December 2021 Gross Value	31 December 2021 Impairment (note 2.h)	31 December 2021 Carrying amount
Loans and advances to credit institutions	**32,716**	**(100)**	**32,616**	**21,844**	**(93)**	**21,751**
Stage 1	32,439	(11)	32,428	21,516	(13)	21,503
Stage 2	191	(10)	181	242	(2)	240
Stage 3	86	(79)	7	86	(78)	8
Loans and advances to customers	**875,301**	**(18,281)**	**857,020**	**833,935**	**(19,935)**	**814,000**
Stage 1	761,930	(1,998)	759,932	701,259	(1,834)	699,425
Stage 2 [(1)]	88,095	(2,839)	85,256	104,857	(2,687)	102,170
Stage 3	25,276	(13,444)	11,832	27,819	(15,414)	12,405
Debt securities	**114,144**	**(130)**	**114,014**	**108,678**	**(168)**	**108,510**
Stage 1	113,602	(27)	113,575	108,006	(20)	107,986
Stage 2	387	(10)	377	412	(25)	387
Stage 3	155	(93)	62	260	(123)	137
Total financial assets at amortised cost	**1,022,161**	**(18,511)**	**1,003,650**	**964,457**	**(20,196)**	**944,261**

[(1)] The variation on loans classified as stage 2 is presented in note 2.h

4.f IMPAIRED FINANCIAL ASSETS (STAGE 3)

The following tables present the carrying amounts of impaired financial assets carried at amortised cost and of impaired financing and guarantee commitments, as well as related collateral and other guarantees.
The amounts shown for collateral and other guarantees correspond to the lower of the value of the collateral or other guarantee and the value of the secured assets.

In millions of euros	31 December 2022			
	Impaired financial assets (Stage 3)			Collateral received
	Gross value	Impairment	Net	
Loans and advances to credit institutions (note 4.e)	86	(79)	7	1
Loans and advances to customers (note 4.e)	25,276	(13,444)	11,832	7,651
Debt securities at amortised cost (note 4.e)	155	(93)	62	14
Total amortised-cost impaired assets (stage 3)	**25,517**	**(13,616)**	**11,901**	**7,666**
Financing commitments given	898	(73)	825	198
Guarantee commitments given	820	(243)	577	135
Total off-balance sheet impaired commitments (stage 3)	**1,718**	**(316)**	**1,402**	**333**

In millions of euros	31 December 2021			
	Impaired financial assets (Stage 3)			Collateral received
	Gross value	Impairment	Net	
Loans and advances to credit institutions (note 4.e)	86	(78)	8	1
Loans and advances to customers (note 4.e)	27,819	(15,414)	12,405	8,068
Debt securities at amortised cost (note 4.e)	260	(123)	137	25
Total amortised-cost impaired assets (stage 3)	**28,165**	**(15,615)**	**12,550**	**8,094**
Financing commitments given	1,088	(89)	999	65
Guarantee commitments given	833	(265)	568	192
Total off-balance sheet impaired commitments (stage 3)	**1,921**	**(354)**	**1,567**	**257**

The following table presents the changes in gross exposures of stage 3 assets (EU CR2):

Gross value In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Impaired exposures (Stage 3) at opening balance	**28,165**	**30,420**
Transfer to stage 3	6,125	6,432
Transfer to stage 1 or stage 2	(1,672)	(2,548)
Assets written off	(4,827)	(4,491)
Other changes	(2,274)	(1,648)
Impaired exposures (Stage 3) at closing balance	**25,517**	**28,165**

4.g Financial liabilities at amortised cost due to credit institutions and customers

In millions of euros	31 December 2022	31 December 2021
Deposits from credit institutions	**124,718**	**165,699**
On demand accounts	12,538	9,105
Interbank borrowings (1)	104,135	147,635
Repurchase agreements	8,045	8,959
Deposits from customers	**1,008,054**	**957,684**
On demand deposits	592,267	634,784
Savings accounts	162,354	158,932
Term accounts and short-term notes	253,210	163,429
Repurchase agreements	223	539

(1)Interbank borrowings from credit institutions include term borrowings from central banks, of which EUR 67 billion of TLTRO III at 31 December 2022 compared to EUR 120.1 billion at 31 December 2021 (see Note 2.a Net Interest Income).

4.h Debt securities and subordinated debt

This note covers all issued debt securities and subordinated debt measured at amortised cost and designated as at fair value through profit or loss.

- **Debt securities designated at fair value through profit or loss (note 4.a)**

Issuer / Issue date In millions of euros	Currency	Original amount in foreign currency (millions)	Date of call or interest step-up	Interest rate	Interest step-up	Conditions precedent for coupon payment (1)	31 December 2022	31 December 2021
Debt securities							**64,110**	**62,334**
Subordinated debt							**676**	**947**
- Redeemable subordinated debt			(2)				**16**	**41**
- Perpetual subordinated debt							**660**	**906**
BNP Paribas Fortis Dec. 2007(3)	EUR	3,000	Dec.-14	3-month Euribor +200 bp		A	660	906

(1) Conditions precedent for coupon payment:

A Coupon payments are halted should the issuer have insufficient capital or the underwriters become insolvent or when the dividend declared for Ageas shares falls below a certain threshold.

(2) After agreement from the banking supervisory authority and at the issuer's initiative, redeemable subordinated debt issues may contain a call provision authorising the Group to redeem the securities prior to maturity by repurchasing them in the stock market, via public tender offers, or in the case of private placements over the counter. Debt issued by BNP Paribas SA or foreign subsidiaries of the Group via placements in the international markets may be subject to early redemption of the capital and early payment of interest due at maturity at the issuer's discretion on or after a date stipulated in the issue particulars (call option), or in the event that changes in the applicable tax rules oblige the BNP Paribas Group issuer to compensate debt-holders for the consequences of such changes. Redemption may be subject to a notice period of between 15 and 60 days, and is in all cases subject to approval by the banking supervisory authorities.

(3) Convertible And Subordinated Hybrid Equity-linked Securities (CASHES) issued by BNP Paribas Fortis (previously Fortis Banque) in December 2007.
The CASHES are perpetual securities but may be exchanged for Ageas (previously Fortis SA/NV) shares at the holder's sole discretion at a price of EUR 239.40. However, as of 19 December 2014, the CASHES will be automatically exchanged into Ageas shares if their price is equal to or higher than EUR 359.10 for twenty consecutive trading days. The principal amount will never be redeemed in cash. The rights of the CASHES holders are limited to the Ageas shares held by BNP Paribas Fortis and pledged to them.
Ageas and BNP Paribas Fortis have entered into a Relative Performance Note (RPN) contract, the value of which varies contractually so as to offset the impact on BNP Paribas Fortis of the relative difference between changes in the value of the CASHES and changes in the value of the Ageas shares.
Since the 1st of January 2022, the liability is no longer eligible to prudential own funds.

- **Debt securities measured at amortised cost**

Issuer / Issue date In millions of euros	Currency	Original amount in foreign currency (millions)	Date of call or interest step-up	Interest rate	Interest step-up	Conditions precedent for coupon payment [1]	31 December 2022	31 December 2021
Debt securities							**154,143**	**149,723**
- Debt securities in issue with an initial maturity of less than one year							**58,042**	**47,293**
Negotiable debt securities							58,042	47,293
- Debt securities in issue with an initial maturity of more than one year							**96,101**	**102,430**
Negotiable debt securities							17,587	27,256
Bonds							78,514	75,174
Subordinated debt							**24,156**	**24,720**
- Redeemable subordinated debt			[2]				**22,419**	**23,000**
- Undated subordinated notes							**1,509**	**1,494**
BNP Paribas SA Oct. 85	EUR	305	-	TMO - 0.25%	-	B	254	254
BNP Paribas SA Sept. 86	USD	500	-	6 month- Libor + 0.075%	-	C	255	240
BNP Paribas Cardif Nov. 14	EUR	1,000	Nov. - 25	4.032%	3-month Euribor + 393 bp	D	1,000	1,000
- Participating notes							**222**	**222**
BNP Paribas SA July 84 [3]	EUR	337	-	[4]	-		215	215
Others							7	7
- Expenses and commission, related debt							**6**	**4**

[1] Conditions precedent for coupon payment

B Payment of the interest is mandatory, unless the Board of Directors decides to postpone these payments after the Shareholders' General Meeting has officially noted that there is no income available for distribution, where this occurs within the 12-month period preceding the due date for payment of the interest. Interest payments are cumulative and are payable in full once dividend payments resume.

C Payment of the interest is mandatory, unless the Board of Directors decides to postpone these payments after the Shareholders' General Meeting has validated the decision not to pay out a dividend, where this occurs within the 12-month period preceding the due date for payment of the interest. Interest payments are cumulative and are payable in full once dividend payments resume. The bank has the option of resuming payment of interest arrears, even where no dividend is paid out.

D Payment of the interest is mandatory, except for cases of regulatory deficiency, in agreement with the regulator, or of suspension of payments. Interest payments are cumulative and are payable in full, once coupon payments resume, or, if these events occur before, when the issuance is redeemed or when the issuer is liquidated.

[2] See reference relating to "Debt securities at fair value through profit or loss".

[3] The participating notes issued by BNP Paribas SA may be repurchased as provided for in the law of 3 January 1983. The number of notes in the market is 1,434,092.

[4] Depending on net income subject to a minimum of 85% of the TMO rate and a maximum of 130% of the TMO rate.

4.i Financial investments and other assets related to insurance activities

In millions of euros	31 December 2022			31 December 2021		
	Assets not representative of unit-linked insurance contracts	Assets representative of unit-linked insurance contracts *(financial risk supported by policyholders)*	Total	Assets not representative of unit-linked insurance contracts	Assets representative of unit-linked insurance contracts *(financial risk supported by policyholders)*	Total
Financial instruments designated as at fair value through profit or loss	44,317	79,648	123,965	50,940	87,108	138,048
Derivative financial instruments	1,675		1,675	1,033		1,033
Available-for-sale financial assets	104,961		104,961	127,413		127,413
Held-to-maturity financial assets	970		970	981		981
Loans and receivables	3,074		3,074	3,145		3,145
Equity-method investments	342		342	349		349
Investment property	2,855	4,402	7,257	2,875	4,354	7,229
Total	**158,194**	**84,050**	**242,244**	**186,736**	**91,462**	**278,198**
Reinsurers' share of technical reserves	2,277		2,277	2,568		2,568
Policyholders' surplus reserve – assets	2,882		2,882			
Financial investments and other assets related to insurance activities	**163,353**	**84,050**	**247,403**	**189,304**	**91,462**	**280,766**

Investments in financial instruments of insurance activities are accounted for according to IAS 39 principles.

The fair value of financial assets with contractual cash-flows corresponding only to payments of principal and interest on principal amounts to EUR 91.9 billion at 31 December 2022. It amounted to EUR 108.6 billion at 31 December 2021, which represents a variation of - EUR 16.7 billion over the period.

The fair value of other financial assets amounts to EUR 150.4 billion and corresponds to all financial instruments that do not meet the previously mentioned criteria, derivatives and financial assets managed on a market value basis. It amounted to EUR 170 billion at 31 December 2021, which represents a variation of - EUR 19.6 billion over the period.

The fair value of investment properties which are not representative of unit-linked insurance contracts accounted for at amortised cost amounts to EUR 4.2 billion at 31 December 2022, compared with EUR 4.4 billion at 31 December 2021.

- **Measurement of the fair value of financial instruments**

The criteria for allocating instruments to the levels of the fair value hierarchy, the corresponding valuation methodologies and the principles of transfer between the levels of the hierarchy for insurance investments are similar to those applied for the Group's other financial instruments (note 4.d).

In millions of euros	31 December 2022				31 December 2021			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Available-for-sale financial assets	**91,640**	**12,720**	**601**	**104,961**	**110,750**	**16,196**	**467**	**127,413**
Equity instruments	7,627	1,390	437	9,454	9,767	1,338	367	11,472
Debt securities	84,013	11,330	164	95,507	100,983	14,858	100	115,941
Financial instruments designated as at fair value through profit or loss	**70,018**	**41,471**	**12,476**	**123,965**	**86,497**	**43,486**	**8,065**	**138,048**
Equity instruments	69,439	32,669	12,452	114,560	85,749	34,660	8,037	128,446
Debt securities	579	8,802	24	9,405	748	8,826	28	9,602
Derivative financial instruments	**10**	**1,622**	**43**	**1,675**	**1**	**909**	**123**	**1,033**
Financial assets measured at fair value	**161,668**	**55,813**	**13,120**	**230,601**	**197,248**	**60,591**	**8,655**	**266,494**

Level 1: this level comprises equities and liquid bonds, derivative instruments traded on organised markets (futures, options, *etc.*), units of funds and UCITS for which the net asset value is calculated on a daily basis.

Level 2: this level comprises equities, certain government or corporate bonds, other fund units and UCITS and over-the-counter derivatives.

Level 3: this level consists mainly of fund units and shares which are not quoted on active markets, consisting mainly of units in venture capital companies and funds.

- **Table of movements in Level 3 financial instruments**

For Level 3 financial instruments, the following movements occurred during the period:

In millions of euros	Financial assets		
	Available-for-sale financial instruments	Financial instruments as at fair value through profit or loss	Total
At 31 December 2021	**467**	**8,188**	**8,655**
Purchases	290	3,701	3,991
Sales	(371)	(2,875)	(3,246)
Settlements	(16)	(393)	(409)
Transfers to Level 3	312	2,423	2,735
Transfers from Level 3	(80)	(41)	(121)
Gains recognised in profit or loss	5	1,509	1,514
Items related to exchange rate movements		8	8
Changes in fair value of assets and liabilities recognised in equity	(6)		(6)
At 31 December 2022	**601**	**12,519**	**13,120**

- **Details of available-for-sale financial assets**

In millions of euros	31 December 2022			31 December 2021		
	Balance sheet value	of which impairment	of which changes in value recognised directly in equity	Balance sheet value	of which impairment	of which changes in value recognised directly in equity
Debt securities	95,507		(11,744)	115,941		9,408
Equity instruments	9,454	(698)	2,041	11,472	(664)	3,257
Total available-for-sale financial assets	**104,961**	**(698)**	**(9,703)**	**127,413**	**(664)**	**12,665**

- **Fair value of financial instruments carried at amortised cost**

In millions of euros	31 December 2022					31 December 2021				
	Level 1	Level 2	Level 3	Total	Carrying value	Level 1	Level 2	Level 3	Total	Carrying value
Held-to-maturity financial assets	1,016			1,016	970	1,150			1,150	981
Loans and receivables		3,069	7	3,076	3,074		3,152	3	3,155	3,145

4.j TECHNICAL RESERVES AND OTHER INSURANCE LIABILITIES

In millions of euros	31 December 2022	31 December 2021
Technical reserves - Non-Life insurance contracts	**4,147**	**4,212**
Technical reserves - Life insurance contracts	**162,909**	**168,910**
- Insurance contracts	88,278	87,325
- Unit-linked contracts	74,631	81,585
Technical liabilities - investment contracts	**47,984**	**50,723**
- Investments contracts with discretionary participation feature	39,729	41,850
- Investment contracts without discretionary participation feature - Unit-linked contracts	8,255	8,873
Policyholders' surplus reserve - liability	**6,527**	**27,011**
Total technical reserves and liabilities related to insurance and investment contracts	**221,567**	**250,856**
Debts arising out of insurance and reinsurance operations	3,065	2,890
Derivative financial instruments	1,900	1,049
Total technical reserves and other insurance liabilities	**226,532**	**254,795**

The policyholders' surplus reserve arises from the application of shadow accounting. It represents the interest of policyholders, within life insurance subsidiaries in France, Luxembourg and Italy, in unrealised gains and losses and impairment losses on assets where the benefit paid under the policy is linked to the return on those assets. It is obtained from stochastic calculations modelling the unrealised gains and losses attributable to policyholders based on economic scenarios and assumptions as regards rates paid to customers and new business inflows. For France, this resulted in an average interest rate of 92% in 2022, unchanged from 2021.

The Liability Adequacy Test required by IFRS 4 and performed by contract portfolio consists of comparing reserves (net of deferred acquisition costs) with an evaluation of future discounted cash flows.
At 31 December 2022, this test confirms the absence of deficiency.

The change in technical reserves and liabilities related to insurance contracts breaks down as follows:

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Liabilities related to insurance contracts at start of period	**250,856**	**236,185**
Additions to insurance contract technical reserves and deposits taken on financial contracts related to life insurance	1,384	24,687
Claims and benefits paid	(20,495)	(18,721)
Effect of changes in value of admissible investments related to unit-linked contracts	(9,725)	8,242
Effect of movements in exchange rates	(341)	811
Effect of changes in the scope of consolidation	(112)	(348)
Liabilities related to insurance contracts at end of period	**221,567**	**250,856**

See note 4.i for details of reinsurers' share of technical reserves.

4.k CURRENT AND DEFERRED TAXES

In millions of euros	31 December 2022	31 December 2021
Current taxes	1,685	1,862
Deferred taxes	4,208	4,004
Current and deferred tax assets	**5,893**	**5,866**
Current taxes	2,042	1,787
Deferred taxes	1,012	1,316
Current and deferred tax liabilities	**3,054**	**3,103**

Change in deferred tax by nature over the period:

In millions of euros	31 December 2021	Changes recognised in profit or loss	Changes recognised in equity that may be reclassified to profit or loss	Changes recognised in equity that will not be reclassified to profit or loss	Effects of exchange rates, consolidation scope and other movements	31 December 2022
Financial instruments	(857)	(278)	1,434	(135)	19	183
Provisions for employee benefit obligations	738	(13)		39	(11)	753
Unrealised finance lease reserve	(481)	(89)			(7)	(577)
Credit risk impairment	2,705	(93)			20	2,632
Tax loss carryforwards	774	(221)			10	563
Other items	(191)	(126)			(41)	(358)
Net deferred taxes	**2,688**	**(820)**	**1,434**	**(96)**	**(10)**	**3,196**
Deferred tax assets	4,004					4,208
Deferred tax liabilities	(1,316)					(1,012)

In order to determine the amount of the tax loss carryforwards recognised as assets, the Group conducts every year a specific review for each relevant entity based on the applicable tax regime, notably incorporating any time limit rules, and a realistic projection of their future revenue and charges in line with their business plan.

Deferred tax assets recognised on tax loss carryforwards are mainly related to BNP Paribas Fortis for EUR 254 million at 31 December 2022, with a 3-year expected recovery period (unlimited carryforward period).

Unrecognised deferred tax assets totalled EUR 1,530 million at 31 December 2022 (of which EUR 1,336 million of tax loss carryforwards) compared with EUR 1,408 million at 31 December 2021 (of which EUR 1,234 million of tax loss carryforwards).

4.l ACCRUED INCOME/EXPENSE AND OTHER ASSETS/LIABILITIES

In millions of euros	31 December 2022	31 December 2021
Guarantee deposits and bank guarantees paid	155,199	136,142
Collection accounts	282	242
Accrued income and prepaid expenses	7,030	4,617
Other debtors and miscellaneous assets	46,581	38,122
Total accrued income and other assets	**209,092**	**179,123**
Guarantee deposits received	124,047	101,923
Collection accounts	2,907	2,870
Accrued expense and deferred income	10,874	7,739
Lease liabilities	3,075	3,248
Other creditors and miscellaneous liabilities	44,553	29,619
Total accrued expense and other liabilities	**185,456**	**145,399**

4.m EQUITY-METHOD INVESTMENTS

Cumulated financial information of associates and joint ventures is presented in the following table:

In millions of euros	Year to 31 Dec. 2022			31 December 2022	Year to 31 Dec. 2021			31 December 2021
	Share of net income	*Share of changes in assets and liabilities recognised directly in equity*	Share of net income and changes in assets and liabilities recognised directly in equity	Equity-method investments	*Share of net income*	*Share of changes in assets and liabilities recognised directly in equity*	Share of net income and changes in assets and liabilities recognised directly in equity	Equity-method investments
Joint ventures	*34*	*130*	164	1,447	*5*	*128*	133	1,022
Associates [(1)]	*665*	*(990)*	(325)	4,816	*489*	*184*	673	5,506
Total equity-method entities	***699***	***(860)***	**(161)**	**6,263**	***494***	***312***	**806**	**6,528**

[(1)] Including controlled but nonmaterial entities consolidated under the equity method.

Financing and guarantee commitments given by the Group to joint ventures are listed in the note 7.j Other related parties.

The carrying amount of the Group's investment in the main joint ventures and associates is presented in the following table:

In millions of euros	Country of registration	Activity	Interest (%)	31 December 2022	31 December 2021
Joint ventures					
bpost banque [(1)]	Belgium	Retail banking	100%	-	111
Union de Creditos Inmobiliarios	Spain	Retail mortgage	50%	327	203
BoB Cardif Life Insurance	China	Life Insurance	50%	232	231
BNPP Cardif TCB Life Insurance	Taiwan	Life Insurance	49%	161	214
Associates					
AG Insurance	Belgium	Insurance	25%	597	1,704
Bank of Nanjing	China	Retail banking	14%	2,757	2,306
Allfunds Group Plc	United Kingdom	Financial Services	12%	318	370

(1) On 3 January 2022, the Group BNP Paribas took exclusive control of bpost banque.

4.n PROPERTY, PLANT, EQUIPMENT AND INTANGIBLE ASSETS USED IN OPERATIONS, INVESTMENT PROPERTY

In millions of euros	31 December 2022			31 December 2021		
	Gross value	Accumulated depreciation, amortisation and impairment	Carrying amount	Gross value	Accumulated depreciation, amortisation and impairment	Carrying amount
Investment property	**827**	**(298)**	**529**	**869**	**(294)**	**575**
Land and buildings	11,507	(4,704)	6,803	12,023	(4,817)	7,206
Equipment, furniture and fixtures	7,177	(5,400)	1,777	7,172	(5,312)	1,860
Plant and equipment leased as lessor under operating leases	38,817	(10,658)	28,159	33,890	(9,285)	24,605
Other property, plant and equipment	2,318	(1,118)	1,200	1,932	(1,095)	837
Property, plant and equipment	**59,819**	**(21,880)**	**37,939**	**55,017**	**(20,509)**	**34,508**
Of which right of use	*6,000*	*(3,294)*	*2,706*	*6,117*	*(3,314)*	*2,803*
Property, plant and equipment and investment property	**60,646**	**(22,178)**	**38,468**	**55,886**	**(20,803)**	**35,083**
Purchased software	3,690	(3,035)	655	3,303	(2,651)	652
Internally developed software	6,345	(5,000)	1,345	5,995	(4,657)	1,338
Other intangible assets	2,367	(577)	1,790	2,157	(488)	1,669
Intangible assets	**12,402**	**(8,612)**	**3,790**	**11,455**	**(7,796)**	**3,659**

- **Investment property**

Land and buildings leased by the Group as lessor under operating leases are recorded in “Investment property”.

The estimated fair value of investment property accounted for at amortised cost at 31 December 2022 is EUR 680 million, compared with EUR 736 million at 31 December 2021.

- **Operating leases**

Operating leases and investment property transactions are in certain cases subject to agreements providing for the following minimum future payments:

In millions of euros	31 December 2022	31 December 2021
Future minimum lease payments receivable under non-cancellable leases	**8,221**	**7,757**
Payments receivable within 1 year	*3,613*	*3,364*
Payments receivable after 1 year but within 5 years	*4,582*	*4,341*
Payments receivable beyond 5 years	*26*	*52*

Future minimum lease payments receivable under non-cancellable leases are payments that the lessee is required to make during the lease term.

