EUROBANK Holdings

EUROBANK ERGASIAS
SERVICES AND HOLDINGS S.A.

CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED

31 DECEMBER 2022

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Notes to the Consolidated Financial Statements

Consolidated Balance Sheet

		31 December	
		2022	2021
	Note	**€ million**	€ million
ASSETS			
Cash and balances with central banks	15	**14,994**	13,515
Due from credit institutions	17	**1,329**	2,510
Securities held for trading	18	**134**	119
Derivative financial instruments	19	**1,185**	1,949
Loans and advances to customers	20	**41,677**	38,967
Investment securities	22	**13,261**	11,316
Investments in associates and joint ventures	24	**173**	267
Property and equipment	26	**775**	815
Investment property	27	**1,410**	1,492
Intangible assets	28	**297**	269
Deferred tax assets	13	**4,161**	4,422
Other assets	29	**1,980**	2,065
Assets of disposal groups classified as held for sale	30	**84**	146
Total assets		**81,460**	77,852
LIABILITIES			
Due to central banks	31	**8,774**	11,663
Due to credit institutions	32	**1,814**	973
Derivative financial instruments	19	**1,661**	2,394
Due to customers	33	**57,239**	53,168
Debt securities in issue	34	**3,552**	2,552
Other liabilities	35	**1,701**	1,358
Liabilities of disposal groups classified as held for sale	30	**1**	109
Total liabilities		**74,742**	72,217
EQUITY			
Share capital	37	**816**	816
Share premium(1)	37	**1,161**	8,056
Reserves and retained earnings(1)	38	**4,646**	(3,333)
Equity attributable to shareholders of the Company		**6,623**	5,539
Non controlling interests	23.2	**95**	96
Total equity		**6,718**	5,635
Total equity and liabilities		**81,460**	77,852

(1) The comparative information has been adjusted due to change in the presentation of treasury shares (note 37). As a result, "Share premium" has increased by € 1 million against an equal decrease of "Reserves and retained earnings".

Notes on pages 6 *to* 155 *form an integral part of these consolidated financial statements.*

Consolidated Income Statement

	Note	Year ended 31 December 2022 € million	2021 € million
Interest income		**2,315**	1,842
Interest expense		**(765)**	(521)
Net interest income	6	**1,550**	1,321
Banking fee and commission income		**584**	495
Banking fee and commission expense		**(135)**	(137)
Net banking fee and commission income	7	**449**	358
Income from non banking services	8	**94**	98
Net trading income/(loss)	9	**727**	(8)
Gains less losses from investment securities	9	**(9)**	101
Other income/(expenses)	10	**324**	30
Operating income		**3,135**	1,900
Operating expenses	11	**(917)**	(876)
Profit from operations before impairments, provisions and restructuring costs		**2,218**	1,024
Impairment losses relating to loans and advances to customers	21	**(291)**	(490)
Other impairment losses and provisions	12	**(108)**	(52)
Restructuring costs	12	**(102)**	(25)
Share of results of associates and joint ventures	24	**18**	26
Profit before tax		**1,735**	483
Income tax	13	**(405)**	(156)
Net profit		**1,330**	327
Net profit/(loss) attributable to non controlling interests		**0**	(1)
Net profit attributable to shareholders		**1,330**	328
		€	€
Earnings per share			
-Basic and diluted earnings per share	14	**0.36**	0.09

Notes on pages 6 *to* 155 *form an integral part of these consolidated financial statements.*

Consolidated Statement of Comprehensive Income

	Year ended 31 December			
	2022		2021	
	€ million		€ million	
Net profit		**1,330**		327
Other comprehensive income:				
Items that are or may be reclassified subsequently to profit or loss:				
Cash flow hedges				
- changes in fair value, net of tax	**5**		36	
- transfer to net profit, net of tax	**(5)**	**(0)**	1	37
Debt securities at FVOCI				
- changes in fair value, net of tax (note 22)	**(547)**		(97)	
- transfer to net profit, net of tax (note 22)	**222**	**(325)**	6	(91)
Foreign currency translation				
- foreign operations' translation differences	**1**		(0)	
- transfer to net profit on the liquidation of foreign subsidiary (note 23.1)	**76**	**77**	-	(0)
Associates and joint ventures				
- changes in the share of other comprehensive income, net of tax (note 24)	**(32)**	**(32)**	(3)	(3)
		(280)		(57)
Items that will not be reclassified to profit or loss:				
- Gains/(losses) from equity securities at FVOCI, net of tax		**24**		2
- Actuarial gains/(losses) on post employment benefit obligations, net of tax		**4**		1
		28		3
Other comprehensive income		**(252)**		(54)
Total comprehensive income attributable to:				
- Shareholders		**1,079**		274
- Non controlling interests		**(1)**		(1)
		1,078		273

Notes on pages 6 *to* 155 *form an integral part of these consolidated financial statements*

Consolidated Statement of Changes in Equity

	Share capital € million	Share premium € million	Reserves and retained earnings € million	Non controlling interests € million	Total € million
Balance at 1 January 2021	815	8,055	(3,608)	0	5,262
Reclassification of treasury shares[1]	1	1	(2)	-	-
Net profit/(loss)	-	-	328	(1)	327
Other comprehensive income	-	-	(54)	(0)	(54)
Total comprehensive income for the year ended 31 December 2021	-	-	274	(1)	273
Changes in participating interests in subsidiary undertakings	-	-	1	97	98
Share options plan	-	-	2	-	2
Purchase/sale of treasury shares	-	-	1	-	1
Other	-	-	(1)	-	(1)
	-	-	3	97	100
Balance at 31 December 2021[1]	816	8,056	(3,333)	96	5,635
Balance at 1 January 2022[1]	**816**	**8,056**	**(3,333)**	**96**	**5,635**
Net profit	-	-	1,330	0	**1,330**
Other comprehensive income	-	-	(251)	(1)	**(252)**
Total comprehensive income for the year ended 31 December 2022	**-**	**-**	**1,079**	**(1)**	**1,078**
Offsetting of equity accounts (note 38)	-	(6,895)	6,895	-	**-**
Share options plan (note 39)	0	0	4	-	**4**
Purchase/sale of treasury shares (notes 37 and 38)	-	-	1	-	**1**
	0	**(6,895)**	**6,900**	**-**	**5**
Balance at 31 December 2022	**816**	**1,161**	**4,646**	**95**	**6,718**
	Note 37	Note 37	Note 38		

[1] *As of the year ended 31 December 2022 the carrying amount of treasury shares, which was previously deducted from the "Share capital" and "Share premium", is presented within "Reserves and retained earnings". Comparative information has been adjusted accordingly (note 37).*

Notes on pages 6 *to* 155 *form an integral part of these consolidated financial statements.*

Consolidated Cash Flow Statement

	Note	Year ended 31 December 2022 € million	2021 € million
Cash flows from operating activities			
Profit before income tax		**1,735**	483
Adjustments for :			
Impairment losses relating to loans and advances to customers	21	**291**	490
Other impairment losses, provisions and restructuring costs	12	**210**	77
Depreciation and amortisation	11	**124**	114
Other (income)/losses on investment securities	16	**(14)**	(76)
Valuation of investment property	10	**(34)**	(30)
Other adjustments	16	**(244)**	(12)
		2,068	1,046
Changes in operating assets and liabilities			
Net (increase)/decrease in cash and balances with central banks		**(169)**	(193)
Net (increase)/decrease in securities held for trading		**0**	(32)
Net (increase)/decrease in due from credit institutions		**1,095**	588
Net (increase)/decrease in loans and advances to customers		**(3,226)**	(1,636)
Net (increase)/decrease in derivative financial instruments		**868**	36
Net (increase)/decrease in other assets		**116**	(22)
Net increase/(decrease) in due to central banks and credit institutions		**(2,048)**	3,125
Net increase/(decrease) in due to customers		**4,068**	5,338
Net increase/(decrease) in other liabilities		**147**	(4)
		851	7,200
Income tax paid		**(45)**	(33)
Net cash from/(used in) operating activities		**2,874**	8,213
Cash flows from investing activities			
Acquisition of fixed and intangible assets	26,27,28	**(169)**	(129)
Proceeds from sale of fixed and intangible assets	26,27	**121**	35
(Purchases)/sales and redemptions of investment securities		**(2,937)**	(2,752)
Acquisition of subsidiaries, net of cash acquired		**-**	121
Acquisition of holdings in associates and joint ventures, participations in capital increases		**-**	(8)
Disposal of subsidiaries and merchant acquiring business, net of cash disposed	23,30	**281**	1
Disposal of holdings in associates and joint ventures	24	**26**	13
Dividends from investment securities, associates and joint ventures	16,24	**21**	21
Net cash from/(used in) investing activities		**(2,657)**	(2,698)
Cash flows from financing activities			
(Repayments)/proceeds from debt securities in issue	16	**1,059**	986
Repayment of lease liabilities	41	**(39)**	(34)
(Purchase)/sale of treasury shares and exercise of share options	37	**1**	1
Net cash from/(used in) financing activities		**1,021**	953
Effect of exchange rate changes on cash and cash equivalents		**1**	0
Net increase in cash and cash equivalents		**1,239**	6,468
Cash and cash equivalents at beginning of year	16	**13,149**	6,681
Cash and cash equivalents at end of year	16	**14,388**	13,149

Notes on pages 6 *to* 155 *form an integral part of these consolidated financial statements.*

1. General information

Eurobank Ergasias Services and Holdings S.A. (the Company or Eurobank Holdings), which is the parent company of Eurobank S.A. (the Bank) and its subsidiaries (the Group), consisting mainly of Eurobank S.A. Group, are active in retail, corporate and private banking, asset management, treasury, capital markets and other services. The Group operates mainly in Greece and in Central and Southeastern Europe. The Company is incorporated in Greece, with its registered office at Othonos Street, Athens 105 57 and its shares are listed on the Athens Stock Exchange.

These consolidated financial statements, which include the Appendix, were approved by the Board of Directors on 6 April 2023. The Independent Auditor’s Report of the Financial Statements is included in the section B.I of the Annual Financial Report.

The website address, where the annual financial statements of the consolidated non-listed Company’s subsidiaries are uploaded, along with the independent Auditors’ reports and the Board of Directors’ Reports for these entities is: www.eurobankholdings.gr.

2. Basis of preparation and principal accounting policies

The consolidated financial statements of the Group have been prepared on a going concern basis and in accordance with the principal accounting policies set out below:

2.1 Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as endorsed by the European Union (EU), and in particular with those standards and interpretations, issued and effective or issued and early adopted as at the time of preparing these consolidated financial statements.

The consolidated financial statements are prepared under the historical cost basis except for the financial assets measured at fair value through other comprehensive income, financial assets and financial liabilities (including derivative instruments) measured at fair-value-through-profit-or-loss and investment property measured at fair value.

The accounting policies for the preparation of the consolidated financial statements of the Group have been consistently applied to the years 2022 and 2021, after taking into account the amendments in IFRSs as described in section 2.1.1 (a) “New and amended standards adopted by the Group as of 1 January 2022”. In addition, where necessary, comparative figures have been adjusted to conform to changes in presentation in the current year.

The preparation of financial statements in accordance with IFRS requires the use of estimates and judgements that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the consolidated financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Although these estimates are based on management's best knowledge of current events and conditions, actual results ultimately may differ from those estimates.

The Group’s presentation currency is the Euro (€) being the functional currency of the parent company. Except as indicated, financial information presented in Euro has been rounded to the nearest million. The figures presented in the notes may not sum precisely to the totals provided due to rounding.

Going concern considerations

The annual financial statements have been prepared on a going concern basis, as the Board of the Directors considered as appropriate, taking into consideration the following:

2022 was marked by the war in Ukraine, which gave rise to a global - but predominantly European - energy crisis, added to the mounting inflationary pressures, and led to widespread economic uncertainty and increased volatility in the global economy and financial markets. Nevertheless, the post-pandemic recovery continued for a second consecutive year in Greece, with its GDP growth overperforming that of most of its EU peers. According to the Hellenic Statistical Authority (ELSTAT) provisional data, the Greek economy expanded by 5.9% on an annual basis in 2022, with the European Commission (EC) estimating the full-year 2022 growth rate at 5.5% and 1.2% in 2023 in its winter economic forecast (February 2023). The inflation rate, as measured by the change in the 12-month average Harmonized Index of Consumer Prices (HICP), increased to 9.3% in 2022 according to ELSTAT, primarily as a result of supply-side shocks (including the hikes in energy, food and other raw material prices, the continued disruptions in the supply chain and the rising nominal wages), alongside the steep post-pandemic recovery of domestic and external demand. The EC expects that the inflation rate will decline to 4.5% in 2023, and further de-escalate to 2.4% in 2024. Moreover, provisional ELSTAT data shows that the average monthly unemployment in 2022 decreased to 12.4%, from 14.8% in 2021, while the Organisation for Economic Co-operation and Development (OECD) in its latest report (January 2023) expects unemployment to decline to 11.5% in 2023. On the fiscal front, the general government primary balance was to post a deficit of 1.6% of GDP in 2022 according to the 2023 Budget (latest outlook point to a primary deficit of ca. 1% of GDP or even lower), and a surplus of 0.7% of GDP in 2023 (2021: deficit of 5%). The gross public debt-to-GDP ratio is expected to decline to 168.9% and 159.3% in 2022 and 2023 respectively (2021: 194.5%). The above forecasts may change in case of potential adverse international developments that could affect energy and other goods prices, interest rates, external and domestic demand, and bring about the need for additional fiscal support measures.

The Bulgarian economy expanded by 3.4% in 2022 (2021: 7.6%), based on data from the National Statistical Institute of Bulgaria, while inflation averaged at 15.3% in 2022 (2021: 3.3%). According to the EC's winter economic forecasts (February 2023), the real GDP in Bulgaria is expected to grow by 1.4% in 2023, while the HICP is expected at 7.8% in 2023. Respectively, in Cyprus the real GDP growth is forecasted at 5.8% in 2022 and 1.6% in 2023 (2021: 6.6%), while the CPI is estimated at 8.1% in 2022 and 4% in 2023 (2021: 2.3%).

A significant boost to growth in Greece and in other countries of presence is expected from European Union (EU) funding, mainly under the Next Generation EU (NGEU) instrument and the Multiannual Financial Framework (MFF) 2021–2027, EU's long-term budget. Greece shall receive EU funds of more than € 30.5 billion (€ 17.8 billion in grants and € 12.7 billion in loans) up to 2026 from NGEU's Recovery and Resilience Facility (RRF) to finance projects and initiatives laid down in its National Recovery and Resilience Plan (NRRP) titled "Greece 2.0". A pre-financing of € 4 billion was disbursed in August 2021, and the first two regular payments of € 3.6 billion each in April 2022 and January 2023 respectively. Greece has been also allocated about € 40 billion through MFF 2021-2027. On the monetary policy front, although net bond purchases under the temporary Pandemic Emergency Purchase Programme (PEPP) ended in March 2022, as scheduled, the European Central Bank (ECB) will continue to reinvest principal from maturing securities at least until the end of 2024, including purchases of Greek Government Bonds (GGBs) over and above rollovers of redemptions. Furthermore, the Governing Council of the ECB, in line with its strong commitment to its price stability mandate, has proceeded with six rounds of interest rate hikes (in July, September, October, December 2022, February and in March 2023), raising the three key ECB interest rates by 350 basis points in aggregate. Moreover, it approved a new instrument (the "Transmission Protection Instrument" – TPI) aimed at preventing fragmentation in the sovereign bonds market. Finally, following the expiration of the special terms and conditions applying to the TLTRO III (Targeted Longer-Term Refinancing Operations) on 23 June 2022, the ECB will keep assessing how targeted lending operations are contributing to its monetary policy stance.

In 2022, the Greek State proceeded with the issuance of nine bonds of various maturities (5-year, 10-year, 15-year and 20-year) through the Public Debt Management Agency (PDMA), raising a total of € 8.3 billion from international financial markets. On 17 January 2023, the PDMA issued a 10-year bond of € 3.5 billion at a yield of 4.279% and more recently, on 29 March 2023, issued a 5-year bond of € 2.5 billion at a yield of 3.919%. As of end 2022, the cash reserves of the Greek State stood in excess of € 30 billion, and as of early February 2023, its sovereign rating was one notch below investment grade by three of the four External Credit Assessment Institutions (ECAIs) accepted by the Eurosystem (DBRS Morningstar: BB (high); S&P Ratings, Fitch Ratings: BB+).

Regarding the outlook for the next 12 months the major macroeconomic risks and uncertainties in Greece and our region are as follows: (a) the ongoing Russia - Ukraine war and its ramifications on regional and global stability and security, as well as the European and Greek economy, (b) a potential prolongation of the ongoing inflationary wave and its impact on economic growth, employment, public finances, household budgets, firms' production costs, external trade and banks' asset quality, as well as any potential social and/or political ramifications these may entail, (c) the ongoing and potential upcoming central bank interest rate hikes worldwide, and in the euro area in particular, that may exert upwards pressures on sovereign and private borrowing costs, especially those of highly indebted borrowers, deter investments, increase volatility in the financial markets and lead economies to slow down or even a temporary recession, (d) the recent banking sector turmoil to continue and expand in the euro area, affecting customers' confidence, with a potential impact on assets under management levels and on liquidity, (e) the impact of a potential curtailment or discontinuation of the government energy support measures on growth, employment and the servicing of household and corporate debt, (f) the persistently large current account deficits and the prospect of them becoming once again a structural feature of the country's growth model, (g) the absorption capacity of the NGEU and MFF funds and the attraction of new investments in the country, (h) the effective and timely implementation of the reform agenda required to meet the RRF milestones and targets and to boost productivity, competitiveness, and resilience, (i) a delay in the implementation of planned reforms, projects and the budget's fiscal agenda due to the possibility of the 2023 national elections resulting in an inability or delay to form a government with solid Parliament majority, (j) the geopolitical developments in the near region, (k) the evolution of the pandemic and the probability of emergence of new Covid-19 variants that could further impact economic growth, fiscal balances and international trade by prolonging the disruptions in the global supply chain, and (l) the exacerbation of natural disasters due to the climate change and their effect on GDP, employment, fiscal balance and sustainable development in the long run.

Materialization of the above risks, would have potentially adverse effects on the fiscal planning of the Greek government, as it could decelerate the pace of expected growth and on the liquidity, asset quality, solvency and profitability of the Greek banking sector. The Group Management and Board, mindful of the recent banking turmoil across some markets, has done a proactive internal review to re-assure itself of the continued resilience of Eurobank business model to such possible external shocks and is pleased to report that this model is well supported by sound business practices, diversified activities and prudent risk management approaches. The resulting stability of the Group's business operating model is also further well-reflected by, among others, its financial position and performance as analysed below. In this context, the Group is continuously monitoring the developments on the macroeconomic, financial and geopolitical fronts as well as the evolution of its asset quality and liquidity KPIs and has increased its level of readiness, so as to accommodate decisions, initiatives and policies to protect its capital and liquidity standing as well as the fulfilment, to the maximum possible degree, of its strategic and business goals in accordance with the business plan for 2023–2025.

For the year ended 31 December 2022, the net profit attributable to shareholders amounted to € 1,330 million (2021: € 328 million), of which € 212 million (2021: € 143 million) was related to the international operations. The adjusted net profit, excluding the € 230.5 million gain (after tax) on sale of Bank's merchant acquiring business and the € 75 million restructuring costs (after tax), amounted to € 1,174 million (2021: € 424 million). As at 31 December 2022, the Group's Total Adequacy Ratio (total CAD) and Common Equity Tier 1 (CET1) ratios stood at 19.2% (31 December 2021: 16.1%) and 16% (31 December 2021: 13.7%) respectively (note 4). In January 2023, the European Banking Authority (EBA) launched the 2023 EU-wide stress test exercise which is designed to provide valuable input for assessing the resilience of the European banking sector, including the 4 Greek systemic banks, in the current uncertain and changing macroeconomic environment, covering the period of 2023-2025. The EBA expects to publish the results of the exercise at the end of July 2023 (note 4).

With regards to asset quality, the Group's NPE formation was positive by € 46 million during the year (fourth quarter 2022: € 35 million positive), (31 December 2021: € 44 million positive). At 31 December 2022 the Group's NPE stock, following the classification of project "Solar" underlying loan portfolio as held for sale and other initiatives, amounted to € 2.3 billion (31 December 2021: € 2.8 billion), driving the NPE ratio to 5.2% (31 December 2021: 6.8%), while the NPE coverage ratio stood at 74.6% (31 December 2021: 69.2%).The debt securities portfolio, which is to a large extent hedged for the interest rate risk, accounts for 16% of total assets mostly invested in EU Sovereign Bonds and on investment grade securities. The Group holds non-significant exposure in Russian or Ukrainian assets and in the banks affected by the recent banking turmoil.

In terms of liquidity, as at 31 December 2022, the Group deposits increased to € 57.2 billion (31 December 2021: € 53.2 billion), leading the Group's (net) loans to deposits (L/D) ratio to 73.1% (31 December 2021: 73.2%), while the funding from the targeted long term refinancing operations of the European Central Bank – TLTRO III programme decreased by € 2.9 billion amounting to € 8.8 billion (31 December 2021: € 11.7 billion) (note 31). During the year, the Bank proceeded with the issuance of a preferred senior note of € 500 million and the Company completed the issuance of a Tier 2 instrument of € 300 million. More recently, in January 2023, the Bank successfully completed the issue of a € 500 million senior preferred note (note 34). As at 31 December 2022, the Bank's MREL ratio at consolidated level stands at 23.07% of RWAs, higher than the interim binding MREL target for 2022 of 18.21% but also than the interim non-binding MREL target from 1 January 2023 of 20.48%. The rise in high quality liquid assets of the Group led the respective Liquidity Coverage ratio (LCR) to 173% (31 December 2021: 152%). In the context of the 2022 ILAAP (Internal Liquidity Adequacy Assessment Process), the liquidity stress tests results indicated that the Bank has adequate liquidity buffer to cover the potential outflows that could occur in all scenarios both in the short term (1 month horizon) and in the medium term (1 year horizon). Information on the interest rate and liquidity risk exposures of the Group is included in notes 5.2.2 and 5.2.3.

Going concern assessment

The Board of Directors, acknowledging the geopolitical, macroeconomic and financial risks to the economy and the banking system and taking into account the above factors relating to (a) the idiosyncratic growth opportunities in Greece and the region for this and the next years, also underpinned by the mobilisation of the already approved EU funding mainly through the RRF, and (b) the Group's pre-provision income generating capacity, asset quality, capital adequacy and liquidity position, has been satisfied that the financial statements of the Group can be prepared on a going concern basis.

2.1.1 New and amended standards and interpretations

(a) New and amended standards adopted by the Group as of 1 January 2022

The following amendments to standards as issued by the IASB and endorsed by the EU, apply as of 1 January 2022:

IFRS 3, Amendments, Reference to the Conceptual Framework

The amendments to IFRS 3 "Business Combinations" updated a reference to the current version of Conceptual Framework while added a requirement that, for obligations within the scope of IAS 37 "Provisions, Contingent Liabilities and Contingent Assets", an acquirer applies IAS 37 to determine whether at the acquisition date a present obligation exists as a result of past events. In addition, for a levy that would be within the scope of IFRIC 21 Levies, the acquirer applies IFRIC 21 to determine whether the obligating event that gives rise to a liability to pay the levy exists at the acquisition date.

Moreover, the issued amendments added a new paragraph to IFRS 3 to clarify that contingent assets do not qualify for recognition in a business combination at the acquisition date.

The adoption of the amendments had no impact on the consolidated financial statements.

Annual improvement to IFRSs 2018-2020 cycle: IFRS1, IFRS9 and IFRS 16

The improvements introduce changes to several standards. The amendments that are relevant to the Group's activities are set out below:

The amendment to IFRS 1 "First-time Adoption of International Financial Reporting Standards" provides additional relief to a subsidiary which becomes a first-time adopter later than its parent in respect of accounting for cumulative translation differences. As a result, the amendment allows entities that have elected to measure their assets and liabilities at carrying amounts recorded in their parent's books to also measure any cumulative translation differences using the amounts reported in the parent's consolidated financial statements. This amendment also applies to associates and joint ventures that have taken the same IFRS 1 exemption.

The amendment to IFRS 9 "Financial Instruments" clarifies which fees should be included in the 10% test for derecognition of financial liabilities. The fees to be included in the assessment are only those paid or received between the borrower (entity) and the lender, including fees paid or received by either the borrower or lender on the other's behalf. The amendment is applied prospectively to modifications and exchanges that occur on or after the date the entity first applies the amendment.

The amendment to IFRS 16 "Leases" removes the illustration of the reimbursement of leasehold improvements, in order to avoid any potential confusion about the treatment of lease incentives.

The adoption of the amendments had no impact on the consolidated financial statements.

IAS 37, Amendments, Onerous Contracts – Costs of Fulfilling a Contract

The amendments to IAS 37 'Provisions, Contingent Liabilities and Contingent Assets' clarify which costs to include in determining the cost of fulfilling a contract when assessing whether a contract is onerous. In particular, the direct costs of fulfilling a contract include both the incremental costs and an allocation of other costs directly related to fulfilling contracts' activities. General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract.

The adoption of the amendments had no impact on the consolidated financial statements

(b) New and amended standards not yet adopted by the Group

A number of new standards and amendments to existing standards are effective after 2022, as they have not yet been endorsed by the EU or have not been early applied by the Group. Those that may be relevant to the Group are set out below:

IFRS 17, Insurance Contracts (effective 1 January 2023)

IFRS 17, which supersedes IFRS 4 "Insurance Contracts" provides a comprehensive and consistent accounting model for insurance contracts. It applies to all types of insurance contracts as well as certain guarantees and financial insurance with discretionary participating features. Financial guarantee contracts are allowed to be within the scope of IFRS 17, if the entity has previously asserted that it regarded them as insurance contracts.

According to IFRS 17 core general model, groups of insurance contracts which are managed together and are subject to similar risks, are measured based on building blocks of discounted, probability-weighted estimates of future cash flows, a risk adjustment and a contractual service margin ("CSM") representing the unearned profit of the contracts. Under the model, estimates are remeasured at each reporting period. A simplified measurement approach may be used if it is expected that doing so a reasonable approximation of the general model is produced, or if the contracts are of short duration.

Revenue is allocated to periods in proportion to the value of expected coverage and other services that the insurer provides during the period, claims are presented when incurred and any investment components i.e. amounts repaid to policyholders even if the insured event does not occur, are not included in revenue and claims. Insurance services results are presented separately from the insurance finance income or expense.

In June 2020, the IASB issued Amendments to IFRS 17 to assist entities in its implementation. The amendments aim to assist entities to transition in order to implement the standard more easily, while they deferred the effective date, so that entities would be required to apply IFRS 17 for annual periods beginning on or after 1 January 2023.

In December 2021, the IASB issued a narrow-scope amendment to the transition requirements of IFRS 17 for entities that first apply IFRS 17 and IFRS 9 at the same time.

The Group has not issued contracts within the scope of IFRS 17; therefore, the standard is not expected to impact the consolidated financial statements, other than through the Group's share of the results of its associate ''Eurolife FFH Insurance Group Holdings S.A.'' ("Eurolife").

In particular, as at 31 December 2022, the Group's share of the expected impact from Eurolife's transition to IFRS 17 is estimated to an increase in equity of ca. € 15 million, net of tax.

IAS 8, Amendments, Definition of Accounting Estimates (effective 1 January 2023)

The amendments in IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" introduced the definition of accounting estimates and include other amendments to IAS 8 which are intended to help entities distinguish changes in accounting estimates from changes in accounting policies.

The amendments clarify (a) how accounting policies and accounting estimates relate to each other by (i) explaining that accounting estimates are used in applying accounting policies and (ii) making the definition of accounting policies clearer and concise and, (b) that selecting an estimation or valuation technique and choosing the inputs to be used constitutes making an accounting estimate.

The adoption of the amendments is not expected to impact the consolidated financial statements.

Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies (effective 1 January 2023)

IASB issued amendments to IAS 1 "Presentation of Financial Statements" that require entities to disclose their material accounting policies rather than their significant accounting policies.

According to IASB, accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements.

Furthermore, the amendments clarify how an entity can identify material accounting policy information, while provide examples of when accounting policy information is likely to be material. The amendments to IAS 1 also clarify that immaterial accounting policy information need not be disclosed. However, if it is disclosed, it should not obscure material accounting policy information. To support these amendments the Board has also developed guidance and examples to explain and demonstrate the application of the 'four-step materiality process' described in IFRS Practice Statement 2 Making Materiality Judgements to accounting policy disclosures, in order to support the amendments to IAS 1.

The adoption of the amendments is not expected to impact the consolidated financial statements.

IAS 1, Amendments, Classification of Liabilities as Current or Non-Current (effective 1 January 2024, not yet endorsed by EU)

The amendments, published in January 2020, affect only the presentation of liabilities in the balance sheet and provide clarifications over the definition of the right to defer the settlement of a liability, while they make clear that the classification of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period. In addition, it is clarified that the assessment for liabilities classification made at the end of the reporting period is not affected by the expectations about whether an entity will exercise its right to defer settlement of a liability. The Board also clarified that when classifying liabilities as current or non-current, an entity can ignore only those conversion options that are recognised as equity.

In October 2022, the IASB issued *Non-current Liabilities with Covenants (Amendments to IAS 1)* with respect to the classification (as current or non-current), presentation and disclosures of liabilities for which an entity's right to defer settlement for at least 12 months is subject to the entity complying with conditions after the reporting period. The amendments to IAS 1 specify that covenants to be complied with after the reporting date do not affect the classification of debt as current or non-current at the reporting date. Instead, the amendments require a company to disclose information about these covenants in the notes to the financial statements.

The adoption of the amendments is not expected to impact the consolidated financial statements.

IAS 12, Amendments, Deferred Tax related to Assets and Liabilities arising from a Single Transaction (effective 1 January 2023)

The amendments clarify that the exemption on initial recognition set out in IAS 12 'Income Taxes' does not apply for transactions such as leases and decommissioning obligations that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. Accordingly, for such transactions an entity is required to recognise the related deferred tax asset and liability, with the recognition of any deferred tax asset being subject to the recoverability criteria in IAS 12. The amendments apply to transactions that occur on or after the beginning of the earliest comparative period presented.

The adoption of the amendments is not expected to impact the consolidated financial statements.

IFRS 16, Amendment, Lease Liability in a Sale and Leaseback (effective 1 January 2024, not yet endorsed by EU)

The amendment requires a seller-lessee to subsequently measure lease liabilities arising in a sale and leaseback transaction in a way that it does not recognise any amount of the gain or loss that relates to the right of use it retains. Any gains and losses relating to the full or partial termination of a lease continue to be recognised when they occur. The amendment does not change the accounting for leases unrelated to sale and leaseback transactions.

The adoption of the amendment is not expected to impact the consolidated financial statements.

2.2 Principal accounting policies

2.2.1 Consolidation

(i) Subsidiaries

Subsidiaries are all entities controlled by the Group. The Group controls an entity 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. The Group consolidates an entity only when all the above three elements of control are present.

Power is considered to exist when the Group's existing rights give it the current ability to direct the relevant activities of the entity, i.e. the activities that significantly affect the entity's returns, and the Group has the practical ability to exercise those rights. Power over the entity may arise from voting rights granted by equity instruments such as shares or, in other cases, may result from contractual arrangements.

Where voting rights are relevant, the Group is deemed to have control where it holds, directly or indirectly, more than half of the voting rights over an entity, unless there is evidence that another investor has the practical ability to unilaterally direct the relevant activities.

The Group may have power, even when it holds less than a majority of the voting rights of the entity, through a contractual arrangement with other vote holders, rights arising from other contractual arrangements, substantive potential voting rights, ownership of the largest block of voting rights in a situation where the remaining rights are widely dispersed ('de facto power'), or a combination of the above. In assessing whether the Group has de facto power, it considers all relevant facts and circumstances including the relative size of the Group's holding of voting rights and dispersions of holdings of other vote holders to determine whether the Group has the practical ability to direct the relevant activities.

The Group is exposed or has rights to variable returns from its involvement with an entity when these returns have the potential to vary as a result of the entity's performance.

In assessing whether the Group has the ability to use its power to affect the amount of returns from its involvement with an entity, the Group determines whether in exercising its decision-making rights, it is acting as an agent or as a principal. The Group acts as an agent when it is engaged to act on behalf and for the benefit of another party, and as a result does not control an entity. Therefore, in such cases, the Group does not consolidate the entity. In making the above assessment, the Group considers the scope of its decision-making authority over the entity, the rights held by other parties, the remuneration to which the Group is entitled from its involvement, and its exposure to variability of returns from other interests in that entity.

The Group has interests in certain entities which are structured so that voting rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual rights. In determining whether the Group has control over such structured entities, it considers the following factors:

- The purpose and design of the entity;
- Whether the Group has certain rights that give it the ability to direct the relevant activities of the entity unilaterally, as a result of existing contractual arrangements that give it the power to govern the entity and direct its activities;
- In case another entity is granted decision making rights, the Group assesses whether this entity acts as an agent of the Group or another investor;
- The existence of any special relationships with the entity; and
- The extent of the Group's exposure to variability of returns from its involvement with the entity, including its exposure in the most subordinated securitized notes issued by the entity as well as subordinated loans or other credit enhancements that may be granted to the entity, and if the Group has the power to affect such variability.

Information about the Group's structured entities is set out in note 25.

The Group reassesses whether it controls an entity if facts and circumstances indicate that there are changes to one or more elements of control. This includes circumstances in which the rights held by the Group and intended to be protective in nature become substantive upon a breach of a covenant or default on payments in a borrowing arrangement, and lead to the Group having power over the investee.

Subsidiaries are fully consolidated from the date on which control is transferred to the Group and are no longer consolidated from the date that control ceases. Total comprehensive income is attributed to the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

In determining the proportion of profit or loss and changes in equity allocated to the Group and non-controlling interests, the Group takes into account current ownership interests, also including in-substance current ownership interests, after considering the eventual exercise of any potential voting rights and other derivatives that currently give the Group access to the returns associated with an ownership interest.

Changes in the Group's ownership interest in subsidiaries that do not result in a loss of control are recorded as equity transactions. Any difference between the consideration and the share of the new net assets acquired is recorded directly in equity. Gains or losses arising from disposals of ownership interests that do not result in a loss of control by the Group are also recorded directly in equity. For disposals of ownership interests that result in a loss of control, the Group derecognizes the assets and liabilities of the subsidiary and any related non-controlling interest and other components of equity and recognizes gains and losses in the income statement. When the Group ceases to have control, any retained interest in the former subsidiary is re-measured to its fair value, with any changes in the carrying amount recognized in the income statement. The Group considers the eventual exercise of any potential voting rights and other derivatives and whether they currently give the Group access to the returns associated with a retained ownership interest, in determining whether that ownership interest should be derecognised or not.

Intercompany transactions, balances and intragroup gains on transactions between Group entities are eliminated; intragroup losses are also eliminated unless the transaction provides evidence of impairment of the asset transferred.

(ii) Business combinations

The purchase method of accounting is used to account for the acquisition of subsidiaries by the Group. The consideration transferred for an acquisition is measured at the fair value of the assets given, equity instruments issued or exchanged and liabilities undertaken at the date of acquisition, including the fair value of assets or liabilities resulting from a contingent consideration arrangement. Acquisition related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date irrespective of the extent of any non-controlling interest. Any previously held interest in the acquiree is remeasured to fair value at the acquisition date with any gain or loss recognized in the income statement. The Group recognizes on an acquisition-by-acquisition basis any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets of the subsidiary acquired, is recorded as goodwill. If this is less than the fair value of the net assets of the acquiree, the difference is recognized directly in the income statement.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which it occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted retrospectively during the measurement period to reflect the new information obtained about the facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date. The measurement period adjustments, as mentioned above, affect accordingly the amount of goodwill that was initially recognized, while the measurement period cannot exceed one year from the acquisition date.

Commitments to purchase non-controlling interests through derivative financial instruments with the non-controlling interests, as part of a business combination are accounted for as a financial liability, with no non-controlling interest recognized for reporting purposes. The financial liability is measured at fair value, using valuation techniques based on best estimates available to management. Any difference between the fair value of the financial liability upon initial recognition and the nominal non-controlling interest's share of net assets is recognized as part of goodwill. Subsequent revisions to the valuation of the derivatives are recognized in the income statement.

For acquisitions of subsidiaries not meeting the definition of a business, the Group allocates the consideration to the individual identifiable assets and liabilities based on their relative fair values at the date of acquisition. Such transactions or events do not give rise to goodwill.

Where necessary, accounting policies of subsidiaries have been changed to ensure consistency with the policies of the Group.

A listing of the Bank's subsidiaries is set out in note 23.

(iii) Business combinations involving entities under common control

Pursuant to IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors', since business combinations between entities under common control are excluded from the scope of IFRS 3 'Business Combinations', such transactions are accounted for in the Group's financial statements by using the pooling of interests method (also known as merger accounting), with reference to the most recent pronouncements of other standard-setting bodies that use a similar conceptual framework and comply with the IFRS general principles, as well as accepted industry practices.

Under the pooling of interests method, the Group incorporates the assets and liabilities of the acquiree at their pre-combination carrying amounts from the highest level of common control, without any fair value adjustments. Any difference between the cost of the transaction and the carrying amount of the net assets acquired is recorded in Group's equity.

The Group accounts for the cost of such business combinations at the fair value of the consideration given, being the amount of cash or shares issued or if that cannot be reliably measured, the consideration received.

Formation of a new Group entity to effect a business combination

Common control transactions that involve the formation of a new Group entity to effect a business combination by bringing together two or more previously uncombined businesses under the new Group entity are also accounted for by using the pooling of interests method.

Other common control transactions that involve the acquisition of a single existing Group entity or a single group of businesses by a new entity formed for this purpose are accounted for as capital reorganizations, on the basis that there is no business combination and no substantive economic change in the Group. Under a capital reorganization, the acquiring entity incorporates the assets and liabilities of the acquired entity at their carrying amounts, as presented in the books of that acquired entity, rather than those from the highest level of common control. Any difference between the cost of the transaction and the carrying amount of the net assets acquired is recognized in the equity of the new entity. Capital reorganization transactions do not have any impact on the Group's consolidated financial statements.

(iv) Associates

Investments in associates are accounted for using the equity method of accounting in the consolidated financial statements. These are undertakings over which the Group exercises significant influence but which are not controlled.

Equity accounting involves recognizing in the income statement the Group's share of the associate's profit or loss for the year. The Group's interest in the associate is carried on the balance sheet at an amount that reflects its share of the net assets of the associate and any goodwill identified on acquisition net of any accumulated impairment losses. If the Group's share of losses of an associate equals or exceeds its interest in the associate, the Group discontinues recognizing its share of further losses, unless it has incurred obligations or made payments on behalf of the associate. Where necessary the accounting policies used by the associates have been changed to ensure consistency with the policies of the Group.

When the Group obtains or ceases to have significant influence, any previously held or retained interest in the entity is remeasured to its fair value, with any change in the carrying amount recognized in the income statement, except in cases where an investment in associate becomes an investment in a joint venture where no remeasurement of the interest retained is performed and use of the equity method continues to apply.

(v) Joint arrangements

A joint arrangement is an arrangement under which the Group has joint control with one or more parties. Joint control is the contractually agreed sharing of control and exists only when decisions about relevant activities require the unanimous consent of the parties sharing control. Investments in joint arrangements are classified as either joint ventures whereby the parties who share control have rights to the net assets of the arrangement or joint operations where two or more parties have rights to the assets and obligations for the liabilities of the arrangement.

The Group evaluates the contractual terms of joint arrangements to determine whether a joint arrangement is a joint operation or a joint venture. All joint arrangements in which the Group has an interest are joint ventures.

As investments in associates, the Group's interest in joint ventures is accounted for by using the equity method of accounting. Therefore, the accounting policy described in note 2.2.1 (iv) applies also for joint ventures. Where necessary the accounting policies used by the joint ventures have been changed to ensure consistency with the policies of the Group.

When the Group ceases to have joint control over an entity, it discontinues the use of the equity method. Any retained interest in the entity is remeasured to its fair value, with any change in the carrying amount recognized in the income statement, except in cases where an investment in a joint venture becomes an investment in an associate, where no remeasurement of the interest retained is performed and use of the equity method continues to apply.

A listing of the Group's associates and joint ventures is set out in note 24.

2.2.2 Foreign currencies

(i) Translation of foreign subsidiaries

Assets and liabilities of foreign subsidiaries are translated into the Group's presentation currency at the exchange rates prevailing at each reporting date whereas income and expenses are translated at the average exchange rates for the period reported. Exchange differences arising from the translation of the net investment in a foreign subsidiary, including exchange differences of monetary items receivable or payable to the foreign subsidiary for which settlement is neither planned nor likely to occur that form part of the net investment in the foreign subsidiaries, are recognized in other comprehensive income.

Exchange differences from the Group's foreign subsidiaries are released to the income statement on the disposal of the foreign subsidiary while for monetary items that form part of the net investment in the foreign subsidiary, on repayment or when settlement is expected to occur.

(ii) Transactions in foreign currency

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in the income statement.

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at each reporting date and exchange differences are recognized in the income statement, except when deferred in equity as qualifying cash flow or net investment hedges.

Non-monetary assets and liabilities are translated into the functional currency at the exchange rates prevailing at initial recognition, except for non-monetary items denominated in foreign currencies that are measured at fair value which are translated at the rate of exchange at the date the fair value is determined. The exchange differences relating to these items are treated as part of the change in fair value and are recognized in the income statement or recorded directly in equity depending on the classification of the non-monetary item.

2.2.3 Derivative financial instruments and hedging

Derivative financial instruments that mainly include foreign exchange contracts, forward currency agreements, currency and interest rate options (both written and purchased), as well as currency and interest rate swaps are initially recognized in the balance sheet at fair value, on the date on which the derivative contracts are entered into, and subsequently are re-measured at their fair value. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative.

Fair values of derivatives are determined based on quoted market prices, including recent market transactions, or by using other valuation techniques, as appropriate. The principles for the fair value measurement of financial instruments, including derivative financial instruments, are described in notes 3.2 and 5.3.

Embedded derivatives

Embedded derivatives are components of hybrid contracts that also include non-derivative hosts with the effect that some of the cash flows of the combined instruments vary in a way similar to stand-alone derivatives.

Financial assets that contain embedded derivatives are recognised in the balance sheet in their entirety in the appropriate classification category, following the instruments' assessment of their contractual cash flows and their business model as described in note 2.2.9.

On the other hand, derivatives embedded in financial liabilities, are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not carried at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognized in the income statement.

The use of derivative financial instruments is inherent in the Group's activities and aims principally at managing risks effectively.

Accordingly, the Group, as part of its risk management strategy, may enter into transactions with external counterparties to hedge partially or fully interest rate, foreign currency, equity and other exposures that are generated from its activities.

The objectives of hedging with derivative financial instruments include:

- Reduce interest rate exposure that is in excess of the Group's interest rate limits;
- Manage efficiently interest rate risk by hedging the changes to movements of the benchmark interest rates represented by the prevailing reference rates;
- Reduce variability arising from the fair value changes of derivatives embedded in financial assets;
- Manage future variable cash flows;
- Reduce foreign currency risk or inflation risk;
- Reduce variability in the Group's equity arising from translating a foreign net investment at different exchange rates.

Hedge accounting

The Group has elected, as a policy choice permitted under IFRS 9, to continue to apply hedge accounting in accordance with IAS 39, until the project of accounting of macro hedging activities is completed by the IASB.

For hedge accounting purposes, the Group forms a hedging relationship between a hedging instrument or group of hedging instruments and a related item or group of items to be hedged. A hedging instrument is a designated derivative or group of derivatives, or a designated non-derivative financial asset or financial liability whose fair value or cash flows are expected to offset changes in the fair value or cash flows of a designated hedged item or group of items. Specifically, the Group designates certain derivatives as: (a) hedges of the exposure to changes in fair value of recognized assets or liabilities on a single or portfolio basis or unrecognized firm commitments (fair value hedging), (b) hedges of the exposure to variability in cash flows of recognized assets or liabilities or highly probable forecasted transactions (cash flow hedging) or, (c) hedges of the exposure to variability in the value of a net investment in a foreign operation which is associated with the translation of the investment's net assets in the Group's functional currency (net investment hedging).

In order to apply hedge accounting, specified criteria should be met. Accordingly, at the inception of the hedge accounting relationship, the Group documents the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions, together with the method that will be used to assess the effectiveness of the hedging relationship. The Group also documents its assessment, both at inception of the hedge and on an ongoing basis, of whether the derivatives that are used in the hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items and whether the actual results of each hedge are within a range of 80-125%. If a relationship does not meet the abovementioned hedge effectiveness criteria, the Group discontinues hedge accounting prospectively. Similarly, if the hedging derivative expires or is sold, terminated or exercised, or the hedge designation is revoked, then hedge accounting is discontinued prospectively. In addition, the Group uses other derivatives, not designated in qualifying hedge relationships, to manage its exposure primarily to interest rate and foreign currency risks. Non qualifying hedges are derivatives entered into as economic hedges of assets and liabilities for which hedge accounting is not applied. The said derivative instruments are classified along with those held for trading purposes.

The method of recognizing the resulting fair value gain or loss depends on whether the derivatives are designated and qualify as hedging instruments, and if so, the nature of the item being hedged.

Furthermore, the Group may designate groups of items as hedged items by aggregating recognized assets or liabilities or unrecognized but highly probable transactions of similar risk characteristics that share the exposure for which they are hedged. Although the overall risk exposures may be different for the individual items in the group, the specific risk being hedged is inherent in each of the items in the group.

The Group has applied the Phase 1 and Phase 2 IBOR reform amendments to IFRS 9, IAS 39 and IFRS 7, that provide temporary reliefs on hedging relationships during the period before the replacement of an existing interest rate benchmark with an alternative risk-free rate (RFR). Based on the above reliefs, for the purpose of determining whether a forecast transaction is highly probable, or a hedging relationship is expected to be highly effective, the Group assumes that the benchmark interest rate does not change as a result of the IBOR reform. In addition, the Group, is not required to discontinue hedge accounting if the hedge falls outside the 80–125% range during the period of uncertainty arising from the reform. Furthermore, in case of hedges where the hedged item or hedged risk is a non-contractually specified benchmark portion of interest rate risk, following the IBOR reform reliefs, it is assumed that the designated risk portion only needs to be separately identifiable at the inception of the hedging relationship and not on a going basis. The reliefs cease to apply once certain conditions are met i.e. at the earlier of (a) when the uncertainties arising from the IBOR reform are no longer present with respect to the timing and the amount of the benchmark rate-based cash flows of the hedged items or hedging instruments and (b) when the hedging relationships to which the reliefs apply are discontinued.

Finally, the amendments introduce an exception to the existing requirements so that changes in the formal designation and documentation of a hedge accounting relationship or to the method for assessing hedge effectiveness due to modifications required by IBOR reform will not result in the discontinuation of hedge accounting or the designation of a new hedging relationship.

(i) Fair value hedging

The Group applies fair value hedging to hedge exposures primarily to changes in the fair value attributable to interest rate risk with respect to the applicable benchmark rate and currency risk.

Hedged items

The items that qualify for fair value hedge accounting include financial assets and liabilities measured at amortized cost such as:

- fixed rate investment securities, term deposits and debt securities in issue;
- portfolios of floating-rate loans and investment securities with embedded interest rate options (such as purchased interest rate floors);
- portfolios of fixed rate amortizing loans (macro hedging) including securitized notes issued and held by the Group, as well as fixed rate investment securities classified as FVOCI.

Hedge effectiveness assessment

The Group uses the dollar-offset method at inception (prospective measurement) and on an ongoing basis (retrospective measurement), in order to assess the effectiveness of fair value hedges on a single or portfolio basis. This is a quantitative method that involves the comparison of the change in the fair value of the hedging instrument with the change in the fair value of the hedged item attributable to the hedged risk. The above comparison constitutes the dollar-offset ratio and should be within the range of 80% -125% for the hedge to be highly effective. Even if a hedge is not expected to be highly effective in a particular period, hedge accounting is not precluded if effectiveness is expected to remain sufficiently high over the life of the hedge.

The Group may also use the hypothetical derivative method, an approach to the dollar offset method, mainly applied in portfolio hedges that carry embedded derivatives, where the hedged risk is modelled through hypothetical derivatives, which replicate the embedded derivative. The fair value of the hypothetical derivative is used as a proxy for the net present value of the hedged future cash flows against which changes in value of the actual hedging instrument are compared to assess effectiveness and measure ineffectiveness. Hedge ineffectiveness may arise in case of potential differences in the critical terms between the hedged item and the hedging instrument such as maturity, interest rate reset frequency and discount curves as well as differences between expected and actual cash flows.

In addition, for hedging relationships where the critical terms of the hedged item match the ones of the hedging instrument such as coupon, maturity, and payment frequency, it is presumed that by construction, effectiveness is expected to be within the range of 80% to 125%.

Fair value hedging adjustments and discontinuation of hedge accounting

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, under net trading income together with the changes in the fair value of the hedged assets or liabilities that are attributable to the hedged risk (fair value hedging adjustments). Fair value hedging adjustments to the hedged items measured at amortised cost are recorded as part of their carrying value in the balance sheet, with the exception of hedging adjustments for portfolios of fixed rate assets in the context of macro-hedging (see below).

The Group discontinues hedge accounting prospectively in case the hedging instrument expires or is sold, terminated or exercised, the hedge no longer meets the qualifying criteria for hedge accounting, or designation is revoked. In such cases, any adjustment to the carrying amount of the hedged item, for which the effective interest method is applied, is amortized to profit or loss over the remaining period to maturity with amortization commencing no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged. If the hedged item is derecognised, the unamortised fair value adjustment is recognised immediately in the income statement.

Portfolio hedging of interest rate risk (macro-hedging)

With reference to portfolio hedging of interest rate risk, a dynamic hedging strategy is applied according to which the Group voluntarily designates and de-designates the hedge relationship on a monthly basis. The Group determines the designated hedged amount by identifying portfolios of homogenous fixed rate assets based on their contractual interest rates, maturity and other risk characteristics. Assets within the identified portfolios are allocated into repricing time periods based on their repricing/maturity dates or interest payment dates with assumptions made for expected prepayments and capital repayments. The hedging instruments are groups of interest rate swaps replicating in aggregate the amortization profile of the assets and designated appropriately to their repricing time periods. Following the above allocation into time buckets, the designated hedged principal and the resulting percentage of the asset portfolio hedged (hedge ratio) for each time bucket are determined.

The dollar-offset method also applies to portfolio hedging of interest rate risk and hedge effectiveness is measured on a monthly basis. For prospective effectiveness measurement, the dollar-offset method involves a comparison of the sensitivity of fair value to a change of 1 basis point in interest rates (Point Value - PV01) between the hedging instruments and the hedged assets. A PV01 offset within the threshold of 80% to 125% demonstrates that the hedge is expected to be highly effective. Retrospective effectiveness is measured by comparing fair value changes of the designated portion of the portfolio of fixed-rate assets attributable to the hedged risk, against the fair value changes of the derivatives, to ensure that they are within an 80% to 125% range.

Fair Value hedging adjustments do not affect the carrying amount of the hedged assets pool, but instead they form part of loans and advances to customers balance sheet line. Considering the designation and de-designation process for a portfolio hedging of interest rate risk is performed on a monthly basis, the hedging adjustments begin amortization on the month they occur over the expiration of the designated time periods on a straight line basis.

Furthermore, the pool of hedging instruments is managed dynamically and therefore when new derivatives are added in the pool of hedging instruments, they are included in the next period's hedge assessment and consequently the change in fair value in the month of their inception affects the P&L. Similarly, when existing swaps are de-designated, either to improve expected hedge effectiveness or to be liquidated, the respective change in fair value from de-designation up to the next designation or liquidation date, affects the P&L.

(ii) Cash flow hedging

The Group applies cash flow hedging to hedge exposures to variability in cash flows primarily attributable to the interest rate risk and currency risk associated with a recognized asset or liability or a highly probable forecast transaction.

The items that qualify for cash flow hedging include recognized assets and liabilities such as variable rate deposits or loans measured at amortized cost, variable rate debt securities in issue and foreign currency variable rate loans. The interest rate risk with respect to the applicable benchmark rate may be hedged using interest rate swaps and cross currency swaps. The foreign currency risk may be hedged using currency forwards and currency swaps.

Furthermore, cash flow hedging is used for hedging highly probable forecast transactions such as the anticipated future rollover of short-term deposits or repos measured at amortized cost. Specifically, the forecast variable interest payments of a series of anticipated rollovers of these financial liabilities are aggregated and hedged as a group with respect to changes in the benchmark interest rates, eliminating cash flow variability. In addition, cash flow hedging applies to hedges of currency risk arising from probable forecasted sales of financial assets or settlement of financial liabilities in foreign currency.

If the hedged item is documented as a forecast transaction, the Group assesses and verifies that there is a high probability of the transaction occurring.

In order to assess the effectiveness of cash flow hedges of interest rate risk, the Group uses regression analysis which demonstrates that there is high historical and expected future correlation between the interest rate risk designated as being hedged and the interest rate risk of the hedging instrument. For assessing the effectiveness of cash flow hedges of currency risk, the Group uses the dollar-offset method as it is described in section (i) above.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income whereas the ineffective portion is recognized in the income statement under net trading income.

Amounts accumulated in equity are recycled to the income statement in the periods in which the hedged item will affect profit or loss (for example, when the forecast sale that is hedged takes place).

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, the cumulative gain or loss existing in equity at that time remains in equity until the forecast transaction affects the income statement.

When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement.

(iii) Net investment hedging

The Group applies net investment hedging to hedge exposures to variability in the value of a net investment in foreign operation associated with the translation of the investment's carrying amount into the Group's presentation currency.