- **Intangible assets**

Other intangible assets include leasehold rights, goodwill and trademarks acquired by the Group.

- **Amortisation and provision**

Net depreciation and amortisation expense for the year ended 31 December 2022 was EUR 2,376 million, compared with EUR 2,336 million for the year ended 31 December 2021.

The net increase in impairment on property, plant, equipment and intangible assets taken to the profit and loss account for the year ended 31 December 2022 amounted to EUR 18 million, compared with EUR 8 million for the year ended 31 December 2021.

4.o GOODWILL

In millions of euros	31 December 2022	31 December 2021
Carrying amount at start of period	**5,121**	**7,493**
Acquisitions	215	47
Divestments	(15)	(90)
Impairment recognised during the period	(28)	(26)
Transfer to assets held for sale (note 7.d)		(2,533)
Exchange rate adjustments	1	230
Carrying amount at end of period	**5,294**	**5,121**
Gross value	8,413	8,350
Accumulated impairment recognised at the end of period	(3,119)	(3,229)

Goodwill by cash-generating unit is as follows:

In millions of euros	Carrying amount		Recognised impairment		Acquisitions	
	31 December 2022	31 December 2021	Year to 31 Dec. 2022	Year to 31 Dec. 2021	31 December 2022	31 December 2021
Corporate & Institutional Banking	**1,215**	**1,210**				
Global Banking	*279*	*276*				
Global Markets	*490*	*478*				
Securities Services	*446*	*456*				
Commercial, Personal Banking & Services	**2,894**	**2,704**	**(19)**	**(26)**	**215**	**32**
Arval	*608*	*523*			*96*	*1*
Leasing Solutions	*148*	*150*				
Personal Finance	*1,291*	*1,236*	*(19)*		*61*	
Personal Investors	*564*	*568*		*(26)*		
New Digital Businesses	*220*	*159*			*61*	
Autres	*63*	*68*			*(3)*	*31*
Investment & Protection Services	**1,182**	**1,204**	**(9)**		**-**	**15**
Asset Management	*190*	*186*				
Insurance	*281*	*296*				
Real Estate	*402*	*406*				
Wealth Management	*309*	*316*	*(9)*			*15*
Other Activities	**3**	**3**				
Total goodwill	**5,294**	**5,121**	**(28)**	**(26)**	**215**	**47**
Negative goodwill			277	117		
Change in value of goodwill recognised in the profit and loss account			**249**	**91**		

The Group carried out a detailed analysis of goodwill to identify whether impairments were necessary in connection with the health crisis.

This analysis is based in particular on the assumptions of economic scenarios (see note 2.h).

The cash-generating units to which goodwill is allocated are:

Global Banking: Global Banking combines financing solutions to corporates, all transaction banking products, corporate finance advisory services in mergers and acquisitions and primary equity activities.

Global Markets: Global Markets provides investment, hedging, financing and research services across asset classes, to corporate and institutional clients – as well as private and retail banking networks. The sustainable, long-term business model of Global Markets connects clients to capital markets throughout EMEA (Europe, Middle East & Africa), Asia Pacific and the Americas, with innovative solutions and digital platforms. Global Markets includes activities of Fixed Income, Currencies & Commodities and Equity & Prime Services.

Securities Services: Securities Services provides integrated solutions for all actors involved in the investment cycle, sell side, buy side and issuers. BNP Paribas is one of the major global players in securities services.

Arval: Specialist in vehicle long-term leasing and mobility, Arval offers corporates (from multinational companies to small and medium companies), employees and individuals tailored solutions that optimise their mobility.

Leasing Solutions: BNP Paribas Leasing Solutions uses a multi-channel partnership approach (sales *via* referrals, partnerships, direct sales and banking networks) to offer corporate and small business clients an array of leasing and rental solutions, ranging from equipment financing to fleet outsourcing.

Personal Finance: BNP Paribas Personal Finance is the Group's consumer credit specialist. Through its brands and partnerships such as Cetelem, Cofinoga, Findomestic, AlphaCredit or Opel Vauxhall, Personal Finance provides a full range of consumer loans at point of sale (retail stores and car dealerships) or through its customer relation centres and websites and mobile applications. The business line, in some countries outside the domestic markets, is integrated into the BNP Paribas group's retail banking.

Personal Investors: BNP Paribas Personal Investors is a digital specialist of banking and investment services. Based in Germany and India, it provides a wide range of banking, savings and long and short-term investment services to individual clients via the internet, and also on the phone and face-to-face. In addition to its activities destined to private clients, Personal Investors offers its services and IT platform to independent financial consultants, asset managers and FinTechs.

New digital businesses: they include in particular the account management service "Nickel", open to all, without any conditions regarding income, deposits or personal wealth, and without any overdraft or credit facility. This service, which operates in real time using the latest technology, is available through over 9,000 points of sale in France, Spain, Belgium and Portugal.

BancWest: In the United States, the Retail Banking business is conducted through Bank of the West, which markets a very broad range of retail banking products and services to individuals, small businesses and corporate clients, through branches and offices in 24 States, mainly in western and mid-western America. It also has strong positions across the USA in several specialised lending activities, such as marine, recreational vehicles and agribusiness, and develops its commercial set up particularly in Corporate Banking, Wealth Management, and Small and Medium Enterprise businesses.

On 18 December 2021, the Group concluded an agreement with BMO Financial Group for the sale of its retail and commercial banking activities in the United States operated by BancWest for a total price of USD 16.3 billion to be paid in cash at the time of the transaction.

The Group applies the provisions of IFRS 5 on groups of assets and liabilities held for sale, leading to the reclassification of the goodwill into "Assets held for sale" (see note 7.d).

Asset Management: BNP Paribas Asset Management is the dedicated asset management business line of the BNP Paribas Group and offers services to individual investors (through internal distributors – BNP Paribas private and retail banking – and external distributors), to corporates and to institutional investors (insurance companies, retirement funds, official institutions, consultants). Its aim is to offer an added value based on a broad range of expertise throughout its active management of equities and bonds, its activity of private debt and real assets management and its multi-asset, quantitative and solutions division.

Insurance: BNP Paribas Cardif, a world leader in personal insurance, has designed, developed and marketed savings and protection products and services to protect individuals, their projects and their assets. BNP Paribas Cardif also offer products in damage insurance, health insurance, budget insurance, revenue and means of payment insurance, unexpected event protection (unemployment, accident, death, theft or breakage) or the protection of private digital data to meet the evolution of customers' needs.

Real Estate: BNP Paribas Real Estate serves the needs of its clients, whether institutional investors, corporates, public entities or individuals, at all stages of the life cycle of their property (from the conception of a construction project to its daily management).

Wealth Management: Wealth Management encompasses the private banking activities of BNP Paribas and serves a clientele of wealthy individuals, shareholder families and entrepreneurs seeking a one-stop shop for all their wealth management and financial needs.

Goodwill impairment tests are based on three different methods: observation of transactions related to comparable businesses, share price data for listed companies with comparable businesses, and discounted future cash flows (DCF).

If one of the two comparables-based methods indicates the need for impairment, the DCF method is used to validate the results and determine the amount of impairment required.

The DCF method is based on a number of assumptions in terms of future revenues, expenses and cost of risk (cash flows) based on medium-term business plans over a period of five years. Cash flow projections beyond the 5-year forecast period are based on a growth rate to perpetuity and are normalised when the short-term environment does not reflect the normal conditions of the economic cycle.

The key parameters which are sensitive to the assumptions made are the cost of capital, the cost/income ratio, the cost of risk and the growth rate to perpetuity.

Cost of capital is determined on the basis of a risk-free rate, an observed market risk premium weighted by a risk factor based on comparables specific to each cash-generating unit. The values of these parameters are obtained from external information sources.

Allocated capital is determined for each cash-generating unit based on the “Common Equity Tier One” regulatory requirements for the legal entity to which the cash-generating unit belongs, with a minimum of 7%.

The growth rate to perpetuity used is 2% for mature economies in Europe. For CGUs implemented in countries with high levels of inflation, a specific add-on is taken into account (calculated according to inflation rates disclosed by external sources).

The following table shows the sensitivity of the valuation of the Personal Finance cash generating unit to changes in the value of parameters used in the DCF calculation: the cost of capital, the cost/income ratio in terminal value, the cost of risk in terminal value and the growth rate to perpetuity.

- **Sensitivity of the main goodwill valuations to a 10-basis point change in the cost of capital, a 1% change in the cost/income ratio in terminal value, a 5 % change of the cost of risk in terminal value and a 50-basis point change in the growth rate to perpetuity**

In millions of euros	Personal Finance
Cost of capital	**10.8%**
Adverse change (+10 basis points)	(159)
Positive change (- 10 basis points)	162
Cost/income ratio	**47.8%**
Adverse change (+ 1 %)	(351)
Positive change (-1 %)	351
Cost of risk	**(1,503)**
Adverse change (+ 5 %)	(408)
Positive change (- 5 %)	408
Growth rate to perpetuity	**2.0%**
Adverse change (-50 basis points)	(257)
Positive change (+50 basis points)	288

Concerning the homogeneous Personal Finance set, there would be no need to depreciate even by using, for the impairment test, the four most unfavourable variations in the table.

4.p PROVISIONS FOR CONTINGENCIES AND CHARGES

• Provisions for contingencies and charges by type

In millions of euros	31 December 2021	Net additions to provisions	Provisions used	Changes in value recognised directly in equity	Effect of movements in exchange rates and other movements	31 December 2022
Provisions for employee benefits	6,532	1,256	(1,254)	(640)	223	6,117
of which post-employment benefits *(note 6.b)*	3,727	235	(369)	(604)	171	3,160
of which post-employment healthcare benefits *(note 6.b)*	115	7	(2)	(37)		83
of which provision for other long-term benefits *(note 6.c)*	1,364	498	(345)		29	1,546
of which provision for voluntary departure, early retirement plans, and headcount adaptation plan *(note 6.d)*	355	18	(113)		10	270
of which provision for share-based payments *(note 6.e)*	970	498	(423)		14	1,059
Provisions for home savings accounts and plans	93	(46)				47
Provisions for credit commitments *(note 2.h)*	1,425	70	(71)		6	1,430
Provisions for litigations	992	369	(215)		26	1,172
Other provisions for contingencies and charges	1,145	228	(128)		29	1,274
Total provisions for contingencies and charges	**10,187**	**1,877**	**(1,668)**	**(640)**	**284**	**10,040**

• Provisions and discount for home savings accounts and plans

In millions of euros	31 December 2022	31 December 2021
Deposits collected under home savings accounts and plans	**16,547**	**17,378**
of which deposits collected under home savings plans	14,409	15,239
Aged more than 10 years	*6,332*	*5,652*
Aged between 4 and 10 years	*7,227*	*8,108*
Aged less than 4 years	*850*	*1,479*
Outstanding loans granted under home savings accounts and plans	**10**	**23**
of which loans granted under home savings plans	2	4
Provisions and discount recognised for home savings accounts and plans	**47**	**93**
provisions recognised for home savings plans	42	93
provisions recognised for home savings accounts	5	-
discount recognised for home savings accounts and plans	-	-

4.q OFFSETTING OF FINANCIAL ASSETS AND LIABILITIES

The following tables present the amounts of financial assets and liabilities before and after offsetting. This information, required by IFRS 7, aims to enable the comparability with the accounting treatment applicable in accordance with generally accepted accounting principles in the United States (US GAAP), which are less restrictive than IAS 32 as regards offsetting.

"Amounts set off on the balance sheet" have been determined according to IAS 32. Thus, a financial asset and a financial liability are offset and the net amount presented on the balance sheet when, and only when, the Group has a legally enforceable right to set off the recognised amounts and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously. Amounts set off derive mainly from repurchase agreements and derivative instruments traded with clearing houses.

The "impacts of master netting agreements and similar agreements" are relative to outstanding amounts of transactions within an enforceable agreement, which do not meet the offsetting criteria defined by IAS 32. This is the case of transactions for which offsetting can only be performed in case of default, insolvency or bankruptcy of one of the contracting parties.

"Financial instruments given or received as collateral" include guarantee deposits and securities collateral recognised at fair value. These guarantees can only be exercised in case of default, insolvency or bankruptcy of one of the contracting parties.

Regarding master netting agreements, the guarantee deposits received or given in compensation for the positive or negative fair values of financial instruments are recognised in the balance sheet in accrued income or expenses and other assets or liabilities.

In millions of euros, at 31 December 2022	Gross amounts of financial assets	Gross amounts set off on the balance sheet	Net amounts presented on the balance sheet	Impact of Master Netting Agreements (MNA) and similar agreements	Financial instruments received as collateral	Net amounts
Assets						
Financial instruments at fair value through profit or loss						
Securities	166,077		166,077			166,077
Loans and repurchase agreements	334,401	(143,276)	191,125	(27,377)	(147,368)	16,380
Derivative financial instruments (including derivatives used for hedging purposes)	980,161	(626,829)	353,333	(228,379)	(64,980)	59,974
Financial assets at amortised cost	1,003,650		1,003,650	(966)	(5,198)	997,486
of which repurchase agreements	*6,742*		*6,742*	*(966)*	*(5,198)*	*578*
Accrued income and other assets	209,092		209,092		(44,982)	164,110
of which guarantee deposits paid	*155,199*		*155,199*		*(44,982)*	*110,217*
Other assets not subject to offsetting	743,099		743,099			743,099
TOTAL ASSETS	**3,436,480**	**(770,105)**	**2,666,376**	**(256,722)**	**(262,528)**	**2,147,126**

In millions of euros, at 31 December 2022	Gross amounts of financial liabilities	Gross amounts set off on the balance sheet	Net amounts presented on the balance sheet	Impact of Master Netting Agreements (MNA) and similar agreements	Financial instruments given as collateral	Net amounts
Liabilities						
Financial instruments at fair value through profit or loss						
Securities	99,155		99,155			99,155
Deposits and repurchase agreements	377,352	(143,276)	234,076	(27,376)	(184,013)	22,687
Issued debt securities	70,460		70,460			70,460
Derivative financial instruments (including derivatives used for hedging purposes)	966,951	(626,829)	340,122	(228,379)	(44,335)	67,408
Financial liabilities at amortised cost	1,132,772		1,132,772	(967)	(6,500)	1,125,305
of which repurchase agreements	*8,268*		*8,268*	*(967)*	*(6,500)*	*801*
Accrued expense and other liabilities	185,456		185,456		(57,443)	128,013
of which guarantee deposits received	*124,047*		*124,047*		*(57,443)*	*66,604*
Other liabilities not subject to offsetting	477,780		477,780			477,780
TOTAL LIABILITIES	**3,309,926**	**(770,105)**	**2,539,821**	**(256,722)**	**(292,291)**	**1,990,808**

In millions of euros, at 31 December 2021	Gross amounts of financial assets	Gross amounts set off on the balance sheet	Net amounts presented on the balance sheet	Impact of Master Netting Agreements (MNA) and similar agreements	Financial instruments received as collateral	Net amounts
Assets						
Financial instruments at fair value through profit or loss						
Securities	191,507		191,507			191,507
Loans and repurchase agreements	398,413	(148,605)	249,808	(34,906)	(194,920)	19,982
Derivative financial instruments (including derivatives used for hedging purposes)	711,002	(461,899)	249,103	(159,997)	(32,435)	56,671
Financial assets at amortised cost	944,261		944,261	(355)	(1,983)	941,923
of which repurchase agreements	*2,541*		*2,541*	*(355)*	*(1,983)*	*203*
Accrued income and other assets	179,123		179,123		(31,945)	147,178
of which guarantee deposits paid	*136,142*		*136,142*		*(31,945)*	*104,197*
Other assets not subject to offsetting	820,642		820,642			820,642
TOTAL ASSETS	**3,244,948**	**(610,504)**	**2,634,444**	**(195,258)**	**(261,283)**	**2,177,903**

In millions of euros, at 31 December 2021	Gross amounts of financial liabilities	Gross amounts set off on the balance sheet	Net amounts presented on the balance sheet	Impact of Master Netting Agreements (MNA) and similar agreements	Financial instruments given as collateral	Net amounts
Liabilities						
Financial instruments at fair value through profit or loss						
Securities	112,338		112,338			112,338
Deposits and repurchase agreements	442,061	(148,605)	293,456	(34,156)	(241,481)	17,819
Issued debt securities	70,383		70,383			70,383
Derivative financial instruments (including derivatives used for hedging purposes)	709,373	(461,899)	247,474	(159,997)	(34,076)	53,401
Financial liabilities at amortised cost	1,123,383		1,123,383	(1,105)	(7,816)	1,114,462
of which repurchase agreements	*9,498*		*9,498*	*(1,105)*	*(7,816)*	*577*
Accrued expense and other liabilities	145,399		145,399		(30,655)	114,744
of which guarantee deposits received	*101,923*		*101,923*		*(30,655)*	*71,268*
Other liabilities not subject to offsetting	519,504		519,504			519,504
TOTAL LIABILITIES	**3,122,441**	**(610,504)**	**2,511,937**	**(195,258)**	**(314,028)**	**2,002,651**

4.r TRANSFERS OF FINANCIAL ASSETS

Financial assets that have been transferred but not derecognised by the Group are mainly composed of securities sold temporarily under repurchase agreements or securities lending transactions, as well as securitised assets. The liabilities associated to securities temporarily sold under repurchase agreements consist of debts recognised under the "repurchase agreements" heading. The liabilities associated to securitised assets consist of the securitisation notes purchased by third parties.

- **Securities lending, repurchase agreements and other transactions:**

	31 December 2022		31 December 2021	
In millions of euros, at	Carrying amount of transferred assets	Carrying amount of associated liabilities	Carrying amount of transferred assets	Carrying amount of associated liabilities
Securities lending operations				
Financial instruments at fair value through profit or loss	6,274		7,382	
Financial assets at amortised cost	1,410		1,613	
Financial assets at fair value through equity	75		317	
Repurchase agreements				
Financial instruments at fair value through profit or loss	33,550	33,547	28,413	28,413
Financial assets at amortised cost	6,311	6,287	6,437	6,437
Financial assets at fair value through equity	459	459	1,524	1,524
Financial investments of insurance activities	6,312	6,895	6,180	6,226
Total	**54,391**	**47,188**	**51,866**	**42,600**

- **Securitisation transactions partially refinanced by external investors, whose recourse is limited to the transferred assets:**

In millions of euros, at 31 December 2022	Carrying amount of transferred assets	Carrying amount of associated liabilities	Fair value of transferred assets	Fair value of associated liabilities	Net position
Securitisation					
Financial assets at amortised cost	24,126	23,326	24,164	22,112	2,052
Total	**24,126**	**23,326**	**24,164**	**22,112**	**2,052**

In millions of euros, at 31 December 2021	Carrying amount of transferred assets	Carrying amount of associated liabilities	Fair value of transferred assets	Fair value of associated liabilities	Net position
Securitisation					
Financial assets at amortised cost	19,129	17,747	19,134	17,748	1,386
Total	**19,129**	**17,747**	**19,134**	**17,748**	**1,386**

There have been no significant transfers leading to partial or full derecognition of the financial assets in which the Bank has a continuing involvement.

5. FINANCING AND GUARANTEE COMMITMENTS

5.a FINANCING COMMITMENTS GIVEN OR RECEIVED

Contractual value of financing commitments given and received by the Group:

In millions of euros, at	31 December 2022	31 December 2021
Financing commitments given		
- to credit institutions	**4,235**	**3,501**
- to customers	**382,746**	**362,902**
Confirmed financing commitments	347,650	328,741
Other commitments given to customers	35,096	34,161
Total financing commitments given	**386,981**	**366,403**
of which stage 1	*343,339*	*321,368*
of which stage 2	*18,745*	*22,529*
of which stage 3	*898*	*1,088*
of which insurance activities	*1,477*	*1,810*
of which financing commitments given associated with assets held for sale	*22,522*	*19,608*
Financing commitments received		
- from credit institutions	**66,554**	**38,708**
- from customers	**2,221**	**6,729**
Total financing commitments received	**68,775**	**45,437**
of which financing commitments received associated with assets held for sale	*9,272*	*8,711*

5.b GUARANTEE COMMITMENTS GIVEN BY SIGNATURE

In millions of euros, at	31 December 2022	31 December 2021
Guarantee commitments given		
- to credit institutions	**60,357**	**30,221**
- to customers	**118,427**	**141,074**
Property guarantees	2,285	2,474
Sureties provided to tax and other authorities, other sureties	65,294	64,571
Other guarantees	50,848	74,029
Total guarantee commitments given	**178,784**	**171,295**
of which stage 1	*165,549*	*159,247*
of which stage 2	*12,120*	*10,953*
of which stage 3	*820*	*833*
of which insurance activities	*295*	*262*
of which guarantee commitments given associated with assets held for sale	-	-

5.c SECURITIES COMMITMENTS

In connection with the settlement date accounting for securities, commitments representing securities to be delivered or securities to be received are the following:

In millions of euros	31 December 2022	31 December 2021
Securities to be delivered	17,325	11,608
Securities to be received	17,263	10,604

5.d OTHER GUARANTEE COMMITMENTS

- **Financial instruments given as collateral**

In millions of euros	31 December 2022	31 December 2021
Financial instruments (negotiable securities and private receivables) lodged with central banks and eligible for use at any time as collateral for refinancing transactions after haircut	**132,938**	**158,111**
- Used as collateral with central banks	67,792	120,777
- Available for refinancing transactions	65,146	37,334
Securities sold under repurchase agreements	**371,552**	**457,168**
Other financial assets pledged as collateral for transactions with credit institutions, financial customers or subscribers of covered bonds issued by the Group[1]	**239,761**	**231,877**

[1] Notably including "Société de Financement de l'Économie Française" and "Caisse de Refinancement de l'Habitat" financing.

The fair value of financial instruments given as collateral or transferred under repurchase agreements by the Group that the beneficiary is authorised to sell or reuse as collateral amounted to EUR 523,321 million at 31 December 2022 (EUR 610,170 million at 31 December 2021).

- **Financial instruments received as collateral**

In millions of euros	31 December 2022	31 December 2021
Financial instruments received as collateral (excluding repurchase agreements)	**326,198**	**212,910**
of which instruments that the Group is authorised to sell and reuse as collateral	*192,274*	*99,407*
Securities received under repurchase agreements	**336,799**	**418,435**

The fair value of financial instruments received as collateral or under repurchase agreements that the Group effectively sold or reused as collateral amounted to EUR 307,886 million at 31 December 2022 (compared with EUR 328,084 million at 31 December 2021).

6. SALARIES AND EMPLOYEE BENEFITS

6.a SALARY AND EMPLOYEE BENEFIT EXPENSE

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Fixed and variable remuneration, incentive bonuses and profit-sharing	13,484	12,379
Employee benefit expense	3,627	3,508
Payroll taxes	494	530
Total salary and employee benefit expense	**17,605**	**16,417**

6.b POST-EMPLOYMENT BENEFITS

IAS 19 distinguishes between two categories of plans, each handled differently depending on the risk incurred by the entity. When the entity is only committed to paying a fixed amount, stated as a percentage of the beneficiary's annual salary, for example, to an external entity handling payment of the benefits based on the assets available for each plan member, it is described as a defined-contribution plan. Conversely, when the entity's obligation is to manage the financial assets funded through the collection of contributions from employees and to bear the cost of benefits itself or to guarantee the final amount subject to future events, it is described as a defined-benefit plan. The same applies, if the entity entrusts management of the collection of premiums and payment of benefits to a separate entity, but retains the risk arising from management of the assets and/or from future changes in the benefits.