The Group invests in foreign subsidiaries, associates or other foreign operations with functional currencies different from the Group's presentation and functional currency which upon consolidation, their carrying amount is translated from the functional currency to the Group's presentation currency and any exchange differences are deferred in OCI until the net investment is disposed of or liquidated, at which time they are recognized in the profit or loss.

The item that qualifies for net investment hedge accounting is the carrying amount of the net investment in a foreign operation, including monetary items that form part of the net investment.

The foreign currency exposure that arises from the fluctuation in spot exchange rates between the net investment's functional currency and the Group's presentation currency may be hedged using currency swaps, currency forward contracts and their economic equivalents, as well as cash instruments.

The effectiveness of net investment hedges is assessed with the Dollar-Offset Method as described above for fair value hedge.

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in equity; the gain or loss relating to the ineffective portion is recognized in the income statement. Gains and losses accumulated in equity are included in the income statement when the foreign operation is disposed of as part of the gain or loss on the disposal.

(iv) Derivatives not designated as hedging instruments for hedge accounting purposes

Changes in the fair value of derivative financial instruments that are entered into for trading purposes or as economic hedges of assets, liabilities or net positions in accordance with the Group's hedging objectives that may not qualify for hedge accounting are recognized in the income statement.

The fair values of derivative instruments held for trading, including those entered into as economic hedges, and hedge accounting purposes are disclosed in note 19.

2.2.4 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is presented in the balance sheet when, and only when, the Group currently has a legally enforceable right to set off the recognized amounts and intends either to settle them on a net basis, or to realize the asset and settle the liability simultaneously.

2.2.5 Income statement

(i) Interest income and expense

Interest income and expense are recognized in the income statement for all interest bearing financial instruments on an accrual basis, using the effective interest rate (EIR) method. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the gross carrying amount of the financial asset or to the amortized cost of a financial liability. When calculating the EIR for financial instruments other than purchased or originated credit-impaired, the Group estimates future cash flows considering all contractual terms of the financial instrument but does not consider expected credit losses. For purchased or originated credit impaired (POCI) financial assets, the Group calculates the credit-adjusted EIR, which is the interest rate that upon the original recognition of the POCI financial asset discounts the estimated future cash flows (including expected credit losses) to the fair value of the POCI asset.

The amortized cost of a financial asset or liability is the amount at which it is measured upon initial recognition minus principal repayments, plus or minus cumulative amortization using the EIR (as described above) and for financial assets it is adjusted for the expected credit loss allowance. The gross carrying amount of a financial asset is its amortized cost before adjusting for ECL allowance.

The EIR calculation includes fees and points paid or received that are an integral part of the effective interest rate, transaction costs, and other premiums or discounts. Transaction costs include incremental costs that are directly attributable to the acquisition or issue of a financial asset or liability.

The Group calculates interest income and expense by applying the EIR to the gross carrying amount of non-impaired financial assets (exposures in Stage 1 and 2) and to the amortized cost of financial liabilities respectively.

For financial assets that have become credit-impaired subsequent to initial recognition (exposures in Stage 3), the Group calculates interest income by applying the effective interest rate to the amortized cost of the financial asset (i.e. gross carrying amount adjusted for the expected credit loss allowance). If the asset is no longer credit-impaired, then the EIR is applied again to the gross carrying amount with the exception of POCI assets for which interest income does not revert to gross basis calculation.

For inflation-linked instruments the Group recognizes interest income and expense by adjusting the effective interest rate on each reporting period due to changes in expected future cash flows, incorporating changes in inflation expectations over the term of the instruments. The adjusted effective interest rate is applied in order to calculate the new gross carrying amount on each reporting period.

The changes to the basis for determining the financial instruments' contractual cash flows, required in the context of IBOR reform, are accounted for as an update to the instruments' EIR.

Interest income and expense are presented separately in the income statement for all interest bearing financial instruments within net interest income.

(ii) Fees and commissions

Fee and commission received or paid that are integral to the effective interest rate on a financial asset or financial liability are included in the effective interest rate.

Other fee and commission income such as account servicing and asset management fees (including performance based fees) is recognised over time as the related services are being provided to the customer, to the extent that it is highly probable that a significant reversal of the revenue amount recognized will not occur. Transaction-based fees such as foreign exchange transactions, imports-exports, remittances, bank charges and brokerage activities are recognised at the point in time when the transaction takes place. Other fee and commission expenses relate mainly to transaction and service fees, which are expensed as the services are received.

In the case of a contract with a customer that results in the recognition of a financial instrument in the Group's financial statements which may be partially in the scope of IFRS 9 and partially in the scope of IFRS 15, the Group first applies IFRS 9 to separate and measure the part of the contract that is in the scope of IFRS 9 and subsequently applies IFRS 15 to the residual part.

2.2.6 Property, equipment and Investment property

(i) Property and equipment

Property and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the asset. Subsequent expenditure is recognized in the asset's carrying amount only when it is probable that future economic benefits will flow to the Group and the cost of the asset can be measured reliably. All other repair and maintenance costs are recognized in the income statement as incurred.

Depreciation is calculated using the straight-line method to write down the cost of property and equipment, to their residual values over their estimated useful life as follows:

- Land: no depreciation;
- Freehold buildings: 40-50 years and up to 70 years (for specific strategic properties constructed or heavily renovated according to the best practices and guidelines of sustainable construction and renovation, using resilient materials and designs);
- Leasehold improvements: over the lease term or the useful life of the asset if shorter;
- Computer hardware and related integral software: 4-10 years;
- Other furniture and equipment: 4-20 years; and
- Motor vehicles: 5-7 years.

(ii) Investment property

Property held for rental yields and/or capital appreciation that is not occupied by the Group's entities is classified as investment property.

Investment property is measured initially at its cost, including related transaction costs. Under fair value model of IAS 40 "Investment property" after initial recognition, investment property is carried at fair value as determined by independent certified valuers, with any change therein recognized in income statement. Investment property under construction is measured at fair value only if it can be measured reliably.

Subsequent expenditure is charged to the asset's carrying amount only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. Repairs and maintenance costs are recognized to the income statement during the financial period in which they are incurred.

Investment property is derecognised when disposed or when it is permanently withdrawn from use and there is no future economic benefit expected from its disposal. Any arising gain or loss (calculated as the difference between the net proceeds from disposal and the carrying amount of the asset) is recognized in income statement.

If an investment property becomes owner-occupied, it is reclassified as property and equipment and its fair value at the date of reclassification becomes its deemed cost. If an item of property and equipment becomes an investment property because its use has changed, any resulting decrease between the carrying amount and the fair value of this item at the date of transfer is recognized in income statement while any resulting increase, to the extent that the increase reverses previous impairment loss for that property, is recognized in income statement while any remaining part of the increase is recognized in other comprehensive income and increases the revaluation surplus within equity.

If a repossessed asset becomes investment property, any difference between the fair value of the property at the date of transfer and its previous carrying amount is recognized in income statement.

Reclassifications among own used, repossessed assets and investment properties may occur when there is a change in the use of such properties. Additionally, an investment property may be reclassified to 'non-current assets held for sale' category to the extent that the criteria described in note 2.2.25 are met.

2.2.7 Intangible assets

(i) Goodwill

Goodwill represents the excess of the aggregate of the fair value of the consideration transferred, the amount of any non-controlling interest and the acquisition date fair value of any previously held equity interest in the acquiree over the fair value of the Group's share of net identifiable assets and contingent liabilities acquired. Goodwill arising on business combinations is included in 'intangible assets' and is measured at cost less accumulated impairment losses.

Goodwill arising on acquisitions of associates and jointly controlled entities is neither disclosed nor tested separately for impairment, but instead is included in 'investments in associates' and 'investments in jointly controlled entities'.

(ii) Computer software

Costs associated with the maintenance of existing computer software programs are expensed as incurred. Development costs associated with the production of identifiable assets controlled by the Group are recognized as intangible assets when they are expected to generate economic benefits and can be measured reliably. Internally generated computer software assets are amortized using the straight-line method over 4 years, except for core systems whose useful life may extend up to 20 years.

(iii) Other intangible assets

Other intangible assets are assets that are separable or arise from contractual or other legal rights and are amortized over their estimated useful lives. These include intangible assets acquired in business combinations.

Intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment.

2.2.8 Impairment of non-financial assets

(i) Goodwill

Goodwill arising on business combinations is not amortized but tested for impairment annually or more frequently if there are any indications that impairment may have occurred. The Group's impairment test is performed each year end. The Group considers external information such as prevailing economic conditions, persistent slowdown in financial markets, volatility in markets and changes in levels of market and exchange risk, an unexpected decline in an asset's market value or market capitalization being below the book value of equity, together with a deterioration in internal performance indicators, in assessing whether there is any indication of impairment.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each Cash Generating Unit (CGU) or groups of CGUs that are expected to benefit from the synergies of the combination. Each unit or group of units to which the goodwill is allocated represents the lowest level within the Group at which goodwill is monitored for internal management purposes. The Group monitors goodwill either at the separate legal entity level or group of legal entities consistent with the internal monitoring of operating segments.

The Group impairment model compares the carrying value of a CGU or group of CGUs with its recoverable amount. The carrying value of a CGU is based on the assets and liabilities of each CGU. The recoverable amount is determined on the basis of the value-in-use which is the present value of the future cash flows expected to be derived from the CGU or group of CGUs. The estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU and the countries where the CGUs operate.

An impairment loss arises if the carrying amount of an asset or CGU exceeds its recoverable amount, and is recognized in the income statement. Impairment losses are not subsequently reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

(ii) Other non-financial assets

Other non-financial assets, including property and equipment and other intangible assets, are assessed for indications of impairment at each reporting date by considering both external and internal sources of information such as a significant reduction in the asset's value and evidence that the economic performance of the asset is or will be worse than expected. When events or changes in circumstances indicate that the carrying amount may not be recoverable, an impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows, where applicable. Non-financial assets, other than goodwill, for which an impairment loss was recognized in prior reporting periods, are reviewed for possible reversal of such impairment at each reporting date.

Impairment losses arising from the Group's associates and joint ventures are determined in accordance with this accounting policy.

2.2.9 Financial assets

Financial assets - Classification and measurement

The Group classifies financial assets based on the business model for managing those assets and their contractual cash flow characteristics. Accordingly, financial assets are classified into one of the following measurement categories: amortized cost, fair value through other comprehensive income or fair value through profit or loss.

Purchases and sales of financial assets are recognized on trade date, which is the date the Group commits to purchase or sell the assets. Loans originated by the Group are recognized when cash is advanced to the borrowers.

Financial Assets measured at Amortized Cost ('AC')

The Group classifies and measures a financial asset at AC only if both of the following conditions are met and is not designated as at FVTPL:

(a) The financial asset is held within a business model whose objective is to collect contractual cash flows (hold-to-collect business model) and

(b) The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding (SPPI).

These financial assets are recognized initially at fair value plus or minus direct and incremental transaction costs and fees received that are attributable to the acquisition of these assets, and are subsequently measured at amortized cost, using the effective interest rate (EIR) method (as described in note 2.2.5 above).

Interest income, realized gains and losses on derecognition, and changes in expected credit losses from assets classified at AC, are included in the income statement.

Financial Assets measured at Fair Value through Other Comprehensive Income ('FVOCI')

The Group classifies and measures a financial asset at FVOCI only if both of the following conditions are met and is not designated as at FVTPL:

(a) The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets (hold-to-collect-and-sell business model) and

(b) The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI.

Financial assets that meet these criteria are debt instruments and are measured initially at fair value, plus or minus direct and incremental transaction costs that are attributable to the acquisition of these assets.

Subsequent to initial recognition, FVOCI debt instruments are re-measured at fair value through OCI, except for interest income, related foreign exchange gains or losses and expected credit losses, which are recognized in the income statement. Cumulative gains and losses previously recognized in OCI are transferred from OCI to the income statement when the debt instrument is derecognised.

Equity Instruments designated at FVOCI

The Group may make an irrevocable election to designate an equity instrument at FVOCI. This designation, if elected, is made at initial recognition and on an instrument by instrument basis. Gains and losses on these instruments, including when derecognized, are recorded in OCI and are not subsequently reclassified to the income statement. Dividends received are recorded in the income statement.

Financial Assets measured at Fair Value through Profit and Loss ("FVTPL")

The Group classifies and measures all other financial assets that are not classified at AC or FVOCI, at FVTPL. Accordingly, this measurement category includes debt instruments such as loans and debt securities that are held within the hold–to-collect (HTC) or hold-to-collect-and-sell models (HTCS), but fail the SPPI assessment, equities that are not designated at FVOCI and financial assets held for trading. Derivative financial instruments are measured at FVTPL with changes in fair value recognized in the income statement, unless they are designated as effective hedging instruments, where hedge accounting requirements under IAS 39 apply.

Furthermore, a financial asset that meets the above conditions to be classified at AC or FVOCI, may be irrevocably designated by the Group at FVTPL at initial recognition, if doing so eliminates, or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets measured at FVTPL are initially recorded at fair value and any unrealized gains or losses arising due to changes in fair value are included in the income statement.

Business model and contractual characteristics assessment

The business model assessment determines how the Group manages a group of assets to generate cash flows. That is, whether the Group's objective is solely to collect contractual cash flows from the asset, to realize cash flows from the sale of assets, or both to collect contractual cash flows and cash flows from the sale of assets. In addition, the business model is determined after aggregating the financial assets into groups (business lines) which are managed similarly rather than at an individual instrument's level.

The business model is determined by the Group's key management personnel consistently with the operating model, considering how financial assets are managed in order to generate cash flows, the objectives and how performance of each portfolio is monitored and reported and any available information on past sales and on future sales' strategy, where applicable.

Accordingly, in making the above assessment, the Group will consider a number of factors including the risks associated with the performance of the business model and how those risks are evaluated and managed, the related personnel compensation, and the frequency, volume and reasons of past sales, as well as expectations about future sales activity.

Types of business models

The Group's business models fall into three categories, which are indicative of the key strategies used to generate returns.

The hold-to-collect (HTC) business model has the objective to hold the financial assets in order to collect contractual cash flows. Sales within this model are monitored and may be performed for reasons which are not inconsistent with this business model. More specifically, sales of financial assets due to credit deterioration, as well as sales close to the maturity are considered consistent with the objective of hold-to-collect contractual cash flows regardless of value and frequency. Sales for other reasons may be consistent with the HTC model such as liquidity needs in any stress case scenario or sales made to manage high concentration level of credit risk. Such sales are monitored and assessed depending on frequency and value to conclude whether they are consistent with the HTC model. Debt instruments classified within this business model include bonds, due from banks and loans and advances to customers including securitized notes issued by special purpose entities established by the Group and recognized in its balance sheet, which are measured at amortized cost, subject to meeting the SPPI assessment criteria.

The hold-to-collect-and-sell business model (HTC&S) has the objective both to collect contractual cash flows and sell the assets. Activities such as liquidity management, interest yield and duration are consistent with this business model, while sales of assets are integral to achieving the objectives of this business model. Debt instruments classified within this business model include investment securities which are measured at FVOCI, subject to meeting the SPPI assessment criteria.

Other business models include financial assets which are managed and evaluated on a fair value basis as well as portfolios that are held for trading. This is a residual category for financial assets not meeting the criteria of the business models of HTC or HTC&S, while the collection of contractual cash flows may be incidental to achieving the business models’ objective.

The Group’s business models are reassessed at least annually or earlier, if there is a sales’ assessment trigger or if there are any changes in the Bank’s strategy and main activities, as evidenced by the Bank’s business plan, budget and NPE strategy.

Cash flow characteristics assessment

For a financial instrument to be measured at AC or FVOCI, its contractual terms must give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

In assessing whether the contractual cash flows are SPPI, the Group will consider whether the contractual terms of the instrument are consistent with a basic lending arrangement i.e. interest includes only consideration for the time value of money, credit risk, other basic lending risks and a profit margin. On the initial recognition of a financial asset, an assessment is performed of whether the financial asset contains a contractual term that could change the amount or timing of contractual cash flows in a way that it would not be consistent with the above condition. Where the contractual terms introduce exposure to risk or volatility that are inconsistent with a basic lending arrangement, the related financial asset is considered to have failed the SPPI assessment and will be measured at FVTPL.

For the purpose of the SPPI assessment, the Group considers the existence of various features, including among others, contractually linked terms, prepayment terms, deferred interest-free payments, extension and equity conversion options and terms that introduce leverage including index linked payments, features that change contractual cash flows based on the borrower meeting certain contractually specified environmental, social and governance (ESG) targets. Moreover, for the securitized notes issued by special purpose entities and held by the Group, the cash flow characteristics of the notes and the underlying pool of financial assets as well as the credit risk inherent in each securitization’s tranche compared to the credit risk of all of the underlying pool of financial assets, are considered.

In case of special lending arrangements such as non-recourse loans, in its assessment of the SPPI criterion, the Group considers various factors such as the nature of the borrower and its business, the pricing of the loans, whether it participates in the economic performance of the underlying asset and the extent to which the collateral represents all or a substantial portion of the borrower’s assets. Moreover, for non-recourse loans, the Group takes into consideration the borrower’s adequacy of loss absorbing capital by assessing jointly the criteria of equity sufficiency, Loan to Value ratio (LTV), the Average Debt Service Coverage ratio (ADSCR) as well as the existence of corporate and personal guarantees.

In certain cases when the time value of money element is modified in that the financial asset’s interest rate is periodically reset but the reset frequency does not match the tenor of the interest rate or when a financial asset’s interest rate is periodically reset to an average of particular short-term and long-term interest rates, a quantitative assessment is performed (the “Benchmark Test”) in order to determine whether the contractual cash flows are SPPI.

In particular, the Group assesses the contractual cash flows of the “real instrument”, whose interest rate is reset with a frequency that does not match the tenor of the interest rate, and those of the “benchmark instrument”, which are identical in all respects except that the tenor of the interest rate matches exactly the interest period. If the undiscounted cash flows of the former are significantly different from the benchmark cash flows due to the modified time value of money element, the financial asset does not meet the SPPI criterion. In its assessment, the Group considers both the effect of the modified time value of money element in each reporting period and cumulatively over the life of the instrument. This is done, as far as the lifetime of the instrument is concerned, by comparing the cumulative projected undiscounted cash flows of the real and the benchmark instrument, and for each quarterly reporting period, by comparing the projected undiscounted cash flows of the two instruments for that quarterly reporting period, based on predefined thresholds.

In addition, for the purposes of the SPPI assessment, if a contractual feature could have an effect that is de-minimis on the contractual cash flows of the financial asset, it does not affect its classification. Moreover, a contractual feature is considered as not genuine by the Group, if it affects the instrument's contractual cash flows only on the occurrence of an event that is extremely rare, highly abnormal and very unlikely to occur. In such a case, it does not affect the instrument's classification.

The Group performs the SPPI assessment for its lending exposures on a product basis for the retail and part of the wholesale portfolio where contracts are of standardized form, whereas for the remaining wholesale portfolio, securitized notes issued by special purpose entities, either established by the Group or third parties, and held by the Group, and debt securities the assessment is performed on an individual basis.

Derecognition of financial assets

The Group derecognizes a financial asset when its contractual cash flows expire, or the rights to receive those cash flows are transferred in an outright sale in which substantially all risks and rewards of ownership have been transferred. In addition, a financial asset is derecognized even if rights to receive cash flows are retained but at the same time the Group assumes an obligation to pay the received cash flows without a material delay (pass through agreement) or when substantially all the risks and rewards are neither transferred nor retained but the Group has transferred control of the asset. Control is transferred if, and only if, the transferee has the practical ability to sell the asset in its entirety to unrelated third party and is able to exercise that ability unilaterally and without imposing additional restrictions on the transfer.

The main transactions that are subject to the above de-recognition rules are securitization transactions, repurchase agreements and stock lending transactions. In the case of securitization transactions, in order to assess the application of the above mentioned de-recognition principles, the Group considers the structure of each securitization transaction including its exposure to the more subordinated tranches of the notes issued and/or credit enhancements provided to the special purpose entities, as well as the securitization's contractual terms that may indicate that the Group retains control of the underlying assets. In the case of repurchase transactions and stock lending, the assets transferred are not derecognised since the terms of the transaction entail the retention of all their risks and rewards.

On derecognition of a financial asset, the difference between the carrying amount of the asset and the sum of (i) the consideration received (including any new asset obtained less any new liability assumed) and (ii) any cumulative gain or loss that had been recognized in OCI for financial assets at FVOCI, is recognized in income statement, except for cumulative gains or losses of FVOCI equity instruments which are not reclassified from OCI to income statement at the date of derecognition.

Modification of financial assets that may result in derecognition

In addition, derecognition of financial asset arises when its contractual cash flows are modified and the modification is considered substantial enough so that the original asset is derecognized and a new one is recognised. The Group records the modified asset as a 'new' financial asset at fair value plus any eligible transaction costs and the difference with the carrying amount of the existing one is recorded in the income statement as derecognition gain or loss.

The Group may modify the contractual terms of a lending exposure either as a concession granted to a client facing or that is about to face financial difficulties or due to other commercial reasons such as changes in market conditions, competition or customer retention.

Modifications that may result in derecognition include:

- change in borrower,
- change in the currency that the lending exposure is denominated,
- debt consolidation features where two or more consumer unsecured lending contracts are consolidated into a single new secured lending agreement,

- the removal or addition of conversion features and/or profit sharing mechanisms and similar terms which are relevant to the SPPI assessment.

In addition, the Group may occasionally enter, in the context of loans' modifications, into debt-for-equity transactions. These are transactions where the terms of a lending exposure are renegotiated and as a result, the borrower issues equity instruments (voting or no voting) in order to extinguish part or all of its financial liability to the Group. Such transactions may include also exercise of conversion rights embedded into convertible or exchangeable bonds and enforcement of shares held as collateral.

In debt-for-equity transactions, the modified loan is derecognized while the equity instruments received in exchange are recognized at their fair value, with any resulting gain or loss recognized in the Group's income statement.

2.2.10 Reclassifications of financial assets

The Group reclassifies a financial asset only when it changes its business model for managing financial assets. Generally, a change in the business model is expected to be rare and occurs when the Group either begins or ceases to perform an activity that is significant to its operations; for example, when a business line is acquired, disposed of or terminated. In the rare event when there is a change to the existing business models, the updated assessment is approved by the Group's competent Committees and the amendment is reflected appropriately in the Group's budget and business plan.

Changes in intention related to particular financial assets (even in circumstances of significant changes in market conditions), the temporary disappearance of a particular market for financial assets or a transfer of financial assets between parts of the Group with different business models, are not considered by the Group changes in business model.

The reclassification is applied prospectively from the reclassification date, therefore previously recognized gains, losses (including impairment losses) or interest are not restated.

2.2.11 Financial liabilities

Financial liabilities - Classification and measurement

The Group classifies its financial liabilities in the following categories: financial liabilities measured at amortized cost and financial liabilities measured at fair-value-through-profit-or-loss (FVTPL).

Financial liabilities at fair-value-through-profit-or-loss comprise two sub categories: financial liabilities held for trading and financial liabilities designated at fair-value-through-profit-or-loss upon initial recognition.

Financial liabilities held for trading, which include short positions of debt securities (sold but not yet purchased), are liabilities that the Group incurs principally for the purpose of repurchasing in the near term for short term profit or in the context of economic hedging strategies of groups of assets and/or liabilities or net positions for which hedge accounting is not applied.

The Group may, at initial recognition, irrevocably designate financial liabilities at fair-value-through-profit-or-loss when one of the following criteria is met:

- the designation eliminates or significantly reduces an accounting mismatch which would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases; or
- a group of financial liabilities or financial assets and financial liabilities is managed and its performance is evaluated on a fair value basis in accordance with a documented risk management or investment strategy; or
- the financial liability contains one or more embedded derivatives as components of a hybrid contract which significantly modify the cash flows that otherwise would be required by the contract.

Financial liabilities held for trading or designated at FVTPL are initially recognized at fair value. Changes in fair value are recognized in the income statement, except for changes in fair value attributable to changes in the Group's own credit risk, which are recognised in OCI and are not subsequently reclassified to the income statement upon derecognition of the liabilities. However, if such treatment creates or enlarges an accounting mismatch in the income statement, all gains or losses of this financial liability, including the effects of changes in the credit risk, are recognized in the income statement.

Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expires. When an existing financial liability of the Group is replaced by another from the same counterparty on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as an extinguishment of the original liability and the recognition of a new liability and any difference arising is recognized in the income statement.

The Group considers the terms to be substantially different, if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability.

If an exchange of debt instruments or modification of terms is accounted for as an extinguishment, any costs or fees incurred are recognized as part of the gain or loss on the extinguishment. If the exchange or modification is not accounted for as an extinguishment, any costs or fees incurred adjust the carrying amount of the liability and are amortized over the remaining term of the modified liability.

Similarly, when the Group repurchases any debt instruments issued by the Group, it accounts for such transactions as an extinguishment of debt.

2.2.12 Fair value measurement of financial instruments

Fair value of financial instruments is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When available, the Group measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as active if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. If there is no quoted price in an active market, then the Group uses other valuation techniques that maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The chosen valuation technique incorporates all of the factors that market participants would take into account in pricing a transaction.

The Group has elected to use mid-market pricing as a practical expedient for fair value measurements within a bid-ask spread.

The best evidence of the fair value of a financial instrument at initial recognition is normally the transaction price, i.e. the fair value of the consideration given or received unless the Group determines that the fair value at initial recognition differs from the transaction price. In this case, if the fair value is evidenced by a quoted price in an active market for an identical asset or liability (i.e. Level 1 input) or based on a valuation technique that uses only data from observable markets, a day one gain or loss is recognized in the income statement. On the other hand, if the fair value is evidenced by a valuation technique that uses unobservable inputs, the financial instrument is initially measured at fair value, adjusted to defer the difference between the fair value at initial recognition and the transaction price (day one gain or loss). Subsequently the deferred gain or loss is amortized on an appropriate basis over the life of the instrument or released earlier if a quoted price in an active market or observable market data become available or the financial instrument is closed out.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy based on the lowest level input that is significant to the fair value measurement as a whole.

For assets and liabilities that are measured at fair value on a recurring basis, the Group recognizes transfers into and out of the fair value hierarchy levels at the beginning of the quarter in which a financial instrument's transfer was effected.

2.2.13 Impairment of financial assets

The Group recognizes allowance for expected credit losses (ECL) that reflect changes in credit quality since initial recognition to financial assets that are measured at AC and FVOCI, including loans, securitized notes issued by special purpose entities established by the Group, lease receivables, debt securities, financial guarantee contracts, and loan commitments. No ECL are recognized on equity investments. ECL are a probability-weighted average estimate of credit losses that reflects the time value of money. Upon initial recognition of the financial instruments in scope of the impairment policy, the Group records a loss allowance equal to 12-month ECL, being the ECL that result from default events that are possible within the next twelve months. Subsequently, for those financial instruments that have experienced a significant increase in credit risk (SICR) since initial recognition, a loss allowance equal to lifetime ECL is recognized, arising from default events that are possible over the expected life of the instrument. If upon initial recognition, the financial asset meets the definition of purchased or originated credit impaired (POCI), the loss allowance is based on the change in the ECL over the life of the asset.

Loss allowances for trade receivables are always measured at an amount equal to lifetime ECL. For all other financial assets subject to impairment, the general three-stage approach applies.

Accordingly, ECL are recognized using a three-stage approach based on the extent of credit deterioration since origination:

- Stage 1 – When there is no significant increase in credit risk since initial recognition of a financial instrument, an amount equal to 12-month ECL is recorded. The 12 – month ECL represent a portion of lifetime losses, that result from default events that are possible within the next 12 months after the reporting date and is equal to the expected cash shortfalls over the life of the instrument or group of instruments, due to loss events probable within the next 12 months. Not credit-impaired financial assets that are either newly originated or purchased, as well as assets recognized following a substantial modification accounted for as a derecognition, are classified initially in Stage 1.
- Stage 2 – When a financial instrument experiences a SICR subsequent to origination but is not considered to be in default, it is included in Stage 2. Lifetime ECL represent the expected credit losses that result from all possible default events over the expected life of the financial instrument.
- Stage 3 – Financial instruments that are considered to be in default are included in this stage. Similar to Stage 2, the allowance for credit losses captures the lifetime expected credit losses.
- POCI - Purchased or originated credit impaired (POCI) assets are financial assets that are credit impaired on initial recognition. They are not subject to stage allocation and are always measured on the basis of lifetime expected credit losses. Accordingly, ECL are only recognized to the extent that there is a subsequent change in the assets' lifetime expected credit losses. Any subsequent favorable change to their expected cash flows is recognized as impairment gain in the income statement even if the resulting expected cash flows exceed the estimated cash flows at initial recognition. Apart from purchased assets, POCI assets may also include financial instruments that are considered new assets, following a substantial modification accounted for as a derecognition (see section 2.2.9).

Definition of default

To determine the risk of default, the Group applies a default definition for accounting purposes, which is consistent with the European Banking Authority (EBA) definition for non-performing exposure and regulatory definition of default as applied by the Group on 1 January 2021 (refer to note 5.2.1.2 (a)). The accounting definition of default is also consistent with the one used for internal credit risk management purposes.

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that exposure have occurred:

- The borrower faces a significant difficulty in meeting his financial obligations.
- There has been a breach of contract, such as a default or unpaid amounts, above specified materiality thresholds, for more than 90 consecutive days.
- The Group, for economic or contractual reasons relating to the borrower's financial difficulty, has granted to the borrower a concession(s) that the Group would not otherwise consider.
- There is a probability that the borrower will enter bankruptcy or other financial re-organization.
- For POCI financial assets, a purchase or origination at a deep discount that reflects incurred credit losses is considered a detrimental event. The Group assesses the deep discount criterion following a principle -based approach with the aim to incorporate all reasonable and supportable information which reflects market conditions that exist at the time of the assessment.

For debt securities, the Group determines the risk of default using an internal credit rating scale. The Group considers debt securities as credit impaired if the internal rating of the issuer/counterparty corresponds to a rating equivalent to "C" (Moody's rating scale) or the external rating of the issuer/counterparty at the reporting date is equivalent to "C" (Moody's rating scale) and the internal rating is not available.

Significant increase in credit risk (SICR) and staging allocation

Determining whether a loss allowance should be based on 12-month expected credit losses or lifetime expected credit losses depends on whether there has been a significant increase in credit risk (SICR) of the financial assets, issued loan commitments and financial guarantee contracts, since initial recognition.

At each reporting date, the Group performs an assessment as to whether the risk of a default occurring over the remaining expected lifetime of the exposure has increased significantly from the expected risk of a default estimated at origination for that point in time.

The assessment for SICR is performed using both qualitative and quantitative criteria based on reasonable and supportable information that is available without undue cost or effort including forward looking information and macroeconomic scenarios as well as historical experience. Furthermore, regardless of the outcome of the SICR assessment based on the above indicators, the credit risk of a financial asset is deemed to have increased significantly when contractual payments are more than 30 days past due.

As a primary criterion for SICR assessment, the Group compares the residual lifetime probability of default (PD) at each reporting date to the residual lifetime PD for the same point in time which was expected at the origination.

The Group may also consider as a SICR indicator when the residual lifetime PD at each reporting date exceeds certain predetermined values. The criterion may be applied in order to capture cases where the relative PD comparison does not result to the identification of SICR although the absolute value of PD is at levels which are considered high based on the Group’s risk appetite framework.

For a financial asset's risk, a threshold may be applied, normally reflected through the asset's forecasted PD, below which it is considered that no significant increase in credit risk compared to the asset's expected PD at origination date has taken place. In such a case the asset is classified at Stage 1 irrespectively of whether other criteria would trigger its classification at Stage 2. This criterion primarily applies to debt securities.

Internal credit risk rating (on a borrower basis) is also used as a basis for the identification of SICR with regards to lending exposures of the Wholesale portfolio. Specifically, the Group takes into consideration the changes of internal ratings by a certain number of notches. In addition, a watchlist status is also considered by the Group as a trigger for SICR identification. Internal credit risk rating models include borrower specific information as well as, forward-looking information regarding the prospects of the industry in which it operates.

For securitized notes issued by special purpose entities established by the Group, the SICR assessment is performed by considering the performance of the underlying assets, where the level of their expected cash flows is compared to the carrying amount of the securitized notes. In addition, the assessment of SICR for debt securities is performed on an individual basis based on the number of notches downgrade in the internal credit rating scale since the origination date.

Forbearance measures as monitored by the Group are considered as a SICR indicator and thus the exposures are allocated into Stage 2 upon forbearance, unless they are considered credit-impaired or the net present value of their cash flows before and after the restructuring exceed the threshold of 1%, in which cases they are classified as stage 3. Furthermore, regardless of the outcome of the SICR assessment based on the above indicators, the credit risk of a financial asset is deemed to have increased significantly when contractual payments are more than 30 days past due.

Furthermore, Management may apply temporary collective adjustments when determining whether credit risk has increased significantly since initial recognition on exposures that share the same credit risk characteristics to reflect macro-economic or other factors which are not adequately addressed by the current credit risk models. These factors may depend on information such as the type of the exposure, counterparty’s specific information and the characteristics of the financial instrument, while their application requires the application of significant judgment.

Transfers from Stage 2 to Stage 1

A financial asset, which is classified to Stage 2 due to Significant Increase in Credit Risk (SICR), is reclassified to Stage 1, as long as it does not meet anymore any of the Stage 2 Criteria.

Where forbearance measures have been applied, the Group uses a probation period of two years, in order to fulfill the requirements for a transfer back to Stage 1. If at the end of that period the borrowers have made regular payments of a significant aggregate amount, there are no past due amounts over 30 days and the loans are neither credit impaired, nor any other SICR criteria are met, they exit forborne status and are classified as stage 1.

Transfers from Stage 3 to Stage 2

A financial asset is transferred from Stage 3 to Stage 2, when the criteria based on which the financial asset was characterized as credit impaired are no longer valid and the applicable probation period for the assets' return in non impaired status, ranging from three to twelve months, has passed.

Criteria for grouping of exposures based on shared credit risk characteristics

The assessment of loss allowance is performed either on an individual basis or on a collective basis for groups of similar items with homogeneous credit risk characteristics. The Group applies the same principles for assessing SICR since initial recognition when estimating ECL on a collective or on an individual basis.

The Group segments its lending exposures on the basis of shared credit risk characteristics for the purposes of both assessing significant increase in credit risk and measuring loan loss allowance on a collective basis. The different segments aim to capture differences in PDs and in the rates of recovery in the event of default.

The shared credit risk characteristics used for the segmentation of exposures include several elements such as: instrument type, portfolio type, asset class, product type, industry, originating entity, credit risk rating, remaining term to maturity, geographical location of the borrower, value of collateral to the financial asset, forbearance status and days in arrears.

The Group identifies individually significant exposures and performs the ECL measurement based on borrower specific information for both retail and wholesale portfolios. This measurement is performed at a borrower level, hence the criteria are defined at this level, while both qualitative and quantitative factors are taken into consideration including forward looking information.

For the remaining retail and wholesale exposures, ECL are measured on a collective basis. This incorporates borrower specific information, collective historical experience of losses and forward-looking information. For debt securities and securitized notes issued by special purpose entities established by the Group, the measurement of impairment losses is performed on an individual basis.

Measurement of Expected Credit Losses

The measurement of ECL is an unbiased probability-weighted average estimate of credit losses that reflects the time value of money, determined by evaluating a range of possible outcomes. A credit loss is the difference between the cash flows that are due to the Group in accordance with the contractual terms of the instrument and the cash flows that the Group expects to receive (i.e. cash shortfalls) discounted at the original effective interest rate (EIR) of the same instrument, or the credit-adjusted EIR in case of purchased or originated credit impaired assets (POCI). In measuring ECL, information about past events, current conditions and reasonable and supportable forecasts of future conditions are considered. For undrawn commitments, ECL are calculated as the present value of the difference between the contractual cash flows due if the commitment was drawn and the cash flows expected to be received, while for financial guarantees ECL are measured as the expected payments to reimburse the holder less any amounts that the Group expects to receive.

The Group estimates expected cash shortfalls, which reflect the cash flows expected from all possible sources, including collateral, guarantees and other credit enhancements that are part of the contractual terms and are not recognized separately. In case of a collateralized financial instrument, the estimated expected cash flows related to the collateral reflect the amount and timing of cash flows that are expected from liquidation less the discounted costs of obtaining and selling the collateral, irrespective of whether liquidation is probable.

ECL are calculated over the maximum contractual period over which the Group is exposed to credit risk, which is determined based on the substantive terms of the instrument, or in case of revolving credit facilities, by taking into consideration factors such as the Group's expected credit risk management actions to mitigate credit risk and past practice.

Receivables from customers arising from the Group's activities other than lending, are presented under Other Assets and are typically short term. Therefore, considering that usually there is no significant financing component, the loss allowance for such financial assets is measured at an amount equal to the lifetime expected credit losses under the simplified approach.

ECL Key Inputs

The ECL calculations are based on the term structures of the probability of default (PD), the loss given default (LGD), the exposure at default (EAD) and other input parameters such as the credit conversion factor (CCF) and the prepayment rate. Generally, the Group derives these parameters from internally developed statistical models and observed point-in-time and historical data, leveraging the existing infrastructure development for the regulatory framework and risk management practices.

The PD, LGD and EAD used for accounting purposes may differ from those used for regulatory purposes. For the purposes of impairment measurement, PD is a point-in-time estimate whereas for regulatory purposes PD is a 'through-the-cycle' estimate. In addition, LGD and EAD for regulatory purposes are based on loss severity experienced during economic downturn conditions, while for impairment purposes, LGD and EAD reflect unbiased and probability-weighted estimates.

The PD represents the likelihood of default assessed on the prevailing economic conditions at the reporting date, adjusted to take into account estimates of future economic conditions that are likely to impact the risk of default, over a given time horizon.

The Group uses Point in Time (PiT) PDs in order to remove any bias towards historical data thus aiming to reflect management's view of the future as at the reporting date, incorporating relevant forward looking information including macroeconomic scenarios.

Two types of PD are used for calculating ECL:

- 12-month PD, which is the estimated probability of default occurring within the next 12 months (or over the remaining life of the financial asset if this is less than 12 months). It is used to calculate 12-month ECL for Stage 1 exposures.
- Lifetime PD, which is the estimated probability of a default occurring over the remaining life of the financial asset. It is used to calculate lifetime ECL for Stage 2, Stage 3 and POCI exposures.

For debt securities, PDs are obtained by an international rating agency using risk methodologies that maximize the use of objective non-judgmental variables and market data. The Group assigns internal credit ratings to each issuer/counterparty based on these PDs. In case of counterparties for which no information is available, the Group assigns PDs which are derived from internal models.

The Exposure at default (EAD) is an estimate of the exposure at a future default date, taking into account expected changes in the exposure after the reporting date, including repayments of principal and interest and expected drawdowns on committed facilities. The EAD includes both on and off balance sheet exposures. The on balance sheet exposure corresponds to the total amount that has been withdrawn and is due to be paid, which includes the outstanding principal, accrued interest and any past due amounts. The off balance sheet exposure represents the credit that is available to be withdrawn, in excess of the on balance sheet exposure.

Furthermore, the CCF factor is used to convert the amount of a credit facility and other off-balance sheet amounts to an EAD amount. It is a modelled assumption which represents a proportion of any undrawn exposure that is expected to be drawn prior to a default event occurring.

In addition, the prepayment rate is an estimate of early prepayments on loan exposure in excess of the contractual repayment according to the repayment schedule and is expressed as a percentage applied to the EAD at each period, reducing the latter amount accordingly.

LGD represents the Group's expectation of the extent of loss on a defaulted exposure and it is the difference between the contractual cash flows due and those that the Group expects to receive including any amounts from collateral liquidation. LGD varies by type of counterparty, type and seniority of claim, availability of collateral or other credit support, and is usually expressed as a percentage of EAD. The Group distinguishes its loan portfolios into two broad categories i.e. secured and unsecured. The Group estimates the LGD component using cure rates that reflect cash recoveries, estimated proceeds from collateral liquidation, estimates for timing realization, realization costs, etc. Where the LGD's component values are dependent on macro – economic data, such types of dependencies are reflected by incorporating forward looking information, such as forecasted price indices into the respective models. The estimation of the aforementioned component values within LGD reflects available historical data which cover a reasonable period, i.e. a full economic cycle.

For debt securities, the LGD is typically based on historical data derived mainly from rating agencies' studies but may also be determined considering the existing and expected liabilities structure of the obligor and macroeconomic environment.

Furthermore, the seniority of the debt security, any potential collaterals by the obligor or any other type of coverage is taken into account for the calculation.

Forward-looking information

The measurement of expected credit losses for each stage and the assessment of significant increases in credit risk consider information about reasonable and supportable forecasts of future events and macroeconomic conditions. The estimation and application of forward-looking information requires significant judgment.

The Group uses, at a minimum, three macroeconomic scenarios (i.e. base, adverse and optimistic) to achieve the objective of measuring ECL in a way that reflects an unbiased and probability weighted outcome. The baseline scenario represents the most likely scenario and is aligned with the information used by the Group for strategic planning and budgeting purposes.

The scenarios are reflected in the risk parameters, and, namely 12-month PD, Lifetime PD and LGD, hence 3 sets of each of these parameters are used, in line with the scenarios developed.

The Group then proceeds to the calculation of weights for each scenario, which represent the probability of occurrence for each of these scenarios. These weights are applied on the 3 sets of calculations of the parameters in order to produce a single scenario weighted risk parameter value which is subsequently used in both SICR assessment and ECL measurement. ECL calculation incorporates forward-looking macroeconomic variables, including GDP growth rates, house price indices, unemployment rates, interest rates, inflation, etc. In order to capture material non – linearities in the ECL model, in the case of individually significant exposures, the Group considers the relevance of forward looking information to each specific group of borrowers primarily on the basis of the business sector they belong and other drivers of credit risk (if any). As such, different scenario weights are determined per groups of borrowers with the objective of achieving an unbiased ECL amount which incorporates all relevant and supportable information.

Modified Financial Assets

In cases where the contractual cash flows of a financial asset have been modified and the modification is considered substantial enough (for the triggers of derecognition, refer to Derecognition of Financial assets in section 2.2.9 above), the modification date is considered to be the date of initial recognition for impairment calculation purposes, including for the purposes of determining whether a significant increase in credit risk has occurred. Such a modified asset is typically classified as Stage 1 for ECL measurement purposes. However, in some circumstances following a modification that results in derecognition of the original financial asset, there may be evidence that the new financial asset is credit-impaired at initial recognition, and thus, the financial asset is recognized as an originated credit-impaired financial asset (POCI).

In cases where the contractual cash flows of a financial asset have been modified and the modification is not considered substantial enough, the Group recalculates the gross carrying amount of the financial asset and recognizes the difference as a modification gain or loss in the income statement and determines if the financial asset's credit risk has increased significantly since initial recognition by comparing the risk of a default occurring at initial recognition based on the original unmodified contractual terms and the risk of a default occurring at the reporting date, based on the modified contractual terms.

Presentation of impairment allowance

For financial assets measured at amortized cost, impairment allowance is recognized as a loss allowance reducing the gross carrying amount of the financial assets in the balance sheet. For debt instruments measured at FVOCI, impairment allowance is recognized in other comprehensive income and does not reduce the carrying amount of the debt instruments in the balance sheet. For off-balance sheet financial items arising from lending activities, impairment allowance is presented in Other Liabilities. The respective ECL for the above financial items is recognised within impairment losses.

Write-off of financial assets

Where the Group has no reasonable expectations of recovering a financial asset either in its entirety or a portion of it, the gross carrying amount of that instrument is reduced directly, partially or in full, against the impairment allowance. The amount written-off is considered as derecognized. Subsequent recoveries of amounts previously written off decrease the amount of the impairment losses in the income statement.

Financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

2.2.14 Sale and repurchase agreements, securities lending and borrowing

(i) Sale and repurchase agreements

Securities sold subject to repurchase agreements (repos) continue to be recorded in the Group's Balance Sheet as the Group retains substantially all risks and rewards of ownership, while the counterparty liability is included in amounts due to other banks or due to customers, as appropriate, and measured at amortized cost. Securities purchased under agreements to resell (reverse repos) are recorded as loans and advances to other banks or customers, as appropriate, and measured at amortized cost. The difference between the sale and repurchase price in case of repos and the purchase and resale price in case of reverse repos is recognized as interest and accrued over the period of the repo or reverse repo agreements using the effective interest method.

(ii) Securities lending and borrowing

Securities lent to counterparties against the receipt of a fee continue to be recognized in the financial statements. Securities borrowed are recognized as trading liabilities when sold to third parties and measured at fair value with any gains or losses included in the income statement.

2.2.15 Leases

The Group enters into leases either as a lessee or as a lessor. At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

(i) Accounting for leases as lessee

When the Group becomes the lessee in a lease arrangement, it recognizes a lease liability and a corresponding right-of-use (RoU) asset at the commencement of the lease term when the Group acquires control of the physical use of the asset.

Lease liabilities are presented within Other liabilities and RoU assets within Property and equipment and investment property. Lease liabilities are measured based on the present value of the future lease payments over the lease term, discounted using an incremental borrowing rate. The interest expense on lease liabilities is presented within net interest income.

The lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the Group's estimate of the amount expected to be payable under a residual value guarantee or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The RoU asset is initially recorded at an amount equal to the lease liability and is adjusted for rent prepayments, initial direct costs, or lease incentives received. Subsequently, the RoU asset is depreciated over the shorter of the lease term or the useful life of the underlying asset, with the depreciation presented within operating expenses.

When a lease contains extension or termination options that the Group considers reasonably certain to be exercised, the expected future lease payments or costs of early termination are included within the lease payments used to calculate the lease liability.

The Group has elected not to recognise right-of-use assets and lease liabilities for leases of low-value assets and short-term leases. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

With respect to the rent concessions that were a direct consequence of the COVID-19 pandemic, the Group has applied COVID-19-Related Rent Concessions - Amendment to IFRS 16, which provided a practical expedient allowing the Group not to assess whether eligible rent concessions were lease modifications.

(ii) Accounting for leases as lessor

At inception date of the lease, the Group, acting as a lessor, classifies each of its leases as either an operating lease or a finance lease based on whether the lease transfers substantially all of the risks and rewards incidental to the ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

Finance leases

At commencement date, the Group derecognizes the carrying amount of the underlying assets held under finance lease, recognizes a receivable at an amount equal to the net investment in the lease and recognizes, in income statement, any profit or loss from the derecognition of the asset and the recognition of the net investment. The net investment in the lease is calculated as the present value of the future lease payments in the same way as for the lessee.

After commencement date, the Group recognizes finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the lease. The Group also recognizes income from variable payments that are not included in the net investment in the lease. After lease commencement, the net investment in a lease is not remeasured unless the lease is modified or the lease term is revised.

Operating leases

The Group continues to recognize the underlying asset and does not recognize a net investment in the lease on the balance sheet or initial profit (if any) on the income statement.

The Group recognizes lease payments from the lessees as income on a straight-line basis or another systematic basis considered as appropriate. Also it recognizes costs, including depreciation, incurred in earning the lease income as an expense. The Group adds initial direct costs incurred in obtaining an operating lease to the carrying amount of the underlying asset and recognizes those costs as an expense over the lease term on the same basis as the lease income.

Subleases

The Group, acting as a lessee, may enter into arrangements to sublease a leased asset to a third party while the original lease contract is in effect. The Group acts as both the lessee and lessor of the same underlying asset. The sublease is a separate lease agreement, in which the intermediate lessor classifies the sublease as a finance lease or an operating lease as follows:

- if the head lease is a short-term lease, the sublease is classified as an operating lease; or
- otherwise, the sublease is classified by reference to the right-of-use asset arising from the head lease, rather than by reference to the underlying asset.

2.2.16 Income tax

Income tax consists of current and deferred tax.

(i) Current income tax

Income tax payable on profits, based on the applicable tax law in each jurisdiction and the tax rate enacted at the reporting date, is recognized as an expense in the period in which profits arise.

(ii) Deferred tax

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax base of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. The principal temporary differences arise from impairment/valuation and accounting write-offs relating to loans, Private Sector Initiative (PSI+) tax related losses, losses from disposals and crystallized write-offs of loans, depreciation of property and equipment, fair value adjustment of investment property, pension and other retirement benefit obligations, and revaluation of certain financial assets and liabilities, including derivative financial instruments.

Deferred tax assets are recognized where it is probable that future taxable profit will be available against which the temporary differences can be utilized. The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. Any such reduction is reversed to the extent that it becomes probable that sufficient taxable profit will be available. The Group recognises a previously unrecognised deferred tax asset to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax related to debt securities at FVOCI and cash flow hedges is recognized to other comprehensive income, and is subsequently recognized in the income statement together with the deferred gain or loss.

The deferred tax asset on income tax losses carried forward is recognized as an asset when it is probable that future taxable profits will be available against which these losses can be utilized.

(iii) Uncertain tax positions

The Group determines and assesses all material tax positions taken, including all, if any, significant uncertain positions, in all tax years that are still subject to assessment (or when the litigation is in progress) by relevant tax authorities. In evaluating tax positions in various states, local, and foreign jurisdictions, the Group examines all supporting evidence (Ministry of Finance circulars, individual rulings, case law, past administrative practices, ad hoc tax/legal opinions etc.) to the extent they are applicable to the facts and circumstances of the particular Group's case/ transaction.

In addition, judgments concerning the recognition of a provision against the possibility of losing some of the tax positions are highly dependent on advice received from internal/ external legal counselors. For uncertain tax positions with a high level of uncertainty, the Group recognizes, on a transaction by transaction basis, or together as a group, depending on which approach better predicts the resolution of the uncertainty using an expected value (probability-weighted average) approach: (a) a provision against tax receivable which has been booked for the amount of income tax already paid but further pursued in courts or (b) a liability for the amount which is expected to be paid to the tax authorities. The Group presents in its balance sheet all uncertain tax balances as current or deferred tax assets or liabilities.

The Group as a general rule has opted to obtain for the Group's Greek companies an 'Annual Tax Certificate', which is issued after a tax audit is performed by the same statutory auditor or audit firm that audits the annual financial statements. Further information in respect of the Annual Tax Certificate and the related tax legislation, as well as the unaudited tax years for the Group's companies is provided in note 13.

2.2.17 Employee benefits

(i) Short term benefits

Short term employee benefits are those expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services and are expensed as these services are provided.

(ii) Pension obligations

The Group provides a number of defined contribution pension plans where annual contributions are invested and allocated to specific asset categories. Eligible employees are entitled to the overall performance of the investment. The Group's contributions are recognized as employee benefit expense in the year in which they are paid.

(iii) Standard legal staff retirement indemnity obligations (SLSRI) and termination benefits

The Group operates unfunded defined benefit plans in Greece, Bulgaria and Serbia, under broadly similar regulatory frameworks. In accordance with the local labor legislation, the Group provides for staff retirement indemnity obligation for employees which are entitled to a lump sum payment based on the number of years of service, as of the date when employee service first leads to benefits under the plan until the date when further employee service will lead to no material amount of further benefits, and the level of remuneration at the date of retirement, if they remain in the employment of the Group until normal retirement age. Provision has been made for the actuarial value of the lump sum payable on retirement (SLSRI) using the projected unit credit method. Under this method the cost of providing retirement indemnities is charged to the income statement so as to spread the cost over the period of service of the employees, in accordance with the actuarial valuations which are performed every year.

The SLSRI obligation is calculated as the present value of the estimated future cash outflows using interest rates of high quality corporate bonds. In countries where there is no deep market in such bonds, the yields on government bonds are used. The currency and term to maturity of the bonds used are consistent with the currency and estimated term of the retirement benefit obligations. Actuarial gains and losses that arise in calculating the Group's SLSRI obligations are recognized directly in other comprehensive income in the period in which they occur and are not reclassified to the income statement in subsequent periods.

Interest on the staff retirement indemnity obligations and service cost, consisting of current service cost, past service cost and gains or losses on settlement are recognized in the income statement. In calculating the SLSRI obligation, the Group also considers potential separations before normal retirement based on the terms of previous voluntary exit schemes.

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits (including those in the context of the Voluntary Exit Schemes implemented by the Group). The Group recognizes termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the Group recognizes costs for a restructuring that involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Termination benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

(iv) Performance-based cash payments

The Group's Management awards high performing employees with bonuses in cash, from time to time, on a discretionary basis. Cash payments requiring only Management approval are recognized as employee benefit expenses on an accrual basis. Cash payments requiring General Meeting approval as distribution of profits to staff are recognized as employee benefit expense in the accounting period that they are approved by the Group’s shareholders.

(v) Share-based payments

The Group’s Management awards employees with bonuses in the form of shares and share options on a discretionary basis and after taking into account the current legal framework. Non-performance related shares vest in the period granted. Share based payments that are contingent upon the achievement of a performance and service condition, vest only if both conditions are satisfied.

The fair value of the share options granted is recognized as an employee benefit expense over the vesting period, with an equal credit in equity, i.e.no impact on the Group’s equity. The amount ultimately recognised as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

The fair value of the share options at grant date is determined by using an adjusted option pricing model which takes into account the exercise price, the exercise dates, the term of the option, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the options. The expected volatility is measured at the grant date of the options and is based on the historical volatility of the share price.

For share-based payment awards with non-vesting conditions, the fair value of the share-based payment at grant date also reflects such conditions and there is no true-up for differences between expected and actual outcomes.

When the options are exercised and new shares are issued, the proceeds received net of any directly attributable transaction costs are credited to share capital (par value) and share premium.

2.2.18 Repossessed properties

Land and buildings repossessed through an auction process to recover impaired loans are, except where otherwise stated, included in ‘Other Assets’. Assets acquired from an auction process are held temporarily for liquidation and are valued at the lower of cost and net realizable value, which is the estimated selling price, in the ordinary course of business, less costs necessary to make the sale.

In cases where the Group makes use of repossessed properties as part of its operations, they may be reclassified to own occupied or investment properties, as appropriate.

Any gains or losses on liquidation are included in the income statement.

2.2.19 Related party transactions

Related parties of the Group include:

(a) an entity that has control over the Group and entities controlled, jointly controlled or significantly influenced by this entity, as well as members of its key management personnel and their close family members;

(b) an entity that has significant influence over the Group and entities controlled by this entity,

(c) members of key management personnel of the Group, their close family members and entities controlled or jointly controlled by the abovementioned persons;

(d) associates and joint ventures of the Group;

(e) fellow subsidiaries;

(f) post-employment benefit plans established for the benefit of the Group's employees.

Transactions of similar nature are disclosed on an aggregate basis. All banking transactions entered into with related parties are in the normal course of business and are conducted on an arm's length basis.

2.2.20 Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and reliable estimates of the amount of the obligation can be made.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at each reporting date, taking into account the risks and uncertainties surrounding the amount of such expenditure.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. If, subsequently, it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

2.2.21 Operating segment

An operating segment is a component of the Group that engages in business activities from which it may earn revenue and incur expenses within a particular economic environment. Operating segments are identified on the basis of internal reports, regarding operating results, of components of the Group that are regularly reviewed by the chief operating decision maker in order to allocate resources to the segment and to assess its performance. The chief operating decision maker has been identified as the Strategic Planning Committee that is responsible for strategic decision making. Segment revenue, segment expenses and segment performance include transfers between business segments. Such transfers are accounted for at competitive prices in line with charges to unaffiliated customers for similar services.

2.2.22 Share capital

Ordinary shares and preference shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction from the proceeds, net of tax.

Dividend distribution on shares is recognized as a deduction in the Group's equity when approved by the General Meeting of shareholders and the required regulatory approvals, if any, are obtained. Interim dividends are recognized as a deduction in the Group's equity when approved by the Board of Directors.

Intercompany non-cash distributions that constitute transactions between entities under common control are recorded in the Group's equity by reference to the book value of the assets distributed.

Where any Group entity purchases the Company's equity share capital (treasury shares), the consideration paid including any directly attributable incremental costs (net of income taxes), is deducted from shareholders' equity until the shares are cancelled, reissued or disposed of. Where such shares are subsequently sold or reissued, any consideration received is included in shareholders' equity.

2.2.23 Preferred securities

Preferred securities issued by the Group are classified as equity when there is no contractual obligation to deliver to the holder cash or another financial asset.

Incremental costs directly attributable to the issue of new preferred securities are shown in equity as a deduction from the proceeds, net of tax.

Dividend distribution on preferred securities is recognized as a deduction in the Group's equity on the date it is due.

Where preferred securities, issued by the Group, are repurchased, the consideration paid including any directly attributable incremental costs (net of income taxes), is deducted from shareholders' equity. Where such securities are subsequently called or sold, any consideration received is included in shareholders' equity.

2.2.24 Financial guarantees and commitments to extend credit

Financial guarantees

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due, in accordance with the terms of a debt instrument. Financial guarantees granted by the Group to banks, financial institutions and other bodies on behalf of customers to secure loans, overdrafts and other banking facilities, are initially recognized at fair value, being the premium received. Subsequent to initial recognition, such guarantees are measured at the higher of the amount of the ECL allowance, and the amount initially recognised less any cumulative amortization of the fee earned, where appropriate.

Financial guarantees purchased by the Group that are considered as integral to the contractual terms of the guaranteed instrument are not accounted for separately and the cash flows from the guarantee are taken into account in the measurement of the guaranteed instrument's expected credit losses, whereas any fees paid or transaction costs incurred for the acquisition of the financial guarantee are considered as part of the guaranteed asset's effective interest rate.

On the other hand, financial guarantees purchased that are not considered as integral to the contractual terms of the guaranteed instruments are accounted for separately where a reimbursement asset is recognized and included in Other Assets once is its virtually certain that, under the terms and conditions of the guarantee, the Group will be reimbursed for the credit loss incurred. The changes in the carrying amount of the above reimbursement asset arising from financial guarantees, entered into to mitigate the credit risk of lending exposures measured at amortized cost, are recognized under 'Impairment losses' in the Group's income statement.

Commitments to extend credit

Commitments represent off-balance sheet items where the Group commits, over the duration of the agreement, to provide a loan with pre-specified terms to the customer. Such contractual commitments represent commitments to extend credit and standby letters and they are part of the normal lending activities of the Group, for which an ECL allowance is recognised under IFRS 9.

ECL allowance for off-balance sheet exposures (financial guarantees granted and commitments) is included within Other Liabilities.

2.2.25 Non-current assets classified as held for sale and discontinued operations

Non-current assets are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. For a non- current asset to be classified as held for sale, it is available for immediate sale in its present condition, subject to terms that are usual and customary for sales of such assets, and the sale is considered to be highly probable. In such cases, management is committed to the sale and actively markets the property for sale at a price that is reasonable in relation to the current fair value. The sale is also expected to qualify for recognition as a completed sale within one year from the date of classification. Before their classification as held for sale, assets are remeasured in accordance with the respective accounting standard.

Assets held for sale are subsequently remeasured at the lower of their carrying amount and fair value less cost to sell. Any loss arising from the above measurement is recorded in profit or loss and can be reversed in the future. When the loss relates to a disposal group, it is allocated to the assets within that disposal group.

The Group presents discontinued operations in a separate line in the consolidated income statement if a Group entity or a component of a Group entity has been disposed of or is classified as held for sale and:

(a) Represents a separate major line of business or geographical area of operations;

(b) Is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations; or

(c) Is a subsidiary acquired exclusively with a view to resale.

Profit or loss from discontinued operations includes the profit or loss before tax from discontinued operations, the gain or loss on disposal before tax or measurement to fair value less costs to sell and discontinued operations tax expense. Intercompany transactions between continuing and discontinued operations are presented on a gross basis in the income statement. Upon classification of a Group entity as a discontinued operation, the Group restates prior periods in the consolidated income statement.

2.2.26 Cash and cash equivalents

Cash and cash equivalents include cash in hand, unrestricted deposits with central banks, due from credit institutions that are all carried at amortised cost and other short-term highly liquid investments with original maturities of three months or less that are held for trading.

2.2.27 Government grants

Government grants are transfers of resources to the Group by a government entity such as government, government agencies and similar bodies whether local, national or international, in return for compliance with certain past or future conditions related to the Group's operating activities.

Government grants are recognized when there is reasonable assurance that the grant will be received and the Group will comply with the conditions attached to it. The grants are recognized in the income statement on a systematic basis to match the way that the Group recognizes the expenses for which the grants are intended to compensate. In case of subsequent changes in the Group's expectations of meeting the conditions attached to the government grants, the effect of such changes is recognised in income statement.

2.2.28 Fiduciary activities

The Group provides custody, trustee, corporate administration, investment management and advisory services to third parties that result in the holding or investing of assets on behalf of its clients. This involves the Group making allocation, purchase and sale decisions in relation to a wide range of financial instruments. The Group receives fee income for providing these services. Those assets that are held in a fiduciary capacity are not assets of the Group and are not recognized in the financial statements. In addition, the Group does not guarantee these investments and as a result it is not exposed to any credit risk in relation to them.

3. Critical accounting estimates and judgments in applying accounting policies

In the process of applying the Group's accounting policies, Management makes various judgments, estimates and assumptions that may affect the reported amounts of assets and liabilities, revenues and expenses recognized in the financial statements within the next financial year and the accompanying disclosures. Estimates and judgments are continually evaluated and are based on current conditions, historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Revisions to estimates are recognized prospectively. The most significant areas in which the Group makes judgments, estimates and assumptions in applying its accounting policies are set out below:

3.1 Impairment losses on loans and advances to customers

In 2022, the geopolitical and economic upheaval caused by the Russian invasion in Ukraine, along with the persistent - albeit decelerating - inflationary pressures, high energy prices and rising borrowing costs affected negatively the global economic environment, worsened the macroeconomic outlook of the European economies, which are now confronted with a slowdown in growth and, accordingly, exacerbated economic uncertainty in the regions that the Group operates. In this volatile environment, the Greek economy has exhibited notable resilience, mainly driven by the increase in consumption, export of services, strong performance in tourism and further acceleration of new investments supported by the RRF funds, which is expected to continue, at a slower pace though (note 2).

On the back of the overall economic uncertainty mentioned above, the Group continued its robust performance, as evidenced by the level of its credit quality indicators at year end 2022 that outperformed the expected levels in terms of NPE ratio and NPE coverage, while it remains cautious towards the risks that may eventually affect vulnerable corporate borrowers (like those that operate in the food industry, the energy sector, the supply of raw materials for the construction sector etc.) and erode the disposable income and the repayment capacity of retail customers. In this context, in the fourth quarter of 2022, the Group revised the key macroeconomic variables incorporated in the IFRS 9 expected credit losses' models, in order to reflect, to the extent possible, the uncertainties surrounding the economic environment. Furthermore, the Group enhanced the use of industry specific variables for corporate portfolio as well as the monitoring framework of vulnerable corporate borrowers and incorporated inflation and interest rates movements in the retail borrowers' debt capacity assessment, so as to better capture the impact of the macro indicators on the performance of its loan portfolios.

Expected Credit Loss (ECL) measurement

The ECL measurement requires Management to apply judgment, in particular, the estimation of the amount and timing of future cash flows and collateral values when determining impairment losses and the assessment of a significant increase in credit risk. These estimates are driven by a number of factors, changes in which can result in significant changes to the timing and amount of allowance for credit loss to be recognized.

The Group's ECL calculations are outputs of complex models with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies. In addition, temporary adjustments may be required to capture new developments and information available, which are not reflected yet in the ECL calculation through the risk models.

The elements of the ECL models that are considered significant accounting judgments and estimates include:

Determination of a significant increase of credit risk

IFRS 9 does not include a definition of what constitutes a significant increase in credit risk (SICR). An assessment of whether credit risk has increased significantly since initial recognition is performed at each reporting period by considering primarily the change in the risk of default occurring over the remaining life of the financial instrument. The Group assesses whether a SICR has occurred since initial recognition based on qualitative and quantitative reasonable and supportable forward-looking information that includes significant management judgment (note 2.2.13). More stringent criteria could significantly increase the number of instruments migrating to stage 2.

Retail lending

For retail lending exposures the primary criterion is the change in the residual cumulative lifetime Probability of Default (PD) above specified thresholds. These thresholds are set and vary per portfolio, modification status (modified/non-modified), product type as well as per origination PD level. In general, thresholds for lower origination PDs are higher than those assessed for higher origination PDs.

As at 31 December 2022 and 2021, the range of lifetime PD thresholds based on the above segmentation, that triggers the allocation to stage 2 for Greece's retail exposures are set out below:

Retail exposures	Range of SICR thresholds
Mortgage	30%-50%
Home Equity	10%-80%
SBB	10%-65%
Consumer	60%-100%

Wholesale lending

For wholesale lending exposures, the origination PD curves and the residual lifetime PD curves at each reporting date are mapped to credit rating bands. Accordingly, SICR thresholds are based on the comparison of the origination and reporting date credit ratings, whereby rating downgrades represent changes in residual lifetime PD. Similar to retail exposures, the Group segments the wholesale lending exposures based on asset class, loan type and credit rating at origination. In addition, for securitized notes issued by special purpose entities established by the Group, the SICR assessment is performed by considering the performance of the underlying assets.

As at 31 December 2022 and 2021, the credit rating deterioration thresholds per rating bands for Greece's wholesale lending exposures that trigger allocation to stage 2 are set out below. In particular, as per the Group's SICR policy, any downgrade to rating band 6 or high-risk rating bands (7,8 or 9) is considered as SICR event to all corporate lending portfolios:

Wholesale internal rating bands	Minimum SICR threshold range
1	Five notches
2	Four notches
3	Three notches
4	Two notches
5-8	One notch

Determination of scenarios, scenario weights and macroeconomic factors

To achieve the objective of measuring ECL, the Group evaluates a range of possible outcomes in line with the requirements of IFRS 9 through the application of a minimum three macroeconomic scenarios, i.e. baseline, adverse and optimistic, in a way that reflects an unbiased and probability weighted outcome. Each of the scenarios is based on Management's assumptions around future economic conditions in the form of macroeconomic, market and other factors. As at 31 December 2022 and 2021, the probability weights for the above mentioned scenarios applied by the Group in the ECL measurement calculations are 50% for the baseline scenario and 25% for the adverse and optimistic scenarios.

The key assumptions underlying in each macroeconomic scenario are provided below:

Baseline scenario
Baseline scenario assumes no escalation of the war in Ukraine, no change in EU sanctions against Russia and monetary policy trajectory as well as stability related to the political cycle. Core inflation for Greece is assumed to gradually de-escalate, increase in post-Covid 19 employment is assumed to contribute to lower unemployment path, real estate prices continue their upward trend, while short-term prospects are supported by the: (a) strong tourist season expected, (b) Recovery and Resilience Facility, Multiannual Financial Framework and European Investment Bank funds, (c) ample liquidity (deposits and state cash buffer) and (d) fiscal measures adopted to cushion energy. In the Eurozone front, the ECB is expected to pause its monetary policy tightening in the first quarter of 2023.

Optimistic scenario
The optimistic scenario assumes quicker recovery in 2022 and 2023, compared to the baseline scenario, as a result of: (a) higher than expected tourism revenues, (b) no negative developments with respect to the energy crisis (energy prices remain unchanged compared to the baseline scenario), and (c) no escalation of the war in Ukraine. In addition, it assumes quick resolution of political uncertainty, formation of a stable government with no need for a third round of elections and no negative surprises from the flow of EU funds.

Adverse scenario
The adverse scenario assumes a prolongation and escalation of the war and economic sanctions, which leads to a larger supply shock, manifested in higher oil prices, and increase in domestic uncertainty as a result of the political cycle / elections. Therefore, higher and more persistent inflation (and subsequent erosion of incomes), more protracted postponement of investment, lower external demand but also more fiscal support measures, capped by the fiscal space of the country are expected. Also, negative developments are assumed on the RRF and structural reforms fronts, while uncertainty around the Eurozone growth outlook intensifies.

Forward-looking information
The Group ensures that impairment estimates and macroeconomic forecasts, as provided by Economic Analysis & Financial Markets Research Division, applicable for business and regulatory purposes are fully consistent. Accordingly, the IFRS 9 baseline scenario applied in the ECL calculation coincides with the one used for ICAAP and business planning purposes. In addition, relevant experience gained from the stress tests imposed by the regulator, has been taken into account in the process of developing the macroeconomic scenarios, as well as impairments for stress testing purposes have been forecasted in line with IFRS 9 ECL methodology.

In terms of macroeconomic assumptions, the Group assesses a number of indicators in projecting the risk parameters, namely Residential and Commercial Property Price Indices, unemployment, Gross Domestic Product (GDP), Greek Government Bond (GGB) spread over Euribor and inflation as well as interest and FX rates.

The arithmetic averages of the scenarios' probability-weighted annual forecasts for the next four year period following the reporting date, used in the ECL measurement of Greek lending portfolios for the year ended 31 December 2022 and 2021, are set in the following table:

Key macroeconomic indicator	31 December 2022 Average (2023-2026) annual forecast	31 December 2021 Average (2022-2025) annual forecast
Gross Domestic Product growth	2.10%	3.27%
Unemployment rate	10.76%	12.60%
Residential property prices' index	3.71%	5.55%
Commercial property prices' index	3.46%	5.75%
Inflation rate	3.10%	1.57%

Changes in the scenarios and weights, the corresponding set of macroeconomic variables and the assumptions made around those variables for the forecast horizon would have a significant effect on the ECL amount. The Group independently validates all models and underlying methodologies used in the ECL measurement through competent resources, who are independent of the model development process.

Development of ECL models, including the various formulas, choice of inputs and interdependencies

For the purposes of ECL measurement the Group performs the necessary model parameterization based on observed point-in-time data on a granularity of monthly intervals. The ECL calculations are based on input parameters, i.e. exposure at default (EAD), PDs, loss given default (LGD), credit conversion factors (CCFs) etc. incorporating Management's view of the future. The Group also determines the links between macroeconomic scenarios and, economic inputs, such as unemployment levels and collateral values, and the effect on PDs, EADs and LGDs.

Furthermore, the PDs are unbiased rather than conservative and incorporate relevant forward looking information including macroeconomic scenarios. The forecasting risk parameters models incorporate a number of macroeconomic variables, such as GDP, unemployment etc. and portfolio specific variables such as seasonal flag etc., which are used as independent variables for optimum predictive capability. In 2022, the Group proceeded with the recalibration of its PD models, by introducing industry specific macro variables in corporate borrowers and applying interest rate and inflation scalars in the estimation of retail customers' debt to income ratio. More specifically, in the latter case, the borrowers' instalments were estimated with the use of the projected interest rates, while the income model, also took into account the projected inflation on top of the projected GDP and unemployment ratio.

The ECL models are based on logistic regressions and run under the different macroeconomic scenarios and relevant changes and shocks in the macro environment reflected accordingly in a non-linear manner.

Segmentation of financial assets when their ECL is assessed on a collective basis

The Group segments its exposures on the basis of shared credit risk characteristics upon initial recognition for the purposes of both assessing significant increase in credit risk and measuring loan loss allowance on a collective basis. The different segments aim to capture differences in PDs and in the rates of recovery in the event of default. On subsequent periods, the Group re-evaluates the grouping of its exposures at least on an annual basis, in order to ensure that the groups remain homogeneous in terms of their response to the identified shared credit risk characteristics. Re-segmentation reflects management's perception in respect to the change of credit risk associated with the particular exposures compared to initial recognition.

Modeling and Management overlays / adjustments

A number of sophisticated models have been developed or modified to calculate ECL, while temporary management adjustments may be required to capture new developments and information available, which are not yet reflected in the ECL calculation through the risk models. Accordingly, considering the macroeconomic conditions and geopolitical backdrop linked to the war in Ukraine, Management incorporates in ECL calculations an estimation of potentially non modeled risks arising from its corporate lending portfolios, representing 4% of ECL stock. Management adjustments reflect in 2022 the sensitivity of the macroeconomic variability in the risk profile of debtors. Internal counterparty rating changes, new or revised models and data may significantly affect ECL. The models are governed by the Group's validation framework, which aim to ensure independent verification, and are approved by the Board Risk Committee (BRC).

Sensitivity analysis on lending portfolios

The sensitivity analysis when performed on certain key parameters can provide meaningful information only for portfolios where the risk parameters have a significant impact on the overall credit risk of a lending portfolio, particularly where such sensitivities are also used for internal credit risk management purposes. Otherwise, a sensitivity analysis on certain combinations of some risk parameters may not produce meaningful results, as in reality there are interdependencies between the various economic inputs, rendering any changes in the parameters, changes correlated in other factors.

The sensitivity analysis presented in the tables below assumes a favorable and an adverse shift in the scenario weighting, compared to the one applied in the ECL measurement. As at 31 December 2022, considering that the prevailing macroeconomic conditions, as reflected in the three scenarios incorporated in the IFRS9 weighted probability scenario, have resulted in the widening of the differences of the macro variables' levels among the scenarios, the Group rebalanced the scenario weighting used in the ECL sensitivity analysis in order to reflect a reasonable potential change of key macroeconomic indicators. Accordingly, the favorable shift assumes an increase in the weighting of the optimistic scenario at 50% and a stable weighting of the baseline scenario at 50%, while the adverse shift assumes an increase in the weighting of the adverse scenario at 50% and a stable weighting of the baseline scenario at 50%. Correspondingly, at year-end 2021, the favorable swift assumed an increase in the weighting of the optimistic scenario at 75% and a decrease in the weighting of the baseline scenario at 25%, while the adverse swift assumed an increase in the weighting of the adverse scenario at 75% and a decrease in the weighting of the baseline scenario at 25% compared to the scenario weighting applied by the Group in ECL measurement.

The tables below present the estimated effect in the Group's ECL measurement (including off-balance sheet items) per stage, upon potential reasonable combined changes of forecasts in key macroeconomic indicators over the next 5 years (2023-2027 and 2022-2026, respectively):

As at 31 December 2022				As at 31 December 2021			
Sensitivity scenario				Sensitivity scenario			
	Combined change %				Combined change %		
Key macroeconomic indicators	Positive change	Adverse change		Key macroeconomic indicators	Positive change	Adverse change	
GDP growth	41%	-41%	change of annual forecasts	GDP growth	20%	-20%	change of annual forecasts
Unemployment rate	-11%	11%	change of annual forecasts	Unemployment rate	-11%	11%	change of annual forecasts
Inflation rate	-2%	2%	change of annual forecasts	Inflation rate	1%	-1%	change of annual forecasts
Property indices (RRE/CRE)	4%	-4%	change of index adjusted real estate collateral market values	Property indices (RRE/CRE)	3%	-3%	change of index adjusted real estate collateral market values

	Estimated effect per stage as at 31 December 2022							
	Positive change				Adverse change			
	12-month ECL - Stage 1	Lifetime ECL - Stage 2	Lifetime ECL credit-impaired	31 December 2022	12-month ECL - Stage 1	Lifetime ECL - Stage 2	Lifetime ECL credit-impaired	31 December 2022
Impact in € million	(12)	(36)	(34)	(82)	10	43	35	88
Impact in % allowance	-7.08	-9.96	-2.93	-4.86	5.73	11.99	3.03	5.24

	Estimated effect per stage as at 31 December 2021							
	Positive change				Adverse change			
	12-month ECL - Stage 1	Lifetime ECL - Stage 2	Lifetime ECL credit-impaired	31 December 2021	12-month ECL - Stage 1	Lifetime ECL - Stage 2	Lifetime ECL credit-impaired	31 December 2021
Impact in € million	(9)	(24)	(28)	(61)	6	30	34	70
Impact in % allowance	-5.06	-7.57	-1.98	-3.20	3.47	9.39	2.37	3.64

The Group updates and reviews the reasonability and performs back-testing of the main assumptions used in its methodology assessment for SICR and ECL measurement, at least on an annual basis or earlier, based on facts and circumstances. In this context, experienced and dedicated staff within the Group's Risk Management function monitor the risk parameters applied for the estimation of ECL. Furthermore, as part of the well-defined governance framework, any revisions to the methodology used are approved by the Group competent committees and ultimately the Board Risk Committee (BRC).

3.2 Fair value of financial instruments

The fair value of financial instruments 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 (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

The fair value of financial instruments that are not quoted in an active market are determined by using other valuation techniques that include the use of valuation models. In addition, for financial instruments that trade infrequently and have little price transparency, fair value is less objective and requires varying degrees of judgment depending on liquidity, concentration, uncertainty of market factors, pricing assumptions and other risks affecting the specific instrument. In these cases, the fair values are estimated from observable data in respect of similar financial instruments or using other valuation techniques.

The valuation models used include present value methods and other models based mainly on observable inputs and to a lesser extent to non-observable inputs, in order to maintain the reliability of the fair value measurement.

Where valuation techniques are used to determine the fair values of financial instruments that are not quoted in an active market, they are validated and periodically reviewed by qualified personnel independent of the personnel that created them. All models are certified before they are used, and are calibrated to ensure that outputs reflect actual data and comparative market prices. The main assumptions and estimates, considered by management when applying a valuation model include:

- the likelihood and expected timing of future cash flows;
- the selection of the appropriate discount rate, which is based on an assessment of what a market participant would regard as an appropriate spread of the rate over the risk-free rate; and
- judgment to determine what model to use in order to calculate fair value.

To the extent practicable, models use only observable data, however areas such as credit risk (both own and counterparty), volatilities and correlations require the Management to make estimates to reflect uncertainties in fair values resulting from the lack of market data inputs. Inputs into valuations based on unobservable data are inherently uncertain because there is little or no current market data available. However, in most cases there will be some historical data on which to base a fair value measurement and consequently even when unobservable inputs are used, fair values will use some market observable inputs.

Information in respect of the fair valuation of the Group's financial assets and liabilities is provided in note 5.3.

3.3 Classification of financial instruments

The Group applies significant judgment in assessing the classification of its financial instruments and especially, in the below areas:

Business model assessment

Judgment is exercised in order to determine the appropriate level at which to assess the business model. In assessing the business model of financial instruments, these are aggregated into groups (business lines) based on their characteristics, and the way they are managed in order to achieve the Group's business objectives. In general, the assessment is performed at the business unit level for lending exposures including securitized notes issued by special purpose entities established by the Group and based on the measurement category for debt securities. However, further disaggregation may be performed by business strategy/ region, etc.

In assessing the business model for financial instruments, the Group performs a past sales evaluation of the financial instruments and assesses their expected evolution in the future. Judgment is exercised in determining the effect of sales to a "hold to collect" business model depending on their objective and their acceptable level and frequency.

Contractual cash flow characteristics test (SPPI test)

The Group performs the SPPI assessment of lending exposures and debt securities by considering all the features which might potentially lead to SPPI failure. Judgment is applied by the responsible business units when considering whether certain contractual features significantly affect future cash flows. Accordingly, for non-recourse financial assets, the Group assesses jointly criteria such as the adequacy of equity, LTV (Loan-to-Value) and DSCR (Debt-Service-Coverage-Ratio) ratios as well as the existence of corporate and personal guarantees. For the securitized notes issued by special purpose entities, either established by the Group or third parties, and held by the Group, the cash flow characteristics of the notes and the underlying pool of financial assets as well as the credit risk inherent in each securitization's tranche compared to the credit risk of all of the underlying pool of financial assets, are assessed. Furthermore, in order to assess whether any variability in the cash flows is introduced by the modified time value of money element, the Group performs a quantitative assessment (as described in note 2.2.9). Moreover, the Group evaluates certain cases on whether the existence of performance-related terms exposes the Group to asset risk rather to the borrower's credit risk.

The Group has established a robust framework to perform the necessary assessments in accordance with Group's policies in order to ensure appropriate classification of financial instruments, including reviews by experienced staff for lending exposures and debt securities.

3.4 Assess control over investees

Management exercises judgment in order to assess if the Group has control over another entity based on the control elements set out in note 2.2.1 (i).

In particular, as part of its funding activity and non-performing loans' management strategy, the Group sponsors certain securitization vehicles, the relevant activities of which have been predetermined as part of their initial design by the Group. The Group is exposed to variability of returns from these vehicles through the holding of debt securities issued by them or by providing credit enhancements in accordance with the respective contractual terms. In assessing whether it has control, the Group considers whether it manages the substantive decisions that could affect these vehicles' returns. Accordingly, the Group assesses on a case-by-case basis the structure of securitization transaction, including the respective contractual arrangements, in order to conclude if it controls these vehicles.

In addition, the Group is involved in the initial design of various mutual funds in order to provide customers with investment opportunities. The Group primarily acts as an agent in exercising its decision making authority as it is predefined by the applicable regulated framework. As a result, the Group has concluded that it does not control these funds.

Further information in respect of the structured entities the Group is involved, either consolidated or not, is provided in note 25.

3.5 Income tax

The Group is subject to income taxes in various jurisdictions and estimates are required in determining the liability for income taxes. The Group recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due or for anticipated tax disputes. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax in the period in which such determination is made. Further information in relation to the above is provided in note 13.

In addition, the Group recognizes deferred tax assets to the extent that it is probable that sufficient taxable profit will be available against which unused tax losses and deductible temporary differences can be utilized. Recognition therefore involves judgment regarding the future financial performance of the particular Group legal entity in which the deferred tax asset has been recognized. Particularly, in order to determine the amount of deferred tax assets that can be recognized, significant management judgments are required regarding the likely timing and level of future taxable profits. In making this evaluation, the Group has considered all available evidence, including management's projections of future taxable income and the tax legislation in each jurisdiction.

The most significant judgment exercised by Management relates to the recognition of deferred tax assets in respect of losses realized in Greece. In the event that, the Group assesses that it would not be able to recover any portion of the recognized deferred tax assets in the future, the unrecoverable portion would impact the deferred tax balances in the period in which such judgment is made.

Further information in respect of the deferred tax assets recognized by the Group and the assessment for their recoverability is provided in note 13.

3.6 Retirement benefit obligations

The present value of the retirement benefit obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions, such as the discount rate and future salary increases. Any change in these assumptions impacts the carrying amount of the pension obligations.

The Group determines the appropriate discount rate used to calculate the present value of the estimated retirement obligations, at the end of each year based on interest rates of high quality corporate bonds. In countries where there is no deep market in such bonds, the yields on government bonds are used. The currency and term to maturity of the bonds used are consistent with the currency and estimated average term to maturity of the retirement benefit obligations. The salary rate increase assumption is based on future inflation estimates reflecting also the Group's reward structure and expected market conditions.

Other assumptions for pension obligations, such as future inflation estimates, are based in part on current and expected market conditions.

For information in respect of the sensitivity analysis of the Group's retirement benefit obligations to reasonably possible, at the time of preparation of these financial statements, changes in the abovementioned key actuarial assumptions, refer to note 36.

3.7 Investment properties

Investment property is carried at fair value, as determined by external, independent and certified valuators on an annual basis, or more frequently if deemed appropriate upon assessment of any relevant circumstances.

The main factors underlying the determination of fair value are related with rental income from current leases and assumptions about rental income from future leases in the light of current market conditions, including CPI indexation, future vacancy rates and periods, discount rates or rates of return, terminal values as well as the level of future maintenance and other operating costs.

Additionally, where the fair value is determined based on market prices of comparable transactions those prices are subject to appropriate adjustments, in order to reflect current economic conditions and Management's best estimate regarding the future trend of properties market based on advice received from its independent external valuers.

Further information in respect of the fair valuation of the Group's investment properties is provided in note 27.

3.8 Provisions and contingent liabilities

The Group recognizes provisions when it has a present legal or constructive obligation, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of its amount.

A provision is not recognized and a contingent liability is disclosed when it is not probable that an outflow of resources will be required to settle the obligation, when the amount of the obligation cannot be measured reliably or in case that the obligation is considered possible and is subject to the occurrence or non -occurrence of one or more uncertain future events.

Considering the subjectivity and uncertainty inherent in the determination of the probability and amount of the abovementioned outflows, the Group takes into account a number of factors such as legal advice, the stage of the matter and historical evidence from similar cases. In the case of an offer made within the context of the Group's voluntary exit scheme, the number of employees expected to accept the abovementioned offer along with their age cluster is a significant factor affecting the measurement of the outflow for the termination benefits.

Further information in relation to the Group's provisions and contingent liabilities is provided in notes 35 and 42.

3.9 Share-based payments

The Group grants shares and share options to its employees as a common feature of employee remuneration. IFRS 2 requires the recognition of an expense for those shares and share options at their fair value on the grant date (equity-settled plans). For shares granted to employees, the fair value is measured directly at the market price of the entity's shares, adjusted to take into account the terms and conditions upon which the shares were granted. For share options granted to employees, in many cases market prices are not available because the options granted are subject to terms and conditions that do not apply to traded options. If this is the case, the Group estimates the fair value of the equity instruments granted using a valuation technique, which is consistent with generally accepted valuation methodologies.

The valuation method and the inputs used to measure the share options granted to employees of the Group are presented in note 39.

3.10 Leases

The Group, as a lessee, determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease if it is reasonably certain not to be exercised.

The Group applies judgement in evaluating whether it is reasonably certain or not to exercise an option to renew or terminate the lease, by considering all relevant factors and economic aspects that create an economic incentive. The Group reassesses the lease term if there is a significant event or change in circumstances that is within its control that affects its ability to exercise or not to exercise the option to renew or to terminate, such as significant leasehold improvements or significant customization of the leased asset.

In measuring lease liabilities, the Group uses the lessees' incremental borrowing rate ('IBR') when it cannot readily determine the interest rate implicit in the lease. The IBR is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment.

Therefore, estimation is required when no observable rates are available (such as for subsidiaries that do not enter into financing transactions) or when they need to be adjusted to reflect the terms and conditions of the lease. The Group estimates the IBR using observable inputs (such as government bond yields) as a starting point when available, and performs certain additional entity-specific adjustments, such as credit spread adjustments or adjustments to reflect the lease terms and conditions. For the Bank and Greek subsidiaries, the IBR is derived from the estimated covered bonds yield curve, which is constructed based on observable Greek Government Bond yields, while for international subsidiaries the IBR is determined on a country basis, taking into consideration specific local conditions.

3.11 Other accounting estimates and judgments

Information in respect of other estimates and judgments that are made by the Group is provided in notes 20 and 30.

4. Capital Management

The Group's capital adequacy position is presented in the following table:

	2022 € million	2021 € million
Equity attributable to shareholders of the Company	**6,623**	5,539
Add: Adjustment due to IFRS 9 transitional arrangements	**279**	528
Add: Regulatory non-controlling interests	**68**	57
Less: Goodwill	**(2)**	(2)
Less: Other regulatory adjustments	**(253)**	(686)
Common Equity Tier 1 Capital	**6,715**	5,436
Total Tier 1 Capital	**6,715**	5,436
Tier 2 capital-subordinated debt	**1,250**	950
Add: Other regulatory adjustments	**61**	-
Total Regulatory Capital	**8,026**	6,386
Risk Weighted Assets	**41,899**	39,789
Ratios:	**%**	**%**
Common Equity Tier 1	**16.0**	13.7
Tier 1	**16.0**	13.7
Total Capital Adequacy Ratio	**19.2**	16.1

Notes:

a) The profit of € 1,330 million attributable to the shareholders of the Company for the year ended 31 December 2022 (31 December 2021: profit of € 328 million) has been included in the calculation of the above capital ratios.

b) The Group has elected to apply the phase-in approach for mitigating the impact of IFRS 9 transition on the regulatory capital, according to the Regulation (EU) 2017/2395 (providing a 5-year transition period to recognize the impact of IFRS 9 adoption) and the Regulation 2020/873 (CRR quick fix – see below). The transition effect is included in the regulatory capital as of the first quarter of each year.

c) As of 31 March 2022, the Group is applying the temporary treatment specified in Article 468 of the CRR, amended by the Regulation (EU) 2020/873, therefore the Group's phased in own funds and capital ratios reflect the 60% of unrealised losses for the period 1.1.2020 to 31.12.2022, accounted for as fair value changes of debt instruments measured at fair value through other comprehensive income, corresponding to specific debt exposures, as provided for in the said article. The Group's Common Equity Tier 1 and Total Capital Adequacy ratios, as if the temporary treatment of the aforementioned unrealised losses had not been applied, would be 15.8% % and 18.9% respectively.

d) The Group's CET1 as at 31 December 2022, based on the full implementation of the Basel III rules in 2025 (fully loaded CET1), referring mainly to the completion of the aforementioned IFRS 9 transitional arrangements, would be 15.2% (31 December 2021: 12.7%).

e) The pro-forma Common Equity Tier 1 and Total Capital Adequacy ratios as at 31 December 2022 with the completion of Project "Solar" (note 20) would be 16% and 19%, respectively.

The Group has sought to maintain an actively managed capital base to cover risks inherent in the business. The adequacy of the Group's capital is monitored using, among other measures, the rules and ratios established by the Basel Committee on Banking Supervision (BIS rules/ratios) which have been incorporated in the European Union (EU) legislation through the Directive 2013/36/EU (known as CRD IV) along with the Regulation No 575/2013/EU (known as CRR), as they are in force. The above Directive has been transposed into Greek legislation by Law 4261/2014 as in force. Supplementary to that, in the context of Internal Capital Adequacy Assessment Process (ICAAP), the Group considers a broader range of risk types and the Group's risk management capabilities. ICAAP aims ultimately to ensure that the Group has sufficient capital to cover all material risks that it is exposed to, over a three-year horizon.

Based on Council Regulation No 1024/2013, the European Central Bank (ECB) conducts annually a Supervisory Review and Evaluation Process (SREP) in order to define the prudential requirements of the institutions under its supervision. The key purpose of the SREP is to ensure that institutions have adequate arrangements, strategies, processes and mechanisms as well as capital and liquidity to ensure a sound management and coverage of their risks, to which they are or might be exposed, including those revealed by stress testing and risks the institution may pose to the financial system.

According to the 2021 SREP decision, for 2022, the Group was required to meet a Common Equity Tier 1 Ratio of at least 9.58% and a Total Capital Adequacy Ratio of at least 14.39% (Overall Capital Requirement or OCR) including Combined Buffer Requirement of 3.39%, which is covered with CET1 capital and sits on top of the Total SREP Capital Requirement (TSCR). The ECB's relief measures for capital requirements, to address the effects of Covid-19, ended at 31 December 2022.

The breakdown of the Group's CET1 and Total Capital requirements is presented below.

	31 December 2022	
	CET1 Capital Requirements	Total Capital Requirements
Minimum regulatory requirement	**4.50%**	**8.00%**
Pillar 2 Requirement (P2R)	1.69%	3.00%
Total SREP Capital Requirement (TSCR)	**6.19%**	**11.00%**
Combined Buffer Requirement (CBR)		
Capital conservation buffer (CCoB)	2.50%	2.50%
Countercyclical capital buffer (CCyB)	0.14%	0.14%
Other systemic institutions buffer (O-SII)	0.75%	0.75%
Overall Capital Requirement (OCR)	**9.58%**	**14.39%**

[(1)] As of 1st of March 2022, the P2R is not applicable for the Bank in its separate financial statements.

According to the 2022 SREP decision, since January 2023 the P2R for the Group has been reduced from 3.00% to 2.75% in terms of total capital (or from 1.69% to 1.55% in terms of CET1 capital), reflecting the improved Group's financial position particularly in terms of asset quality. Thus, for the first quarter of 2023, the Group is required to meet a Common Equity Tier 1 Ratio of at least 9.75% and a Total Capital Adequacy Ratio of at least 14.45% (Overall Capital Requirements or OCR) including Combined Buffer Requirement of 3.70% (Capital conservation buffer of 2.50%, Countercyclical capital buffer of 0.20% and Other Systemically Important Institution (O-SII) buffer of 1.00%).

Furthermore, the Regulation 2020/873 (CRR quick fix) provides, among others, for the extension by two years of the transitional arrangements for IFRS 9 and further relief measures, allowing banks to add back to their regulatory capital any increase in new provisions for expected losses that they have recognized in 2020 and 2021 for their financial assets, which have not been defaulted. Accordingly, the relief applied for 2022 is 75%, for 2023 50% and for 2024 25%.

Further disclosures regarding capital adequacy in accordance with the Regulation 575/2013 are provided in the Consolidated Pillar 3 Report on the Company's website.

Minimum Requirements for Eligible Own Funds and Eligible Liabilities (MREL)

Under the Directive 2014/59 (Bank Recovery and Resolution Directive) as in force, which was transposed into the Greek legislation pursuant to Law 4335/2015 as in force, European banks are required to meet the minimum requirement for own funds and eligible liabilities (MREL). The Single Resolution Board (SRB) has determined Eurobank S.A. as the Group's resolution entity and a Single Point of Entry (SPE) strategy for resolution purposes. Based on the latest SRB's decision, the fully calibrated MREL (final target) to be met by Eurobank S.A. on a consolidated basis until the end of 2025 is set at 27.46% of its total risk weighted assets (RWAs), including a fully-loaded combined buffer requirement (CBR) of 3.86%. The final MREL target is updated by the SRB on an annual basis. The interim binding MREL target, which is applicable from 1 January 2022, stands at 18.21% of RWAs, including a CBR of 3.70%, while an interim non-binding MREL target of 20.48%, including a CBR of 3.70%, applies from January 2023.

In the year ended 31 December 2022, in the context of the implementation of its medium-term strategy to meet its MREL requirements, the Bank proceeded with the issuance of an MREL-eligible senior preferred bond with a nominal value of € 500 million and a Tier 2 instrument of €300 million (note 34). As at 31 December 2022, the Bank's MREL ratio at consolidated level stands at 23.07% of RWAs including profit for the year ended 31 December 2022 (31 December 2021: 18.47%), which is significantly above the aforementioned interim MREL target of 20.48%.

Post balance sheet event

In January 2023, the Bank successfully completed the issue of € 500 million senior preferred notes. The proceeds from the issue will support Eurobank Group's strategy to ensure ongoing compliance with its MREL requirement and will be used for Eurobank's general funding purposes (note 34).

2023 EU – wide stress test

In January 2023, the European Banking Authority (EBA) launched the 2023 EU-wide stress test exercise which is designed to provide valuable input for assessing the resilience of the European banking sector in the current uncertain and changing macroeconomic environment.

This exercise is coordinated by the EBA in cooperation with the ECB and national supervisory authorities and is conducted according to the EBA's methodology. It is carried out on the basis of year-end 2022 figures and assesses the performance of EU banks under a baseline and adverse macroeconomic scenario, covering the period from 2023 to 2025. The baseline scenario for EU countries is based on the projections from the EU national central banks of December 2022. The adverse scenario, although unlikely to unfold, is used to assess the resilience of banks to a hypothetical severe scenario of a significant deterioration in the overall outlook for the economy and financial markets in the next three years. The narrative depicts an adverse scenario related to a hypothetical worsening of geopolitical developments leading to a severe decline in GDP with persistent inflation and high interest rates. In terms of GDP decline, the 2023 adverse scenario is the most severe used in the EU wide stress up to now. Eurobank Holdings Group is participating in the EBA-led stress test.

In parallel, the ECB will conduct its own stress test for a number of medium sized- banks that it supervises directly and that are not included in the EBA-led stress test sample.

The EBA expects to publish the results of the exercise at the end of July 2023. The stress test results will be used to update each bank's Pillar 2 Guidance in the context of the SREP, while qualitative findings on weaknesses in banks' stress testing practices could also affect their Pillar 2 Requirements.

5. Financial risk management and fair value

5.1 Use of financial instruments

By their nature the Group's activities are principally related to the use of financial instruments including derivatives. The Group accepts deposits from customers, at both fixed and floating rates, and for various periods and seeks to earn above average interest margins by investing these funds in high quality assets. The Group seeks to increase these margins by consolidating short-term funds and lending for longer periods at higher rates, while maintaining sufficient liquidity to meet all claims that might fall due.

The Group also seeks to raise its interest margins by obtaining above average margins, net of provisions, through lending to commercial and retail borrowers within a range of credit standing. Such exposures include both on-balance sheet loans and advances and off-balance sheet guarantees and other commitments such as letters of credit.

The Group also trades in financial instruments where it takes positions in traded and over the counter financial instruments, including derivatives, to take advantage of short-term market movements in the equity and bond markets and in currency and interest rates.

5.2 Financial risk factors

Due to its activities, the Group is exposed to several financial risks, such as credit risk, market risk (including currency, interest rate, spread, equity and volatility risk), liquidity and operational risks. The Group's overall risk management strategy seeks to minimize any potential adverse effects on its financial performance, financial position and cash flows.

Risk Management objectives and policies

The Group acknowledges that taking risks is an integral part of its operations in order to achieve its business objectives. Therefore, the Group's management sets adequate mechanisms to identify those risks at an early stage and assesses their potential impact on the achievement of these objectives.

Due to the fact that economic, industry, regulatory and operating conditions will continue to change, risk management mechanisms are set in a manner that enable the Group to identify and deal with the risks associated with those changes. The Bank's structure, internal processes and existing control mechanisms ensure both the independence principle and the exercise of sufficient supervision.

The Group's Management considers effective risk management as a top priority, as well as a major competitive advantage, for the organization. As such, the Group has allocated significant resources for upgrading its policies, methods and infrastructure, in order to ensure compliance with the requirements of the European Central Bank (ECB) and of the Single Resolution Board (SRB), the guidelines of the European Banking Authority (EBA) and the Basel Committee for Banking Supervision and the best international banking practices. The Group implements a well-structured credit approval process, independent credit reviews and effective risk management policies for all material risks it is exposed to, both in Greece and in each country of its international operations. The risk management policies implemented by the Group are reviewed mainly annually.

The Group Risk and Capital Strategy, outlines the Group's overall direction regarding risk and capital management issues, the risk management mission and objectives, risk definitions, risk management principles, risk governance framework, strategic objectives and key management initiatives for the improvement of the risk management framework in place.

The maximum amount of risk which the Group is willing to assume in the pursuit of its strategic objectives is articulated via a set of quantitative and qualitative statements for specific risk types, including specific tolerance levels as described in the Group's Risk Appetite Framework. The objectives are to support the Group's business growth, balance a strong capital position with higher returns on equity and to ensure the Group's adherence to regulatory requirements.

The risk appetite that is clearly communicated throughout the Group, determines risk culture and forms the basis on which risk policies and risk limits are established at Group and regional level. Within the context of its Risk Appetite Framework, the Bank has further enhanced the risk identification process and the risk materiality assessment methodology.

The identification and the assessment of all risks is the cornerstone for the effective Risk Management. The Group aiming to ensure a collective view on the risks linked to the execution of its strategy, acknowledges the new developments at an early stage and assesses the potential impact. In this context, the Bank has recognized climate change risk as a material risk and based on its supervisory guidelines, is in the process of continuing adapting its policies and methodologies for identifying and monitoring the relevant risks (note 5.2.5).

Board Risk Committee (BRC)

The Board Risk Committee (BRC) is a committee of the BoD and its task is to assist the BoD to ensure that the Group has a well-defined risk and capital strategy in line with its business plan and in line with regulatory requirements and an adequate and robust risk appetite framework.

The BRC assesses the Group's risk profile, monitors compliance with the approved risk appetite and risk tolerance levels and ensures that the Group has developed a risk management framework with appropriate methodologies, modelling tools, and data sources, as well as sufficient and competent staff to identify, assess, monitor and mitigate risks. Moreover, BRC is conferred with certain approval authorities.

The BRC consists of five (5) non-executive directors, meets at least on a monthly basis and reports to the BoD on a quarterly basis and on ad hoc instances if it is needed.

Management Risk Committee

The Management Risk Committee (MRC) is a management committee established by the CEO and its main responsibility of the MRC is to oversee the risk management framework of the Group. As part of its responsibilities, the MRC facilitates reporting to the BRC on the range of risk-related topics under its purview. The MRC supports the Group Chief Risk Officer to identify material risks, to promptly escalate them to the BRC and to ensure that the necessary policies and procedures are in place to prudently manage risks and to comply with regulatory requirements.

Group Risk Management General Division

The Group's Risk Management General Division which is headed by the Group Chief Risk Officer (GCRO), operates independently from the business units and is responsible for the identification, assessment, monitoring, measurement and management of the risks that the Group is exposed to. It comprises of the Group Credit General Division (GCGD), the Group Credit Control Sector (GCCS), the Group Credit Risk Capital Adequacy Control Sector (GCRCACS), the Group Market and Counterparty Risk Sector (GMCRS), the Group Operational Risk Sector (GORS), the Group Model Validation and Governance Sector (GMVGS), the Group Risk Management Strategy Planning and Operations Division (GRMSPO), the Supervisory Relations and Resolution Planning Sector (SRRPS), the Group Climate Risk Division (GCRD) and the Risk Analytics Division (RAD).

Non-Performing Exposures (NPEs) management

The Group, following the strategic partnership with doValue S.p.A. and the successful transition to the new operating model for the management of NPEs, realizes the NPE Strategy Plan through its implementation by doValue Greece for the assigned portfolio and the successful securitization transactions.

Troubled Assets Committee

The Troubled Assets Committee (TAC) is established according to the regulatory provisions and its main purpose is to act as an independent body, closely monitoring the Bank's troubled assets portfolio and the execution of its NPE Management Strategy.

Remedial and Servicing Strategy (RSS)

Eurobank established Remedial Servicing & Strategy Sector (RSS) with the mandate to devise the NPE reduction plan, to closely monitor the overall performance of the NPE portfolio as well as the relationship of the Bank with doValue Greece. Furthermore, following Eurobank's commitments against the significant risk transfer (SRT) monitoring regulatory requirements pertaining to Bank's concluded transactions, RSS has a pivotal role in ensuring that relevant process is performed smoothly and in a timely manner and that any shortcomings are appropriately resolved, while providing any required clarifications or additional material required by the regulatory authorities.

The Head of RSS reports to the General Manager of Group Strategy. In this context, RSS has been assigned inter alia with the following responsibilities:

- Develop and actively monitor the NPE targets and reduction plan
- Set the strategic principles, priorities, policy framework and KPIs under which doValue Greece is servicing the portfolio
- Closely monitor the execution of the approved strategies, as well as all contractual provisions under the relevant contractual agreements for Eurobank's portfolio assigned to doValue Greece including the securitized portfolio of ERB Recovery DAC
- Monitoring of the performance of the senior notes of the securitizations in collaboration with Group Risk so as to ensure compliance to significant risk transfer (SRT) and to the Hellenic Asset Protection Scheme (HAPS)
- Budget and monitor the Bank's expenses and revenues associated with the assigned portfolio
- Cooperate closely with doValue Greece on a daily basis in achieving the Group's objectives
- Maintain supervisory dialogue

NPE Operational targets

In line with the regulatory framework and Single Supervisory Mechanism's (SSM) requirements for Non-Performing Exposures' (NPE) management, in March 2023, the Group submitted its NPE Management Strategy for 2023-2025, along with the annual NPE stock targets at both Bank and Group level. The plan envisages the decrease of the Group's NPE ratio at 5.2% at the end of 2023 and at 4.5% in 2025.

5.2.1 Credit Risk

Credit risk is the risk that a counterparty will be unable to fulfill its payment obligations in full when due. Credit risk is also related with country risk and settlement risk, specified below:

a) Country risk is the risk of losses arising from cross-border lending and investment activities and refers to the uncertainty associated with exposure in a particular country. This uncertainty may relate to a number of factors including the risk of losses following nationalization, expropriation, debt restructuring and foreign exchange rates' movement.
b) Settlement risk is the risk arising when payments are settled, for example for trades in financial instruments, including derivatives and currency transactions. The risk arises when the Group remits payments before it can ascertain that the counterparties' payments have been received.

Credit risk arises principally from the wholesale and retail lending activities of the Group, as well as from credit enhancements provided, such as financial guarantees and letters of credit. The Group is also exposed to credit risk arising from other activities such as investments in debt securities, trading, capital markets and settlement activities. Taking into account that credit risk is the primary risk the Group is exposed to, it is very closely managed and monitored by specialised risk units, reporting to the GCRO.

(a) Credit approval process

The credit approval and credit review processes are centralized both in Greece and in the International operations. The segregation of duties ensures independence among executives responsible for the customer relationship, the approval process and the loan disbursement, as well as monitoring of the loan during its lifecycle.

Credit Committees

The credit approval process in Corporate Banking is centralized through establishment of Credit Committees with escalating Credit Approval Levels. Main Committees of the Bank are considered to be the following:

- Credit Committees (Central and Local) authorized to approve new financing, renewals or amendments for domestic groups in the existing credit limits, in accordance with their credit approval authority, depending on total limit amount and customer risk category (i.e. high, medium or low), as well as the value and type of security;
- Special Handling Credit Committees authorized to approve credit requests and take actions for distressed clients;
- International Credit Committees (Regional and Country) established for the wholesale borrowers of the Group's international bank subsidiaries, authorized to approve new limits, renewals or amendments to existing limits, in accordance with their credit approval authority, depending on total customer exposure and risk category (i.e. high, medium or low), as well as the value and type of security; and
- International Special Handling Committees established for handling distressed wholesale borrowers of the Group's international bank subsidiaries.

The Credit Committees meet on a weekly basis or more frequently, if needed.

Group Credit General Division (GCGD)

Within an environment of increased risk requirements, Group Credit General Division's (GCGD) mission is to safeguard the Banks' asset side, by evaluating credit risk and making recommendations, so that borrower's credit exposure is acceptable and within the approved Risk Appetite Framework. GCGD is headed by the Group Chief Credit Officer (GCCO) with direct reporting to the Group Chief Risk Officer (GCRO).

GCGD operations are comprised of two functions, i.e. the Corporate Credit Risk, including both the domestic and the foreign underwriting activities (the latter only for Global Clients and material exposures of International Subsidiaries), and Retail Credit Risk respectively, covering the underwriting needs of the SBB portfolio and the Household Lending (mortgage, consumer loans, auto-moto loans and credit cards).

1. <u>Corporate Credit Risk</u>

(a) Domestic and Greek related portfolio: the underwriting function includes the review of credit requests originating from Corporate Units handling large and medium scale corporate entities of every risk category and specialised lending units such as Shipping and Structured Finance (Commercial Real Estate, Hotels & Leisure, Project Finance, M&A Financing) and Private Banking. Major tasks of the respective workstream and involved credit units pertain to the following:

- Evaluation of credit applications and issuance of an independent Risk Opinion, which includes:
  (i) assessment of the customer credit profile based on the qualitative and quantitative risk factors identified (market, operational, structural and financial)

  (ii) recommendations for the formulation of bankable, well-secured and well-controlled transactions (credit facility), as well as

  (iii) review and confirmation of the ratings of each separate borrower to reflect the risks acknowledged.
- Participation with voting right in all credit committees as per the Credit Approval procedures.
- Active participation in the regulatory audits and major internal projects of the Bank, providing at the same time credit related knowledge, expertise and support to other divisions.
- Preparation of specialised reports to Management on a regular basis, with regards to the Top 25 largest, in terms of total exposure, borrower Groups, statistics on the new approved financings and leveraged transactions.

(b) International Subsidiaries' portfolio: The GCGD through its specialized International Credit Sector (ICS) is responsible to actively participate in the design, implementation and review of the credit underwriting function for the wholesale portfolio of the International Subsidiaries covering Bulgaria, Cyprus, Serbia, the ex-Romania portfolio (Perimeter B) and portion of the loan portfolio of Luxemburg (and London). Moreover, the respective unit's tasks and responsibilities are highlighted below:

- Participation with voting right in all International Committees (Regional and Special Handling) and Country Risk Committees (CRCs);
- Participation in the sessions of Special Handling Monitoring Committees for Bulgaria and Serbia which monitor and decide on the strategy of problematic corporate relationships with loan outstanding exceeding a certain threshold, that is jointly set by ICS and Country TAG;
- Advice on best practices to the Credit Risk Units of International Subsidiaries

GCGD is also responsible for the preparation of all credit committees' agendas, distribution of the respective material and maintenance of the respective Credit Committees' minutes.