- **Main Defined-contribution pension plans for Group entities**

The BNP Paribas Group has implemented over the past few years a wide campaign of converting defined-benefit plans into defined-contribution plans.

Thus, in France, the BNP Paribas Group pays contributions to various nationwide basic and top-up pension schemes. BNP Paribas SA and certain subsidiaries have set up a funded pension plan under a company-wide agreement. Under this plan, employees will receive an annuity on retirement in addition to the pension paid by nationwide schemes.

Since defined-benefit plans have been closed to new employees in most countries outside France, they are offered the benefit of joining defined-contribution pension plans.

The amount paid into defined-contribution post-employment plans for the year ended 31 December 2022 was EUR 720 million, compared with EUR 670 million for the year ended 31 December 2021.

The breakdown by major contributors is determined as follows:

Contribution amount In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
France	353	349
Italy	90	94
UK	64	56
Türkiye	26	25
Hong Kong	26	22
Luxembourg	28	22
USA	25	11
Others	108	91
TOTAL	**720**	**670**

In Italy, the plan introduced by BNL is funded by employer contributions (4.2% of salaries) and employee contributions (2% of salaries). Employees can also make additional voluntary contributions.

In the United Kingdom, the employer contributes 12% of salaries for the majority of employees; employees can make additional voluntary contributions.

In the US, the bank matches the voluntary contributions made by employees, within certain limits.

- **Main defined-benefit pension plans for Group entities and indemnities payable on retirement**

- Defined-benefit plans

In Belgium, BNP Paribas Fortis funds a defined-benefit plan, based on final salary and number of years of service, for its management and employees who joined the bank before its pension plans were harmonised on 1 January 2002. Actuarial liabilities under this scheme are pre-funded at 88% at 31 December 2022 (compared with 93% at 31 December 2021) through AG Insurance, in which the BNP Paribas Group owns a 25% equity interest.

BNP Paribas Fortis senior managers are covered by a top-up pension plan, paying a lump sum based on the number of years of service and final salary. This plan is pre-funded at 90% at 31 December 2022 (100% at 31 December 2021) through insurance companies.

In Belgium, employees benefit from a defined-contribution scheme with a legal obligation for the employer to guarantee a minimum return on financial assets invested. Thus, a provision was recognised for these schemes, as this guarantee is not entirely covered by the insurance company.

In France, BNP Paribas pays a top-up banking industry pension arising from rights acquired to 31 December 1993 by retired employees and active employees in service at that date. At 31 December 2022, the Group's residual obligations for these employees were recognised on the balance sheet in full.

The defined-benefit plans previously granted to some Group senior managers have all been closed to new employees and converted into top-up type schemes. The amounts allocated to residual beneficiaries, subject to their presence within the Group at retirement, were fixed when these schemes were closed. At 31 December 2022, these pension plans were funded at 221% through insurance companies (148% at 31 December 2021).

In the United Kingdom, defined-benefit pension plans (pension funds) still exist but are closed to new employees. Under these plans, the defined pension is generally based on final salary and number of years of service. Pension schemes are managed by independent management bodies (Trustees). At 31 December 2022, obligations for all UK entities were 125% covered by financial assets, compared with 127% at 31 December 2021.

In Switzerland, liabilities relate to top-up pension plans based on the principle of defined-contribution schemes with guaranteed returns, paying an annuity under pre-defined terms. These schemes are managed by a foundation. At 31 December 2022, obligations were 121% covered by financial assets, compared with 102% at 31 December 2021.

In the United States, defined-benefit pension plans are based on annual vesting rights to a lump sum comprising a pension expressed as a percentage of annual salary and paying interest at a pre-defined rate. These plans are closed to new entrants and have offered almost no new vesting rights. At 31 December 2022, the obligation was 85% covered by financial assets, (95% at 31 December 2021).

In Germany, liabilities are mainly related to defined-benefit pension plans, closed to new employees. Under these plans, the defined pension is generally based on the number of years of service and final salary. They offer the payment of an annuity under pre-defined terms. At 31 December 2022, the obligation was 70% covered by financial assets, (55% at 31 December 2021).

In Türkiye, the main pension plan replaces the national pension scheme and should eventually be transferred to the Turkish State. This plan offers guarantees exceeding the minimal legal requirements. At the end of 2022, obligations under this plan are fully funded by financial assets held with an external foundation; these financial assets exceeding the related obligations, this surplus is not recognised as an asset by the Group.

- Other post-employment benefits

Group employees also receive various other contractual post-employment benefits, such as indemnities payable on retirement, determined according to minimal legal requirements (Labour Code, collective agreements) or according to specific company-level agreements.

In France, the obligations for these benefits are funded through a contract held with a third-party insurer. At 31 December 2022, this obligation was 132% covered by financial assets, compared with 108% at 31 December 2021.

In May 2021, IFRIC issued its decision on the method of assessing the liability to be recognised under certain post-employment benefit plans.

This decision modifies the measurement of the obligations of the Group's French entities relating to indemnities payable on retirement, whose fee schedule is either capped in terms of total length of service, or composed of steps of incremental rights, or both, by specifying the timing of recording of the corresponding costs.

Its implementation led, at 1 January 2021, to a decrease in the present value of the gross obligation of EUR 96 million, recognised as an increase in reserves for an after-tax amount of EUR 74 million.

In other countries, the obligations of the Group related to other post-employment benefits are mainly concentrated in Italy, where vested rights up to 31 December 2006 were frozen.

- **Obligations under defined-benefit pension plans and indemnities payable on retirement**

\- Assets and liabilities recognised on the balance sheet

In millions of euros, at 31 December 2022	*Defined-benefit obligation arising from wholly or partially funded plans*	*Defined-benefit obligation arising from unfunded plans*	Present value of defined-benefit obligation	Fair value of plan assets	Fair value of reimbursement rights (1)	Effect of asset ceiling	Net obligation	of which asset recognised in the balance sheet for defined-benefit plans	*of which net assets of defined-benefit plans*	*of which fair value of reimbursement rights*	of which obligation recognised in the balance sheet for defined-benefit plans
Belgium	2,738		2,738	(124)	(2,395)		219	(2,395)		(2,395)	2,614
UK	1,067		1,067	(1,334)			(267)	(267)	(267)		
Switzerland	979		979	(1,185)		208	2				2
France	845	62	907	(1,157)			(250)	(346)	(346)		96
USA	467	64	531	(458)			73	(24)	(24)		97
Türkiye	139	63	202	(295)		157	64				64
Italy		182	182				182				182
Germany	93	45	138	(98)			40	(7)	(7)		47
Others	379	51	430	(313)	(2)	2	117	(13)	(11)	(2)	130
TOTAL	**6,707**	**467**	**7,174**	**(4,964)**	**(2,397)**	**367**	**180**	**(3,052)**	**(655)**	**(2,397)**	**3,232**
of which continuing activities	**6,391**	**404**	**6,795**	**(4,635)**	**(2,397)**	**367**	**130**	**(3,030)**	**(633)**	**(2,397)**	**3,160**
of which discontinued activities	**316**	**63**	**379**	**(329)**	**-**	**-**	**50**	**(22)**	**(22)**	**-**	**72**

In millions of euros, at 31 December 2021	*Defined-benefit obligation arising from wholly or partially funded plans*	*Defined-benefit obligation arising from unfunded plans*	Present value of defined-benefit obligation	Fair value of plan assets	Fair value of reimbursement rights (1)	Effect of asset ceiling	Net obligation	of which asset recognised in the balance sheet for defined-benefit plans	*of which net assets of defined-benefit plans*	*of which fair value of reimbursement rights*	of which obligation recognised in the balance sheet for defined-benefit plans
Belgium	3,189		3,189	(157)	(2,930)		102	(2,930)		(2,930)	3,032
UK	1,769		1,769	(2,248)			(479)	(481)	(481)		2
Switzerland	1,146		1,146	(1,172)		29	3				3
France	1,058	81	1,139	(1,175)			(36)	(191)	(191)		155
USA	572	79	651	(579)			72	(16)	(16)		88
Türkiye	134	32	166	(238)		104	32				32
Italy		238	238				238				238
Germany	132	71	203	(112)			91				91
Others	504	55	559	(401)	(2)		156	(8)	(6)	(2)	164
TOTAL	**8,504**	**556**	**9,060**	**(6,082)**	**(2,932)**	**133**	**179**	**(3,626)**	**(694)**	**(2,932)**	**3,805**
of which continuing activities	**8,129**	**479**	**8,608**	**(5,691)**	**(2,932)**	**133**	**118**	**(3,609)**	**(677)**	**(2,932)**	**3,727**
of which discontinued activities	**375**	**77**	**452**	**(391)**	**-**	**-**	**61**	**(17)**	**(17)**	**-**	**78**

(1) The reimbursement rights are principally found on the balance sheet of the Group's insurance subsidiaries and associated companies - notably AG Insurance with respect to BNP Paribas Fortis' defined-benefit plan - to hedge their commitments to other Group entities that were transferred to them to cover the post-employment benefits of certain employee categories.

- Change in the present value of the defined-benefit obligation including discontinued activities

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Present value of defined-benefit obligation at start of period	**9,060**	**9,428**
Current service cost	215	222
Interest cost	100	61
Past service cost	(5)	(1)
Settlements	(11)	(25)
Actuarial (gains)/losses on change in demographic assumptions	10	(24)
Actuarial (gains)/losses on change in financial assumptions	(1,985)	(327)
Actuarial (gains)/losses on experience gaps	341	195
Actual employee contributions	23	22
Benefits paid directly by the employer	(101)	(105)
Benefits paid from assets/reimbursement rights	(489)	(419)
Exchange rate (gains)/losses on obligation	(25)	108
(Gains)/losses on obligation related to changes in the consolidation scope	41	21
Others (1)	-	(96)
Present value of defined-benefit obligation at end of period	**7,174**	**9,060**

(1) Impact of the May 2021 IFRIC decision.

- Change in the fair value of plan assets and reimbursement rights including discontinued activities

In millions of euros	Plan assets		Reimbursement rights	
	Year to 31 Dec. 2022	Year to 31 Dec. 2021	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Fair value of assets at start of period	**6,082**	**5,870**	**2,932**	**3,050**
Expected return on assets	99	73	13	2
Settlements	(21)	(26)		
Actuarial gains/(losses) on assets	(938)	216	(548)	(29)
Actual employee contributions	13	13	10	9
Employer contributions	54	65	198	98
Benefits paid from assets	(257)	(220)	(232)	(199)
Exchange rate gains/(losses) on assets	(64)	70		
Gains/(losses) on assets related to changes in the consolidation scope	(4)	21	24	1
Fair value of assets at end of period	**4,964**	**6,082**	**2,397**	**2,932**

- Components of the cost of defined-benefit plans

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Service costs	**220**	**222**
Current service cost	215	222
Past service cost	(5)	(1)
Settlements	10	1
Net financial expense	**6**	**9**
Interest cost	100	61
Interest income on plan asset	18	23
Interest income on reimbursement rights	(99)	(73)
Expected return on asset ceiling	(13)	(2)
Total recognised in salary and employee benefit expense	**226**	**231**
of which continuing activities	**222**	**228**
of which discontinued activities	**4**	**3**

- Other items recognised directly in equity

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Actuarial (losses)/gains on plan assets or reimbursement rights	(1,486)	187
Actuarial (losses)/gains of demographic assumptions on the present value of obligations	(10)	24
Actuarial (losses)/gains of financial assumptions on the present value of obligations	1,985	327
Experience (losses)/gains on obligations	(341)	(195)
Variation of the effect of assets limitation	(263)	27
Total of other items recognised directly in equity	**(115)**	**370**
of which continuing activities	**(127)**	**350**
of which discontinued activities	**12**	**20**

- Main actuarial assumptions used to calculate obligations

In the eurozone, United Kingdom and United States, the Group discounts its obligations using the yields of high quality corporate bonds, with a term consistent with the duration of the obligations.

The ranges of rates used are as follows:

In %	31 December 2022		31 December 2021	
	Discount rate	Compensation increase rate (1)	Discount rate	Compensation increase rate (1)
Belgium	1.90% / 3.80%	3.30% / 5.00%	0.00% / 1.10%	2.90% / 3.60%
UK	3.50% / 4.90%	2.00% / 3.30%	1.30% / 1.90%	2.00% / 3.50%
France	3.30% / 3.80%	2.10% / 3.65%	0.10% / 1.10%	1.40% / 3.25%
Switzerland	2.00% / 2.15%	1,75% / 2,00%	0.20% / 0.30%	1.50%
USA	4.90% / 5.00%	2.50%	2.60% / 2.90%	2.50%
Italy	1.90% / 3.60%	2.10% / 3.20%	0.30% / 1.00%	1.80% / 2.50%
Germany	2.30% / 3.80%	2.00% / 2.90%	0.60% / 1.10%	1.80% / 2.50%
Türkiye	10.60%	8.50%	20.01%	17.03%

(1) Including price increases (inflation)

Average discount rates weighted by obligation amounts are as follows:

- In the eurozone: 3.54% at 31 December 2022 (0.60% at 31 December 2021);
- In the United Kingdom: 4.78% at 31 December 2022 (1.88% at 31 December 2021);
- In Switzerland: 2.15% at 31 December 2022 (0.30% at 31 December 2021).

The impact of a 100-bps change in discount rates on the present value of post-employment benefit obligations is as follows:

Change in the present value of obligations In millions of euros	31 December 2022		31 December 2021	
	Discount rate -100bps	Discount rate +100bps	Discount rate -100bps	Discount rate +100bps
Belgium	201	(175)	327	(266)
UK	187	(147)	403	(302)
France	92	(78)	129	(107)
Switzerland	133	(107)	177	(140)
USA	18	(15)	30	(24)
Italy	12	(11)	18	(16)
Germany	26	(20)	41	(32)
Türkiye	13	(10)	15	(12)

Inflation assumptions used for the valuations of the Group obligations are determined locally depending on the monetary area, except for the eurozone for which the assumption is determined centrally.

Average discount rates weighted by obligation amounts are as follows:

- In the eurozone: 2.43% at 31 December 2022 (1.76% at 31 December 2021);
- In the United Kingdom: 3.03% at 31 December 2022 (2.90% at 31 December 2021);
- In Switzerland: 1.25% at 31 December 2022 (1.00% at 31 December 2021).

The impact of a +100-bps increase in inflation rates on the present value of post-employment benefit obligations is as follows:

Change in the present value of obligations In millions of euros	31 December 2022	31 December 2021
	Inflation rate +100bps	Inflation rate +100bps
Belgium	148	188
UK	126	256
France	92	125
Switzerland	8	11
USA	-	-
Italy	8	12
Germany	14	7
Türkiye	12	18

Variation effects of discount and inflation rates presented above are not cumulative.

- Actual rate of return on plan assets and reimbursement rights over the period

In %	Year to 31 Dec. 2022		Year to 31 Dec. 2021	
	Range of value *(reflecting the existence of several plans in the same country)*	Weighted average rates	Range of value *(reflecting the existence of several plans in the same country)*	Weighted average rates
Belgium	-18.75% / 6.30%	-12.65%	-5.65% / 13.35%	0.45%
UK	-38.30% / 0%	-34.60%	6.60% / 14.80%	7.70%
France	2.60%	2.60%	2.00%	2.00%
Switzerland	-15.85% / 1%	0.50%	1.00 % / 9.45%	7.85%
USA	-29.75% / -16.75%	-28.90%	2.00%	2.00%
Germany	-26.15% / 1.30%	-11.20%	-6.65% / 5.25%	4.60%
Türkiye	40.80%	40.80%	20.60%	20.60%

- Breakdown of plan assets

In %	31 December 2022						31 December 2021					
	Shares	Governmental bonds	Non-Governmental bonds	Real-estate	Deposit account	Others	Shares	Governmental bonds	Non-Governmental bonds	Real-estate	Deposit account	Others
Belgium	8%	48%	20%	1%	0%	23%	7%	53%	14%	1%	0%	25%
UK	7%	65%	13%	0%	2%	13%	8%	72%	8%	0%	2%	10%
France[(1)]	8%	60%	18%	13%	1%	0%	7%	69%	16%	8%	0%	0%
Switzerland	32%	0%	23%	21%	3%	20%	36%	0%	26%	20%	4%	14%
USA	19%	18%	58%	0%	1%	4%	18%	0%	73%	1%	6%	2%
Germany	25%	64%	0%	0%	3%	9%	23%	66%	0%	0%	2%	9%
Türkiye	0%	59%	0%	3%	30%	7%	0%	0%	0%	4%	93%	3%
Others	10%	18%	12%	2%	2%	57%	9%	17%	10%	2%	2%	60%
GROUP	**12%**	**44%**	**18%**	**6%**	**2%**	**18%**	**11%**	**49%**	**15%**	**4%**	**4%**	**17%**

[(1)]In France, the breakdown of plan assets reflects the breakdown of the general fund of the insurance company through which the Group's obligations are funded.

The Group introduced an asset management governance for assets backing defined-benefit pension plan commitments, the main objectives of which are the management and control of the risks in terms of investment.

It sets out investment principles, in particular, by defining an investment strategy for plan assets, based on financial objectives and financial risk management, to specify the way in which plan assets have to be managed, via financial management servicing contracts.

The investment strategy is based on an assets and liabilities management analysis that should be realised at least every three years for plans with assets in excess of EUR 100 million.

- **Post-employment healthcare benefits**

The Group offers some healthcare benefit plans for retired employees, mainly in Belgium.

The present value of post-employment healthcare benefit obligations stood at EUR 83 million at 31 December 2022, compared with EUR 115 million at 31 December 2021.

6.c OTHER LONG-TERM BENEFITS

BNP Paribas offers its employees various long-term benefits, mainly long-service awards, the ability to save up paid annual leave in time savings accounts, and certain guarantees protecting them in the event they become incapacitated. The net provision amounted to EUR 453 million at 31 December 2022 (EUR 457 million at 31 December 2021).

As part of the Group's variable compensation policy, annual deferred compensation plans are set up for certain high-performing employees or pursuant to special regulatory frameworks. Under these plans, payment is deferred over time and is subject to the performance achieved by the business lines, divisions and Group.

Since 2013, BNP Paribas has introduced a Group loyalty scheme with a cash payment, at the end of a three-year to four-year vesting period, which fluctuates according to the Group's intrinsic performance. The aim of this loyalty scheme is to make different categories of managerial staff partners in the Group's development and profitability objectives. These personnels are representative of the Group's talent and the breadth of its managerial framework i.e., senior managers, managers in key positions, line managers and experts, high-potential managers, high-performing young executives with good career development prospects and key contributors to the Group's results.

The amounts allocated under this plan are linked to changes in the Group's operational performance over the duration of the plan (for 80%) and to the achievement of the Group's Corporate Social Responsibility (CSR) targets (for 20%). These ten targets are in line with the four pillars on which the Group's CSR policy is based. In addition, the final payment is subject to continuous service within the Group between the grant date and the payment date, provided that the Group's operating income and pre-tax income for the year prior to payment are strictly positive. For employees subject to special regulatory frameworks, this loyalty scheme is adjusted in accordance with the CRD European Directive.

The net obligation related to deferred compensation plans and loyalty schemes amounts to EUR 1017 million at 31 December 2022 (EUR 817 million at 31 December 2021).

In millions of euros	31 December 2022	31 December 2021
Net provisions for other long-term benefits	**1,470**	**1,274**
Asset recognised in the balance sheet under the other long-term benefits	(76)	(90)
Obligation recognised in the balance sheet under the other long-term benefits	1,546	1,364

6.d TERMINATION BENEFITS

BNP Paribas has implemented a number of voluntary redundancy plans and headcount adaptation plans for employees who meet certain eligibility criteria. The obligations to eligible active employees under such plans are provided for as soon as a bilateral agreement or a bilateral agreement proposal for a particular plan is made.

In millions of euros	31 December 2022	31 December 2021
Provision for voluntary departure, early retirement plans, and headcount adaptation plans	270	355

6.e SHARE-BASED PAYMENTS

As part of the Group's variable remuneration policy, deferred annual compensation plans offered to certain high-performing employees or set up pursuant to special regulatory frameworks may entitle beneficiaries to variable compensation settled in cash but linked to the share price, payable over several years.

- Variable compensation for employees, subject to special regulatory frameworks

Since the publication of the Decree by the French Ministry of Finance on 13 December 2010, and following the provisions of the European Directive CRD4 of 26 July 2013, modified by the CRD5 Directive of 20 May 2019, transposed into the French law in the Monetary and Financial Code by the Ordinance of 20 February 2014, and the Ordinance of 21 December 2020, as well as the Decrees and Orders of 3 November 2014 and 22 December 2020 and the delegated European regulation of 25 March 2021, the variable compensation plans apply to Group employees performing activities that may have a material impact on the Group's risk profile.

Under these plans, payment is deferred over time and is contingent on the performance achieved by the business lines, core businesses and Group.

Sums will mostly be paid in cash linked to the increase or decrease in the BNP Paribas share price.

- Deferred variable compensation for other Group employees

Sums due under the annual deferred compensation plans for high-performing employees are partly paid in cash linked to the increase or decrease in the BNP Paribas share price.

- **Expense of share-based payments**

Expense / (revenue) in millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Prior deferred compensation plans	(116)	67
Deferred compensation plans for the year	614	530
Total	**498**	**597**

7. ADDITIONAL INFORMATION

7.a CHANGES IN SHARE CAPITAL AND EARNINGS PER SHARE

At 31 December 2022, the share capital of BNP Paribas SA amounts to EUR 2,468,663,292 and was divided into 1,234,331,646 shares. The nominal value of each share is EUR 2 (unchanged from 31 December 2021).

- **Ordinary shares issued by BNP Paribas and held by the Group**

	Proprietary transactions		Trading transactions [1]		Total	
	Number of shares	Carrying amount (in millions of euros)	Number of shares	Carrying amount (in millions of euros)	Number of shares	Carrying amount (in millions of euros)
Shares held at 31 December 2020	**721,971**	**38**	**979,314**	**42**	**1,701,285**	**80**
Acquisitions	15,466,915	900			15,466,915	900
Disposals						
Shares delivered to employees						
Capital decrease	(15,466,915)	(900)			(15,466,915)	(900)
Net movements			(979,314)	(42)	(979,314)	(42)
Shares held at 31 December 2021	**721,971**	**38**			**721,971**	**38**
Net movements			159,670	8	159,670	8
Shares held at 31 December 2022	**721,971**	**38**	**159,670**	**8**	**881,641**	**46**

[1] Transactions realised in the framework of an activity of trading and arbitrage transactions on equity indices.

At 31 December 2022, the Group holds 881,641 BNP Paribas shares representing an amount of EUR 46 million, which was recognised as a decrease in equity.

- **Preferred shares and Undated Super Subordinated Notes eligible as Tier 1 regulatory capital**

- Preferred shares issued by the Group's foreign subsidiaries

BNP Paribas Personal Finance made in 2004 two issues of undated non-voting preferred shares through a structured entity governed by UK law and which is exclusively controlled.

On 15 April 2021, BNP Paribas Personal Finance redeemed the issues, for an amount of EUR 80 million. These notes paid a TEC 10 rate coupon.

- Undated Super Subordinated Notes issued by BNP Paribas SA

BNP Paribas SA has issued Undated Super Subordinated Notes which pay a fixed, fixed adjustable or floating-rate coupon and are redeemable at the end of a fixed period and thereafter at each coupon date or every five years. If the notes are not redeemed at the end of this period, some of these issues will pay a coupon indexed to Euribor, Libor or a swap rate or a fixed-rate coupon.

On 19 February 2021, BNP Paribas SA issued Undated Super Subordinated Notes for an amount of USD 1,250 million which pay a 4.625% fixed-rate coupon. These notes could be redeemed at the end of a period of 10 years. If the notes are not redeemed in 2031, a US 5-year Constant Maturity Treasury rate coupon will be paid half-yearly. This issue is eligible to Additional Tier 1 capital.

On 8 March 2021, BNP Paribas SA redeemed the June 2007 issue, for an amount of USD 600 million. These notes paid a 6.5% fixed-rate coupon.

On 30 March 2021, BNP Paribas SA redeemed the March 2016 issue, for an amount of USD 1,500 million, before the first call date. These notes paid a 7.625% fixed-rate coupon.

On 3 January 2022, BNP Paribas SA redeemed the July 2006 and June 2007 issues, for EUR 150 million and USD 1,100 million respectively. These notes paid some 5.45% and 7.195% fixed-rate coupon.

On 12 January 2022, BNP Paribas SA issued Undated Super Subordinated Notes for an amount of USD 1,250 million which pay a 4.625% fixed-rate coupon. These notes could be redeemed at the end of a period of 5 years. If the notes are not redeemed in 2027, a US 5-year Constant Maturity Treasury rate coupon will be paid half-yearly. This issue is eligible to Additional Tier 1 capital.

On 19 February 2022, BNP Paribas SA redeemed the June 2007 issue, for an amount of USD 1 100 million. These notes paid a 7.195% fixed-rate coupon.

On 14 March 2022, BNP Paribas SA redeemed the December 2016 issue, for an amount of USD 750 million. These notes paid a 6.75% fixed-rate coupon.

On 17 June 2022, BNP Paribas SA redeemed the June 2015 issue, for an amount of EUR 750 million, at the first call date. These notes paid a 6.125% fixed-rate coupon.

On 16 August 2022, BNP Paribas SA issued Undated Super Subordinated Notes for an amount of USD 2,000 million which pay a 7.75% fixed-rate coupon. These notes could be redeemed at the end of a period of 7 years. If the notes are not redeemed in 2029, a US 5-year Constant Maturity Treasury rate coupon will be paid half-yearly. This issue is eligible to Additional Tier 1 capital.

On 6 September 2022, BNP Paribas SA issued Undated Super Subordinated Notes for an amount of EUR 1,000 million which pay a 6.875% fixed-rate coupon. These notes could be redeemed at the end of a period of 7 years and 3 months. If the notes are not redeemed in 2029, a mid-swap rate EUR 5-year coupon will be paid half-yearly. This issue is eligible to Additional Tier 1 capital.

On 17 November 2022, BNP Paribas SA issued Undated Super Subordinated Notes for an amount of USD 1,000 million which pay a 9.25% fixed-rate coupon. These notes could be redeemed at the end of a period of 5 years. If the notes are not redeemed in 2027, a US 5-year Constant Maturity Treasury rate coupon will be paid half-yearly. This issue is eligible to Additional Tier 1 capital.

- The following table summarises the characteristics of these various issues:

Date of issue	Currency	Amount (in millions of currency units)	Coupon payment date	Rate and term before 1st call date		Rate after 1st call date
August 2015	USD	1,500	semi-annual	7.375%	10 years	USD 5-year swap + 5.150%
November 2017	USD	750	semi-annual	5.125%	10 years	USD 5-year swap +2.838%
August 2018	USD	750	semi-annual	7.000%	10 years	USD 5-year swap + 3.980%
March 2019	USD	1,500	semi-annual	6.625%	5 years	USD 5-year swap + 4.149%
July 2019	AUD	300	semi-annual	4.500%	5.5 years	AUD 5-year swap + 3.372%
February 2020	USD	1,750	semi-annual	4.500%	10 years	US 5 years CMT + 2.944%
February 2021	USD	1,250	semi-annual	4.625%	10 years	US 5 years CMT + 3.340%
January 2022	USD	1,250	semi-annual	4.625%	5 years	US 5 years CMT + 3.196%
August 2022	USD	2,000	semi-annual	7.75%	7 years	US 5 years CMT + 4.899%
September 2022	EUR	1,000	semi-annual	6.875%	7.25 years	EUR 5 years swap + 4.645%
November 2022	USD	1,000	semi-annual	9.25%	5 years	US 5 years CMT + 4.969%
Total euro-equivalent historical value at 31 December 2022		**11,800** (1)				

(1) Net of shares held in treasury by Group entities

BNP Paribas has the option of not paying interest due on these Undated Super Subordinated Notes. Unpaid interest is not carried forward.

For notes issued before 2015, the absence of coupon payment is conditional on the absence of dividend payment on BNP Paribas SA ordinary shares or on Undated Super Subordinated Note equivalents during the previous year. Interest due is payable once dividend payment on BNP Paribas SA ordinary shares resumes.

The contracts relating to these Undated Super Subordinated Notes contain a loss absorption clause. Under the terms of this clause, in the event of insufficient regulatory capital, the nominal value of the notes may be reduced in order to serve as a new basis for the calculation of the related coupons until the capital deficiency is made up and the nominal value of the notes is increased to its original amount.

The proceeds from these issues are recorded in equity under “Capital and retained earnings”. In accordance with IAS 21, issues denominated in foreign currencies are recognised at their historical value based on their translation into euros at the issue date. Interest on the instruments is treated in the same way as dividends.

At 31 December 2022, the BNP Paribas Group held EUR 14 million of Undated Super Subordinated Notes which were deducted from shareholders’ equity.

- **Earnings per share**

Basic earnings per share are calculated by dividing the net income for the period attributable to holders of ordinary shares by the weighted average number of ordinary shares outstanding during the period. The net income attributable to ordinary shareholders is determined by deducting the net income attributable to holders of preferred shares.

Diluted earnings per share correspond to the net income for the period attributable to holders of ordinary shares, divided by the weighted average number of shares outstanding as adjusted for the maximum effect of the conversion of dilutive equity instruments into ordinary shares. In-the-money stock subscription options are taken into account in the diluted earnings per share calculation, as are performance shares granted under the Global Share-based Incentive Plan. Conversion of these instruments would have no effect on the net income figure used in this calculation. All stock option and performance share plans are expired.

	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Net profit used to calculate basic and diluted earnings per ordinary share *(in millions of euros)* [(1)]	**9,621**	**9,052**
Weighted average number of ordinary shares outstanding during the year	**1,232,991,607**	**1,247,014,704**
Effect of potentially dilutive ordinary shares	-	-
Weighted average number of ordinary shares used to calculate diluted earnings per share	**1,232,991,607**	**1,247,014,704**
Basic earnings per share (in euros)	**7.80**	**7.26**
of which continuing activities (in euros)	7.24	6.68
of which discontinued activities (in euros)	0.56	0.58
Diluted earnings per share (in euros)	**7.80**	**7.26**
of which continuing activities (in euros)	7.24	6.68
of which discontinued activities (in euros)	0.56	0.58

[(1)] The net profit used to calculate basic and diluted earnings per share is the net profit attributable to equity shareholders, adjusted for the remuneration on the Undated Super Subordinated Notes issued by BNP Paribas SA (treated as preferred share equivalents), which for accounting purposes is handled as dividends, as well as the related foreign exchange gain or loss impact recognised directly in shareholders' equity in case of repurchase.

The Board of Directors will propose to the Annual General Meeting on 16 May 2023, a dividend per share of EUR 3.90 out of the 2022 net income (against EUR 3.67 out of the 2021 net income).

The proposed distribution amounted to EUR 4,811 million, against EUR 4,527 million paid in 2022.

This distribution will be raised to 60% of the 2022 net income with a share buyback programme of EUR 962 million, subject to the customary condition precedents, including European Central Bank authorisations.

7.b LEGAL PROCEEDINGS AND ARBITRATION

BNP Paribas (the “Bank”) is party as a defendant in various claims, disputes and legal proceedings (including investigations by judicial or supervisory authorities) in a number of jurisdictions arising in the ordinary course of its business, including inter alia in connection with its activities as market counterparty, lender, employer, investor and taxpayer.

The related risks have been assessed by the Bank and are subject, where appropriate, to provisions disclosed in note 4.p “Provisions for liabilities and charges” of the consolidated Financial Statements at 31 December 2022; a provision is recognised when it is probable that an outflow of resources embodying economic benefits will be required to settle an obligation arising from a past event and a reliable estimate can be made of the amount of the obligation.

The main contingent liabilities related to pending legal, governmental, or arbitral proceedings as of 31 December 2022 are described below. The Bank currently considers that none of these proceedings is likely to have a material adverse effect on its financial position or profitability; however, the outcome of legal or governmental proceedings is by definition unpredictable.

The Bank and certain of its subsidiaries are defendants in several actions pending before the United States Bankruptcy Court for the Southern District of New York brought by the Trustee appointed for the liquidation of Bernard L. Madoff Investment Securities LLC (“BLMIS”). These actions, known generally as “clawback claims”, are similar to those brought by the BLMIS Trustee under the U.S. Bankruptcy Code and New York state law against numerous institutions, and seek recovery of approximately USD 1.3 billion allegedly received by BNP Paribas entities from BLMIS or indirectly through BLMIS-related “feeder funds” in which BNP Paribas entities held interests.

As a result of certain decisions of the Bankruptcy Court and the United States District Court between 2016 and 2018, the majority of the BLMIS Trustee’s actions were either dismissed or substantially narrowed. However, those decisions were either reversed or effectively overruled by subsequent decisions of the United States Court of Appeals for the Second Circuit issued on 25 February 2019 and 30 August 2021. As a result, the BLMIS Trustee may seek to re-file certain claims that were previously dismissed. BNP Paribas has substantial and credible defenses to these actions and is defending against them vigorously.

Litigation was brought in Belgium by minority shareholders of the previous Fortis Group against the Société fédérale de Participations et d’Investissement, Ageas and BNP Paribas seeking (amongst other things) damages from BNP Paribas as restitution for part of the BNP Paribas Fortis shares that were contributed to BNP Paribas in 2009, on the ground that the transfer of these shares was null and void. On 29 April 2016, the Brussels Commercial court decided to stay the proceedings until the resolution of the pending Fortis criminal proceeding in Belgium. The criminal proceeding, in which the Public Prosecutor had requested a dismissal, is definitively closed, as the Council Chamber of the Brussels Court of first instance issued on 4 September 2020 a ruling (which since became final) that the charges were time-barred. Certain minority shareholders are continuing the civil proceedings against BNP Paribas and the Société fédérale de Participations et d’Investissement before the Brussels Commercial court; BNP Paribas continues to defend itself vigorously against the allegations of these shareholders.

Like many other financial institutions in the banking, investment, mutual funds and brokerage sectors, the Bank has received or may receive requests for information from, or be subject to investigations by supervisory, governmental or self-regulatory agencies. The Bank responds to such requests and cooperates with the relevant authorities and regulators and seeks to address and remedy any issues that may arise.

On 26 February 2020, the Paris Criminal Court found BNP Paribas Personal Finance guilty of misleading commercial practice and concealment of this practice. BNP Paribas Personal Finance was ordered to pay a fine of EUR 187,500 and damages and legal fees to the civil plaintiffs. The damages award was of immediate effect. BNP Paribas Personal Finance filed an appeal on the merits on 6 March 2020. It also sought to suspend the immediate effectiveness of the judgment, which the court rejected by decision dated 25 September 2020. BNP Paribas Personal Finance paid to the civil plaintiffs the damages awarded, without prejudice to the pending appeal before the Court of Appeal of Paris and to the civil legal proceedings that are otherwise ongoing.

There are no other legal, governmental or arbitral proceedings (including any such proceedings which are pending or threatened) that could have, or during the last twelve months have had, significant effects on the Bank's financial condition or profitability.

7.c BUSINESS COMBINATIONS AND LOSS OF CONTROL OR SIGNIFICANT INFLUENCE

- **Allfunds Group Plc**

At 31 December 2020, BNP Paribas held a stake of 22.5% in Allfunds Plc Ltd, European market leader in fund distribution platforms.

On 23 April 2021, the Group participated in the initial public offering of Allfunds, contributing 6.7% of the capital. The disposal led to the recognition of a result of EUR 300 million.

On 16 September 2021, the Group sold a stake of 2% of Allfunds and retained a significant influence with 13.8% of the capital of AFB Group Plc. The disposal led to the recognition of a result of EUR 144 million.

On 24 September 2022, the Group sold a stake of 2% of Allfunds and retained a significant influence with 12.2% of the capital of AFB Group Plc. The disposal led to the recognition of a result of EUR 31 million.

- **Verner Investissements**

On 13 July 2021, BNP Paribas SA purchased the residual 50% stake in Verner Investissements, the holding company of Exane entities.

The Group BNP Paribas took therefore exclusive control of this entity and fully consolidated it from the second half of 2021.

Consequently, this operation increased the Group's balance sheet by EUR 6 billion at acquisition date, in particular EUR 3.7 billion in financial assets at fair value through profit and loss and led to the recognition of a badwill of EUR 111 million in the profit and loss account.

Including the remeasurement of the previously held stake through profit or loss, the net impact on net income of the acquisition is - EUR 51 million.

- **bpost banque**

On 3 January 2022, BNP Paribas Fortis purchased the residual 50% stake in bpost banque.

The Group BNP Paribas took therefore exclusive control of this entity and fully consolidated it from the first quarter of 2022.

Consequently, this operation increased the Group's balance sheet by EUR 12 billion at acquisition date, in particular EUR 11 billion in financial assets at amortised cost and led to the recognition of a badwill of EUR 245 million in the profit and loss account.

- **Axepta SpA**

On 4 January 2022, Banca Nazionale del Lavoro sold 80% of its stake of Wordline Merchant Services Italia (ex-Axepta Spa).

The Group BNP Paribas lost exclusive control of this entity but kept a significant influence.

The disposal led to the recognition of a result of EUR 204 million on the line « Net gain on non-current assets ».

The residual stake of 20% was consolidated using the equity method for its remeasured value, including a goodwill of EUR 41 million.

- **Floa**

On 31 January 2022, BNP Paribas purchased 100% of Floa.

The Group BNP Paribas took exclusive control of this entity and fully consolidated it from the first quarter of 2022.

The Group's balance sheet increased by EUR 2 billion at acquisition date, in particular in financial assets at amortised cost.

The goodwill related to this operation was EUR 122 million.

- **UkrSibbank**

In the context of the conflict in Ukraine, the Group reassessed the nature of control on its subsidiary UkrSibbank and concluded to the loss of exclusive control, and the maintain of a significant influence. This situation led the Group to consolidate the entity using the equity method from 1 March 2022.

The loss of exclusive control involved the recognition of a loss on disposal of - EUR 159 million and the reclassification to the profit and loss account of cumulated changes in assets and liabilities for exchange differences of - EUR 274 million, in « Net gain on non-current assets ».

The Group's balance sheet decreased by EUR 2 billion at loss of exclusive control date, in particular in financial assets at amortised cost.

- **Terberg Leasing Group BV**

On 30 November 2022, Arval Service Lease purchased 100% of Terberg Leasing Group BV.

The Group BNP Paribas took exclusive control of these entities and fully consolidated them from the last quarter of 2022.

The Group's balance sheet increased by EUR 1 billion at acquisition date, in particular in tangible assets.

The goodwill related to this operation was EUR 96 million.

7.d Discontinued activities

On 18 December 2021, BNP Paribas concluded an agreement with BMO Financial Group for the sale of 100% of its retail and commercial banking activities in the United States, operated by the BancWest cash-generating unit, for a total consideration of USD 16.3 billion in cash.

The transaction was closed on 1 February 2023 following receipt of all regulatory approvals by BMO Financial Group.

The group of assets covered by the agreement comprises most of the entities of the homogeneous BancWest set (see reference D2 in note 7.l *Scope of consolidation*). BancWest is therefore classified as a discontinued activity (see note 1.i *Assets held for sale and discontinued operations*).

As required by IFRS 5 related to groups of assets and liabilities held for sale, the Group's consolidated financial statements are adapted to present BancWest separately in 2021 and in 2022:

- the assets are reclassified on a separate line of the balance sheet "Assets held for sale";
- the liabilities are also reclassified in a separate line "Liabilities associated with assets held for sale";
- amounts accounted for in equity for the revaluation of assets and liabilities are presented separately in the statement of net income and changes in assets and liabilities recognised directly in equity ;
- revenues and expenses are reclassified in a separate line "Net income from discontinued activities" in the profit and loss statement. This income includes revenues and expenses from internal transactions with BancWest, provided that, following the sale, the Group will no longer receive these revenues or incur these expenses ;
- The net change in cash and cash equivalents is isolated in the cash flow statement.

- **Net income from discontinued activities**

In millions of euros	First half 2022	First half 2021 *restated according to IFRS 5*
Revenues	**2,788**	**2,473**
Operating Expenses and Dep.	(2,007)	(1,645)
Gross Operating Income	**781**	**828**
Cost of Risk	39	46
Operating Income	**820**	**874**
Net gain on non-current assets	3	19
Pre-tax Income	**823**	**893**
Corporate income tax	(137)	(173)
Net income from discontinued activities	**686**	**720**

- **Statement of net income and changes in assets and liabilities recognised directly in equity of discontinued activities**

In millions of euros	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Net income from discontinued activities	**686**	**720**
Changes in assets and liabilities recognised directly in equity of discontinued activities	**(434)**	**580**
Items that are or may be reclassified to profit or loss	**(440)**	**571**
- Changes in fair value through profit or loss	111	739
- Changes in fair value of financial assets through equity		
Changes in fair value recognised in equity	*(730)*	*(173)*
Changes in fair value reported in profit or loss	*(18)*	*(30)*
- Deferred value changes in hedging derivatives		
Changes in fair value recognised in equity	*(256)*	*(61)*
Changes in fair value reported in profit or loss		
- Income taxes	453	96
Items that will not be reclassified to profit or loss	**6**	**9**
- Revaluation effects on post-employment benefit plans	7	12
- Income taxes	(1)	(3)
Total	**252**	**1,300**

- **Balance sheet of discontinued activities**

In millions of euros	31 December 2022	31 December 2021
Cash and balances at central banks	2,750	14,654
Financial assets at fair value through equity	4,503	5,009
Financial assets at amortised cost	73,007	65,775
Property, plant and equipment	453	428
Intangible assets and goodwill	2,910	2,770
Other assets	3,216	2,631
Total assets held for sale	**86,839**	**91,267**
Financial liabilities at amortised cost	74,563	73,041
Other liabilities	2,439	1,325
Total liabilities associated with assets held for sale	**77,002**	**74,366**

- **Changes in assets and liabilities recognised directly in equity of discontinued activities at 31 December 2022**

In millions of euros	31 December 2022	31 December 2021
Items that are or may be reclassified to profit or loss	**168**	**608**
Exchange differences	799	687
Financial assets at fair value through equity	(405)	(41)
Derivatives used for hedging purposes	(226)	(38)
Items that will not be reclassified to profit or loss	**(119)**	**(125)**
Remeasurement gains (losses)related to postemployment benefit plans	(119)	(125)
Changes in assets and liabilities recognised directly in equity of discontinued activities	**49**	**483**

- **Financial assets at amortised cost classified as "Assets held for sale"**

	31 December 2022			31 December 2021		
In millions of euros	Gross Value	Impairment	Carrying amount	Gross Value	Impairment	Carrying amount
Loans and advances to credit institutions	**143**	**-**	**143**	**52**	**-**	**52**
Stage 1	143	-	143	52	-	52
Loans and advances to customers	**56,414**	**(329)**	**56,085**	**50,530**	**(476)**	**50,054**
Stage 1	52,711	(141)	52,570	45,751	(172)	45,579
Stage 2	3,150	(126)	3,024	4,370	(217)	4,153
Stage 3	553	(62)	491	409	(87)	322
Debt securities	**16,779**	**-**	**16,779**	**15,669**	**-**	**15,669**
Stage 1	16,779	-	16,779	15,669	-	15,669
Total financial assets at amortised cost	**73,336**	**(329)**	**73,007**	**66,251**	**(476)**	**65,775**

- **Cash flows from discontinued activities**

In millions of euros	Year to 31 Dec 2022	Year to 31 Dec 2021
Net decrease (increase) in cash and cash equivalents generated by operating activities	(10,175)	9,772
Net decrease in cash and cash equivalents related to investing activities	(141)	(111)
Decrease (increase) in cash and cash equivalents related to financing activities	(2,322)	406
Effect of movement in exchange rates on cash and cash equivalents	703	672
Net decrease (increase) in cash and cash equivalents from discontinued activities	**(11,935)**	**10,739**

7.e EVENT AFTER THE REPORTING PERIOD

- **Bank of the West**

On 18 December 2021, BNP Paribas concluded an agreement with BMO Financial Group for the sale of 100% of its retail and commercial banking activities in the United States, operated by the group BancWest.

The transaction was closed on 1 February 2023 following receipt of all regulatory approvals by BMO Financial Group.

The estimated impact on the Group's balance sheet at sale date is a decrease of approximately EUR 87 billion in assets held for sale.

The capital gain on the disposal amounts to EUR 2.9 billion, including the result related to the Group subscription commitment to the capital increase of BMO Financial Group. The gain will be recognised in the first quarter of 2023.

7.f MINORITY INTERESTS

In millions of euros	Capital and retained earnings	Changes in assets and liabilities recognised directly in equity that will not be reclassified to profit or loss	Changes in assets and liabilities recognised directly in equity that may be reclassified to profit or loss	Minority interests
Balance at 1 January 2021	**4,640**	**9**	**(99)**	**4,550**
Appropriation of net income for 2020	**(221)**			**(221)**
Increases in capital and issues	10			10
Reduction or redemption of capital	(73)			(73)
Movements in consolidation scope impacting minority shareholders	(139)			(139)
Acquisitions of additional interests or partial sales of interests	55			55
Change in commitments to repurchase minority shareholders' interests	38			38
Other movements	9			9
Realised gains or losses reclassified to retained earnings	1	(1)		-
Changes in assets and liabilities recognised directly in equity		7	(7)	-
Net income for 2021	**392**			**392**
Balance at 31 December 2021	**4,712**	**15**	**(106)**	**4,621**
IAS 29 Impact	**(14)**		**62**	**48**
Balance at 1 January 2022	**4,698**	**15**	**(44)**	**4,669**
Appropriation of net income for 2021	**(133)**			**(133)**
Increases in capital and issues	34			34
Impact of internal transactions on minority shareholders	2			2
Movements in consolidation scope impacting minority shareholders	(136)			(136)
Change in commitments to repurchase minority shareholders' interests	(157)			(157)
Other movements	(1)			(1)
Changes in assets and liabilities recognised directly in equity	-	6	78	84
Net income for 2022	**401**			**401**
Balance at 31 December 2022	**4,708**	**21**	**34**	**4,763**

- **Main minority interests**

The assessment of the material nature of minority interests is based on the contribution of the relevant subsidiaries to the Group balance sheet (before elimination of intra-group balances and transactions) and to the Group profit and loss account.