2. Retail Credit Risk

The scope of the Retail Banking Credit Risk & Underwriting Sector is the assessment of credit applications submitted by Retail Business Units, in relation to Borrowers of the retail credit portfolio (SBB loans and Household loans) based on thresholds, for which an assessment by GCGD is required as per the provisions of the relevant Credit Approval Procedures. The main tasks of Retail Credit Risk function are outlined below:

- Assess credit requests in alignment with the credit risk assessment criteria and methodology provided in the appropriate Credit Policy Manual.
- Analyze and evaluate risk factors depending on the type of credit request.
- Prepare an independent Credit Opinion presenting the official GCGD opinion on the credit application and confirm, where required, the Borrower Rating for each Borrower in its portfolio ensuring that the risks identified are dully reflected in the Rating.
- Participate with voting rights in the credit committees as per the credit approval process, according to the Approval Levels defined in the CPM.
- Transfer of credit knowledge and expertise, as well as support to Network officers regarding credit matters.

(b) Credit risk monitoring

Group Credit Control Sector

The Group Credit Control Sector (GCCS) monitors and assesses the quality of all of the Group's loan portfolios and operates independently from the business units of the Bank. The GCCS reports directly to the GCRO.

The main responsibilities of the GCCS are to:

- supervise, support and maintain the credit rating and impairment systems used to assess the wholesale lending customers;
- monitor and review the performance of all of the Group's loan portfolios;
- supervise and control the foreign subsidiaries' credit risk management units;
- monitor on a regular basis and report on a quarterly basis to the Board of Directors and the BRC of risk exposures, along with accompanying analyses;
- monitor and evaluate the efficiency of adopted strategies and proposed solutions in terms of dealing with Non-Performing Exposures (NPEs) and the achievement of targets for NPEs reduction, as communicated and agreed with the Supervisory Authorities;

- conduct field reviews and prepare written reports to the Management on the quality of all of the Group's loan portfolios and adherence with EBA prevailing regulations;
- monitor the proper EBA classifications in accordance with the relevant provisions and guidelines;
- participate in the approval of new credit policies and new loan products;
- participate in the Troubled Asset Committee;
- attend meetings of Credit Committees and Special Handling Committees, without voting right;
- formulate the Group's credit impairment policy and measure the provisions of the Greek loan portfolios along with the relevant reporting to Management;
- regularly review the adequacy of provisions of all of the Group's loan portfolios;
- formulate, in collaboration with the responsible lending Units the credit policy manuals for performing borrowers;
- provide guidance and monitor the process of designing and reviewing credit policies before approved by Management.
- monitor the proper application of Real Estate collaterals' valuation, as per the Banks' Collateral Valuation policy and procedures;
- monitor the supervisory, regulatory developments, emerging trends and best practices within its purview in order to keep Management abreast and propose required actions;

Group Credit Risk Capital Adequacy Control Sector

The Group Credit Risk Capital Adequacy Control Sector develops and maintains the credit risk assessment models for the loans portfolio of the Group, performs capital adequacy calculations and assessment for the loan portfolios of the group, conducts internal & external stress test exercises as well as well as forecasting of risk parameters. The Sector reports directly to the GCRO.

Specifically, the main responsibilities of the Group Credit Risk Capital Adequacy Control Sector are to:

- control, measure and monitor the capital requirements arising from the Bank's loan portfolio along with the relevant reporting to Management and regulators (ECB/SSM);
- manage the models development, implementation, monitoring of the internal risk based models and IFRS9 models of Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) for evaluating credit risk
- measure and monitor the risk parameters (PD, LGD, EAD) for the purposes of internal capital adequacy assessment, as well as, the estimation of risk related parameters (such as forecast 12-m PD, forecast lifetime PD) for impairment calculation purposes;
- review the grouping of lending exposures and ensuring their homogeneity in accordance with the Group's IFRS accounting policies
- re-assess and re-develop if required, the significant increase in credit risk (SICR) thresholds under IFRS9 standard;
- prepare monthly capital adequacy calculations (Pillar 1) and relevant management, as well as, regulatory reports (COREPs, SREP) on a quarterly basis;
- participate in the preparation of the business plan, the NPE targets plan and the recovery plan of the Group in relation to asset quality and capital requirements for the loan book (projected impairments and RWAs), as well as participate in the relevant committees;
- perform stress tests, both internal and external (EBA/SSM), and maintain the credit risk stress testing infrastructure;
- coordinate the stress testing exercises for the loan portfolios at Group Level;
- prepare the credit risk analyses for Internal Capital Adequacy Assessment (ICAAP)/ Pillar 2 purposes;
- prepare the Basel Pillar 3 disclosures for credit risk;
- regularly report to the GCRO, to the Management Risk Committee and to the Board Risk Committee on: risk models performance, risk parameters (PD, LGD, EAD), forbearance reporting, vintage analysis and default / redefault statistics;;
- guide, monitor and supervise the Credit Risk divisions of the subsidiaries on modelling, credit stress testing and other credit risk related regulatory issues.
- monitor and guide Group's international subsidiaries on credit risk related ICAAP, stress testing and other regulatory credit risk related issues, based on Group standards. Review of local credit risk stress test exercises;

- support the business units in the use of credit risk models in business decisions, for funding purposes, in the capital impact assessment of strategic initiatives and the development and usage of risk related metrics such as risk adjusted pricing, Risk Adjusted Return on Capital (RAROC) etc.; and
- assist Remedial Servicing Strategy Sector in the risk assessment and risk impact of various programs and products.

Group Model Validation and Governance Sector

The Group Model Validation and Governance Sector was established in September 2018, with key mandates:

- the establishment of a comprehensive model governance and validation framework, and
- the independent validation of the technical and operational completeness of all models used by the Group and their parameters, as well as their compliance with the provisions of the regulatory framework.

In more detail, the tasks of the Sector are outlined as follows:

- Prepare and update the Group's Models Framework (to include model definition, roles involved per model, model classification principles and methodology, model validation principles, materiality classifications and thresholds, models' registry governance, etc.);
- Establish and update the Group's Models Registry;
- Review models' classification, in accordance with the methodology provided in the Group Models Framework;
- Prepare and update the Group Models Validation Framework, while providing support to Group's subsidiaries in its implementation;
- Monitor changes in ECB guidelines on models' validation;
- Propose and escalate for approval the quantitative thresholds, in order to assess the results of the validation tests;
- Conduct model validation tests in alignment with the Group Model Validation Framework and regulatory requirements;
- Prepare detailed reports of the model valuation results according to the specific requirements of the model validated, if any, which are communicated to BRC on an annual basis along with any related proposed remediation plan;
- Disseminate models' validation test results within the Group's BRC or MRC following reporting to Group CRO, as appropriate;
- Prepare action plan for remediation actions, if any, as a result of the model validation tests implemented, and escalate the plan for its approval by the appropriate Management Authority;
- Participate in the approval process of new models for assessing ratings' system accuracy and suitability; and
- Monitor industry practices on the development and use of models as well as related ECB guidelines and restrictions.

Group Market and Counterparty Risk Sector

Group Market and Counterparty Risk Sector (GMCRS) is responsible for the measurement, monitoring and periodic reporting of the Group's exposure to counterparty risk (issuer risk and market driven counterparty risk), which is the risk of loss due to the customer's failure to meet its contractual obligations in the context of treasury positions, such as debt securities, derivatives, repos, reverse repos, interbank placings, etc.

In addition, GMCRS monitors, controls and regularly reports country limits, exposures and escalates breaches to the Management and to Committees. GMCRS uses a comprehensive methodology approved by the BRC, for determining the acceptable country risk level, including the countries in which the Group has a strategic presence.

The Group sets limits on the level of counterparty risk that are based mainly on the counterparty's credit rating, as provided by international rating agencies, the product type and the maturity of the transaction (e.g. control limits on net open derivative positions by both amount and term, sovereign bonds exposure, corporate securities, asset backed securities etc.).

GMCRS maintains and updates the limits' monitoring systems and ensures the correctness and compliance of all financial institutions limits with the Bank's policies as approved by the Group's relevant bodies.

The utilization of the abovementioned limits, any excess of them, as well as the aggregate exposure per Group's entity, counterparty and product type are monitored by GMCRS on a daily basis. Risk mitigation contracts are taken into account for the calculation of the final exposure.

Also, GMCRS ensures that the exposure arising from counterparties complies with the approved country limits framework. The GMCRS's exposure measurement and reporting tool is also available to the Group's subsidiaries treasury divisions, thus enabling them to monitor each counterparty's exposure and the limit availability.

Additionally, for the banks' corporate bond portfolio, GMCRS measures and monitors daily the total notional limits, the sectoral concentration and the maximum size per issuer. It uses a measurement tool for monitoring any downgrades and any idiosyncratic spread widening from purchase and any breach is communicated to the Management and to the relevant Committees.

GMCRS implements the market's best practices and safeguards the compliance of all involved parties to limits' policies and procedures. To this direction, for various units and International subsidiaries, GMCRS provides support and guidance for implementation of the limits' guidelines and policies.

Furthermore, GMCRS prepares specialized reports for the Management/Committees along with regular reporting that includes the exposure to the Hellenic Republic and a report that is based on the calculation of the Lifetime Expected Losses for the exposure towards the Hellenic Republic (HR).

(c) Credit related commitments

The primary purpose of credit related commitments is to ensure that funds are available to a customer as agreed. Financial guarantee contracts carry the same credit risk as loans since they represent irrevocable assurances that the Group will make payments in the event that a customer cannot meet its obligations to third parties. Documentary and commercial letters of credit, which are written undertakings by the Group on behalf of a customer authorizing a third party to draw drafts on the Group up to a stipulated amount under specific terms and conditions, are secured by the underlying shipment of goods to which they relate and therefore carry less risk than a loan. Commitments to extend credit represent contractual commitments to provide credit under pre-specified terms and conditions (note 42) in the form of loans, guarantees or letters of credit for which the Group usually receives a commitment fee. Such commitments are irrevocable over the life of the facility or revocable only in response to a material adverse effect.

(d) Concentration risk

The Group structures the levels of credit risk it undertakes by placing exposure limits by borrower, or groups of borrowers, and by industry segments. The exposure to each borrower is further restricted by sub-limits covering on and off-balance sheet exposures, and daily delivery risk limits in relation to trading items such as forward foreign exchange contracts.

Such risks are monitored on a revolving basis and are subject to an annual or more frequent review. Risk concentrations are monitored regularly and reported to the BRC. Such reports include the 25 largest exposures, major watch list and problematic customers, industry analysis, analysis by rating/risk class, by delinquency bucket, and loan portfolios by country.

(e) Rating systems

Rating of wholesale lending exposures

The Group has decided upon the differentiation of rating models for wholesale lending activities, in order to reflect appropriately the risks arising from customers with different characteristics. Accordingly, the Group employs the following rating models for the wholesale portfolio:

- Moody's Risk Analyst model ("MRA" or "Fundamental Analysis"-"FA") is used to assess the risk of borrowers for Corporate Lending.
- Internal Credit Rating model ("ICR") is used for those customers that cannot be rated by MRA.
- Transactional Rating model ("TR") has been developed in order to assess the risk of transactions taking into consideration their collaterals/guarantees.
- Slotting rating models are employed in view of assessing the risk of specialized exposures, which are part of the Specialized Lending corporate portfolio.

- Finally, an assessment of the borrowers' viability and the identification of impairment triggers is performed using the "Unlikely to Pay" ("UTP") / impairment test.

MRA, ICR, Slotting and "UTP" functions are supported by the CreditLens ("CL") computing platform provided by an external provider (Moody's Analytics), while the TR is internally developed and is being supported by the core applications of the Bank.

MRA follows the Moody's fundamental analysis (FA) approach. The FA models belong to a family of models defined as Knowledge Based Systems and rely on a probabilistic reasoning approach. They use quantitative and qualitative information of individual obligors in order to assess their creditworthiness and determine their credit rating. In particular, MRA takes into account the company's balance sheets, profit & loss accounts and cash flow statements to calculate key ratios. Its ratio analysis includes assessments of each ratio's trend across multiple periods, both in terms of the slope and volatility of the trend. It also compares the value of the ratio for the most recent period with the quartile values for a comparable peer group. Moreover, MRA is supplied with a commonly used set of qualitative factors relating to the quality of the company's management, the standing of the company, including the company's transaction behavior towards the Bank, and the perceived riskiness of the industry. MRA is used for the assessment of all legal entities with full accountancy tax books irrespective of their legal form, and is calibrated on the Greek corporate environment.

The MRA is not employed for certain types of entities that use different accounting methods to prepare their financial statements, such as Insurance companies and brokerage firms. Moreover, entities such as start-ups that have not produced financial information for at least two annual accounting periods are not rated with MRA. In such cases, the Internal Credit Rating ("ICR") is utilized, which is a scorecard consisting of a set of factors grouped into 3 main sections corresponding to particular areas of analysis: Financial Information, Qualitative Criteria, and Behavior Analysis. In addition, the Group performs an overall assessment of wholesale customers, based both on their rating (MRA or ICR) and the collaterals and guarantees regularly at every credit assessment. In 2021, in combination with the application of the new Definition of Default, the Bank calibrated its MRA and ICR models, which were approved by the regulatory authorities.

With reference to Specialized Lending portfolio (for which the Bank is using Slotting rating models) and in line with European Banking Authority (EBA) definitions, it comprises types of exposures towards entities specifically created to finance or operate physical assets, where the primary source of income and repayment of the obligation lies directly with the assets being financed. Accordingly, three of its product lines that are included in the Specialized Lending exposure class: Project Finance (assessed with the Project Finance Scorecard), Commercial Real Estate (assessed with the CRE investor & CRE Developer Scorecards) and Object Finance (assessed with the Object Finance Scorecard tailored for the Shipping portfolio).

In addition, the Group has developed an Unlikely to Pay/Impairment test. Unlikeliness to pay refers to circumstances when a Borrower is assessed as unlikely to pay its credit obligations in full without realization of collateral, regardless of the existence of any past due amount or of the days past due (i.e. to exposures less than 90 dpd). The impairment test , which is performed to all borrowers during every credit assessment is implemented in the CL platform and includes clearly defined indicators of unlikeliness to pay (UTP). These indicators are separated in "Hard" and "Soft" UTP triggers.

- Hard UTP indicators lead directly to a recognition of non-performing (automatic NPE classification), as in most cases these events, by their very nature, directly fulfil the definition of UTP and there is little room for interpretation.

- Soft UTP triggers when applied, do not automatically mean that an exposure is non-performing, but that a thorough assessment should be performed (assessment prior to NPE classification).

The Bank has further enhanced its wholesale credit risk assessment models linking risk parameters estimation with macro-economic factors allowing the forecasting of rating transitions under different macroeconomic scenarios (base, adverse and optimistic).

The rating systems described above are an integral part of the wholesale banking decision-making and risk management processes:

- the credit approval or rejection, both at the origination and review process;
- the allocation of competence levels for credit approval;
- risk-adjusted pricing;
- the calculation of Economic Value Added (EVA) and internal capital allocation; and

- the impairment calculation (staging criteria and subsequent ECL estimation of forecasted risk parameters).

Rating of retail lending exposures

The Group assigns credit scores to its retail customers using a number of statistically-based models both at the origination and on ongoing basis through behavioral scorecards. These models have been developed to predict, on the basis of available information, the probability of default, the loss given default and the exposure at default. They cover the entire spectrum of retail products (credit cards, consumer lending, unsecured revolving credits, car loans, personal loans, mortgages and small business loans).

The Bank's models were developed based on historical data and credit bureau data. Behavioral scorecards are calculated automatically on a monthly basis, thus ensuring that the credit risk assessment is up to date.

The models are applied in the credit approval process, the credit limits management, as well as the collection process for the prioritization of the accounts in terms of handling. Furthermore, the models are often used for the risk segmentation of the customers and the risk based pricing of particular segments or new products introduced as well as in the calculation of the Economic Value Added (EVA) and Risk Adjusted Return on Capital (RaRoC) measures.

The rating systems employed by the Bank meets the requirements of the Basel III-Internal Ratings Based (IRB) approach. The Bank is IRB certified since 2008 for the Greek portfolios, both wholesale and retail (as detailed in Basel III, Pillar 3 disclosures available at the Bank's website).

In the context of IFRS9 implementation, the Bank has further enhanced its retail credit risk assessment models linking risk parameters estimation with macro-economic factors allowing their forecasting over one year and lifetime horizon under different macroeconomic scenarios (base, adverse and optimistic) and supporting the staging analysis and allocation to risk classes under homogeneous pools.

The Group Credit Risk Capital Adequacy Control Sector monitors the capacity of rating models and scoring systems to classify customers according to risk, as well as to predict the probability of default and loss given default and exposure at default on an ongoing basis. The Group Models Validation and Governance Sector implements the Bank's validation policy which complies with international best practices and regulatory requirements. The Bank verifies the validity of the rating models and scoring systems on an annual basis and the validation includes both quantitative and qualitative aspects. The validation procedures are documented, and regularly reviewed and reported to the BRC.

The Group's Internal Audit Division also independently reviews the validation process in wholesale and retail rating systems annually.

(f) Credit risk mitigation

A key component of the Group's business strategy is to reduce risk by utilizing various risk mitigating techniques. The most important risk mitigating means are collaterals' pledges, guarantees and master netting arrangements.

Types of collateral commonly accepted by the Group

The Group has internal policies in place which set out the following types of collateral that are usually accepted in a credit relationship:

- residential real estate, commercial real estate (offices, shopping malls, etc.), industrial buildings and land;
- receivables (trade debtors) and post dated cheques;
- securities, including listed shares and bonds;
- deposits;
- guarantees and letters of support;
- insurance policies; and
- equipment, mainly, vehicles and vessels.

A specific coverage ratio is pre-requisite, upon the credit relationship's approval and on ongoing basis, for each collateral type, as specified in the Group's credit policy.

For exposures, other than loans to customers (i.e. reverse repos, derivatives), the Group accepts as collateral only cash or liquid bonds.

Valuation principles of collaterals

In defining the maximum collateral ratio for loans, the Group considers all relevant information available, including the collaterals' specific characteristics, if market participants would take those into account when pricing the relevant assets. The valuation and hence eligibility is based on the following factors:

- the collateral's fair value, i.e. the exit price that would be received to sell the asset in an orderly transaction under current market conditions;
- the fair value reflects market participants' ability to generate economic benefits by using the asset in its highest and best use or by selling it;
- a reduction in the collateral's value is considered if the type, location or condition (such as deterioration and obsolescence) of the asset indicate so; and
- no collateral value is assigned if a pledge is not legally enforceable.

The Group performs collaterals' valuation in accordance with its processes and policies. With the exception of special cases (e.g. syndicated loans), the real estate collaterals of all units are valued by Cerved Property Services S.A. ("CPS") who is the successor of the Bank's former subsidiary, Eurobank Property Services S.A. CPS is regulated by the Royal Institute of Chartered Surveyors and employs internal or external qualified appraisers based on predefined criteria (qualifications and expertise). All appraisals take into account factors such as the region, age and marketability of the property, and are further reviewed and countersigned by experienced staff. The valuation methodology employed is based on International Valuation Standards (IVS), while quality controls are in place, such as reviewing mechanisms, independent sample reviews by independent well established valuation companies.

In order to monitor the valuation of residential property held as collateral, the Bank uses the Residential Property Index of the Bank of Greece. The index has been created by the Real Estate Market Analysis Section of BoG using detailed information collected from all Credit Institutions and Real Estate Investment Companies (REIC) operating in Greece. The Residential Property Index is used in combination with physical inspection and desktop valuation, depending on the EBA status and the balance of the loan.

For commercial real estates, the Bank uses the Commercial Real Estate Index developed by CPS. This index is derived through a combination of CPS & BoG CRE indices and it is based on internationally accepted methodology. It constitutes a tool for the statistical monitoring of possible changes of the values of the commercial properties as well as for the trends in the particular market. It is updated on an annual basis. The Commercial Real Estate Index is used in combination with physical inspection and desktop valuation, depending on the EBA status and the balance of the loan.

To ensure the quality of the post-dated cheques accepted as collateral, the Bank has developed a pre-screening system, which takes into account a number of criteria and risk parameters, so as to evaluate their eligibility. Furthermore, the post-dated cheques' valuation is monitored through the use of advanced statistical reports and through the review of detailed information regarding the recoverability of cheques, referrals and bounced cheques, per issuer broken down.

Collateral policy and documentation

Regarding collaterals, Group's policy emphasizes the need that collaterals and relevant processes are timely and prudently executed, in order to ensure that collaterals and relevant documentation are legally enforceable at any time. The Group holds the right to liquidate collateral in the event of the obligor's financial distress and can claim and control cash proceeds from the liquidation process.

Guarantees

The guarantees used as credit risk mitigation by the Group are largely issued by central and regional governments in the countries in which it operates. The Hellenic Development Bank (HDB) and similar funds, banks and insurance companies are also significant guarantors of credit risk.

Management of repossessed properties

The objective of the repossessed assets' management is to minimize the time cycle of the asset's disposal and to maximize the recovery of the capital engaged.

To this end, the management of repossessed assets aims at improving rental and other income from the exploitation of such assets, and at the same time reducing the respective holding and maintenance costs. Additionally, the Group is actively engaged in identifying suitable potential buyers for its portfolio of repossessed assets (including specialized funds involved in acquiring specific portfolios of properties repossessed), both in Greece and abroad, in order to reduce its stock of properties with a time horizon of 3-5 years.

Repossessed assets are closely monitored based on technical and legal due diligence reports, so that their market value is accurately reported and updated in accordance with market trends.

Counterparty risk

The Group mitigates counterparty risk arising from treasury activities by entering into master netting arrangements and similar agreements, as well as collateral agreements with counterparties with which it undertakes a significant volume of transactions. Master netting arrangements do not generally result in the offset of balance sheet assets and liabilities, as the transactions are usually settled on a gross basis. However, the respective credit risk is reduced through a master netting agreement to the extent that if an event of default occurs, all amounts with the counterparty are terminated and settled on a net basis.

In the case of derivatives, the Group makes use of International Swaps and Derivatives Association (ISDA) contracts, which limit the exposure via the application of netting, and Credit Support Annex (CSAs), which further reduce the total exposure with the counterparty. Under these agreements, the total exposure with the counterparty is calculated on a daily basis taking into account any netting arrangements and collaterals.

The same process is applied in the case of repo transactions where standard Global Master Repurchase Agreements (GMRAs) are used. The exposure (the net difference between repo cash and the market value of the securities) is calculated on a daily basis and collateral is transferred between the counterparties thus minimizing the exposure.

Following the European Market Infrastructure Regulation (EMIR), the Bank performs centrally cleared transactions for eligible derivative contracts through an EU authorized European central counterparty (CCP), recorded in trade repositories. The use of CCP increases market transparency and reduces counterparty credit and operational risks inherent in derivatives markets.

The Bank uses a comprehensive collateral management system for the monitoring of ISDA, CSAs and GMRAs, i.e. the daily valuation of the derivatives and the market value of the securities are used for the calculation of each counterparty’s exposure. The collateral which should be posted or requested by the relevant counterparty is calculated daily.

With this system, the Bank monitors and controls the collateral flow in case of derivatives and repos, independently of the counterparty. The effect of any market movement that increases the Bank’s exposure is reported and the Bank proceeds to collateral call accordingly.

5.2.1.1 Maximum exposure to credit risk before collateral held

	2022 € million		2021 € million	
Credit risk exposures relating to on-balance sheet assets are as follows:				
Due from credit institutions	1,330		2,511	
Less: Impairment allowance	(1)	**1,329**	(1)	2,510
Debt securities held for trading		**87**		69
Derivative financial instruments		**1,185**		1,949
Loans and advances to customers at amortised cost:				
- Wholesale lending[(1)]	26,054		23,716	
- Mortgage lending	10,201		10,105	
- Consumer lending	3,353		3,242	
- Small business lending	3,842		3,753	
Less: Impairment allowance	(1,626)	**41,824**	(1,872)	38,943
Fair value changes of loans in portfolio hedging of interest rate risk		**(163)**		-
Loans and advances to customers measured at FVTPL		**16**		23
Investment securities:				
- Debt securities measured at amortised cost	9,214		4,672	
Less: Impairment allowance	(22)	**9,192**	(6)	4,666
Debt securities measured at FVOCI		**3,828**		6,509
Investment securities at FVTPL		**241**		141
Other financial assets[(2)]	202		190	
Less: Impairment allowance	(23)	**179**	(28)	162
Credit risk exposures relating to off-balance sheet items (note 42):				
- Loan commitments		**7,611**		5,139
- Financial guarantee contracts and other commitments		**2,860**		1,702
Total		**68,189**		61,814

[(1)] Includes loans to public sector.
[(2)] Refers to financial assets subject to IFRS 9 impairment requirements, which are recognised within other assets.

The above table represents the Group's maximum credit risk exposure as at 31 December 2022 and 31 December 2021 respectively, without taking account of any collateral held or other credit enhancements that do not qualify for offset in the Group's financial statements.

For on-balance sheet assets, the exposures set out above are based on the carrying amounts as reported in the balance sheet. For off-balance sheet items, the maximum exposure is the nominal amount that the Group may be required to pay if the financial guarantee contracts and other commitments are called upon and the loan commitments are drawn down. Off-balance sheet loan commitments presented above, include revocable commitments to extend credit of € 3.7 billion (2021: € 3.6 billion) that are subject to ECL measurement.

5.2.1.2 Loans and advances to customers

The section below provides an overview of the Group's exposure to credit risk arising from its customer lending portfolios, in line with the guidelines set by the Hellenic Capital Markets Commission and the Bank of Greece (BoG) released on 30 September 2013, as updated by the Group in order to comply with the revised IFRS 7 'Financial Instruments: Disclosures', following the adoption of IFRS 9 from 2018. In addition, the types of the Group's forbearance programs are in line with the BoG's Executive Committee Act 42/30.05.2014 and its amendments.

(a) Credit quality of loans and advances to customers

Loans and advances to customers carried at amortised cost are classified depending on how ECL is measured.

Accordingly, loans reported as non-impaired include loans for which a '12-month ECL allowance' is recognized as they exhibit no significant increase in credit risk since initial recognition and loans for which a 'Lifetime ECL allowance' is recognized as they exhibit a significant increase in credit risk since initial recognition but are not considered to be in default.

Credit impaired loans category includes loans that are considered to be in default, for which a loss allowance equal to a 'Lifetime ECL' is recognized, and loans classified as 'Purchased or originated credit impaired' (POCI) which are always measured on the basis of a 'Lifetime ECL'. From 1 January 2021 onwards, the Group applies a default definition for accounting purposes, which is consistent with the European Banking Authority (EBA) definition for non-performing exposure and regulatory definition of default.

Loans and advances to customers carried at FVTPL are not subject to ECL measurement and therefore are not included in the quantitative information provided in the below sections for loans and advances measured at amortised cost, except where indicated. The Group's accounting policy for impairment of financial assets is set out in note 2.2.13.

Quantitative information

The following quantitative analysis presents information about the total gross carrying amount of loans and advances including securitization notes issued by special purpose entities established by the Group, and the nominal amount of credit related commitments, that are classified as non-impaired (stage 1 and stage 2) and those classified as credit-impaired (stage 3 and POCI). It also presents the impairment allowance recognized in respect of all loans and advances and credit related commitments, analyzed into individually or collectively assessed, based on how the respective impairment allowance has been calculated, the carrying amount of loans and advances, as well as the value of collateral held to mitigate credit risk which is capped to the respective gross loan amount. In particular, the following four tables for 2022 and 2021 provide:

- a summary of the credit quality of lending exposures and credit related commitments, presenting product line, stage allocation, respective impairment allowance and collateral held
- the classification of lending exposures and credit related commitments into the internal credit rating categories,
- the movement of the gross carrying amounts for loans and advances to customers by product line and stage,
- the ageing analysis of credit impaired (Stage 3 and POCI) loans and advances to customers

Public Sector lending exposures include exposures to the central government, local authorities, state-linked companies and entities controlled and fully or partially owned by the state, excluding public and private companies with commercial activity. For credit risk management purposes, exposures to Public Sector are incorporated in wholesale lending.

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The following tables present summary information about the credit quality (stage analysis, impairment allowance and collateral held per product line) of loans and advances to customers carried at amortised cost and credit related commitments. In addition, they include the fair value changes of loans in portfolio hedging of interest rate risk and the loans and advances to customers carried at FVTPL for the purpose of reconciliation with the total carrying amount of loan and advances to customers:

	31 December 2022										
						Impairment allowance					
			Lifetime ECL - Stage 3 and POCI[1]					Lifetime ECL - Stage 3 and POCI[1]			
	12-month ECL - Stage 1 € million	Lifetime ECL - Stage 2 € million	Individually assessed € million	Collectively assessed € million	Total gross carrying amount/nominal exposure € million	12-month ECL - Stage 1 € million	Lifetime ECL - Stage 2 € million	Individually assessed € million	Collectively assessed € million	Carrying amount € million	Value of collateral € million
Retail Lending	**12,169**	**3,992**	**105**	**1,131**	**17,396**	**(81)**	**(280)**	**(73)**	**(571)**	**16,392**	**11,598**
- Mortgage	6,832	2,825	50	495	10,201	(21)	(160)	(41)	(188)	9,792	
Value of collateral	*6,563*	*2,378*	*22*	*385*							*9,348*
- Consumer	2,028	357	0	214	2,599	(31)	(42)	(0)	(149)	2,376	
Value of collateral	*125*	*2*	*0*	*3*							*130*
- Credit card	642	70	0	42	755	(6)	(6)	(0)	(37)	705	
Value of collateral	*0*	*0*	*0*	*0*							*0*
- Small business	2,668	740	54	380	3,842	(23)	(72)	(32)	(197)	3,518	
Value of collateral	*1,347*	*550*	*25*	*198*							*2,120*
Wholesale Lending	**23,424**	**1,581**	**841**	**182**	**26,028**	**(68)**	**(75)**	**(368)**	**(109)**	**25,408**	**16,836**
- Large corporate	14,865	794	284	19	15,961	(40)	(27)	(139)	(11)	15,744	
Value of collateral	*7,890*	*551*	*165*	*11*							*8,618*
- SMEs	3,658	787	557	163	5,166	(28)	(48)	(228)	(99)	4,763	
Value of collateral	*2,238*	*601*	*387*	*91*							*3,317*
- Securitized notes[2]	4,901	-	-	-	4,901	(0)	-	-	-	4,901	
Value of collateral	*4,901*	-	-	-							*4,901*
Public Sector	**25**	**0**	**1**	**0**	**26**	**(0)**	**(0)**	**(1)**	**(0)**	**25**	**0**
- Greece	25	-	-	0	25	(0)	-	-	(0)	24	
Value of collateral	*0*	-	-	*0*							*0*
- Other countries	0	0	1	-	1	(0)	(0)	(1)	-	1	
Value of collateral	*0*	-	-	-							*0*
Fair value changes of loans in portfolio hedging of interest rate risk										**(163)**	
Loans and advances to customers at FVTPL										**16**	**16**
Total	**35,618**	**5,573**	**946**	**1,313**	**43,450**	**(149)**	**(355)**	**(441)**	**(680)**	**41,677**	**28,450**
Total value of collateral	**23,065**	**4,082**	**599**	**688**							
Credit related commitments	**10,129**	**289**	**36**	**17**	**10,471**	**(20)**	**(6)**	**(24)**	**(7)**		
Loan commitments	7,429	178	3	1	7,611	(12)	(5)	(1)	(0)		
Financial guarantee contracts and other commitments	2,701	110	33	16	2,860	(8)	(2)	(23)	(7)		
Value of collateral	*1,113*	*56*	*9*	*5*							

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	31 December 2021										
						Impairment allowance					
			Lifetime ECL - Stage 3 and POCI[1]					Lifetime ECL - Stage 3 and POCI[1]			
	12-month ECL - Stage 1 € million	Lifetime ECL - Stage 2 € million	Individually assessed € million	Collectively assessed € million	Total gross carrying amount/nominal exposure € million	12-month ECL - Stage 1 € million	Lifetime ECL - Stage 2 € million	Individually assessed € million	Collectively assessed € million	Carrying amount € million	Value of collateral € million
Retail Lending	11,984	3,790	119	1,205	17,099	(102)	(235)	(73)	(581)	16,108	11,360
- Mortgage	6,871	2,735	54	444	10,105	(17)	(138)	(36)	(134)	9,780	
Value of collateral	6,474	2,245	27	337							9,083
- Consumer	1,905	267	2	217	2,391	(35)	(31)	(1)	(136)	2,188	
Value of collateral	107	1	2	3							112
- Credit card	667	45	0	138	850	(9)	(7)	(0)	(120)	714	
Value of collateral	1	0	0	0							1
- Small business	2,540	744	63	406	3,753	(41)	(58)	(36)	(190)	3,427	
Value of collateral	1,391	555	29	190							2,164
Wholesale Lending	20,564	1,668	1,168	282	23,681	(68)	(76)	(599)	(137)	22,802	16,118
- Large corporate	11,694	726	389	23	12,831	(39)	(37)	(183)	(13)	12,559	
Value of collateral	6,474	478	255	9							7,217
- SMEs	3,764	941	779	259	5,744	(29)	(38)	(416)	(124)	5,137	
Value of collateral	2,501	717	449	128							3,795
- Securitized notes[2]	5,106	-	-	-	5,106	(0)	-	-	-	5,106	
Value of collateral	5,106	-	-	-							5,106
Public Sector	31	3	-	2	35	(1)	(0)	-	(1)	33	2
- Greece	30	2	-	1	33	(1)	(0)	-	(1)	31	
Value of collateral	1	1	-	0							2
- Other countries	1	0	-	1	2	(0)	(0)	-	(0)	1	
Value of collateral	0	-	-	-							0
Loans and advances to customers at FVTPL										23	23
Total	32,578	5,461	1,287	1,489	40,815	(171)	(311)	(672)	(718)	38,967	27,503
Total value of collateral	22,055	3,998	762	666							
Credit related commitments	6,397	393	32	19	6,841	(14)	(6)	(23)	(5)		
Loan commitments	4,871	263	3	2	5,139	(9)	(3)	(1)	(0)		
Financial guarantee contracts and other commitments	1,526	130	29	17	1,702	(5)	(3)	(22)	(5)		
Value of collateral	935	51	6	7							

[1] As at 31 December 2022, total gross carrying amount of credit impaired loans includes POCI loans of € 43 million and carry an impairment allowance of € 6.5 million (2021: € 44 million gross carrying amount, of which € 9.3 million arose from the merger of Eurobank A.D. Beograd with Direktna Banka a.d. and € 6.4 million impairment allowance).

[2] It refers to the senior notes of the Pillar, Cairo and Mexico securitizations that are collateralized by the underlying pool of loans held by the respective securitization vehicles (note 20). The amount of the securitized loan portfolios has been capped to the gross carrying amount of the senior notes. In addition, the senior notes of the Cairo and Mexico securitizations are guaranteed by the Hellenic Republic in the context of Hellenic Asset Protection Scheme (note 20).

Notes to the Consolidated Financial Statements

The Group assesses the credit quality of its loans and advances to customers and credit related commitments that are subject to ECL using internal credit rating systems for the wholesale portfolio, which are based on a variety of quantitative and qualitative factors, while the credit quality of the retail portfolio is based on the allocation of risk classes into homogenous pools.

The following tables present the distribution of the gross carrying amount of loans and advances and the nominal exposure of credit related commitments based on the credit quality classification categories and stage allocation:

	31 December 2022				31 December 2021			
Internal credit rating	12-month ECL-Stage 1	Lifetime ECL-Stage 2	Lifetime ECL - Stage 3 and POCI	Total gross carrying amount	12-month ECL - Stage 1	Lifetime ECL - Stage 2	Lifetime ECL - Stage 3 and POCI	Total gross carrying amount
Retail Lending	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
- Mortgage								
PD<2.5%	6,460	1,167	-	7,627	5,738	417	-	6,155
2.5%<=PD<4%	265	284	-	549	554	465	-	1,019
4%<=PD<10%	66	437	-	502	504	1,134	-	1,638
10%<=PD<16%	20	553	-	573	39	282	-	321
16%<=PD<99.99%	21	384	-	405	37	436	-	473
100%	-	-	545	545	-	-	498	498
- Consumer								
PD<2.5%	287	8	-	294	131	13	-	144
2.5%<=PD<4%	707	34	-	742	805	22	-	827
4%<=PD<10%	964	133	-	1,097	903	83	-	987
10%<=PD<16%	46	11	-	57	50	12	-	62
16%<=PD<99.99%	23	172	-	194	15	137	-	152
100%	-	-	214	214	-	-	219	219
- Credit card								
PD<2.5%	372	5	-	377	429	4	-	433
2.5%<=PD<4%	263	41	-	304	233	27	-	260
4%<=PD<10%	6	4	-	11	4	5	-	9
10%<=PD<16%	0	5	-	5	0	1	-	1
16%<=PD<99.99%	0	15	-	15	0	8	-	9
100%	-	-	42	42	-	-	139	139
- Small business								
PD<2.5%	1,328	48	-	1,376	1,413	26	-	1,439
2.5%<=PD<4%	498	63	-	561	232	12	-	244
4%<=PD<10%	652	47	-	699	657	81	-	738
10%<=PD<16%	47	165	-	213	78	137	-	214
16%<=PD<99.99%	143	417	-	559	161	488	-	649
100%	-	-	434	434	-	-	469	469
Wholesale Lending								
- Large corporate								
Strong	10,572	0	-	10,572	7,417	16	-	7,434
Satisfactory	4,127	432	-	4,559	4,070	427	-	4,497
Watch list	165	362	-	527	206	283	-	489
Impaired (Defaulted)	-	-	303	303	-	-	411	411
- SMEs								
Strong	1,090	9	-	1,098	1,049	20	-	1,069
Satisfactory	2,318	321	-	2,639	2,399	356	-	2,755
Watch list	250	458	-	708	316	565	-	882
Impaired (Defaulted)	-	-	720	720	-	-	1,039	1,039
- Securitized notes								
Strong	4,901	-	-	4,901	5,106	-	-	5,106
Public Sector								
All countries								
Strong	25	-	-	25	22	-	-	22
Satisfactory	-	-	-	-	3	0	-	3
Watch list	-	0	-	0	6	2	-	8
Impaired (Defaulted)	-	-	1	1	-	-	2	2
Total	**35,618**	**5,573**	**2,259**	**43,450**	32,578	5,461	2,776	40,815

Internal credit rating	31 December 2022 12-month ECL-Stage 1 € million	31 December 2022 Lifetime ECL-Stage 2 € million	31 December 2022 Lifetime ECL - Stage 3 and POCI € million	31 December 2022 Total nominal amount € million	31 December 2021 12-month ECL-Stage 1 € million	31 December 2021 Lifetime ECL-Stage 2 € million	31 December 2021 Lifetime ECL - Stage 3 and POCI € million	31 December 2021 Total nominal amount € million
Credit Related Commitments								
Retail Lending								
Loan commitments								
PD<2.5%	1,455	14	-	1,469	1,479	5	-	1,484
2.5%<=PD<4%	1,025	62	-	1,088	845	45	-	890
4%<=PD<10%	541	30	-	571	415	96	-	511
10%<=PD<16%	33	3	-	37	39	10	-	49
16%<=PD<99.99%	1	13	-	14	0	6	-	6
100%	-	-	1	1	-	-	2	2
Financial guarantee contracts and other commitments								
PD<2.5%	81	0	-	81	92	-	-	92
2.5%<=PD<4%	77	1	-	78	39	-	-	39
4%<=PD<10%	22	0	-	22	11	0	-	11
10%<=PD<16%	-	0	-	0	-	0	-	0
16%<=PD<99.99%	0	2	-	2	1	0	-	1
100%	-	-	1	1	-	-	1	1
Wholesale Lending								
Loan commitments								
Strong	3,126	0	-	3,126	1,145	34	-	1,179
Satisfactory	1,241	37	-	1,278	902	58	-	960
Watch list	6	18	-	24	47	9	-	56
Impaired (Defaulted)	-	-	3	3	-	-	3	3
Financial guarantee contracts and other commitments								
Strong	1,940	10	-	1,950	883	1	-	884
Satisfactory	552	36	-	588	466	64	-	530
Watch list	28	62	-	90	34	65	-	99
Impaired (Defaulted)	-	-	48	48	-	-	45	45
Total	**10,129**	**289**	**53**	**10,471**	**6,397**	**393**	**51**	**6,841**

The table below depicts the internal credit rating bands (MRA rating scale or equivalent) for the wholesale portfolio that correspond to the credit quality classification categories presented in the above tables:

Credit Quality classification categories	Wholesale Lending: Internal Credit Rating Large Corporate	Wholesale Lending: Internal Credit Rating SMEs
Strong	1-4	1-3
Satisfactory	5-6	4-6
Watch list	7-9	7-9
Impaired (Defaulted)	10	10

The following tables present the movement of the gross carrying amounts for loans and advances to customers by product line and stage and is calculated by reference to the opening and closing balances for the reporting years from 1 January 2022 to 31 December 2022 and 1 January 2021 to 31 December 2021:

	31 December 2022												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	Total € million
Gross carrying amount at 1 January	**20,594**	**1,670**	**1,452**	**6,871**	**2,735**	**498**	**2,572**	**311**	**358**	**2,540**	**744**	**469**	**40,815**
New loans and advances originated or purchased	6,986	-	8	809	-	-	840	-	-	725	-	-	**9,368**
Transfers between stages													
-to 12-month ECL	576	(575)	(1)	333	(318)	(15)	92	(82)	(10)	154	(143)	(12)	**-**
-to lifetime ECL	(802)	819	(17)	(506)	611	(105)	(272)	303	(31)	(183)	235	(52)	**-**
-to lifetime ECL credit-impaired loans	(41)	(85)	125	(60)	(151)	210	(71)	(44)	115	(38)	(75)	113	**-**
Loans and advances derecognised/ reclassified as held for sale during the year	(2)	(2)	(276)	(2)	-	(0)	(0)	-	-	-	-	(1)	**(282)**
Amounts written-off[(1)]	-	-	(87)	-	-	(10)	-	-	(141)	-	-	(53)	**(290)**
Repayments	(4,060)	(293)	(184)	(820)	(179)	(45)	(507)	(87)	(61)	(615)	(70)	(38)	**(6,959)**
Foreign exchange differences and other movements	198	46	2	204	127	11	15	26	26	84	49	8	**798**
Gross Carrying amount at 31 December	**23,448**	**1,581**	**1,024**	**6,832**	**2,825**	**545**	**2,669**	**427**	**257**	**2,668**	**740**	**434**	**43,450**
Impairment allowance	(68)	(75)	(478)	(21)	(160)	(229)	(37)	(48)	(186)	(23)	(72)	(229)	**(1,626)**
Carrying amount at 31 December	**23,380**	**1,506**	**546**	**6,810**	**2,665**	**316**	**2,633**	**379**	**70**	**2,645**	**668**	**205**	**41,824**

	31 December 2021[(2)]												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI € million	Total € million
Gross carrying amount at 1 January	17,204	2,012	2,125	7,081	2,791	1,779	2,230	445	732	2,200	1,189	1,087	40,874
New loans and advances originated or purchased	4,978	-	-	642	-	-	663	-	-	558	-	-	6,840
Arising from acquisition	94	-	2	45	-	3	164	-	3	10	-	1	322
Securitized notes	1,621	-	-	-	-	-	-	-	-	-	-	-	1,621
Transfers between stages													
-to 12-month ECL	460	(441)	(20)	549	(540)	(9)	149	(144)	(5)	437	(433)	(4)	-
-to lifetime ECL	(600)	638	(39)	(748)	966	(218)	(141)	168	(28)	(152)	216	(64)	-
-to lifetime ECL credit-impaired loans	(35)	(190)	225	(89)	(223)	312	(66)	(99)	165	(59)	(142)	202	-
Loans and advances derecognised/ reclassified as held for sale during the year	(30)	(34)	(529)	(24)	(220)	(1,255)	(3)	(14)	(336)	(5)	(81)	(637)	(3,167)
Amounts written-off[(1)]	-	-	(166)	-	-	(73)	-	-	(145)	-	-	(85)	(469)
Repayments	(3,373)	(360)	(166)	(771)	(152)	(69)	(458)	(65)	(65)	(451)	(46)	(45)	(6,020)
Foreign exchange differences and other movements	276	46	17	187	115	28	34	19	37	1	41	13	814
Gross Carrying amount at 31 December	20,594	1,670	1,452	6,871	2,735	498	2,572	311	358	2,540	744	469	40,815
Impairment allowance	(69)	(76)	(737)	(17)	(138)	(170)	(44)	(39)	(257)	(41)	(58)	(227)	(1,872)
Carrying amount at 31 December	20,526	1,595	715	6,854	2,597	328	2,529	273	101	2,499	685	242	38,943

(1) The contractual amount outstanding on lending exposures that were written off during the year ended 31 December 2022 and that are still subject to enforcement activity is € 111 million (2021: € 217 million).

(2) Comparative information has been adjusted in order to align with current year's presentation.

Note 1: Wholesale product line category includes also Public sector loans portfolio.

Note 2: "Loans and advances derecognised/ reclassified as held for sale during the year" presents loans derecognized due to a) substantial modifications of the loans' contractual terms, b) securitization and sale transactions, c) debt to equity transactions and those that have been reclassified as held for sale during the year (notes 20 and 30).

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Credit impaired loans and advances to customers

The following tables present the ageing analysis of credit impaired (Stage 3 and POCI) loans and advances by product line at their gross carrying amounts, as well as the respective impairment allowance and the value of collaterals held to mitigate credit risk.

For denounced loans, the Group ceases to monitor the delinquency status and therefore the respective balances have been included in the 'over 360 days' time band, with the exception of consumer exposures which continue to be monitored up to 360 days past due.

	31 December 2022							
	Retail lending				Wholesale lending		Public sector	
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece and other countries € million	Lifetime ECL credit-impaired € million
up to 90 days	192	68	7	120	138	308	0	**832**
90 to 179 days	38	23	7	19	16	31	-	**133**
180 to 360 days	82	38	9	47	1	52	-	**228**
more than 360 days	233	86	20	248	149	329	1	**1,066**
Total gross carrying amount	**545**	**214**	**42**	**434**	**303**	**720**	**1**	**2,259**
Impairment allowance	(229)	(149)	(37)	(229)	(150)	(327)	(1)	**(1,121)**
Carrying amount	**316**	**65**	**5**	**205**	**153**	**393**	**0**	**1,138**
Value of Collateral	**407**	**3**	**0**	**223**	**177**	**478**	**0**	**1,287**

	31 December 2021							
	Retail lending				Wholesale lending		Public sector	
	Mortgage € million	Consumer € million	Credit card € million	Small business € million	Large corporate € million	SMEs € million	Greece and other countries € million	Lifetime ECL credit-impaired € million
up to 90 days	208	74	24	127	208	341	0	981
90 to 179 days	49	26	7	26	1	4	-	113
180 to 360 days	88	42	9	45	0	44	0	228
more than 360 days	153	77	99	271	203	649	2	1,453
Total gross carrying amount	498	219	139	469	411	1,039	2	2,776
Impairment allowance	(170)	(137)	(120)	(227)	(196)	(539)	(1)	(1,391)
Carrying amount	328	82	18	242	215	499	1	1,386
Value of Collateral	365	4	0	218	264	577	0	1,428

Note: As at 31 December 2022, total gross carrying amount of credit impaired loans includes POCI loans of € 43 million (2021: € 44 million).

(b) Collaterals and repossessed assets

Collaterals

The Loan-to-Value (LTV) ratio of the mortgage lending reflects the gross loan exposure at the balance sheet date over the market value of the property held as collateral.

The LTV ratio of the mortgage portfolio is presented below:

	2022 € million	2021 € million
Mortgages		
Less than 50%	**2,881**	2,630
50%-70%	**2,373**	2,100
71%-80%	**1,524**	1,508
81%-90%	**1,042**	1,010
91%-100%	**825**	994
101%-120%	**604**	680
121%-150%	**437**	516
Greater than 150%	**516**	666
Total exposure	**10,201**	10,105
Average LTV	**57.30%**	61.82%

The breakdown of collateral and guarantees for loans and advances to customers at amortised cost is presented below:

	31 December 2022				
	Value of collateral received				**Guarantees received[1]**
	Real Estate € million	**Financial € million**	**Other € million**	**Total € million**	**€ million**
Retail Lending	**10,760**	**443**	**396**	**11,598**	**721**
Wholesale Lending	**5,544**	**923**	**10,368**	**16,836**	**744**
Public sector	**0**	**0**	**0**	**0**	**-**
Total	**16,304**	**1,366**	**10,764**	**28,434**	**1,465**

	31 December 2021				
	Value of collateral received				Guarantees Received[1]
	Real Estate € million	Financial € million	Other € million	Total € million	€ million
Retail Lending	10,522	504	335	11,360	616
Wholesale Lending	4,795	1,139	10,184	16,118	376
Public sector	1	1	0	2	-
Total	15,318	1,644	10,519	27,480	992

[1] In addition to the above presented guarantees, from December 2021, the Group has entered into two financial guarantees contracts 'Wave I' and 'Wave II' related to the portfolios of performing SMEs and large corporate loans of € 1.4 billion as at 31 December 2022 (31 December 2021: € 1.7 billion) and from December 2022, into the financial guarantees contract 'Wave III' related to the portfolio of performing shipping loans of € 1.6 billion ($ 1.7 billion) (note 20).

The collaterals presented in the above table under category "Other", include assigned receivables, equipment, inventories, vessels, etc. They also include the amount of the securitized loans held by the securitizations vehicles that issued the Pillar, Cairo and Mexico senior notes. The amount of the securitized loans has been capped to the gross carrying amount of the senior notes. In addition, the senior notes of the Cairo and Mexico securitizations are guaranteed by the Hellenic Republic in the context of Hellenic Asset Protection Scheme (note 20).

Repossessed assets

The Group recognizes collateral assets on the balance sheet by taking possession usually through legal processes or by calling upon other credit enhancements. As at 31 December 2022, the carrying amount of repossessed assets which are included in "Other assets" amounted to € 559 million (31 December 2021: € 572 million), note 29. These assets are carried at the lower of cost and net realizable value (note 2.2.18).

The main type of collateral that the Group repossesses against repayment or reduction of the outstanding loan is real estate. The below table presents the movement of repossessed real estate assets during the year, including a) those transferred to the appropriate category based on their use by the Group as part of its operations i.e. investment property or own-used (notes 2.2.6, 26, and 27) and b) those reclassified to "held for sale" category (notes 30).

	2022			2021		
	Real estate			Real estate		
	Residential	Commercial	Total	Residential	Commercial	Total
	€ million	€ million	€ million	€ million	€ million	€ million
Balance at 1 January	**209**	**362**	**571**	**208**	**377**	**585**
Additions(1)	14	22	36	12	23	35
Transfers to investment property	(3)	(8)	(11)	(1)	(2)	(3)
Disposals	(4)	(22)	(26)	(4)	(12)	(16)
Valuation losses	(4)	(9)	(13)	(2)	(3)	(5)
Held for Sale (note 30)	-	-	-	(3)	(21)	(24)
Other	0	(0)	0	(1)	-	(1)
Balance at 31 December	**212**	**345**	**557**	209	362	571

(1) The carrying amount of the real estate properties obtained during the year and held at the year ended 31 December 2022 amounted to € 32 million (31 December 2021: € 34 million).

In addition, the Group repossesses other types of collaterals mainly referring to equity positions due to the participation in debt for equity transactions as part of forbearance measures (see below "Debt for equity swaps"). The Group during the year has not obtained other types of collaterals as a result of repossession (31 December 2021: € 2.9 million).

(c) Geographical and industry concentrations of loans and advances to customers

As described above in note 5.2.1, the Group holds diversified portfolios across markets and countries and implements limits on concentrations arising from the geographical location or the activity of groups of borrowers that could be similarly affected by changes in economic or other conditions, in order to mitigate credit risk.

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The following tables break down the Group's exposure into loans and advances to customers and credit related commitments at their gross carrying amount and nominal amount respectively by stage, product line, industry and geographical region and impairment allowance by product line, industry and geographical region:

	31 December 2022											
	Greece				Rest of Europe				Other Countries			
	Gross carrying/nominal amount				Gross carrying/nominal amount				Gross carrying/nominal amount			
	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	Impairment allowance € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	Impairment allowance € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	Impairment allowance € million
Retail Lending	**8,547**	**3,571**	**1,024**	**(807)**	**3,614**	**420**	**210**	**(197)**	**7**	**0**	**1**	**(1)**
-Mortgage	*4,978*	*2,677*	*463*	*(337)*	*1,848*	*147*	*81*	*(72)*	*6*	*0*	*1*	*(1)*
-Consumer	*835*	*177*	*126*	*(141)*	*1,191*	*180*	*88*	*(82)*	*1*	*0*	*0*	*(0)*
-Credit card	*543*	*51*	*36*	*(43)*	*98*	*19*	*6*	*(6)*	*0*	*0*	*0*	*(0)*
-Small business	*2,191*	*665*	*399*	*(286)*	*477*	*74*	*35*	*(38)*	*0*	-	-	*(0)*
Wholesale Lending	**10,579**	**1,001**	**804**	**(479)**	**9,676**	**572**	**207**	**(131)**	**3,169**	**8**	**12**	**(11)**
-Commerce and services(2)	*4,135*	*331*	*393*	*(242)*	*6,215*	*106*	*62*	*(47)*	*535*	*0*	*6*	*(6)*
-Manufacturing	*2,658*	*292*	*130*	*(96)*	*969*	*39*	*26*	*(16)*	*5*	-	-	*(0)*
-Shipping	*8*	*2*	*44*	*(44)*	*241*	-	*15*	*(16)*	*2,455*	-	*6*	*(5)*
-Construction	*1,279*	*51*	*57*	*(45)*	*616*	*62*	*17*	*(14)*	*65*	*8*	-	*(0)*
-Tourism	*962*	*308*	*176*	*(48)*	*228*	*118*	*44*	*(2)*	-	-	-	-
-Energy	*1,474*	*1*	*2*	*(3)*	*234*	*31*	*16*	*(8)*	-	-	-	-
-Other	*64*	*17*	*1*	*(0)*	*1,174*	*215*	*28*	*(28)*	*109*	-	-	*(0)*
Public Sector	**25**	**-**	**0**	**(0)**	**0**	**0**	**1**	**(1)**	**-**	**-**	**-**	**-**
Total	***19,151***	***4,572***	***1,829***	***(1,286)***	***13,291***	***992***	***418***	***(328)***	***3,176***	***9***	***13***	***(11)***
Credit related Commitments	**7,352**	**175**	**48**	**(47)**	**2,489**	**114**	**4**	**(10)**	**288**	**0**	**0**	**(0)**
-Loan commitments	*5,493*	*109*	*2*	*(12)*	*1,654*	*70*	*2*	*(6)*	*281*	*0*	*0*	*(0)*
-Financial guarantee contracts and other commitments	*1,859*	*66*	*46*	*(35)*	*835*	*44*	*2*	*(4)*	*7*	-	*0*	*(0)*

	31 December 2021											
	Greece				Rest of Europe				Other Countries			
	Gross carrying/nominal amount				Gross carrying/nominal amount				Gross carrying/nominal amount			
	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	Impairment allowance € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	Impairment allowance € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	Impairment allowance € million
Retail Lending	8,873	3,433	1,092	(812)	3,103	357	232	(178)	8	0	1	(1)
-Mortgage	5,300	2,609	403	(257)	1,565	126	95	(68)	6	0	1	(1)
-Consumer	850	125	135	(138)	1,054	142	84	(66)	2	0	0	(0)
-Credit card	566	34	132	(132)	101	11	7	(5)	0	0	0	(0)
-Small business	2,158	665	423	(286)	383	79	46	(40)	0	0	-	(0)
Wholesale Lending	8,365	1,104	1,204	(744)	9,369	551	223	(124)	2,830	13	22	(12)
-Commerce and services[(2)]	3,159	516	606	(384)	6,373	109	72	(49)	727	-	9	(7)
-Manufacturing	2,520	247	178	(147)	772	46	28	(15)	0	-	-	-
-Shipping	6	3	50	(49)	224	-	19	(15)	1,931	3	13	(4)
-Construction	952	80	142	(92)	477	31	20	(16)	65	8	-	(0)
-Tourism	975	248	224	(62)	274	128	18	(2)	-	-	-	-
-Energy	682	3	0	(5)	177	23	20	(5)	-	-	-	-
-Other	70	6	3	(5)	1,072	215	46	(22)	107	2	-	(0)
Public Sector	30	2	1	(2)	1	0	1	(0)	-	-	-	-
Total	17,268	4,539	2,298	(1,557)	12,473	908	456	(302)	2,838	14	23	(12)
Credit related Commitments	4,125	271	46	(41)	2,073	120	5	(7)	199	2	0	(0)
-Loan commitments	3,085	168	2	(8)	1,591	94	3	(4)	196	2	0	(0)
-Financial guarantee contracts and other commitments	1,041	104	45	(33)	482	26	1	(2)	3	-	0	(0)

[(1)] Includes POCI loans of € 8.3 million held by operations in Greece, € 34.3 million held by operations in Rest of Europe and € 0.1 million held by operations in Other Countries (2021: € 44.1 million in Rest of Europe).

[(2)] The operations in Rest of Europe include € 4,901 million related to the notes of the Pillar, Cairo and Mexico securitizations (2021: € 5,106 million in Rest of Europe related to the notes of the Pillar, Cairo and Mexico securitizations).

As at 31 December 2022, the carrying amount of Group's loans measured at FVTPL of € 16 million (2021: € 23 million) was included in Wholesale lending portfolio, which was held by operations in Greece (2021: € 20 million were held by operations in Greece and € 3.5 million were held by operations in Rest of Europe).

(d) Forbearance practices on lending activities

Modifications of the loans' contractual terms may arise due to various factors, such as changes in market conditions, customer retention and other factors as well as due to the potential deterioration in the borrowers' financial condition. The Group has employed a range of forbearance solutions in order to enhance the management of customer relationships and the effectiveness of collection efforts, as well as to improve the recoverability of cash flows and minimize credit losses for both retail and wholesale portfolios.

Forbearance practices' classification

Forbearance practices as monitored and reported by the Group, based on the European Banking Authority Implementing Technical Standards (EBA ITS) guidelines, occur only in the cases where the contractual payment terms of a loan have been modified, as the borrower is considered unable to comply with the existing loan's terms due to apparent financial difficulties, and the Group grants a concession by providing more favorable terms and conditions that it would not otherwise consider had the borrower not been in financial difficulties.

All other types of modifications granted by the Group, where there is no apparent financial difficulty of the borrower and may be driven by factors of a business nature are not classified as forbearance measures.

Forbearance solutions

Forbearance solutions are granted following an assessment of the borrower's ability and willingness to repay and can be of a short or longer term nature. The objective is to assist financially stressed borrowers by rearranging their repayment cash outflows into a sustainable modification, and at the same time, protect the Group from suffering credit losses. The Group deploys targeted segmentation strategies with the objective to tailor different short or long term and sustainable management solutions to selected groups of borrowers for addressing their specific financial needs.

The nature and type of forbearance options may include but is not necessarily limited to, one or more of the following:

- arrears capitalization;
- arrears repayment plan;
- reduced payment above interest only;
- interest-only payments;
- reduced payment below interest only;
- grace period;
- interest rate reduction;
- loan term extensions;
- split balance and gradual step-up of installment payment plans;
- partial debt forgiveness/write-down;
- operational restructuring; and
- debt to equity swaps.

Specifically for unsecured consumer loans (including credit cards), forbearance programs (e.g. term extensions), are applied in combination with debt consolidation whereby all existing consumer balances are pooled together. Forbearance solutions are applied in order to ensure a sufficient decrease on installment and a viable solution for the borrower. In selected cases, the debt consolidations may be combined with mortgage prenotations to convert unsecured lending exposures to secured ones.

In the case of mortgage loans, a decrease of installment may be achieved through forbearance measures such as extended payment periods, capitalization of arrears, split balance and gradual step-up of installment payment plans.

Wholesale exposures are subject to forbearance when there are indications of financial difficulties of the borrower, evidenced by a combination of factors including the deterioration of financials, credit rating downgrade, payment delays and other.

During 2020 in response to the COVID-19 pandemic, the EBA published guidelines on payment moratoria whereby the application of a general payment moratorium that meets the requirements of the guidelines would not in itself lead to a reclassification under the definition of forbearance. However, institutions should continue to categorize the exposures as performing or non-performing in accordance with the applicable requirements. More precisely, as a general principle, before granting a forbearance measure, credit institutions should carry out an individual assessment of the repayment capacity of the borrower and grant forbearance measures tailored to the specific circumstances of the borrower in question.

Based on this, and following the internal process of individual assessments the Bank flagged as forbearance measures certain payment moratoria for accounts in the hotel sector, which were considered to have increased financial difficulties.

Debt for equity swaps

For wholesale portfolios, the Group on occasion participates in debt for equity transactions as part of forbearance measures, as described in note 2.2.9. In 2022, equity positions acquired by the Group and held as of 31 December 2022 relate to the participation of 3% in Kalogirou S.A. for trade of footwear, apparel and leather goods for a nil consideration. Similarly in 2021, equity positions acquired by the Group and held as of 31 December 2021 related to a) the participation of 100% in Village Roadshow Operations Hellas S.A. for € 1 million and b) the participation of 29.48% in Intertech S.A. – International Technologies for a cash consideration of € 1.9 million.

i. Classification of Forborne loans

Forborne loans are classified either as non-impaired (stage 2), or impaired (stage 3) by assessing their delinquency and credit quality status.

Credit impaired forborne loans enter initially a probation period of one year where the borrowers' payment performance is closely monitored. If at the end of the abovementioned period, the borrowers have complied with the terms of the program and there are no past due amounts and concerns regarding the loans' full repayment, the loans are then reported as non-impaired forborne loans (stage 2). In addition, non-impaired forborne loans, including those that were previously classified as credit impaired and complied with the terms of the program, are monitored over a period of two years. If, at the end of that period, the borrowers have made regular payments of a significant aggregate amount, there are no past due amounts over 30 days and the loans are neither credit impaired nor any other SICR criteria are met they exit forborne status and are classified as stage 1.

Particularly, the category of credit impaired forborne loans includes those that (a) at the date when forbearance measures were granted, were more than 90 days past due or assessed as unlikely to pay, (b) at the end of the one year probation period met the criteria of entering the non -impaired status and during the two years monitoring period new forbearance measures were extended or became more than 30 days past due, and (c) were initially classified as non- impaired and during the two years monitoring period met the criteria for entering the credit impaired status.

Furthermore, forborne loans that fail to perform under the new modified terms and are subsequently denounced cease to be monitored as part of the Group's forbearance activities and are reported as denounced credit impaired loans (stage 3) consistently with the Group's management and monitoring of all denounced loans.

ii. Impairment assessment

Where forbearance measures are extended, the Group performs an assessment of the borrower's financial condition and its ability to repay, under the Group's impairment policies, as described in notes 2.2.13 and 5.2.1. Accordingly, forborne loans to wholesale customers, retail individually significant exposures and financial institutions are assessed on an individual basis. Forborne retail lending portfolios are generally assessed for impairment separately from other retail loan portfolios on a collective basis as they consist of large homogenous portfolio.

iii. Loan restructurings

In cases where the contractual cash flows of a forborne loan have been substantially modified, the original forborne loan is derecognized and a new loan is recognized. The Group records the modified asset as a 'new' financial asset at fair value and the difference with the carrying amount of the existing one is recorded in the income statement as derecognition gain or loss.

In cases where the modification as a result of forbearance measures is not considered substantial, the Group recalculates the gross carrying amount of the loan and recognizes the difference as a modification gain or loss in the income statement. The Group continues to monitor the modified forborne loan in order to determine if the financial asset exhibits significant increase in credit risk since initial recognition during the forbearance period.

As at 31 December 2022, the carrying amount of Group's forborne loans measured at FVTPL was nil (2021: € 3.5 million).

The following tables present an analysis of Group's forborne activities for loans measured at amortised cost. In order to align with the quantitative information provided in section (a) based on revised IFRS 7 requirements, the relevant tables below are presented on a gross carrying amount basis, while cumulative impairment allowance is presented separately, in line with the Group's internal credit risk monitoring and reporting.

The following table presents a summary of the types of the Group's forborne activities:

	2022 € million	2021 € million
Forbearance measures:		
Split balance	**234**	423
Loan term extension	**1,044**	1,468
Arrears capitalisation	**137**	183
Reduced payment below interest owed	**71**	112
Interest rate reduction	**136**	237
Reduced payment above interest owed	**111**	121
Arrears repayment plan	**109**	163
Interest only	**35**	33
Grace period	**55**	77
Debt/equity swaps	**8**	16
Partial debt forgiveness/Write-down	**1**	27
Operational restructuring	**14**	10
Other	**54**	75
Total gross carrying amount	**2,012**	2,946
Less: cumulative impairment allowance	**(401)**	(465)
Total carrying amount	**1,611**	2,481

The following tables present a summary of the credit quality of forborne loans and advances to customers:

	31 December 2022		
	Total loans & advances at amortised cost € million	Forborne loans & advances € million	% of Forborne loans & advances
Gross carrying amounts:			
12-month ECL-Stage 1	**35,618**	**-**	**-**
Lifetime ECL-Stage 2	**5,573**	**1,138**	**20.4**
Lifetime ECL-Stage 3 and POCI	**2,259**	**874**	**38.7**
Total Gross Amount	**43,450**	**2,012**	**4.6**
Cumulative ECL Loss allowance:	-	-	
12-month ECL-Stage 1	**(149)**	**-**	
Lifetime ECL-Stage 2	**(355)**	**(80)**	
Lifetime ECL-Stage 3 and POCI of which:	**(1,121)**	**(321)**	
- Individually assessed	*(441)*	*(165)*	
- Collectively assessed	*(680)*	*(156)*	
Total carrying amount	**41,824**	**1,611**	**3.9**
Collateral received	**28,434**	**1,527**	

	31 December 2021		
	Total loans & advances at amortised cost € million	Forborne loans & advances € million	% of Forborne loans & advances
Gross carrying amounts:			
12-month ECL-Stage 1	32,578	-	-
Lifetime ECL-Stage 2	5,461	1,926	35.3
Lifetime ECL-Stage 3 and POCI	2,776	1,021	36.8
Total Gross Amount	40,815	2,946	7.2
Cumulative ECL Loss allowance:			
12-month ECL-Stage 1	(171)	-	
Lifetime ECL-Stage 2	(311)	(103)	
Lifetime ECL-Stage 3 and POCI of which:	(1,391)	(362)	
- Individually assessed	(672)	(194)	
- Collectively assessed	(718)	(168)	
Total carrying amount	38,943	2,481	6.4
Collateral received	27,480	2,221	

The following table presents the movement of forborne loans and advances:

	2022 € million	2021 € million
Gross carrying amount at 1 January	**2,946**	**4,826**
Forbearance measures in the year	299	481
Forborne loans derecognised/ reclassified as held for sale during the year (1)	(56)	(1,128)
Write-offs of forborne loans	(22)	(33)
Repayment of loans	(233)	(260)
Loans & advances that exited forbearance status (2)	(965)	(992)
Other	42	53
Less: cumulative impairment allowance	(401)	(465)
Carrying amount at 31 December	**1,611**	**2,481**

(1) "Forborne loans derecognised/ reclassified as held for sale during the year" presents loans derecognized during the year due to a) securitization/ sale transactions and b) substantial modifications of the loans' contractual terms and those that have been reclassified as held for sale during the year.
(2) In 2022, an amount of € 88 million loans and advances that exited forbearance status refers to loans that were denounced (2021: € 48 million).

The following table presents the Group's exposure to forborne loans and advances by product line:

	2022 € million	2021 € million
Retail Lending	**1,153**	1,985
- Mortgage	*751*	*1,358*
- Consumer	*106*	*123*
- Credit card	*16*	*47*
- Small business	*280*	*456*
Wholesale Lending	**859**	961
-Large corporate	*277*	*295*
-SMEs	*582*	*667*
Total gross carrying amount	**2,012**	2,946
Less: cumulative impairment allowance	**(401)**	(465)
Total carrying amount	**1,611**	2,481

The following table presents the Group's exposure to forborne loans and advances by geographical region:

	2022 € million	2021 € million
Greece	**1,638**	2,591
Rest of Europe	**374**	351
Other countries	**0**	5
Total gross carrying amount	**2,012**	2,946
Less: cumulative impairment allowance	**(401)**	(465)
Total carrying amount	**1,611**	2,481

The following table provides information on modifications due to forbearance measures on lending exposures which have not resulted in derecognition. Such financial assets were modified while they had a loss allowance measured at an amount equal to lifetime ECL.

Modified lending exposures	2022 € million	2021 € million
Loans modified during the year with loss allowance measured at an amount equal to lifetime ECL		
Gross carrying amount at 31 December	449	745
Modification gain / (loss)	2	18
Loans modified since initial recognition at a time when loss allowance was based on lifetime ECL		
Gross carrying amount at 31 December for which loss allowance has changed to 12-month ECL measurement	370	614

In the year ended 31 December 2022, the gross carrying amount of loans previously modified for which the loan allowance has reverted to being measured at an amount equal to lifetime ECL amounted to € 371 million (2021: € 504 million).

5.2.1.3 Debt Securities

The following tables present an analysis of debt securities by external credit rating agency designation at 31 December 2022 and 2021, based on Moody's ratings or their equivalent:

	31 December 2022			
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL-Stage 3 € million	Total € million
Debt securities at amortised cost				
Aaa	**2,617**	**-**	**-**	**2,617**
Aa1 to Aa3	**140**	**-**	**-**	**140**
A1 to A3	**133**	**-**	**-**	**133**
Lower than A3	**6,211**	**6**	**7**	**6,224**
Unrated	**74**	**-**	**26**	**100**
Gross Carrying Amount	**9,175**	**6**	**33**	**9,214**
Impairment Allowance	**(12)**	**(0)**	**(10)**	**(22)**
Carrying Amount	**9,163**	**6**	**23**	**9,192**
Debt securities at FVOCI				
Aaa	**339**	**-**	**-**	**339**
Aa1 to Aa3	**212**	**-**	**-**	**212**
A1 to A3	**398**	**-**	**-**	**398**
Lower than A3	**2,605**	**121**	**-**	**2,726**
Unrated	**58**	**-**	**-**	**58**
Carrying Amount	**3,612**	**121**	**-**	**3,733**

	31 December 2021		
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Total € million
Debt securities at amortised cost			
Aaa	636	-	636
Aa1 to Aa3	108	-	108
Lower than A3	3,928	-	3,928
Gross Carrying Amount	4,672	-	4,672
Impairment Allowance	(6)	-	(6)
Carrying Amount	4,666	-	4,666
Debt securities at FVOCI			
Aaa	591	-	591
Aa1 to Aa3	271	-	271
A1 to A3	567	-	567
Lower than A3	4,899	9	4,908
Unrated	128	-	128
Carrying Amount	6,456	9	6,465

	31 December 2022	
	Debt securities held for trading € million	**Debt securities measured at FVTPL € million**
Debt securities at FVTPL		
Lower than A3	**86**	**0**
Unrated	**1**	**-**
Carrying Amount	**87**	**0**

	31 December 2021	
	Debt securities held for trading € million	Debt securities measured at FVTPL € million
Debt securities at FVTPL		
Aa1 to Aa3	-	1
Lower than A3	69	0
Carrying Amount	69	1

The carrying amount of debt securities rated lower than A3 includes: a) € 5,413 million related to Greek sovereign debt (2021: € 5,322 million), b) € 921 million related to Eurozone members sovereign debt (2021: € 1,246 million), c) € 841 million related to sovereign debt issued mainly by European Union members and candidate members (2021: € 763 million) of which € 517 million issued by countries of Group's presence (Bulgaria and Serbia) (2021: € 460 million) and d) € 1,846 million corporate and banks' securities (2021: € 1,568 million) of which € 958 million refer to Greek issuers (2021: € 726 million) and € 701 million to other European issuers (2021: € 689 million). The carrying amount of unrated debt securities of € 152 million (2021: € 128 million) comprise € 133 million Greek corporate bonds (2021: € 128 million) and € 19 million Russian corporate bonds (see below).

Following the significant worldwide restrictions and sanctions introduced against Russia, resulting in significant uncertainty on the ability of the Russian debt issuers to repay their obligations on foreign currency-denominated bonds, as of 31 March 2022 the Group has classified its Russian debt exposures as credit impaired. Following the repayment of a Russian government bond of carrying value € 12 million in April 2022, the carrying value of the said debt exposures was € 19 million as at 31 December 2022, including an impairment allowance of € 7 million.

Notes to the Consolidated Financial Statements

The following tables present the Group's exposure in debt securities, as categorized by stage, counterparty's geographical region and industry sector:

	31 December 2022							
	Greece		Other European countries			Other countries		
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 3 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Lifetime ECL-Stage 3 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Total € million
Debt securities at amortised cost								
Sovereign	**4,379**	**-**	**756**	**-**	**-**	**1,165**	**-**	**6,300**
Banks	**736**	**-**	**276**	**-**	**-**	**-**	**-**	**1,012**
Corporate	**241**	**7**	**989**	**3**	**26**	**633**	**3**	**1,902**
Gross Carrying Amount	**5,356**	**7**	**2,021**	**3**	**26**	**1,798**	**3**	**9,214**
Impairment Allowance	**(9)**	**(3)**	**(3)**	**(0)**	**(7)**	**(0)**	**(0)**	**(22)**
Net Carrying Amount	**5,347**	**4**	**2,018**	**3**	**19**	**1,798**	**3**	**9,192**
Debt securities at FVOCI								
Sovereign	**976**	**-**	**1,046**	**94**	**-**	**451**	**-**	**2,567**
Banks	**12**	**-**	**209**	**7**	**-**	**-**	**-**	**228**
Corporate	**163**	**-**	**475**	**15**	**-**	**280**	**5**	**938**
Carrying Amount	**1,151**	**-**	**1,730**	**116**	**-**	**731**	**5**	**3,733**

	31 December 2021					
	Greece		Other European countries	Other countries		
	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	12-month ECL-Stage 1 € million	12-month ECL-Stage 1 € million	Lifetime ECL-Stage 2 € million	Total € million
Debt securities at amortised cost						
Sovereign	3,162	-	519	-	-	3,681
Banks	311	-	196	-	-	507
Corporate	-	-	299	185	-	484
Gross Carrying Amount	3,473	-	1,014	185	-	4,672
Impairment Allowance	(5)	-	(1)	(0)	-	(6)
Net Carrying Amount	3,468	-	1,013	185	-	4,666
Debt securities at FVOCI						
Sovereign	2,149	-	1,859	615	-	4,623
Banks	166	-	311	-	-	477
Corporate	373	7	707	276	2	1,365
Carrying Amount	2,688	7	2,877	891	2	6,465

	31 December 2022			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Debt securities at FVTPL				
Corporate	0	-	-	0
Carrying Amount	0	-	-	0
Debt securities held for trading				
Sovereign	63	23	-	86
Corporate	1	-	-	1
Carrying Amount	64	23	-	87

	31 December 2021			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Debt securities at FVTPL				
Corporate	0	1	-	1
Carrying Amount	0	1	-	1
Debt securities held for trading				
Sovereign	14	19	-	33
Corporate	-	23	13	36
Carrying Amount	14	42	13	69

5.2.1.4 Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset according to IAS 32 ‘Financial Instruments and the net amount is presented in the balance sheet when, there is a legally enforceable right to set off the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously (the offsetting criteria), as also set out in Group's accounting policy 2.2.4.

In 2022, following the change in the volume and market terms of the Group’s positions in CCP (Central Counterparty) cleared OTC derivative financial instruments, there was a significant increase in the balances of the related cash accounts used for variation margin purposes reaching ca. € 1 bn liability, as at 31 December 2022 (2021: ca. € 0.2 billion asset). The Group has assessed the terms of the clearing agreements for these derivatives entered into with Clearing Members, as at 31 December 2022. The Group has concluded that the offsetting criteria are met, as at 31 December 2022, in respect of the cash accounts used for variation margin purposes for such derivatives, which are also used for the settlement of all payments thereunder, and accordingly derivative assets of € 1,376 million and derivative liabilities of € 444 million (note 19) were offset against € 932 million cash collateral received (note 32). Financial instruments that meet the offsetting criteria include also the eligible repos and reverse repos under global master repurchase agreements (GMRAs).

Financial instruments under master netting arrangements and similar agreements that do not meet the criteria for offsetting in the balance sheet include derivatives (bilateral agreements) as well as repos and reverse repos, for which a) the right of set-off is enforceable only following an event of default, insolvency or bankruptcy of the Group or the counterparties or following other predetermined events and/or b) the Group and its counterparties may not intend to settle on a net basis or to realize the assets and settle the liabilities simultaneously.

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The following tables present financial assets and financial liabilities that meet the criteria for offsetting and thus are presented on a net basis in the balance sheet, as well as amounts that are subject to enforceable master netting arrangements and similar agreements for which the offsetting criteria mentioned above are not satisfied. In respect of the latter, the Group may receive and provide collateral in the form of marketable securities and cash that are included in the tables below under columns 'financial instruments' and 'cash collateral'.

	31 December 2022					
				Related amounts not offset in the BS		
	Gross amounts of recognised financial assets € million	Gross amounts of recognised financial liabilities offset in the balance sheet € million	Net amounts of financial assets presented in the balance sheet € million	Financial instruments (incl. non-cash collateral) € million	Cash collateral received € million	Net amount € million
Financial Assets						
Reverse repos with banks	116	(114)	2	(2)	-	-
Derivative financial instruments	2,540	(1,376)	1,164	(685)	(232)	247
Other financial assets	9	(9)	-	-	-	-
Total	2,665	(1,499)	1,166	(687)	(232)	247

	31 December 2022					
				Related amounts not offset in the BS		
	Gross amounts of recognised financial liabilities € million	Gross amounts of recognised financial assets offset in the balance sheet € million	Net amounts of financial liabilities presented in the balance sheet € million	Financial instruments (incl. non-cash collateral) € million	Cash collateral pledged € million	Net amount € million
Financial Liabilities						
Derivative financial instruments	2,043	(444)	1,599	(685)	(237)	677
Repurchase agreements with banks	877	(114)	763	(763)	-	-
Other financial liabilities	9	(9)	-	-	-	-
Deposits from banks received as collateral	1,226	(932)	294	(232)	-	62
Total	4,155	(1,499)	2,656	(1,680)	(237)	739

	31 December 2021					
				Related amounts not offset in the BS		
	Gross amounts of recognised financial assets € million	Gross amounts of recognised financial liabilities offset in the balance sheet € million	Net amounts of financial assets presented in the balance sheet € million	Financial instruments (incl. non-cash collateral) € million	Cash collateral received € million	Net amount € million
Financial Assets						
Reverse repos with banks	622	(591)	31	(31)	-	-
Derivative financial instruments	1,942	-	1,942	(1,803)	(40)	99
Other financial assets	13	(13)	-	-	-	-
Total	2,577	(604)	1,973	(1,834)	(40)	99

	31 December 2021					
				Related amounts not offset in the BS		
	Gross amounts of recognised financial liabilities € million	Gross amounts of recognised financial assets offset in the balance sheet € million	Net amounts of financial liabilities presented in the balance sheet € million	Financial instruments (incl. non-cash collateral) € million	Cash collateral pledged € million	Net amount € million
Financial Liabilities						
Derivative financial instruments	2,386	-	2,386	(695)	(1,642)	49
Repurchase agreements with banks	861	(591)	270	(270)	-	-
Other financial liabilities	13	(13)	-	-	-	-
Total	3,260	(604)	2,656	(965)	(1,642)	49

Derivative financial assets and liabilities not under master netting arrangements and similar agreements of carrying value of € 21 million and € 62 million, respectively, (2021: € 7 million and € 8 million, respectively) are not presented in the above tables.

Financial assets and financial liabilities are disclosed in the above tables at their recognized amounts, either at fair value (derivative assets and liabilities) or amortized cost (all other financial instruments), depending on the type of financial instrument.

5.2.2 Market risk

The Group takes on exposure to market risk, which is the risk of potential financial loss due to an adverse change in market variables. Changes in interest rates, foreign exchange rates, credit spreads, equity prices and other relevant factors, such as the implied volatilities, can affect the Group's income or the fair value of its financial instruments. The market risks, the Group is exposed to, are monitored, controlled and estimated by Group Market and Counterparty Risk Sector (GMCRS).

GMCRS is responsible for the measurement, monitoring, control and reporting of all market risks, including the interest rate risk in the Banking Book (IRRBB) of the Group. The Sector reports to the GCRO and its main responsibilities include:

- Monitoring of all key market & IRRBB risk indicators (VaR, sensitivities, etc.)
- Implementation of Stress Testing methodologies for market risk and IRRBB (historical and hypothetical),
- Monitoring and reporting of market and IRRBB risk limits utilization.
- Development, maintenance and expansion of risk management infrastructure.

The market risks the Group is exposed to, are the following:

(a) Interest rate risk

The Group takes on exposure to the effects of fluctuations in the prevailing levels of market interest rates on its cash flows and the fair value of its financial positions. Cash flow interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Fair value interest rate risk is the risk that the value of a financial instrument will fluctuate because of changes in market interest rates. Fair value interest rate risk is further split into 'General' and 'Specific'. The former refers to changes in the fair valuation of positions due to the movements of benchmark interest rates, while the latter refers to changes in the fair valuation of positions due to the movements of specific issuer yields and credit spreads.

(b) Currency risk

The Group takes on exposure to the effects of fluctuations in the prevailing foreign currency exchange rates on its financial position and cash flows.

(c) Equity risk

Equity price risk is the risk of the decrease of fair values as a result of changes in the levels of equity indices and the value of individual stocks. The equity risk that the Group undertakes arises mainly from the investment portfolio.

(d) Implied volatilities

The Group carries limited implied volatility (vega) risk, mainly as a result of open positions on options.

The Board's Risk Committee sets limits on the level of exposure to market risks, which are monitored on a daily basis.

Market risk in Greece and International Subsidiaries is managed and monitored mainly using Value at Risk (VaR) methodology. Sensitivity and stress test analysis is additionally performed.

(i) VaR summary for 2022 and 2021

VaR is a methodology used in measuring financial risk by estimating the potential negative change in the market value of a portfolio at a given confidence level and over a specified time horizon. The VaR that the Group measures is an estimate based upon a 99% confidence level and a holding period of 1 day and the methodology used for the calculation is Monte Carlo simulation (full re-pricing of the positions is performed).

The VaR models are designed to measure market risk in a normal market environment. It is assumed that any changes occurring in the risk factors affecting the normal market environment will follow a normal distribution.

Although VaR is an important tool for measuring market risk, the assumptions on which the model is based do give rise to certain limitations. Given this, actual outcomes are monitored regularly, via back testing process, to test the validity of the assumptions and the parameters used in the VaR calculation.

The perimeter of the VaR analysis includes Eurobank Ergasias Services and Holdings S.A., Eurobank S.A. and its banking subsidiaries, taking into account the FVTPL, including trading and FVOCI portfolios. Consequently, the potential impact as it is depicted in the VaR figures would directly affect Group's Capital (income statement or equity).

Since VaR constitutes an integral part of the Group's market risk control regime, VaR limits have been established for all the above operations (trading and investment portfolios measured at fair value) and actual exposure is reviewed daily by management. However, the use of this approach does not prevent losses outside of these limits in the event of extraordinary market movements.

VaR by risk type - Greece and International Subsidiaries [1]

	2022 (Average) € million	2022 € million	2021 (Average) € million	2021 € million
Interest Rate Risk	**22**	**9**	14	14
Foreign Exchange Risk	**0**	**0**	1	1
Equities Risk	**2**	**4**	0	0
Total VaR	**23**	**11**	14	14

[1] Includes all portfolios measured at fair value.

The aggregate VaR of the interest rate, foreign exchange and equities VaR benefits from diversification effects. The largest portion of the Group's Interest rate VaR figures is attributable to the risk associated with interest rate and credit spread sensitive debt securities and derivatives. The average VaR of 2022 is materially increased, as compared to the average VaR of 2021, due to geopolitical tension (i.e. war in Ukraine) and the relevant extreme volatility observed in the markets (especially between March and May), along with the market perception regarding Central Banks' monetary policy in the following years. Equity Risk Var is also increased due to the Bank's investment in Hellenic Bank which is in line with the Group's strategy to further strengthen its presence in its core markets.

(ii) Interest rate gap and sensitivity

The following table provides the interest rate repricing gap of the Group, which analyses the structure of interest rate mismatches within the balance sheet. The Group's financial assets/liabilities are included at their notional/outstanding amounts and categorized based on either (i) the next contractual repricing date if floating rate or (ii) the maturity/call date (whichever is first) if fixed rate. The below analysis provides an approximation of the interest rate risk exposure since transactions with different duration are aggregated together per time bucket. The interest rate gap analysis is prepared from 31 December 2022 onwards.

	31 December 2022				
	less than 1 month € million	1-3 months € million	3-12 months € million	1-5 years € million	More than 5 years € million
Balances with central banks	14,481	-	-	-	-
Due to credit institutions	1,012	64	27	-	-
Debt securities[1]	390	215	371	5,513	5,797
Loans and advances to customers	18,658	10,244	8,034	2,536	2,538
	34,541	10,523	8,432	8,049	8,335
Due to central banks	(8,872)	-	-	-	-
Due to credit institutions	(575)	(968)	(299)	(1)	(14)
Due to customers	(48,934)	(3,754)	(3,991)	(336)	(2)
Debt securities in issue	(2)	-	(5)	(1,916)	(1,700)
	(58,383)	(4,721)	(4,295)	(2,253)	(1,716)
Derivative financial instruments	4,844	(155)	(471)	69	(4,360)
Interest rate gap	**(18,998)**	**5,647**	**3,666**	**5,865**	**2,259**

[1] Including short positions in debt securities (note 35).

The Group performs a sensitivity analysis to assess the impact on net interest income (NII) and on other comprehensive income (OCI), to a hypothetical change in the market interest rates.

The impact on NII is calculated under the scenario of an instantaneous parallel shift of all interest rates by +/- 100bps, for a 1-year period, assuming a static balance sheet approach. As at 31 December 2022 the impact on NII, under the scenario of a parallel shift in the yield curves, stands at € 232 million (+100bps) and €-279 million (-100bps).

The impact on OCI is calculated as the fair value movement of all financial assets measured at FVOCI, net of hedging and of any hedging instruments designated in qualifying cash flow hedge relationships. As at 31 December 2022 the impact on OCI, under the scenario of a parallel shift in the yield curves, stands at €-49 million (+100bps) and € 51 million (-100bps).

(iii) Foreign exchange risk

The following tables present the Group's exposure to foreign currency exchange risk as at 31 December 2022 and 2021:

	31 December 2022							
	USD € million	CHF € million	RON € million	RSD € million	BGN € million	OTHER € million	EUR € million	Total € million
ASSETS								
Cash and balances with central banks	29	4	0	375	472	9	14,105	14,994
Due from credit institutions	330	20	33	0	0	63	883	1,329
Securities held for trading	0	-	-	-	18	0	116	134
Derivative financial instruments	23	0	0	0	0	0	1,162	1,185
Loans and advances to customers	3,068	1,999	8	616	3,975	555	31,456	41,677
Investment securities	1,743	-	-	99	81	264	11,074	13,261
Other assets[1]	16	75	5	99	213	6	8,382	8,796
Assets of disposal groups classified as held for sale (note 30)	-	-	-	-	-	-	84	84
Total Assets	**5,209**	**2,098**	**46**	**1,189**	**4,759**	**897**	**67,262**	**81,460**
LIABILITIES								
Due to central banks and credit institutions	200	0	0	45	8	9	10,326	10,588
Derivative financial instruments	21	1	0	129	0	1	1,509	1,661
Due to customers	5,929	95	1	666	4,313	604	45,631	57,239
Debt securities in issue	73	73	-	-	-	5	3,401	3,552
Other liabilities	25	1	18	20	51	3	1,583	1,701
Liabilities of disposal group classified as held for sale (note 30)	-	-	-	-	-	-	1	1
Total Liabilities	**6,248**	**170**	**19**	**860**	**4,372**	**622**	**62,451**	**74,742**
Net on balance sheet position	**(1,039)**	**1,928**	**27**	**329**	**387**	**275**	**4,811**	**6,718**
Derivative forward foreign exchange position	**778**	**(1,927)**	**(15)**	**(54)**	**(0)**	**(281)**	**819**	**(680)**
Total Foreign Exchange Position	**(261)**	**1**	**12**	**275**	**387**	**(6)**	**5,630**	**6,038**

	31 December 2021							
	USD € million	CHF € million	RON € million	RSD € million	BGN € million	OTHER € million	EUR € million	Total € million
ASSETS								
Cash and balances with central banks	13	5	0	237	686	8	12,565	13,515
Due from credit institutions	211	88	41	0	0	103	2,067	2,510
Securities held for trading	3	-	-	-	20	0	97	119
Derivative financial instruments	39	1	-	0	0	0	1,908	1,949
Loans and advances to customers	2,832	2,124	11	640	3,276	469	29,615	38,967
Investment securities	909	-	0	120	56	102	10,129	11,316
Other assets [(1)]	23	1	8	103	179	2	9,015	9,330
Assets of disposal groups classified as held for sale (note 30)	-	-	-	-	-	-	146	146
Total Assets	4,029	2,219	59	1,100	4,218	684	65,543	77,852
LIABILITIES								
Due to central banks and credit institutions	27	1	0	26	11	16	12,556	12,636
Derivative financial instruments	42	0	0	182	0	1	2,170	2,394
Due to customers	5,373	131	0	538	3,906	569	42,651	53,168
Debt securities in issue	38	-	-	-	-	-	2,514	2,552
Other liabilities	35	1	19	18	55	5	1,225	1,358
Liabilities of disposal group classified as held for sale (note 30)	-	-	-	-	-	-	109	109
Total Liabilities	5,515	133	19	764	3,972	590	61,224	72,217
Net on balance sheet position	(1,485)	2,086	40	336	246	94	4,319	5,635
Derivative forward foreign exchange position	1,280	(2,084)	(24)	(53)	20	(95)	(60)	(1,015)
Total Foreign Exchange Position	(205)	2	16	283	266	(1)	4,259	4,620

[(1)] *Other assets include Investments in associates and joint ventures, Property and equipment, Investment property, Intangible assets, Deferred tax assets and Other assets.*

5.2.3 Liquidity risk

The Group is exposed to daily calls on its available cash resources due to deposits withdrawals, maturity of medium or long-term notes, maturity of secured or unsecured funding (interbank repos and money market takings), loan drawdowns and forfeiture of guarantees. Furthermore, margin calls on secured funding transactions (with ECB and the market), on risk mitigation contracts (CSAs, GMRAs) and on centrally cleared transactions (CCPs) result in liquidity exposure. The Group maintains cash resources to meet all of these needs. The Board Risk Committee sets liquidity limits to ensure that sufficient funds are available to meet such contingencies.

Past experience shows that liquidity requirements to support calls under guarantees and standby letters of credit are considerably less than the amount of the commitment. This is also the case with credit commitments where the outstanding contractual amount to extend credit does not necessarily represent future cash requirements, as many of these commitments will expire or terminate without being funded.

The matching and controlled mismatching of the maturities and interest rates of assets and liabilities is fundamental to the management of the Group. It is unusual for banks to be completely matched, as transacted business is often of uncertain term and of different types. An unmatched position potentially enhances profitability, but also increases the risk of losses.

The maturities of assets and liabilities and the ability to replace, at an acceptable cost, interest bearing liabilities as they mature, are important factors in assessing the liquidity of the Group.

Liquidity Risk Management Framework

The Group's Liquidity Risk Policy defines the following supervisory and control structure:

- Board Risk Committee's role is to approve all strategic liquidity risk management decisions and to monitor the quantitative and qualitative aspects of liquidity risk;
- Group Assets and Liabilities Committee has the mandate to form and implement the liquidity policies and guidelines in conformity with Group's risk appetite, and to review at least monthly the overall liquidity position of the Group;
- Group Treasury is responsible for the implementation of the Group's liquidity strategy, taking into account the latest funding plan and for the daily management of the Group's liquidity;
- Group Market and Counterparty Risk Sector is responsible for measuring, controlling, monitoring and reporting the liquidity risk of the Group.

The main items related to liquidity risk that are monitored on a periodic basis are summarized as follows:

- The analysis of liquidity buffer held on Group level per asset type and per subsidiary;
- The Liquidity Coverage Ratio (LCR) both in solo and group level;
- The Net Stable Funding Ratio (NSFR) both in solo and group level;
- Liquidity stress test scenarios. These scenarios evaluate the impact of a number of stress events on the Group's liquidity position;
- Market sensitivities affecting liquidity;
- The Additional Liquidity Monitoring Metrics (ALMM) both in solo and group level;
- The Asset Encumbrance (AE) both in solo and group level;
- Monitoring and implementation of the funding plan.

Maturity analysis of assets and assets held for managing liquidity risk

The following tables present maturity analysis of Group assets as at 31 December 2022 and 2021, based on their carrying values. Loans without contractual maturities are presented in the 'less than 1 month' time bucket. The Group has established credit risk mitigation contracts with its interbank counterparties (ISDA/CSA). Under these contracts the Group has posted or received collateral, which covers the corresponding net liabilities or net assets from derivative transactions. The collateral posted is not presented in the below tables. For derivative assets not covered by ISDA/CSA agreements the positive valuation is presented at fair value in the 'over 1 year' time bucket.

	31 December 2022				
	Less than 1 month € million	1 - 3 months € million	3 months to 1 year € million	Over 1 year € million	Total € million
- Cash and balances with central banks	14,994	-	-	-	14,994
- Due from credit institutions	398	28	-	167	593
- Loans and advances to customers	3,164	1,271	3,549	33,693	41,677
- Debt Securities	115	137	349	12,411	13,012
- Equity securities	-	-	-	383	383
- Derivative financial instruments	-	-	-	9	9
- Other assets[(1)]	62	16	8	8,710	8,796
- Assets of disposal groups classified as held for sale (note 30)	-	-	84	-	84
Total	**18,733**	**1,452**	**3,990**	**55,373**	**79,548**

	31 December 2021				
	Less than 1 month € million	1 - 3 months € million	3 months to 1 year € million	Over 1 year € million	Total € million
- Cash and balances with central banks	13,515	-	-	-	13,515
- Due from credit institutions	484	-	-	140	624
- Loans and advances to customers	2,857	799	3,680	31,631	38,967
- Debt Securities	309	179	789	9,924	11,201
- Equity securities	-	-	-	234	234
- Derivative financial instruments	-	-	-	104	104
- Other assets[(1)]	66	17	9	9,238	9,330
- Assets of disposal groups classified as held for sale	-	6	140	-	146
Total	17,231	1,001	4,618	51,271	74,121

[(1)] Other assets include Investments in associates and joint ventures, Property and equipment, Investment property, Intangible assets, Deferred tax assets and Other assets.

The Group holds a diversified portfolio of cash and highly liquid assets to support payment obligations and contingent deposit withdrawals in a stressed market environment. The Group's assets held for managing liquidity risk comprise:

(a) Cash and balances with central banks;

(b) Eligible bonds and other financial assets for collateral purposes; and

(c) Current accounts with banks and interbank placings maturing within one month.

The unutilized assets, containing highly liquid and central banks eligible assets, provide a contingent liquidity reserve of € 20.1 billion as at 31 December 2022 (2021: € 16.9 billion). This increase is attributed mainly to: i) a large inflow of customer deposits (annual increase by € 4 billion) and ii) new own debt issuances (annual increase by € 1.1 billion). In addition, the Group holds other types of liquid assets, as defined by the regulator, amounting to € 7.5 billion (cash value) (2021: € 7.5 billion). It should be noted that a part of the ECB available collateral of € 3.8 billion (cash value) (2021: € 1.3 billion) is held by Group's subsidiaries for which temporary local regulatory restrictions are applied and currently limit the level of its transferability between group entities.

Maturity analysis of liabilities

The amounts disclosed in the tables below are the contractual undiscounted cash flows for the years 2022 and 2021. Liabilities without contractual maturities (sight and saving deposits) are presented in the 'less than 1 month' time bucket. The Group has established credit risk mitigation contracts with its interbank counterparties (ISDA/CSA). Due to these contracts the Group has already posted collateral which covers the valuation of its net liabilities from interbank derivatives. For derivative liabilities not covered by ISDA/CSA agreements the negative valuation is presented at fair value in the 'less than 1 month' time bucket.

It should be noted that this table represents the worst case scenario since it is based on the assumption that all liabilities will be paid at maturity and they will not be rolled over (e.g. all term deposits are withdrawn at their contractual maturity). The recent experience shows that even in a period of a systemic financial crisis the likelihood of such an event is remote.

	31 December 2022				
	Less than 1 month € million	1 - 3 months € million	3 months to 1 year € million	Over 1 year € million	Gross nominal (inflow)/ outflow € million
Non-derivative liabilities:					
- Due to central banks and credit institutions	996	812	4,815	4,379	11,002
- Due to customers	49,755	3,220	4,038	250	57,263
- Debt securities in issue	37	7	141	4,395	4,580
- Lease liabilities	3	6	28	192	229
- Other liabilities	863	416	217	-	1,496
- Liabilities of disposal group classified as held for sale (note 30)	-	-	1	-	1
	51,654	4,461	9,240	9,216	74,571
Derivative financial instruments	25	-	-	-	25

Off-balance sheet items

	Less than 1 year € million	Over 1 year € million
Credit related commitments	4,898	5,573
Contractual commitments[1]	46	-
Total	4,944	5,573

	31 December 2021				
	Less than 1 month € million	1 - 3 months € million	3 months to 1 year € million	Over 1 year € million	Gross nominal (inflow)/ outflow € million
Non-derivative liabilities:					
- Due to central banks and credit institutions	442	23	2,756	9,301	12,522
- Due to customers	44,934	3,661	4,386	195	53,176
- Debt securities in issue	31	1	60	2,737	2,829
- Lease liabilities	3	6	27	221	257
- Other liabilities	416	456	239	-	1,111
- Liabilities of disposal group classified as held for sale	-	-	109	-	109
	45,826	4,147	7,577	12,454	70,004
Derivative financial instruments	16	-	-	-	16

Off-balance sheet items

	Less than 1 year € million	Over 1 year € million
Credit related commitments	1,757	5,084
Contractual commitments[(1)]	43	-
Total	1,800	5,084

[(1)] It refers to contractual commitments for the purchase of own used and investment property and intangible assets (note 42).

5.2.4 Interest Rate Benchmark reform – IBOR reform

During 2022, the Group's IBOR transition program managed successfully the transition of IBOR rates that ceased after 31 December 2021 (CHF, GBP, JPY, 1W and 2M USD and EUR Libor) to the new risk-free rates (RFRs).

In particular, the Group's financial instruments, referencing the abovementioned IBOR rates, have transitioned to the new RFRs on their first repricing date within 2022 for loan and deposit contracts and through the activation of fallback clauses for derivatives. Currently, the Group focuses on the exposures referencing the remaining USD LIBOR tenors ahead of 30 June 2023 scheduled cessation date.

As at 31 December 2022, the Group's exposures subject to transition to the new RFRs that mature after the IBORs' cessation dates specified above are presented in the below table:

	31 December 2022
	Benchmark rates Impacted by IBOR reform
	USD LIBOR [(4)]
	€ million
Non-derivative financial assets [(1)]	
Loans & Advances to customers	1,943
	1,943
Non-derivative financial liabilities [(2)]	
Due to customers	29
	29
Derivative financial instruments [(3)]	
Derivatives designated in hedges	309
Trading derivatives	1,892
	2,201

[(1)] Balances provided are the gross carrying amounts (excl. ECL).

[(2)] Balances provided are at amortized cost

[(3)] Balances provided are the notional amounts.

[(4)] Excluding exposures to USD LIBORs that have a contractual maturity date before their planned cessation date.

5.2.5 Climate-related risk

The Group has recognized climate change as a material risk and based on supervisory guidelines, is adapting its policies and methodologies for identifying and monitoring the relevant risks.

Specifically, climate risk is the risk deriving from potential loss or negative impact to the Group, including loss/damage to physical assets, disruption of business or system failures, from the adverse effects of climate change and natural disasters.

Climate-related and environmental risks are commonly understood to include the following risks:

- Physical risk, which refers to the financial impact of a changing climate, including more frequent extreme weather events and gradual changes in climate, as well as of environmental degradation, such as air, water and land pollution, water stress, biodiversity loss and deforestation.
- Transition risk, which refers to an institution's financial loss that can result, directly or indirectly, from the process of adjustment towards a lower- carbon and more environmentally sustainable economy.

The Group is adopting a strategic approach towards sustainability, climate change risk identification and risk management, signifying the great importance that is given in the risks and opportunities arising from the transitioning to a low-carbon and more circular economy. In this context, the Bank is in the process of finalizing its Financed Impact Strategy, which will focus on:

- Clients' engagement and awareness to adapt their business so as to address climate change challenges
- Actions for supporting customers in their transition efforts towards a more ESG-friendly economic environment
- Enablers and tools such as frameworks and products to underpin Sustainable Financing
- The risk assessment of climate-related material exposures

In line with good practices identified by the ECB, the Financed Impact Strategy of the Bank will focus on sustainable financing targets / commitments. In particular, the Bank identified total portfolio and sectoral targets with regards to financing the green transition of its clients. To facilitate the classification of sustainable/green financing opportunities in a structural manner, the Bank has developed its Sustainable Finance Framework (SFF). Through its SFF, the Bank classifies sustainable lending solutions offered to its customers, specifying the applied classification approach and the activities defined as eligible to access sustainable financing (eligible green and social assets). Similar initiatives for the establishment of SFF framework is under way in the subsidiaries.

Furthermore, the Group has updated its governance structure by introducing and defining the roles and responsibilities in relation to climate related & environmental (CR&E) risks, embedding regulatory guidelines and market practices.

The CR&E Risk Governance involves various key stakeholders (i.e. Business functions, Units, and Committees). The Group applies a model of defined roles and responsibilities regarding the management of CR&E risks across the 3 Lines of Defense.

The Group Climate Risk Division (GCRD) has the overall responsibility for overseeing, monitoring, and managing CR&E risks. Specifically, the GCRD operates as Project office responsible for the implementation of the Climate related and Environmental risks roadmap, with a coordinating and supervisory role on all related project streams to ensure alignment with the Bank's business strategy and the regulatory authorities' expectations. In this context, GCRD ensures the implementation of environmental and sustainability initiatives (frameworks, policies, procedures and products) and compliance with existing and upcoming sustainability-related regulations, under an ongoing bank-wide program, in alignment with the supervisory agreed roadmap, which is accelerated where possible. Also, GCRD is responsible for the co-ordination with Business and Risk Units, the preparation and submission for approval of the Financed Impact Strategy, as well as monitors its implementation. Furthermore, the GCRD leads the 2nd Line of Defense independent sustainable lending re-assessment process. Specifically, in the context of implementing the approved Sustainable Finance Framework (SFF), the Division is responsible to assess the sustainability features of new loans and products according to the criteria set within the SFF.

Climate risk stress test

The Group participated in the European Central Bank's (ECB) supervisory climate risk stress test, which was conducted in the first half of 2022. The 2022 climate risk stress test assessed how well banks are set up to deal with climate-related risks. A total of 104 significant banks participated in the test consisting of three modules, in which banks provided information on their: (i) own climate stress-testing capabilities, (ii) reliance on carbon-emitting sectors, and (iii) performance under different scenarios over several time horizons.

The test, which was part of the ECB's wider climate roadmap, was not a capital adequacy exercise but rather a learning one for banks and supervisors alike, aiming at identifying vulnerabilities and best practices and providing guidance to banks for the green transition. In this context, the Group has successfully completed the 2022 climate risk stress test exercise.

In July 2022, the European Central Bank (ECB) published the climate risk stress test aggregated results, showing that banks must improve their focus on climate risk. Furthermore, all participating entities, including the Group, received individual feedback and are expected to take action accordingly, in line with the set of good practices for climate-related and environmental risk management that the ECB published in November 2022, along with the good practices for climate stress testing published in December 2022. The results showed that the Group has made significant progress in incorporating a climate risk stress testing framework, with an overall performance in line with the average score of European Banks. The Group continues to work in order to implement its climate risk action plan, to further integrate climate risks into its business strategy and risk management practices, and to support its clients towards climate transition and sustainable business growth.

5.3 Fair value of financial assets and liabilities

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 (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price). When a quoted price for an identical asset or liability is not observable, fair value is measured using another valuation technique that is appropriate in the circumstances and maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. Observable inputs are developed using market data, such as publicly available information about actual events or transactions, and reflect assumptions that market participants would use when pricing financial instruments, such as quoted prices in active markets for similar instruments, interest rates and yield curves, implied volatilities and credit spreads.

The Group's financial instruments measured at fair value or at amortized cost for which fair value is disclosed are categorized into the three levels of the fair value hierarchy based on whether the inputs to the fair values are observable or unobservable, as follows:

(a) Level 1-Financial instruments measured based on quoted prices (unadjusted) in active markets for identical financial instruments that the Group can access at the measurement date. A market is considered active when quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency and represent actually and regularly occurring transactions. Level 1 financial instruments include actively quoted debt instruments held or issued by the

Group, equity and derivative instruments traded on exchanges, as well as mutual funds that have regularly and frequently published quotes.

(b) Level 2-Financial instruments measured using valuation techniques with inputs, other than level 1 quoted prices, that are observable either directly or indirectly, such as: i) quoted prices for similar financial instruments in active markets, ii) quoted prices for identical or similar financial instruments in markets that are not active, iii) inputs other than quoted prices that are directly or indirectly observable, mainly interest rates and yield curves observable at commonly quoted intervals, forward exchange rates, equity prices, credit spreads and implied volatilities obtained from internationally recognized market data providers and iv) other unobservable inputs which are insignificant to the entire fair value measurement. Level 2 financial instruments include over the counter (OTC) derivatives, less liquid debt instruments held or issued by the Group and equity instruments.

(c) Level 3-Financial instruments measured using valuation techniques with significant unobservable inputs. When developing unobservable inputs, best information available is used, including own data, while at the same time market participants' assumptions are reflected (e.g. assumptions about risk). Level 3 financial instruments include unquoted equities or equities traded in markets that are not considered active, certain OTC derivatives, loans and advances to customers including securitized notes of loan portfolios originated by the Group and recognized in financial assets and certain debt securities held or issued by the Group.

Financial instruments carried at fair value

The fair value hierarchy categorization of the Group's financial assets and liabilities measured at fair value is presented in the following tables:

	31 December 2022			
	Level 1 € million	Level 2 € million	Level 3 € million	Total € million
Securities held for trading	134	-	-	134
Investment securities at FVTPL	93	15	133	241
Derivative financial instruments[1]	1	1,178	6	1,185
Investment securities at FVOCI	3,600	228	-	3,828
Loans and advances to customers mandatorily at FVTPL	-	-	16	16
Financial assets measured at fair value	**3,828**	**1,421**	**155**	**5,404**
Derivative financial instruments[1]	1	1,660	-	1,661
Trading liabilities	419	-	-	419
Financial liabilities measured at fair value	**420**	**1,660**	**-**	**2,080**

	31 December 2021			
	Level 1 € million	Level 2 € million	Level 3 € million	Total € million
Securities held for trading	119	-	-	119
Investment securities at FVTPL	78	16	47	141
Derivative financial instruments	0	1,949	0	1,949
Investment securities at FVOCI	6,212	297	-	6,509
Loans and advances to customers mandatorily at FVTPL	-	-	23	23
Financial assets measured at fair value	6,409	2,262	70	8,741
Derivative financial instruments	1	2,393	-	2,394
Trading liabilities	43	-	-	43
Financial liabilities measured at fair value	44	2,393	-	2,437

[(1)] Amounts are after offsetting € 1,376 million and € 444 million level 2 derivative financial assets and liabilities, respectively, against cash collateral received (note 5.2.1.4).