In millions of euros	31 December 2022	Year to 31 Dec. 2022						
	Total assets before elimination of intra-group transactions	Revenues	Net income	Net income and changes in assets and liabilities recognised directly in equity	Minority shareholders' interest (%)	Net income attributable to minority interests	Net income and changes in assets and liabilities recognised directly in equity - attributable to minority interests	Dividends paid to minority shareholders
Contribution of the entities belonging to the BGL BNP Paribas group	95,376	1,851	604	269	34%	189	121	81
Other minority interests						212	364	52
TOTAL						401	485	133

In millions of euros	31 December 2021	Year to 31 Dec. 2021						
	Total assets before elimination of intra-group transactions	Revenues	Net income	Net income and changes in assets and liabilities recognised directly in equity	Minority shareholders' interest (%)	Net income attributable to minority interests	Net income and changes in assets and liabilities recognised directly in equity - attributable to minority interests	Dividends paid to minority shareholders
Contribution of the entities belonging to the BGL BNP Paribas group	98,967	1,779	585	557	34%	179	167	163
Other minority interests						213	225	58
TOTAL						392	392	221

There are no particular contractual restrictions on the assets of BGL BNP Paribas related to the presence of the minority shareholder.

- **Internal restructuring that led to a change in minority shareholders' interest in the equity of subsidiaries**

No significant internal restructuring operation occurred during the year 2022, nor during the year 2021.

- **Acquisitions of additional interests and partial sales of interests leading to changes in minority interests in the equity of subsidiaries**

In millions of euros	Year to 31 Dec. 2022		Year to 31 Dec. 2021	
	Attributable to shareholders	Minority interests	Attributable to shareholders	Minority interests
Bank BGZ BNP Paribas				
Partial disposal of 1.26% of the total share, reducing the Group's share to 87.43%			(11)	37
Financit Spa				
Implementation of a partnership, reducing the Group's share to 60%			21	18
Other			(2)	
Total	-	-	8	55

- **Commitments to repurchase minority shareholders' interests**

In connection with the acquisition of certain entities, the Group granted minority shareholders put options on their holdings.
The total value of these commitments, which are recorded as a reduction in shareholders' equity, amounts to EUR 361 million at 31 December 2022, compared with EUR 322 million at 31 December 2021.

7.g SIGNIFICANT RESTRICTIONS IN SUBSIDIARIES, JOINT VENTURES AND ASSOCIATES

Significant restrictions related to the ability of entities to transfer cash to the Group
The ability of entities to pay dividends or to repay loans and advances depends, *inter alia*, on local regulatory requirements for capitalisation and legal reserves, as well as the entities' financial and operating performance. During 2022, none of the BNP Paribas Group entities were subject to significant restrictions other than those related to regulatory requirements.

Significant restrictions relative to the Group's ability to use the assets lodged in consolidated structured entities
Access to the assets of consolidated structured entities in which third-party investors have invested is limited inasmuch as these entities' assets are reserved for the holders of units or securities. These assets total EUR 37 billion at 31 December 2022 (EUR 34 billion at 31 December 2021).

Significant restrictions related to the Group's ability to use assets pledged as collateral or under repurchase agreements
The financial instruments pledged by the BNP Paribas Group as collateral or under repurchase agreements are presented in notes 4.r and 5.d.

Significant restrictions related to liquidity reserves
Significant restrictions related to liquidity reserves correspond to the mandatory deposits placed with central banks presented in chapter 5 of the Universal Registration Document under *Liquidity risk*.

Assets representative of unit-linked insurance contracts
Financial assets representative of unit-linked insurance contracts designated as at fair value through profit or loss, which amount to EUR 80 billion at 31 December 2022 (compared with EUR 87 billion at 31 December 2021), are held for the benefit of the holders of these contracts.

7.h STRUCTURED ENTITIES

The BNP Paribas Group is engaged in transactions with sponsored structured entities mainly through its activities of securitisation of financial assets - as either originator or sponsor -, fund management and specialised asset financing.

In addition, the BNP Paribas Group is also engaged in transactions with structured entities that it has not sponsored, notably in the form of investments in funds or securitisation vehicles.

The method for assessing control for structured entities is detailed in note 1.b.2. Consolidation methods.

- **Consolidated structured entities**

The main categories of consolidated structured entities are:

ABCP (Asset-Backed Commercial Paper) conduits: the ABCP securitisation conduits Starbird, Matchpoint and Scaldis fund securitisation transactions managed by the BNP Paribas Group on behalf of its customers. Details on how these are financed and the Group's risk exposure are presented in Chapter 5 of the Universal Registration Document under *Securitisation as sponsor on behalf of clients / Short-term refinancing*.

Proprietary securitisation: proprietary securitisation positions originated and held by the BNP Paribas Group are detailed in Chapter 5 of the Universal Registration Document under *Proprietary securitisation activities (originator)*.

Funds managed by the Group: the BNP Paribas Group structures different types of funds for which it may act as fund manager, investor, custodian or guarantor. These funds are consolidated when the Group is both the manager and a significant investor and is therefore exposed to variable returns.

- **Unconsolidated structured entities**

The BNP Paribas Group has entered into relations with unconsolidated structured entities in the course of its business activities to meet the needs of its customers.

Information relative to interests in sponsored structured entities

The main categories of unconsolidated sponsored structured entities are as follows:

Securitisation: the BNP Paribas Group structures securitisation vehicles for the purposes of offering customers financing solutions for their assets, either directly or through consolidated ABCP conduits. Each vehicle finances the purchase of customers' assets (receivables, bonds, *etc.*) primarily by issuing bonds backed by these assets and whose redemption is linked to their performance.

Funds: the Group structures and manages funds to offer investment opportunities to its customers. Dedicated or public funds are offered to institutional and individual customers and are distributed and commercially monitored by the BNP Paribas Group. The entities of the BNP Paribas Group responsible for managing these funds may receive management fees and performance commission. The BNP Paribas Group may hold units in these funds, as well as units in funds dedicated to the insurance activity not managed by the BNP Paribas Group.

Asset financing: the BNP Paribas Group establishes and finances structured entities that acquire assets (aircraft, ships, *etc.*) intended for lease, and the lease payments received by the structured entity are used to repay the financing, which is guaranteed by the asset held by the structured entity.

Other: on behalf of its customers, the Group may also structure entities which invest in assets or are involved in debt restructuring.

An interest in an unconsolidated structured entity is a contractual or non-contractual link that exposes the BNP Paribas Group to variable returns from the performance of the entity.

The Group's assets and liabilities related to the interests held in sponsored structured entities are as follows:

In millions of euros, at 31 December 2022	Securitisation	Funds	Asset Financing	Others	Total
INTERESTS ON THE GROUP BALANCE SHEET					
ASSETS					
Financial instruments at fair value through profit or loss	7	1,468		449	1,924
Derivatives used for hedging purposes	9	1,067	13	19	1,108
Financial instruments at fair value through equity	147				147
Financial assets at amortised cost	21,058	278	2,150	228	23,714
Other assets	2	110	26		138
Financial investments of insurance activities		34,933			34,933
TOTAL ASSETS	**21,223**	**37,856**	**2,189**	**696**	**61,964**
LIABILITIES					
Financial instruments at fair value through profit or loss	14	597	53	230	894
Derivatives used for hedging purposes					
Financial liabilities at amortised cost	553	10,907	181	27	11,668
Other liabilities	4	296	117		417
TOTAL LIABILITIES	**571**	**11,800**	**351**	**257**	**12,979**
MAXIMUM EXPOSURE TO LOSS	**29,679**	**38,505**	**3,527**	**753**	**72,464**
SIZE OF STRUCTURED ENTITIES (1)	**163,455**	**308,773**	**5,755**	**4,365**	**482,348**

In millions of euros, at 31 December 2021	Securitisation	Funds	Asset Financing	Others	Total
INTERESTS ON THE GROUP BALANCE SHEET					
ASSETS					
Financial instruments at fair value through profit or loss	5	1,009	4	95	1,113
Derivatives used for hedging purposes	11	1,404	23	18	1,456
Financial instruments at fair value through equity	190				190
Financial assets at amortised cost	14,230	117	1,709	9	16,065
Other assets	3	93			96
Financial investments of insurance activities		24,114			24,114
TOTAL ASSETS	**14,439**	**26,737**	**1,736**	**122**	**43,034**
LIABILITIES					
Financial instruments at fair value through profit or loss	18	542	3	54	617
Derivatives used for hedging purposes					
Financial liabilities at amortised cost	1,058	12,809	140	27	14,034
Other liabilities	5	140	118		263
TOTAL LIABILITIES	**1,081**	**13,491**	**261**	**81**	**14,914**
MAXIMUM EXPOSURE TO LOSS	**21,888**	**27,061**	**3,047**	**212**	**52,208**
SIZE OF STRUCTURED ENTITIES (1)	**121,665**	**332,150**	**4,933**	**5,263**	**464,011**

(1) The size of sponsored structured entities equals the total assets of the structured entity for securitisation vehicles, the net asset value for funds (excluding management mandates) and the structured entity's total assets or the amount of the BNP Paribas Group's commitment for asset financing and other structures.

The BNP Paribas Group's maximum exposure to losses on sponsored structured entities is the carrying amount of the assets, excluding, for financial assets at fair value through equity, changes in value taken directly to equity, as well as the nominal amount of the financing commitments and guarantee commitments given and the notional amount of credit default swaps (CDS) sold.

Information relative to interests in non-sponsored structured entities

The main interests held by the BNP Paribas Group when it acts solely as an investor in non-sponsored structured entities are detailed below:

- **Units in funds that are not managed by the Group, which are held by the Insurance business line:** as part of the asset allocation strategy corresponding to investments related to the premiums for unit-linked contracts or for the general fund, the Insurance business line subscribes to units of structured entities. These short- or medium-term investments are held for their financial performance and meet the risk diversification criteria inherent to the business. They amounted to EUR 30 billion at 31 December 2022 (EUR 39 billion at 31 December 2021). Changes in value and the majority of the risks associated with these investments are borne by policyholders in the case of assets representative of unit-linked contracts, and by the insurer in the case of assets representative of the general fund;
- **Other investments in funds not managed by the Group:** as part of its trading business, the BNP Paribas Group invests in structured entities without any involvement in either managing or structuring these entities (investments in mutual funds, securities funds or alternative funds), particularly as economic hedge for structured products sold to customers. The Group also invests in minority holdings in investment funds, in support of companies, as part of its venture capital business. These investments amounted to EUR 8 billion at 31 December 2022 (10 billion as at 31 December 2021);
- **Investments in securitisation vehicles:** the breakdown of the Group's exposure and the nature of the securities held are presented in Chapter 5 of the Universal Registration Document in the section *Securitisation as investor*.

Besides, in the framework of its asset financing activity, the BNP Paribas Group provides financing to structured entities that are established by and for its clients and whose purpose is to acquire assets (aircraft, ships, *etc.*) intended for lease to those same clients. These financings amount to EUR 4 billion at 31 December 2022 (EUR 5 billion as at 31 December 2021).

7.i COMPENSATION AND BENEFITS AWARDED TO THE GROUP'S CORPORATE OFFICERS

The Group's corporate officers, their spouse and their dependent children are considered related parties.

The remuneration and benefits policy relating to the Group's corporate officers, as well as the detailed information on an individual basis, are presented in chapter 2 Corporate Governance of the Universal Registration Document.

- **Remuneration and benefits awarded to the Group's corporate officers**

	Year to 31 Dec. 2022	Year to 31 Dec. 2021
Gross remuneration, including remuneration linked to the term of directorship and benefits in kind		
- payable for the year	€ 9,845,772	€ 8,486,731
- paid during the year	€ 8,779,813	€ 6,526,149
Post-employment benefits		
Retirement bonuses: present value of the benefit obligation (payroll taxes excluded)	€ 840,720	€ 788,884
Defined contribution pension plan : contributions paid by BNP Paribas during the year	€ 7,075	€ 6,400
Welfare benefits: premiums paid by BNP Paribas during the year	€ 20,343	€ 18,836
Share-based payments		
Stock subscription options	Nil	Nil
Performance shares	Nil	Nil
Long-term compensation		
- fair value at grant date (*)	€ 1,748,965	€ 1,327,391

(*) Valuation according to the method described in note 6.e.

At 31 December 2022, no corporate officer is eligible to a contingent collective defined-benefit top-up pension plan.

- **Remuneration linked to the term of directorship paid to members of the board of directors**

Remuneration linked to the term of directorship paid to all members of the Board of Directors in 2022 amounts to EUR 1,540,000. This amount was EUR 1,362,000 in 2021 (exluding the remuneration of EUR 40,804 linked to the censor role of M. Noyer for the period between January 1st and May 17th 2021). The amount paid in 2022 to members other than corporate officers was EUR 1,413,560 compared with EUR 1,233,136 in 2021.

- **Remuneration and benefits awarded to directors representing the employees**

In euros	Year to 31 December 2022	Year to 31 December 2021
Gross remuneration paid during the year	125,832	120,963
Remuneration linked to the term of directorship (paid to the trade unions)	200,547	190,887
Premiums paid by BNP Paribas during the year into schemes related to Garantie Vie Professionnelle Accidents benefits and healthcare expense coverage	2,140	2,092
Contributions paid by BNP Paribas during the year into the defined-contribution plan	1,452	1,423

- **Loans, advances and guarantees granted to the Group's corporate officers**

At 31 December 2022, the total outstanding loans granted directly or indirectly to the Group's corporate officers and their spouse and dependent children amounted to EUR 5,179,096 (EUR 6,392,970 at 31 December 2021). These loans representing normal transactions were carried out on an arm's length basis.

7.j Other related parties

Other related parties of the BNP Paribas Group comprise consolidated companies (including entities consolidated under the equity method) and entities managing post-employment benefit plans offered to Group employees (except for multi-employer and multi-industry schemes).

Transactions between the BNP Paribas Group and related parties are carried out on an arm's length basis.

RELATIONS BETWEEN CONSOLIDATED COMPANIES

A list of companies consolidated by the BNP Paribas Group is provided in note 7.l *Scope of consolidation*. Transactions and outstanding balances between fully-consolidated entities are eliminated. The tables below show transactions with entities accounted for under the equity method.

- **Outstanding balances of related-party transactions:**

	31 December 2022		31 December 2021	
In millions of euros	Joint ventures	Associates	Joint ventures	Associates
ASSETS				
On demand accounts	-	4		118
Loans	3,436	91	3,923	116
Securities	440	-	516	268
Other assets	3	72	1	74
Financial investments of insurance activities	1	-	1	2
Total	3,880	167	4,441	578
LIABILITIES				
On demand accounts	166	1,243	137	525
Other borrowings	73	826	48	1,034
Other liabilities	2	30	7	26
Technical reserves and other insurance liabilities	1	190	1	159
Total	242	2,289	193	1,744
FINANCING COMMITMENTS AND GUARANTEE COMMITMENTS				
Financing commitments given	24	143	23	553
Guarantee commitments given	65	120	1,469	41
Total	89	263	1,492	594

The Group also carries out trading transactions with related parties involving derivatives (swaps, options and forwards, *etc.*) and financial instruments purchased or underwritten and issued by them (equities, bonds, *etc.*).

- **Related-party profit and loss items:**

In millions of euros	Year to 31 Dec. 2022		Year to 31 Dec. 2021	
	Joint ventures	Associates	Joint ventures	Associates
Interest income	43	9	26	7
Interest expense	(2)	(15)	(5)	(2)
Commission income	1	288	5	305
Commission expense	(1)	(78)		(76)
Services provided		29		47
Services received				(7)
Lease income				
Net income from insurance activities	(2)	(2)	(2)	(3)
Total	**39**	**231**	**24**	**271**

GROUP ENTITIES INVOLVED IN CERTAIN POST-EMPLOYMENT BENEFIT PLANS OFFERED TO GROUP EMPLOYEES

In Belgium, BNP Paribas Fortis funds a number of pension schemes managed by AG Insurance in which the BNP Paribas Group has a 25% equity interest.

In other countries, post-employment benefit plans are generally managed by independent fund managers or independent insurance companies, and occasionally by Group companies, in particular BNP Paribas Asset Management.

At 31 December 2022, the value of plan assets managed by Group companies or by companies over which the Group exercises significant influence was EUR 3,689 million (EUR 4,048 million at 31 December 2021). Amounts received by Group companies in the year to 31 December 2022 totalled EUR 5 million and were mainly composed of management and custody fees (EUR 4 million at 31 December 2021).

7.k FAIR VALUE OF FINANCIAL INSTRUMENTS CARRIED AT AMORTISED COST

The information supplied in this note must be used and interpreted with the greatest caution for the following reasons:

- these fair values are an estimate of the value of the relevant instruments at 31 December 2022. They are liable to fluctuate from day to day as a result of changes in various parameters, such as interest rates and credit quality of the counterparty. In particular, they may differ significantly from the amounts actually received or paid on maturity of the instrument. In most cases, the fair value is not intended to be realised immediately, and in practice might not be realised immediately. Consequently, this fair value does not reflect the actual value of the instrument to BNP Paribas as a going concern;
- most of these fair values are not meaningful, and hence are not taken into account in the management of the commercial banking activities which use these instruments;
- estimating a fair value for financial instruments carried at historical cost often requires the use of modelling techniques, hypotheses and assumptions that may vary from bank to bank. This means that comparisons between the fair values of financial instruments carried at historical cost as disclosed by different banks may not be meaningful;
- the fair values shown below do not include the fair values of finance lease transactions, non-financial instruments such as property, plant and equipment, goodwill and other intangible assets such as the value attributed to demand deposit portfolios or customer relationships. Consequently, these fair values should not

be regarded as the actual contribution of the instruments concerned to the overall valuation of the BNP Paribas Group.

In millions of euros, at 31 December 2022	Estimated fair value				Carrying value
	Level 1	Level 2	Level 3	Total	
FINANCIAL ASSETS					
Loans and advances to credit institutions and customers [1]		92,635	731,555	824,190	848,145
Debt securities at amortised cost *(note 4.e)*	85,758	26,235	771	112,764	114,014
Assets held for sale	4,440	9,980	53,325	67,746	72,176
FINANCIAL LIABILITIES					
Deposits from credit institutions and customers		1,132,280		1,132,280	1,132,772
Debt securities *(note 4.h)*	64,889	88,999		153,888	154,143
Subordinated debt *(note 4.h)*	17,193	6,624		23,817	24,156
Liabilities associated with assets held for sale		74,567		74,567	74,563

[1] Finance leases excluded

In millions of euros, at 31 December 2021	Estimated fair value				Carrying value
	Level 1	Level 2	Level 3	Total	
FINANCIAL ASSETS					
Loans and advances to credit institutions and customers [1]		88,058	716,147	804,205	795,845
Debt securities at amortised cost *(note 4.e)*	89,374	17,203	3,172	109,749	108,510
Assets held for sale	4,587	11,081	49,838	65,507	64,847
FINANCIAL LIABILITIES					
Deposits from credit institutions and customers		1,123,937		1,123,937	1,123,383
Debt securities *(note 4.h)*	64,660	86,854		151,514	149,723
Subordinated debt *(note 4.h)*	18,211	7,360		25,571	24,720
Liabilities associated with assets held for sale		73,077		73,077	73,041

[1] Finance leases excluded

The valuation techniques and assumptions used by BNP Paribas ensure that the fair value of financial assets and liabilities carried at amortised cost is measured on a consistent basis throughout the Group. Fair value is based on prices quoted in an active market when these are available. In other cases, fair value is determined using valuation techniques such as discounting of estimated future cash flows for loans, liabilities and debt securities at amortised cost, or specific valuation models for other financial instruments as described in note 1, *Summary of significant accounting policies applied by the BNP Paribas Group*. The description of the fair value hierarchy levels is also presented in the accounting principles (see note 1.e.10). In the case of loans, liabilities and debt securities at amortised cost that have an initial maturity of less than one year (including demand deposits) or of most regulated savings products, fair value equates to carrying amount. These instruments have been classified in Level 2, except for loans to customers, which are classified in Level 3.

7.I SCOPE OF CONSOLIDATION

BNP Paribas, a *société anonyme* (Public Limited Company), registered in France, is the Group's lead company, which holds key positions in its three operating divisions: Corporate & Institutional Banking (CIB), Commercial, Personal Banking & Services (CPBS) and Investment & Protection Services (IPS).

During the year, the parent company did not change its name. BNP Paribas has its principal place of business in France and its head office is located at 16 boulevard des Italiens 75009 Paris, France.

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	BNP Paribas SA	France	Full[1]	100.0%	100.0%		[1]			
	BNPP SA (Argentina branch)	Argentina	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Australia branch)	Australia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Austria branch)	Austria	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Bahrain branch)	Bahrain	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Belgium branch)	Belgium	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Bulgaria branch)	Bulgaria	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Canada branch)	Canada	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Czech republic branch)	Czech Rep.	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Denmark branch)	Denmark	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Finland branch)	Finland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Germany branch)	Germany	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Greece branch)	Greece	Full	100.0%	100.0%	E2				
	BNPP SA (Guernsey branch)	Guernsey	Full	100.0%	100.0%	E2				
	BNPP SA (Hong kong branch)	Hong Kong	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Hungary branch)	Hungary	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (India branch)	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Ireland branch)	Ireland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Italy branch)	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Japan branch)	Japan	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Jersey branch)	Jersey	Full	100.0%	100.0%	E2				S1
	BNPP SA (Kuwait branch)	Kuwait	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Luxembourg branch)	Luxembourg	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Malaysia branch)	Malaysia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Monaco branch)	Monaco	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Netherlands branch)	Netherlands	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Norway branch)	Norway	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Panama branch)	Panama				S1	Full	100.0%	100.0%	
	BNPP SA (Philippines branch)	Philippines	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Poland branch)	Poland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Portugal branch)	Portugal	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Qatar branch)	Qatar	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Republic of Korea branch)	Rep. of Korea	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Romania branch)	Romania	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Saudi arabia branch)	Saudi Arabia	Full	100.0%	100.0%		Full	100.0%	100.0%	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	BNPP SA (Singapore branch)	Singapore	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (South africa branch)	South Africa	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Spain branch)	Spain	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Sweden branch)	Sweden	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Switzerland branch)	Switzerland	Full	100.0%	100.0%	E2				
	BNPP SA (Taiwan branch)	Taiwan	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Thailand branch)	Thailand	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (United arab emirates branch)	United Arab Emirates	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (United kingdom branch)	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (United states branch)	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP SA (Viet nam branch)	Viet Nam	Full	100.0%	100.0%		Full	100.0%	100.0%	
CORPORATE & INSTITUTIONAL BANKING										
EMEA (Europe, Moyen Orient, Afrique)										
France										
	Atargatis[s]	France				S4	Full	-	-	
	Austin Finance[s]	France	Full	-	-		Full	-	-	
	BNPP Arbitrage	France	Full[(1)]	100.0%	100.0%		Full[(1)]	100.0%	100.0%	
	BNPP Securities Services	France				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Australia branch)	Australia				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Belgium branch)	Belgium				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Germany branch)	Germany				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Greece branch)	Greece				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Guernsey branch)	Guernsey				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Hong kong branch)	Hong Kong				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Hungary branch)	Hungary				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Ireland branch)	Ireland				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Italy branch)	Italy				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Jersey branch)	Jersey				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Luxembourg branch)	Luxembourg				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Netherlands branch)	Netherlands				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Poland branch)	Poland				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Portugal branch)	Portugal				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Singapore branch)	Singapore				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Spain branch)	Spain				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (Switzerland branch)	Switzerland				S4	Full[(1)]	100.0%	100.0%	
	BNPP Securities Services (United kingdom branch)	UK				S4	Full[(1)]	100.0%	100.0%	
	Compagnie d'Investissement Italiens[s]	France				S4	Full	-	-	
	Compagnie d'Investissement Opéra[s]	France				S4	Full	-	-	
	Ellipsis Asset Management	France				S2	Full	100.0%	100.0%	V1/D3
	Eurotitrisation	France	Equity	21.7%	21.7%		Equity	21.7%	21.7%	V3
	Exane	France	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane (Germany branch)	Germany	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane (Italy branch)	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane (Spain branch)	Spain	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	Exane (Sweden branch)	Sweden	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane (Switzerland branch)	Switzerland	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane (United kingdom branch)	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane Asset Management	France	Equity	51.0%	51.0%	V1	Equity	50.0%	50.0%	V1/D3
	Exane Derivatives	France	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane Derivatives (Italy branch)	Italy				S1	Full	100.0%	100.0%	V1/D3
	Exane Derivatives (Switzerland branch)	Switzerland	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane Derivatives (United kingdom branch)	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane Derivatives Gerance	France	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane Finance	France	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Exane Participations	France				S4	Full	99.0%	99.0%	V1/D3
	FCT Juice[t]	France	Full	-	-		Full	-	-	
	Financière des Italiens[s]	France	Full	-	-		Full	-	-	
	Financière du Marché Saint Honoré	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Financière Paris Haussmann[s]	France				S4	Full	-	-	
	Financière Taitbout[s]	France				S4	Full	-	-	
	Mediterranea[s]	France				S4	Full	-	-	
	Optichamps[s]	France	Full	-	-		Full	-	-	
	Parilease	France	Full[(1)]	100.0%	100.0%		Full[(1)]	100.0%	100.0%	
	Participations Opéra[s]	France	Full	-	-		Full	-	-	
	Services Logiciels d'Intégration Boursière	France	Equity[(3)]	66.6%	66.6%		Equity[(3)]	66.6%	66.6%	
	SNC Taitbout Participation 3	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Société Orbaisienne de Participations	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Verner Investissements	France				S4	Full	100.0%	100.0%	V1/D3
	Verner Investissements NewCo1	France				S4	Full	100.0%	100.0%	E3
	Verner Investissements NewCo2	France				S4	Full	100.0%	100.0%	E3
Other European countries										
	Alectra Finance PLC[t]	Ireland								S3
	Allfunds Group PLC	UK	Equity	12.1%	12.0%	V2	Equity	13.8%	13.7%	V2
	Aquarius + Investments PLC[t]	Ireland				S3	Full	-	-	
	Aries Capital DAC[s]	Ireland	Full	-	-		Full	-	-	
	AssetMetrix	Germany	Equity	20.8%	20.8%	V4	Equity	14.9%	14.9%	V4
	Auseter Real Estate Opportunities SARL[t]	Luxembourg				S2	Full	-	-	
	BNP PUK Holding Ltd	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Bank JSC	Russia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Emissions Und Handels GmbH[s]	Germany	Full	-	-		Full	-	-	
	BNPP Fund Administration Services Ireland Ltd	Ireland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Invest Holdings BV	Netherlands				S1	Full	100.0%	100.0%	
	BNPP Ireland Unlimited Co	Ireland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Islamic Issuance BV[s]	Netherlands	Full	-	-		Full	-	-	
	BNPP Issuance BV[s]	Netherlands	Full	-	-		Full	-	-	
	BNPP Net Ltd	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Prime Brokerage International Ltd	Ireland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Suisse SA	Switzerland	Full	100.0%	100.0%		Full	100.0%	100.0%	

Business	Name	Country	31 December 2022 Method	31 December 2022 Voting (%)	31 December 2022 Interest (%)	31 December 2022 Ref.	31 December 2021 Method	31 December 2021 Voting (%)	31 December 2021 Interest (%)	31 December 2021 Ref.
	BNPP Suisse SA (Guernsey branch)	Guernsey	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Technology LLC	Russia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Trust Corp UK Ltd	UK	Full	100.0%	100.0%	E1				
	BNPP Vartry Reinsurance DAC	Ireland	Full[(2)]	100.0%	100.0%		Full[(2)]	100.0%	100.0%	
	Diamante Re SRL	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Ejesur SA	Spain	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Ellipsis AM Suisse SARL	Switzerland				S2	Full	100.0%	100.0%	V1/D3
	Exane Solutions Luxembourg SA	Luxembourg	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D3
	Expo Atlantico EAII Investimentos Imobiliarios SA[s]	Portugal	Full	-	-	E2				
	Expo Indico EIII Investimentos Imobiliarios SA[s]	Portugal	Full	-	-	E2				
	FScholen	Belgium	Equity[(3)]	50.0%	50.0%		Equity[(3)]	50.0%	50.0%	
	Greenstars BNPP	Luxembourg	Full[(2)]	100.0%	100.0%		Full[(2)]	100.0%	100.0%	
	Kantox Holding Ltd (Ex- Kantox Ltd)	UK	Equity	9.5%	9.5%		Equity	9.5%	9.5%	V4
	Madison Arbor Ltd[t]	Ireland	Full	-	-		Full	-	-	
	Matchpoint Finance PLC[t]	Ireland	Full	-	-		Full	-	-	
	Ribera Del Loira Arbitrage	Spain	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Securasset SA[s]	Luxembourg	Full	-	-		Full	-	-	E1
	Single Platform Investment Repackaging Entity SA[s]	Luxembourg	Full	-	-		Full	-	-	
	Utexam Logistics Ltd	Ireland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Utexam Solutions Ltd	Ireland	Full	100.0%	100.0%		Full	100.0%	100.0%	
Middle East										
	BNPP Investment Co KSA	Saudi Arabia	Full	100.0%	100.0%		Full	100.0%	100.0%	
AMERICAS										
	Banco BNPP Brasil SA	Brazil	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Canada Corp	Canada	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Capital Services Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Colombia Corporacion Financiera SA	Colombia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP EQD Brazil Fund Fundo de Investmento Multimercado[s]	Brazil	Full	-	-		Full	-	-	
	BNPP Financial Services LLC	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP FS LLC	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP IT Solutions Canada Inc	Canada	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Mexico Holding	Mexico	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	BNPP Mexico SA Institucion de Banca Multiple	Mexico	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	BNPP Proprietario Fundo de Investimento Multimercado[s]	Brazil	Full	-	-		Full	-	-	
	BNPP RCC Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Securities Corp	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP US Investments Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP US Wholesale Holdings Corp	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP USA Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP VPG Brookline Cre LLC[s]	USA	Full	-	-		Full	-	-	
	BNPP VPG EDMC Holdings LLC[s]	USA	Full	-	-		Full	-	-	
	BNPP VPG Express LLC[s]	USA	Full	-	-		Full	-	-	
	BNPP VPG I LLC[s]	USA	Full	-	-		Full	-	-	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	BNPP VPG II LLC[s]	USA	Full	-	-		Full	-	-	
	BNPP VPG III LLC[s]	USA	Full	-	-		Full	-	-	
	BNPP VPG Master LLC[s]	USA	Full	-	-		Full	-	-	
	Dale Bakken Partners 2012 LLC	USA	FV	4.9%	23.8%	V3	FV	23.8%	23.8%	
	Decart Re Ltd[s]	Bermuda	Full(2)	-	-		Full(2)	-	-	
	Exane Inc	USA				S1	Full	100.0%	100.0%	V1/D3
	FSI Holdings Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Starbird Funding Corp[t]	USA	Full	-	-		Full	-	-	
PACIFIC ASIA										
	Bank BNPP Indonesia PT	Indonesia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Arbitrage Hong Kong Ltd	Hong Kong	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP China Ltd	China	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Finance Hong Kong Ltd	Hong Kong	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Fund Services Australasia Pty Ltd	Australia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Fund Services Australasia Pty Ltd (New zealand branch)	New Zealand	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Global Securities Operations Private Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP India Holding Private Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP India Solutions Private Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Malaysia Berhad	Malaysia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Securities Asia Ltd	Hong Kong	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Securities India Private Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Securities Japan Ltd	Japan	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Securities Korea Co Ltd	Rep. of Korea	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Securities Taiwan Co Ltd	Taiwan	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Sekuritas Indonesia PT	Indonesia	Full	100.0%	100.0%	V4	Full	99.0%	99.0%	
	BPP Holdings Pte Ltd	Singapore	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Contour Pte Ltd	Singapore								S2
	Pt Andalan Multi Guna	Indonesia	Full	100.0%	100.0%	D1				
COMMERCIAL, PERSONAL BANKING & SERVICES										
COMMERCIAL, PERSONAL BANKING IN THE EURO ZONE										
Commercial, Personal Banking in France										
	2SF - Société des Services Fiduciaires	France	Equity	33.33%	33.33%	E2				
	Banque de Wallis et Futuna	France	Full(1)	51.0%	51.0%		Full(1)	51.0%	51.0%	
	BNPP Antilles Guyane	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	BNPP Développement	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Développement Oblig	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Factor	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	BNPP Factor (Spain branch)	Spain	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	BNPP Factor Sociedade Financeira de Credito SA	Portugal	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Nouvelle Calédonie	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	BNPP Réunion	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	Compagnie pour le Financement des Loisirs	France	Full	100.0%	100.0%	V1/D5	Equity	46.0%	46.0%	
	Copartis	France	Full	100.0%	100.0%		Full	100.0%	100.0%	

Business	Name	Country	31 December 2022				31 December 2021			
			Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	Euro Securities Partners	France	Equity[3]	50.0%	50.0%		Equity[3]	50.0%	50.0%	
	GIE Ocean	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Jivago Holding	France	Full	100.0%	100.0%		Full	100.0%	100.0%	E3
	Partecis	France	Equity[3]	50.0%	50.0%		Equity[3]	50.0%	50.0%	
	Paylib Services	France	Equity	14.3%	14.3%		Equity	14.3%	14.3%	
	Portzamparc	France	Full[1]	100.0%	100.0%		Full[1]	100.0%	100.0%	
	Protection 24	France								S2
	Société Lairoise de Participations	France				S4	Full	100.0%	100.0%	
BNL banca commerciale										
	Artigiancassa SPA	Italy	Full	73.9%	73.9%		Full	73.9%	73.9%	
	Banca Nazionale Del Lavoro SPA	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	EMF IT 2008 1 SRL[t]	Italy	Full	-	-		Full	-	-	
	Era Uno SRL[t]	Italy	Full	-	-		Full	-	-	E2
	Eutimm SRL	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Financit SPA	Italy	Full	60.0%	60.0%		Full	60.0%	60.0%	V2
	Immera SRL[t]	Italy	Full	-	-		Full	-	-	E1
	International Factors Italia SPA	Italy	Full	99.7%	99.7%		Full	99.7%	99.7%	
	Permicro SPA	Italy	Equity	21.9%	21.9%	V4	Equity	21.6%	21.6%	
	Serfactoring SPA	Italy								S2
	Servizio Italia SPA	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Sviluppo HQ Tiburtina SRL	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Tierre Securitisation SRL[t]	Italy	Full	-	-		Full	-	-	
	Vela Consumer 2 SRL[t]	Italy								S1
	Vela Home SRL[t]	Italy				S3	Full	-	-	
	Vela Mortgages SRL[t]	Italy				S3	Full	-	-	
	Vela OBG SRL[t]	Italy	Full	-	-		Full	-	-	
	Vela RMBS SRL[t]	Italy	Full	-	-		Full	-	-	
	Worldline Merchant Services Italia SPA (Ex- Axepta SPA)	Italy	Equity	20.0%	20.0%	V2/D6	Full	100.0%	100.0%	
Commercial, Personal Banking in Belgium										
	Axepta BNPP Benelux	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	Bancontact Paytoniq Company	Belgium	Equity	22.5%	22.5%		Equity	22.5%	22.5%	
	Banking Funding Company SA	Belgium				S3	Equity	33.5%	33.5%	
	BASS Master Issuer NV[t]	Belgium	Full	-	-		Full	-	-	
	Batopin	Belgium	Equity	25.0%	25.0%		Equity	25.0%	25.0%	E1
	Belgian Mobile ID	Belgium	Equity	12.2%	12.2%		Equity	12.2%	12.2%	V3
	BNPP Commercial Finance Ltd	UK	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP Factor AB	Sweden								S1
	BNPP Factor AS	Denmark	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP Factor GmbH	Germany	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP Factor NV	Netherlands								S1
	BNPP Factoring Support	Netherlands	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP Fortis	Belgium	Full	99.9%	99.9%		Full	99.9%	99.9%	
	BNPP Fortis (Spain branch)	Spain	Full	99.9%	99.9%		Full	99.9%	99.9%	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	BNPP Fortis (United states branch)	USA	Full	99.9%	99.9%		Full	99.9%	99.9%	
	BNPP Fortis Factor NV	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP Fortis Film Finance	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	V4
	BNPP Fortis Funding SA	Luxembourg	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP FPE Belgium	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP FPE Expansion	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP FPE Management	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	Bpost Banque	Belgium	Full	100.0%	99.9%	V1/D7	Equity[(3)]	50.0%	50.0%	
	Credissimo	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	Credissimo Hainaut SA	Belgium	Full	99.7%	99.7%		Full	99.7%	99.7%	
	Crédit pour Habitations Sociales	Belgium	Full	81.7%	81.6%		Full	81.7%	81.6%	
	Demetris NV	Belgium	Full	100.0%	99.9%	E1				
	Epimede[s]	Belgium	Equity	-	-		Equity	-	-	
	Esmee Master Issuer[t]	Belgium	Full	-	-		Full	-	-	
	Immobilière Sauveniere SA	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	Isabel SA NV	Belgium	Equity	25.3%	25.3%		Equity	25.3%	25.3%	
	Microstart	Belgium	Full	42.3%	76.8%		Full	42.3%	76.8%	V4
	Private Equity Investments (a)	BE/FR/LU	FV	-	-		FV	-	-	
	Sagip	Belgium	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Sowo Invest SA NV	Belgium	Full	87.5%	87.5%		Full	87.5%	87.5%	
Commercial, Personal Banking in Luxembourg										
	BGL BNPP	Luxembourg	Full	66.0%	65.9%		Full	66.0%	65.9%	
	BGL BNPP (Germany branch)	Germany	Full	66.0%	65.9%		Full	66.0%	65.9%	
	BNPP Lease Group Luxembourg SA	Luxembourg	Full	100.0%	65.9%		Full	100.0%	65.9%	
	BNPP SB Re	Luxembourg	Full[(2)]	100.0%	100.0%		Full[(2)]	100.0%	100.0%	
	Cofhylux SA	Luxembourg	Full	100.0%	65.9%		Full	100.0%	65.9%	
	Compagnie Financière Ottomane SA	Luxembourg	Full	97.3%	97.3%		Full	97.3%	97.3%	
	Le Sphinx Assurances Luxembourg SA	Luxembourg	Full[(2)]	100.0%	100.0%		Full[(2)]	100.0%	100.0%	
	Lion International Investments SA	Luxembourg				S4	Full	100.0%	100.0%	
	Luxhub SA	Luxembourg	Equity	28.0%	18.5%		Equity	28.0%	18.5%	
	Visalux	Luxembourg	Equity	25.3%	16.7%		Equity	25.3%	16.7%	
COMMERCIAL, PERSONAL BANKING OUTSIDE THE EURO ZONE										
Europe-Mediterranean										
	Bank of Nanjing	China	Equity	13.9%	13.9%	V3	Equity	15.0%	15.0%	V1
	Banque Internationale pour le Commerce et l'Industrie de la Côte d'Ivoire	Ivory Coast	Full	59.8%	59.8%		Full	59.8%	59.8%	
	Banque Internationale pour le Commerce et l'Industrie de la Guinée	Guinea								S2
	Banque Internationale pour le Commerce et l'Industrie du Burkina Faso	Burkina Faso								S2
	Banque Internationale pour le Commerce et l'Industrie du Sénégal	Senegal	Full	54.1%	54.1%		Full	54.1%	54.1%	
	Banque Marocaine pour le Commerce et l'Industrie	Morocco	Full	67.0%	67.0%		Full	67.0%	67.0%	
	Banque Marocaine pour le Commerce et l'Industrie Banque Offshore	Morocco	Full	100.0%	67.0%		Full	100.0%	67.0%	
	Bantas Nakit AS	Türkiye	Equity[(3)]	33.3%	16.7%		Equity[(3)]	33.3%	16.7%	
	BDSI	Morocco	Full	100.0%	96.4%		Full	100.0%	96.4%	
	BGZ Poland ABS1 DAC[t]	Ireland	Full	-	-		Full	-	-	

Business	Name	Country	31 December 2022				31 December 2021			
			Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	BICI Bourse	Ivory Coast	Full	90.0%	52.0%		Full	90.0%	52.0%	V4
	BMCI Leasing	Morocco	Full	86.9%	58.2%		Full	86.9%	58.2%	
	BNPP Bank Polska SA	Poland	Full	87.4%	87.4%		Full	87.4%	87.4%	V3
	BNPP El Djazair	Algeria	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Faktoring Spolka ZOO	Poland	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Fortis Yatirimlar Holding AS	Türkiye	Full	100.0%	99.9%		Full	100.0%	99.9%	
	BNPP Group Service Center SA	Poland	Full	100.0%	87.4%	E1				
	BNPP IRB Participations	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Solutions Spolka ZOO	Poland				S3	Full	100.0%	87.4%	V3
	BNPP Yatirimlar Holding AS	Türkiye	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Dreams Sustainable AB	Sweden	Full	57.5%	57.5%	E3				
	Joint Stock Company Ukrsibbank	Ukraine	Equity	60.0%	60.0%	D1	Full	60.0%	60.0%	
	TEB ARF Teknoloji Anonim Sirketi	Türkiye	Full	100.0%	72.5%		Full	100.0%	72.5%	E2
	TEB Faktoring AS	Türkiye	Full	100.0%	72.5%		Full	100.0%	72.5%	
	TEB Holding AS	Türkiye	Full	50.0%	50.0%		Full	50.0%	50.0%	
	TEB SH A	Serbia	Full	100.0%	50.0%		Full	100.0%	50.0%	
	TEB Yatirim Menkul Degerler AS	Türkiye	Full	100.0%	72.5%		Full	100.0%	72.5%	
	Turk Ekonomi Bankasi AS	Türkiye	Full	100.0%	72.5%		Full	100.0%	72.5%	
	Union Bancaire pour le Commerce et l'Industrie	Tunisia								S2
BancWest										
	BancWest Holding Inc	USA	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	D2
	BancWest Holding Inc Grantor Trust ERC Subaccount[s]	USA	Full	-	-	D2	Full	-	-	D2
	Bancwest Holding Inc Umbrella Trust[s]	USA	Full	-	-	D2	Full	-	-	D2
	BancWest Investment Services Inc	USA	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	D2
	Bank of the West	USA	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	D2
	Bank of the West Auto Trust 2018-1[t]	USA				S1	Full	-	-	D2
	Bank of the West Auto Trust 2019-1[t]	USA	Full	-	-	D2	Full	-	-	D2
	Bank of the West Auto Trust 2019-2[t]	USA	Full	-	-	D2	Full	-	-	D2
	BNPP Leasing Solutions Canada Inc	Canada	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	
	BOW Auto Receivables LLC[t]	USA	Full	-	-	D2	Full	-	-	D2
	BWC Opportunity Fund 2 Inc[t]	USA	Full	-	-	D2	Full	-	-	D2
	BWC Opportunity Fund Inc[t]	USA	Full	-	-	D2	Full	-	-	D2
	CFB Community Development Corp	USA	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	D2
	Claas Financial Services LLC	USA	Full	51.0%	51.0%	D2	Full	51.0%	51.0%	D2
	Commercial Federal Affordable Housing Inc	USA	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	D2
	Commercial Federal Community Development Corp	USA								S1
	Commercial Federal Insurance Corp	USA								S1
	Commercial Federal Investment Service Inc	USA								S1
	First Santa Clara Corp[s]	USA	Full	-	-	D2	Full	-	-	D2
	Liberty Leasing Co	USA								S1
	United California Bank Deferred Compensation Plan Trust[s]	USA	Full	-	-	D2	Full	-	-	D2
	Ursus Real Estate Inc	USA	Full	100.0%	100.0%	D2	Full	100.0%	100.0%	D2
SPECIALISED BUSINESSES										
Personal Finance										