The Group recognizes transfers into and out of the fair value hierarchy levels at the beginning of the quarter in which a financial instrument's transfer was effected. During the year ended 31 December 2022, the Group transferred OTC derivative instruments of € 9 million from Level 2 to Level 3 following the assessment on the significance of the CVA adjustment to their entire fair value measurement, calculated based on internal rating models.

Reconciliation of Level 3 fair value measurements

	2022 **€ million**	2021 € million
Balance at 1 January	**70**	86
Transfers into Level 3	**9**	0
Transfers out of Level 3	**(0)**	(0)
Additions, net of disposals and redemptions (note 24) [(1)]	**87**	(18)
Total gain/(loss) for the year included in profit or loss	**(11)**	3
Foreign exchange differences and other	**0**	(1)
Balance at 31 December	**155**	70

[(1)] Including capital returns on equity instruments.

Group's valuation processes and techniques

The Group's processes and procedures governing the fair valuations are established by the Group Market Counterparty Risk Sector in line with the Group's accounting policies. The Group uses widely recognized valuation models for determining the fair value of common financial instruments that are not quoted in an active market, such as interest and cross currency swaps, that use only observable market data and require little management estimation and judgment. Specifically, observable prices or model inputs are usually available in the market for listed debt and equity securities, exchange-traded and simple over-the-counter derivatives. Availability of observable market prices and model inputs reduces the need for management judgment and estimation and also reduces the uncertainty associated with determining fair values.

Where valuation techniques are used to determine the fair values of financial instruments that are not quoted in an active market, they are validated against historical data and, where possible, against current or recent observed transactions in different instruments, and periodically reviewed by qualified personnel independent of the personnel that created them. All models are certified before they are used and models are calibrated to ensure that outputs reflect actual data and comparative market prices. Fair values' estimates obtained from models are adjusted for any other factors, such as liquidity risk or model uncertainties, to the extent that market participants would take them into account in pricing the instrument. Fair values also reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group entity and the counterparty, where appropriate.

Valuation controls applied by the Group may include verification of observable pricing, re-performance of model valuations, review and approval process for new models and/or changes to models, calibration and back-testing against observable market transactions, where available, analysis of significant valuation movements, etc. Where third parties' valuations are used for fair value measurement, these are reviewed in order to ensure compliance with the requirements of IFRS 13.

The fair values of OTC derivative financial instruments are estimated by discounting expected cash flows using market interest rates at the measurement date. Counterparty credit risk adjustments and own credit risk adjustments are applied to OTC derivatives, where appropriate. Bilateral credit risk adjustments consider the expected cash flows between the Group and its counterparties under the relevant terms of the derivative instruments and the effect of the credit risk on the valuation of these cash flows. As appropriate in circumstances, the Group considers also the effect of any credit risk mitigating arrangements, including collateral agreements and master netting agreements on the calculation of credit risk valuation adjustments (CVAs). CVA calculation uses probabilities of default (PDs) based on observable market data such as credit default swaps (CDS) spreads, where appropriate, or based on internal rating models. The Group applies similar methodology for the calculation of debit-value-adjustments (DVAs), when applicable. Where valuation techniques are based on internal rating models and the relevant CVA is significant to the entire fair value measurement, such derivative instruments are categorized as Level 3 in the fair value hierarchy. A reasonably possible change in the main unobservable input (i.e. the recovery rate), used in their valuation, would not have a significant effect on their fair value measurement.

The Group determines fair values for debt securities held using quoted market prices in active markets for securities with similar credit risk, maturity and yield, quoted market prices in non active markets for identical or similar financial instruments, or using discounted cash flows method.

Unquoted equity instruments at FVTPL under IFRS 9 are estimated mainly (i) using third parties' valuation reports based on investees' net assets, where management does not perform any further significant adjustments, and (ii) net assets' valuations, adjusted where considered necessary.

Loans and advances to customers including securitized notes of loan portfolios originated by the Group with contractual cash flows that do not represent solely payments of principal and interest (SPPI failures), are measured mandatorily at fair value through profit or loss. Quoted market prices are not available as there are no active markets where these instruments are traded. Their fair values are estimated on an individual loan basis by discounting the future expected cash flows over the time period they are expected to be recovered, using an appropriate discount rate or by reference to other comparable assets of the same type that have been transacted during a recent time period. Expected cash flows, which incorporate credit risk, represent significant unobservable input in the valuation and as such, the entire fair value measurement is categorized as Level 3 in the fair value hierarchy.

Financial instruments not measured at fair value

The fair value hierarchy categorization of the Group's financial assets and liabilities not measured at fair value on the balance sheet, is presented in the following tables:

	31 December 2022				
	Level 1 € million	Level 2 € million	Level 3 € million	Fair value € million	Carrying amount € million
Loans and advances to customers	-	-	41,767	41,767	41,661
Investment securities at amortised cost	6,185	699	1,271	8,155	9,192
Financial assets not measured at fair value	**6,185**	**699**	**43,038**	**49,922**	**50,853**
Debt securities in issue	1,343	1,503	553	3,399	3,552
Financial liabilities not measured at fair value	**1,343**	**1,503**	**553**	**3,399**	**3,552**

	31 December 2021				
	Level 1 € million	Level 2 € million	Level 3 € million	Fair value € million	Carrying amount € million
Loans and advances to customers	-	-	38,369	38,369	38,943
Investment securities at amortised cost	2,824	1,489	-	4,313	4,666
Financial assets not measured at fair value	2,824	1,489	38,369	42,682	43,609
Debt securities in issue	962	1,028	549	2,539	2,552
Financial liabilities not measured at fair value	962	1,028	549	2,539	2,552

The assumptions and methodologies underlying the calculation of fair values of financial instruments not measured at fair value, are in line with those used to calculate the fair values for financial instruments measured at fair value. Particularly:

(a) Loans and advances to customers including securitized notes of loan portfolios originated by the Group: quoted market prices are not available as there are no active markets where these instruments are traded. The fair values are estimated by discounting future expected cash flows over the time period they are expected to be recovered, using appropriate risk-adjusted rates. Loans are grouped into homogenous assets with similar characteristics, as monitored by Management, such as product, borrower type and delinquency status, in order to improve the accuracy of the estimated valuation outputs. In estimating future cash flows, the Group makes assumptions on expected prepayments, product spreads and timing of collateral realization. The discount rates for loans to customers incorporate inputs for expected credit losses and interest rates, as appropriate;

(b) Investment securities measured at amortized cost: the fair values are determined using prices quoted in an active market when these are available. In other cases, fair values are determined using quoted market prices for securities with similar credit risk, maturity and yield, quoted market prices in non active markets for identical or similar financial instruments, or by using the discounted cash flows method. In addition, for certain high quality corporate bonds for which quoted prices are not available, fair value is determined using prices that are derived from reliable data management platforms while part of them is verified by market participants (e.g. brokers). In certain cases, prices are implied by liquidity agreements (e.g. repos, pledges) with other financial institutions; and

(c) Debt securities in issue: the fair values are determined using quoted market prices, if available. If quoted prices are not available, fair values are determined based on third party valuations, quotes for similar debt securities or by discounting the expected cash flows at a risk-adjusted rate, where the Group's own credit risk is determined using inputs indirectly observable, i.e. quoted prices of similar securities issued by the Group or other Greek issuers.

For other financial instruments, which are short term or re-price at frequent intervals (cash and balances with central banks, due from credit institutions, due to central banks, due to credit institutions and due to customers), the carrying amounts represent reasonable approximations of fair values.

6. Net interest income

	2022 € million	2021 € million
Interest income		
Customers	**1,394**	1,234
- measured at amortised cost	*1,393*	*1,232*
- measured at FVTPL	*1*	*2*
Banks and other assets(1)(3)	**75**	11
Securities	**258**	151
- measured at amortised cost	*141*	*39*
- measured at FVOCI	*107*	*109*
- measured at FVTPL	*10*	*3*
Derivatives (hedge accounting)	**94**	40
Derivatives (no hedge accounting)	**494**	406
	2,315	1,842
Interest expense		
Customers (1)	**(93)**	(50)
Banks (1)(2)(3)	**(2)**	35
Debt securities in issue (1)	**(118)**	(83)
Derivatives (hedge accounting)	**(89)**	(58)
Derivatives (no hedge accounting)	**(460)**	(362)
Lease liabilities - IFRS 16	**(3)**	(3)
	(765)	(521)
Total	**1,550**	1,321

(1) Measured at amortized cost.

(2) For the year 2022, it includes net income of € 53 million that is attributable to the targeted longer-term refinancing operations (TLTRO III) of the European Central Bank (ECB) (2021: € 91 million) (note 31).

(3) Interest from financial assets with negative rates, which were applied in 2021 and until June of 2022, was recorded in interest expense.

In 2022, the net interest income rose by 17.4% to € 1,550 million, mainly driven by higher interest rates, the organic loans growth and the increased income from investment bonds partly offset by higher debt issued and deposits cost.

Interest income recognized by quality of Loans and Advances and Product Line is further analyzed below:

	31 December 2022		
	Interest income on non-impaired loans and advances € million	Interest income on impaired loans and advances € million	Total € million
Retail lending	**634**	**27**	**661**
Wholesale lending(1)	**699**	**34**	**733**
Total interest income from customers	**1,333**	**61**	**1,394**

	31 December 2021		
	Interest income on non-impaired loans and advances € million	Interest income on impaired loans and advances € million	Total € million
Retail lending	570	65	635
Wholesale lending[1]	551	48	599
Total interest income from customers	1,121	113	1,234

[1] Including interest income on loans and advances to Public Sector.

7. Net banking fee and commission income

The following tables include net banking fees and commission income from contracts with customers in the scope of IFRS 15, disaggregated by major type of services and operating segments (note 43).

	31 December 2022					
	Retail € million	**Corporate € million**	**Global Markets & Asset Mngt € million**	**International € million**	**Other and Elimination center € million**	**Total € million**
Lending related activities	**9**	**98**	**14**	**19**	**(0)**	**139**
Mutual funds and assets under management	**13**	**1**	**41**	**11**	**5**	**71**
Network activities and other[1]	**70**	**7**	**31**	**105**	**(1)**	**213**
Capital markets	**-**	**9**	**13**	**6**	**(3)**	**26**
Total	**92**	**115**	**99**	**141**	**1**	**449**

	31 December 2021					
	Retail € million	Corporate € million	Global Markets & Asset Mngt € million	International € million	Other and Elimination center € million	Total € million
Lending related activities	9	62	10	12	(0)	93
Mutual funds and assets under management	16	1	40	9	7	73
Network activities and other [1]	55	6	24	91	(7)	168
Capital markets	-	6	14	5	(2)	24
Total	80	75	88	117	(3)	358

[1] Including income from credit cards related services.

8. Income from non banking services

Income from non banking services includes rental income of € 92.4 million (2021: € 95.9 million) from real estate properties and other income of € 2.0 million (2021: € 1.9 million) from IT services provided by the Group entities.

9. Net trading income and gains less losses from investment securities

	2022 € million	2021 € million
Net trading income/(loss)		
Debt securities, including short positions	**98**	(2)
Derivative financial instruments (note 19)	**628**	(29)
Equity securities	**(1)**	3
Revaluation on foreign exchange positions	**2**	20
Total	**727**	(8)
Gains less losses from investment securities		
Debt securities measured at FVOCI [1]	**(26)**	93
Equity securities	**17**	8
Total	**(9)**	101

[1] It includes termination fees from related derivatives amounting to € 4 million income (2021: € 6 million loss).

Trading results of € 98 million income related to debt securities include € 9 million loss (2021: € 3 million loss) from trading securities and € 107 million gain on short positions on debt instruments entered into the context of the Group's economic hedging strategies (note 35).

Gains from derivative financial instruments of € 628 million comprise mainly a) € 390 million realized gains from unwinding of interest rate swaps in the context of the updated Group's hedging strategy, b) € 160 million realised gains from unwinding of interest rate swaps following the mandatory discontinuance of certain hedge accounting relationships and c) € 70 million gains from portfolio hedging of interest rate risk (macro hedging), of which € 20 million arising from hedge ineffectiveness and € 50 million from fair value changes of the hedging derivatives that occur as part of the dynamic management of the pool of hedging instruments on a monthly basis, and include their fair value changes before initial designation or after de-designation (notes 2.2.3i and 19).

10. Other income/ (expenses)

	2022 € million	2021 € million
Gain/(loss) from change in fair value of investment property (note 27)[1]	**34**	32
Sale of merchant acquiring business - Project Triangle (note 30)	**325**	-
Derecognition gain/(loss) on loans measured at amortised cost (note 20)	**2**	(3)
Fee expense related to the deferred tax credits (note 13)	**(6)**	(6)
Gain/ (loss) on the disposal/liquidation of subsidiaries and associates (notes 23 and 24)	**(34)**	1
Dividend income	**2**	2
Gains/(losses) on loans at FVTPL	**3**	1
Other	**(2)**	3
Total	**324**	30

[1] It includes ca € 2 million gain from remeasurement of real estate property transferred to investment property from repossessed assets in 2022. In 2021, it includes € 1.7 million gain related to the remeasurement of the interest held in the Group's former joint venture Value Touristiki S.A. (note 23.1).

11. Operating expenses

	2022 € million	2021 € million
Staff costs	**(447)**	(434)
Administrative expenses	**(272)**	(253)
Contributions to resolution and deposit guarantee funds	**(74)**	(75)
Depreciation of real estate properties and equipment	**(46)**	(40)
Depreciation of right of use assets	**(40)**	(38)
Amortisation of intangible assets	**(38)**	(36)
Total	**(917)**	(876)

For the year ended 31 December 2022, the amount of operating expenses (excluding any contribution to a deposit guarantee or resolution fund) for the Group's Greek activities was € 590 million (2021: € 583 million).

Contributions to resolution and deposit guarantee funds

In 2016, the Single Resolution Mechanism (SRM), which is one of the pillars of the Banking Union in the euro area alongside the Single Supervisory Mechanism (SSM), became fully operational. The Single Resolution Fund (SRF) was established by the SRM Regulation (EU) No 806/2014 in order to ensure uniform practice in the financing of resolutions within the SRM and it is owned by the Single Resolution Board (SRB). The SRM provides that the SRF will be built up over a period of eight years with 'ex-ante' contributions from the banking industry, which may include irrevocable payment commitments as a part of the total amount of contributions (note 42).

Staff costs

	2022 € million	2021 € million
Wages, salaries and performance remuneration	**(335)**	(326)
Social security costs	**(50)**	(51)
Additional pension and other post employment costs	**(18)**	(17)
Other	**(44)**	(40)
Total	**(447)**	(434)

The average number of employees of the Group during the year was 11,615 (2021: 11,495). As at 31 December 2022, the number of branches and business/private banking centers of the Group amounted to 616 (2021: 668).

12. Other impairments, restructuring costs and provisions

	2022 € million	2021 € million
Impairment and valuation losses on real estate properties	**(15)**	(17)
Impairment losses on bonds (note 5.2.1.3)	**(21)**	(4)
Other impairment losses and provisions	**(72)**	(31)
Other impairment losses and provisions	**(108)**	(52)
Voluntary exit schemes and other related costs (note 35)	**(60)**	(10)
Other restructuring costs	**(42)**	(15)
Restructuring costs	**(102)**	(25)
Total	**(210)**	(77)

For the year ended 31 December 2022, the Group recognized € 72 million (2021: € 31 million) other impairment losses and provisions, of which € 49 million relate to impairment losses for receivables and provisions on litigations and other operational risk events (2021: € 14 million), and € 23 million relate mainly to impairment losses on computer hardware and software (2021: € 16 million) (notes 26 and 28).

Furthermore, for the year ended 31 December 2022, the Group recognized € 42 million restructuring costs (2021: € 15 million), of which € 14 million relate to the merger of Eurobank a.d. Beograd with Direktna Banka a.d. and the integration initiatives thereafter (2021: € 5 million), while the remaining costs for both periods mainly relate to the Group's transformation projects and initiatives.

13. Income tax

	2022 € million	2021 € million
Current tax	**(45)**	(40)
Deferred tax	**(360)**	(116)
Total income tax	**(405)**	(156)

According to Law 4172/2013 currently in force, the nominal Greek corporate tax rate for credit institutions that fall under the requirements of article 27A of Law 4172/2013 regarding eligible DTAs/deferred tax credits (DTCs) against the Greek State is 29%. The Greek corporate tax rate for legal entities other than the aforementioned credit institutions is 22%. In addition, the withholding tax rate for dividends distributed, other than intragroup dividends, is 5%. In particular, the intragroup dividends under certain preconditions are relieved from both income and withholding tax.

The nominal corporate tax rates applicable in the banking subsidiaries incorporated in the international segment of the Group (note 43) are as follows: Bulgaria 10%, Serbia 15%, Cyprus 12.5% and Luxembourg 24.94%.

Tax certificate and open tax years

The Company and its subsidiaries, associates and joint ventures, which operate in Greece (notes 23 and 24) have in principle up to 6 open tax years. For fiscal years starting from 1 January 2016 onwards, pursuant to the Tax Procedure Code, an 'Annual Tax Certificate' on an optional basis, is provided for the Greek entities, with annual financial statements audited compulsorily, which is issued after a tax audit is performed by the same statutory auditor or audit firm that audits the annual financial statements. The Company and, as a general rule, the Group's Greek companies have opted to obtain such certificate.

Following the completion in 2022, of the tax audit of the Company by the tax authorities for the tax year 2016, its open tax years are 2017-2022, while the Bank's open tax years are 2020 - 2022. The tax certificates of the Company, the Bank and the other Group's entities, which operate in Greece, are unqualified for their open tax years until 2021. In addition, for the year ended 31 December 2022, the tax audits from external auditors are in progress.

In accordance with the Greek tax legislation and the respective Ministerial Decisions issued, additional taxes and penalties may be imposed by the Greek tax authorities following a tax audit within the applicable statute of limitations (i.e. in principle five years as from the end of the fiscal year within which the relevant tax return should have been submitted), irrespective of whether an unqualified tax certificate has been obtained from the tax paying company. In light of the above, as a general rule, the right of the Greek State to impose taxes up to tax year 2016 (included) has been time-barred for the Group's Greek entities as at 31 December 2022.

The open tax years of the foreign banking entities of the Group are as follows: (a) Eurobank Cyprus Ltd, 2018-2022, (b) Eurobank Bulgaria A.D., 2017-2022, (c) Eurobank Direktna a.d. (Serbia), 2017-2022, and (d) Eurobank Private Bank Luxembourg S.A., 2018-2022. The remaining foreign entities of the Group (notes 23 and 24), which operate in countries where a statutory tax audit is explicitly stipulated by law, have in principle up to 6 open tax years, subject to certain preconditions of the applicable tax legislation of each jurisdiction.

In reference to its total uncertain tax positions, the Group assesses all relevant developments (e.g. legislative changes, case law, ad hoc tax/legal opinions, administrative practices) and raises adequate provisions.

Deferred tax

Deferred tax is calculated on all deductible temporary differences under the liability method as well as for unused tax losses at the rate in effect at the time the reversal is expected to take place.

The net deferred tax is analyzed as follows:

	2022 € million	2021 € million
Deferred tax assets	**4,161**	4,422
Deferred tax liabilities	**(31)**	(26)
Net deferred tax	**4,130**	4,396

The movement on deferred tax is as follows:

	2022 € million	2021 € million
Balance at 1 January	**4,396**	4,498
Income statement credit/(charge)	**(360)**	(116)
Investment securities at FVOCI	**96**	30
Cash flow hedges	**(0)**	(15)
Actuarial gains/(losses)	**(1)**	-
Other	**(1)**	(1)
Balance at 31 December	**4,130**	4,396

Deferred income tax (charge)/credit is attributable to the following items:

	2022 € million	2021 € million
Impairment/ valuation relating to loans, disposals and write-offs	**(128)**	13
Unused tax losses	**(0)**	(1)
Tax deductible PSI+ losses	**(50)**	(50)
Carried forward debit difference of law 4831/2021	**(73)**	73
Change in fair value and other temporary differences	**(109)**	(151)
Deferred income tax (charge)/credit	**(360)**	(116)

Deferred tax assets/(liabilities) are attributable to the following items:

	2022 € million	2021 € million
Impairment/ valuation relating to loans and accounting write-offs	**1,030**	1,034
PSI+ tax related losses	**951**	1,001
Losses from disposals and crystallized write-offs of loans	**2,242**	2,365
Carried forward debit difference of law 4831/2021(1)	**-**	73
Other impairments/ valuations through the income statement	**(120)**	(38)
Cash flow hedges	**5**	5
Defined benefit obligations	**5**	6
Real estate properties, equipment and intangible assets	**(78)**	(61)
Investment securities at FVOCI	**(15)**	(112)
Other(2)	**110**	123
Net deferred tax	**4,130**	4,396

(1) The unutilized part, as at 31 December 2021, of the carried forward crystallized tax losses of loans, in accordance with the law 4831/2021 (see below), was offset against taxable profit for the year ended 31 December 2022.

(2) It includes, among others, DTA on deductible temporary differences relating to operational risk provisions and the leasing operations.

Further information, in relation to the aforementioned categories of deferred tax assets as at 31 December 2022, is as follows:

(a) € 1,030 million refer to deductible temporary differences arising from impairment/valuation relating to loans including the accounting debt write-offs according to the Greek tax law 4172/2013, as in force. These temporary differences can be utilized in future periods with no specified time limit and according to current tax legislation of each jurisdiction;

(b) € 951 million refer to losses resulted from the Group's participation in PSI+ and the Greek's state debt buyback program which are subject to amortization for tax purposes over a thirty-year period, i.e. 1/30 of losses per year starting from year 2012 onwards (see below – DTCs section);

(c) € 2,242 million refer to the unamortized part of the crystallized tax losses arising from write-offs and disposals of loans, which are subject to amortization over a twenty-year period;

Assessment of the recoverability of deferred tax assets

The recognition of the deferred tax assets is based on management's assessment that the Group's legal entities will have sufficient future taxable profits, against which the deductible temporary differences and the unused tax losses can be utilized. The deferred tax assets are determined on the basis of the tax treatment of each deferred tax asset category, as provided by the applicable tax legislation of each jurisdiction and the eligibility of carried forward losses for offsetting with future taxable profits. Additionally, the Group's assessment on the recoverability of recognized deferred tax assets is based on (a) the future performance expectations (projections of operating results) and growth opportunities relevant for determining the expected future taxable profits, (b) the expected timing of reversal of the deductible and taxable temporary differences, (c) the probability that the Group entities will have sufficient taxable profits in the future, in the same period as the reversal of the deductible and taxable temporary differences or in the years into which the tax losses can be carried forward, and (d) the historical levels of Group entities' performance in combination with the previous years' tax losses caused by one off or non-recurring events.

In particular, as of 31 December 2022, the deferred tax asset (DTA) recoverability assessment has been based on the three-year Business Plan that was approved by the Board of Directors in December 2022, for the period up to the end of 2025, and was submitted to the Single Supervisory Mechanism (SSM). For the years beyond 2025, the forecast of operating results was based on the management projections considering the growth opportunities of the Greek economy, the banking sector and the Group itself. Specifically, the management projections for the Group's future profitability adopted in the Business Plan, have considered, among others, (a) the interest rates' increase, (b) the sustainable increase in loan volumes and the growth, at a relatively lower pace, of customer deposits, (c) the increase in fee and commission income mostly driven by assets under management, bancassurance, network and lending related activities, cards' issuing and investment property rentals, (d) the discipline to operating expenses' targets, (e) the further decrease of NPE ratio in line with the NPE Management Strategy submitted to SSM (note 5.2), (f) the cost of risk, which is expected to carry the effect from the macroeconomic uncertainty and the inflationary pressures' impact on households' disposable income and (g) the fulfilment of interim MREL targets throughout the plan period. The major initiatives introduced in the context of the Group's transformation plan "Eurobank 2030", will contribute to meeting its financial objectives.

The Group closely monitors and constantly assesses the developments on the macroeconomic and geopolitical front (note 2) including the inflationary pressures and their potential effect on the achievement of its Business Plan targets in terms of asset quality and profitability and will continue to update its estimates accordingly.

Deferred tax credit against the Greek State and tax regime for loan losses

As at 31 December 2022, pursuant to the Law 4172/2013, as in force, the Bank's eligible DTAs/deferred tax credits (DTCs) against the Greek State amounted to € 3,402 million (31 December 2021: € 3,547 million). The DTCs are accounted for on: (a) the unamortised losses from the Private Sector Involvement (PSI) and the Greek State Debt Buyback Program, which are subject to amortisation over a thirty-year period and (b) on the sum of (i) the unamortized part of the DTC eligible crystallized tax losses arising from write-offs and disposals of loans, which are subject to amortization over a twenty-year period, (ii) the accounting debt write-offs and (iii) the remaining accumulated provisions and other losses in general due to credit risk recorded up to 30 June 2015. The DTCs will be converted into directly enforceable claims (tax credit) against the Greek State provided that the Bank's after tax accounting result for the year is a loss.

According to the Law 4831/2021 (article 125), which amended Law 4172/2013, the amortization of the PSI tax related losses is deducted from the taxable income at a priority over that of the crystallized tax losses (debit difference) arising from write-offs and disposals of loans. In addition, the amount of the annual tax amortization of the above crystallized tax losses is limited to the amount of the annual taxable profits, calculated before the deduction of such losses and following the annual tax deduction of the PSI tax related losses. The unutilized part of the annual tax amortization of the crystallized loan losses can be carried forward for offsetting over a period of 20 years. If at the end of the 20-year utilization period, there are balances that have not been offset, these will qualify as a tax loss, which is subject to the 5-year statute of limitation. The above provisions apply as of 1 January 2021 and cover the crystallized tax losses that have arisen from write-offs and disposals of loans as of 1 January 2016 onwards.

Taking into account the tax regime in force, the recovery of the Bank's deferred tax asset recorded on loans and advances to customers and the regulatory capital structure are further safeguarded, contributing substantially to the achievement of NPE management targets through write-offs and disposals, in line with the regulatory framework and SSM requirements.

According to tax Law 4172/2013 as in force, an annual fee of 1.5% is imposed on the excess amount of deferred tax assets guaranteed by the Greek State, stemming from the difference between the current tax rate for the eligible credit institutions (i.e. 29%) and the tax rate applicable on 30 June 2015 (i.e. 26%). For the year ended 31 December 2022, an amount of € 5.9 million has been recognized in "Other income/(expenses)".

Income tax reconciliation and unused tax losses

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the applicable tax rates as follows:

	2022 € million	2021 € million
Profit/(loss) before tax	**1,735**	483
Tax at the applicable tax rate	**(503)**	(140)
Tax effect of:		
- income not subject to tax and non deductible expenses	**1**	(5)
- effect of different tax rates in different countries	**44**	30
- change in applicable tax rate	**-**	1
- other	**53**	(42)
Total income tax	**(405)**	(156)

As at 31 December 2022, the Company and the Bank have not recognised deferred tax asset (DTA) on unused tax losses amounting to € 470 million (2021: € 517 million). In particular, a part of the Bank's carried forward tax losses was offset against the taxable profit for the year ended 31 December 2022, leading the Group's respective effective tax rate to 23% (32% in the comparative period, including the effect of the non-recognition of DTA on the impairment loss of the "Mexico" loan portfolio in Eurobank Holdings consolidated financial statements). The analysis of unrecognized DTA on unused tax losses of the Company and the Bank per year of maturity of related tax losses is presented in the table below:

	Unrecognized DTA € million
Year of maturity of unused tax losses	
2023	**44**
2024	**62**
2025	**351**
2026	**12**
2027	**1**
Total	**470**

14. Earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to ordinary shareholders by the weighted average number of ordinary shares in issue during the year, excluding the average number of ordinary shares purchased by the Group and held as treasury shares.

The diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. As at 31 December 2022, the Group's dilutive potential ordinary shares relate to the share options that were allocated to key executives with grant date in July 2021 (note 39). The weighted average number of shares is adjusted for the share options by calculating the weighted average number of shares that could have been acquired at fair value (determined as the average market price of the Company's shares for the year). The number of shares resulting from the above calculation is added to the weighted average number of ordinary shares in issue in order to determine the weighted average number of ordinary shares used for the calculation of the diluted earnings per share.

		Year ended 31 December	
		2022	2021
Net profit for the year attributable to ordinary shareholders	*€ million*	**1,330**	328
Weighted average number of ordinary shares in issue for basic earnings per share	*Number of shares*	***3,708,988,032***	3,707,975,186
Weighted average number of ordinary shares in issue for diluted earnings per share	*Number of shares*	***3,714,564,870***	3,708,992,794
Earnings per share			
- Basic and diluted earnings per share	€	**0.36**	0.09

15. Cash and balances with central banks

	2022 € million	2021 € million
Cash in hand	**504**	478
Balances with central banks	**14,490**	13,037
Total	**14,994**	13,515

The Bank and its banking subsidiaries in Eurozone (Cyprus and Luxemburg), are required to hold a minimum level of deposits (minimum reserve requirement - MRR) with their national central bank on an average basis over maintenance periods (i.e. six week periods); these deposits are calculated as 1% of certain liabilities, mainly customers' deposits, and can be withdrawn at any time provided that the MRR is met over the determined period of time. Similar obligations for the maintenance of minimum reserves with their national central bank are also applied to the banking subsidiaries in Bulgaria and Serbia. As at 31 December 2022, the mandatory reserves (i.e. those that the Group entities maintain in order to meet the MRR) with central banks amounted to € 1,040 million (2021: € 871 million). The interest rate on the main refinancing operations (MRO) was applied for MRR deposits placed to the European Central Bank (ECB) until December 2022, and the deposit facility rate (DFR) in force is applied thereafter.

Since 2019, the European Central Bank (ECB) had decided to introduce a two-tier system for eligible credit institutions' reserve remuneration which exempted part of excess liquidity holdings (i.e. reserve holdings in excess of MRR) from the negative DFR. The above two-tier system was lifted by ECB in September 2022, and the (positive) DFR in force is applied for the excess liquidity holdings placed to ECB thereafter.

16. Cash and cash equivalents and other information on cash flow statement

For the purpose of the cash flow statement, cash and cash equivalents comprise the following balances with original maturities of three months or less:

	2022 € million	2021 € million
Cash and balances with central banks (excluding mandatory and collateral deposits with central banks) (note 15)	**13,954**	12,644
Due from credit institutions	**418**	505
Securities held for trading	**16**	-
Total	**14,388**	13,149

Other (income)/losses on investment securities presented in operating activities are analyzed as follows:

	2022 € million	2021 € million
Amortisation of premiums/discounts and accrued interest	**(21)**	26
(Gains)/losses from investment securities	**9**	(101)
Dividends	**(2)**	(1)
Total	**(14)**	(76)

In the year ended 31 December 2022, other adjustments of € 244 million presented in the cash flow statement mainly include a) € 325 million gain resulting from the sale of Eurobank's merchant acquiring business to Worldline (note 30), b) € 34 million gain resulting from the disposal of a 5.1% shareholding in the Group's former joint venture Grivalia Hospitality S.A. and the measurement on the disposal date of the retained interest in the entity as a financial asset at FVTPL (note 24) and c) € 76 million loss from the recyclement of currency translation reserves due to liquidation of ERB Istanbul Holding A.S. (note 23.1).

Changes in liabilities arising from financing activities

During the year ended 31 December 2022, changes in the Group's liabilities arising from financing activities, other than lease liabilities (note 41), are attributable to: a) debt issuance amounting to € 1,070 million (2021: € 1,141 million) (net of issuance costs), b) debt repayment amounting to € 11 million (2021: € 156 million) and c) accrued interest and amortisation of debt issuance costs amounting to € 57.1 million (2021: € 10.4 million).

17. Due from credit institutions

	2022 € million	2021 € million
Pledged deposits with banks	**911**	2,002
Placements and other receivables from banks	**196**	206
Current accounts and settlement balances with banks	**222**	302
Total	**1,329**	2,510

As at 31 December 2022, the Group's pledged deposits with banks mainly include: a) € 873 million mainly cash collaterals on risk mitigation contracts for derivative transactions and repurchase agreements (CSAs, GMRAs) and b) € 37 million cash collateral relating to the sale of former Romanian subsidiaries.

The Group's exposure arising from credit institutions, as categorized by counterparty's geographical region, is presented in the following table:

	2022 € million	2021 € million
Greece	**42**	36
Other European countries	**1,217**	2,249
Other countries	**70**	225
Total	**1,329**	2,510

18. Securities held for trading

	2022 € million	2021 € million
Debt securities (note 5.2.1.3)	**87**	69
Equity securities	**47**	50
Total	**134**	119

19. Derivative financial instruments and hedge accounting

The Group uses derivative financial instruments both for hedging and non-hedging purposes.

The table below presents the fair values of the Group's derivative financial instruments by product type and hedge relationship along with their notional amounts. The notional amounts of derivative instruments provide a basis for comparison with instruments recognized on the balance sheet but do not necessarily indicate the amounts of future cash flows involved or the current fair value of the instruments and, therefore, are not indicative of the Group's exposure at the reporting date.

	31 December 2022			31 December 2021		
	Contract / notional amount	**Fair values**		Contract / notional amount	Fair values	
		Assets	**Liabilities**		Assets	Liabilities
	€ million	**€ million**	**€ million**	€ million	€ million	€ million
Derivatives for which hedge accounting is not applied/ held for trading						
- Interest rate swaps	**35,481**	**1,778**	**1,372**	29,758	1,738	1,352
- Interest rate options[1]	**3,616**	**74**	**96**	3,599	41	97
- Cross currency interest rate swaps	**-**	**-**	**-**	41	3	3
- Foreign exchange contracts[2]	**3,686**	**62**	**71**	3,682	53	25
- Other [3]	**154**	**2**	**2**	195	2	2
		1,916	**1,541**		1,837	1,479
Derivatives designated as fair value hedges						
- Interest rate swaps	**7,277**	**463**	**431**	3,732	82	804
- Interest rate swaps/portfolio hedging	**4,792**	**180**	**-**			
- Interest rate floors	**7,791**	**-**	**55**	-	-	-
		643	**486**		82	804
Derivatives designated as cash flow hedges						
- Interest rate swaps	**-**	**-**	**-**	1,852	30	54
- Cross currency interest rate swaps	**1,646**	**2**	**78**	1,632	0	57
		2	**78**		30	111
Offsetting (notes 5.2.1.4 and 32)						
- Interest rate swaps		**(1,376)**	**(444)**			
Total derivatives assets/liabilities		**1,185**	**1,661**		1,949	2,394

[1] Interest rate options include interest rate caps and floors and swaptions.

[2] It includes currency swaps, forwards and options

[3] It includes credit default swaps, warrants, commodity derivatives, futures and exchange traded equity options.

Information on the fair value measurement and offsetting of derivatives is provided in notes 5.3 and 5.2.1.4, respectively.

In response to the heightened market volatility, and particular the increase in interest rate levels and bond yields since the beginning of 2022, the Group discontinued certain hedging relationships designated as fair value and cash flow hedging of interest rate risk, which had been initiated in a low interest rate environment and fulfilled to a significant extent their hedging purpose. The derivative positions were gradually liquidated over the first quarter of 2022, while in parallel new economic hedges were initiated to manage the Group's interest rate exposures on a portfolio level. Such economic hedges were eventually liquidated towards the end of the second quarter of 2022, since Management, in the context of its updated hedging strategy and risk management objectives, decided to enter into new interest rate swaps designated upon their inception as hedging instruments for which hedge accounting is applied. The realized gains from the aforementioned actions on the Group's hedging strategies, due to the increase in interest rates, amounted to approximately € 390 million (note 9).

Furthermore, the significant movements in interest and inflation rates, especially in longer tenors exacerbated the ineffectiveness of certain long-dated hedging relationships for which different discount rates apply to the hedged item and hedging instrument. For these hedging relationships, the hedge ratio fell outside the designated range of 80%-125% allowed by IAS39, both prospectively and retrospectively, leading to the mandatory discontinuance of the hedge accounting since the relationships no longer met the hedge accounting criteria. Accordingly, the Bank proceeded to the gradual unwinding of the related interest rate swaps, realizing approximately € 160 million gains (note 9), while at the same time entered into new ones of shorter tenor, so as to ensure hedge effectiveness going forward.

The Group uses certain derivatives and other financial instruments, designated in a qualifying hedge relationship, to reduce its exposure to market risks. The hedging practices applied by the Group, as well as the relevant accounting treatment are disclosed in note 2.2.3. In particular:

(a) Fair value hedges
The Group hedges a portion of its existing interest rate risk resulting from any potential change in the fair value of fixed rate debt securities or fixed rate loans, denominated both in local and foreign currencies, using interest rate swaps and cross currency interest rate swaps. In 2022, the Group recognized a gain of € 886 million (2021: € 60 million loss) from changes in the carrying amount of the hedging instruments and € 862 million loss (2021: € 68 million gain) from changes in the fair value of the hedged items attributable to the hedged risk. The amount of hedge ineffectiveness recognized for 2022 in “Net trading income/ (loss)” was € 24 million gain (2021: € 8 million gain).

(b) Fair value hedges – portfolios of assets

The Group hedges a portion of its existing interest rate risk resulting from any potential change in the fair value of a portfolio of fixed rate loans including securitized notes initially issued and subsequently held by the Group (macro-hedging), using a group of interest rate swaps. The Group primarily designates the change in fair value attributable to changes in the benchmark interest rate as the hedged risk including also assumptions for prepayment risk and, accordingly, enters into interest rate swaps whereby the fixed legs represent the economic risks of the hedged items. In 2022, the Group recognized a gain of € 180 million from changes in the carrying amount of the hedging instruments and € 159 million loss from changes in the fair value of the designated hedged items attributable to the hedged risk. Accordingly, the amount of hedge ineffectiveness recognized for 2022 in “Net trading income/ (loss)” was € 21 million gain.

The Group also hedges the variability deriving from the fair value changes of purchased interest rate floors embedded in portfolios of floating rate loans and debt securities by writing the floors in the market. In 2022, the Group recognized a gain of € 20 million from changes in the carrying amount of the hedging instruments, and € 20 million loss from changes in the fair value of the hedged items attributable to the hedged risk.

(c) Cash flow hedges
The Group hedges a portion of its existing interest rate and foreign currency risk resulting from any cash flow variability on floating rate performing customer loans or floating rate deposits, denominated both in local and foreign currency, or unrecognized highly probable forecast transactions, using interest rate and cross currency interest rate swaps. For the year ended 31 December 2022, an amount of € 19 million gain was recognised in other comprehensive income in relation to derivatives designated as cash flow hedges (2021: € 51 million gain). Furthermore, in 2022, the ineffectiveness recognized in the income statement that arose from cash flow hedges was nil (2021: nil).

In addition, the Group uses other derivatives, not designated in a qualifying hedge relationship, to manage its exposure primarily to interest rate and foreign currency risks. Non qualifying hedges are derivatives entered into as economic hedges of assets and liabilities for which hedge accounting was not applied. The said derivative instruments are monitored and have been classified for accounting purposes along with those held for trading.

Notes to the Consolidated Financial Statements

The Group's exposure in derivative financial assets, as categorized by counterparty's geographical region and industry sector, is presented in the following tables:

	31 December 2022			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Sovereign	**249**	**-**	**-**	**249**
Banks	**12**	**291**	**570**	**873**
Corporate	**51**	**12**	**-**	**63**
Total	**312**	**303**	**570**	**1,185**

	31 December 2021			
	Greece € million	Other European countries € million	Other countries € million	Total € million
Sovereign	1,105	-	-	1,105
Banks	4	466	261	731
Corporate	109	0	4	113
Total	1,218	466	265	1,949

As at 31 December 2022, the net carrying value of the derivatives with the Hellenic Republic amounted to a liability of € 489 million (31 December 2021: € 1,100 million asset).

At 31 December 2022 and 2021, the maturity profile of the nominal amount of the financial instruments designated by the Group in hedging relationships is presented in the tables below:

	31 December 2022								
	Fair Value Hedges					Cash Flow Hedges			
	1 - 3 months € million	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million
Interest rate swaps[(1)]	**255**	**24**	**2,884**	**4,114**	**7,277**	**-**	**-**	**-**	**-**
Interest rate options	**-**	**-**	**800**	**6,991**	**7,791**	**-**	**-**	**-**	**-**
Cross currency interest rate swaps	**-**	**-**	**-**	**-**	**-**	**101**	**1,545**	**-**	**1,646**
Total	**255**	**24**	**3,684**	**11,105**	**15,068**	**101**	**1,545**	**-**	**1,646**

	31 December 2021								
	Fair Value Hedges					Cash Flow Hedges			
	1 - 3 months € million	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million	3 - 12 months € million	1-5 years € million	Over 5 years € million	Total € million
Interest rate swaps	39	13	500	3,180	3,732	19	728	1,105	1,852
Cross currency interest rate swaps	-	-	-	-	-	48	1,584	-	1,632
Total	39	13	500	3,180	3,732	67	2,312	1,105	3,484

(1) Nominal amount of interest rate swaps designated as fair value portfolio hedges is not included.

Notes to the Consolidated Financial Statements

(a) Fair value hedges

The following tables present data relating to the hedged items under fair value hedges for the years ended 31 December 2022 and 2021:

	31 December 2022		
	Carrying amount/Exposure designated as hedged	**Accumulated amount of FV hedge adjustments related to the hedged item**	**Change in value as the basis for recognising hedge ineffectiveness**
	€ million	**€ million**	**€ million**
Loans and advances to customers[(1)]	**12,693**	**(216)**	**(225)**
Debt securities AC[(1)]	**3,978**	**(17)**	**(431)**
Debt securities FVOCI	**1,336**	**(157)**	**(266)**
Debt securities in issue	**2,373**	**(120)**	**(120)**
Total	**20,380**	**(510)**	**(1,042)**

	31 December 2021		
	Carrying amount/ Exposure designated as hedged	Accumulated amount of FV hedge adjustments related to the hedged item	Change in value as the basis for recognising hedge ineffectiveness
	€ million	€ million	€ million
Loans and advances to customers[(1)]	470	16	(5)
Debt securities AC	2,208	531	179
Debt securities FVOCI	2,573	94	(105)
Total	5,251	641	69

[(1)] For loans and advances to customers hedges and debt securities at amortised cost included in portfolio hedges, the exposure designated as hedged is presented.

At 31 December 2022, the accumulated amounts of fair value hedge adjustments remaining in the balance sheet for any items that have ceased to be adjusted for hedging gains and losses were € 279 million assets for debt securities held at AC, € 4 million liabilities for debt issued and € 19 million liabilities for adjustments related to debt securities held at FVOCI (2021: € 190 million assets for debt securities held at AC).

(b) Cash flow hedges

The cash flow hedge reserves for continuing hedges as at 31 December 2022 were € 4 million gain (2021: € 3 million gain), which relate to loans and advances to customers (2021: € 4 million gain relates to loans and advances to customers and € 1 million loss to deposits).

As at 31 December 2022, the balances remaining in the cash flow hedge reserve from any cash flow hedging relationships for which hedge accounting is no longer applied was € 20 million loss (2021: € 19 million loss).

The reconciliation of the components of Group's special reserves including cash flow hedges is provided in note 38.

20. Loans and advances to customers

	2022 € million	2021 € million
Loans and advances to customers at amortised cost		
- Gross carrying amount	43,450	40,815
- Impairment allowance	(1,626)	(1,872)
Carrying Amount	**41,824**	38,943
Fair value changes of loans in portfolio hedging of interest rate risk	**(163)**	-
Loans and advances to customers at FVTPL	**16**	23
Total	**41,677**	38,967

The table below presents the carrying amount of loans and advances to customers per product line and per stage as at 31 December 2022:

	31 December 2022				31 December 2021
	12-month ECL-Stage 1 € million	**Lifetime ECL-Stage 2 € million**	**Lifetime ECL - Stage 3 and POCI[1] € million**	**Total amount € million**	Total amount € million
Loans and advances to customers at amortised cost					
Mortgage lending:					
- Gross carrying amount	6,832	2,825	545	10,201	10,105
- Impairment allowance	(21)	(160)	(229)	(409)	(325)
Carrying Amount	6,810	2,665	316	9,792	9,780
Consumer lending:					
- Gross carrying amount	2,669	427	257	3,353	3,242
- Impairment allowance	(37)	(48)	(186)	(271)	(340)
Carrying Amount	2,633	379	70	3,082	2,902
Small Business lending:					
- Gross carrying amount	2,668	740	434	3,842	3,753
- Impairment allowance	(23)	(72)	(229)	(324)	(326)
Carrying Amount	2,645	668	205	3,518	3,427
Wholesale lending:[2][3]					
- Gross carrying amount	23,448	1,581	1,024	26,054	23,716
- Impairment allowance	(68)	(75)	(478)	(621)	(881)
Carrying Amount	23,380	1,506	546	25,432	22,835
Total loans and advances to customers at AC					
- Gross carrying amount	35,618	5,573	2,259	43,450	40,815
- Impairment allowance	(149)	(355)	(1,121)	(1,626)	(1,872)
Carrying Amount	**35,468**	**5,218**	**1,138**	**41,824**	38,943
Fair value changes of loans in portfolio hedging of interest rate risk				**(163)**	-
Loans and advances to customers at FVTPL					
Carrying Amount[4]				**16**	23
Total				**41,677**	38,967

[1] As at 31 December 2022, POCI loans of € 43 million gross carrying amount (of which € 41 million included in non performing exposures) and € 6.5 million impairment allowance are presented in 'Lifetime ECL – stage 3 and POCI' (31 December 2021: € 44 million gross carrying amount and € 6.4 million impairment allowance).

[2] Includes € 4,901 million related to the senior notes of Pillar, Cairo and Mexico securitizations, which have been categorized in Stage 1.

[3] Includes loans to public sector.

[4] Includes € 9.9 million related to the mezzanine notes of the Pillar, Cairo and Mexico securitizations.

Loans and advances to customers – Project Solar

In the context of its NPE management strategy, the Group has structured another NPE securitization transaction (project 'Solar'), as part of a joint initiative with the other Greek systemic banks initiated since 2018, in order to decrease further its NPE ratio and strengthen its balance sheet de-risking. In addition, the Group targets to the prudential and accounting derecognition of the underlying corporate loan portfolio from its balance sheet by achieving a Significant Risk Transfer (SRT) and including 'Solar' securitization under the Hellenic Asset Protection Scheme (HAPS), thus the senior note of the securitization to become entitled to the Greek State's guarantee. In parallel, the Management along with the other participating banks have initiated actions towards the disposal of the majority stake of the mezzanine and junior notes to be issued in the context of the above-mentioned securitization.

Accordingly, as of 30 June 2022, the Group classified the underlying corporate loan portfolio as held for sale, while the remeasurement of the portfolio's expected credit losses, in accordance with the Group's accounting policy for the impairment of financial assets, had no significant impact in impairment losses from loans and advances to customers. The impairment loss was calculated by reference to the estimated fair value of the notes to be retained by the Group upon the completion of transaction and the expected consideration to be received by the sale of mezzanine and junior notes. As at 31 December 2022, the carrying amount of the aforementioned loan portfolio reached € 69 million, comprising loans with gross carrying amount of € 268 million, which carried an impairment allowance of € 199 million. Furthermore, the impairment allowance of the letters of guarantee included in the underlying portfolio reached € 1 million and was presented in "liabilities of disposal groups classified as held for sale" (note 30).

As at 31 December 2022, following the classification of project "Solar" underlying loan portfolio as held for sale, the Group's NPE stock amounted to € 2.3 billion (31 December 2021: € 2.8 billion) driving the NPE ratio to 5.2% (31 December 2021: 6.8%), while the NPE coverage ratio stood at 74.6% (31 December 2021: 69.2%).

Loans and advances to customers – Project Wave

In December 2022, the Bank, proceeded with the execution of the third synthetic risk transfer transaction (project "Wave III") in the form of a financial guarantee, providing credit protection over the mezzanine loss of a portfolio of performing shipping loans amounting to $ 1.7 billion (the reference portfolio). Similarly to the previous two synthetic risk transfer transactions (projects 'Wave I' and 'Wave II'), that were executed in December 2021 over a reference portfolio of performing SMEs and large corporate loans of € 1.7 billion, the Wave III transaction was accounted for as a purchased financial guarantee contract that is not integral to the contractual terms of the reference portfolio, where a compensation right resulting from the expected credit losses of the protected loans is recognized, to the extent that it is virtually certain that the Group will be reimbursed for the credit losses incurred. The reference portfolios of Wave projects continued to be recognised on the Group's Balance Sheet.

As at 31 December 2022, the Wave III transaction, that was performed in the context of the Group's initiatives for the optimization of its regulatory capital, resulted in a capital benefit of 40 bps.

Securitizations of loan portfolios originated by the Group

The Group in the context of the achievement of its NPE reduction targets has entered into the securitization of various classes of primarily NPE through the issue of senior, mezzanine and junior notes, which resulted, as described below, in the derecognition of the underlying loan portfolios and the recognition of the retained notes.

'Mexico' securitization

In May 2021, the Bank, through its special purpose financing vehicle (SPV) 'Mexico Finance Designated Activity Company' issued senior, mezzanine and junior notes of total nominal amount of ca. € 5.2 billion, via a securitization of a mixed portfolio comprising primarily NPE of total principle amount due of ca. € 5.2 billion and gross carrying amount of ca. € 3.2 billion, which were fully retained by the Bank. The Group included ''Mexico" securitization under the Hellenic Asset Protection Scheme (HAPS) thus the senior note of the securitization became entitled to the Greek State's guarantee.

In June 2021, the General Shareholders' Meeting of the Bank (GM), approved the distribution of the 95% of the mezzanine and junior notes of Mexico securitization to its parent company through the decrease in kind of the Bank's share capital. The Bank applied the use of book values in intercompany distributions of non-cash assets, consistently with the accounting policies already applied in other types of common control transactions. Therefore, the reduction of the Bank's total equity was determined by the book value of the assets distributed.

The settlement of the aforementioned distribution in kind, that took place in September 2021, resulted in the de-recognition of the underlying loan portfolio and the related assets and liabilities from the Bank's balance sheet, on the basis that the latter transferred substantially all risks and rewards of the portfolio's ownership and relinquished its control over it. In addition, the Bank ceased to control the SPV and the related real estate company, which resides with the majority stake of Class B noteholders. At the same time, Eurobank Holdings accounted for the distribution in kind as dividend, recognizing in profit and loss the fair value of the distributed notes, ie. 95% of the mezzanine and junior notes. Moreover, Eurobank Holdings obtained the direct control of the SPV and the related real estate company.

In September 2021, the BoD of Eurobank Holdings approved to proceed with the sale of 95% of the mezzanine and junior notes of Mexico securitization to doValue S.p.A. and the ongoing servicing of the portfolio by doValue Group. Accordingly, as at 30 September 2021, the Group proceeded with the re-measurement of the portfolio's expected credit losses, considering the estimated date for the Mexico loan portfolio's derecognition from its balance sheet, in accordance with its accounting policy for the impairment of financial assets and recognized an impairment loss of € 72 million in the third quarter of 2021.

The transaction with doValue Group for the sale of the 95% of the mezzanine and junior notes retained by Eurobank Holdings was concluded in December 2021, after the fulfillment of all conditions and having received all appropriate approvals. As a result of the aforementioned sale, the Group ceased to control the SPV as well as the related real estate company and derecognized the underlying loan portfolio from its balance sheet, on the basis that it transferred substantially all risks and rewards of the portfolio's ownership and ceased to have control over the securitized loans, which resides with the majority stake of Class B noteholders. In addition, the Group recognized the retained notes on its balance sheet i.e. 100% of the senior and 5% of the mezzanine and junior notes, with carrying amount € 1,539 million at 31 December 2022 (31 December 2021: € 1,624 million). The derecognition of the underlying loan portfolio from the Group's balance sheet resulted in a derecognition loss of € 5 million, which was presented in 'other income/expenses'.

'Cairo' securitization

In June 2019, the Group, through the special purpose financing vehicles (SPVs) 'Cairo No. 1 Finance Designated Activity Company', 'Cairo No. 2 Finance Designated Activity Company' and 'Cairo No. 3 Finance Designated Activity Company', issued senior, mezzanine and junior notes of total face value of ca. € 7.5 billion, via a securitization of a mixed portfolio consisting primarily of non-performing loans (NPE) ("Cairo" securitization). In December 2019, the Group announced that it has entered into a binding agreement with doValue S.p.A. for the sale of 20% of the mezzanine and 50.1% of the junior notes of "Cairo" securitization. The Group included "Cairo" securitization under the Hellenic Asset Protection Scheme (HAPS) thus the senior note of the securitization became entitled to the Greek State's guarantee.

In June 2020, the sale of the aforementioned notes was completed and, as a result, the Group ceased to control the Cairo SPVs on the basis that it does not have the power to direct their relevant activities. Furthermore, in June 2020, Eurobank Holdings, following a decision of the Board of Directors (BoD), proceeded to the contribution of the retained Cairo notes, i.e. 75% of the mezzanine and 44.9% of the junior notes, along with an amount of € 1.5 million in cash to its Cyprus-based subsidiary Mairanus Ltd, renamed to 'Cairo Mezz Plc', in exchange for the newly-issued shares of the aforementioned subsidiary. In July 2020, the General Shareholders' Meeting of the Company approved the distribution of Cairo Mezz Plc shares to Eurobank Holding's shareholders through the decrease in kind of its share capital.

In September 2020, following the completion of the distribution of the Cairo Mezz Plc shares, the underlying loan portfolio and the related assets and liabilities were derecognized from the Group's balance sheet, on the basis that at that time the Group transferred substantially all risks and rewards of the portfolio's ownership and ceased to have control over the securitized portfolio. In addition, the Group recognized the retained notes on its balance sheet, i.e. 100% of the senior notes, 5% of mezzanine and junior notes with carrying amount € 2,332 million at 31 December 2022 (31 December 2021: € 2,432 million).

'Pillar' securitization

In June 2019, the Group, through the special purpose financing vehicle (SPV) 'Pillar Finance Designated Activity Company' issued senior, mezzanine and junior notes of total value of ca. € 2 billion, via a securitization of residential mortgage primarily NPE. In September 2019, the Group sold 95% of the above-mentioned mezzanine and junior notes to Celidoria S.A R.L. Upon the completion of the sale, the Group ceased to control the SPV and derecognized the underlying loan portfolio in its entirety, on the basis that it transferred substantially all the risks and rewards of the underlying loan portfolio's ownership. In addition, the Group recognized the retained notes, i.e. 100% of the senior, 5% of the mezzanine and junior notes, on its balance sheet with carrying amount € 1,039 million at 31 December 2022 (31 December 2021: € 1,060 million).

21. Impairment allowance for loans and advances to customers

The following tables present the movement of the impairment allowance on loans and advances to customers (expected credit losses – ECL):

	31 December 2022												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI(1) € million	Total € million
Impairment allowance as at 1 January	69	76	737	17	138	170	44	39	257	41	58	227	**1,872**
New loans and advances originated or purchased	29	-	-	2	-	-	21	-	-	6	-	-	58
Transfers between stages													
- to 12-month ECL	20	(20)	(0)	10	(9)	(1)	14	(8)	(5)	13	(10)	(3)	-
- to lifetime ECL	(12)	13	(1)	(4)	24	(20)	(8)	24	(15)	(7)	19	(12)	-
- to lifetime ECL credit-impaired loans	(6)	(8)	14	(1)	(9)	10	(5)	(7)	11	(2)	(7)	9	-
Impact of ECL net remeasurement	(35)	13	(1)	(3)	12	100	(25)	(0)	91	(30)	12	69	202
Recoveries from written - off loans	-	-	23	-	-	9	-	-	12	-	-	9	53
Loans and advances derecognised/ reclassified as held for sale during the year(2)	-	(0)	(202)	-	-	(0)	-	-	-	-	-	(1)	(203)
Amounts written off(3)	-	-	(87)	-	-	(10)	-	-	(141)	-	-	(53)	(290)
Unwinding of Discount	-	-	(11)	-	-	(1)	-	-	(3)	-	-	(2)	(18)
Foreign exchange and other movements	4	1	5	(0)	3	(27)	(4)	1	(21)	2	1	(14)	(49)
Impairment allowance as at 31 December	**68**	**75**	**478**	**21**	**160**	**229**	**37**	**48**	**186**	**23**	**72**	**229**	**1,626**

	31 December 2021												
	Wholesale			Mortgage			Consumer			Small business			
	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	12-month ECL -Stage 1 € million	Lifetime ECL -Stage 2 € million	Lifetime ECL - Stage 3 and POCI[(1)] € million	Total € million
Impairment allowance as at 1 January	83	108	1,052	24	152	665	41	61	617	35	119	520	3,477
New loans and advances originated or purchased	17	-	-	1	-	-	22	-	-	5	-	-	45
Transfers between stages													
- to 12-month ECL	16	(11)	(5)	18	(15)	(2)	21	(17)	(4)	38	(37)	(2)	-
- to lifetime ECL	(6)	13	(7)	(7)	80	(73)	(3)	23	(20)	(3)	23	(20)	-
- to lifetime ECL credit-impaired loans	(1)	(22)	22	(1)	(16)	17	(3)	(16)	18	(3)	(19)	22	-
Impact of ECL net remeasurement	(35)	(10)	138	(15)	(26)	232	(31)	(12)	138	(30)	(5)	138	480
Recoveries from written - off loans	-	-	7	-	-	3	-	-	10	-	-	5	25
Loans and advances derecognised/reclassified as held for sale during the year[(2)]	(0)	(3)	(271)	(0)	(34)	(604)	(0)	(1)	(306)	(0)	(25)	(327)	(1,571)
Amounts written off[(3)]	-	-	(166)	-	-	(73)	-	-	(145)	-	-	(85)	(469)
Unwinding of Discount	-	-	(21)	-	-	(8)	-	-	(7)	-	-	(9)	(46)
Foreign exchange and other movements	(5)	1	(13)	(3)	(2)	12	(3)	0	(42)	(2)	3	(15)	(69)
Impairment allowance as at 31 December	69	76	737	17	138	170	44	39	257	41	58	227	1,872

[(1)] The impairment allowance for POCI loans of € 6.5 million is included in 'Lifetime ECL – stage 3 and POCI' (2021: € 6.4 million).

[(2)] It represents the impairment allowance of loans derecognized due to a) substantial modifications of the loans' contractual terms, b) securitization and sale transactions, c) debt to equity transactions and those that have been reclassified as held for sale during the year (notes 20 and 30).

[(3)] The contractual amount outstanding on lending exposures that were written off during the year ended 31 December 2022 and that are still subject to enforcement activity is € 111 million (2021: € 217 million).

The impairment losses relating to loans and advances to customers recognized in the Group's income statement for the year ended 31 December 2022 amounted to € 291 million (2021: € 490 million, including € 72 million loss relating to the project Mexico (note 20)) and are analyzed as follows:

	2022 € million	2021 € million
Impairment loss on loans and advances to customers	**(261)**	(525)
Net income / (loss) from financial guarantee contracts[(1)]	**(22)**	-
Modification gain / (loss) on loans and advances to customers	**2**	18
Impairment (loss)/ reversal for credit related commitments	**(10)**	17
Total	**(291)**	(490)

[(1)] *It refers to purchased financial guarantee contracts, not integral to the guaranteed loans (projects Wave).*

22. Investment securities

	2022 € million	2021 € million
Investment securities at FVOCI	**3,828**	6,509
Investment securities at amortised cost	**9,192**	4,666
Investment securities at FVTPL	**241**	141
Total	**13,261**	11,316

Note: information on debt securities of the investment portfolio is presented in note 5.2.1.3

In December 2022, the Bank acquired an additional 3.2% holding in Hellenic Bank Public Company Limited ("Hellenic Bank"), a financial institution located in Cyprus, for a consideration of € 16.74 million. Following this transaction, as at 31 December 2022, the Bank holds a 15.8% participation in Hellenic Bank. The said investment is aligned with the overall strategy of the Group to further strengthen its presence in its core markets in which retains a strategic interest and thus has been designated at FVOCI. Its fair value as at 31 December 2022 amounted to € 94.6 million (2021: € 44.4 million).

In addition, on 1 December 2022, the Bank announced that it has entered into a share purchase agreement with Wargaming Group Limited, pursuant to which it has agreed to acquire an additional 13.41% holding in Hellenic Bank for a consideration of € 70 million. The completion of the said acquisition was subject to the full fulfillment of the relevant regulatory approvals.

<u>Post balance sheet event</u>

On 4 April 2023 the Bank announced that, following the receipt of the relevant regulatory approvals, the above acquisition was completed, and its total holding in Hellenic Bank reached 29.2%. Following that, the investment in Hellenic Bank will be accounted for as a Group's associate in the consolidated financial statements as of the second quarter of 2023.

22.1 Movement of investment securities

The tables below present the movement of the carrying amount of investment securities per measurement category and per stage:

	31 December 2022								
	Debt securities at FVOCI			Investment securities at amortised cost			Investment securities at FVTPL	Equity securities at FVOCI	
	12-month ECL-Stage 1	Lifetime ECL-Stage 2	Lifetime ECL-Stage 3	12-month ECL-Stage 1	Lifetime ECL-Stage 2	Lifetime ECL-Stage 3			Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Gross carrying amount at 1 January	6,456	9	-	4,672	-	-	141	44	11,322
Additions, net of disposals and redemptions	(1,979)	(6)	(14)	4,904	-	-	80	17	3,002
Transfers between stages	(131)	117	14	(40)	6	34	-	-	-
Net gains/(losses) from changes in fair value for the year	(740)	3	-	-	-	-	16	34	(687)
Amortisation of premiums/discounts and interest	(42)	(2)	-	64	-	2	0	-	22
Changes in fair value due to hedging[(1)]	-	-	-	(449)	-	(4)	-	-	(453)
Exchange adjustments and other movements	48	(0)	-	24	-	1	4	-	77
Gross carrying amount at 31 December	3,612	121	-	9,175	6	33	241	95	13,283
Impairment allowance	-	-	-	(12)	(0)	(10)	-	-	(22)
Net carrying amount at 31 December	3,612	121	-	9,163	6	23	241	95	13,261

	31 December 2021					
	Debt securities at FVOCI		Investment securities at amortised cost	Investment securities at FVTPL	Equity securities at FVOCI	
	12-month ECL-Stage 1	Lifetime ECL-Stage 2	12-month ECL-Stage 1			Total
	€ million	€ million	€ million	€ million	€ million	€ million
Gross carrying amount at 1 January	5,444	10	2,789	127	-	8,370
Arising from acquisition (note 23.2)	78	-	-	0	-	78
Additions, net of disposals and redemptions	1,020	-	1,676	8	41	2,745
Transfers between stages	2	(2)	-	-	-	-
Net gains/(losses) from changes in fair value for the year	(132)	1	-	4	3	(124)
Amortisation of premiums/discounts and interest	(21)	(0)	(5)	0	-	(26)
Changes in fair value due to hedging	-	-	179	-	-	179
Exchange adjustments and other movements	65	0	33	2	-	100
Gross carrying amount at 31 December	6,456	9	4,672	141	44	11,322
Impairment allowance	-	-	(6)	-	-	(6)
Net carrying amount at 31 December	6,456	9	4,666	141	44	11,316

[(1)] *Changes in fair value due to continued hedging relationships amount to € 548 million, loss.*

22.2 Movement of ECL

The table below presents the ECL movement per portfolio, including ECL movement analysis per stage:

	31 December 2022			31 December 2021		
	Measured at amortised cost € million	Measured at FVOCI € million	Total € million	Measured at amortised cost € million	Measured at FVOCI € million	Total € million
Balance at 1 January	**6**	**12**	**18**	5	10	15
New financial assets purchased	**16**	**2**	**18**	8	8	16
- of which 12-month ECL-Stage 1	**16**	**2**	**18**	8	8	16
Transfers between stages						
- (from)/to 12-month ECL-Stage 1	**(6)**	**(11)**	**(17)**	-	0	0
- (from)/to lifetime ECL-Stage 2	**0**	**0**	**0**	-	(0)	(0)
- (from)/to lifetime ECL-Stage 3	**6**	**11**	**17**	-	-	-
Remeasurement due to change in ECL risk parameters	**3**	**13**	**16**	(6)	(6)	(12)
- of which 12-month ECL-Stage 1	*(2)*	*9*	*7*	*(6)*	*(6)*	*(12)*
- of which lifetime ECL-Stage 2	*1*	*4*	*5*	-	*(0)*	*(0)*
- of which lifetime ECL-Stage 3	**4**	**-**	**4**	-	-	-
Financial assets disposed during the year	**(3)**	**(4)**	**(7)**	(0)	(1)	(1)
- of which 12-month ECL-Stage 1	*(3)*	*(4)*	*(7)*	*(0)*	*(1)*	*(1)*
Financial assets redeemed during the year	**-**	**(10)**	**(10)**	(0)	(0)	(0)
- of which lifetime ECL-Stage 3	**-**	**(10)**	**(10)**	-	-	-
Foreign exchange and other movements	**(0)**	**(1)**	**(1)**	(1)	1	-
Balance as at 31 December	**22**	**12**	**34**	6	12	18

22.3 Equity reserve: revaluation of the investment securities at FVOCI

Gains and losses arising from the changes in the fair value of investment securities at FVOCI are recognized in a corresponding revaluation reserve in equity. The movement of the reserve is as follows:

	2022 € million	2021 € million
Balance at 1 January	**322**	415
Net gains/(losses) from changes in fair value	**(702)**	(128)
Tax (expense)/benefit	**180**	33
Revaluation reserve from associated undertakings, net of tax	**(33)**	(4)
	(555)	(99)
Net (gains)/losses transferred to net profit on disposal	**29**	(99)
ECL transferred to net profit	**4**	3
Tax (expense)/benefit on net (gains)/losses transferred to net profit on disposal	**(7)**	28
Tax (expense)/benefit on ECL transferred to net profit	**(1)**	(1)
	25	(69)
Net (gains)/losses transferred to net profit from fair value hedges	**270**	105
Tax (expense)/benefit	**(73)**	(30)
	197	75
Balance at 31 December	**(10)**	322

23. Group composition

23.1 Shares in subsidiaries

The following is a listing of the Company's subsidiaries as at 31 December 2022, included in the consolidated financial statements for the year ended 31 December 2022:

Name	Note	Percentage holding	Country of incorporation	Line of business
Eurobank S.A.		100.00	Greece	Banking
Be Business Exchanges S.A. of Business Exchanges Networks and Accounting and Tax Services		98.01	Greece	Business-to-business e-commerce, accounting, tax and sundry services
Eurobank Asset Management Mutual Fund Mngt Company Single Member S.A.		100.00	Greece	Mutual fund and asset management
Eurobank Equities Investment Firm Single Member S.A.		100.00	Greece	Capital markets and advisory services
Eurobank Leasing Single Member S.A.		100.00	Greece	Leasing
Eurobank Factors Single Member S.A.		100.00	Greece	Factoring
Herald Greece Single Member Real Estate development and services S.A. 1		100.00	Greece	Real estate
Herald Greece Single Member Real Estate development and services S.A. 2		100.00	Greece	Real estate
Standard Single Member Real Estate S.A.		100.00	Greece	Real estate
Cloud Hellas Single Member Ktimatiki S.A.		100.00	Greece	Real estate
Piraeus Port Plaza 1 Single Member Development S.A.		100.00	Greece	Real estate
(Under liquidation) Anchor Hellenic Investment Holding Single Member S.A.		100.00	Greece	Real estate
Athinaiki Estate Investments Single Member S.A.		100.00	Greece	Real estate
Piraeus Port Plaza 2 Single Member Development S.A.		100.00	Greece	Real estate
Piraeus Port Plaza 3 Single Member Development S.A.		100.00	Greece	Real estate
Tenberco Real Estate Single Member S.A.		100.00	Greece	Real estate
Value Touristiki Single Member Development S.A.		100.00	Greece	Real estate
Eurobank Bulgaria A.D.		99.99	Bulgaria	Banking
IMO Property Investments Sofia E.A.D.		100.00	Bulgaria	Real estate services
ERB Hellas (Cayman Islands) Ltd	k	100.00	Cayman Islands	Special purpose financing vehicle
Berberis Investments Ltd		100.00	Channel Islands	Holding company
Eurobank Cyprus Ltd		100.00	Cyprus	Banking
ERB New Europe Funding III Ltd		100.00	Cyprus	Finance company
Foramonio Ltd		100.00	Cyprus	Real estate
NEU 03 Property Holdings Ltd		100.00	Cyprus	Holding company
NEU Property Holdings Ltd		100.00	Cyprus	Holding company
Lenevino Holdings Ltd		100.00	Cyprus	Real estate
Rano Investments Ltd		100.00	Cyprus	Real estate
Neviko Ventures Ltd		100.00	Cyprus	Real estate
Zivar Investments Ltd		100.00	Cyprus	Real estate
Amvanero Ltd		100.00	Cyprus	Real estate
Revasono Holdings Ltd		100.00	Cyprus	Real estate
Volki Investments Ltd		100.00	Cyprus	Real estate
Adariano Investments Ltd		100.00	Cyprus	Real estate
Elerovio Holdings Ltd		100.00	Cyprus	Real estate
Sagiol Ltd	j	100.00	Cyprus	Holding company
Macoliq Holdings Ltd	j	100.00	Cyprus	Holding company
Senseco Trading Limited	j	100.00	Cyprus	Holding company
Eurobank Private Bank Luxembourg S.A.		100.00	Luxembourg	Banking
Eurobank Fund Management Company (Luxembourg) S.A.		100.00	Luxembourg	Fund management

ERB Lux Immo S.A.		100.00	Luxembourg	Real estate
ERB New Europe Funding B.V.		100.00	Netherlands	Finance company
ERB New Europe Funding II B.V.		100.00	Netherlands	Finance company
ERB New Europe Holding B.V.		100.00	Netherlands	Holding company
ERB IT Shared Services S.A.		100.00	Romania	Informatics data processing
IMO Property Investments Bucuresti S.A.		100.00	Romania	Real estate services
IMO-II Property Investments S.A.		100.00	Romania	Real estate services
Retail Development S.A.		99.99	Romania	Real estate
Seferco Development S.A.		99.99	Romania	Real estate
Eurobank Direktna a.d.		70.00	Serbia	Banking
ERB Leasing A.D. Beograd-in Liquidation		85.15	Serbia	Leasing
IMO Property Investments A.D. Beograd		100.00	Serbia	Real estate services
Reco Real Property A.D. Beograd		100.00	Serbia	Real estate
ERB Hellas Plc	f	100.00	United Kingdom	Special purpose financing vehicle
Karta II Plc		-	United Kingdom	Special purpose financing vehicle
Astarti Designated Activity Company		-	Ireland	Special purpose financing vehicle
ERB Recovery Designated Activity Company		-	Ireland	Special purpose financing vehicle

The following entities are not included in the consolidated financial statements due to immateriality:

(i) the Group's special purpose financing vehicles and the related holding entities, which are dormant and/or are under liquidation: Themeleion III Holdings Ltd, Themeleion IV Holdings Ltd, Themeleion Mortgage Finance Plc, Themeleion II Mortgage Finance Plc, Themeleion III Mortgage Finance Plc, Themeleion IV Mortgage Finance Plc, Themeleion V Mortgage Finance Plc, Themeleion VI Mortgage Finance Plc, Anaptyxi APC Ltd and Byzantium II Finance Plc.

(ii) the holding entity of Karta II Plc: Karta II Holdings Ltd.

(iii) dormant entity: Enalios Real Estate Development S.A.

(iv) entities controlled by the Group pursuant to the terms of the relevant share pledge agreements: Finas S.A., Rovinvest S.A. and Promivet S.A.

In 2022, the changes in the Group structure due to: a) acquisitions, mergers and establishment of companies, b) sales and other corporate actions, which resulted in loss of control, c) transactions with the non-controlling interests, which did not result in loss of control and d) liquidations, are as follows:

(a) IMO 03 E.A.D., Bulgaria

In February 2022, the Bank disposed of its participation interest of 100% in IMO 03 E.A.D. (which as of 31 December 2021 was classified as held for sale) to a third party for a cash consideration of € 5.8 million. The resulting loss on the disposal was immaterial.

(b) (Under liquidation) Real Estate Management Single Member S.A., Greece

In February 2022, the liquidation of the company was completed.

(c) Hellenic Post Credit S.A., Greece

In February 2022, the Bank reached an agreement for the acquisition of the remaining 50% of the share capital of Hellenic Post Credit S.A., settled by offsetting receivables it held from the other shareholder of the entity (note 42). In November 2022, after receiving the required approvals from the competent authorities, the merger of the Bank and Hellenic Post Credit S.A. was completed, by absorption of the latter by the former. In line with the Group's accounting policy for business combinations involving entities under common control, the transfer of the entity's assets and liabilities to the Bank was performed at their pre-combination carrying amounts under the pooling of interests method (also known as merger accounting). The merger had no impact in the Group's financial statements.

(d) Staynia Holdings Limited, Cyprus

In February 2022, the liquidation of the company was decided. In June 2022, the distribution of the company's surplus assets to the Bank (its sole shareholder) was completed with an immaterial effect on the Group's income statement, while its dissolution was completed in October 2022.

(e) ERB Istanbul Holding A.S. in liquidation, Turkey

In June 2022, the liquidation of the company was completed. The Group recognized a) € 76.3 million loss in "Other income/(expenses)", arising mainly from the recyclement of foreign currency losses of € 75.9 million, previously recorded in other comprehensive income, to the income statement and b) € 2.5 million tax expense on the liquidation proceeds.

(f) ERB Hellas Plc, United Kingdom

In June 2022, the liquidation of the company was decided.

(g) Vouliagmeni Residence Single Member S.A., Greece

In March 2022, the Bank signed an agreement for the sale of its participation interest of 100% in Vouliagmeni Residence Single Member S.A. to a third party. On the basis of the said agreement, the company was classified as held for sale since 31 March 2022 and an impairment loss of € 0.7 million was recognised in the income statement line "Other impairment losses and provisions". In July 2022, the sale of the company was completed for a cash consideration of € 9.7 million with no effect on the Group's income statement.

(h) Eliade Tower S.A., Romania

In September 2022, the Group decided to proceed with the sale of its participation interest of 99.99% in Eliade Tower S.A. On this basis, as at 30 September 2022 the company was classified as held for sale and an impairment loss of € 1.5 million was recognized in the income statement line "Other impairment losses and provisions". In October 2022, the sale of Eliade Tower S.A. was completed for a cash consideration of € 4.4 million with an immaterial effect on the Group's income statement.

(i) Village Roadshow Operations Hellas S.A., Greece

The Bank had acquired "Village Roadshow Operations Hellas S.A." in the third quarter of 2021, following the enforcement of collateral on the company's shares under a lending arrangement. The company since its acquisition had been classified as held for sale. On 2 August 2022, in the context of the Group's loan restructuring activities, the Bank signed an agreement with a third party for the sale of its participation interest of 100% in the company and the restructuring of its existing loan facilities subject to certain preconditions, which were fulfilled in November 2022. Following the completion of the agreement, the Group recognized a) € 21.5 million benefit due to the reversal of loan provisions in the Bank's accounts, in the income statement line "Impairment losses relating to loans and advances to customers" and b) € 2 million loss from the disposal of the company's shares, including costs directly attributable to the agreement, in the income statement line "Other income/(expenses)".

(j) Sagiol Ltd, Macoliq Holdings Ltd and Senseco Trading Limited, Cyprus

In October 2022, the liquidation of the companies was decided.

(k) ERB Hellas (Cayman Islands) Ltd, Cayman Islands

In December 2022, the liquidation of the company was decided.

In 2021, the changes in the Group structure due to: a) acquisitions, mergers and establishment of companies, b) sales and other corporate actions, which resulted in loss of control, c) transactions with the non-controlling interests, which did not result in loss of control and d) liquidations, are as follows:

(i) **Grivalia New Europe S.A., Luxembourg**
In January 2021, the liquidation of the company was completed.

(ii) **Senseco Trading Ltd, Cyprus and Value Touristiki S.A., Greece**
In April 2021, the Bank acquired 100% of the shares and voting rights of Senseco Trading Limited for a cash consideration of € 6.7 million. The acquisition was accounted for as a business combination using the purchase method of accounting. At the date of acquisition, the fair value of the total net assets amounted to € 6.4 million mainly referring to 51% of the shares and voting rights of the Group's joint venture Value Touristiki S.A. Accordingly, the resulting goodwill asset amounted to € 0.3 million. Following the above transaction, Value Touristiki S.A. became a wholly owned subsidiary of the Bank. In accordance with the requirements for business combinations achieved in stages, the Group had remeasured its previously held interest of 49% in Value Touristiki S.A. at fair value of € 6.1 million, with a resulting gain of € 1.7 million that was recognized in "Other income/(expenses)".

(iii) Special purpose financing vehicle for the securitization of Bank's loans and related real estate company

In May 2021, in the context of the management of the Group's non performing exposures (NPE) the Bank, through its special purpose financing vehicle Mexico Finance Designated Activity Company, proceeded with the securitization of a mixed assets portfolio of primarily NPE and established the related real estate company Mexico Estate Single Member S.A. In September 2021, the BoD of Eurobank Holdings approved to proceed with the sale of 95% of the mezzanine and junior notes of Mexico securitization to doValue Group subject to the fulfillment of certain conditions. On 20 December 2021, following the completion of the Mexico transaction, the Group ceased to control the special purpose financing vehicle Mexico Finance Designated Activity Company and the related real estate company Mexico Estate Single Member S.A., and as a result they were not included in the consolidated financial statements for the year ended 31 December 2021 (note 20).

(iv) Eurobank A.D. Beograd and ERB Leasing A.D. Beograd – In Liquidation, Serbia

In December 2021, the merger of Eurobank's subsidiary in Serbia, Eurobank a.d. Beograd ("Eurobank Serbia") with Direktna Banka a.d. Kragujevac ("Direktna") was completed, after all necessary approvals from the competent authorities were obtained and the combined Bank was renamed to Eurobank Direktna a.d. As a result of the merger, the Group's percentage holding in its previously wholly owned subsidiaries Eurobank Direktna a.d. and ERB Leasing A.D. Beograd – In Liquidation decreased to 70% and 85.15%, respectively.

(v) Ragisena Ltd, Cyprus

In July 2021, Eurobank Cyprus Ltd disposed its participation interest of 100% in Ragisena Ltd to a third party for a cash consideration of € 0.8 million. The resulting gain on the disposal was immaterial.

(vi) Eurobank Holding (Luxembourg) S.A. under liquidation, Luxembourg

In September 2021, the liquidation of the company was decided and its dissolution was completed in December 2021.

(vii) Demerger of Eurobank Ergasias Leasing Single Member S.A.

In June 2021, in the context of the optimization of the Group's organizational structure and the enhancement of its competitiveness in the leasing market, the Extraordinary General Shareholders' Meetings of the Bank and its wholly owned subsidiary Eurobank Ergasias Leasing Single Member S.A. resolved the approval of the demerger of Eurobank Ergasias Leasing Single Member S.A. ("Demerged Entity") through (i) the transfer of part of its assets and liabilities to the Bank and (ii) the establishment of a new company through the transfer of the remaining part of the assets and liabilities of the Demerged Entity.

The aforementioned demerger was completed in October 2021, after receiving the required approvals by the competent Authorities, while a new company "Eurobank Leasing Single Member S.A" was established for this purpose, as described above. Moreover, the deregistration of the demerged entity "Eurobank Ergasias Leasing Single Member S.A." from the General Commercial Registry was completed.

In line with the Group's accounting policy for business combinations involving entities under common control, the transfer of the Demerged Entity's assets and liabilities to the Bank was performed at their pre-combination carrying amounts under the pooling of interests method, while the transfer of the Demerged Entity's assets and liabilities to the new company was accounted for as an internal capital reorganization, thus also transferred at their carrying amounts. The demerger had no impact in the Group's financial statements.

(viii) Standard Single Member Real Estate S.A., Greece

In December 2021, the Bank signed a shares sale and purchase agreement with the other shareholder of Standard Real Estate S.A. for the acquisition of the remaining shares (5.90%) in the company for a cash consideration of € 0.1 million. The effect of the transaction was immaterial and was recognized directly in the equity attributable to the shareholders of Eurobank Holdings. As a result, Standard Real Estate S.A. became a wholly owned subsidiary of the Bank. In January 2022, following the above transaction, the name of the company was amended with the inclusion of the term "Single member".

(ix) ERB Istanbul Holding A.S. in liquidation, Turkey

In December 2021, the liquidation of the company was decided and accordingly its name was amended to ERB Istanbul Holding A.S. in liquidation.

Agreement for the acquisition of BNP Paribas Personal Finance Bulgaria by Eurobank Bulgaria A.D.

On 9 December 2022, Eurobank Holdings announced that it had reached an agreement for the acquisition of BNP Paribas Personal Finance Bulgaria (the "Business") by Eurobank's subsidiary in Bulgaria, Eurobank Bulgaria A.D. ("Postbank"). Specifically, Postbank had signed a put option letter for the benefit of BNP Paribas Personal Finance providing for the sale of its Bulgarian branch, based on the agreed terms. Pursuant to the above agreement, a consultation process with the French Labour Council has taken place, the conclusion of which led to the signing of a Business Transfer Agreement in January 2023.

The transaction is in line with the Group's strategy to further strengthen Postbank's position in the Bulgarian retail sector and is expected to burden the Eurobank Holdings Group's regulatory capital ratios by c. 25bps, reflecting mainly the increase in the Group's Risk Weighted Assets. As of the end of September 2022, BNP Paribas Personal Finance Bulgaria, which operates through a network of 44 branches, had total assets of € 450 million, deposits close to € 100 million and a clientele of more than 270 thousand clients. The completion of the transaction is expected to take place in the first semester of 2023 subject to approvals by all competent regulatory authorities.

Other post balance sheet events

Retail Development S.A., Romania

In February 2023, the Bank signed an agreement for the sale of its participation interest of 99.99% in Retail Development S.A. to a third party.

Eurobank Direktna a.d., Serbia

On 2 March 2023, the Bank announced that it has signed a binding agreement (share purchase agreement) with AIK Banka a.d. Beograd ("AIK") for the sale of its 70% shareholding in its subsidiary in Serbia, Eurobank Direktna a.d. (the "Transaction"). Consequently, the subsidiary will be classified as held for sale and its results will be presented in discontinued operations. The Transaction is consistent with Eurobank's strategy to direct capital to opportunities with more compelling RoTBV (Return on Tangible Book Value) and to further enhance its presence in its core markets. In this context, based on the agreement, 100% of Eurobank Direktna was valued at €280 million.

The Transaction is expected to contribute ca. 50 bps to Eurobank Holdings Group's CET1 ratio (based on the third quarter of 2022 ratio), reflecting mainly the release of related RWAs (Risk Weighted Assets). It is expected to be completed within year 2023, subject to customary regulatory and other approvals.

ERB Hellas (Cayman Islands) Ltd, Cayman Islands

In February 2023, the return of the company's share capital to the Bank, through the repurchase of the whole of its own shares, was completed.

Significant restrictions on the Group's ability to access or use the assets and settle the liabilities of the Group

The Group does not have any significant restrictions on its ability to access or use its assets and settle its liabilities other than those resulting from regulatory, statutory and contractual requirements, set out below:

- Banking and other financial institution subsidiaries are subject to regulatory restrictions and central bank requirements in the countries in which the subsidiaries operate. Such supervisory framework requires the subsidiaries to maintain minimum capital buffers and certain capital adequacy and liquidity ratios, including restrictions to limit exposures and/or the transfer of funds to the Company and other subsidiaries within the Group. Accordingly, even if the subsidiaries' financial assets are not pledged at an individual entity level, their transfer within the Group may be restricted under the existing supervisory framework. As at 31 December 2022, the carrying amount of the Group financial institution subsidiaries' assets and liabilities, before intercompany eliminations, amounted to € 89.7 billion and € 80.3 billion, respectively, including Eurobank S.A. (2021: € 83.6billion and € 76.9 billion).

- Subsidiaries are subject to statutory requirements mainly relating with the level of capital and total equity that they should maintain, restrictions on the distribution of capital and special reserves, as well as dividend payments to their ordinary shareholders..

- The Group uses its financial assets as collateral for repo and derivative transactions, secured borrowing from central and other banks, issuances of covered bonds, as well as securitizations. As a result of financial assets' pledge, their transfer within the Group is not permitted. Information relating to the Group's pledged financial assets is provided in notes 17, 29 and 40.

- The Group is required to maintain mandatory and collateral deposits with central banks. Information for these deposits is provided in note 15.

23.2 Subsidiary with material Non Controlling Interest

In December 2021, the merger of Direktna Banka a.d. Kragujevac ("Direktna") with Eurobank's subsidiary in Serbia, Eurobank a.d. Beograd ("Eurobank Serbia") (the "Transaction") was concluded, with absorption of Direktna by Eurobank Serbia. Following the completion of the transaction Eurobank controls 70% of the combined bank, while Direktna's shareholders own the remaining 30%. Part of the Transaction was the dividend distribution and capital return to Eurobank Group of ca. € 232 million, after tax, in total.

As at 31 December 2022, the combined bank "Eurobank Direktna a.d." is the only entity of the Group with material non-controlling interests. Financial information regarding the combined bank, which is before inter-company eliminations with other companies of the Group, is provided in the table below.

	2022 € million	2021 € million
Total operating income	**93.5**	66.6
Net profit	**0.4**	0.3
Other comprehensive income	**(4.2)**	(0.8)
Total comprehensive income	**(3.8)**	(0.5)
Total comprehensive income attibutable to non controlling interests	**(1.1)**	(1.4)
Total assets	**2,580**	2,469
Total liabilities	**2,265**	2,150
Net assets	**315**	319
Net assets attributable to non controlling interests	**95**	96
Cash and cash equivalents at beginning of year	**224**	153
Cash and cash equivalents at end of year	**208**	224

24. Investments in associates and joint ventures

As at 31 December 2022, the carrying amount of the Group's investments in associates and joint ventures amounted to € 173 million (2021: € 267 million). The following is the listing of the Group's associates and joint ventures as at 31 December 2022:

Name	Note	Country of incorporation	Line of business	Group's share
Femion Ltd		Cyprus	Special purpose investment vehicle	66.45
(Under liquidation) Tefin S.A.		Greece	Dealership of vehicles and machinery	50.00
Global Finance S.A.(1)		Greece	Investment financing	33.82
Rosequeens Properties Ltd(2)		Cyprus	Special purpose investment vehicle	33.33
Odyssey GP S.a.r.l.		Luxembourg	Special purpose investment vehicle	20.00
Eurolife FFH Insurance Group Holdings S.A.(1)		Greece	Holding company	20.00
Alpha Investment Property Commercial Stores S.A.		Greece	Real estate	30.00
Peirga Kythnou P.C.		Greece	Real estate	50.00
doValue Greece Loans and Credits Claim Management S.A.		Greece	Loans and Credits Claim Management	20.00
Perigenis Business Properties S.A.		Greece	Real estate	18.90

(1) Eurolife Insurance group (Eurolife FFH Insurance Group Holdings S.A. and its subsidiaries) and Global Finance group (Global Finance S.A. and its subsidiaries) are considered as the Group's associates.

(2) Rosequeens Properties Ltd (including its subsidiary Rosequeens Properties SRL until December 2022) is considered as a Group's joint venture.

Omega Insurance and Reinsurance Brokers S.A. in which the Group holds 26.05% is not accounted under the equity method in the consolidated financial statements. The Group is not represented in the Board of Directors of the company, therefore does not exercise significant influence over it.

Femion Ltd. is accounted for as a joint venture of the Group based on the substance and the purpose of the arrangement and the terms of the shareholder's agreement which require the unanimous consent of the shareholders for significant decisions and establish shared control through the equal representation of the shareholders in the management bodies of the company.

Perigenis Business Properties S.A. is accounted for as an associate of the Group based on the Bank's representation in the Board of Directors and the decision-making process as prescribed in the company's articles of association.

(a) Grivalia Hospitality S.A., Luxembourg

On 24 March 2022, the Bank signed a Share Purchase Agreement for the disposal of a 5.1% shareholding in the Group's joint venture Grivalia Hospitality S.A. for a total consideration of € 15.9 million. As a result of the transaction, the Bank's shareholding in Grivalia Hospitality S.A. decreased from 25% to 19.9% and in combination with the terms of the revised Shareholders' Agreement signed with the other shareholders on the same date, the Bank ceased to have joint control over the entity and hence has discontinued the use of the equity method of accounting. Following the aforementioned sale, as of 31 March 2022, the retained interest in the entity has been measured as a financial asset at FVTPL with any change in the carrying amount to be recognized in the income statement. Accordingly, the difference between: (i) the fair value of the retained interest on the aforementioned date, amounting to € 71.2 million and the proceeds received from the said partial disposal and (ii) the previous carrying amount of the investment in the entity under the equity method amounting to € 54.2 million, resulted in a total gain of € 32.3 million, net of the recyclement of € 0.6 million foreign currency translation losses (previously recognized in other comprehensive income), that was recognised in the income statement in "Other income/(expenses)". For the year ended 31 December 2022, the above gain was further adjusted to € 34 million.

(b) Information Systems Impact S.A., Greece

In July 2022, the Bank disposed of its participation interest in Information Systems Impact S.A. to a third party for a cash consideration of € 3.9 million. The resulting gain on disposal amounted to € 1.1 million and was recognized in "Other income/(expenses)".

(c) Intertech S.A. – International Technologies, Greece

In September 2022, the Bank disposed of its participation interest in Intertech S.A. – International Technologies (which since its acquisition in the third quarter of 2021 was classified as held for sale) to a third party for a cash consideration of € 1.9 million with an immaterial effect on the Group's income statement.

(d) Sinda Enterprises Company Ltd, Cyprus

In October 2022, the Bank disposed of its participation interest in Sinda Enterprises Company Ltd to a third party for a cash consideration of € 3.2 million. The resulting loss on disposal amounted to € 1.1 million and was recognized in "Other income/(expenses)".

(e) Rosequeens Properties Ltd, Romania

In December 2022, the Group's joint venture Rosequeens Properties Ltd, disposed of its subsidiary Rosequeens Properties SRL to a third party.

Associates and joint ventures material to the Group

With regards to the Group's associates and joint ventures, Eurolife FFH Insurance Group Holdings S.A. and doValue Greece Loans and Credits Claim Management S.A. are considered individually material for the Group. Financial information regarding those entities is provided in the tables below:

Eurolife FFH Insurance Group Holdings S.A.

	2022 € million	2021 € million
Current assets	**3,148**	3,451
Non-current assets	**226**	132
Total assets	**3,374**	3,583
Current liabilities	**403**	391
Non-current liabilities	**2,410**	2,491
Total liabilities	**2,813**	2,882
Equity	**561**	701
Group's carrying amount of the investment	**112**	140
Operating income	**169**	129
Net profit	**94**	65
Other comprehensive income	**(163)**	(19)
Total comprehensive income	**(69)**	46
Dividends paid to the Group	**14**	17

doValue Greece Loans and Credits Claim Management S.A.

	2022 € million	2021 € million
Current assets	**90**	128
Non-current assets	**347**	361
Total assets	**437**	489
Current liabilities	**95**	157
Non-current liabilities	**121**	140
Total liabilities	**216**	297
Equity	**221**	192
Group's share in equity	**44**	38
Goodwill and other adjustments [(1)]	**1**	12
Group's carrying amount of the investment	**45**	50
Operating income[(1)]	**72**	77
Net profit[(1)]	**53**	54
Total comprehensive income[(1)]	**53**	54
Dividends paid to the Group	**5**	3

[(1)] In the year ended 31 December 2022, other adjustments of € 11 million (expense) refer mainly to the elimination of the Group's share of the associate's gains relating to upstream transactions with the Bank. The Group's share of the associate's operating income, net profit and total comprehensive income, after the above adjustments amount to € 3 million, € 0.5 million loss, € 0.5 million loss respectively.

The carrying amount, in aggregate, of the Group's joint ventures as at 31 December 2022 amounted to € 6 million (2021: € 65 million including Grivalia Hospitality S.A). The Group's share of profit and loss and total comprehensive income of the above entities was immaterial (2021: € 1 million).

The carrying amount, in aggregate, of the Group's associates excluding Eurolife FFH Insurance Group Holdings S.A. and doValue Greece Loans and Credits Claim Management S.A. which is presented above (i.e. Global Finance S.A., Odyssey GP S.a.r.l., and Perigenis Business Properties S.A.) as at 31 December 2022 amounted to € 9 million (2021: € 12 million). The Group's share of profit and loss and total comprehensive income of the above entities was immaterial (2021: immaterial).

The Group has not recognized losses in relation to its interest in its joint ventures, as its share of losses exceeded its interest in them and no incurred obligations exist or any payments were performed on behalf of them. For the year ended 31 December 2022, the unrecognized share of losses for the Group's joint ventures amounted to € 2 million (2021: € 2 million). The cumulative amount of unrecognized share of losses for the joint ventures amounted to € 4 million (2021: € 24 million).

As at 31 December 2022, the Group has no unrecognized commitments in relation to its participation in joint ventures nor any contingent liabilities regarding its participation in associates or joint ventures, which could result to a future outflow of cash or other resources.

The Group's associate Eurolife FFH Insurance Group Holdings S.A is subject to regulatory and statutory restrictions and is required to maintain sufficient capital to satisfy its insurance obligations.

Except as described above, no significant restrictions exist (e.g. resulting from loan agreements, regulatory requirements or other contractual arrangements) on the ability of associates or joint ventures to transfer funds to the Group either as dividends or to repay loans that have been financed by the Group.

25. Structured Entities

The Group is involved in various types of structured entities, such as securitization vehicles, mutual funds and private equity funds.

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. A structured entity often has restricted activities, a narrow well-defined objective, insufficient equity to permit it to finance its activities without subordinated financial support and financing in the form of multiple contractually linked instruments to investors that create concentrations of credit or other risks.

An interest in a structured entity refers to contractual and non-contractual involvement that exposes the Group to variability of returns from the performance of the structured entity. Examples of interest in structured entities include the holding of debt and equity instruments, contractual arrangements, liquidity support, credit enhancement, residual value.

Structured entities may be established by the Group or by a third party and are consolidated when the substance of the relationship is such that the structured entities are controlled by the Group, as set out in note 2.2.1(i). As a result of the consolidation assessment performed, the Group has involvement with both consolidated and unconsolidated structured entities, as described below.

Consolidated structured entities

The Group, as part of its funding activity, enters into securitization transactions of various classes of loans (corporate, small and medium enterprise, mortgage, consumer loans, credit card and bond loans), which generally result in the transfer of the above assets to structured entities (securitization vehicles), which, in turn issue debt securities held by investors and the Group's entities. The Group monitors the credit quality of the securitizations' underlying loans, as well as the credit ratings of the debt instruments issued, when applicable, and provides either credit enhancements to the securitization vehicles and/or transfers new loans to the pool of their underlying assets, whenever necessary, in accordance with the terms of the relevant contractual arrangements in force.

A listing of the Group's consolidated structured entities is set out in note 23.

As at 31 December 2022, the face value of debt securities issued by the securitizations sponsored by the Group amounted to € 5,258 million, of which € 4,705 million were held by the Bank (2021: € 5,916 million, of which € 5,364 million were held by the Bank) (notes 20 and 34).

The Group did not provide any non contractual financial or other support to these structured entities, where applicable, and currently has no intention to do so in the foreseeable future.

Unconsolidated structured entities

The Group enters into transactions with unconsolidated structured entities, which are those not controlled by the Group, in the normal course of business, in order to provide fund management services or take advantage of specific investment opportunities.

Moreover, the Group in the context of its NPEs reduction acceleration plan entered into the securitization of various classes of NPEs through the issue of senior, mezzanine and junior notes (Cairo, Pillar and Mexico, note 20).

Group managed funds

The Group establishes and manages structured entities in order to provide customers, either retail or institutional, with investment opportunities. Accordingly, through its subsidiaries Eurobank Asset Management Mutual Fund Mngt Company S.A. and Eurobank Fund Management Company (Luxembourg) S.A., it is engaged with the management of different types of mutual funds, including fixed income, equities, funds of funds and money market.

Additionally, the Group is entitled to receive management and other fees and may hold investments in such mutual funds for own investment purposes as well as for the benefit of its customers.

The Group is involved in the initial design of the mutual funds and, in its capacity as fund manager, takes investment decisions on the selection of their investments, nevertheless within a predefined, by relevant laws and regulations, decision making framework. Therefore, the Group has determined that it has no power over these funds.

Furthermore, in its capacity as fund manager, the Group primary acts as an agent in exercising its decision making authority over them. Based on the above, the Group has assessed that it has no control over these mutual funds and as a result does not consolidate them. The Group does not have any contractual obligation to provide financial support to the managed funds and does not guarantee their rate of return.

Non-Group managed funds

The Group purchases and holds units of third party managed funds including mutual funds, private equity and other investment funds.

Securitizations

The Group has interests in unconsolidated securitization vehicles by investing in residential mortgage backed and other asset-backed securities issued by these entities.

The table below sets out the carrying amount of the Group's interests in unconsolidated structured entities, recognized in the consolidated balance sheet as at 31 December 2022, representing its maximum exposure to loss in relation to these interests. Information relating to the total income derived from interests in unconsolidated structured entities, recognized either in profit or loss or other comprehensive income during 2022 is also provided (i.e. fees, interest income, net gains or losses on revaluation and derecognition):

	31 December 2022			
	Unconsolidated structured entity type			
	Securitizations € million	Group managed funds € million	Non- Group managed funds € million	Total € million
Group's interest- assets				
Loans and advances to customers[1]	4,911	-	-	**4,911**
Investment securities	1,486	71	17	**1,574**
Other Assets	-	2	-	**2**
Total	**6,397**	**73**	**17**	**6,487**
Total income from Group interests	77	48	2	**127**

	31 December 2021			
	Unconsolidated structured entity type			
	Securitizations	Group managed funds	Non- Group managed funds	Total
	€ million	€ million	€ million	€ million
Group's interest- assets				
Loans and advances to customers [1]	5,116	-	-	5,116
Investment securities	691	63	19	773
Other Assets	-	2	-	2
Total	5,807	65	19	5,891
Total income from Group interests	64	70	3	137

[1] *Includes the senior and mezzanine notes of the Pillar, Cairo and Mexico securitizations (note 20).*

For the year ended 31 December 2022, total income related to the Group's interests from securitizations mainly includes: (i) € 81 million, € 2 million and € 0.7 million interest income of debt securities retained by the Group measured at amortized cost, at FVOCI and FVTPL respectively and (ii) € 6.9 million from gains or losses on revaluation recognized in other comprehensive income. Total income from Group interests in relation to Group managed funds consists of: (i) € 50.1 million income relating to management fees and other commissions for the management of funds and (ii) € 2.5 million gains or losses on revaluation or from sale of the Group's holding in funds recognized in profit or loss. In addition, total income in relation to non-Group managed funds consists mainly of gains or losses on revaluation or from sale of the Group's holding in funds and has been recognized in profit or loss.

As at 31 December 2022, the total assets of funds under the Group's management as well as the notional amount of notes in issue by unconsolidated securitization vehicles amounted to € 3,163 million (2021: € 3,303 million) and € 33,227 million (2021: € 24,856 million), respectively.

26. Property and equipment

	31 December 2022				
	Land, buildings, leasehold improvements	Furniture, equipment, motor vehicles	Computer hardware, software	Right of use assets (RoU)[1]	Total
	€ million	€ million	€ million	€ million	€ million
Cost:					
Balance at 1 January	**675**	**198**	**507**	**336**	**1,716**
Transfers	**(10)**	**0**	**6**	**-**	**(4)**
Transfers from/to repossessed assets	**1**	**(2)**	**-**	**-**	**(1)**
Additions	**24**	**18**	**29**	**18**	**89**
Disposals, write-offs and adjustment to RoU [2]	**(9)**	**(8)**	**(5)**	**(26)**	**(48)**
Impairment	**(6)**	**(0)**	**(11)**	**-**	**(17)**
Held for sale (note 30)	**1**	**-**	**-**	**-**	**1**
Balance at 31 December	**676**	**206**	**526**	**328**	**1,736**
Accumulated depreciation:					
Balance at 1 January	**(217)**	**(155)**	**(423)**	**(106)**	**(901)**
Transfers	**1**	**0**	**-**	**-**	**1**
Disposals, write-offs and adjustment to RoU [2]	**8**	**8**	**4**	**6**	**26**
Charge for the year	**(13)**	**(9)**	**(24)**	**(41)**	**(87)**
Balance at 31 December	**(221)**	**(156)**	**(443)**	**(141)**	**(961)**
Net book value at 31 December	**455**	**50**	**83**	**187**	**775**

	31 December 2021				
	Land, buildings, leasehold improvements € million	Furniture, equipment, motor vehicles € million	Computer hardware, software € million	Right of use assets (RoU)[(1)] € million	Total € million
Cost:					
Balance at 1 January	685	198	477	274	1,634
Arising from acquisitions/merger	6	1	-	9	16
Transfers	(15)	(2)	12	-	(5)
Additions	14	9	27	10	60
Disposals, write-offs and adjustment to RoU[(2)]	(12)	(8)	(8)	43	15
Impairment	(2)	(0)	(1)		(3)
Held for sale (note 30)	(1)	-	-	-	(1)
Balance at 31 December	675	198	507	336	1,716
Accumulated depreciation:					
Balance at 1 January	(216)	(157)	(411)	(72)	(856)
Transfers	2	1	-	-	3
Disposals, write-offs and adjustment to RoU[(2)]	10	8	8	4	30
Charge for the year	(13)	(7)	(20)	(38)	(78)
Held for sale (note 30)	0	-	-	0	0
Balance at 31 December	(217)	(155)	(423)	(106)	(901)
Net book value at 31 December	458	43	84	230	815

[(1)] The respective lease liabilities are presented in "other liabilities" (note 35).

[(2)] It refers to termination, modifications and remeasurements of RoU. It includes the remeasurement from revised estimates of the lease term during the year, considering all facts and circumstances that affect the Group's housing needs.

As at 31 December 2022, the RoU assets amounting to € 187 million (31 December 2021: € 230 million) refer to leased office and branch premises, ATM locations, residential properties of € 180 million (31 December 2021: € 223 million) and motor vehicles of € 7 million (31 December 2021: € 7 million).

Leasehold improvements relate to premises occupied by the Group for its own activities.

27. Investment property

The Group applies the fair value model regarding the measurement of Investment Property according to IAS 40 "Investment property".

The movement of investment property is as follows:

	2022 **€ million**	2021 € million
Balance at 1 January	**1,492**	1,459
Additions	**4**	3
Arising from acquisition	**-**	33
Transfers from/to repossessed assets	**13**	3
Other transfers	**9**	13
Disposals	**(119)**	(31)
Net gain/(loss) from fair values adjustments	**32**	30
Held for sale (note 30)	**(21)**	(18)
Balance at 31 December	**1,410**	1,492

As at 31 December 2022, RoU assets that meet the definition of investment property amount to € 14 million (31 December 2021: € 14 million). The respective lease liabilities are presented in "other liabilities" (note 35).

Changes in fair values of investment property are recognized as gains/(losses) in profit or loss and included in the "Other Income/(expense)" (note 10). All gains/(losses) are unrealized.

During the year ended 31 December 2022, an amount of € 88 million (2021: € 93 million) was recognized as rental income from investment property in income from non banking services (note 8). As at 31 December 2022, the contractual obligations in relation to investment property amounted to approximately € 4 million, and are associated with property redevelopment, repairs and maintenance.

The main classes of investment property have been determined based on the nature, the characteristics and the risks of the Group's properties. The fair value measurements of the Group's investment property, which are categorized within level 3 of the fair value hierarchy, are presented in the below table.

	2022 **€ million**	2021 € million
Residential	**11**	21
Commercial	**1,358**	1,420
Land Plots	**32**	35
Industrial	**9**	16
Total	**1,410**	1,492

The basic methods used for estimating the fair value of the Group's investment property are the income approach (income capitalization/discounted cash flow method), the comparative method and the cost approach, which are also used in combination depending on the class of property being valued.

The discounted cash flow method is used for estimating the fair value of the Group's commercial investment property. Fair value is calculated through the projection of a series of cash flows using explicit assumptions regarding the benefits and liabilities of ownership (income and operating costs, vacancy rates, income growth), including the residual value anticipated at the end of the projection period. To this projected cash flows series, an appropriate, market-derived discount rate is applied to establish its present value.

Under the income capitalization method, also used for the commercial class of investment property, a property's fair value is estimated based on the normalized net operating income generated by the property, which is divided by the capitalization rate (the investor's rate of return).

The comparative method is used for the residential, commercial and land plot classes of investment property. Fair value is estimated based on data for comparable transactions, by analyzing either real transaction prices of similar properties, or by asking prices after performing the necessary adjustments.

The cost approach is used for estimating the fair value of the residential and the industrial classes of the Group's investment property. This approach refers to the calculation of the fair value based on the cost of reproduction/replacement (estimated construction costs), which is then reduced by an appropriate rate to reflect depreciation.

The Group's investment property valuations are performed taking into consideration the highest and best use of each asset that is physically possible, legally permissible and financially feasible.

The main method used to estimate the fair value of Group's Investment property portfolio as at 31 December 2022, is the discounted cash flow method. Significant unobservable inputs used in the fair value measurement of the relevant portfolio are the rental income growth and the discount rate. Increase in rental income growth would result in increase in the carrying amount while an increase in the discount rate would have the opposite result. The discount rate used ranges from 7% to 12%. As at 31 December 2022, an increase or decrease of 5% in the discount rate used in the DCF analysis, would result in a downward or upward adjustment of the carrying value of the respective investment properties by € 31 million.

In 2022, the Greek real estate market attracted significant investment capital, especially in the first half, when the pace of domestic and foreign investment activity returned to the pre-Covid 19 pandemic level. However, towards the end of the year, the rise of inflation and interest rates, as well as the increase in energy and construction costs as a result of the Ukraine war, led market participants to become more cautious and selective in their investment decisions. Nevertheless, the demand for quality sustainable properties outstrips current market supply, therefore the value of these assets is expected to demonstrate resilience going forward, even during an economic slowdown.

In this volatile economic environment, the diversification of the Group's investment property portfolio, which primarily consists of office and big box/supermarket properties, has proven to be an effective shield, as despite the increase of interest rates in 2022, it recorded fair value gains of c. €34 million mainly due to the increase of the value of specific offices leased to prime tenants and logistics (note 10).

In particular, the characteristics of the Group's investment property portfolio in terms of tenant's quality (AAA tenants) and sustainable lease contracts that were also favored by CPI indexation, as well as the specifications of the properties were taken into account by the valuators in determining the fair value of the Group's investment properties.

Moreover, the office and logistics sectors continue to exhibit strong supply/demand fundamentals in Greece, whereas the retail sector, considering the recovery in private consumption in the post-pandemic environment, is experiencing a strong leasing and investment activity especially in big box retail properties, although it lags in rental growth compared to other sectors.

The Group will continue to monitor closely the effect of the economic environment and the trends that will be demonstrated in the investment real estate market in the upcoming period on the valuation of its investment properties, while intensifying its efforts to implement "green" energy investments on its properties.