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	Alpha Crédit SA	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	AutoFlorence 1 SRL[t]	Italy	Full	-	-		Full	-	-	
	AutoFlorence 2 SRL[t]	Italy	Full	-	-		Full	-	-	E2
	Autonoria 2019[t]	France	Full	-	-		Full	-	-	
	Autonoria Spain 2019[t]	Spain	Full	-	-		Full	-	-	
	Autonoria Spain 2021 FT[t]	Spain	Full	-	-		Full	-	-	E2
	Autonoria Spain 2022 FT[t]	Spain	Full	-	-	E2				
	Autop Ocean Indien	France				S4	Full	100.0%	97.8%	
	Axa Banque Financement	France	Equity	35.0%	35.0%		Equity	35.0%	35.0%	
	Banco Cetelem SA	Spain	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Banco Cetelem SA	Brazil	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BGN Mercantil E Servicos Ltda	Brazil	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance (Austria branch)	Austria	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance (Bulgaria branch)	Bulgaria	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance (Czech republic branch)	Czech Rep.	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance (Portugal branch)	Portugal	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance (Romania branch)	Romania	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance (Slovakia branch)	Slovakia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance BV	Netherlands	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Personal Finance South Africa Ltd	South Africa	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BON BNPP Consumer Finance Co Ltd (Ex- Suning Consumer Finance Co Ltd)	China	Equity	18.0%	18.0%	V1	Equity	15.0%	15.0%	
	Cafineo	France	Full(1)	51.0%	50.8%		Full(1)	51.0%	50.8%	
	Carrefour Banque	France	Equity	40.0%	40.0%		Equity	40.0%	40.0%	
	Central Europe Technologies SRL	Romania	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	Cetelem Algérie	Algeria								S1
	Cetelem America Ltda	Brazil	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Cetelem Business Consulting Shanghai Co Ltd	China	Full	100.0%	100.0%	E1				
	Cetelem Gestion AIE	Spain	Full	100.0%	96.0%		Full	100.0%	96.0%	
	Cetelem SA de CV	Mexico	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Cetelem Servicios Informaticos AIE	Spain	Full	100.0%	81.0%		Full	100.0%	81.0%	
	Cetelem Servicios SA de CV	Mexico				S4	Full	100.0%	100.0%	
	Cetelem Servicos Ltda	Brazil	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Cofica Bail	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	Cofinoga Funding Two LP[s]	UK								S1
	Cofiplan	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	Creation Consumer Finance Ltd	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Creation Financial Services Ltd	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Crédit Moderne Antilles Guyane	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	Crédit Moderne Océan Indien	France	Full(1)	97.8%	97.8%		Full(1)	97.8%	97.8%	
	Domofinance	France	Full(1)	55.0%	55.0%		Full(1)	55.0%	55.0%	
	Domos 2017[t]	France				S1	Full	-	-	
	E Carat 10[t]	France	Full	-	-		Full	-	-	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	E Carat 7 PLC[t]	UK								S3
	E Carat 8 PLC[t]	UK								S3
	E Carat 9 PLC[t]	UK								S3
	E Carat 10 PLC[t]	UK				S3	Full	-	-	
	E Carat 11 PLC[t]	UK	Full	-	-		Full	-	-	
	E Carat 12 PLC[t]	UK	Full	-	-		Full	-	-	E2
	E Carat SA[t]	Luxembourg								S3
	Ekspres Bank AS	Denmark	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Ekspres Bank AS (Norway branch)	Norway	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Ekspres Bank AS (Sweden branch)	Sweden	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Eos Aremas Belgium SA NV	Belgium	Equity	50.0%	49.9%		Equity	50.0%	49.9%	
	Evollis	France	Equity	41.0%	41.0%		Equity	41.0%	41.0%	E3
	Findomestic Banca SPA	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Florence Real Estate Developments SPA	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	Florence SPV SRL[t]	Italy	Full	-	-		Full	-	-	
	GCC Consumo Establecimiento Financiero de Credito SA	Spain	Full	51.0%	51.0%		Full	51.0%	51.0%	
	Genius Auto Finance Co Ltd	China	Equity[3]	20.0%	20.0%		Equity[3]	20.0%	20.0%	
	International Development Resources AS Services SA	Spain	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	Iqera Services	France	Equity	24.5%	24.5%		Equity	24.5%	24.5%	
	Loisirs Finance	France	Full[1]	51.0%	51.0%		Full[1]	51.0%	51.0%	
	Magyar Cetelem Bank ZRT	Hungary	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Neuilly Contentieux	France	Full	95.9%	95.6%		Full	95.9%	95.6%	
	Noria 2018-1[t]	France	Full	-	-		Full	-	-	
	Noria 2020[t]	France	Full	-	-		Full	-	-	
	Noria 2021[t]	France	Full	-	-		Full	-	-	E2
	Noria Spain 2020 FT[t]	Spain	Full	-	-		Full	-	-	
	Olympia SAS	France								S3
	Opel Bank	France	Full	50.0%	50.0%		Full	50.0%	50.0%	
	Opel Bank (Austria branch)	Austria	Full	50.0%	50.0%		Full	50.0%	50.0%	
	Opel Bank (Germany branch)	Germany	Full	50.0%	50.0%		Full	50.0%	50.0%	
	Opel Bank (Greece branch)	Greece								S1
	Opel Bank (Italy branch)	Italy	Full	50.0%	50.0%		Full	50.0%	50.0%	
	Opel Bank (Spain branch)	Spain	Full	50.0%	50.0%		Full	50.0%	50.0%	
	Opel Finance BV	Belgium				S3	Full	100.0%	50.0%	
	Opel Finance NV	Netherlands	Full	100.0%	50.0%		Full	100.0%	50.0%	
	Opel Finance SA	Switzerland	Full	100.0%	50.0%		Full	100.0%	50.0%	
	Personal Finance Location	France	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	PF Services GmbH	Germany	Full	100.0%	100.0%		Full	100.0%	100.0%	E1
	Phedina Hypotheken 2010 BV[t]	Netherlands	Full	-	-		Full	-	-	
	RCS Botswana Pty Ltd	Botswana	Full	100.0%	100.0%		Full	100.0%	100.0%	
	RCS Cards Pty Ltd	South Africa	Full	100.0%	100.0%		Full	100.0%	100.0%	
	RCS Investment Holdings Namibia Pty Ltd	Namibia	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Securitisation funds UCI and RMBS Prado (b)[t]	Spain	Equity[3]	-	-		Equity[3]	-	-	

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
	Servicios Financieros Carrefour EFC SA	Spain	Equity	37.3%	40.0%		Equity	37.3%	40.0%	
	Solfinéa	France								S3
	Sygma Fundings Two Ltd	UK								S3
	Symag	France								S2
	TEB Finansman AS	Türkiye	Full	100.0%	92.8%		Full	100.0%	92.8%	
	Union de Creditos Inmobiliarios SA	Spain	Equity(3)	50.0%	50.0%		Equity(3)	50.0%	50.0%	
	United Partnership	France	Equity(3)	50.0%	50.0%		Equity(3)	50.0%	50.0%	
	Vauxhall Finance PLC	UK	Full	100.0%	50.0%		Full	100.0%	50.0%	
	XFERA Consumer Finance EFC SA	Spain	Full	51.0%	51.0%		Full	51.0%	51.0%	
	Zhejiang Wisdom Puhua Financial Leasing Co Ltd	China	Equity(3)	20.0%	20.0%		Equity(3)	20.0%	20.0%	E3
Arval										
	Artel	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval AB	Sweden	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval AS	Denmark	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval AS Norway	Norway	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Austria GmbH	Austria	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Belgium NV SA	Belgium	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Benelux BV	Netherlands				S4	Full(2)	100.0%	99.9%	
	Arval Brasil Ltda	Brazil	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval BV	Netherlands	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval CZ SRO	Czech Rep.	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Deutschland GmbH	Germany	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Fleet Services	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Fuhrparkmanagement GmbH	Austria								S4
	Arval Hellas Car Rental SA	Greece	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval India Private Ltd	India								S3
	Arval LLC	Russia	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Luxembourg SA	Luxembourg	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Magyarorszag KFT	Hungary	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Maroc SA	Morocco	Full(2)	100.0%	89.0%		Full(2)	100.0%	89.0%	
	Arval OY	Finland	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Relsa SPA	Chile	Equity	50.0%	50.0%		Equity	50.0%	50.0%	
	Arval Schweiz AG	Switzerland	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Service Lease	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Service Lease Aluger Operational Automoveis SA	Portugal	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Service Lease Italia SPA	Italy	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Service Lease Polska SP ZOO	Poland	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Service Lease Romania SRL	Romania	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Service Lease SA	Spain	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Slovakia SRO	Slovakia	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval Trading	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval UK Group Ltd	UK	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval UK Leasing Services Ltd	UK	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Arval UK Ltd	UK	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
	BNPP Fleet Holdings Ltd	UK	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Cent ASL	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	E2
	Cofiparc	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	FCT Pulse France 2022s	France	Full(2)	-	-	E2				
	Greenval Insurance DAC	Ireland	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Locadif	Belgium	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Louveo	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	Personal Car Lease BV	Netherlands	Full(2)	100.0%	99.9%	E3				
	Public Location Longue Durée	France	Full(2)	100.0%	99.9%		Full(2)	100.0%	99.9%	
	TEB Arval Arac Filo Kiralama AS	Türkiye	Full(2)	100.0%	75.0%		Full(2)	100.0%	75.0%	
	Terberg Busines Lease Group BV	Netherlands	Full(2)	100.0%	99.9%	E3				
	Terberg Leasing Justlease Belgium BV	Belgium	Full(2)	100.0%	99.9%	E3				
Leasing Solutions										
	All In One Vermietung GmbH	Austria	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Aprolis Finance	France	Full	51.0%	42.3%		Full	51.0%	42.3%	
	Artegy	France	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNL Leasing SPA	Italy	Full	100.0%	95.5%		Full	100.0%	95.5%	
	BNPP 3 Step IT	France	Full	51.0%	42.3%		Full	51.0%	42.3%	
	BNPP 3 Step IT (Belgium branch)	Belgium	Full	51.0%	42.3%		Full	51.0%	42.3%	
	BNPP 3 Step IT (Germany branch)	Germany	Full	51.0%	42.3%		Full	51.0%	42.3%	
	BNPP 3 Step IT (Italy branch)	Italy	Full	51.0%	42.3%		Full	51.0%	42.3%	
	BNPP 3 Step IT (Netherlands branch)	Netherlands	Full	51.0%	42.3%		Full	51.0%	42.3%	
	BNPP 3 Step IT (United kingdom branch)	UK	Full	51.0%	42.3%		Full	51.0%	42.3%	
	BNPP Finansal Kiralama AS	Türkiye	Full	100.0%	82.5%		Full	100.0%	82.5%	
	BNPP Lease Group	France	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	BNPP Lease Group (Germany branch)	Germany	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	BNPP Lease Group (Italy branch)	Italy	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	BNPP Lease Group (Portugal branch)	Portugal	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	BNPP Lease Group (Spain branch)	Spain	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	BNPP Lease Group Belgium	Belgium	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Lease Group GmbH & Co KG	Austria								S4
	BNPP Lease Group Leasing Solutions SPA	Italy	Full	100.0%	95.5%		Full	100.0%	95.5%	
	BNPP Lease Group PLC	UK	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Lease Group Rentals Ltd	UK								S1
	BNPP Lease Group SP ZOO	Poland	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Leasing Services	Poland	Full	100.0%	87.4%		Full	100.0%	87.4%	V3
	BNPP Leasing Solution AS	Norway	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Leasing Solutions	Luxembourg	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Leasing Solutions AB	Sweden	Full	100.0%	83.0%		Full	100.0%	83.0%	E1
	BNPP Leasing Solutions AS	Denmark	Full	100.0%	83.0%	E1				
	BNPP Leasing Solutions IFN SA	Romania	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Leasing Solutions Ltd	UK	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Leasing Solutions NV	Netherlands	Full	100.0%	83.0%		Full	100.0%	83.0%	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	BNPP Leasing Solutions Suisse SA	Switzerland	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Rental Solutions Ltd	UK	Full	100.0%	83.0%		Full	100.0%	83.0%	
	BNPP Rental Solutions SPA	Italy	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Claas Financial Services	France	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	Claas Financial Services (Germany branch)	Germany	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	Claas Financial Services (Italy branch)	Italy	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	Claas Financial Services (Poland branch)	Poland	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	Claas Financial Services (Spain branch)	Spain	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	Claas Financial Services Ltd	UK	Full	51.0%	42.3%		Full	51.0%	42.3%	
	CNH Industrial Capital Europe	France	Full(1)	50.1%	41.6%		Full(1)	50.1%	41.6%	
	CNH Industrial Capital Europe (Belgium branch)	Belgium	Full(1)	50.1%	41.6%		Full(1)	50.1%	41.6%	
	CNH Industrial Capital Europe (Germany branch)	Germany	Full(1)	50.1%	41.6%		Full(1)	50.1%	41.6%	
	CNH Industrial Capital Europe (Italy branch)	Italy	Full(1)	50.1%	41.6%		Full(1)	50.1%	41.6%	
	CNH Industrial Capital Europe (Poland branch)	Poland	Full(1)	50.1%	41.6%		Full(1)	50.1%	41.6%	
	CNH Industrial Capital Europe (Spain branch)	Spain	Full(1)	50.1%	41.6%		Full(1)	50.1%	41.6%	
	CNH Industrial Capital Europe BV	Netherlands	Full	100.0%	41.6%		Full	100.0%	41.6%	
	CNH Industrial Capital Europe GmbH	Austria	Full	100.0%	41.6%		Full	100.0%	41.6%	
	CNH Industrial Capital Europe Ltd	UK	Full	100.0%	41.6%		Full	100.0%	41.6%	
	ES Finance	Belgium	Full	100.0%	99.9%		Full	100.0%	99.9%	
	FL Zeebrugge[s]	Belgium	Full	-	-		Full	-	-	
	Folea Grundstucksverwaltungs und Vermietungs Gmbh & Co[s]	Germany				S1	Full	-	-	
	Fortis Lease	France	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	Fortis Lease Belgium	Belgium	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Fortis Lease Deutschland GmbH	Germany	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Fortis Lease Iberia SA	Spain	Full	100.0%	86.6%		Full	100.0%	86.6%	
	Fortis Lease Portugal	Portugal	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Fortis Lease UK Ltd	UK	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Fortis Vastgoedlease BV	Netherlands	Full	100.0%	83.0%		Full	100.0%	83.0%	
	Heffiq Heftruck Verhuur BV	Netherlands	Full	50.1%	41.5%		Full	50.1%	41.5%	
	JCB Finance	France	Full(1)	100.0%	41.6%		Full(1)	100.0%	41.6%	
	JCB Finance (Germany branch)	Germany	Full(1)	100.0%	41.6%		Full(1)	100.0%	41.6%	
	JCB Finance (Italy branch)	Italy	Full(1)	100.0%	41.6%		Full(1)	100.0%	41.6%	
	JCB Finance Holdings Ltd	UK	Full	50.1%	41.6%		Full	50.1%	41.6%	
	Manitou Finance Ltd	UK	Full	51.0%	42.3%		Full	51.0%	42.3%	
	MGF	France	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	MGF (Germany branch)	Germany	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	MGF (Italy branch)	Italy	Full(1)	51.0%	42.3%		Full(1)	51.0%	42.3%	
	Natio Energie 2	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Natiocredibail	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	Pixel 2021[t]	France	Full	-	-		Full	-	-	E2
	RD Leasing IFN SA	Romania								S4
	Same Deutz Fahr Finance	France	Full(1)	100.0%	83.0%		Full(1)	100.0%	83.0%	
	SNC Natiocredimurs	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
New Digital Businesses										
	Financière des Paiements Electroniques	France	Full	95.0%	95.0%		Full	95.0%	95.0%	
	Financière des Paiements Electroniques (Belgium branch)	Belgium	Full	95.0%	95.0%		Full	95.0%	95.0%	E2
	Financière des Paiements Electroniques (German branch)	Germany	Full	95.0%	95.0%	E2				
	Financière des Paiements Electroniques (Portugal branch)	Portugal	Full	95.0%	95.0%		Full	95.0%	95.0%	E2
	Financière des Paiements Electroniques (Spain branch)	Spain	Full	95.0%	95.0%		Full	95.0%	95.0%	
	Floa	France	Full	100.0%	100.0%	E3				
	Lyf SA	France	Equity[3]	43.8%	43.8%		Equity[3]	43.8%	43.8%	
	Lyf SAS	France	Equity[3]	49.9%	49.9%	V4	Equity[3]	49.1%	49.1%	
Personal Investors										
	Espresso Financial Services Private Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Geojit Technologies Private Ltd	India	Equity	35.0%	35.0%		Equity	35.0%	35.0%	
	Human Value Developers Private Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Sharekhan BNPP Financial Services Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Sharekhan Ltd	India	Full	100.0%	100.0%		Full	100.0%	100.0%	
INVESTMENT & PROTECTION SERVICES										
Insurance										
	AEW Immocommercial$	France	FV	-	-		FV	-	-	
	AG Insurance	Belgium	Equity	25.0%	25.0%		Equity	25.0%	25.0%	
	Agathe Retail France	France	FV	33.3%	33.3%		FV	33.3%	33.3%	
	Ambrosia Avril 2025$	France								S1
	Ambrosia Mars 2026$	France								S1
	Astridplaza	Belgium	Full[2]	100.0%	98.5%		Full[2]	100.0%	98.5%	V4
	Batipart Participations SAS	Luxembourg	FV	29.7%	29.7%		FV	29.7%	29.7%	
	Becquerel$	France	Full[4]	-	-		Full[4]	-	-	
	BNPP Actions Croissance$	France	Full[4]	-	-		Full[4]	-	-	
	BNPP Actions Entrepreneurs$	France				S3	Full[4]	-	-	
	BNPP Actions Euro$	France	Full[4]	-	-		Full[4]	-	-	
	BNPP Actions Monde$	France	Full[4]	-	-		Full[4]	-	-	
	BNPP Actions PME$	France				S3	Full[4]	-	-	
	BNPP Actions PME ETI$	France	Full[4]	-	-		Full[4]	-	-	E1
	BNPP Aqua$	France	Full[4]	-	-		Full[4]	-	-	
	BNPP Best Selection Actions Euro$	France	Full[4]	-	-		Full[4]	-	-	
	BNPP Cardif	France	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	
	BNPP Cardif BV	Netherlands	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	
	BNPP Cardif Compania de Seguros y Reaseguros SA	Peru	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	BNPP Cardif Emeklilik AS	Türkiye	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	
	BNPP Cardif General Insurance Co Ltd	Rep. of Korea				S2	Equity *	94.5%	94.5%	V4
	BNPP Cardif Hayat Sigorta AS	Türkiye	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	BNPP Cardif Levensverzekeringen NV	Netherlands								S4
	BNPP Cardif Livforsakring AB	Sweden	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	D1
	BNPP Cardif Livforsakring AB (Denmark branch)	Denmark	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	D1
	BNPP Cardif Livforsakring AB (Norway branch)	Norway	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	D1
	BNPP Cardif Pojistovna AS	Czech Rep.	Full[2]	100.0%	100.0%		Full[2]	100.0%	100.0%	

			31 December 2022				31 December 2021			
Business	**Name**	**Country**	**Method**	**Voting (%)**	**Interest (%)**	**Ref.**	**Method**	**Voting (%)**	**Interest (%)**	**Ref.**
	BNPP Cardif Schadeverzekeringen NV	Netherlands								S4
	BNPP Cardif Seguros de Vida SA	Chile	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Cardif Seguros Generales SA	Chile	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Cardif Services SRO	Czech Rep.	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	BNPP Cardif Servicios y Asistencia Ltda	Chile	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	BNPP Cardif Sigorta AS	Türkiye	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	BNPP Cardif TCB Life Insurance Co Ltd	Taiwan	Equity	49.0%	49.0%		Equity	49.0%	49.0%	
	BNPP Cardif Vita Compagnia di Assicurazione E Riassicurazione SPA	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Convictions[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP CP Cardif Alternative[s]	France				S3	Full(2)	-	-	
	BNPP CP Cardif Private Debt[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP CP Infrastructure Investments Fund[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Deep Value[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Développement Humain[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Diversipierre[s]	France	Full(2)	-	-		Full(2)	-	-	
	BNPP Europe High Conviction Bond[s]	France								S1
	BNPP France Crédit[s]	France	Full(2)	-	-		Full(2)	-	-	
	BNPP Global Senior Corporate Loans[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Indice Amerique du Nord[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Indice Euro[s]	France								S3
	BNPP Midcap France[s]	France								S3
	BNPP Moderate Focus Italia[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Monétaire Assurance[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Multistratégies Protection 80[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Next Tech[s]	France	Full(4)	-	-		Full(4)	-	-	E1
	BNPP Protection Monde[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Sélection Dynamique Monde[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Sélection Flexible[s]	France				S3	Full(4)	-	-	
	BNPP Smallcap Euroland[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Social Business France[s]	France	Full(4)	-	-		Full(4)	-	-	
	BOB Cardif Life Insurance Co Ltd	China	Equity	50.0%	50.0%		Equity	50.0%	50.0%	
	C Santé[s]	France	Full(2)	-	-		Full(2)	-	-	
	Camgestion Obliflexible[s]	France	Full(2)	-	-		Full(2)	-	-	
	Capital France Hotel	France	Full(2)	98.5%	98.5%		Full(2)	98.5%	98.5%	V4
	Cardif Alternatives Part I[s]	France	Full(2)	-	-		Full(2)	-	-	
	Cardif Assurance Vie	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Austria branch)	Austria	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Belgium branch)	Belgium	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Bulgaria branch)	Bulgaria	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Germany branch)	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Italy branch)	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Netherlands branch)	Netherlands	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Portugal branch)	Portugal	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Romania branch)	Romania	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	Cardif Assurance Vie (Spain branch)	Spain	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Switzerland branch)	Switzerland	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurance Vie (Taiwan branch)	Taiwan	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Austria branch)	Austria	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Belgium branch)	Belgium	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Bulgaria branch)	Bulgaria	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Germany branch)	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Italy branch)	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Netherlands branch)	Netherlands	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Poland branch)	Poland	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Portugal branch)	Portugal	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Romania branch)	Romania	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Spain branch)	Spain	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Switzerland branch)	Switzerland	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Assurances Risques Divers (Taiwan branch)	Taiwan	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Biztosito Magyarorszag ZRT	Hungary	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif BNPP AM Emerging Bond[$]	France	Full(2)	-	-		Full(2)	-	-	
	Cardif BNPP AM Global Senior Corporate Loans[$]	France	Full(4)	-	-		Full(4)	-	-	
	Cardif BNPP IP Convertibles World[$]	France				S3	Full(2)	-	-	
	Cardif BNPP IP Signatures[$]	France	Full(2)	-	-		Full(2)	-	-	
	Cardif BNPP IP Smid Cap Euro[$]	France	Full(2)	-	-		Full(2)	-	-	
	Cardif BNPP IP Smid Cap Europe[$]	France				S3	Full(4)	-	-	E1
	Cardif Colombia Seguros Generales SA	Colombia	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif CPR Global Return[$]	France	Full(2)	-	-		Full(2)	-	-	
	Cardif do Brasil Seguros e Garantias SA	Brazil	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif do Brasil Vida e Previdencia SA	Brazil	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Edrim Signatures[$]	France	Full(2)	-	-		Full(2)	-	-	
	Cardif El Djazair	Algeria	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif Forsakring AB	Sweden	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	D1
	Cardif Forsakring AB (Denmark branch)	Denmark	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	D1
	Cardif Forsakring AB (Norway branch)	Norway	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	D1
	Cardif IARD	France	Full(2)	66.0%	66.0%		Full(2)	66.0%	66.0%	
	Cardif Insurance Co LLC	Russia	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Life Insurance Co Ltd	Rep. of Korea	Full(2)	85.0%	85.0%		Full(2)	85.0%	85.0%	
	Cardif Life Insurance Japan	Japan	Full(2)	75.0%	75.0%		Full(2)	75.0%	75.0%	
	Cardif Ltda	Brazil	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif Lux Vie	Luxembourg	Full(2)	100.0%	88.6%		Full(2)	100.0%	88.6%	
	Cardif Mexico Seguros de Vida SA de CV	Mexico	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif Mexico Seguros Generales SA de CV	Mexico	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif Non Life Insurance Japan	Japan	Full(2)	100.0%	75.0%		Full(2)	100.0%	75.0%	
	Cardif Nordic AB	Sweden	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Pinnacle Insurance Holdings PLC	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Pinnacle Insurance Management Services PLC	UK				S2	Full(2)	100.0%	100.0%	

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
	Cardif Polska Towarzystwo Ubezpieczen Na Zycie SA	Poland	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif Retraite	France	Full(2)	100.0%	100.0%	E1				
	Cardif Seguros SA	Argentina	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	D1
	Cardif Services AEIE	Portugal	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cardif Servicios SAC	Peru	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Cardif Vita Convex Fund Eur$	France	Full(2)	-	-		Full(2)	-	-	
	Cardimmo	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cargeas Assicurazioni SPA	Italy								S2
	Carma Grand Horizon SARL	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cedrus Carbon Initiative Trends$	France	Full(2)	-	-		Full(2)	-	-	
	Centre Commercial Francilia	France	FV	21.7%	21.7%	E3				
	CFH Algonquin Management Partners France Italia	Italy	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Bercy	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Bercy Hotel	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Bercy Intermédiaire	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Berlin Holdco SARL	Luxembourg	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	E2
	CFH Boulogne	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Cap d'Ail	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Milan Holdco SRL	Italy	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Montmartre	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	CFH Montparnasse	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	Corosa	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Darnell DAC	Ireland	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Défense CB3 SAS	France	FV	25.0%	25.0%		FV	25.0%	25.0%	
	Diversipierre DVP 1	France	Full(2)	100.0%	88.1%	V3	Full(2)	100.0%	88.7%	E1
	Diversipierre Germany GmbH	Germany	Equity *	100.0%	88.1%	V3	Equity *	100.0%	88.7%	E1
	DVP European Channel	France	Equity *	100.0%	88.1%	V3	Equity *	100.0%	88.7%	E1
	DVP Green Clover	France	Equity *	100.0%	88.1%	V3	Equity *	100.0%	88.7%	E1
	DVP Haussmann	France	Equity *	100.0%	88.1%	V3	Equity *	100.0%	88.7%	E1
	DVP Heron	France	Equity *	100.0%	88.1%	V3	Equity *	100.0%	88.7%	E1
	Eclair$	France	Full(4)	-	-		Full(4)	-	-	
	Elegia Septembre 2028$	France								S1
	EP L$	France	Full(2)	-	-		Full(2)	-	-	
	EP1 Grands Moulins$	France	Equity *	-	-		Equity *	-	-	
	FDI Poncelet	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Fleur SAS	France	FV	33.3%	33.3%		FV	33.3%	33.3%	
	Foncière Partenaires$	France	FV	-	-		FV	-	-	
	Fonds d'Investissements Immobiliers pour le Commerce et la Distribution	France	FV	25.0%	25.0%		FV	25.0%	25.0%	
	FP Cardif Convex Fund USD$	France	Full(2)	-	-		Full(2)	-	-	
	Fundamenta$	Italy	Full(2)	-	-		Full(2)	-	-	
	G C Thematic Opportunities II$	Ireland	Full(2)	-	-		Full(2)	-	-	
	GIE BNPP Cardif	France	Full(2)	100.0%	100.0%	V4	Full(2)	99.9%	99.9%	V2
	GPinvest 10	France	FV	50.0%	50.0%		FV	50.0%	50.0%	E3

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
	Harewood Helena 2 Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Hemisphere Holding	France	Equity	20.0%	20.0%		Equity	20.0%	20.0%	
	Hibernia France	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	High Street Retail	France								S2
	Horizon Development GmbH	Germany	FV	66.7%	62.9%		FV	66.7%	62.9%	V3
	Icare	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Icare Assurance	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	ID Cologne A1 GmbH	Germany	Equity *	79.2%	74.1%		Equity *	79.2%	74.1%	E3
	ID Cologne A2 GmbH	Germany	Equity *	79.2%	74.1%		Equity *	79.2%	74.1%	E3
	Karapass Courtage	France	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Korian et Partenaires Immobilier 1	France	FV	24.5%	24.5%		FV	24.5%	24.5%	
	Korian et Partenaires Immobilier 2	France	FV	24.5%	24.5%		FV	24.5%	24.5%	
	Luizaseg	Brazil	Equity	50.0%	50.0%		Equity	50.0%	50.0%	
	Natio Assurance	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Natio Fonds Ampère 1$	France	Full(4)	-	-		Full(4)	-	-	
	Natio Fonds Athenes Investissement N 5$	France	Full(2)	-	-		Full(2)	-	-	
	Natio Fonds Colline International$	France	Full(2)	-	-		Full(2)	-	-	
	Natio Fonds Collines Investissement N 1$	France	Full(2)	-	-		Full(2)	-	-	
	Natio Fonds Collines Investissement N 3$	France	Full(2)	-	-		Full(2)	-	-	
	NCVP Participacoes Societarias SA	Brazil	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	New Alpha Cardif Incubator Fund$	France	Full(2)	-	-		Full(2)	-	-	
	OC Health Real Estate GmbH	Germany	FV	35.0%	31.0%		FV	35.0%	31.0%	E3
	Opéra Rendement$	France	Full(2)	-	-		Full(2)	-	-	
	Paris Management Consultant Co Ltd	Taiwan	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Permal Cardif Co Investment Fund$	France	Full(2)	-	-		Full(2)	-	-	
	Pinnacle Insurance PLC	UK				S2	Full(2)	100.0%	100.0%	
	Pinnacle Pet Holding Ltd	UK	Equity	30.0%	30.0%	E3				
	Poistovna Cardif Slovakia AS	Slovakia	Equity *	100.0%	100.0%		Equity *	100.0%	100.0%	
	Preim Healthcare SAS$	France	FV	-	-		FV	-	-	
	PWH	France	FV	47.5%	47.5%		FV	47.5%	47.5%	
	Reumal Investissements	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Rubin SARL	Luxembourg	FV	50.0%	50.0%		FV	50.0%	50.0%	
	Rueil Ariane	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SAS HVP	France	Full(2)	100.0%	98.5%		Full(2)	100.0%	98.5%	V4
	Schroder European Operating Hotels Fund 1$	Luxembourg	FV	-	-		FV	-	-	E1
	SCI 68/70 rue de Lagny - Montreuil	France	Full(2)	99.9%	99.9%	V3	Full(2)	100.0%	100.0%	
	SCI Alpha Park	France	FV	50.0%	50.0%		FV	50.0%	50.0%	
	SCI Batipart Chadesrent	France	FV	20.0%	20.0%		FV	20.0%	20.0%	E2
	SCI Biv Malakoff	France	FV	23.3%	23.3%		FV	23.3%	23.3%	E3
	SCI BNPP Pierre I	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI BNPP Pierre II	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Bobigny Jean Rostand	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Bouleragny	France	FV	50.0%	50.0%		FV	50.0%	50.0%	
	SCI Cardif Logement	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
	SCI Citylight Boulogne	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Clichy Nuovo	France	FV	50.0%	50.0%		FV	50.0%	50.0%	
	SCI Défense Etoile	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Défense Vendôme	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Etoile du Nord	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Fontenay Plaisance	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Imefa Velizy	France	FV	21.8%	21.8%		FV	21.8%	21.8%	
	SCI Le Mans Gare	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Liberté	France								S2
	SCI Nanterre Guilleraies	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Nantes Carnot	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Odyssée	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Pantin Les Moulins	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Paris Batignolles	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Paris Cours de Vincennes	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Paris Grande Armée	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Paris Turenne	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Portes de Claye	France	Equity	45.0%	45.0%		Equity	45.0%	45.0%	
	SCI Rue Moussorgski	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Rueil Caudron	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Saint Denis Landy	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Saint Denis Mitterrand	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI Saint-Denis Jade	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	SCI SCOO	France	Equity	46.4%	46.4%		Equity	46.4%	46.4%	
	SCI Vendôme Athènes	France	FV	50.0%	50.0%		FV	50.0%	50.0%	
	SCI Villeurbanne Stalingrad	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Secar	France	FV	55.1%	55.1%		FV	55.1%	55.1%	
	Seniorenzentren Deutschland Holding SARL	Luxembourg	FV	20.0%	17.7%		FV	20.0%	17.7%	
	Seniorenzentren Reinbeck Oberursel München Objekt GmbH	Germany	FV	35.0%	31.0%		FV	35.0%	31.0%	
	Seniorenzentrum Butzbach Objekt GmbH	Germany	FV	35.0%	31.0%		FV	35.0%	31.0%	
	Seniorenzentrum Heilbronn Objekt GmbH	Germany	FV	35.0%	31.0%		FV	35.0%	31.0%	
	Seniorenzentrum Kassel Objekt GmbH	Germany	FV	35.0%	31.0%		FV	35.0%	31.0%	
	Seniorenzentrum Wolfratshausen Objekt GmbH	Germany	FV	35.0%	31.0%		FV	35.0%	31.0%	
	Services Epargne Entreprise	France	Equity	35.6%	35.6%		Equity	35.6%	35.6%	
	SNC Batipart Mermoz	France	FV	25.0%	25.0%		FV	25.0%	25.0%	E2
	SNC Batipart Poncelet	France	FV	25.0%	25.0%		FV	25.0%	25.0%	V1
	Société Francaise d'Assurances sur la Vie	France	Equity	50.0%	50.0%		Equity	50.0%	50.0%	
	Société Immobilière du Royal Building SA	Luxembourg	Full(2)	100.0%	88.6%		Full(2)	100.0%	88.6%	
	Tikehau Cardif Loan Europe(s)	France	Full(2)	-	-		Full(2)	-	-	
	Valeur Pierre Epargne	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Valtitres FCP(s)	France	Full(2)	-	-		Full(2)	-	-	
	Velizy Holding	France	FV	33.3%	33.3%		FV	33.3%	33.3%	

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
Wealth Management										
	BNPP Wealth Management DIFC Ltd	United Arab Emirates				S3	Full	100.0%	100.0%	
	BNPP Wealth Management Monaco	Monaco	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
Asset Management										
	Alfred Berg Kapitalforvaltning AS	Norway	Full	100.0%	98.2%		Full	100.0%	98.2%	
	Alfred Berg Kapitalforvaltning AS (Sweden branch)	Sweden	Full	100.0%	98.2%		Full	100.0%	98.2%	
	Bancoestado Administradora General de Fondos SA	Chile	Equity	50.0%	49.1%		Equity	50.0%	49.1%	
	Baroda BNPP AMC Private Ltd (Ex- BNPP Asset Management India Private Ltd)	India	Equity(3)	49.9%	49.0%	V3/D8	Full	100.0%	98.2%	
	BNPP AM International Hedged Strategies$	France	Full(4)	-	-		Full(4)	-	-	E1
	BNPP Asset Management Asia Ltd	Hong Kong	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management Be Holding	Belgium	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management Belgium	Belgium				S4	Full	100.0%	98.2%	
	BNPP Asset Management Brasil Ltda	Brazil	Full	100.0%	99.5%		Full	100.0%	99.5%	
	BNPP Asset Management France	France	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management France (Austria branch)	Austria	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management France (Belgium branch)	Belgium	Full	100.0%	98.2%	E2				
	BNPP Asset Management France (Germany branch)	Germany	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management France (Italy branch)	Italy	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management France (Netherlands branch)	Netherlands	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management Holding	France	Full	99.9%	98.2%		Full	99.9%	98.2%	
	BNPP Asset Management Japan Ltd	Japan	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management Luxembourg	Luxembourg	Full	99.7%	97.9%		Full	99.7%	97.9%	
	BNPP Asset Management Nederland NV	Netherlands								S4
	BNPP Asset Management NL Holding NV	Netherlands	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management PT	Indonesia	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management Services Grouping	France	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management UK Ltd	UK	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Asset Management USA Holdings Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Asset Management USA Inc	USA	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP B Institutional II$	Belgium	Full(4)	-	-		Full(4)	-	-	
	BNPP Capital Partners	France								S4
	BNPP Dealing Services	France	Full	100.0%	98.2%		Full	100.0%	98.2%	
	BNPP Diversiflex$	France	Full(4)	-	-	E1				
	BNPP Easy$	Luxembourg	Full(4)	-	-	E1				
	BNPP European SME Debt Fund 2 SCSp RAIF$	Luxembourg				S2	Full(4)	-	-	E1
	BNPP Flexi I$	Luxembourg	Full(4)	-	-		Full(4)	-	-	
	BNPP Funds$	Luxembourg	Full(4)	-	-		Full(4)	-	-	
	BNPP L1$	Luxembourg								S3
	BNPP Multigestion$	France				S3	Full(4)	-	-	
	BNPP Perspectives$	France								S3
	Drypnir AS	Norway	Full	100.0%	0.0%		Full	100.0%	0.0%	
	EAB Group PLC	Finland				S2	Equity	17.6%	17.3%	
	Fundquest Advisor	France				S4	Full	100.0%	98.2%	
	Fundquest Advisor (United kingdom branch)	UK				S1	Full	100.0%	98.2%	

			31 December 2022				31 December 2021			
Business	Name	Country	Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	Gambit Financial Solutions	Belgium	Full	100.0%	98.2%		Full	100.0%	98.2%	V1
	Groeivermogen NV	Netherlands								S3
	Haitong Fortis Private Equity Fund Management Co Ltd	China	Equity	33.0%	32.4%		Equity	33.0%	32.4%	
	Harewood Helena 1 Ltd	UK	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Harmony Prime[$]	France	Full(4)	-	-	E1				
	HFT Investment Management Co Ltd	China	Equity	49.0%	48.1%		Equity	49.0%	48.1%	
	Impax Asset Management Group PLC	UK	Equity	13.8%	13.5%		Equity	13.8%	13.5%	V3
	Shinhan BNPP Asset Management Co Ltd	Rep. of Korea								S2
	SME Alternative Financing DAC[$]	Ireland	Full	-	-		Full	-	-	
	Theam Quant[$]	Luxembourg	Full(4)	-	-		Full(4)	-	-	
	Theam Quant Europe Climate Carbon Offset Plan[$]	France	Full(4)	-	-	E1				
Real Estate										
	Auguste Thouard Expertise	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Immobilier Promotion Immobilier d'Entreprise	France				S4	Full(2)	100.0%	100.0%	
	BNPP Immobilier Résidences Services	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Immobilier Résidentiel	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Immobilier Résidentiel Service Clients	France				S4	Full(2)	100.0%	100.0%	
	BNPP Real Estate	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate (United arab emirates branch)	United Arab Emirates	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Advisory & Property Management Luxembourg SA	Luxembourg	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Advisory & Property Management UK Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Advisory and Property Management Ireland Ltd	Ireland	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Advisory Belgium SA	Belgium								S4
	BNPP Real Estate Advisory Italy SPA	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Advisory Netherlands BV	Netherlands	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate APM CR SRO	Czech Rep.								S2
	BNPP Real Estate Conseil Habitation & Hospitality	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Consult France	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Consult GmbH	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Facilities Management Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Financial Partner	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate GmbH	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Holding Benelux SA	Belgium	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Holding GmbH	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Investment Management Belgium	Belgium	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Investment Management France	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Real Estate Investment Management Germany GmbH	Germany	Full	94.9%	94.9%		Full	94.9%	94.9%	
	BNPP Real Estate Investment Management Germany GmbH (Italy branch)	Italy	Full	94.9%	94.9%		Full	94.9%	94.9%	
	BNPP Real Estate Investment Management Germany GmbH (Spain branch)	Spain	Full	94.9%	94.9%		Full	94.9%	94.9%	
	BNPP Real Estate Investment Management Germany GmbH Lisbon Representative Office	Portugal	Full	94.9%	94.9%	E1				
	BNPP Real Estate Investment Management Italy SPA	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Real Estate Investment Management Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Investment Management Luxembourg SA	Luxembourg	Full	100.0%	100.0%		Full	100.0%	100.0%	

Business	Name	Country	31 December 2022 Method	Voting (%)	Interest (%)	Ref.	31 December 2021 Method	Voting (%)	Interest (%)	Ref.
	BNPP Real Estate Investment Management Spain SA	Spain	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Investment Management UK Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Italy SRL	Italy				S4	Full(2)	100.0%	100.0%	
	BNPP Real Estate Magyarorszag Tanacsado Es Ingatlankezelo ZRT	Hungary								S2
	BNPP Real Estate Poland SP ZOO	Poland	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Portugal Unipersonal LDA	Portugal	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Property Development & Services GmbH	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Property Development UK Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Property Developpement Italy SPA	Italy				S4	Full(2)	100.0%	100.0%	
	BNPP Real Estate Property Management Belgium	Belgium								S4
	BNPP Real Estate Property Management France SAS	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Property Management GmbH	Germany	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Property Management Italy SRL	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Singapore Pte Ltd	Singapore	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Spain SA	Spain	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	BNPP Real Estate Transaction France	France	Full(2)	96.8%	96.8%	V1	Full(2)	96.6%	96.6%	V2
	BNPP Real Estate Valuation France	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Cariboo Development SL	Spain	Equity	65.0%	65.0%		Equity	65.0%	65.0%	
	Construction-Sale Companies (c)	France	Full / Equity(2)	-	-		Full / Equity(2)	-	-	
	Exeo Aura & Echo Offices Lda	Portugal	Equity	31.0%	31.0%	E2				
	GIE BNPP Real Estate (Ex- GIE Siège Issy)	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Horti Milano SRL	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Lifizz	France								S4
	Nanterre Arboretum	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Parker Tower Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Partner's & Services	France	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	REPD Parker Ltd	UK	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Sviluppo Residenziale Italia SRL	Italy	Full(2)	100.0%	100.0%		Full(2)	100.0%	100.0%	
	Wapiti Development SL	Spain	Equity	65.0%	65.0%		Equity	65.0%	65.0%	E1
Principal Investments										
	BNPP Agility Capital	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Agility Fund Equity SLP[s]	France	Full(4)	-	-		Full(4)	-	-	
	BNPP Agility Fund Private Debt SLP[s]	France	Full(4)	-	-		Full(4)	-	-	
OTHER BUSINESS UNITS										
Property Companies (Property Used In Operations) and Others										
	Antin Participation 5	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Home Loan SFH	France	Full(1)	100.0%	100.0%		Full(1)	100.0%	100.0%	
	BNPP Partners for Innovation	France	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D4
	BNPP Partners for Innovation Belgium	Belgium	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D4
	BNPP Partners for Innovation Italia SRL	Italy	Full	100.0%	100.0%		Full	100.0%	100.0%	V1/D4
	BNPP Procurement Tech	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	BNPP Public Sector SA	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Euro Secured Notes Issuer[s]	France				S3	Full	-	-	

Business	Name	Country	31 December 2022				31 December 2021			
			Method	Voting (%)	Interest (%)	Ref.	Method	Voting (%)	Interest (%)	Ref.
	FCT Lafayette 2021[t]	France	Full	-	-		Full	-	-	E2
	FCT Laffitte 2016[t]	France								S1
	FCT Laffitte 2021[t]	France	Full	-	-		Full	-	-	E2
	FCT Opéra 2014[t]	France	Full	-	-		Full	-	-	
	FCT Pyramides 2022[t]	France	Full	-	-	E2				
	GIE Groupement Auxiliaire de Moyens	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	GIE Groupement d'Etudes et de Prestations	France	Full	100.0%	100.0%		Full	100.0%	100.0%	
	Transvalor	France	Equity	20.2%	20.2%		Equity	20.2%	20.2%	E1

(a) At 31 December 2022, 14 Private Equity investment entities versus 11 Private Equity investment entities au 31 December 2021.

(b) At 31 December 2022, the securitisation funds UCI and RMBS Prado include 14 funds (FCC UCI 11, 12, 14 à 17, RMBS Prado V to X, Green Belem I et RMBS Belem No 2) versus 15 funds (FCC UCI 11, 12, 14 to 17, Fondo de Titulizacion Structured Covered Bonds, RMBS Prado III à IX et Green Belem I) at 31 December 2021.

(c) At 31 December 2022, 125 Construction-sale companies (91 Full and 34 Equity) versus 115 Construction-sale companies (89 Full and 26 Equity) at 31 December 2021.

As requested by the ANC 2016 regulation, the list of entities that are controlled by the Group, jointly controlled or under significant influence, but excluded from the scope of consolidation since their contribution to the consolidated financial statements would be immaterial to the Group, and the list of equity investments, are available on the "Regulated Information" page of the https://invest.bnpparibas.com website.

Changes in the scope of consolidation

New entries (E) in the scope of consolidation

E1	Passing qualifying thresholds
E2	Incorporation
E3	Purchase, gain of control or significant influence

Removals (S) from the scope of consolidation

S1	Cessation of activity (dissolution, liquidation, *etc.*)
S2	Disposal, loss of control or loss of significant influence
S3	Passing qualifying thresholds
S4	Merger, Universal transfer of assets and liabilities

Variance (V) in voting or ownership interest

V1	Additional purchase
V2	Partial disposal
V3	Dilution
V4	Increase in %

Miscellaneous

D1	Consolidation method change not related to fluctuation in voting or ownership interest
D2	Entities of a business held for sale
D3	The Verner Investissements group was consolidated under equity method in BNP Paribas Group until 13 July 2021. Following the additional purchase of interest by BNP Paribas Group, the Verner Investments group was fully consolidated (see note 7.c.)
D4	The BNPP Partners for Innovation group was consolidated under equity method in BNP Paribas Group until 31 December 2021. Following the additional purchase of interest by BNP Paribas Group, The BNPP Partners for Innovation group was fully consolidated.
D5	Compagnie pour le Financement des Loisirs was consolidated under equity method in BNP Paribas Group until 31 December 2021. Following the additional purchase of interest by BNP Paribas Group, Compagnie pour le Financement des Loisirs was fully consolidated.
D6	Worldline Merchant Services Italia SPA was fully consolidated in BNP Paribas Group until 31 December 2021. Following the partial disposal by the Group, Worldline Merchant Services Italia SPA was consolidated under equity method
D7	bpost banque was consolidated under equity method in BNP Paribas Group until 31 December 2021. Following the additional purchase of interest by BNP Paribas Group, bpost banque was fully consolidated.
D8	Baroda BNPP AMC Private Ltd was fully consolidated in BNP Paribas Group until 31 December 2021. Following the partial disposal by the Group, Baroda BNPP AMC Private Ltd was consolidated under equity method

Equity *	Controlled but non material entities consolidated under the equity method as associates
FV	Joint control or investment in associates measured at Fair Value through P&L
s	Structured entities
t	Securitisation funds

Prudential scope of consolidation

(1)	French subsidiaries whose supervision of prudential requirements is complied with through the supervision on a consolidated basis of BNP Paribas SA, in accordance with article 7.1 of Regulation n°575/2013 of the European Parliament and of the Council.
(2)	Entities consolidated under the equity method in the prudential scope
(3)	Jointly controlled entities under proportional consolidation in the prudential scope
(4)	Collective investment undertaking excluded from the prudential scope.

7.m FEES PAID TO THE STATUTORY AUDITORS

Year to 31 Dec. 2022	Deloitte		PricewaterhouseCoopers		Mazars		TOTAL	
Excluding tax, in thousands of euros	Total	%	Total	%	Total	%	Total	%
Statutory audits and contractual audits, including	17,529	74%	19,920	72%	11,565	88%	49,014	76%
- Issuer	4,501		5,870		2,919		13,290	
- Consolidated subsidiaries	13,028		14,050		8,646		35,724	
Services other than those required for their statutory audit engagement, including	6,142	26%	7,669	28%	1,606	12%	15,417	24%
- Issuer	2,062		2,021		897		4,980	
- Consolidated subsidiaries	4,080		5,648		709		10,437	
TOTAL	**23,671**	**100%**	**27,589**	**100%**	**13,171**	**100%**	**64,431**	**100%**
of which fees paid to statutory auditors in France for the statutory audit and contractual audit	*6,509*		*6,216*		*5,359*		*18,084*	
of which fees paid to statutory auditors in France for services other than those required for their statutory audit engagements	*1,739*		*2,353*		*1,046*		*5,138*	

Year to 31 Dec. 2021	Deloitte		PricewaterhouseCoopers		Mazars		TOTAL	
Excluding tax, in thousands of euros	Total	%	Total	%	Total	%	Total	%
Statutory audits and contractual audits, including	16,037	76%	17,925	70%	12,979	88%	46,941	76%
- Issuer	3,774		4,780		3,179		11,733	
- Consolidated subsidiaries	12,263		13,145		9,800		35,208	
Services other than those required for their statutory audit engagement, including	5,081	24%	7,727	30%	1,694	12%	14,502	24%
- Issuer	1,801		2,310		825		4,936	
- Consolidated subsidiaries	3,280		5,417		869		9,566	
TOTAL	**21,118**	**100%**	**25,652**	**100%**	**14,673**	**100%**	**61,443**	**100%**
of which fees paid to statutory auditors in France for the statutory audit and contractual audit	*5,710*		*5,225*		*5,962*		*16,897*	
of which fees paid to statutory auditors in France for services other than those required for their statutory audit engagements	*1,634*		*2,427*		*983*		*5,044*	

The audit fees paid to auditors which are not members of the network of one of the auditors certifying the consolidated financial statements and the non-consolidated financial statements of BNP Paribas SA, mentioned in the table above, amount to EUR 786 thousand for the year 2022 (EUR 373 thousand in 2021).

Services other than those required for the statutory audit engagement are mainly composed this year of reviews of the entity's compliance with regulatory requirements, and reviews of internal control quality by comparison with international standards (such as ISAE 3402) as part of services provided to customers, particularly in the Securities and Asset Management businesses, and expertise on the Bank's transformation projects.