28. Intangible assets

The movement of computer software and other intangible assets which refer to purchased and developed software is as follows:

	2022	2021
	€ million	€ million
Cost:		
Balance at 1 January	**587**	539
Arising from acquisitions	**-**	2
Transfers	**(6)**	(12)
Additions	**94**	77
Disposals and write-offs	**(7)**	(3)
Impairment	**(10)**	(16)
Balance at 31 December	**658**	587
Accumulated amortisation:		
Balance at 1 January	**(320)**	(287)
Transfers	**-**	0
Amortisation charge for the year	**(49)**	(36)
Disposals and write-offs	**7**	3
Balance at 31 December	**(362)**	(320)
Net book value at 31 December	**296**	267

As at 31 December 2022, the Group's remaining carrying amount of goodwill amounts to € 1.6 million (31 December 2021: € 1.6 million), out of which € 0.9 million relates to ERB Lux Immo S.A.

29. Other assets

	2022 € million	2021 € million
Receivable from Deposit Guarantee and Investment Fund	**495**	706
Repossessed properties and relative prepayments	**577**	597
Pledged amount for a Greek sovereign risk financial guarantee	**234**	235
Balances under settlement(1)	**51**	18
Deferred costs and accrued income	**92**	104
Other guarantees	**215**	128
Income tax receivable(2)	**30**	30
Other assets	**286**	247
Total	**1,980**	2,065

(1) *Includes settlement balances with customers and brokerage activity.*
(2) *Includes withholding taxes, net of provisions.*

In September 2022, the law 4370/2016 in respect of the deposit guarantee schemes of the Greek credit institutions was amended by law 4972/2022. Pursuant to the law's amendments, the receivable from the Hellenic Deposit and Investment Guarantee Fund (HDIGF) referring to the "Supplementary Deposit Cover Fund" is refundable to the Greek credit institutions in three equal instalments, starting three months after the enactment of the law and each year thereafter, subject to the provisions of the article 25a of the law. Following that, in December 2022 an amount of € 210 million was refunded to the Bank by HDIGF.

As at 31 December 2022, other assets net of provisions, amounting to € 286 million include, among others, receivables related to (a) prepayments to suppliers, (b) public entities, (c) property management activities (d) legal cases and e) project Triangle (note 30).

30. Disposal groups classified as held for sale

	2022 € million	2021 € million
Assets of disposal groups		
Real estate properties	**15**	31
Loans related to project Solar (note 20)	**69**	-
Village Roadshow Operations Hellas S.A. and Intertech S.A. – International Technologies	**-**	81
IMO 03 E.A.D. (note 23)	**-**	6
Credit card acquiring - project Triangle	**-**	28
Total	**84**	146
Liabilities of disposal groups		
Village Roadshow Operations Hellas S.A.	**-**	72
Credit card acquiring - project Triangle	**-**	37
Other liabilities related to project Solar (note 20)	**1**	-
Total	**1**	109

Real estate properties

Starting from the end of 2019, the Group, in the context of its strategy for the active management of its real estate portfolio (repossessed, investment properties and own used properties), has gradually classified as held for sale (HFS) certain pools of real estate assets of total remaining carrying amount ca. € 15 million as at 31 December 2022 (31 December 2021: € 31 million), after their remeasurement in accordance with the IFRS 5 requirements. The Group remains committed to its plan to sell the aforementioned assets, which is expected to be completed within 2023, and undertakes all necessary actions towards this direction.

The above non-recurring fair value measurements were categorized as Level 3 of the fair value hierarchy due to the significance of the unobservable inputs used, with no change occurring up to 31 December 2022.

Eurobank Merchant Acquiring business -Project 'Triangle'

On 7 December 2021, the Company announced that its subsidiary Eurobank S.A. ("Eurobank") had signed a binding agreement with Worldline B.V. ("Worldline") that included, among others, a) the sale of 80% of Eurobank's merchant acquiring business ("PayCo") to Worldline and b) a long term agreement for the exclusive distribution of PayCo products in Greece through Eurobank's sales network. On the basis of the aforementioned agreement, as of 31 December 2021 "PayCo" was classified as held for sale.

On 30 June 2022, after receiving all necessary approvals, the spin-off of the Bank's merchant acquiring business to Cardlink Payment Institution S.A. ("Cardlink One"), a licensed payment institution, and the transfer of 80% of Cardlink One's shares to Worldline was completed for a cash consideration of € 254 million, after certain adjustments. Furthermore, under the related shareholders' agreement, the remaining 20% interest in "Cardlink One" is subject to a combination of call and put options, exercisable after approximately 3 years.

As a result of the sale transaction for the 80% shareholding and based on the terms of the shareholders' agreement in reference to the combination of options for the 20% shareholding, the Bank has fully derecognised the merchant acquiring business, since through the combination of options, access to substantially all the returns associated with the remaining 20% ownership interest is deemed to be transferred to Wordline at the time of the transaction.

On this basis, other than the cash consideration, on 30 June 2022 the Bank recognised in other assets a financial asset to be measured at fair value through profit or loss equal to € 68.5 million, representing the present value of the contractual right to receive the options' estimated exercise price at the time of their execution. In addition, on the same date, the Bank recognised in other assets € 15.1 million deferred consideration in accordance with the terms of the agreement.

Following the above, the resulting gain from the transaction that was recognised in "Other income/(expenses)", amounted to ca. € 325 million before tax (ca. € 231 million after tax), including the costs directly attributable to the transaction.

31. Due to central banks

	2022	2021
	€ million	€ million
Secured borrowing from ECB	**8,774**	11,663

As at 31 December 2022, the Group had € 8.9 billion outstanding principal under the TLTRO III refinancing program of the European Central Bank (ECB), following the maturity of €1.9 billion and the early repayment of 1 billion during the quarter, whereas the respective net income recognized under interest expense amounted to € 53 million (note 6). On the basis that the Group met the required lending thresholds, the above income was calculated under the program's more favorable interest rates that provides for an interest rate of -1% for the special interest period from 24 June 2020 to 23 June 2022 and the average deposit facility rate (DFR) as set by ECB's decisions, thereafter.

32. Due to credit institutions

	2022	2021
	€ million	€ million
Secured borrowing from credit institutions	**764**	270
Borrowings from international financial and similar institutions	**663**	619
Deposits from banks received as collateral[(1)]	**294**	27
Current accounts and settlement balances with banks	**76**	54
Interbank takings	**17**	3
Total	**1,814**	973

[(1)] for 2022 the amount presented is after offsetting € 932 million against derivatives assets and liabilities (note 5.2.1.4)

As at 31 December 2022, borrowings from international financial and similar institutions include borrowings from European Investment Bank, European Bank for Reconstruction and Development and other similar institutions.

33. Due to customers

	2022 € million	2021 € million
Savings and current accounts	**42,840**	40,601
Term deposits	**14,198**	12,367
Repurchase agreements	**201**	200
Total	**57,239**	53,168

For the year ended 31 December 2022, due to customers for the Greek and International operations amounted to € 39,575 million and € 17,664 million, respectively (2021: € 37,016 million and € 16,152 million, respectively).

34. Debt securities in issue

	2022 € million	2021 € million
Securitisations	**553**	552
Subordinated notes (Tier 2)	**1,259**	948
Medium-term notes (EMTN)	**1,740**	1,052
Total	**3,552**	2,552

Securitisations

The carrying value of the class A asset backed securities issued by the Bank's special purpose entities Karta II plc and Astarti DAC as at 31 December 2022, amounted to € 303 million and € 250 million, respectively.

Tier 2 Capital instruments

On 30 November 2022, the Company announced the issuance of a € 300 million subordinated Tier II debt instrument which matures in December 2032, is callable in December 2027 offering a coupon of 10% per annum and is listed on the Luxembourg Stock Exchange's Euro MTF market. On the same date, the Bank issued a subordinated instrument of equivalent terms, held by the Company. The proceeds from the issue will support Eurobank Holding's group strategy to ensure ongoing compliance with its total capital adequacy ratio requirements and will be used for Eurobank S.A.'s general funding purposes.

Further information about the issue is provided in the relevant announcement published in the Company's website on 30 November 2022.

In January 2018, Eurobank Ergasias S.A. issued Tier 2 capital instruments of face value of € 950 million, in replacement of the preference shares which had been issued in the context of the first stream of Hellenic Republic's plan to support liquidity in the Greek economy under Law 3723/2008. The aforementioned instruments have a maturity of ten years (until 17 January 2028) and pay fixed nominal interest rate of 6.41%, that shall be payable semi-annually.

Covered bonds

Financial disclosures required by the Act 2620/28.08.2009 of the Bank of Greece in relation to the covered bonds issued, are available at the Bank's website (Investor Report for Covered Bonds Programs).

Medium-term notes (EMTN)

In June 2022, the Bank proceeded with the issue of a preferred senior debt with a nominal value of € 500 million, of which € 7 million were held by a Bank's subsidiary. The bond, which is listed in the Luxembourg Stock Exchange's Euro MTF market, matures in March 2025 and is callable at par in March 2024, offering a coupon of 4.375% per annum.

This transaction is another step towards the implementation of Eurobank's medium-term strategy to meet its MREL requirements. The proceeds from the issue will be used for Eurobank's general funding purposes.

Further information about the issue is provided in the relevant announcement published in the Bank's website on 1 June 2022.

During the year ended 31 December 2022, the Bank proceeded with the issue of medium term notes of face value of € 286 million, which were designated for Group's customers.

Post balance sheet event

In January 2023, the Bank completed the issue of a € 500 million senior preferred note. The bond, which is listed in the Luxembourg Stock Exchange's Euro MTF market, matures in January 2029 and is callable at par in January 2028, offering a coupon of 7% per annum.

The proceeds from the issue will support Group's strategy to ensure ongoing compliance with its MREL requirements and will be used for the Bank's general funding purposes.

Further information about the issue is provided in the relevant announcement published in the Bank's website on 20 January 2023.

35. Other liabilities

	2022 € million	2021 € million
Lease liabilities	**205**	248
Balances under settlement[1]	**444**	374
Deferred income and accrued expenses	**165**	157
Other provisions	**71**	95
ECL allowance for credit related commitments (note 5.2.1.2)	**57**	48
Standard legal staff retirement indemnity obligations (note 36)	**19**	23
Employee termination benefits	**61**	64
Sovereign risk financial guarantee	**33**	36
Income taxes payable	**14**	15
Deferred tax liabilities (note 13)	**31**	26
Trading liabilities	**419**	43
Other liabilities	**182**	229
Total	**1,701**	1,358

[1]Includes settlement balances relating to bank cheques and remittances, credit card transactions, other banking and brokerage activities.

As at 31 December 2022, other liabilities amounting to € 182 million mainly consist of payables relating with (a) suppliers and creditors, (b) contributions to insurance organizations, and (c) duties and other taxes.

As at 31 December 2022, trading liabilities amounting to € 419 million (31 December 2021: € 43 million) reflect the higher levels of short positions in debt instruments, entered into in the context of the Group's economic hedging strategies, aiming to manage on a pool basis market driven risks that derive from asset positions. For the year ended 31 December 2022, the gain recognized in net trading income from the aforementioned short positions amounted to € 107 million.

As at 31 December 2022, other provisions amounting to € 71 million (2021: € 95 million) mainly include: (a) € 28 million for outstanding litigations against the Group (note 42) and (b) € 43 million for other operational risk events, of which € 22 million is relating to the sale of former Romanian subsidiaries.

The movement of the Group's other provisions, is presented in the following table:

	31 December 2022		
	Litigations and claims in dispute € million	Other € million	Total € million
Balance at 1 January	**64**	**31**	**95**
Amounts charged during the year	**13**	**12**	**25**
Amounts used during the year	**(46)**	**(1)**	**(47)**
Amounts reversed during the year	**(3)**	**(2)**	**(5)**
Foreign exchange and other movements	**-**	**3**	**3**
Balance at 31 December	**28**	**43**	**71**

	31 December 2021		
	Litigations and claims in dispute € million	Other € million	Total € million
Balance at 1 January	60	33	93
Arising from acquisition	2		2
Amounts charged during the year	9	3	12
Amounts used during the year	(5)	(4)	(9)
Amounts reversed during the year	(2)	(1)	(3)
Balance at 31 December	64	31	95

For the year ended 31 December 2022, an amount of € 48 million has been recognised in the Group's income statement for employee termination benefits mainly in respect of the new Voluntary Exit Scheme (VES) that was launched by the Group in February 2022 for eligible units in Greece and offered to employees over a specific age limit. The new VES is implemented through either lump-sum payments or long-term leaves during which the employees will be receiving a percentage of a monthly salary, or a combination thereof. The estimated saving in personnel expenses amounts to € 16 million on an annual basis.

36. Standard legal staff retirement indemnity obligations

The Group provides for staff retirement indemnity obligation for its employees in Greece and abroad, who are entitled to a lump sum payment based on the number of years of service and the level of remuneration at the date of retirement, if they remain in the employment of the Group until normal retirement age, in accordance with the local labor legislation. The above retirement indemnity obligations typically expose the Group to actuarial risks such as interest rate risk and salary risk. Therefore, a decrease in the discount rate used to calculate the present value of the estimated future cash outflows or an increase in future salaries will increase the staff retirement indemnity obligations of the Group.

The movement of the liability for standard legal staff retirement indemnity obligations is as follows:

	2022 **€ million**	2021 € million
Balance at 1 January	**23**	22
Arising from acquisition	**-**	0
Current service cost	**3**	3
Interest cost	**0**	0
Past service cost and (gains)/losses on settlements	**49**	38
Remeasurements:		
Actuarial (gains)/losses arising from changes in financial assumptions	**(2)**	(1)
Actuarial (gains)/losses arising from changes in demographic assumptions	**(0)**	0
Actuarial (gains)/losses arising from experience and other adjustments	**(2)**	0
Benefits paid	**(52)**	(39)
Exchange adjustments	**0**	(0)
Balance at 31 December	**19**	23

The benefits paid by the Group during 2022, in the context of the Voluntary Exit Scheme (VES) (note 35), amounted to € 52 million. The provision for staff retirement obligations of the staff that participated in the above scheme, amounted to € 2 million.

The significant actuarial assumptions (expressed as weighted averages) were as follows:

	2022 **%**	2021 %
Discount rate	**3.4**	0.6
Future salary increases	**2.9**	1.6

As at 31 December 2022, the assumption for the price inflation (weighted average) is 2.6% (2021: 2%) and has been taken into account in determining the above actuarial assumptions for future salaries increases.

As at 31 December 2022, the average duration of the standard legal staff retirement indemnity obligation was 8 years (2021: 8 years).

A quantitative sensitivity analysis based on reasonable changes to significant actuarial assumptions as at 31 December 2022 is as follows:

An increase/(decrease) of the discount rate assumed, by 50 bps/(50 bps), would result in a (decrease)/increase of the standard legal staff retirement obligations by (€ 0.7 million)/ € 0.7 million.

An increase/(decrease) of the future salary growth assumed, by 0.5%/(0.5%) would result in an increase/(decrease) of the standard legal staff retirement obligations by € 0.7 million/(€ 0.7 million).

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated.

The methods and assumptions used in preparing the above sensitivity analysis were consistent with those used to estimate the retirement benefit obligation and did not change compared to the previous year.

37. Share capital, share premium and treasury shares

As at 31 December 2022, the par value of the Company's shares is € 0.22 per share (2021: € 0.22). All shares are fully paid. The movement of share capital and share premium is as follows:

	Share capital € million	Share premium € million
Balance at 1 January 2021	815	8,055
Reclassification of treasury shares	1	1
Balance at 31 December 2021	816	8,056
Balance at 1 January 2022	**816**	**8,056**
Offsetting of equity accounts (note 38)	-	(6,895)
Share capital increase following the exercise of share options	0	0
Balance at 31 December 2022	**816**	**1,161**

In the year ended 31 December 2022, the Group has decided to proceed with the presentation of the issued share capital on the face of the balance sheet instead of the outstanding share capital, and changed the presentation of the treasury shares accordingly. In particular, the Group has proceeded with the reclassification of the nominal value of the treasury shares and their premium, which were previously deducted from the "Share capital" and "Share premium" respectively, within "Reserves and retained earnings". Comparative information has been adjusted, as of 1 January 2021, resulting in an increase of the share capital and share premium by € 1 million each against € 2 million decrease of "Reserves and retained earnings".

Share capital increase

Following the exercise of share options granted to key executives of the Group under the current share options' plan (note 39), and by virtue of the decision of the Board of Directors of the Company on 30 August 2022, the Company's share capital increased by € 333,444.32 through the issue of 1,515,656 new common voting shares, of a nominal value of € 0.22 per share and exercise price of € 0.23 per share. The difference between the exercise price of the new shares and their nominal value, net of the expenses directly attributable to the equity transaction, amounted to € 2,136 and was recorded in the account "Share premium". Following the above increase, as at 31 December 2022, the share capital of the Company amounts to € 816,349,051.76, divided into 3,710,677,508 common shares with a nominal value of € 0.22 each. The new shares were listed on the Athens Exchange on 14 September 2022.

The following is an analysis of the movement in the number of the Company's shares outstanding:

	Number of shares		
	Issued Shares	Treasury Shares	Net
Balance at 1 January 2021	3,709,161,852	(2,433,987)	3,706,727,865
Purchase of treasury shares	-	(3,083,564)	(3,083,564)
Sale of treasury shares	-	4,733,011	4,733,011
Balance at 31 December 2021	3,709,161,852	(784,540)	3,708,377,312
Balance at 1 January 2022	**3,709,161,852**	**(784,540)**	**3,708,377,312**
Share capital increase following the exercise of share options	1,515,656	-	**1,515,656**
Purchase of treasury shares	-	(1,745,293)	**(1,745,293)**
Sale of treasury shares	-	2,269,797	**2,269,797**
Balance at 31 December 2022	**3,710,677,508**	**(260,036)**	**3,710,417,472**

In the ordinary course of business, the Company's subsidiaries, except for the Bank, may acquire and dispose of treasury shares. According to paragraph 1 of Article 16c of Law 3864/2010, during the period of the participation of the HFSF in the share capital of the Company, the Company is not permitted to purchase treasury shares without the approval of the HFSF. As at 31 December 2022, the cost of the treasury shares presented above, which is included in other reserves (note 38), amounted to € 0.3 million (31 December 2021: € 0.7 million).

In addition, as at 31 December 2022 the number of the Company's shares held by the Group's associates in the ordinary course of their insurance and investing activities was 64,163,790 in total (2021: 64,163,790).

38. Reserves and retained earnings/losses

	Statutory reserves € million	Non-taxed reserves € million	Fair value reserve € million	Other reserves € million	Retained earnings/(losses) € million	Total € million
Balance at 1 January 2021	396	831	415	8,212	(13,462)	(3,608)
Reclassification of treasury shares (note 37)	-	-	-	(2)	-	(2)
Net profit/(loss)	-	-	-	-	328	328
Transfers between reserves	15	(1)	-	148	(162)	0
Changes in participating interests in subsidiary undertakings (note 23.2)	-	-	-	82	(81)	1
Debt securities at FVOCI	-	-	(91)	-	-	(91)
Cash flow hedges	-	-	-	37	-	37
Foreign currency translation	-	-	-	(0)	-	(0)
Gains/(losses) from equity securities at FVOCI	-	-	2	-	-	2
Associates and joint ventures						
-changes in the share of other comprehensive income, net of tax	-	-	(3)	(0)	-	(3)
Actuarial gains/(losses) on post employment benefit obligations, net of tax	-	-	-	-	1	1
Share options plan	-	-	-	-	2	2
Purchase/sale of treasury shares	-	-	-	1	-	1
Other	-	-	(1)	0	-	(1)
Balance at 31 December 2021	411	830	322	8,479	(13,374)	(3,333)
Balance at 1 January 2022	**411**	**830**	**322**	**8,479**	**(13,374)**	**(3,333)**
Net profit	-	-	-	-	1,330	**1,330**
Transfers between reserves	73	(1)	-	195	(267)	**-**
Offsetting of equity accounts	(214)	-	-	(6,705)	13,814	**6,895**
Debt securities at FVOCI	-	-	(323)	-	-	**(323)**
Cash flow hedges	-	-	-	(0)	-	**(0)**
Foreign currency translation (note 23.1)	-	-	-	77	-	**77**
Gains/(losses) from equity securities at FVOCI	-	-	24	-	-	**24**
Associates and joint ventures -changes in the share of other comprehensive income, net of tax	-	-	(33)	1	(0)	**(32)**
Actuarial gains/(losses) on post employment benefit obligations, net of tax	-	-	-	-	4	**4**
Share options plan (note 39)	-	-	-	-	4	**4**
Purchase/sale of treasury shares (note 37)	-	-	-	1	0	**1**
Other	-	-	-	(1)	-	**(1)**
Balance at 31 December 2022	**270**	**829**	**(10)**	**2,047**	**1,511**	**4,646**

As at 31 December 2022, other reserves comprise, among others, a) corporate law reserves of € 8 million, pursuant to the provisions of the Greek company law in force (2021: € 6,714 million) - see below, b) € 1,568 million reserves relating to dividends and gains from the sale of participations (2021: € 1,373 million), c) € 125 million accumulated loss relating to foreign operations' translation differences, including € 24 million accumulated gain relating to net investment hedging - NIH (2021: € 203 million accumulated loss, including € 27 million gain relating to NIH) and d) € 12 million accumulated loss from cash flow hedging (2021: € 12 million accumulated loss).

Offsetting of equity accounts

On 21 July 2022, the Annual General Meeting (AGM) of the shareholders of Eurobank Holdings approved, among others, the offsetting of a) the total of the account "Corporate law Reserves" amounting to € 6,919.3 million and b) part of the account "Share Premium" amounting to € 6,894.4 million with accumulated losses of equivalent value amounting to € 13,813.7 million, included in the account "Retained earnings/(losses)". The above offsetting, which was approved by the competent Supervisory Authorities in October 2022, did not affect the Company's own and regulatory capital.

Dividends

Pursuant to the provisions of the Company Law 4548/18, companies are required to pay dividends of at least 35% of after-tax profit, after necessary deductions for the formation of the statutory reserve and other credit balances in the income statement that do not arise from realized earnings.

For the financial year 2022, Eurobank Holdings has no profits and therefore will not distribute minimum dividend. Furthermore, in 2023 the Group has announced that the amount earmarked for dividend distribution will be used in an optimal way to bid for the 1.4% HFSF stake through a share buyback scheme (note 45).

39. Share options

The Annual General Meeting of the shareholders of Eurobank Holdings held on 28 July 2020 approved the establishment of a five year shares award plan, starting from 2021, in the form of share options rights by issuing new shares with a corresponding share capital increase, in accordance with the provisions of article 113 of law 4548/2018, awarded to executives and personnel of Eurobank Holdings and its affiliated companies according to article 32 of law 4308/2014. The maximum number of rights that can be approved was set at 55,637,000 rights, each of which would correspond to one new share. The exercise price of each new share would be equal to € 0.23. The Annual General Meeting authorized the Board of Directors of Eurobank Holdings to define the eligible staff and determine the remaining terms and conditions of the plan.

The final terms and the implementation of the share options plan, which is a forward-looking long-term incentive aiming at the retention of key executives, are defined and approved annually by the Board of Directors in accordance with the applicable legal and regulatory framework, as well as the policies of the Group.

The options are exercisable in portions, annually during a period from one to five years. Each portion may be exercised wholly or partly and converted into shares at the employees' option, provided that they remain employed by the Group until the first available exercise date. The corporate actions that adjust the number and the price of shares also adjust accordingly the share options.

In addition, the share options also comply with the restrictions regarding remuneration of Law 3864/2010, as each time in force.

The movement of share options during the period is analysed as follows:

Share options granted	2022
Balance at 1 January 2022	12,374,561
Options awarded during the year	11,654,117
Options cancelled during the year	(244,700)
Options exercised during the year	(1,515,656)
Balance at 31 December 2022	22,268,322

The share options outstanding at the end of the period have the following expiry dates:

Expiry date [1]	Share options 31 December 2022
2023	5,551,925
2024	7,131,580
2025	3,120,978
2026	2,595,139
2027	2,595,139
2028	1,273,561
Weighted average remaining contractual life of share options outstanding at the end of the period	24 months

[1] *Based on the earliest contractual exercise date.*

In accordance with the Group's accounting policy on employees' share based payments, the grant date fair value of the options is recognized as an expense with a corresponding increase in equity over the vesting period.

The fair value at grant date is determined using an adjusted form of the Black-Scholes model for Bermudan equity options which takes into account the exercise price, the exercise dates, the term of the option, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the options.

Furthermore, additional conditions on certain share options granted to key executives who are subject to any remuneration restrictions of Law 3864/2010 at the time of grant, are treated as non-vesting conditions. Accordingly, the fair value measurement at grant date of such share options takes into consideration the probability that the relevant restrictions will be lifted, based on Management judgement, and is not subsequently revised regardless of whether the condition is eventually satisfied.

The weighted average fair value of the share options granted in December 2022 was € 0.63 (2021: € 0.42). The significant inputs into the model were a share price of € 1.021 (2021: € 0.7823) at the grant date, exercise price of € 0.23, annualized dividend yield of 3% (2021: 3%), expected average volatility of 38% (2021: 68%), expected option life of 1-5 years, and a risk-free interest rate corresponding to the options' maturities, based on the Euro swap yield curve. The expected volatility is measured at the grant date of the options and is based on the average historical volatility of the share price over the last one and a half year.

40. Transfers of financial assets

The Group enters into transactions by which it transfers recognized financial assets directly to third parties or to Special Purpose Entities (SPEs).

(a) The Group sells, in exchange for cash, securities under an agreement to repurchase them (repos) and assumes a liability to repay to the counterparty the cash received. In addition, the Group pledges, in exchange for cash, securities, covered bonds, as well as loans and receivables and assumes a liability to repay to the counterparty the cash received. The Group may also transfer securities under securities lending agreements with no exchange of cash or pledging of other financial assets as collateral. For all the aforementioned transactions, the Group has determined that it retains substantially all the risks, including associated credit and interest rate risks, and rewards of these financial assets and therefore has not derecognized them. As a result, the Group is unable to use, sell or pledge the transferred assets for the duration of the transaction. The related liability, where applicable, is recognized in Due to central banks and credit institutions (notes 31 and 32), Due to customers (note 33) and Debt securities in issue (note 34), as appropriate.

The Group enters into securitizations of various classes of loans (corporate, small and medium enterprise, consumer and various classes of non-performing loans), under which it assumes an obligation to pass on the cash flows from the loans to the holders of the notes. The Group has determined that it retains substantially all risks, including associated credit and interest rate risks, and rewards of these loans and therefore has not derecognized them. As a result of the above transactions, the Group is unable to use, sell or pledge the transferred assets for the duration of their retention by the SPE. Moreover, the note holders' recourse is limited to the transferred loans. As at 31 December 2022, the securitizations' issues held by third parties amounted to € 553 million (2021: € 552 million) (note 34).

The table below sets out the details of Group's financial assets that have been sold or otherwise transferred, but which do not qualify for derecognition:

	Carrying amount	
	2022	2021
	€ million	€ million
Securities held for trading	**44**	11
Loans and advances to customers	**14,186**	14,344
-securitized loans[1]	***3,411***	*4,232*
-pledged loans under covered bond program	***4,261***	*4,360*
-pledged loans with central banks	***6,309***	*5,545*
-other pledged loans	***205***	*207*
Investment securities	**3,027**	6,930
Total	**17,257**	21,285

[1] *It includes securitized loans of issues held by the Bank, not used for funding.*

(b) The Group may sell or re-pledge any securities borrowed or obtained through reverse repos and has an obligation to return the securities. The counterparty retains substantially all the risks and rewards of ownership and therefore the securities are not recognized by the Group. As at 31 December 2022, the Group had obtained through reverse repos securities of face value of € 134 million, of which € 15 million sold under repurchase agreements and € 67 million pledged with central banks (2021: € 598 million face value of which € 60 million sold under repurchase agreements and € 505 million pledged with central banks). Furthermore, in the comparative year, the Group had obtained Greek treasury bills as collaterals for derivatives transactions with the Hellenic Republic of face value of € 1,400 million, of which € 324 million sold under repurchase agreements.

As at 31 December 2022, the cash value of the assets transferred or borrowed by the Group through securities lending, reverse repo and other agreements (points a and b) amounted to € 10,512 million, while the associated liability from the above transactions amounted to € 10,412 million, of which € 114 million repo agreements offset in the balance sheet against reverse repo deals (notes 31, 32, 33, 34 and 5.2.1.4) (2021: cash value € 13,583 million and liability € 13,287 million, of which € 591 million repo agreements offset in the balance sheet). In addition, the Group's financial assets pledged as collaterals for repos, derivatives, securitizations and other transactions other than the financial assets presented in the table above are provided in notes 17 and 29.

41. Leases

Group as a lessee

The Group leases office and branch premises, ATM locations, residential properties for the Group's personnel, and motor vehicles.

The majority of the Group's property leases are under long term agreements (for a term of 12 years or more in the case of leased real estate assets), with options to extend or terminate the lease according to the terms of each contract and the usual terms and conditions of commercial leases applicable in each jurisdiction, while motor vehicles generally have lease terms of up to 4 years. Extension options held by the Group are included in the lease term when it is reasonably certain that they will be exercised based on its assessment. For contracts having an indefinite remaining life as at 1 January 2022, the lease term has been determined at an average of 7 years for the Bank, after considering all relevant facts and circumstances. Depending on the terms of each lease contract, lease payments are adjusted annually in line with the consumer Price Index, as published by the Greek Statistical Authority, plus an agreed fixed percentage.

Information about the leases for which the Group is a lessee is presented below:

Right-of-Use Assets

As at 31 December 2022, the right-of-use assets included in property plant and equipment amounted to € 187 million (31 December 2021: € 230 million) (note 26), while those that meet the definition of investment property amounted to € 14 million (31 December 2021: € 14 million) (note 27).

Lease Liabilities

The lease liability included under other liabilities amounted to € 205 million as at 31 December 2022 (31 December 2021: € 248 million) (note 35). The maturity analysis of lease liabilities as at 31 December 2022, based on the contractual undiscounted cash flows, is presented in note 5.2.3.

Amounts recognised in profit or loss

Interest on lease liabilities is presented in note 6 and the lease expense relating to short term leases is ca. € 3 million (31 December 2021: € 3 million).

The Group had total cash outflows for leases of € 39 million in 2022 (2021: € 39 million).

Group as a lessor

Finance lease

The Group leases out certain real estate properties and equipment under finance leases, in its capacity as a lessor.

The maturity analysis of finance lease receivables, based on the undiscounted lease payments to be received after the reporting date, is provided below:

	2022	2021[1]
	€ million	€ million
Not later than one year	**303**	343
1-2 years	**83**	108
2-3 years	**65**	85
3-4 years	**53**	56
4-5 years	**36**	35
Later than 5 years	**164**	178
Lease Payments:	**704**	805
Gross investment in finance leases	**704**	805
Less: unearned finance income	**(66)**	(51)
Net investment in finance leases	**638**	754
Less: impairment allowance	**(139)**	(217)
Total	**499**	537

[1] *Comparative information has been adjusted in order to align with current year's presentation of the finance lease receivables*.

Operating Leases

The Group leases out its investment property under the usual terms and conditions of commercial leases applicable in each jurisdiction. When such leases do not transfer substantially all of the risks and rewards incidental to the ownership of the leased assets, the Group classifies these lease as operating leases. Information relating to operating leases of investment property, including the rental income recognised by the Group during the year, is provided in note 27.

The maturity analysis of operating lease receivables, based on the undiscounted lease payments to be received after the reporting date, is provided below:

	2022 € million	2021 € million
Not later than one year	**92**	96
One to two years	**85**	89
Two to three years	**78**	82
Three to four years	**70**	75
Four to five years	**64**	70
More than five years	**250**	304
Total	**639**	716

42. Contingent liabilities and other commitments

The Group presents the credit related commitments it has undertaken within the context of its lending related activities into the following three categories: a) financial guarantee contracts, which refer to guarantees and standby letters of credit that carry the same credit risk as loans (credit substitutes), b) commitments to extend credit, which comprise firm commitments that are irrevocable over the life of the facility or revocable only in response to a material adverse effect and c) other credit related commitments, which refer to documentary and commercial letters and other guarantees of medium and low risk according to the Regulation No 575/2013/EU.

Credit related commitments are analyzed as follows:

	2022 € million	2021 € million
Financial guarantee contracts	**1,807**	1,068
Commitments to extend credit	**3,898**	1,572
Other credit related commitments	**1,053**	634
Total	**6,758**	3,274

The credit related commitments within the scope of IFRS 9 impairment requirements amount to € 10.5 billion (2021: € 6.8 billion), including revocable loan commitments of € 3.7 billion (2021: € 3.6 billion), while the corresponding allowance for impairment losses amounts to € 57 million (2021: € 48 million).

In addition, the Group has issued a sovereign risk financial guarantee of € 0.23 billion (31 December 2021: € 0.24 billion) for which an equivalent amount has been deposited under the relevant pledge agreement (note 29).

Other commitments

(a) The Bank has signed irrevocable payment commitment and collateral arrangement agreements with the Single Resolution Board (SRB) amounting in total to € 24.4 million as at 31 December 2022 (2021: € 20 million), representing 15% of its resolution contribution payment obligation to the Single Resolution Fund (SRF) for the years 2016-2022.

According to the agreements, which are backed by cash collateral of an equal amount, the Bank undertook to pay to the SRB an amount up to the above irrevocable payment commitment, in case of a call and demand for payment made by it, in relation to a resolution action taken for another European bank. The said cash collateral has been recognized as a financial asset in the Group's balance sheet (note 29).

(b) As at 31 December 2022, the contractual commitments for the acquisition of own used property, equipment and intangible assets amounted to € 46 million (2021: € 43 million).

<u>Post balance sheet event</u>

In February 2023, the Bank signed a binding pre-agreement with a third party for the acquisition of a Cypriot holding company, which indirectly owns a land plot to be developed into a modern office complex and proceeded with an advance payment of €15.2m, in line with the agreement. The completion of the agreement is expected to take place in 2024.

Legal proceedings

In the year ended 31 December 2022, the Bank concluded an agreement for the acquisition of the remaining 50% of Hellenic Post Credit S.A share capital (note 23.1), settled by offsetting receivables it held from the other shareholder. As a result, related provisions of € 34 million which had been recognized, were used to offset the respective receivables, leading to a significant decrease of the provisions for legal proceedings outstanding against the Group, which as at 31 December 2022 amounted to € 28 million (note 35) (31 December 2021: € 64 million).

Furthermore, in the normal course of its business, the Group has been involved in a number of legal proceedings, which are either at still a premature or at an advanced trial instance. The final settlement of these cases may require the lapse of a certain time so that the litigants exhaust the legal remedies provided for by the law. Management, is closely monitoring the developments to the relevant cases and having considered the advice of the Legal Services General Division, does not expect that there will be an outflow of resources and therefore does not acknowledge the need for a provision.

43. Operating segment information

Management has determined the operating segments based on the internal reports reviewed by the Strategic Planning Committee that are used to allocate resources and to assess their performance in order to make strategic decisions. The Strategic Planning Committee considers the business both from a business unit and geographic perspective. Geographically, management considers the performance of its business activities originated from Greece and other countries in Europe (International).

Greece is further segregated into retail, corporate, global markets & asset management and investment property. International is monitored and reviewed on a country basis. The Group aggregates segments when they exhibit similar economic characteristics and profile and are expected to have similar long-term economic development.

In more detail, the Group is organized in the following reportable segments:
- Retail: incorporating customer current accounts, savings, deposits and investment savings products, credit and debit cards, consumer loans, small business banking and mortgages.
- Corporate: incorporating current accounts, deposits, overdrafts, loan and other credit facilities, foreign currency and derivative products to corporate entities, custody and clearing services, cash management and trade services and investment banking services including corporate finance, merger and acquisitions advice.
- Global Markets & Asset Management: incorporating financial instruments trading, services to institutional investors, as well as, specialized financial advice and intermediation. In addition, this segment incorporates mutual fund products, institutional asset management and equity brokerage.
- International: incorporating operations in Bulgaria, Serbia, Cyprus, Luxembourg and Romania.
- Investment Property: incorporating investment property activities relating to a diversified portfolio of commercial real estate assets.

Other segment of the Group refers mainly to a) property management (including repossessed assets), b) other investing activities (including equities' positions), c) private banking services to medium and high net worth individuals, d) the Group's share of results of Eurolife Insurance group, e) the results related to the Group's transformation projects and initiatives, the notes of Cairo, Pillar and Mexico securitizations, which were retained by the Group, and the Group's share of results of doValue Greece Loans and Credits Claim Management S.A. and f) the effect of the liquidation of "ERB Istanbul Holding A.S." in June 2022 (note 23.1).

The Group's management reporting is based on International Financial Reporting Standards (IFRS) as adopted by the EU. The accounting policies of the Group's operating segments are the same with those described in the principal accounting policies.

Revenues from transactions between business segments are allocated on a mutually agreed basis at rates that approximate market prices.

43.1 Operating segments

	31 December 2022						
	Retail € million	Corporate € million	Global Markets & Asset Mngt € million	Investment Property € million	International € million	Other and Elimination center € million	Total € million
Net interest income	437	374	284	(12)	457	10	1,550
Net commission income	92	115	99	0	141	1	449
Other net revenue	324	2	703	183	(6)	(69)	1,136
Total external revenue	854	490	1,087	171	592	(58)	3,135
Inter-segment revenue	23	38	(36)	2	(2)	(24)	-
Total revenue	876	528	1,051	173	589	(83)	3,135
Operating expenses	(409)	(125)	(68)	(39)	(278)	0	(917)
Impairment losses relating to loans and advances to customers	(223)	(18)	-	-	(32)	(17)	(291)
Other impairment losses and provisions (note 12)	(6)	(3)	(18)	(3)	(17)	(62)	(108)
Share of results of associates and joint ventures	(0)	0	(0)	-	-	18	18
Profit/(loss) before tax before restructuring costs	239	383	965	132	262	(143)	1,837
Restructuring costs (note 12)	(24)	(1)	(1)	-	(14)	(62)	(102)
Profit/(loss) before tax	215	381	965	132	248	(205)	1,735
Profit/(loss) before tax attributable to non controlling interests	-	-	-	-	0	(0)	0
Profit/(loss) before tax attributable to shareholders	215	381	965	132	248	(205)	1,735

	31 December 2022						
	Retail € million	Corporate € million	Global Markets & Asset Mngt € million	Investment Property € million	International € million	Other and Elimination center[(1)] € million	Total € million
Segment assets	14,817	16,522	13,088	1,445	21,704	13,884	81,460
Segment liabilities	30,535	12,441	5,568	308	19,736	6,154	74,742

The International segment is further analyzed as follows:

	31 December 2022					
	Bulgaria € million	Serbia € million	Cyprus € million	Luxembourg € million	Romania € million	Total € million
Net interest income	215	70	136	34	2	457
Net commission income	73	22	40	8	(1)	141
Other net revenue	(5)	1	1	0	(2)	(6)
Total external revenue	282	93	177	42	(2)	592
Inter-segment revenue	0	(0)	0	(3)	-	(2)
Total revenue	283	93	177	39	(2)	589
Operating expenses	(136)	(63)	(50)	(23)	(5)	(278)
Impairment losses relating to loans and advances to customers	(37)	(14)	(1)	(0)	20	(32)
Other impairment losses and provisions	(5)	(4)	(1)	(0)	(7)	(17)
Share of results of associates and joint ventures	-	-	-	-	0	0
Profit/(loss) before tax before restructuring costs	105	11	125	15	6	262
Restructuring costs (note 12)	-	(14)	-	-	-	(14)
Profit/(loss) before tax	105	(3)	125	15	6	248
Profit/(loss) before tax attributable to non controlling interests	0	0	-	-	-	0
Profit/(loss) before tax attributable to shareholders	105	(3)	125	15	6	248

	31 December 2022					
	Bulgaria € million	Serbia € million	Cyprus € million	Luxembourg € million	Romania € million	International € million
Segment assets[(2)]	**7,944**	**2,504**	**8,793**	**2,304**	**159**	**21,704**
Segment liabilities[(2)]	**7,146**	**2,217**	**8,031**	**2,112**	**230**	**19,736**

	31 December 2021						
	Retail € million	Corporate € million	Global Markets & Asset Mngt € million	Investment Property € million	International € million	Other and Elimination center € million	Total € million
Net interest income	436	317	217	(21)	375	(3)	1,321
Net commission income	80	75	88	1	117	(3)	358
Other net revenue	1	2	71	131	0	16	221
Total external revenue	518	394	376	110	492	10	1,900
Inter-segment revenue	22	40	(33)	2	(3)	(28)	-
Total revenue	540	434	343	112	489	(19)	1,900
Operating expenses	(412)	(126)	(59)	(38)	(240)	(2)	(876)
Impairment losses relating to loans and advances to customers	(251)	(94)	-	-	(73)	(71)	(490)
Other impairment losses and provisions (note 12)	(5)	(1)	(6)	(3)	(9)	(28)	(52)
Share of results of associates and joint ventures	(0)	0	0	2	(0)	24	26
Profit/(loss) before tax before restructuring costs	(128)	213	279	72	168	(95)	508
Restructuring costs (note 12)	(7)	(2)	(0)		(7)	(10)	(25)
Profit/(loss) before tax	(135)	211	279	72	161	(105)	483
Profit/(loss) before tax attributable to non controlling interests	-	-	-	0	(1)	0	(1)
Profit/(loss) before tax attributable to shareholders	(135)	211	279	72	163	(105)	484

	31 December 2021						
	Retail € million	Corporate € million	Global Markets & Asset Mngt € million	Investment Property € million	International € million	Other and Elimination center[(1)] € million	Total € million
Segment assets	14,878	14,696	13,265	1,495	19,870	13,648	77,852
Segment liabilities	29,562	10,869	6,828	356	18,183	6,420	72,217

	31 December 2021					
	Bulgaria € million	Serbia € million	Cyprus € million	Luxembourg € million	Romania € million	Total € million
Net interest income	185	53	102	25	10	375
Net commission income	63	14	33	8	(2)	117
Other net revenue	(1)	1	1	0	(0)	0
Total external revenue	247	68	136	34	7	492
Inter-segment revenue	0	(0)	0	(3)	-	(3)
Total revenue	247	68	136	31	7	489
Operating expenses	(118)	(50)	(45)	(21)	(5)	(240)
Impairment losses relating to loans and advances to customers	(43)	(11)	(4)	0	(15)	(73)
Other impairment losses and provisions	(3)	(4)	0	(0)	(1)	(9)
Share of results of associates and joint ventures	-	(0)	-	-	(0)	(0)
Profit/(loss) before tax before restructuring costs	83	3	87	9	(15)	168
Restructuring costs	-	(5.11)	-	(1)	-	(7)
Profit/(loss) before tax	83	(2)	87	8	(15)	161
Profit/(loss) before tax attributable to non controlling interests	0	(1)	-	-	-	(1)
Profit/(loss) before tax attributable to shareholders	83	(1)	87	8	(15)	163

	31 December 2021					
	Bulgaria € million	Serbia € million	Cyprus € million	Luxembourg € million	Romania € million	International € million
Segment assets[(2)]	7,159	2,404	8,027	2,231	159	19,870
Segment liabilities[(2)]	6,422	2,121	7,341	2,051	358	18,183

[(1)] Interbank eliminations between International and the other Group's segments are included.

[(2)] Intercompany balances among the Countries have been excluded from the reported assets and liabilities of International segment.

43.2 Entity wide disclosures

Breakdown of the Group's revenue for each group of similar products and services is as follows:

	2022 € million	2021 € million
Lending related activities	**1,445**	1,522
Deposits, network and asset management activities	**323**	(88)
Capital markets	**950**	339
Non banking and other services	**417**	127
Total	**3,135**	1,900

Information on the Country by Country Reporting based on Law 4261/2014 is provided in the Appendix.

44. Post balance sheet events

Details of post balance sheet events are provided in the following notes:

Note 2.1 – Basis of preparation
Note 4 – Capital Management
Note 5 – Financial risk management and fair value
Note 22 – Investment securities
Note 23.1 – Shares in subsidiaries
Note 34 - Debt securities in issue
Note 42 - Contingent liabilities and other commitments
Note 45 - Related parties

45. Related parties

Eurobank Ergasias Services and Holdings S.A. (the Company or Eurobank Holdings) is the parent company of Eurobank S.A. (the Bank).

The Board of Directors (BoD) of Eurobank Holdings is the same as the BoD of the Bank and part of the key management personnel (KMP) of the Bank provides services to Eurobank Holdings according to the terms of the relevant agreement between the two entities. As at 31 December 2022, the percentage of the Company's ordinary shares with voting rights held by the Hellenic Financial Stability Fund (HFSF) stands at 1.40%. The HFSF is considered to have significant influence over the Company pursuant to the provisions of the Law 3864/2010, as in force, including the amendments under law 4941/2022, and the Tripartite Relationship Framework Agreement (TRFA) between the Bank, the Company and the HFSF signed on 23 March 2020 and amended on 3 February 2022. Further information in respect of the HFSF rights based on the aforementioned framework is provided in the section "Report of the Directors and Corporate Governance Statement" of the Annual Financial Report for the year ended 31 December 2022.

In 2023, Eurobank Holdings announced its intention to submit an offer for the buyback of its 52.08 million shares (corresponding to a participation of 1.4%), presently owned by the HFSF, subject to the receipt of the required approvals from the regulator and the General Meeting of the Company's Shareholders.

Fairfax Group, which holds 32.99% of Eurobank Holdings voting rights as of 31 December 2022 (31 December 2021: 33%), is considered to have significant influence over the Company.

Notes to the Consolidated Financial Statements

In January 2022, an occupational insurance fund ("Institution for occupational retirement provision-occupational insurance fund Eurobank's Group personnel" henceforth "the Fund") was established as a not-for-profit legal entity under Law 4680/2020, for the benefit of the employees of the Company, the Bank and certain other Greek entities of the Group, which constitute the sponsoring employers of the Fund. Accordingly, in line with IAS 24 Related Parties, the Fund is considered to be related party to the Group.

A number of banking transactions are entered into with related parties in the normal course of business and are conducted on an arm's length basis. These include loans, deposits and guarantees. In addition, as part of its normal course of business in investment banking activities, the Group at times may hold positions in debt and equity instruments of related parties.

The outstanding balances of the transactions with (a) Fairfax group, (b) the key management personnel (KMP) and the entities controlled or jointly controlled by KMP and (c) other related parties, as well as the relating income and expenses are as follows:

	31 December 2022			31 December 2021		
	Fairfax Group(2) (4)	**KMP and Entities controlled or jointly controlled by KMP(1)**	**Other Related Parties(3)**	Fairfax Group(2)	KMP and Entities controlled or jointly controlled by KMP(1)	Other Related Parties(3)
	€ million	**€ million**	**€ million**	€ million	€ million	€ million
Loans and advances to customers	**73.45**	**5.69**	**0.14**	0.01	4.95	26.52
Other assets	**0.39**	**-**	**87.07**	0.37	0.19	76.04
Due to customers	**34.22**	**20.98**	**97.50**	0.24	21.90	80.68
Debt securities in issue	**81.98**	**1.27**	**102.47**	-	0.20	-
Other liabilities	**0.13**	**0.20**	**10.35**	-	0.32	40.86
Net interest income	**(0.69)**	**0.01**	**(4.68)**	0.21	-	(2.52)
Net banking fee and commission income	**0.02**	**0.11**	**10.89**	-	0.16	14.74
Net trading income	**-**	**-**	**0.01**	-	-	0.45
Impairment losses relating to loans and advances including relative fees	**(0.55)**	**-**	**(62.75)**	0.02	-	(89.75)
Other operating income/(expenses)	**9.56**	**(15.18)**	**(10.17)**	5.93	(14.99)	(12.44)
Guarantees issued	**1.97**	**-**	**-**	-	0.01	4.65
Guarantees received	**-**	**0.01**	**-**	-	0.01	-

(1) Includes the key management personnel of the Group and their close family members.

(2) The balances with the Group's associate Eurolife FFH Insurance Group Holdings S.A., which is also a member of Fairfax Group are presented in the column other related parties.

(3) Other related parties include associates, joint ventures and as of the first half of 2022 the aforementioned Eurobank Group's personnel occupational insurance fund. In particular, as at 31 December 2022 the outstanding balances of transactions with the Fund refer mainly to deposits of € 1 million received from the Fund.

(4) As of 24 March 2022, the Bank ceased to have joint control over its former joint venture Grivalia Hospitality S.A. (note 24). In addition, in the third quarter of 2022, Fairfax Group obtained control over Grivalia Hospitality S.A. Hence, as at 31 December 2022, the company is considered to be a related party of the Group.

For the year ended 31 December 2022, there were no material transactions with the HFSF.

For the year ended 31 December 2022, an impairment of € 0.8 million (2021: € 0.2 million) has been recorded against loan balances with Group's associates and joint ventures, while the respective impairment allowance amounted to € 0.02 million (31 December 2021: € 0.4 million).

Key management compensation (directors and other key management personnel of the Group)

Key management personnel are entitled to compensation in the form of short-term employee benefits of € 7.52 million (2021: € 7.35 million) and long-term employee benefits of € 1.24 million (2021: € 1.17 million). Additionally, the Group has recognised € 1.94 million expense relating with equity settled share based payments (2021: € 0.52 million) (note 39). Furthermore, as at 31 December 2022, the defined benefit obligation for the KMP amounts to € 1.58 million (31 December 2021: € 1.48 million), while the respective cost for the year through the income statement amounts to € 0.12 million (2021: € 0.12 million) and the other comprehensive income (actuarial gain) amounts to € 0.07 million (2021: € 0.05 million actuarial gain).

46. External Auditors

The Group has adopted a Policy on External Auditors' Independence which provides amongst others, for the definition of the permitted and non-permitted services the Group auditors may provide further to the statutory audit. For any such services to be assigned to the Group's auditors there are specific controlling mechanisms in order for the Company's Audit Committee to ensure that a) the non-audit services assigned to "KPMG Certified Auditors S.A.", along with the KPMG network (KPMG), have been reviewed and approved as required and b) there is proper balance between audit and permitted non-audit work.

The total fees of the Group's principal independent auditor KPMG, for audit and other services provided are analyzed as follows:

	2022 **€ million**	2021 € million
Statutory audit[1]	**(3.0)**	(2.8)
Tax certificate	**(0.4)**	(0.4)
Other audit related assignments	**(1.1)**	(1.2)
Non audit assignments	**(0.1)**	(0.2)
Total	**(4.6)**	(4.6)

[1] *Includes fees for statutory audit of the annual separate and consolidated financial statements.*

It is noted that the non-audit assignment fees of "KPMG Certified Auditors S.A." Greece, statutory auditor of the Group, amounted to € 0.08 million.

47. Board of Directors

The Board of Directors (BoD) was elected by the Annual General Meeting (AGM) of the Shareholders held on 23 July 2021 for a three years term of office that will expire on 23 July 2024, prolonged until the end of the period the AGM for the year 2024 will take place.

Following the aforementioned AGM decision, the BoD was constituted as a body at the BoD meeting of 23 July 2021, as follows:

G. Zanias	Chairman, Non-Executive Member
G. Chryssikos	Vice Chairman, Non-Executive Member
F. Karavias	Chief Executive Officer
S. Ioannou	Deputy Chief Executive Officer
K. Vassiliou	Deputy Chief Executive Officer
A. Athanasopoulos	Deputy Chief Executive Officer
B.P. Martin	Non-Executive Member
A. Gregoriadi	Non-Executive Independent Member
I. Rouvitha Panou	Non-Executive Independent Member
R. Kakar	Non-Executive Independent Member
J. Mirza	Non-Executive Independent Member
C. Basile	Non-Executive Independent Member
E. Deli	Non-Executive Member (HFSF representative under Law 3864/2010)

Athens, 6 April 2023

Georgios P. Zanias	**Fokion C. Karavias**	**Harris V. Kokologiannis**
I.D. No AI - 414343	I.D. No AI - 677962	I.D. No AN - 582334
CHAIRMAN OF THE BOARD OF DIRECTORS	CHIEF EXECUTIVE OFFICER	GENERAL MANAGER OF GROUP FINANCE CHIEF FINANCIAL OFFICER

APPENDIX – Disclosures under Law 4261/2014

Country by Country Reporting

Pursuant to article 81 of Law 4261/2014, which incorporated article 89 of Directive 2013/36/EC into the Greek legislation, the Group provides the following information for each country in which it has an establishment:

(i) Names, nature of activities and geographical location.

(ii) The operating income (turnover), the profit/(loss) before tax, the tax on profit/ (loss) and the current tax on a consolidated basis for each country; intercompany transactions among countries are eliminated through the line 'Intra-Group amounts'. The amounts disclosed are prepared on the same basis as the Group's financial statements for the year ended 31 December 2022.

(iii) The number of employees on a full time equivalent basis.

(iv) The public subsidies received.

For the listing of the Bank's subsidiaries at 31 December 2022, the country of their incorporation and the line of their business refer to note 23.1.

The information per country is set out below:

	Year ended 31 December 2022				
	Operating income € million	Profit/(loss) before tax € million	Tax on profit/(loss) € million	Current tax € million	Number of employees at 31 December
Greece	2,632	1,561	(365)	(6)	6,265
Bulgaria	282	109	(12)	(12)	3,016
Romania	(3)	(9)	(0)	(1)	16
Cyprus	164	115	(21)	(20)	450
Serbia	92	(1)	0	(0)	1,477
Luxembourg[1]	48	22	(6)	(6)	104
Turkey (note 23.1)	(79)	(79)	(1)	(1)	-
Netherlands	(0)	(1)	-	-	-
Intra-Group amounts	(1)	-	-	-	
Total	**3,135**	**1,717**	**(405)**	**(46)**	**11,328**

[1] *The operations of Eurobank Private Bank Luxembourg S.A.'s branch in London are included within Luxembourg.*

For the year ended 31 December 2022, net income of € 53 million that is attributable to the targeted longer-term refinancing operations (TLTRO III) of the European Central Bank has been recognised in the income statement (note 31).

Article 82 of Law 4261/2014

For 2022, the Group's return on assets (RoA) was 1.66%. RoA is calculated by dividing the net profit for the year ended 31 December 2022 by the Group's average total assets for the year.